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## **CORINTHIAN CAPITALS IN SYRIA**

By

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## A Note on Transcriptions

Transcription of Arabic means rendering Arabic with Latin characters. Transcription is used in order to smoothly quote an Arabic word or expression in a text that is otherwise written in English or another language with Latin characters, especially if the intended readership does not master Arabic (general linguists, literary historians or critics). Transcription is also a clear way of stating the pronunciation, if the Arabic original text is unvocalized. The concordances of the transcription are added in the tables below:

| ĺ            | a  | س | 8  | J | 1 |
|--------------|----|---|----|---|---|
| ب            | b  | ش | sh | م | m |
| ت            | t  | ص | Ş  | ن | n |
| ث            | th | ض | ġ  | ٥ | h |
| <del>ت</del> | j  | ط | ţ  | و | W |
| ζ            | h  | ظ | Ż  | ي | у |
| Ċ            | kh | ع | ¢  | ç | ) |
| د            | d  | غ | gh | ö | А |
| Ċ            | dz | ف | f  |   |   |
| ر            | r  | ق | q  |   |   |
| ز            | Z  | ك | k  |   |   |

Long vowels are indicated with a dash line.

# INTRODUCTION

To understand the history of any ancient civilization and its various aspects of life, one needs to study its remains. The political borders of the Syrian Arab Republic, referred to as "Syria" in this dissertation, are rich in heritage from different periods of time. Although many traces of the civilizations in this region have disappeared, some remnants still exist, and one of these is the architectural elements, which includes the Corinthian capital.

The Corinthian capital is considered one of the most important features in art history. It appeared in ancient Greece in the 5th century BC and became a very prominent decorative element of Greco-Roman architecture. Its use continued and spread across different cultures, influencing architecture until the present day. This is due to the great aesthetic it provides. Although the reason for inventing this type of capital is still under debate, and it is not certain whether it held a symbolic meaning, it is clear that it was later used to express magnificence and beauty, which are provided by the various motifs it contains.

The Corinthian capitals exhibit diverse designs across different locations. While keeping their general form and elements, they display significant variation due to changes in the details of their composition. In many cases, these differences in individual components led to the emergence of distinct styles in various regions.

In Syria, various forms of Corinthian capitals have been found. This dissertation studies these capitals, analyzes them, and attempts to date them. It focuses on classifying these capitals into types, based on the presence or absence of what are called the essential elements of the Corinthian capital, which are considered fundamental to the capital. This classification helped create a typology of these capitals found in Syria from the 1st century BC to the 7th century AD.

Corinthian capitals in Syria are made from various local stones, such as limestone and basalt, in addition to many others made of marble, even though there are no quarries of this type of stone in Syria or the neighboring regions. This reflects the importance of marble, which led to the importation of these capitals from abroad, either in a fully finished or half-finished state, where they were completed in Syria. This also indicates the existence of local workshops that were skilled in working with even foreign stones.

In addition to the essential elements, the Corinthian capitals also feature other kinds of motifs known as additional elements. Some of them had merely decorative purposes without any symbolic meaning, while many others were used as a result of various cultural influences.

Therefore, the Corinthian capitals found in Syria, with all their components, provide valuable information about the structures that once existed, trade networks, workshops and their achievements, as well as the cultural, religious, economic, and political conditions, along with other aspects of life.

#### **Aim of Research**

The goal of this research is to examine the Corinthian capitals located within the political borders of the Syrian Arab Republic, which was an important part of the eastern Mediterranean provinces during the Roman and Byzantine eras from the 1st century BC to the early 7th century AD.

The present dissertation represents the very first complete analysis of all varieties of Corinthian capitals located within the Syrian Arab Republic during the designated period of time. Although certain capitals in the region have been analyzed, a considerable number remain unexplored, highlighting the necessity for a more comprehensive investigation. The main aim of this dissertation is to collect and document as many Corinthian capitals as possible within the designated study area, wherever they are found. These capitals are located in several sites: some have remained in their original structures, or close to them, making it easy to recognize their origins. However, the majority are kept in museums throughout the Syrian Arab Republic, where they get minimal attention, resulting in many remaining unstudied. Furthermore, Corinthian capitals have been reused as spolia in later constructions or situated in the public parks and small towns. This work provides the most extensive database of Corinthian capitals in the Syrian Arab Republic, providing an essential record and helping to protect theses capitals.

This research not only aims to gather the Corinthian capitals from Syria into one work, but also to create a typology for these capitals. This goal will be achieved with the help of the presence or absence of the essential elements that constitute the Corinthian capital, which, in some cases, will also help identify an approximate range of time.

In addition to grouping and categorizing the Corinthian capitals, the work also is conducting a thorough examination of the individual components that constitute them. All of these elements

will be examined from both design and historical viewpoints. This discovery enables a crucial step in dating Corinthian capitals by breaking down them into their fundamental components and examining them meticulously. Many Corinthian capitals in the Syrian Arab Republic lack documented origin or archaeological context, making it difficult to assign them a specific date. Consequently, a primary aim of our research is to systematically situate these capitals within a relevant historical framework, which will enhance the understanding of Corinthian capitals' utilization across many periods.

Another goal of this research is to examine the state of the Corinthian capitals, the type of stone, and their manufacturing stage. These factors are essential to the study and understanding of these capitals. Consequently, analyzing these aspects is crucial for a comprehensive understanding, including the importation process (for imported capitals), the condition upon importation, and the role of workshops in manufacturing or completing these capitals.

Finally, the research will look at the local influences and contributions to the Corinthian capitals in Syria, focusing on both their overall design and the individual elements, where local craftsmen played a key role in shaping their form. It will explore how these local factors affected the design and evolution of the capitals, including the simplification and the two-piece capitals.

#### State of the Problem

The creation of a classification for the Corinthian capitals found in the Syrian Arab Republic raises important questions about the types of Corinthian capitals present in Syria. Were all these types present throughout the period of study, from the end of the 1st century BC to the beginning of the 7th century AD, or were some specific to certain time periods?

Each element of the Corinthian capital holds valuable information. By breaking down the capitals into their basic components and studying them in detail, it is possible to find answers to several important questions. Did the essential elements of the Corinthian capitals in Syria keep unchanged across all periods? Did their design follow a standard pattern, or did their forms change over time? Additionally, did local craftsmen play any role in creating unique regional forms of Corinthian capitals or any of their elements during specific time periods?

Beside the essential elements, several Corinthian capitals found in Syria also have what are called "additional elements." Studying and analyzing these elements is important to understand their significance and the reasons for incorporating them into the Corinthian capitals. Were

these elements used only as decorations, or did they have symbolic meanings or hidden purposes that influenced their addition to the capitals?

The kind of stone used in manufacturing the Corinthian capitals also has a great importance, where it can provide insights into the processes of import for these capitals, particularly when dealing with materials not native to Syria, such as marble. Furthermore, this research will help determine whether local workshops contributed to the production of Corinthian capitals using these imported materials.

Furthermore, examining the design of Corinthian capitals in Syria brings up issues regarding the role of local craftsmen and the reasons for the simplification of certain types of capitals over time. Finally, two-piece Corinthian capitals enquire about their design, the reasoning behind it, and whether their existence was related to the construction of large buildings in Syria, or if they were simply a product of design considerations.

#### Methodology

This study begins with a geographical and historical overview of the research area. It provides a general geographical and geological description of the region and outlines the most significant historical events. This overview is followed by an examination of the types of stones used in sculpture, their characteristics, and the tools used during the Greek and Roman periods, along with discussion of the suitability of these tools for working with various types of stones.

Subsequently, the dissertation provides a study of the Corinthian capital and its components, introducing the various terms used to describe these elements. During this exploration it is evident that there is diversity and overlap in terminology used to describe the various forms of Corinthian capital and its elements in the different languages. This variation necessitated clarifying these differences and standardizing the terminology for the dissertation. This section also explores hypotheses about the origin of the Corinthian capital and the proposed steps in its manufacture.

The methods and procedures for collecting and analyzing data involved gathering Corinthian capitals from a variety of sources, including archaeological sites, museums, gardens, villages, and other locations, as well as reviewing relevant literature. One of the difficulties that arose during this work was the limited access to many areas due to the ongoing conflict. Although one can visit the Aleppo City Museum in northern Syria, but access to the surrounding countryside and the region of Idlib was impossible. Consequently, the study relied mainly on

the collection of Aleppo and Hama Museums and literature to fill this gap. Access issues also affected the southern provinces of Daraa and As-Suwayda.

Data collection about these capitals and their characteristics involved visiting all available sites and museums, photographing the capitals, taking measurements, and reviewing museum records. One of the problems faced the research was the unknown origins of many capitals in Syrian museums, which were often acquired through donations or confiscations, with many even lacking museum numbers. Some of these were discovered during construction works, but had no associated archaeological context that could give them an approximate origin. For capitals obtained from literature, the study relied on the available data, even though the descriptions were sometimes brief.

After collecting the capitals and information, the process of analyzing the Corinthian capitals started by describing and examining their elements. This data was recorded in detailed tables, attached as appendices in the dissertation. The work included a typology for the capitals, categorizing them into groups based on the presence or absence of essential elements. This analysis was complemented by an examination of the historical context of these elements, which significantly contributed to dating the capitals and understanding the Corinthian capital as a whole. Additionally, the study investigated the additional elements, exploring their importance, decorative roles, and symbolic meanings.

Finally, the study examined the types of stones used in Corinthian capitals, shedding light on the import process for marble, which is not locally available. It also explored historical factors and influences that affected the importation process over different periods and provided insights into the workshops involved in the production process. The study also addressed several important aspects of Corinthian capitals, including simplifications observed in certain types. This was accompanied by a historical study to understand the reasons for these transformations and their impacts. At the end, the work concludes with the results obtained in the dissertation.

The dissertation includes appendices with the tables of the data of the Corinthian capitals, with each table related to one of the elements of the Corinthian capitals. These tables efficiently structure important data, serving as an alternative to traditional catalogues, and containing all relevant details about each capital, including general information about its current and original locations, dimensions, type, elements and their relationships, comparable capitals, and the estimated date of the capital, along with the factors used for dating. The use of tables is considered a more effective solution for managing the information about the high number of Corinthian capitals examined, ensuring comprehensive and organized presentation of this information.

#### **History of Research**

Interest in studying the Corinthian capital began during the Renaissance as part of the broader study of the Corinthian order. However, by the end of the 19th century and throughout the 20th century AD, researchers began to focus specifically on the capitals themselves, rather than the entire order. As a result, numerous studies on Corinthian capitals appeared. These studies are categorized into four main groups: the first focuses on the origins of the Corinthian capital, the second on its manufacture, the third on Corinthian capitals from before the Byzantine period (prior to the 4th century AD), and the fourth on those from the Byzantine period, between the 4th and 7th centuries AD. These studies are arranged in chronological order within each group.

Although the origin of the Corinthian capital is not related directly to geographic focus of this dissertation, it is well known that the cultural influences often extend beyond geographic boundaries, this also applies to the Corinthian capital. This was evidenced by theories suggesting contributions from eastern spirals and Egyptian elements to the design of the capital. Therefore, reviewing these origins provides valuable context for further research on the subject.

Many scholars have explored the origin of the Corinthian capital. The earliest known account of the origin of the Corinthian capital is the book of the Roman architect Vitruvius *De architectura* (IV. I. 9, 10), where he recounts the story of its creation, crediting the bronze artisan Callimachus with its invention.

Numerous studies focus on the origin of the Corinthian capital. These studies tried to uncover the origin of this type of capital and determine where this architectural element first emerged, in addition to the factors that led to the development of this capital. Some scholars rely on the story in Vitruvius' book as a primary reference, while others suggest alternative theories independent of his writings, and some attempt to combine both approaches.

The exploration of the Corinthian capital began with A. Riegl in his book *Stilfragen*. *Grundlegungen zu einer Geschichte der Ornamentik* published in 1893. He argued that the acanthus motif evolved gradually through its use in funerary stele capitals, eventually becoming a key element in the Corinthian capital, emphasizing that this evolution did not

happen suddenly, as suggested by Vitruvius, but rather a slow process begun in Greek funerary traditions.<sup>1</sup>

In 1897, M. Meurer compared the evolution of artistic forms to biological evolution in his work *Das griechische Akanthusornament und seine natürlichen Vorbilder*. He suggested that Greek artists started with natural acanthus leaves, which gradually evolved into the Corinthian capital.<sup>2</sup>

In 1905, B. F. Fletcher, in *A History of Architecture on the Comparative Method: For the Students, Craftsmen, and Amature*, proposed that the Corinthian capital could have been influenced by Egyptian bell-shaped capitals and Assyrian spiral motifs, introducing the idea that external cultures played a role in its development.<sup>3</sup>

J. Durm agreed with Fletcher's ideas in 1910 with his work *Die Baukunst der Griechen.*<sup>4</sup> He supported the notion that the Corinthian capital evolved from Egyptian prototypes, specifically the bell-shaped capitals, which were adapted by the Greeks to include more refined, native plant motifs.

That same year, F. Noack published *Die Baukunst des Altertums*, in which he explored the connection between the old Aeolic capital and the Corinthian capital, emphasizing the continuity of Greek artistic traditions. He pointed to the acanthus leaf as the element which made a revolution in Greek art, marking a key stage in the development of the Corinthian capital.<sup>5</sup>

In 1916, Th. Homolle in his article *L'origine du chapiteau corinthien* examined the use of acanthus leaves in a funerary context and how they transitioned from decorative elements into architectural motifs, eventually finding their way into Corinthian capitals.<sup>6</sup>

By 1920, F. Poulsen in *Delphi* focused on the palmette-crowned anta capitals, arguing that the vase-paintings from the 5th century BC depicting acanthus plants tied to shafts and steles represent an early stage in the evolution of the Corinthian capital.<sup>7</sup> He saw the gradual

<sup>5</sup> Noack 1910.

<sup>&</sup>lt;sup>1</sup> Riegl 1893.

<sup>&</sup>lt;sup>2</sup> Meurer 1897.

<sup>&</sup>lt;sup>3</sup> Fletcher 1905.

<sup>&</sup>lt;sup>4</sup> Durm, 1910.

<sup>&</sup>lt;sup>6</sup> Homolle 1916.

<sup>&</sup>lt;sup>7</sup> Poulsen 1920.

incorporation of acanthus leaves into these designs as part of the process that led to the Corinthian form.

In 1924, H. L. Ebeling published *The Origin of the Corinthian Capital*, where he linked the Corinthian capital to a unique Ionic diagonal capital. He traced the development from this capital to the bell-shaped, spiral-decorated form seen in early Corinthian capitals like that of the Temple of Apollo Epicurius at Bassae.<sup>8</sup>

Jumping forward to 1984, W. B. Dinsmoor and J. McK. Camp in *Ancient Athenian Building Methods (Agora Picture Book)* proposed that Aeolic basket capitals found at Delphi were direct predecessors to the Corinthian capital, suggesting a local Greek origin rather than external influences.<sup>9</sup>

In 1989, P. Pedersen in *The Parthenon and the Origin of the Corinthian Capital* argued that the Corinthian capital was not a new architectural order but an elaboration of the Ionic order. He believed that the floral decoration of the Corinthian capital evolved from Ionic column-neck capitals, with the addition of acanthus leaves as a defining feature.<sup>10</sup>

Finally, in 2009, D. Scahill focused again on Vitruvius' story in *The Origins of the Corinthian Capital*, exploring the connections between funerary monuments, acanthus plants, and the artisan Callimachus. Scahill argued that multiple influences shaped the development of the Corinthian capital, emphasizing that its evolution was more complex and less linear than previously thought.<sup>11</sup>

In addition to its origin, researchers have also studied the process of carving the Corinthian capital. In her work, *The Stages of Workmanship of the Corinthian Capital in Proconnesus and its Export Form* (1988), N. Asgari focused on unfinished stone blocks from Proconnesus (modern-day Marmara Island). It provides important information about the carving stages of Corinthian capitals. Asgari detailed the progression from rough stone to semi-finished capital, establishing a foundation for understanding the manufacturing process.<sup>12</sup>

M. W. Jones, in his article *Designing the Roman Corinthian Capital* (1991), emphasized on the role of proportions and geometry in analyzing the Corinthian capital, developing rules such as

<sup>&</sup>lt;sup>8</sup> Ebeling 1924.

<sup>&</sup>lt;sup>9</sup> Dinsmoor & Camp 1984.

<sup>&</sup>lt;sup>10</sup> Pedersen 1989.

<sup>&</sup>lt;sup>11</sup> Scahill 2009.

<sup>&</sup>lt;sup>12</sup> Asgari 1988.

the "cross-sectional width rule" and the "diagonal rule." He argued that these consistent ratios were essential for the design and production of Corinthian capitals, offering a geometric perspective on their manufacture.<sup>13</sup>

In 2014, researcher N. Toma published her article *Von Marmorblock über Halbfabrikat zu korinthischem Kapitell: Zur Kapitellproduktion in der Kaiserzeit* in 2014. She offered a new perspective by examining what called construction lines engraved on stone blocks by ancient craftsmen. Her study highlighted how these lines guided the carving process, proposing that the process began at the bottom of the block and moved upward. This approach provided new insights into Roman imperial-period carving techniques.<sup>14</sup>

The third group of studies focuses on Corinthian capitals from before the Byzantine period, which begins in the 4th century AD. One of the earliest scholars to study these early imperial capitals was K. Ronczewski, who spent significant time and effort between 1924 and 1939 examining their variations across different sites within the Roman Empire. In one of his works, *Variantes Des Chapiteaux Romains*, Ronczewski was the first to employ the term "canonical Corinthian capital" alongside the term "*normale*" in French, to describe the Corinthian capital according to the rules outlined by Vitruvius.<sup>15</sup>

Another scholar who studied the Corinthian capital from this same pre-Byzantine period is W-D. Heilmeyer. His work, titled *Korinthische Normalkapitelle. Studien zur Geschichte der römischen Architekturdekoration* was published in 1970. It focuses specifically on one type of Corinthian capital known as the "*Normalkapitell.*" <sup>16</sup> In this book, Heilmeyer explores this type of Corinthian capital and the variations that result from the different designs of its individual elements. He studied a large number of examples from the imperial capital, Rome, which serves as the central focus of his research. He also traces the development of this form within the Roman Empire from the first half of the 1st century BC to the mid-2nd century AD. In addition, Heilmeyer highlights the influence of craftsmen from Greece and Asia Minor, who arrived in Rome around the mid-1st century BC, and brought with them familiar design traditions, and particularly those from the building schools of Pergamon-Ephesus and Aphrodisias. He further

<sup>&</sup>lt;sup>13</sup> M. W. Jones 1991.

<sup>&</sup>lt;sup>14</sup> Toma 2014.

<sup>&</sup>lt;sup>15</sup> Ronczewski 1923, 115.

<sup>&</sup>lt;sup>16</sup> Heilmeyer 1970.

examines how local Roman architectural schools began to emerge during this early phase of construction activity.<sup>17</sup>

Sometimes, scholars have focused on specific features of capitals, as in the book of E. von Mercklin *Antike Figuralkapitelle*. In this study, he examines capitals that include figures.<sup>18</sup> This book discusses various types of capitals and their decorative elements across different regions and periods, and it also includes significant discussions about Corinthian capitals. This work includes almost all geographical locations governed by the Roman Empire. Regarding Syria, the researcher appears to focus solely on the Nabataean capitals from southern Syria, which feature human busts, without mentioning other figures. This may be due to the rarity of Corinthian capitals in Syria that include figures, especially since some of the Corinthian capitals studied in this dissertation were discovered after the time he published the book.

In addition to these literature, general studies on Corinthian capitals throughout the Roman Empire before the 4th century AD and their evolution have been published by many scholars including D. E. Strong<sup>19</sup>, S. De Maria<sup>20</sup>, H. Von Hesberg<sup>21</sup>, K. S. Freyberger<sup>22</sup>, and J. Kramer<sup>23</sup>.

Moreover, interest in marble and its trade during the Roman period has also led to research on Corinthian capitals made from this material. One such example is P. Pensabene's *La decorazione architettonica, l'impiego del marmo e l'importazione di manufatti orientali a Roma, in Italia e in Africa (II-VI d.C.).*<sup>24</sup> This study focuses on marble and the importation of oriental artifacts to Rome, the western Roman provinces, and Africa during the period between the 2nd and 6th centuries AD. Among the most important of these artifacts were Roman sarcophagi and Corinthian capitals. The author divides the Corinthian capitals into groups based on the elements of these capitals and their features.

While this study of Pensabene does not specifically focus on the region addressed in this dissertation, the Corinthian capitals from the Roman Imperial period share similar characteristics and features across various regions of the Roman Empire. Since marble is not available in Syria or nearby regions, Corinthian capitals were imported either in half-finished

<sup>&</sup>lt;sup>17</sup> Kramer 1972; Ulbert 1973.

<sup>&</sup>lt;sup>18</sup> von Mercklin 1962.

<sup>&</sup>lt;sup>19</sup> Strong 1953.

<sup>&</sup>lt;sup>20</sup> de Maria 1981.

<sup>&</sup>lt;sup>21</sup> von Hesberg 1981.

<sup>&</sup>lt;sup>22</sup> Freyberger 1990.

<sup>&</sup>lt;sup>23</sup> Kramer 1994.

<sup>&</sup>lt;sup>24</sup> Pensabene 1986.

or fully finished states. Therefore, there is a strong probability of finding identical copies of marble Corinthian capitals from different sites and regions, likely originating from the same provenance. Such studies are essential for understanding any Corinthian capitals dated to the Roman Imperial period throughout the Roman Empire.

Present-day Syria, along with other countries in the Eastern Mediterranean, such as Lebanon, were parts of provinces with changing borders during Roman rule. Therefore, all studies conducted in these countries are also important for studying the Corinthian capitals in Syria.

One of the leading scholars focusing on the Corinthian capitals in Lebanon is H. Kahwaji-Janho. In his article *Chapiteaux Corinthiens d'Époque Romaine à Tyr*, he examines the Corinthian capitals at the specific site of Tyre, aiming to date them and determine their provenance.<sup>25</sup>

In another work, *De Baalbeck à Anjar*, Kahwaji-Janho explores the origins of Corinthian capitals found in Anjar. He examined whether these capitals came from the unknown Roman site of Chalcis du Liban or other locations such as Beirut and Baalbek. He bases his analysis on the characteristics and features of these capitals.<sup>26</sup>

Kahwaji-Janho also investigates figured capitals in his work Antique Figured Capitals from Lebanon. In this article, he analyzes Corinthian capitals adorned with figures found in the Republic of Lebanon.<sup>27</sup>

Finally, he gathered all his research on the Corinthian capitals discovered in Lebanon in a publication entitled *Les Chapiteaux Corinthiens Du Liban. Formes et Évolution Du Ier Au IVe s. P.C.*<sup>28</sup> This study explores Corinthian capitals in Lebanon, highlighting their importance in architecture and the skill involved in their creation. Kahwagi-Janho collects capitals primarily from urban sites, dating from the 1st century BC to the early 4th century AD. He classifies the capitals by type and material, imported marble versus local stone, and discusses their design changes over time. The study focuses on significant locations such as Baalbek and Tyre and explores the social and political reasons for their distribution.<sup>29</sup>

<sup>&</sup>lt;sup>25</sup> Kahwagi-Janho 2014.

<sup>&</sup>lt;sup>26</sup> Kahwagi-Janho 2017.

<sup>&</sup>lt;sup>27</sup> Kahwagi-Janho 2019.

<sup>&</sup>lt;sup>28</sup> Kahwagi-Janho 2020.

<sup>&</sup>lt;sup>29</sup> Grawehr 2022.

In Palestine, researchers such as M. Fischer studied the Corinthian capital within the broader context of the Roman province. In his work *The Corinthian Capitals of the Capernaum Synagogue*, he investigates Corinthian capitals in specific sites.<sup>30</sup> Additionally, in his work *Figured Capitals in Roman Palestine*, he also expands on the study of von Mercklin by focusing on the figures included in the capitals found in the Roman province of Palestine, including Corinthian capitals.<sup>31</sup>

Similarly, in Jordan, Z. Dimitrov focused on the Corinthian capitals in the Tomb of Germanus in his work *A Stage of Corinthian Order Development at Gerasa*.<sup>32</sup> By analyzing these capitals and their elements, he suggested that the Corinthian capitals and other decorations in the tomb are likely crafted by traveling stonemason groups who used to work in different sites in the Roman Empire. These groups probably came from Asia Minor, and they were able to work on local stone, as well as different types of marble, including Proconnesian marble.

Other scholars have focused on specific features of the Corinthian capitals found in the Eastern Mediterranean. For example, M. Nassar, in his work *Corinthian Capitals with Interlocked Helices from the Roman Period, Jordan: A Comparative Study*, examined the unique condition in which the helices of the Corinthian capitals are interlocked.<sup>33</sup> He found that these interlocked helices are rare compared to the more common Corinthian capitals with standard helices, and that the capitals with interlocked helices were typically used during the Roman period and introduced from the western provinces.

Moving on to studies that focus on capitals from present-day Syria, many examine the Corinthian capital in the Eastern Mediterranean, including those found in Syria. The earliest researcher to analyze Roman Corinthian capitals in the Syrian Arab Republic is E. Weigand, who is regarded as one of the foremost scholars on architectural decorations during the Roman period in the Eastern Mediterranean. Much of his work centers on the Corinthian capital. One of his most significant contributions is *Baalbek u. Rom: Die römische Reichskunst in ihrer Entwicklung und Differenzierung*, considered the earliest synthetic study to include Corinthian capitals from Syria.<sup>34</sup> This work suggests that the Roman Imperial Corinthian capital in the

- <sup>32</sup> Dimitrov 2016.
- <sup>33</sup> Nassar 2014.

<sup>&</sup>lt;sup>30</sup> Fischer 1986.

<sup>&</sup>lt;sup>31</sup> Fischer 1989.

<sup>&</sup>lt;sup>34</sup> Weigand 1914a.

Eastern Mediterranean was introduced through the cultural influence of Rome on the region, particularly via the Temple of Baalbek.

Following Weigand's study, D. Schlumberger challenged his views on the origin of the Imperial Roman Corinthian capital in the Eastern Mediterranean. In his work *Les formes anciennes du chapiteau corinthien en Syrie, en Palestine et en Arabie*, he proposed that the origin of this capital stemmed from local influences rather than the cultural influence of Rome, as Weigand had claimed.<sup>35</sup> Schlumberger argued that Weigand overlooked significant capitals from Palmyra, which played a crucial role in demonstrating local influence on the development of the Roman Imperial Corinthian capital in the Eastern Mediterranean.

Subsequent case studies, such as those on the temples of Baalshamin<sup>36</sup> and Nabu<sup>37</sup> at Palmyra, as well as the tetrapylon of Latakia<sup>38</sup>, examined the Corinthian capitals at these sites as part of their broader exploration and analysis.

In addition, while continuing his work on marble, trade, and distribution around the Mediterranean during the Roman period, Pensabene focused this time on marble artifacts in the Roman provinces of the Eastern Mediterranean, specifically in Syria, Palestine, and Arabia, in his work *Marmi d'importazione, Pietre Locali e Committenza Nella Decorazione Architettonica Di Età Severiana in Alcuni Centri Delle Province Syria et Palestina e Arabia.*<sup>39</sup> Among these artifacts were the Corinthian capitals. This research is significant for the study of many marble Corinthian capitals in the coastal region of Syria, particularly in cities like Latakia, Jableh, and Tartous.

One of the unique studies that focused specifically on the Roman Corinthian capital is titled *Les chapiteaux corinthiens normaux de Syrie méridionale (lère partie)*.<sup>40</sup> This study done by J. Dentzer-Feydy and it examines the southern part of the country and specifically addresses the "*normale*" type of Corinthian capitals found there. The author categorizes these capitals based on their distinctive features and analyses their dimensions and ratios, comparing them to those of the Vitruvian capital. She further examines the elements of these capitals to establish a timeline for their creation. By considering specific characteristics, she analyses their design influences and suggests the likelihood of local workshops with unique traditions in crafting

<sup>&</sup>lt;sup>35</sup> Schlumberger 1933.

<sup>&</sup>lt;sup>36</sup> Collart & Vicari 1969, 137–54, Pl.83-91.

<sup>&</sup>lt;sup>37</sup> Bounni et al. 1992, 31.

<sup>&</sup>lt;sup>38</sup> Kader 1996, 44–57, pl. 12–23.

<sup>&</sup>lt;sup>39</sup> Pensabene 1997.

<sup>&</sup>lt;sup>40</sup> Dentzer-Feydy 1990.

these capitals during the late 1st century AD. Ultimately, the author concludes that Asia Minor played a significant role in shaping the development of imperial art in Syria. This research has been particularly valuable for the dissertation, especially given the challenges of accessing sites and museums in southern Syria due to safety concerns. Three years later, the author published another study titled *Introduction de l'acanthe dans la sculpture monumentale du Proche-Orient à l'époque greco-romaine*, which focuses on the acanthus as a decorative element in Syrian capitals.<sup>41</sup>

Turning now to the fourth group, which focuses on Corinthian capitals from the Byzantine period, it is worth noting that research on Byzantine-era capitals in Syria initially lagged behind studies of the Roman period. Early researchers focused their attention on the well-preserved sites and structures in the region. Among the first to explore these historical sites was the French scholar Ch. J. M. de Vogüé, who began his investigations in AD 1861. He conducted historical, architectural, and artistic studies of the civil and religious buildings he encountered, and produced numerous photographs and architectural plans of these structures throughout Syria, from the southern region, passing through Damascus to Latakia, and reaching the regions in the north. He referred to these areas collectively as "*Syrie Centrale*," a term describing what is now almost the western part of the Syrian Arab Republic. <sup>42</sup>

Many years after de Vogüé, Princeton University launched several missions to study the region in the early 20th century, led by H. C. Butler. These missions are considered among the first efforts to investigate the area's culture, including its art and architecture, particularly the development of early Christian architecture. Butler re-examined the area in 1904, 1905, and 1909, later publishing his findings in multiple volumes from 1907 to 1946.<sup>43</sup>

During his study of the churches in northern Syria, Butler conducted an analysis of columns and piers. In this study, he mentioned the Corinthian capitals for the first time and categorized them into four groups: the general proportions and parts of a "regular classical" capital, the "wind-blown" Corinthian capital, "bell-shaped" capitals, and capitals with lace-like patterns of leaves.<sup>44</sup>

Many years later, one of the first works on Corinthian capitals from the Byzantine period was the book of R. Kautzsch's book *Kapitellstudien: Beiträge zu einer Geschichte des spätantiken* 

<sup>&</sup>lt;sup>41</sup> Dentzer-Feydy 1993.

<sup>&</sup>lt;sup>42</sup> de Vogüé & Waddington 1865a, 1:3.

<sup>&</sup>lt;sup>43</sup> Butler 1904; 1909; 1929; Butler et al. 1930.

<sup>&</sup>lt;sup>44</sup> Butler 1929, 235–41.

*Kapitells im Osten vom vierten bis ins siebente Jahrhundert.*<sup>45</sup> This study did not focus on a single region but gathered examples from various areas of the Byzantine Empire in the East during this period, including Salona, Alexandria and Cairo, Constantinople, Greece and Asia Minor, while excluding all of Africa and the western regions. The book offers a detailed analysis of Corinthian capitals across these regions of Late Antiquity, focusing on their features and regional variations, however, only a few capitals from Syria are mentioned. The author himself acknowledged in the introduction that many capitals were not included.

G. Tchalenko is considered as one of the prominent figures in the architectural study of churches in northern Syria. Renowned for his contributions to Byzantine archaeology in Syria and Lebanon, much of his research concentrated on the northern regions of contemporary Syria. Tchalenko revisited numerous sites previously studied by other scholars, often offering more detailed analyses and insights.<sup>46</sup>

His works have significantly increased the comprehension of the historical and cultural aspects of the Christian Middle East throughout the Byzantine period, especially through his detailed studies of northern Syria from 1935 to 1945. He documented nearly every finding, including many Corinthian capitals, whether they were still positioned atop columns or lying on the ground. However, he did not conduct specific studies on these architectural elements or others.

The research of de Vogüé, Butler, and Tchalenko has greatly improved our understanding of these sites by documenting the condition of structures across different locations in the region. Among the numerous elements recorded in their studies were the Corinthian capitals. These works significantly contributed to uncovering the provenance of several capitals now in various museums in Syria, many of which were previously noted as having unknown provenance. Although the Corinthian capital was not the primary focus of these studies, the photographs and drawings they produced, along with the brief analysis done by Butler of Byzantine Corinthian capitals in northern Syria, play a crucial role in the examination of these capitals in both the southern and northern regions. This is particularly significant given that personal fieldwork has been rendered impossible due to the unsafe conditions in Syria during the preparation of this dissertation.

The presence of specific marble Corinthian capitals from the Byzantine period in Syria has led to additional academic investigation. For instance, the capitals located in the Tartous Museum,

<sup>45</sup> Kautzsch 1936.

<sup>&</sup>lt;sup>46</sup> Tchalenko 1953a; 1953b; Tchalenko & Baccache 1979; 1980; Tchalenko 1990.

discovered near the coast at the Amrit site close to Tartous city, were part of a shipment containing various marble pieces. This study introduced by S. Westphalen and M. Dennert, titled *Säulen aus Konstantinopel – Ein Schiffsfund im antiken Hafen von Amrit*, aims to analyze these capitals, determine the provenance of the marble, date them, and explore their potential uses.<sup>47</sup>

<sup>&</sup>lt;sup>47</sup> Westphalen & Dennert 2004.

# CHAPTER ONE: HISTORICAL AND GEOGRAPHICAL BACKGROUND

### 1.1 Geographical Background

The Syrian Arab Republic, referred to as Syria in this research, was part of various civilizations and empires throughout history. Its borders stretch from southeastern Turkey in the north to northern Jordan in the south, with the Mediterranean Sea and Lebanon to the west, and Iraq to the east (Figure 1).

Syria is divided into distinct regions based on its geographical and geological features.<sup>48</sup> The first one is the coastline, followed by the mountain ranges, which form a divide between the coastal and interior parts of Syria. The remaining areas to the east of the mountains will be divided into three regions, which are the southern, northern, and northeastern, as proposed by Butler.<sup>49</sup> As for the territory beyond the Euphrates River, no Corinthian capital has been found there; therefore, it will not be included in the discussion (Figure 1).<sup>50</sup>

The coastline is situated between the Mediterranean Sea to the west and the mountain ranges to the east, running parallel to the coastal strip. The eastern boundary is also defined by the Orontes River in the north and the Jordan River in the south.<sup>51</sup> This slender region stretches 160 km between the Mediterranean Sea and the mountains. It features a few natural harbors and is renowned for its fertile plains of various sizes.<sup>52</sup> Today, the narrow coastal plains are densely populated and support year-round cultivation of various vegetables and fruits (Figure 2).<sup>53</sup>

As for the mountains that overlook the coastline, they begin with the Amanus Mountains in southern Turkey and extend southward beyond the Gulf of Aqaba. They act as a natural barrier, separating the Levantine coast from the Syrian interior. These ranges include Jabal al-Aqra<sup>c</sup> in the north and Jabal Anṣāriyya in the south (Figure 2).<sup>54</sup>

<sup>&</sup>lt;sup>48</sup> Bouchier 1916, 1–3; Millar 2001, 236.

<sup>&</sup>lt;sup>49</sup> Butler 1929, 4–6.

<sup>&</sup>lt;sup>50</sup> This division was shaped by the geological and geographical features of the regions, which in turn influenced the way of life, culture, and art of the people.

<sup>&</sup>lt;sup>51</sup> Butler 1929, 4.

<sup>&</sup>lt;sup>52</sup> Major 2015, 3.

<sup>&</sup>lt;sup>53</sup> Casana 2017, 160.

<sup>&</sup>lt;sup>54</sup> Major 2015, 3.

The elevation of the mountains exceeds 2100 m above sea level, with an annual rainfall of 1,800 mm. In the third millennium BC, the mountains were rich in forests, which were considered a timber source for construction projects, even reaching Mesopotamia and Egypt. However, these forests had disappeared by the late first millennium BC due to deforestation during the Hellenistic and Roman periods. The climate is humid and warm along the coast for most of the year; however, the weather gets considerably cold in winter, posing challenges to farming due to less arable land. Therefore, the Romans tried to find a solution to this issue by terracing the land, facilitating agriculture and the cultivation of olives, wine, nuts, and other orchard crops.<sup>55</sup>

There are numerous rivers in this region due to its high humidity. The deep valleys of these rivers, in addition to several fertile plains that lie between the mountains, provide communication channels between the coastline and areas beyond the mountains. Examples include the Gap of Homs and other plains in the north, such as those around Tartous, Jableh, and Latakia.<sup>56</sup>

The remaining three parts are situated to the east of the mountains, constituting almost the main portion of what de Vögué termed "*Syrie Centrale*."

"Nous avons donné le nom de Syrie centrale à la région qui s'étend du nord au sud, depuis les frontières de l'Asie Mineure jusqu'à celles de l'Arabie Pétrée, et qui est bornée à l'est par le grand désert, à l'ouest par la ligne des fleuves qui courent parallèlement à la mer, le Jourdain, le Léontès, l'Oronte."<sup>57</sup>

The southern region of Syria consists of the volcanic hills of Jabal Hauran, which extend southward to include al-Nukra and al-Lajat, known for its expansive lava tract in the north. After that comes the fertile surroundings of Damascus, and to the eastward lies the stony desert area of al-Hara. This geographical area aligns with the ancient territories of Auranitis and Trachonitis and was predominantly situated within the Roman Provincia Arabia.<sup>58</sup>

Hauran preserves many remnants from the Hellenistic and Roman periods, including agricultural structures, communication routes, entire villages, and traces of the ancient landscape. Numerous Nabataean, Safaic, and occasionally Greek inscriptions can also be

<sup>&</sup>lt;sup>55</sup> Casana 2017, 160.

<sup>&</sup>lt;sup>56</sup> Major 2015, 3.

<sup>&</sup>lt;sup>57</sup> de Vogüé & Waddington 1865a, 1:3.

<sup>&</sup>lt;sup>58</sup> Butler 1929, 4.

found. The nature of this area forms a geographical unit, with its volcanic formation, which gives it unique hydrographic and topographic features, significantly shaping human settlement and agriculture. Overall, the Hellenistic and Roman eras are considered as the main periods in the history of this region due to the vast majority of archaeological monuments.<sup>59</sup>

Moving to the Northern zone, its western boundary is close to the sea, accessible by crossing the coastal range of the Amanus Mountains and the Orontes Valley. Beginning just north of the city of Hama, the region extends northward to the Afrin River, which flows westward into what was once Lake Amik (now known as the Amik Valley), and nearly north-eastward to Aleppo. The eastern borders are defined by the historical and contemporary alignment of the Aleppo-Damascus Road. This terrain is entirely characterized by rugged mountains, encompassing six hill groups: Jabal al-Zāwiya, Jabal Wasṭānī, Jabal al-Duweilī, Jabal al-'A'lā, Jabal Bārishā and Jabal Sim'ān extending from southwest to northeast. Abundant evidence attests that these desolate and abandoned hills, currently devoid of land and vegetation, were once cloaked in a thin yet fertile soil, sustaining a substantial and flourishing population (Figure 3).<sup>60</sup>

The northeastern area features gently rolling terrain, primarily characterized by desert landscapes. Its western boundary aligns with the Aleppo-Damascus highway to the east. The western section stretches uninterrupted from eastern Homs to the north, reaching Jabal Hass and Jabal ash-Shubayt, two low hill formations southeast of Aleppo. To the north, it extends almost to Aleppo, while to the east, it reaches the Euphrates, which flows generally southeast to east in this part, and southward toward the region above Palmyra, some parts of which may have always been desert.<sup>61</sup>

Finally, the plateau located to the east of Hama, known as al-'A'lā, retains limited fertility and seems to have been densely populated during the Middle Ages. However, the remaining expanse to the north and east is entirely abandoned, with scarce nomadic wanderers. This area did not lose its soil as in the hills to the west; however, the issue here is related to insufficient rainfall and a lack of irrigation methods, which have led the region to its current state. So, this area became lifeless, having only desert grass and moss.<sup>62</sup>

<sup>&</sup>lt;sup>59</sup> Dentzer & Dentzer 1981, 78.

<sup>&</sup>lt;sup>60</sup> Butler 1929, 5.

<sup>&</sup>lt;sup>61</sup> Butler 1929, 5.

<sup>&</sup>lt;sup>62</sup> Butler 1929, 5.

### 1.2 Historical Background

#### 1.2.1 Pre-Roman Era in Syria

From the third and second millennia BC, diverse forces and numerous empires and political entities arrived in and controlled this region. At the same time, the indigenous population also established local dynasties and governed the area in accordance with their unique vision.

During the 6th century BC, this area was part of the Persian Empire, and it witnessed the flourishing of numerous cities, particularly in the Syrian coast. The cities united into a political entity, and they dominated a region that reached the inland areas. However, they also aligned with the most powerful entities that existed, supporting the Persian fleets during their campaigns while engaging in negotiations with Alexander the Great following the defeat of the Persians. These cities prospered through trade, because of their ports, which enabled the easy sea transportation of goods, an advantage that lasted into later periods. Regarding the situation in most inland parts of Syria during this period, it had a village life, contrasting with the scenario in the Syrian coastal areas.<sup>63</sup>

In 333 BC, Alexander the Great arrived in Syria after the Battle of Issus. The political landscape in Syria, under Alexander and his immediate successors, kept its Persian-era character. The Phoenician cities along the Syrian coast continued to govern both the coastal and certain inland areas.<sup>64</sup>

The Hellenistic Empire was divided among the commanders of the army of Alexander the Great after his death in 323 BC, resulting in four distinct parts. Seleucus I Nicator ruled Syria and established what is known as the Seleucid Empire, with Antioch (modern-day Antakya) as its capital. During this era, the united Phoenician dynasties were broken apart.<sup>65</sup>

Syria had an important role in the Seleucid Empire, which required a concentrated endeavor to establish new colonies in the area. As a result, an intensive colonization occurred in the 4th and 3rd centuries BC, especially by Seleucus I Nicator and Antiochus I. Many new poleis were constructed, and existing ones were reinstated to manage the economy and politics of the adjacent area, while also acting as middlemen for the ruler. These poleis often bore names of figures from the Seleucid dynasty. Seleucus I Nicator founded several major cities to control the region, including Antioch, Apamea, Seleucia ad Pieria, and Laodicea (modern-day Latakia).

<sup>&</sup>lt;sup>63</sup> A. H. M. Jones 1971, 233.

<sup>64</sup> A. H. M. Jones 1971, 236.

<sup>&</sup>lt;sup>65</sup> Bryce 2014, 238.

The intense establishment of Seleucid settlements in northern Syria led to the area being referred to as *Seleukis* (Strabo 16.2.4). Several cities were either newly established or revitalized during the rule of Seleucus's successors, including Epiphania (modern-day Hama), and Damascus.<sup>66</sup>

In the Hellenistic era, Syria served as the meeting point where East and West directly intertwined. Greek influences took precedence in the prominent Syrian cities, particularly in the new parts established by the Seleucids in the existing urban centers. Conversely, local oriental traditions remained intact in the rural areas. Limited information is available regarding the coastal cities of that period, but, in general, this coastal region fell behind in development, as trade routes primarily flowed through the Phoenician cities in the south or the Phoenician colony of Myriandus in the Gulf of Issus in the north.<sup>67</sup>

The historical records of the southern Syria region during that era remain somewhat obscure. In general terms, it can be asserted that Alexander's generals, either directly or indirectly, assumed authority over territories in southern Syria, and the Hauran region was included within the satrapy of Syria. Hauran is believed to have come under the rule of the Ptolemies in Egypt during the reign of the Lagid kings in Alexandria from 320/319 to 200 BC. From 200 BC onwards, control shifted to the Seleucids based in Antioch. However, there is insufficient evidence to clearly indicate a transition from Ptolemaic dominance to Seleucid control in Hauran. It remains plausible that local emirates in the region operated with some degree of autonomy during this period.<sup>68</sup>

In 64 BC, the termination of Seleucid rule in Syria and the surrounding region was brought about by the invasion led by the Roman commander Pompey. His victory over Tigranes I of Armenia resulted in the establishment of the Roman province of Syria, signifying the end of direct Seleucid influence in the Levant. Consequently, much of what is now Syria became an integral part of the Roman world for centuries (Figure 4).<sup>69</sup>

#### 1.2.2 Problems of the Terminology of the Roman Period

The period extending from the establishment of the Roman Empire by Augustus in 27 BC until AD 285 is referred to as the Early Roman Empire or the Early Imperial Period.<sup>70</sup>

<sup>&</sup>lt;sup>66</sup> Cohen 2006, 28.

<sup>&</sup>lt;sup>67</sup> A. H. M. Jones 1971, 243.

<sup>&</sup>lt;sup>68</sup> Sartre 1991, 29.

<sup>&</sup>lt;sup>69</sup> Goodman & Sherwood 1997, 276; Ball 2000, 11–12; Bryce 2014, 221.

<sup>&</sup>lt;sup>70</sup> Boak 1921, 205, 293; Morris & Scheidel 2007, 9.

The subsequent period is known by various names and terms. A. E. R. Boak labeled the period from AD 285 to AD 565 as the autocracy or the Late or Later Roman Empire.<sup>71</sup> This terminology has been employed by many scholars since the early 18th century AD, though the specific period it refers to has varied.

Weigand termed this era "*Die späte Kaiserzeit*," which translates to the Late Roman Empire, covering the period from Diocletian to Theodosius the Great.<sup>72</sup> Some scholars agree with Weigand on the beginning of this period but diverge on its end. A. H. M. Jones defines this period as extending from the accession of Diocletian to the throne (AD 284) to the death of Maurice (AD 602).<sup>73</sup>

This term continued to be used until P. Brown introduced the concept of *Late Antiquity* in his book published in AD 1971.<sup>74</sup> At this point, he opened the door for scholars to use this term to define the complex period that begins around the early 4th century AD. He used Late Antiquity to describe the period extending from the mid-3rd century AD, specifically starting with the Third Century Crisis in the Roman Empire and lasting until the rise of the Carolingian Empire under Charlemagne, who was crowned Emperor in AD 800.<sup>75</sup>

A. Cameron also used this term, but he differed in specifying the start date of this period, arguing that it begins in AD 395, the date when the Roman Empire was divided into two parts. Initially, he agreed with the end date proposed by A. H. M. Jones in the first edition of his book, *The Mediterranean World in Late Antiquity: 395–600.* However, in the second edition, Cameron extends the period to AD 700.<sup>76</sup>

In addition, another label was used that is also subject to debate regarding its exact dates: the Byzantine period.<sup>77</sup> This name is derived from the Greek colony known as Byzantium, which was later chosen to become the site for the capital of the Eastern Roman Empire.<sup>78</sup>

<sup>&</sup>lt;sup>71</sup> Boak 1921, 205, 293.

<sup>&</sup>lt;sup>72</sup> Weigand 1920, 192.

<sup>&</sup>lt;sup>73</sup> A. H. M. Jones 1964.

<sup>&</sup>lt;sup>74</sup> The first known scholar to use the term was Rigel, who referred to it as *Spätantik* in German, which translates to late antique. This is according to: Bandinelli 1966; Elsner 2002, 358.

<sup>&</sup>lt;sup>75</sup> Brown 1971; Cameron 2012, 5, 6.

<sup>&</sup>lt;sup>76</sup> Cameron 2012, 1, 6.

<sup>&</sup>lt;sup>77</sup> It should be noted that in 1552, historian Hieronymus Wolf published *Corpus Historiae Byzantinae*, a collection of Latin translations of Byzantine historical texts. In this work, he was the first to use the term "*Byzantine*." Wolf 1568.

<sup>&</sup>lt;sup>78</sup> The emperor Constantine renamed the city of Byzantium to Constantinople in his honor, establishing it as the new capital of the empire and moving the imperial court from Rome to this new center. Evans et al. 2001, 4:4–7; Kotapish 2001, 49; Stanton 2012, 1:24; Middleton 2015, 612; Wagner 2015, 65; Bahn 2017, 410.

There is general agreement that the period ends with the fall of Constantinople in AD 1453; however, there are differing views on its start date, leading to various schools of thought.

The first school is the Continuity School, which suggests that the Roman Empire continued in a different form and with a new religion. According to this perspective, the Byzantine Empire is considered the eastern continuation of the Roman Empire following the fall of the Western Empire. The survival of the Byzantine Empire for a thousand years, until the fall of its capital in AD 1453, is regarded as the continuation of Rome.<sup>79</sup> The people of this empire identified themselves as Romans rather than Greeks or Byzantines.<sup>80</sup>

The second school argues that the beginning of the Byzantine Empire can be traced back to Diocletian and the Tetrarchy, during which the empire was divided into distinct parts, a western half and an eastern half. Following this, Emperor Constantine the Great moved the capital to the east due to its economic and cultural wealth. This school believes that he intended to establish a new empire, with Constantinople as its Christian capital. Therefore, this move marks the transition from Rome to Byzantium. Consequently, this perspective is referred to as the Discontinuity School.<sup>81</sup>

The last school asserts that there was an evolution between Rome and Byzantium, which took place during the reigns of Emperor Justinian in the late 6th century AD and Emperor Heraclius in the early 7th century AD. Justinian is considered the last culturally Latin emperor, who spoke Latin, while Heraclius was the first Byzantine emperor crowned using the Greek-Byzantine rite of Christianity in a liturgical ceremony. Therefore, this school believes that Byzantium was the direct heir of Rome, marking the transition from Rome to Byzantium. This perspective is referred to as the Evolution School.<sup>82</sup>

As a result, it can be said that the terms used by scholars to refer to the period beginning in the 4th century AD depend on the individual scholar's choice. As one scholar notes, "*The* 

<sup>&</sup>lt;sup>79</sup> Evans et al. 2001, 4:4–7; Lawler 2004, 7; Wagner 2015, 60.

<sup>&</sup>lt;sup>80</sup> According to C. Mango, no nation identified as the Byzantine Empire. Instead, there existed the Roman Empire, with its center in Constantinople, often referred to as the new Rome. The people within this realm primarily saw themselves as Romans or simply Christians. Mahon 1848, 5; Mango 1978, 7.

<sup>&</sup>lt;sup>81</sup> Wagner 2015, 61–62.

<sup>82</sup> Takács 2009, xx.

terminology used by scholars for historical periods, in this case terms such as 'late antiquity', 'medieval'<sup>83</sup> or 'Byzantine', is on one level largely a matter of convenience.'<sup>84</sup>

In this dissertation related to Syrian Arab Republic, to facilitate discussion and streamline the use of terms, the period from Augustus to Diocletian, spanning from the end of the 1st century BC to the end of the 3rd century AD, will be referred to as the Roman period. Meanwhile, the beginning of the Byzantine period, as in the second theory, will be associated with Constantine the Great at the start of the 4th century AD and will continue until the arrival of Muslims in the first third of the 7th century AD.<sup>85</sup> Consequently, the Corinthian capitals in Syria from the first period will be identified as Roman Corinthian capitals, while those related to the second period will be labeled as Byzantine Corinthian capitals.<sup>86</sup>

#### 1.2.3 Roman Era in Syria Until the Islamic Invasion

From the era of Pompey until the rule of Septimius Severus, the boundaries and political structure of Syria remained relatively stable. Just one major event happened in the reign of Hadrian, which is the establishment of a new province known as Roman Palestine, in place of Judea (Figure 5).<sup>87</sup> However, during the reign of Severus, Syria was divided into two smaller provinces, *Syria-Coele* in the north and *Syria-Phoenice* in the south, aiming to prevent the Syrian governor from consolidating power (Figure 6).<sup>88</sup>

In the early Roman Empire period, the cities along the Phoenician coast and the tetrapolis enjoyed the status of free cities.<sup>89</sup> However, during the late 2nd century AD, under the rule of Septimius Severus, the port of Laodicea transformed into a colony, bearing the title *Septimia Aurelia* in honor of the emperor and his son.<sup>90</sup> Laodicea was briefly designated as the capital

<sup>&</sup>lt;sup>83</sup> The term medieval period, or Middle Ages, refers to the centuries between the decline of the Roman Empire in the West and the onset of the Renaissance, spanning approximately from the beginning of the 4th century AD to the 15th century AD. Norris 2005, 3, 11.

<sup>&</sup>lt;sup>84</sup> Cameron 2012, 6.

<sup>&</sup>lt;sup>85</sup> It should be noted that scholars also divided the Byzantine period into three distinct phases: Early Byzantine (AD 330 to the onset of iconoclasm, which lasted from around AD 730 to 842), Middle Byzantine (AD 842 to 1204), and Late Byzantine (AD 1261 to 1453). Cormack 2018, 3–4.

<sup>&</sup>lt;sup>86</sup> Byzantine art is defined as Christian religious art, representing the artistic expression of society in Constantinople between AD 330 and 1453. Known as the art of Constantinople, it is characterized as imperial art and a continuation of Roman traditions, situated in the East and separate from the medieval art of the West. While regional arts in Syria and Egypt, such as Coptic art in Egypt, emerged during this period, they remained closely tied to Byzantine art. Although these regions were politically outside the control of the Byzantine Empire during the early period, they were not free from its cultural influence; therefore, the term Byzantine art can indeed be applied to these regions. Cormack 2018, 4; Jensen 2023, 34.

<sup>&</sup>lt;sup>87</sup> Bryce 2014, 239.

<sup>&</sup>lt;sup>88</sup> Butcher 2003, 82; Sartre 2007, 55.

<sup>&</sup>lt;sup>89</sup> A. H. M. Jones 1971, 262.

<sup>&</sup>lt;sup>90</sup> Bouchier 1916, 94.

of the province of Syria instead of Antioch in the early 3rd century AD. In the latter part of the 3rd century AD, Zenobia temporarily occupied several coastal cities during her campaign, only to have the Romans reclaim them later.<sup>91</sup>

In southern Syria, not all areas came under direct Roman control after they defeated the Seleucid Kingdom and established the province of Syria in 64 BC. The Nabataean tribes controlled the Bostra plain (modern Bosra) and the southern part of Jabal al-Druze. They remained independent but allied with Rome as clients. The southern part of the region faced problems with the Itureans robbing the caravans traveling to Damascus and attacking al-Lajat. The Roman authorities had difficulty intervening until Herod the Great assumed control in 23 BC. He established military colonies to eliminate brigands. In addition to that, he contributed to regional development, such as improving the sanctuary of Seī<sup>c</sup>. After Herod the Great died in 4 BC, the region was consistently governed by Herodian prince-clients, Agrippa I and his son Agrippa II, except for two periods of direct Roman administration (between AD 34 and AD 37, then between AD 44 and AD 53). Following the death of Agrippa II, the region became part of a Roman province.<sup>92</sup>

Jabal al-Druze remained under the control of the kings of Petra, which was later incorporated into the Roman Empire by Emperor Trajan in AD 106, along with the entire kingdom, and became a constituent of the newly established province of Arabia, with Bostra as its capital.<sup>93</sup>

Although the Roman conquest of Syria in 64 BC was a significant event, it did not stop the development of the kingdom or change the unique identity of its people. This identity continued after AD 106, including aspects like worship and language. Similarly, pagan Arab sects continued to thrive in the region during the Byzantine period until the 6th century AD, despite the rise of Christianity, as seen in the participation of bishops from the Roman province of Arabia in the Council of Nicaea in AD 325.<sup>94</sup>

During the reign of Emperor Hadrian, riots in the province of Judea led to significant conflict between the people of Judea and the Roman army. The riots lasted for several years, and the Roman army suffered heavy losses. As a punishment, the Roman emperor established a new province in the place of Judea, renamed Syria Palaestina.<sup>95</sup>

<sup>&</sup>lt;sup>91</sup> Burns 1992, 143.

<sup>&</sup>lt;sup>92</sup> Sartre 1991, 29–34.

<sup>93</sup> Sartre 1991, 29–34; Bryce 2014, 235.

<sup>&</sup>lt;sup>94</sup> Bounni 1991, 21.

<sup>&</sup>lt;sup>95</sup> Bryce 2014, 238–40.
Around AD 194–195, Septimius Severus changed the provincial boundaries, connecting a significant portion of the Hauran with the province of Arabia, specifically encompassing the entire mountain and at least the southern of al-Lajat. The administrative unity of the region, which had been in disarray for over three centuries, was ultimately restored until the end of Roman rule.<sup>96</sup>

The conflicts with the Persian Sassanids in the 3rd century AD had a significant impact on northern Syria, while southern Syria remained relatively unaffected. Despite this, major cities in the south, like Bostra, rebuilt their walls as a precaution, even though no specific raids were reported in the region. In AD 269, Palmyrene forces, commanded by Zenobia and Vaballathus, successfully seized control of the province of Arabia, along with the entire Eastern region. However, by AD 272, the defeat of Palmyra resulted in the restoration of Roman authority in the area.<sup>97</sup>

Following that period, the former Roman provinces in this area experienced numerous transformations. By the end of the 3rd century, the Roman province of Arabia was split. The northern part kept the name Arabia, while the southern part was added to Syria Palaestina. Later, probably after the mid-4th century, Syria Palaestina was divided into three provinces, which are Palaestina Prima, Secunda, and Tertia. Around the end of this century, Syria Phoenice was also divided into two regions. One was along the coast (Phoenice Prima or Paralia) and the other was inland (Phoenice Libani or Augusta Libanensis). Syria Coele was eventually split too. First, the areas near the Euphrates became the province of Euphratensis. By around AD 400, the rest was divided into Syria Prima (capital: Antioch) and Syria Secunda or Syria Salutaris (capital: Apamea). Later, under Emperor Justinian, a new coastal province called Theodorias was created (Figures 7, 8).<sup>98</sup>

The western parts of present-day Syria became a part of the Byzantine Empire, whereas the areas beyond the Euphrates continued to be under Sassanid rule. During the Byzantine era, northern Syria emerged as one of the most well-organized regions within the empire. The coastal region had many important cities, including Laodicea, Antioch, Seleucia Perea, and other large and medium-sized cities like Apamea. Additionally, many cities were situated along the border of the steppes.<sup>99</sup> By the 6th century AD, the political landscape of northern Syria and

<sup>96</sup> Sartre 1991, 29-31.

<sup>&</sup>lt;sup>97</sup> Sartre 1991, 31.

<sup>&</sup>lt;sup>98</sup> Butcher 2003, 85.

<sup>&</sup>lt;sup>99</sup> Tate 1991, 41.

the coastal region had changed little. Nearly all the cities along the Syrian coast kept their previous status, including Seleucia, Laodicea, Jabala (modern-day Jableh), Paltus, Balaneae (modern-day Banyas), Arados (modern-day Arwad), and Antarados (modern-day Tartous). However, a few, such as Marathus, disappeared during this period.<sup>100</sup>

Regarding southern Syria, the process of Christianization started early, where Bishops existed in the 2nd or 3rd century AD, and subsequently, additional bishops were appointed in locations like Kanatha (modern-day Qanawat) and Philippopolis (modern-day Shahbaa). Christians in the region faced widespread persecution during the 3rd and early 4th centuries AD. The establishment of the earliest churches transpired immediately after the Edict of Milan in AD 313. However, the oldest known church in the region, identified through an inscription, is the Church of Saint Serge de Hit, dating back to AD 354. Another church in Kafr was constructed in AD 392. From the 5th century AD onwards, almost every village in the area had a church. The majority of these churches were devoted to prominent Arab saints, including Saint Sergius, Saint Leonce, Saint Bacchus, and Saint George. Nevertheless, a significant number of inhabitants maintained their devotion to traditional pagan beliefs. In AD 362, when Emperor Julian tried to revive paganism, the communities in the Jabal al-Druze showed significant excitement for reopening temples. However, this comeback was brief, as Christianity quickly regained its influence. Despite this, pagan customs continued for an extended period both in rural areas and urban centers. Sacred sites were gradually forsaken or repurposed into churches over time.101

During the 7th century AD, the political landscape underwent a big transformation after the invasion of the Levant by Muslim Arabs. The region suffered multiple conflicts and eventually became integral to the Islamic history of the area for an extended period.<sup>102</sup>

# 1.3 Impact of Historical and Cultural Shifts on Syrian Architecture

When Pompey arrived in Syria in 64 BC, the region was under the control of local bandits and invading armies, and there were internal fights between competing princes of the Seleucid families. For a few decades after this, the trade routes suddenly came back to life after being

<sup>&</sup>lt;sup>100</sup> A. H. M. Jones 1971, 267.

<sup>&</sup>lt;sup>101</sup> Sartre 1991, 31–33.

<sup>&</sup>lt;sup>102</sup> Bryce 2014, 322.

quiet for centuries; however, there is little evidence of building activity in the eastern provinces during this period.<sup>103</sup>

During the rule of Augustus, there was a major wave of development across Rome and other parts of the Roman Empire, and he personally supported many building and reconstruct efforts, especially temples.<sup>104</sup> One result of this activity was that the Corinthian order became the most commonly used column style in Rome and across the Empire.<sup>105</sup> During this time, cities in Syria also restarted architectural work. These efforts focused on expanding religious centers and creating places for the imperial cult, while civic facilities were of secondary importance. In the 2nd century AD, the focus shifted to a broader range of civic projects. This was a sign of economic prosperity and an expression of commitment to Roman values through new and impressive forms.<sup>106</sup>

Imperial Rome influenced architecture in the Eastern provinces more quickly and strongly than it did in Greece or Asia Minor. One main reason for this was that there was not a widespread tradition of purely Greek-style provincial architecture. However, there were some individual Greek buildings, of course, and certain Greek design elements became part of local styles.<sup>107</sup>

Another reason was the group of client kingdoms along the eastern frontier. Some of their rulers had close ties to Rome, and all of them relied on Roman support and approval. One of the most well-known rulers was Herod the Great, king of Judaea from 37 to 4 B.C. He played a major role both politically and in architecture during the early years of Roman rule. He was a very active builder, who created projects not just in his own kingdom and its territories, but also along the Syrian coast. This architecture was shaped by ideas and techniques from the classical world, both from Italy and the Hellenistic East, although it was certainly shaped by local practices.<sup>108</sup>

One of the most notable and well-preserved archaeological sites from that period is the great Temple of Jupiter Heliopolitanus in Baalbek. This massive temple features many details that can be traced back to different Eastern and Hellenistic artistic traditions. However, what matters here are those that can be linked to Roman traditions. The temple has Corinthian column

<sup>&</sup>lt;sup>103</sup> Burns 2017, 80.

<sup>&</sup>lt;sup>104</sup> An inscription at the propylon of the temple in Stratonicea, in southwest Turkey today, records a donation from Augustus to rebuild this temple. Rumscheid 1994, 1:23.

<sup>&</sup>lt;sup>105</sup> Bassioni 2022, 81.

<sup>&</sup>lt;sup>106</sup> Burns 2017, 81–83.

<sup>&</sup>lt;sup>107</sup> Ward-Perkins 1992, 309.

<sup>&</sup>lt;sup>108</sup> Ward-Perkins 1992, 309–10, 313.

capitals based on similar models found in Rome from the time of Augustus, particularly in the Temple of Castor, along with many other distinctive Roman features that are rare in the East.<sup>109</sup>

To the north, it is unfortunate that very little has survived from the cities of the northern Syrian coast, especially Antioch. Julius Caesar was responsible for construction in this city, where he built many structures, including a bath-building and aqueduct, a theatre, an amphitheater, and a monumental center, the Kaisar(e)ion, dedicated to the cult of Rome and its rulers. Had these buildings survived, they would have provided monuments that set the pattern for the lost buildings of Hellenistic Syria. They would also have shown the successive waves of Roman dominance, with its strong Western bias.<sup>110</sup>

The pattern of Roman impact, initiated in Antioch by Caesar, was further developed under Augustus, especially through the efforts of Herod, which likely inspired other client rulers along the frontier. This pattern was based on the introduction of new building types and techniques from both the Greek world and Italy. These innovations appear to have constituted the principal Roman contribution to architecture for the next century or so. The next turning point came in the early 2nd century. It was marked by the use of a new material, marble. This was the main contribution from Roman provincial architecture in western Asia Minor.<sup>111</sup>

In the southern part of Syria, as mentioned, the entire region east of the Jordan and south of Damascus was part of the kingdom of the Nabataeans, who continued to rule the area as client kings until its annexation by Trajan in AD 106. The Hauran region was also part of the domain of Herod and his successors. This is reflected in the rich archaeological remains of the Roman period. The most prominent surviving sites being Petra, the capital of the Nabataean kingdom, and Gerasa (Jerash), one of the cities of the Decapolis. During this time, Damascus was likely the main source of classical influence. This region experienced a wave of prosperity in the 2nd century AD. It led to a building boom that spread across the Arabian Peninsula over the next hundred years, until it was halted by military defeats and political chaos in the mid-third century AD.<sup>112</sup>

Generally, by the 2nd and 3rd centuries AD, the Roman Empire in the East had developed a cultural uniformity, which appeared in several ways, most notably expressed through

<sup>&</sup>lt;sup>109</sup> Ward-Perkins 1992, 314.

<sup>&</sup>lt;sup>110</sup> Ward-Perkins 1992, 325.

<sup>&</sup>lt;sup>111</sup> Ward-Perkins 1992, 328–29.

<sup>&</sup>lt;sup>112</sup> Ward-Perkins 1992, 329, 339.

monumental architecture.<sup>113</sup> However, it should be noted that though Roman civilization was firmly established, it remained a provincial in nature, with distinct regional characteristics. The Nabataeans, for example, developed their own impressive architectural style before Roman rule. Although the forms were derivative, the style and technical skills were unique and strong enough to leave a mark on Roman architecture in the region.<sup>114</sup>

In conclusion, significant changes took place during the 1st and 2nd centuries AD of Roman rule. They affected civic culture, architecture, burial practices, and inscriptions. These modifications were absolutely linked to the arrival of the Romans and their control over the Eastern Mediterranean, including present-day Syria.<sup>115</sup>

As the Roman Empire evolved into the Byzantine Empire, the influence of Roman architecture continued to shape the built environment. Early Christian architecture developed within the framework of Roman design. It adapted its forms and techniques for Christian purposes.<sup>116</sup> Later, during the Byzantine era, two distinct architectural styles emerged at the same time. One was closely aligned with classical Roman architecture, while the other had a stronger resemblance to Eastern architectural forms.<sup>117</sup> However, at that time, architectural styles not specifically tied to Christianity changed little since the Early Imperial era. This is evident in the well-preserved remains found in small rural towns and villages inland from the coastal plain, between Antioch and Aleppo, known as the "Dead Cities."<sup>118</sup> These sites, which supported the great classical cities, offer a clear view of what Roman civilization meant to everyday people under Roman rule in good conditions.<sup>119</sup>

A clear example of this is domestic architecture, which is notable for its large size. These buildings used the same architectural style and durable materials as public buildings. Most of the surviving houses date from the 4th to 6th centuries AD, but they follow forms that were already established during the Early Empire. These forms continued to be used in the region with little change until late antiquity. Another example is public buildings, including the earliest

<sup>&</sup>lt;sup>113</sup> Segal 2013, VIII–IX.

<sup>&</sup>lt;sup>114</sup> Ward-Perkins 1992, 339–40.

<sup>&</sup>lt;sup>115</sup> de Jong 2007, 20.

<sup>&</sup>lt;sup>116</sup> Krautheimer 1965.

<sup>&</sup>lt;sup>117</sup> Browne 1912, 29.

<sup>&</sup>lt;sup>118</sup> The region is also referred to in French as "*Massif Calcaire*" due to its limestone composition. Witakowski 2010, 295, footnote: 1. G. Tchalenko (1953) referred to it as "*Massif de Belus*." Tchalenko 1953a; 1953b; 1958. <sup>119</sup> Ward-Perkins 1992, 326.

pre-basilican churches. These represent a closely related development, both in design and in general appearance.<sup>120</sup>

This emphasizes the similarity in how the Byzantines adopted Roman architectural principles. It included the use of various elements, such as Corinthian capitals, which were adapted to new designs and conditions suited to the era.

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<sup>&</sup>lt;sup>120</sup> Ward-Perkins 1992, 326–28.

# CHAPTER TWO: STONES AND TOOLS

# 2.1 Stone in Sculpture

Rocks are categorized into three main groups with respect to their geological origin and formation processes: igneous, metamorphic, and sedimentary. Each one of these groups has various kinds of rocks with distinct physical and mechanical properties.<sup>121</sup>

Quarrying operations in Egypt began around 3100–2686 BC.<sup>122</sup> Greek sculptures primarily used limestone because it was easy to shape until the late 7th century BC. However, by the early 7th century BC, they were heavily influenced by the sculpting methods and quarrying practices of the Neo-Hittite Syrians from northern Syria.<sup>123</sup>

The interaction between the Greeks and Egypt during the 7th century BC had the main role in the transition to marble. This event prompted the Greeks to develop their quarrying methods to acquire larger blocks of stone, especially in the case of the durable material of marble. Consequently, by the end of the 6th century BC, the majority of the quarries in the Greek world were operating at full capacity.<sup>124</sup>

The Romans used all kinds of stones from geological strata in their structures. Each type was selected for specific properties such as strength, durability, and aesthetic appeal. These stones included travertine (a sedimentary stone), tufa and granite (both igneous), and marble (a metamorphic rock). This extensive use was due to their control over rich and varied geographical regions.<sup>125</sup>

Vitruvius (II. V, 6-7) provided information about various stones, clarifying their distinct qualities and characteristics. He mentioned that limestone, including travertine, is known for its resilience against stress and harsh weather conditions. It has also exceptional hardness and inherent compressive strength, which enables it to support significant loads. In addition to this structural durability, its creamy texture and light surface make it a preferred choice for both functional and decorative purposes. Because of this, it was used to decorate the facades of

<sup>&</sup>lt;sup>121</sup> Schön 2011, 1–16.

<sup>&</sup>lt;sup>122</sup> Waelkens et al. 1990, 48.

<sup>&</sup>lt;sup>123</sup> Boardman 1978, 13–15.

<sup>&</sup>lt;sup>124</sup> Waelkens et al. 1990, 55.

<sup>&</sup>lt;sup>125</sup> Strickland 2010, 6–7.

structures such as theatres and amphitheaters. However, the popularity of limestone declined when Augustus preferred marble for decorating building facades.<sup>126</sup>

On the other hand, tufa, a stone formed from solidified volcanic mud, has a relatively weak structure. It was mainly used for interior construction, such as temple platforms. This stone was easy to cut, making it ideal for covered spaces. However, due to its softness, it was unsuitable for outdoor applications, as it quickly succumbed to erosion from frost and rain.<sup>127</sup>

As for the marble, it was famous for its aesthetic appeal, which gave it a significant value. It was extensively used in decorative elements such as column capitals and in facades. The widespread use of marble became particularly notable during the reign of Augustus. This stone was sourced from local quarries when available and also imported from distant regions.<sup>128</sup>

Marble was important for its wide range of colors and patterns. Notable varieties used by the Romans and later Byzantines include *Chemtou* marble with yellow veining from Tunisia, *Chios* marble in a striking grey-blue shade from the island of Chios, *cipollino* marble exhibiting white-yellow veins sourced from the island of Euboea, and the bright white Parian marble from the island of Paros. Other sought-after marbles include Pentelic marble in a pristine white hue from Mount *Pentelikon* in Attica, the polychrome veined Porta Santa marble from Thebes, Egypt. Various marbles, such as Pyrenean, Thasian, and Proconnesus, each with unique qualities, also added to the rich variety. The names of these marbles are closely tied to the places they were sourced from.<sup>129</sup>

The stonemasons were searching for specific mechanical and aesthetic properties in stone, which led to a selection process that involved local materials and imports from distant regions. In general, stone was also classified according to their cutting hardness into six groups: very soft, soft, semi-firm, firm, hard, and cold. Roman architecture mainly relied on local stone; however, specific types of stone were imported to be used for prestigious elements like orders or facings. Identifying local stone was usually easy due to few options, but tracing marble origins required more effort.<sup>130</sup>

<sup>&</sup>lt;sup>126</sup> Pettijohn 1975, 258; Sear 1983, 83; Strickland 2010, 6-7.

<sup>&</sup>lt;sup>127</sup> Pettijohn 1975, 357; Adam 1999, 21; Strickland 2010, 7.

<sup>128</sup> Strickland 2010, 7-8.

<sup>&</sup>lt;sup>129</sup> Sear 1983, 85; Adam 1999, 21, 22.

<sup>&</sup>lt;sup>130</sup> Adam 1999, 21.

## 2.2 Exploring Stone in Syria

A diverse range of stones can be found in Syria, though sometimes in limited quantities (Figure 9). Basalt is concentrated in southern Syria, particularly in the volcanic hills of Jebel Hauran. This region forms a vast lava area to the north and extends southward to include al-Nukra and al-Lajat. Basalt here is a product of extinct volcanoes, and it is the only building material, playing a significant role in shaping architectural forms for the structures of the area. In contrast, northern Syria has a rugged, mountainous terrain with hills stretching from south to north, including Jabal al-Zawiya in the south, Jabal Wastani, Jabal al-Duweili, Jabal al-Ala, Jabal Barisha and Jabal Simeon to the north. These hills are made of limestone, known for its beautiful texture and quality, making it an ideal choice for construction. Moving east into the northeastern region, the landscape gently rolls, mostly desert, with the western part covered in black basalt. However, extracting this basalt was difficult due to its deep underground presence, which led to the use of sun-dried bricks and resulted in architectural limitations. Further east, the basalt gives way to other materials, such as limestone or gypsum, particularly in Ithriya, southeast of Jabal ash-Shubayt, and in Rusafa (ancient Sergiopolis), near the Euphrates. In the hills north of Palmyra and within Palmyra itself, the natural limestone possesses a quality akin to marble.131

Consequently, limestone dominates most of the country, while basalt is more common in the south. Along the Syrian coast, limestone and sandstone are widespread, with some scattered basalt formations.<sup>132</sup>

Sandstone and other sedimentary rocks often exhibit notable variations in quality across different layers within the same geological period. Various methods are employed to ensure the preservation of sandstone in its optimal condition during extraction. Dealing with this stone typically involves a substantial water supply and necessitates a location with abundant water resources.<sup>133</sup>

As for marble, historical texts often mention the use of local marble in certain buildings or the presence of marble quarries in various periods in Syria. However, there is no evidence of the existence of such resources of this kind of stone in the country.<sup>134</sup> The reason for this confusion could be attributed to several factors. Firstly, the quality of polishing on these stone pieces

<sup>&</sup>lt;sup>131</sup> Butler 1929, 2, 5, 6.

<sup>&</sup>lt;sup>132</sup> Day 1928; Ball 2000, 376; Major 2015, 140.

<sup>&</sup>lt;sup>133</sup> Bessac & Nehmé 2007, 33.

<sup>&</sup>lt;sup>134</sup> Mango 1978, 6; Greenhalgh 2016, 161.

might have created an illusion, leading observers to perceive them as marble. Secondly, individuals viewing these structures might have lacked sufficient knowledge about different types of stones. Thirdly, there could have been a tendency to label prestigious buildings as marble palaces. Finally, it should be noted that the modern definition of marble is not applied on any type of stone in Syria. Seemingly, the other stones were carefully polished to give them a marble-like appearance.<sup>135</sup>

Many sculptural and architectural elements made of granite and marble have been found in Syria. The origin of many of these elements was determined, such as granite from Egypt and Anatolia, and marble from various sources.<sup>136</sup> Archaeological evidence shows that marble was brought into the eastern Mediterranean starting from around the 3rd century BC. The amount of marble imported varied over time. The highest distribution was during the Roman period in the 2nd century AD, with a decrease in the 4th century AD, followed by a slight increase in the 5th century AD during the Byzantine period.<sup>137</sup>

Much of the marble used by the Romans in ancient Syria was reemployed in later periods, such as in structures from the Byzantine and Islamic eras in Syria.<sup>138</sup>

The distribution of stone greatly affected the building materials used in the architecture of various regions. In northern Syria, where the limestone massif is found, local communities commonly used limestone in their construction. This is seen in the Dead Cities of northern Syria. All buildings and architectural elements there were constructed using locally sourced limestone.<sup>139</sup> Meanwhile, the people of the south relied on the dominant basalt stone in the area for almost all construction.<sup>140</sup>

Consequently, since Corinthian capitals are among the architectural elements found in these areas, it is logical that the availability of stone influenced the material used to carve them (Figure 10). This is evident in the spread of known provenance Corinthian capitals in Syria, as shown on the Map in Figure 11. Limestone Corinthian capitals are rarely found in southern Syria, whereas they are predominant in the northern and coastal parts. On the other hand, marble capitals are scattered across Syria, mainly along the coastline and in some of the main

<sup>&</sup>lt;sup>135</sup> For details, see: Greenhalgh 2016, 160–65.

<sup>&</sup>lt;sup>136</sup> Genequand 2008, 263; Hirt 2021.

<sup>&</sup>lt;sup>137</sup> Taelman 2022, 855–56.

<sup>&</sup>lt;sup>138</sup> Greenhalgh 2016, 160.

<sup>&</sup>lt;sup>139</sup> Tchalenko 1953b; 1953a; 1958.

<sup>&</sup>lt;sup>140</sup> Wright 1985, 1:337–38; J.-M. Dentzer 1985a; 1985b; al-Maqdissi et al. 2010; Segal 2008.

cities, and this pattern is associated with various factors.<sup>141</sup> As a result, this reflects how the availability of natural stone influenced the choice of materials used to produce Corinthian capitals across the country.

# 2.3 Stone Carving Tools

When exploring the cultural significance of stones, it is essential to consider the tools used for working on them. While early humans relied on raw stones for shelter construction, the Greeks and later the Romans demonstrated remarkable proficiency in stonework. Their innovations in stone cutting and carving tools continue to be utilized by stonemasons today.<sup>142</sup>

Stone carving techniques are similar worldwide and throughout history. Similarly, the basic carving tools can be found in most traditions, with minor differences based on region and era. Choosing the tool depends on the process of the carver, the desired result, and expertise. Stone type is also crucial as it influences these instruments selection depending on geological factors, where some of them disappear in regions lacking specific stone types. While geological factors affect regional instruments differences, chronological variation is less obvious. Some of the tools can be identified through reliefs and sculpture marks, focusing on their application and effects.<sup>143</sup>

Unfortunately, no stone carving tools have been discovered in Syria. All that remains are traces left by these tools on the stone surfaces, as will be demonstrated later. These marks were not removed by the sculptors, whether intentionally or unintentionally.

Many researchers and studies have focused on analyzing these tools used in stone carving. Their characteristics, such as type, size, and function, are flexible, and some can be used for different purposes beyond their original design. These tools can be categorized into three main types based on their function and operation.<sup>144</sup>

## 2.3.1 Percussion Tools

Percussion tools play a crucial role in nearly all stages of the stone carving process, except for polishing. This category can be divided into two sections. The first one includes those that directly strike the stone, such as picks and axes. The second section comprises tools that receive

<sup>&</sup>lt;sup>141</sup> For more information on marble capitals, see: Chapter 6.1.

<sup>142</sup> Adam 1999, 32.

<sup>&</sup>lt;sup>143</sup> Rockwell 1993, 3; Wootton et al. 2013, 1.

<sup>&</sup>lt;sup>144</sup> Rockwell 1985; 1987; 1989; 1990; 1991; 1993; Rockwell et al. 2008; Bessac & Nehmé 2007; Bessac et al. 1988; Bessac & Francovich 1993; Bessac & Nehmé 2007; Pfanner 1989; Boschung and Pfanner 1988; Wootton et al. 2013; Dinsmoor & Camp 1984, 10.

the impact from a hammer, transferring the force to the stone; these are referred to as indirect percussion tools. Within this category, there are various types of chisels, including the point, tooth chisel, flat chisel, roundel, and channeling tool.

#### 2.3.1.1 Direct Percussion Tools

#### Pick and Axe

The pick has one or both cutting edges shaped like a point. If the cutting edge resembles a flat edge parallel to the shaft, it takes the designation of a wood-cutting axe. Alternatively, when the flat cutting edge is perpendicular to the shaft, it is known as an adze (Figure 12).<sup>145</sup>

It comes in two variations. The initial type, known as the quarry pick, is large and tailored for quarry-related tasks. This pick has a wooden handle measuring 70-80 cm in length, and it serves in quarrying processes, as well as squaring blocks and hollowing out sarcophagi.<sup>146</sup>

In the Roman Empire period, a heavier version of the quarry pick seems to have been adopted compared to its earlier ones.<sup>147</sup> Although it allowed the quarryman to work more swiftly and with greater impact, it also led to a notable rise in waste within an already exceptionally wasteful process.<sup>148</sup>

The second type is specifically designed for working with soft rocks. It shares the same shape as the first, but is smaller, with a handle typically measuring between 30-40 cm. This one is known as the sculpture's pick, and it offers greater ease of use for sculptors and carvers (Figure 13). Its cutting edges may be parallel or perpendicular to the shaft, similar to the larger tool mentioned earlier, or it may have two different cutting edges on both sides. In the latter case, it is referred to as a kivel or stone-mason's axe. This dual arrangement of cutting edges is very useful for construction, as it gives the stonemason access to either shape when needed. The extent of usage of this type of the pick during Roman times remains uncertain, but it found widespread application on marble and granite in Medieval Italy.<sup>149</sup>

Using a smooth blade when working with hard rock can cause the edge to chip or dull. Percussion is most effective when using a toothed cutting edge, which can be applied on both

<sup>&</sup>lt;sup>145</sup> Blagg 1976, 157–58; Wootton et al. 2013, 6.

<sup>&</sup>lt;sup>146</sup> Bessac 1986, 14–24; Rockwell 1993, 32–32, 66; Wootton et al. 2013, 2.

<sup>147</sup> Fant 2008, 129.

<sup>&</sup>lt;sup>148</sup> Röder 1971, 269; Attanasio et al. 2009, 326; Wootton et al. 2013, 2.

<sup>&</sup>lt;sup>149</sup> Rockwell 1993, 40; Adam 1999, 43–44; Wootton et al. 2013, 2.

hard and soft rock. The toothed cutting edge may have flat teeth, a bush-hammer, or pointed teeth.<sup>150</sup>

### 2.3.2.2 Indirect Percussion Tools i. Wedge

This tool is used alongside a pick during the quarrying process.<sup>151</sup> It is made of either wood or metal, and they primarily serve the purpose of separating and splitting stone.<sup>152</sup>

In terms of their operation, the wedges are inserted into holes drilled into the stone piece earmarked for separation. These wedges are then hammered until the stone piece separates from the parent block. Wooden wedges are too weak to break the stone directly, so they are first placed in rectangular holes drilled with a point (Figure 14) and then soaked in water. As the wood absorbs moisture and expands, it exerts pressure, causing the stone to split along natural bedding lines or faults (Figure 15).<sup>153</sup>

#### ii. Chisel

There are different types of chisels based on the shape of their ends:

#### Point

The point is a metallic chisel comprised of a 20-30 cm long shaft with a diameter ranging from 1 to 2.5 cm, terminating at one end with a pyramidal point.<sup>154</sup> On the opposite end, the point chisel may have a flat or round tip. This tool is employed to strike the stone with a hammer. The length of the end of the point varies based on the material it is used on, with a tendency for elongation in marble and limestone, and a sharper form for granite (Figure 16).<sup>155</sup>

This tool is considered the simplest and most multifunctional iron tool for the mason. It is the basic tool used for many carving tasks, especially roughing out and shaping. Approximately 85% of the stone removed during the statue-carving process is accomplished with this tool.<sup>156</sup>

The results with the tool vary depending on both the type of stone and how it is applied (Figure 17). For shattering a tough stone like granite, the point is positioned vertically on the surface

<sup>&</sup>lt;sup>150</sup> Adam 1999, 49.

<sup>&</sup>lt;sup>151</sup> Rockwell 1993, 34–35, 55 (Drawing 1); Wootton et al. 2013, 3.

<sup>&</sup>lt;sup>152</sup> For examples made of metal from Roman Period from Granite quarries at Flesberg, see: Bruno 2002c; Wootton et al. 2013, 3.

<sup>&</sup>lt;sup>153</sup> Rockwell 1993, 34; Wootton et al. 2013, 3.

<sup>&</sup>lt;sup>154</sup> For Roman examples from the Felsberg granite quarries, see: Bruno 2002b.

<sup>&</sup>lt;sup>155</sup> Bessac 1986, 108–15; Rockwell 1993, 39–40, 57 (Drawing 3); Wootton et al. 2013, 3.

<sup>&</sup>lt;sup>156</sup> Blagg 1976, 159; Rockwell 1993, 39; Wootton et al. 2013, 3.

of the stone. If used at a shallower angle, striking the chisel will make it rebound off. For marble, applying the point vertically helps remove a large amount of stone or square the block. When used at a shallower angle (around 70 degrees or less), it allows for finer carving, where, in this application, the point chisel cuts into the surface rather than shattering it. To rapidly remove large amounts of material, the point chisel is used in successive strokes, lifting it between each stroke to create a series of short grooves across the surface. This technique sometimes referred to as the "mason's stroke". On the other hand, working at a shallower angle, about 45 degrees, without lifting the point between strokes creates controlled parallel lines to shape the figure. This technique is commonly referred to as the "sculptor's stroke."<sup>157</sup>

The point chisel is designed to suit the specific characteristics of the stone it is meant for. As a result, the point used on limestone differs from that made for marble. It features a wider cutting edge typically measuring 0.5 cm in length.<sup>158</sup> The reason for this difference is that the wider edge is more suitable for softer stones that may break when worked with a point chisel. This particular point chisel is commonly referred to as a limestone point or punch.<sup>159</sup>

Distinguishing marks created by axes from those made by chisels can often be challenging. In general, axes tend to produce more irregular marks compared to the corresponding shapes created by chisels. Consequently, axes are typically employed for rougher shaping or squaring, as opposed to the more precise work done with chisels. The extent of axe usage in Roman times remains uncertain due to difficulties in identifying the specific marks they left behind. While it is unclear if axes were used in marble carving, marks similar to those made by axes can be found on carved limestone and sandstone objects in North Africa and the Levant.<sup>160</sup> These stones were prevalent materials for construction and sculpture in these regions (Figure 18).<sup>161</sup>

<sup>&</sup>lt;sup>157</sup> Rockwell 1993, 39; Wootton et al. 2013, 3.

<sup>&</sup>lt;sup>158</sup> For a range of historical examples, see: Petrie 1917, pl. XXII; Wootton et al. 2013, 4.

<sup>&</sup>lt;sup>159</sup> Rockwell 1993, 40; Wootton et al. 2013, 4.

<sup>&</sup>lt;sup>160</sup> Marks of the punch can be seen on the rear sides of many limestone reliefs in Palmyra, see: Colledge 1976, 110; Wootton et al. 2013, 4.

<sup>&</sup>lt;sup>161</sup> Wootton et al. 2013, 6.

#### **Tooth Chisel**

The tooth chisel is a metal tool with a shaft range from 16 to 22 cm and a diameter between 1 and 2 cm. At one end, it has a tooth cutting edge, with a width ranging from 0.5 to 10 cm, and a variable number of teeth, typically 3 to 4 teeth (Figure 19).<sup>162</sup>

If applied at an angle ranging from 35 to 60 degrees to the stone surface, these chisels create distinct groups of shallow and parallel lines. While when used nearly at a right angle, they cut more deeply into the stone, resulting in less regular marks.<sup>163</sup>

The shape of the teeth of the chisel also influences the marks it leaves. Whether they are pointed or squared impacts the form imprinted on the stone surface during use.<sup>164</sup>

The tooth chisel had various applications. Sometimes it was used for rough shaping of stone, but it was mainly utilized between the roughing-out and finishing stages. Its primary function, however, was to remove the rough marks left by the point chisel, preparing the surface for further refinement. While it was not typically used for cutting or smoothing, it bridged the gap between these stages. In certain instances, during the Roman period, sculptors exclusively relied on this tool to refine surfaces, and therefore, there was no need for additional smoothing and polishing.<sup>165</sup>

As mentioned earlier, the selection of tools for carving is greatly influenced by the type of stone. While the tooth chisel is suitable for marble carving, it is strictly avoided in granite carving due to the hardness of this stone, which could lead to the breakage of the teeth of the chisel. In the case of softer stones like sandstone and limestone, there are instances where the tooth chisel was employed, while at other times, sculptors would transition directly from using the point chisel to the flat chisel, skipping the tooth chisel stage.<sup>166</sup>

Traces of this tool are visible on the surface of several Corinthian capitals in Syria, such as Cap.270. It is clear that the tool was used to finish the surface, and there was no intention of doing any other additional work afterward (Figure 20). Similar signs can also be seen on Cap.179 (Figure 21). However, a comparison between the two shows that the tooth chisel used

<sup>&</sup>lt;sup>162</sup> Kown as claw chisel in the United Kingdom, "*dente di cane*" in Italian, and "*dent de chien*" in French, which translates to dog-tooth chisel. See: Bessac 1986, 140–41; Rockwell 1993, 40–41, 58 (Drawing 4); Wootton et al. 2013, 4.

<sup>&</sup>lt;sup>163</sup> Wootton et al. 2013, 4.

<sup>&</sup>lt;sup>164</sup> Bessac 1986, 138–48; Wootton et al. 2013, 4.

<sup>&</sup>lt;sup>165</sup> Wootton et al. 2013, 4.

<sup>&</sup>lt;sup>166</sup> Blagg 1976, 163; Wootton et al. 2013, 4.

on Cap.179 had finer teeth than the one used on Cap.270. In contrast, the traces on Cap.383 indicate that a chisel with more widely spaced teeth was employed (Figure 22). This suggests that its use was limited to a preparatory stage, and that the work remains unfinished, which is clearly the case. It appears that sculptors in the Byzantine period also relied on this tool to refine surfaces, often without the need for additional smoothing or polishing. In summary, these examples confirm that this tool was used for both roughing-out and finishing the stone surface.

#### **Flat Chisel**

A flat chisel is composed of a shaft ranging from 15 to 25 cm in length and 1 to 2 cm in diameter. Its cutting edge is situated perpendicular to the shaft line, flat, sharpened, with a width ranging between 0.5 and 10 cm (Figure 23).<sup>167</sup>

The various profiles of cutting-edge corners affect their utility in different ways. Rounded corners prevent snagging during precise work, while square and sharpened edges are preferred for precise detail work, particularly in cutting the letters.<sup>168</sup>

This chisel is versatile and works at various angles, typically between 35 and 60 degrees to the stone surface. Its use is influenced by different factors such as the type of stone and the goal of the sculptor, whether for smooth finishing or quick shaping. It may leave no visible marks on the stone surface if it is used carefully, or it may create smooth and parallel lines when applied intentionally. The flat chisel is highly adaptable and can be used for tasks such as precise shaping, detailing, and smoothing surfaces. Additionally, it serves as a finishing tool to refine backgrounds and sometimes surfaces on structures (Figure 24). It generally follows the tooth chisel in carving and often provides the final surface finish.<sup>169</sup>

#### **Roundel Chisel**

Roundel Chisel is known as the round-headed chisel or the bullnose chisel. While it shares a basic shape with a flat chisel, the key distinction lies in its curved cutting edge rather than a flat one (Figure 25).<sup>170</sup>

This tool comprises a shaft ranging from 12 to 25 cm in length and 1 to 2 cm in diameter. Its cutting edge has a range of curves, from semicircular to barely noticeable. It is made of metal with a handle and is typically struck at an angle between 35 and 60 degrees onto the stone

<sup>&</sup>lt;sup>167</sup> Blagg 1976, 163; Bessac 1986, 121–37; Rockwell 1993, 42–43, 59 (Drawing 5); Wootton et al. 2013, 4–5.

<sup>&</sup>lt;sup>168</sup> On the carving of inscriptions, see: Grasby 1996; 2002; 2009; Wootton et al. 2013, 5.

<sup>&</sup>lt;sup>169</sup> Wootton et al. 2013, 5.

<sup>&</sup>lt;sup>170</sup> Rockwell 1993, 43, 60 (Drawing 6); Wootton et al. 2013, 5.

surface, similar to the flat and tooth chisels. This tool is commonly used on marble and soft stones, but never on granite.<sup>171</sup>

The roundel tool is versatile, it is great for both rough and detailed work, particularly for fine carving where sharp corners could cause snagging. Its curved shape is well-suited for creating hollows and is frequently used to add surface texture, especially on natural forms such as trees, rocks, or water. Additionally, its form makes it effective for sculpting hair or beards. At times, the roundel is used interchangeably with the flat chisel as a finishing tool on figure bodies (Figure 26).<sup>172</sup>

#### iii. Channeling Tool

The channeling tool is a specialized chisel designed for carving narrow channels (Figure 27). It consists of a shaft, typically 15-25 cm long, and a cutting edge measuring 0.5 to 1 cm. Although similar to narrow flat chisels or roundels, the distinguishing feature of this tool is the slender shaft positioned just above the cutting edge, allowing for insertion into deep crevices and recesses. This tool dates back to Roman times and was commonly used after the initial drilling process. Its main purposes included carving drapery, creating grooves in hair, and outlining figures or objects against flat backgrounds.<sup>173</sup>

#### iv. Hammer

The second category of percussion tools are given the name indirect percussion tools because their function involves being struck with a hammer (Figure 28).

Hammers are mostly made of either metal or wood.<sup>174</sup> They come in many sizes and shapes, with differences in head size, shape, and handle length. These variations are influenced by the range of stone types being worked, the specific techniques employed, and traditional practices. In addition to that, regional customs also play a role in influencing hammer designs.<sup>175</sup>

<sup>&</sup>lt;sup>171</sup> Differentiating between flat chisels with rounded corners and roundels can be challenging; however, a flat chisel can be readily transformed into a roundel if needed. Wootton et al. 2013, 5.

<sup>&</sup>lt;sup>172</sup> Wootton et al. 2013, 5.

<sup>&</sup>lt;sup>173</sup> Rockwell 1993, 44–45; Wootton et al. 2013, 5.

<sup>&</sup>lt;sup>174</sup> While the majority of stone carving hammers are fashioned from metal or wood, it is probable that early hammers were crafted from stone. On Easter Island, where mineral sources were scarce, it is likely that only hard stones were employed for carving purposes. Wootton et al. 2013, 6.

<sup>&</sup>lt;sup>175</sup> Bessac 1986, 158–71; Rockwell 1993, 32–33, 65 (Drawing 11); Wootton et al. 2013, 6.

#### 2.3.2 Abrasion Tools

Abrasion tools are the second category of tools designed to wear away stone using the principle of abrasion. This concept includes functions such as cutting, similar to a saw; smoothing and polishing, as with rasps; or even creating holes and channels, as with drills.

i. Saw

Saws were used on various types of stones and were widely employed during Roman times to create thin slabs for covering walls and floors. Additionally, saws were utilized in quarries to extract blocks from the rock face. <sup>176</sup>

Stone saws typically have long and slender metal blades. These blades are often no wider than 0.5 cm and can exceed 2 meters in length. An illustration of a saw was identified on a sarcophagus from Hierapolis in Phrygia, dating to the 3rd century AD.<sup>177</sup> The operation is usually carried out by two people pulling the saw sequentially at each end. However, smaller saws may be operated by a single worker, but only when cutting soft stones like limestone, sandstone, or tufa. Another form of mechanization dates back to Roman times, in which they used the energy of flowing water to power saws driven by water wheels. Such saws have been discovered in Ephesus and Jerash, both originating from the 5th and 6th centuries AD.<sup>178</sup> The famous poet Ausonius also wrote about the noise made by these saws in the Moselle valley of northeastern Gaul.<sup>179</sup> The blade used for soft stones is usually serrated, while for harder ones, it remains flat and is used with abrasives mixed with water. The blade cuts through by moving back and forth within this mixture, gradually grinding the stone away. As for the best material for these blades, iron is the preferred metal.<sup>180</sup>

Using saw blades on hard stone does not leave noticeable marks, resulting in a very smooth surface. Nevertheless, slight ripples may sometimes appear where the blade passed, and occasionally, distinct straight lines may also be visible (Figure 29). Smooth sawn surfaces are commonly found on sarcophagi, which are often shaped into a rectangular form before any decorative work begins. Such surfaces remain visible because they did not undergo the final stage of finishing.<sup>181</sup>

<sup>&</sup>lt;sup>176</sup> Lambraki 1982; Rockwell 1993, 45–47; Wootton et al. 2013, 7.

<sup>&</sup>lt;sup>177</sup> Ritti et al. 2007; Wootton et al. 2013, 7.

<sup>&</sup>lt;sup>178</sup> Mangartz 2010; Seigne 2002.

<sup>&</sup>lt;sup>179</sup> Ausonius 1919, 1:The Moselle, 253.

<sup>&</sup>lt;sup>180</sup> Wootton et al. 2013, 7.

<sup>&</sup>lt;sup>181</sup> Wootton et al. 2013, 7.

#### ii. Drill

The drill is one of the important mechanical tools with a rich history in stonework. Its purpose is to create a hole in stone, typically at a 90-degree angle to the surface, while maintaining a consistent diameter throughout its entire depth.<sup>182</sup> Although it was often associated with marble carving in the 2nd century AD, the drill existed before the Roman imperial period. It was used during the Classical and Hellenistic periods, as well as throughout the Roman era. Its use increased from the late 1st century AD onward, but this was due to changing tastes and the demand for more intricate decorative shapes with deeper relief carvings.<sup>183</sup>

The most common form of drilling in Roman times was the strap drill or cord drill (Figure 30). These two types consist of a bit, which is typically a chisel-like metal tool. This bit is fixed to a shaft connected to a wooden handle that allows it to rotate freely. The shaft is set in motion by back-and-forth pulls on a wire wound around it multiple times. One person operates the cord while another guides the drill, determining the placement of the bit and pressing the handle. The rotation speed and applied force can be adjusted. Because the operator has the freedom to use both hands for directing and applying pressure, the cord drill offers greater flexibility compared to other single-operator ones, such as the staff drill or bow drill (Figure 31).<sup>184</sup>

Drills were used for various tasks such as creating holes for dowels or metal fittings. However, their main purpose was to achieve depth in delicate areas of sculptures where a chisel might cause damage. For example, single drill was the best for adding depth to nostrils, ear holes, or curly hair in figures. Additionally, it was applied to emphasize pupils or add texture to clothing, particularly chain mail, which helps to enhance the chiaroscuro effect in the final piece. Drills were also commonly used for carving deep channels, with a series of strategically placed holes perpendicular to the stone surface. The pieces between these holes would then be removed with a fine flat chisel or channeling tool. Rows of unconnected drill holes can be seen in various Roman ruins, becoming more prevalent from the 3rd century AD onwards (Figure 32). For example, in a capital from 4th-century AD Aphrodisias, unconnected drill holes were used as decoration.<sup>185</sup>

<sup>&</sup>lt;sup>182</sup> Bessac 1986, 231–52; Wootton et al. 2013, 7.

<sup>&</sup>lt;sup>183</sup> Wootton & Russell 2013, 3. For more information, see: Palagia 2006, 253–60; Braunstein 2010.

<sup>&</sup>lt;sup>184</sup> Rockwell 1993, 36–37, 64 (Drawing 10); Wootton et al. 2013, 8.

<sup>&</sup>lt;sup>185</sup> Wootton et al. 2013, 8.

Moreover, a cord drill could be employed as a "running" drill to carve channels in stone. In this case, the craftsman would use a wooden support to guide the drill at a 35–45-degree angle, lifting it out and slightly shifting it to create a series of holes that form a channel pattern on the surface of the stone. Eutropos, the Roman sculptor, portrayed himself and an assistant employing a cord drill to refine details on a sarcophagus, as shown on his tomb stela now kept in Urbino.<sup>186</sup>

#### iii. Rasp

The rasp is a tool that looks like the modern file. It has a central shaft and a flattened end, terminating in sharp points. The length of rasps is usually between 12 and 40 cm. It is unknown whether Roman rasps had one or two ends, however, this distinction does not impact the marks they leave.<sup>187</sup>

Craftsmen typically use rasps on marble, whereas this tool is less effective on granite. They are employed to smooth the surface of the stone after using a flat or roundel chisel. Its end can take different shapes. It can be squared, rounded, or pointed, and may be flat or curved (Figure 33). This variety makes it a versatile tool, giving it the ability to move across and around intricate forms, as well as finely shape specific details. Additionally, there are many grades of rasp, some of which are used for shaping the stone, while others are specifically for smoothing. The marks left by a rasp are fine scratches that cross each other, often overlapping. In Roman sculpture, rasps were frequently used as finishing tools, because they are achieving smooth surfaces, as in the clothing and the skin of depicted figures.<sup>188</sup>

#### iv. Scraper

This tool is rarely used in carving marble sculptures from the Roman era, as it is more suitable for smoothing softer stones. It closely resembles a toothed or flat chisel, with a toothed or flatended design. Its notable feature is the curved end, which enables it to be dragged across the stone surface and leaves distinct parallel lines. These lines are very different from the crossed marks produced by a rasp (Figure 34). Scraper marks are visible on certain sections of the Ara Pacis inscriptions, though they are believed to be later additions, possibly from the Hadrianic or Late Antique periods.<sup>189</sup>

<sup>&</sup>lt;sup>186</sup> Strong & Claridge 1976, 200, fig. 327; Wootton et al. 2013, 8.

<sup>&</sup>lt;sup>187</sup> Bessac 1986, 201–9; Rockwell 1993, 47–48, 63 (Drawing 9); Wootton et al. 2013, 8.

<sup>&</sup>lt;sup>188</sup> Wootton et al. 2013, 8.

<sup>&</sup>lt;sup>189</sup> Conlin 1997, 49–50; Rockwell 1993, 48, 62 (Drawing 8); Wootton et al. 2013, 9.

#### v. Abrasives

Abrasive materials are used to achieve a very smooth finish on the surface of the stone. The process involves rubbing these materials across the surface, with water added at the same time to help remove the stone dust generated during abrasion.<sup>190</sup>

There are many kinds of abrasives, ranging from coarse materials like emery to softer options such as sandstone or pumice (Figure 35). To get a high level of polish, the craftsman starts applying the coarse abrasives and then the finer ones. The carver can choose to stop the polishing at any point. In Roman times, it was uncommon for this process to go beyond achieving a smooth matte finish, although instances of glossy polishing did exist.<sup>191</sup>

The polishing is influenced by the type of stone, as only specific stone varieties, such as marble, granite, and certain types of hard limestone, are suitable for polishing.<sup>192</sup>

#### 2.3.3 Measuring Tools

Measuring tools are typically basic instruments employed by sculptors to aid in laying out the design of the form they are carving. These tools check proportions and create the main lines of the shape (Figure 36).<sup>193</sup>

Ancient depictions of stone carving tools frequently include measuring instruments.<sup>194</sup> Among these tools are the straight edge, often marked with measurements, the set square tool, and the L-shaped tool employed to assess the angle and flatness of planes. Some of these tools can be seen in Roman reliefs depicting the tools of stone carvers.<sup>195</sup>

Calipers play a crucial role in both basic and complex measurement processes.<sup>196</sup> Sculptors use this tool to obtain measurements from a model, sketch, or set of guidelines, and then transferring them to their sculpting work and adjusting dimensions as necessary by setting multiples. Calipers are a practical and efficient tool for ensuring accurate proportions throughout the sculpting process (Figure 37). Additionally, they can be used as compasses, which enable sculptors to inscribe lines directly onto the surface of the stone.<sup>197</sup>

<sup>&</sup>lt;sup>190</sup> Bessac 1986, 262–70; Rockwell 1993, 48–50; Wootton et al. 2013, 9.

<sup>&</sup>lt;sup>191</sup> Wootton et al. 2013, 9.

<sup>&</sup>lt;sup>192</sup> Barker & Russell 2012, 88–89; Wootton et al. 2013, 9.

<sup>&</sup>lt;sup>193</sup> Rockwell 1993, 50–52, 67 (Drawing 13); Wootton et al. 2013, 9.

<sup>&</sup>lt;sup>194</sup> Examples of these depictions can be seen in: Zimmer 1982, 166–79; Bruno 2002a.

<sup>&</sup>lt;sup>195</sup> Schraudolph 1993, 176; Borriello 2002f, 510; 2002e, 511; Wootton et al. 2013, 9.

<sup>&</sup>lt;sup>196</sup> Borriello 2002a; Wootton et al. 2013, 10.

<sup>&</sup>lt;sup>197</sup> Borriello 2002c; 2002b; Wootton et al. 2013, 10.

Another measuring tool is the plumb line. It is a simple instrument that can be quickly and easily employed. The Romans used it to establish straight vertical lines.<sup>198</sup>

<sup>&</sup>lt;sup>198</sup> Borriello 2002d; Wootton et al. 2013, 10.

# CHAPTER THREE: CORINTHIAN CAPITAL

# 3.1 Definition of Corinthian Capital

The Corinthian capital is composed of various elements. The earliest mention of these parts appears in the book De architectura by the Roman architect Vitruvius (IV. I. 12), who lived between the 1st century BC and the early 1st century AD:

"If the height of the abacus is set aside, the rest of the capital should be divided into three parts, of which one should be assigned to the lowermost leaf. The second leaf should take up the middle space. The stalks (cauliculi) should have the same height; from these stalks sprout projecting leaves which take up the line of the tendrils that sprout from the stalks and extend to the very comers of the abacus. Smaller tendrils should be carved between them, in the middle of the capital underneath the flower on the abacus. The flowers on all four sides should be made as large as the height of the abacus. With these symmetries, Corinthian capitals will attain their standard."

Various terminology is employed to describe these components of the Corinthian capital in English and other languages.<sup>199</sup> To standardize terminology and streamline analysis, this study will adopt the terms shown in Figure 38. In the following discussion, each of these elements will be clarified individually and referred to as the essential elements of the Corinthian capital.

#### - Acanthus Leaves

The acanthus is a plant family comprising around thirty species, typically found in tropical and warm temperate regions. It is considered an iconic element of ancient Greek culture. The term *acanthus* itself originates from the Greek words *akantha* (meaning "thorn") and *anthos* (meaning "flower"). This likely refers to the characteristic sharp-pointed leaves of the plant, which resemble a thorny or spiky flower.<sup>200</sup>

Some scholars claim that the motif of the acanthus leaf originated from a direct imitation of leaves found in nature.<sup>201</sup> Conversely, others view the acanthus not as a conceived decorative

<sup>&</sup>lt;sup>199</sup> Amy & Gros 1979, 1:47; Dentzer-Feydy 1990, 635, figure 1; Dimitrov 2018, 92; Nassar 2014, 168.

<sup>&</sup>lt;sup>200</sup> Cooper 1987, 121; Tresidder 2011, 5; Chwalkowski 2016, 182; Gilani & Siddiqui 2021, 9, 11.

<sup>&</sup>lt;sup>201</sup> Meurer 1897, 154–57.

motif imitating nature, but rather as a product of the historical evolution of ornamental design.<sup>202</sup>

Certain researchers associate the origin of the acanthus leaf motif with the Corinthian capital and the narrative presented by Vitruvius (IV. I. 9, 10).<sup>203</sup> However, this connection is largely incorrect, as acanthus leaves were depicted in art long before the earliest examples of the Corinthian capital. This motif first appeared in Greek monumental art on burial urns and funerary steles, suggesting a distinct relationship between the plant and burial customs (Figure 39).<sup>204</sup>

Acanthus leaves have been used in art and architecture from ancient times to the present day and are considered the predominant motif in Corinthian capitals. They are regarded as one of the earliest decorative motifs in classical architecture, and their continued presence demonstrates qualities that make them attractive and valuable across different eras and contexts.<sup>205</sup>

The widespread use of acanthus leaves in architecture reached its peak during the Roman period.<sup>206</sup> Subsequently, the Byzantine period witnessed the zenith of acanthus usage, with numerous buildings adorned with acanthus motifs.<sup>207</sup> Furthermore, acanthus became integrated into the artistic traditions of the Islamic world.<sup>208</sup>

#### Symbolism and Significance

The acanthus leaf could have different psychological, emotional, and symbolic meanings. One interpretation is that it symbolizes resurrection and renewal. This symbolism connects to the biological characteristics of the plant, as it is a perennial that survives summer droughts and blooms again in winter, making it a fitting choice for art and architecture.<sup>209</sup>

Alternatively, spiky and barbed bushes were often seen as ill omens, associated with the realm of the underworld in Greek mythology. They were also used to prevent the deceased from returning to disturb the living. Consequently, this concept became linked with death and

<sup>&</sup>lt;sup>202</sup> Riegl 1893, 214.

<sup>&</sup>lt;sup>203</sup> Skinner 2013, 23; Gilani & Siddiqui 2021, 9.

<sup>&</sup>lt;sup>204</sup> Riegl 1893, 232; Noack 1910, 52; Homolle 1916, 17, 32; Poulsen 1920, 249–50; Rawson 1984, 35; Lee-Niinioja 2009, 17; Gilani & Siddiqui 2021, 9.

<sup>&</sup>lt;sup>205</sup> Mould & Loewe 2006, 121; Gilani & Siddiqui 2021, 8.

<sup>&</sup>lt;sup>206</sup> Minissale et al. 2019, 120.

<sup>&</sup>lt;sup>207</sup> Chwalkowski 2016, 186–87; Gilani & Siddiqui 2021, 12.

<sup>&</sup>lt;sup>208</sup> O. Grabar 1987, 212; Gilani & Siddiqui 2021, 9.

<sup>&</sup>lt;sup>209</sup> Minissale et al. 2019, 125.

mourning. This connection led to the presence of acanthus motifs in ancient Greek and Roman sculpture, often serving as a funerary symbol.<sup>210</sup>

In Christian art, the recurrent depiction of acanthus leaves adorning Corinthian capitals and other architectural features signifies the heavenly realms. However, acanthus leaves can also symbolize suffering, sin, and divine punishment in Christian beliefs.<sup>211</sup>

Finally, the acanthus evolved into arabesque art in Islamic culture, where it lost any specific symbolism.<sup>212</sup>

#### **Types of Acanthi**

The Acanthus genus includes twenty species, found across Africa, southern Europe, southern Asia, and Australia. Acanthus *spinosus* and Acanthus *mollis* were the primary species in the Mediterranean region and were the two species utilized in early architecture within this area.<sup>213</sup>

Acanthus *spinosus* originates from Greece. It follows a conventional pattern where the leaf rests on a broad base (Figure 40). In this Greek form, the middle veins of the leaf lobes do not connect with the midrib but terminate near each other at the base. These lobes are similar in size and are positioned adjacent to one another without overlapping, which creates an elegant curve. Both the midrib and accessory veins are deeply and sharply incised. The folioles are skillfully crafted, tapering to a pointed tip.<sup>214</sup> Between each pair of lobes, there is a deep circular gap referred to in German as "*die Pfeifen*," which translates to "pipes" in English (Figure 41).<sup>215</sup>

Regarding the *mollis* variety, it was the most commonly used type during the Roman era, as the Romans preferred broader, duller, and softer leaves (Figure 42). These leaves were often inflated in design and modeling, with lobes that overlap and extensively cover each other. The folioles in this type are rounded, unlike the pointed ones of the Greek variety. The interplay of light and shade in the modeling is noticeably reduced, and the middle vein typically has a deep incision or distinctive protrusion (Figure 43).<sup>216</sup>

<sup>&</sup>lt;sup>210</sup> Cooper 1987, 121; 1987, 8; Lee-Niinioja 2009, 5–30.

<sup>&</sup>lt;sup>211</sup> Chwalkowski 2016, 185.

<sup>&</sup>lt;sup>212</sup> Lee-Niinioja 2018, 4.

<sup>&</sup>lt;sup>213</sup> Minissale et al. 2019, 120; Lee-Niinioja 2009, 11; Gilani & Siddiqui 2021, 10.

<sup>&</sup>lt;sup>214</sup> Uhde 1871a, 86; 1871b, 177.

<sup>&</sup>lt;sup>215</sup> Riegl 1893, 215.

<sup>&</sup>lt;sup>216</sup> Uhde 1871a, 86; 1871b, 177; Meyer 1994, 42–44.

The Acanthus motif underwent further development and became more varied. Transformations began to appear in acanthus leaves during the late Roman and early Byzantine periods, resulting in the unique acanthus leaves seen in Byzantine art.<sup>217</sup> A significant change in acanthus leaves is the formation of a more timid form, with lobes elongating into pointed folioles, while the leaves appear pressed against the body of the capital. The folioles no longer appear firmly attached to the entire leaf. They take on an independent significance, as if belonging to separate leaves, often meeting at their tips. As a result, the three-dimensional acanthus leaf seen in ancient capitals gradually becomes flat decoration, without any structural tendencies (Figure 44).<sup>218</sup>

There are also additional varieties of acanthus leaves in terms of design, such as smooth acanthus leaves and wind-blown leaves.

#### **Smooth Acanthus Leaves**<sup>219</sup>

Some researchers do not regard these leaves as modified acanthus leaves but argue that they represent a distinct type of leaf emerging as a separate decorative motif (Figure 45).<sup>220</sup> For instance, W. von Alten suggests that this feature, in most instances during antiquity, derived from aquatic plant leaves, in German "*Wasserpflanzenblätter*," which evolved from the ornamentation of Egyptian lotus leaves, as seen in the capital of the Monumental of Lysicrates (334 BC).<sup>221</sup>

Other researchers confirm that these leaves represent unfinished acanthus.<sup>222</sup> Kautzsch defines them as acanthus leaves in their basic form.<sup>223</sup> Similarly, Pensabene sees capitals with such elements as incomplete, since they lack finishing details and are smooth without carvings.<sup>224</sup> Thus, these researchers consider the leaves to be unfinished acanthus.

The earliest examples of this style of leaf can be traced back to Arak il-Emir as early as the 2nd century BC.<sup>225</sup> However, the first distinct shift from toothed acanthus to plain patterns on

<sup>&</sup>lt;sup>217</sup> For more information about the different types of capitals and acanthus leaves from 4th to 6th centuries in the Byzantine Empire, see: Niewohner 2021, 15–115.

<sup>&</sup>lt;sup>218</sup> von Alten 1913, 8, 59.

<sup>&</sup>lt;sup>219</sup> It is also referred to as "*plain leaves*", see: Maver et al. 2009, 132. And also called "Full leaves", or "*Volle Blätter*" in German, see: Kautzsch 1936, 22.

<sup>&</sup>lt;sup>220</sup> Butler 1929, 237; Dimitrov 2018, 91.

<sup>&</sup>lt;sup>221</sup> von Alten 1913, 16.

<sup>&</sup>lt;sup>222</sup> Kahwagi-Janho 2017, 86.

<sup>&</sup>lt;sup>223</sup> Kautzsch 1936, 22.

<sup>&</sup>lt;sup>224</sup> Pensabene 1986, 324.

<sup>&</sup>lt;sup>225</sup> Butler 1929, 237.

Corinthian capitals occurred during the Augustan period, with similar instances also seen during the Tiberio-Claudian period. This form became a unique architectural ornament during the Flavian period, and by the 2nd century AD, it had firmly established itself as a distinct type.<sup>226</sup>

There are various opinions regarding the reasons for adopting this type of decoration in capitals. Some researchers suggest that it has been used since the 1st century AD on sides where it was not meant to be directly visible, either fully or partially, as the details could not be distinguished from a distance. Examples of capitals reflecting this practice, dating to the mid-3rd century AD, are found in the Augustus, Nerva, and Trajan Forums in Rome, as well as on the short side of the Arco degli Argentari portico in the *summa cavea* of the Colosseum.<sup>227</sup>

An alternative view proposes that their use on capitals was driven by the need for a quicker production process, which aimed to save time.<sup>228</sup> Additionally, adopting this specific form of acanthus may have been cheaper and helped save money.<sup>229</sup>

Another perspective believes that the adoption was driven by aesthetic reasons, especially in regions where capital leaves were intentionally left smooth. This trend was particularly widespread in the eastern Mediterranean during the 1st century AD.<sup>230</sup>

#### Wind-Blown Acanthus Leaves

This acanthus leaf is a modified version of the toothed one, where it gives the impression of movement (Figure 46).

Researchers have debated when this type of decoration first appeared in capitals. Initially, some scholars believed it originated in the 5th century AD, based on a collection of various capitals displaying this feature.<sup>231</sup> However, the discovery of earlier evidence has led them to propose

<sup>&</sup>lt;sup>226</sup> Kahwagi-Janho 2017, 86; Dimitrov 2018, 92.

<sup>&</sup>lt;sup>227</sup> Kautzsch 1936, 23; Pensabene 1986, 288; Dentzer-Feydy 1990, 640; Dimitrov 2018, 92.

<sup>&</sup>lt;sup>228</sup> Pensabene 1986, 288; Dentzer-Feydy 1990, 640; Kahwagi-Janho 2017, 86.

<sup>&</sup>lt;sup>229</sup> Pensabene 1986, 51; Kahwagi-Janho 2017, 86.

<sup>&</sup>lt;sup>230</sup> Dentzer-Feydy 1990, 640.

<sup>&</sup>lt;sup>231</sup> Examples were discovered in locations such as the Citadel of Simeon and al-Dana in Syria, B. Hagios Demetrios and Hagia Sophia Thessaloniki, Hagia Paraskevi (Chalkis), a cistern in Çukur Bostan from Sultan Selim, and the cistern at Tschukur Bostan from Sultan Selim in Constantinople. Strzygowski et al. 1893, 2:209; Butler 1909, II, III:41; von Alten 1913, 9; Sodini 2003, 876.

an earlier date for its appearance, at the end of the 2nd century or the beginning of the 3rd century AD.<sup>232</sup>

Regarding the origin of the wind-blown acanthus leaves, Pensabene argues that this form originated in the workshops of Asia Minor towards the end of the 2nd century AD. It was not only used on the capitals of Corinthian or composite columns, but also on other types.<sup>233</sup>

#### - Caulicoles

This element looks like a plant stem, particularly in the earliest Corinthian capitals, where it had a cylindrical shape with volutes and helices coming from it. This led scholars to compare it to a botanical stem.

# "...élément évoquant une grosse tige végétale, dont peuvent sortir les crosses médianes et/ou angulaires."<sup>234</sup>

Some scholars believe that the caulicoles in ancient Corinthian capitals serve the most important function among all the elements. They support the helices, which transfer the load from above (including the weight of the entablature) downward. Therefore, caulicoles are essential for bearing and supporting these forces, and their massive and wide shape is a logical expression of their function. However, over time, this functional role was reduced, and the caulicoles became purely ornamental.<sup>235</sup> As a result, the closer the shape of the caulicole is to its strong and distinct form, the earlier the capital can be dated.

#### - Calyx

Calyces are usually acanthus leaf elements that emerge from the top of the caulicole, if present, or directly from the calathus of the capital if caulicoles are omitted. They rise alongside the stalks of the volutes and helices to a certain elevation.<sup>236</sup> The calyx consists of two distinct parts: the inner part, which is oriented towards the central axis of the face of the capital, and the outer part, which extends towards the corners. These components work together to enhance the decorative and architectural design of the capital.

<sup>&</sup>lt;sup>232</sup> Kahwagi-Janho 2014, 21. Examples from the theater of Hierapolis of Phrygia during the Severian period (AD 193-235) have been cited, see: Pensabene 2007, 21. Further instances can be found stretching from Smyrna in the north to Cyrene in the south, traversing through Antalya, Konya, and Gerasa, see: Grabiner 1993, 631.

<sup>&</sup>lt;sup>233</sup> Examples of this style can be found in Pergé as well as on the bases of columns in the theater of Xanthos. Pensabene 2007, 252; Kahwagi-Janho 2014, 21.

<sup>&</sup>lt;sup>234</sup> Ginouèvs 1992, 2:95.

<sup>&</sup>lt;sup>235</sup> Gütschow 1923, 61–62.

<sup>&</sup>lt;sup>236</sup> Ginouèvs 1992, 2:95.

#### - *Crosses* (Helices and Volutes)

The significance of these elements is thought to lie in their role in transferring the load from the top of the abacus to the caulicole below, then to the base of the capital, and finally to the column.<sup>237</sup>

When examining Corinthian capitals, diverse terminology appears in various research studies and languages, which causes confusion due to similar terms referring to different parts of these elements and their components. Therefore, it is necessary to clarify these terms and define those employed within this dissertation.

Schlumberger referred to these two elements collectively as "crosses" in French, distinguishing those directed towards the axis of the capital's face as "crosses médianes," and those towards the corners as "crosses d'angle." The end of the stalk of the these "crosses" is termed "volutes."238 Similarly, R. Ginouèvs referred to them as "crosses" in French as well, with the inner part termed "crosses médianes" and the outer part termed "crosses angulaires."239 Kahwagi-Janho also referred to them as "crosses" in French, designating the inner section as "hélices" and the outer section as "volutes," with the end termed "enroulements."240 Weigand used the term "helices" in German to describe them both, with the inner ones called "Innenhelices" and the outer ones called "Eckhelices," and the end termed "volutes."241 Kautzsch termed them in German collectively "helices," calling them both "doppelhelices," with the inner ones termed "Innenhelices" and the outer ones termed "Außenhelices." He referred to the end of the stalks as "volutes."242 Perrault referred to each part as a "volute," distinguishing those directed towards the axis of the capital's face as "central volutes" and those towards the corners as "corner volutes." He termed the end of these volutes as "helices."243 In this dissertation, the term helices will refer to the internal parts pointing towards the axis of the capitals face and *volutes* to the external parts pointing towards the corners. The French term "crosses" includes both internal and external parts. The term spiral will be used to describe the end of both the helix and the volute, consisting of a different number of turns.

<sup>&</sup>lt;sup>237</sup> Gütschow 1923, 79–80.

<sup>&</sup>lt;sup>238</sup> Schlumberger 1933.

<sup>&</sup>lt;sup>239</sup> Ginouèvs 1992, 2:94.

<sup>&</sup>lt;sup>240</sup> Kahwagi-Janho 2014.

<sup>&</sup>lt;sup>241</sup> Weigand 1914a.

<sup>&</sup>lt;sup>242</sup> Kautzsch 1936.

<sup>&</sup>lt;sup>243</sup> Perrault & McEwen 1993.

#### Spirals of Crosses

The precise source of the spiral motif remains uncertain, with scholars primarily supporting two theories. The first suggests that the spiral originated from observations in nature, while the second attributes it to technical practices. However, it is more likely that the spiral shape first appeared in nature and later influenced art, sculpture, and architecture. In this transformation, artists refined the form, elevating it beyond its natural state to create something perfect. It is important to remember that most artistic motifs have their roots in nature and real life. The earliest uses of the spiral in art, as well as its spread across regions, remain subjects of ongoing research.<sup>244</sup>

The spiral served as a prominent feature and ornamentation in large Ionic and Composite capitals. Its form is very similar to the horn of a ram, and this gave it the title "ram's horn." There are various hypotheses regarding the symbolism behind this motif. The first one suggests that the spiral shape symbolized tree bark, positioned beneath the abacus and twisted at each end. The second hypothesis proposes that this element functioned as cushions or supports placed between the abacus and the echinus to prevent the latter from fracturing under the weight. The third theory is drawn from Vitruvius who argued that it represents the curls or tresses of a woman's hair. This motif later found its way into Corinthian capitals as well. While the Ionic order typically featured four spirals, the Composite order has eight. In the Corinthian capital, there were eight in the angles depicted by volutes, accompanied by an additional eight smaller ones represented by helices.<sup>245</sup>

#### - Calathus

The calathus is a crucial component of the Corinthian capital and forms its foundational element. Vitruvius highlighted this importance in his description of the invention of the Corinthian capital (IV. I. 9). Additionally, various theories on the origins emphasize the calathus's significance, with some scholars focusing on its shape as a key factor in understanding the development process of this capital.<sup>246</sup>

#### - Abacus

The abacus is known as the "*Deckplatte*" in German, which is translated as "cover plate" or "top plate" in English. This name reflects its role as the plate that covers the upper part of the

<sup>&</sup>lt;sup>244</sup> Newcomb 1921, 10–11.

<sup>&</sup>lt;sup>245</sup> Shaw 1852, 22.

<sup>&</sup>lt;sup>246</sup> Chapter 3.2.

Corinthian capital. It provides support for architectural elements often positioned above it, such as the architrave.<sup>247</sup>

The Corinthian capital generally features an abacus distinct from those found in Doric and Ionic capitals. Unlike the flat surfaces of Doric and Ionic abaci, it curves inward toward a decorative element at the center of each face.<sup>248</sup> However, the abacus on the oldest known Corinthian capital, from the Tholos of Apollo Epicurius at Bassae, remains a subject of debate. Different drawings of this capital depict the abacus as either concave or flat. Similar flat designs can also be found on some Corinthian capitals in later periods.<sup>249</sup>

The abacus holds significant importance in the manufacturing process of the Corinthian capital. It plays a crucial role in its dimensions and overall design (Figure 47).

The earliest reference to the ratios of the Corinthian capital can be found in Vitruvius's book (IV. I. 11-12), where he outlines these proportions and their interrelationships. Regarding those related to the abacus, Vitruvius specifies that the ratio of the diagonal width of the abacus (DWAb) to the height of the capital (HCap) should be 2:1. This indicates that the length of the abacus diameter is twice the height of the capital. Another significant ratio is the height of the abacus (HAb) to the height of the capital (HCap), which should be 1:7.

Various researchers have examined the works of Vitruvius concerning the abacus across different capitals. While some cases align precisely with Vitruvius's measurements, many others deviate, either being smaller or larger.

In his research, Perrault observed that the ratio of the abacus height (HAb) to the capital height (HCap) is not precisely 1:7, as stated by Vitruvius. Instead, he discovered that the abacus represents less than a full seventh of the height of the capital in some cases.<sup>250</sup>

M. Gütschow also found that the proportions introduced by Vitruvius apply only to a few of the capitals he studied. Nonetheless, he emphasizes the importance of the abacus, and states that it is more crucial than expressed by Vitruvius. Gütschow considers it an integral part of the Corinthian capital, more significant than the abaci in the other two types of capitals, the Ionic and Doric. He argues that this importance logically arises from the fact that the rising volutes

<sup>&</sup>lt;sup>247</sup> Delbrueck 1907, 1:159; Ginouèvs 1992, 2:83.

<sup>&</sup>lt;sup>248</sup> Perrault & McEwen 1993, 131.

<sup>&</sup>lt;sup>249</sup> The various drawings of this capital are discussed in the work of Gütschow, see: Gütschow 1923.

<sup>&</sup>lt;sup>250</sup> Perrault & McEwen 1993, 132.

must be understood solely for their function as support for its corners; otherwise, they would be useless.<sup>251</sup>

M. W. Jones also underlines the significance of this element. He managed to uncover the fundamental principles behind the design of the Corinthian order during the Imperial era and explained their importance for architecture.<sup>252</sup> Jones recognized that there are two relationships more critical than the one mentioned by Vitruvius regarding the diagonal width of the abacus (DWAb) relative to the height of the capital (HCap). The first relationship concerns the height of the capital and the distance between the opposite concave faces of the abacus on the main axes, known as the cross-sectional width of the abacus. Jones identified a consistent proportionality in this relationship, which he termed the cross-sectional rule, considering it a fixed principle. He suggested that the development of the abacus formed the initial phase in crafting the Corinthian capital. This relationship was confirmed in the majority of the abacus (DWAb) and the diameter of the column (D). It follows to the ratio DWAb = 2D, which he named the "diagonal rule."<sup>253</sup>

#### - Central Motif of Abacus

The central motif is located at the center of the abacus, aligned with the axis of the face of the capital. In the earliest known Corinthian capitals, the abacus is plain and sometimes adorned with geometric designs in paint. Drawings of the Corinthian capital from the Temple of Bassae<sup>254</sup> (Figure 48) and the capital from the Tholos of Delphi<sup>255</sup> (Figure 49) reveal that only a plant-like motif, typically a palmette, appears directly above the helices. It is positioned beneath the abacus rather than on it.

In some instances, a rosette replaces the palmette, as seen in the Corinthian Capital from the Tholos of Epidaurus (Figure 50).<sup>256</sup> Similarly, this rosette also does not reach the abacus.

The introduction of the central motif on the abacus occurred with the Monument of Lysicrates, which is regarded as the first Corinthian capital to feature a palmette at its center (Figure 51).<sup>257</sup>

<sup>&</sup>lt;sup>251</sup> Gütschow 1923, 79-80.

<sup>&</sup>lt;sup>252</sup> M. W. Jones 2000, 135–56.

<sup>&</sup>lt;sup>253</sup> M. W. Jones 1991, 94–97.

<sup>&</sup>lt;sup>254</sup> Through the work of M. Gütschow, who examined drawings from various scholarly sources, it can be noted that in each of these drawings, the abacus of the capital was decorated with painted geometric patterns. Gütschow 1923, 44–60.

<sup>&</sup>lt;sup>255</sup> Dinsmoor 1950, 211–12, figs 8–9; Chitham 2005, 34; Winter & Fedak 2006, 223.

<sup>&</sup>lt;sup>256</sup> Robertson 1929, 144; Dinsmoor 1933, 235; Boardman 1989, 138; Chitham 2005, 36.

<sup>&</sup>lt;sup>257</sup> Chitham 2005, 35.

Following this, the central motif as a rosette began to appear on Corinthian capitals.<sup>258</sup> It can be seen on the earliest known Canonical Corinthian capitals at the Olympieion in Athens (Figure 52).<sup>259</sup>

#### 3.1.1 Corinthian Capital with Essential Elements

Vitruvius provided detailed information about the essential components and precise proportions of the Corinthian capital (IV. I. 11-12). When these elements adhere to his specifications, the capital is referred to as the "*Vitruvian Corinthian capital*."<sup>260</sup> Conversely, if the elements do not conform, the capital is given a different name. Various terms are used to describe Corinthian capitals that deviate from Vitruvius's standards, which this debate will briefly explore.

Delbrueck proposes that the design of the Corinthian capital evolved during the Hellenistic period, influenced by forms from the Pre-Classical Archaic period.<sup>261</sup> Schlumberger asserts that the origins of this capital can be traced to the 4th century BC. However, the versions following Vitruvian proportions emerged only from the 2nd century BC onwards.<sup>262</sup> This style is attributed to Athenians. It likely reached Rome in the late 2nd century BC and was utilized alongside other local variations, such as the Italic Corinthian capitals and other models. The Romans extensively adopted this design, notably in monumental projects like the Forum Augustus, marking it the most widely used form of Corinthian capital in the Roman Empire.<sup>263</sup> There is still disagreement about its introduction to the East, with Weigand proposing it arrived with the Romans in the 1st century AD during the construction of the Baalbek Temple, while Schlumberger argues it originated and developed locally in the East.<sup>264</sup>

Delbrueck was the first to mention this type of Corinthian capital, referring to it as "*Einzelformen*" in German.<sup>265</sup> It has been given various names, all expressing the same concept. Kautzsch provided the most general term in German: "*Fringe Kapitelle mit vollem Apparat*," which can be explained as the Corinthian capital with all its essential elements.<sup>266</sup>

<sup>&</sup>lt;sup>258</sup> This rosette took on many forms. For information about the various forms of this rosette on Corinthian capitals from different sites in Italy dating from the first century BC, see: Perrault & McEwen 1993, 134.

<sup>&</sup>lt;sup>259</sup> Abramson 1974.

<sup>&</sup>lt;sup>260</sup> Schlumberger 1933, 285; Dentzer-Feydy 1990, 633.

<sup>&</sup>lt;sup>261</sup> Delbrueck 1907, 1:185.

<sup>&</sup>lt;sup>262</sup> Schlumberger 1933, 258, footnote: 1.

<sup>&</sup>lt;sup>263</sup> Abramson 1974, 6, 16.

<sup>&</sup>lt;sup>264</sup> Weigand 1914a; Schlumberger 1933, 316–17.

<sup>&</sup>lt;sup>265</sup> Delbrueck 1907, 1:158.

<sup>&</sup>lt;sup>266</sup> Kautzsch 1936, 5.

Terms employed to describe this type of Corinthian capital comprise:

In English, French, and German, the Corinthian capital having its essential elements was termed the *normal Corinthian capital*. Numerous examples of this usage can be found in studies and research concerning Corinthian capitals across diverse regions.

J. Dentzer-Feydy titled her article on Corinthian capitals of this variety *chapiteaux corinthiens normaux de Syrie méridionale (lère partie)*. This work focuses on this capital style in the southern Syrian region.<sup>267</sup>

In his book *Beiträge zu einer Geschichte des Spätantiken Kapitels im Osten vom Vierten bis ins Siebente Jahrhundert*, Kautzsch used the German term "*Normalkapitelle*" to characterize this form of capitals. This work examines Corinthian capitals from the 4th to the 7th centuries AD in different regions of the Byzantine Empire.<sup>268</sup>

Weigand also discussed this capital type in his German study *Baalbek und Rom. Die römische Reichskunst in ihrer Entwicklung und Differenzierung*, which examines the capitals of Baalbek and their connection to those of Rome. He also referred to it as the "*korinthischen Normalform*."<sup>269</sup>

In his study *Untersuchungen zum korinthischen Kapitell. I*, M. Gütschow utilized the same term "*Normalkapitellen.*" He discussed the capitals with this design in Italy and the impact of the original Greek forms of this capital on the introduction and evolution of Corinthian capitals in Rome.<sup>270</sup>

Schlumberger referred to this form as the "*forme normale*" within his study *Les formes anciennes du chapiteau corinthien en Syrie, en Palestine et en Arabie*. The article explores ancient forms of Corinthian capitals in the Roman provinces of Syria, Palestine, and Arabia.<sup>271</sup>

M. Maver and his colleagues also employed the term "normal Corinthian capital" to characterize the earliest capitals of this type discovered in Sirmium, as discussed in their study *Roman Capitals from Sirmium (Sremska Mitrovica, Serbia)*.<sup>272</sup>

<sup>&</sup>lt;sup>267</sup> Dentzer-Feydy 1990.

<sup>&</sup>lt;sup>268</sup> Kautzsch 1936.

<sup>&</sup>lt;sup>269</sup> Weigand 1914a.

<sup>&</sup>lt;sup>270</sup> Gütschow 1923.

<sup>&</sup>lt;sup>271</sup> Schlumberger 1933.

<sup>&</sup>lt;sup>272</sup> Maver et al. 2009.

Kahwagi-Janho in his turn outlined capitals containing all essential elements and called them as *normale* in French, providing a clear definition of their constituent parts:<sup>273</sup>

"Ces chapiteaux présentent une ordonnance «normale», soit deux rangées de feuilles d'acanthe occupant le registre inférieur, surmonté d'un registre supérieur formé par les caulicoles, les hélices et les volutes, puis l'abaque qui couronne le tout. Nous en ferons une description générale, de bas en haut, avant de signaler les points particuliers qui distinguent certains d'entre eux."

In his book *Alexandria and the Origin of Baroque Architecture*, K. McKenzie also used the term "*normal*." He distinguished it from older Corinthian capitals by highlighting the presence of a sheath known as a cauliculus, which serves as the point from which both helix and corner volutes spring.<sup>274</sup>

During his research on *The Olympieion in Athens and Its Connections with Rome*, H. Abramson also identified it as the "*normal Corinthian capital*." He investigated the relationship between these capitals from the Olympieion building, and those of similar type in Rome, and their significant role in spreading this architectural style in Rome.<sup>275</sup>

R. Ginouèvs adopted the term "normal Corinthian capital" to refer to these capitals, regardless of their configuration. He clarified that any capital lacking one of these elements does not meet the criteria for this designation. For instance, the capital adorning the Monument of Lysicrates qualifies as normal Corinthian, whereas the one atop the Tholos of Epidaurus, due to its absence of a caulicoles, it does not qualify for the label of normal.<sup>276</sup>

Other scholars, like D. M. Poljak, and Botić have also employed the term "normal Corinthian capital" in their research about Roman capitals in Croatia to characterize such capitals.<sup>277</sup>

In his research about the Mausoleum of Germanus in Gerasa, titled *A Stage of Corinthian Order Development at Gerasa: An Analysis of the Mausoleum of Germanus*, Dimitrov utilized the term "*Korinthische Normalkapitelle*" in German to denote those found in the structure.<sup>278</sup>

<sup>&</sup>lt;sup>273</sup> Kahwagi-Janho 2014, 323.

<sup>&</sup>lt;sup>274</sup> McKenzie 1996, 115.

<sup>&</sup>lt;sup>275</sup> Abramson 1974.

<sup>&</sup>lt;sup>276</sup> Ginouèvs 1992, 2:95–96.

<sup>&</sup>lt;sup>277</sup> Poljak 2018; Poljak & Botić 2018; 2017.

<sup>&</sup>lt;sup>278</sup> Dimitrov 2016.

Alongside the term normal Corinthian capital, certain researchers have also introduced a synonymous phrase: "*the classical Corinthian capital*." M. Gütschow applied the term normal to characterize the Corinthian capital that encompasses all essential elements. However, he also referred to this form of Corinthian capital as the "*klassischen korinthischen*" in the same article mentioned before, *Untersuchungen zum korinthischen Kapitell. I* in German, emphasizing its significance in the evolution of Corinthian capitals in Rome.<sup>279</sup>

Kautzsch also used this term in German multiple times in his book *Kapitellstudien: des klassischen korinthischen Kapitells*.<sup>280</sup> The term can also be found in English studies, such as in an article by Dimitrov, where he highlights that one of the capitals under examination is a precise replica of the classical Corinthian capitals from the Roman imperial era.<sup>281</sup>

In his work Early Churches in Syria (4th to 7th Centuries AD), Butler investigated early churches in Syria. He noted that most of the capitals discovered bore a resemblance to the classic Corinthian style only in terms of overall layout and proportions, not in their specific design. Consequently, he also adopted this terminology.<sup>282</sup> He noted, "*The commonest type has the general proportions and parts of a regular Classic capital; but the details are left uncarved.*"

This terminology is also present in the research of certain scholars investigating Corinthian capitals, such as in an article by A-B Yalçin titled *Some Recent Early Byzantine Sculptural Finds from Tarsus*. In this article, he references some capitals with all essential elements from Tarsus and labels them as capitals of the classical Corinthian type.<sup>283</sup>

Another term utilized to depict this type of Corinthian capital is "*the Original Corinthian capital*." This designation was discovered in a singular work focusing on capitals featuring interlocking helices.<sup>284</sup>

Finally, the last term used to refer to the Corinthian capital with its essential elements is the *canonical Corinthian capital*. The researcher Ronczewski was the first to employ this term alongside "*normale*" in French:

<sup>&</sup>lt;sup>279</sup> Gütschow 1923, 71, 73.

<sup>&</sup>lt;sup>280</sup> Kautzsch 1936, 65.

<sup>&</sup>lt;sup>281</sup> Dimitrov 2018, 91.

<sup>&</sup>lt;sup>282</sup> Butler 1929, 235, 237.

<sup>&</sup>lt;sup>283</sup> Yalçin 2004, 61.

<sup>&</sup>lt;sup>284</sup> Nassar 2014, 168.
"L'art romain, outre le type normal et canonique du chapiteau corinthien, dont les règles nous ont été décrites par Vitruve, employait une quantité considérable de chapiteaux variés qui jadis couronnaient les colonnes, les piliers ou quelques socles décoratifs."<sup>285</sup>

In this dissertation, the term canonical is preferred over previously mentioned terms by other researchers because it clearly signifies that the described Corinthian capital comprises essential and canonical elements. While terms like classical and original were rarely used, normal was common among researchers studying Corinthian capitals with complete essential elements, particularly in French, German, and Italian literature. However, in the English language, some researchers who adopted it used parentheses to identify it, suggesting doubts about the validity and strength of this term.

## 3.1.2 Corinthian Capital with One or More Missing Essential Elements

The essential elements of the Corinthian capital vary in form across different examples, historical periods, and regions. It is not uncommon for one or more of these elements to be missing. As a result, researchers have categorized capitals with similar designs and given them distinct names to create typologies that aid in their study.

Any Corinthian capital missing one or more essential elements cannot be classified as a Canonical Corinthian capital.<sup>286</sup> As a result, numerous labels have been invented to describe Corinthian capitals that lack these essential elements. One such term is "Corinthianizing capital." Maver and his colleagues explained that this refers to a capital that imitates the Corinthian style but is a simplified version. They used this term for Corinthian capitals with only one row of four acanthus leaves, instead of the usual eight.<sup>287</sup>

The second term used is "Free Corinthian capital." R. Newcomb noted that by the 2nd century AD, craftsmen began favoring freer versions of Corinthian capitals. These newer designs often lacked some of the essential elements of the Canonical ones.<sup>288</sup> Poljak has also applied this term in his research to describe Corinthian capitals from which one or more elements are removed. He referred to capitals that lack the calyx, volute, and helix as "*freely designed Corinthian capitals*."<sup>289</sup> Additionally, in another paper, Poljak and her colleague described a capital lacking

<sup>&</sup>lt;sup>285</sup> Ronczewski 1923, 115, footnote 1.

<sup>&</sup>lt;sup>286</sup> Ginouèvs 1992, 2:95–96.

<sup>&</sup>lt;sup>287</sup> Maver et al. 2009, 120, 129.

<sup>&</sup>lt;sup>288</sup> Newcomb 1921, 56.

<sup>&</sup>lt;sup>289</sup> Poljak 2018.

the caulicole with the name "*free-style Corinthian capital*."<sup>290</sup> Ginouèvs also utilized this term, and he stated that when the calyx, volute, or helix are deleted, the capital is termed "*free*." However, in his opinion, if only the calyx is deleted, the capital is referred to as "*a partially normal capital*."<sup>291</sup>

Another designation for this type of capital is the "*heterodox capital*." It was employed by J. Dentzer-Feydy to describe capitals where one or more components constituting Canonical Corinthian capitals are absent. She says: "...*parce qu'un ou plusieurs des éléments constituants des chapiteaux dit «normaux» leur manquent*..."<sup>292</sup>

In conclusion, while different terms have been used to describe Corinthian capitals with missing essential elements, it remains challenging to classify them accurately and precisely. However, the simplest, clearest, and most comprehensive method to describe such capitals is by using the prefix *non*-. Therefore, the most appropriate term for them would be the *non-canonical Corinthian capital*. This practice ensures avoiding any naming overlaps, either among different researchers or various types of Corinthian capitals.

Finally, it is worth noting that besides the option to remove one or more elements from Corinthian capitals with complete elements, it is also possible to add various elements to these capitals. In this scenario, the name of the Corinthian capital type remains unaffected.

# 3.2 Origin of Corinthian Capital

The Corinthian capital has been in use for nearly 2,500 years and remains common today. Its significance has led to ongoing research and debate among scholars, who persist in investigating the truth behind this important architectural feature.

The earliest surviving examples indicate that the architectural deployment of Corinthian capitals begun in the Peloponnese (Figure 53). By the 3rd-4th century BC, these capitals had spread to Attica and beyond, eventually becoming widespread throughout the Greek world. It was initially used internally by the Athenians in Attica, who later applied it outdoors. The earliest known example of this external use can be seen in the Lysicrates Monument in Athens (335-334 BC) (Figure 54).<sup>293</sup>

<sup>&</sup>lt;sup>290</sup> Poljak & Botić 2018, 200.

<sup>&</sup>lt;sup>291</sup> Ginouèvs 1992, 2:96.

<sup>&</sup>lt;sup>292</sup> Dentzer-Feydy 1990, 633.

<sup>&</sup>lt;sup>293</sup> Abramson 1974, 6.

Today, this structure is recognized as the earliest known example of a Corinthian capital used outside its place of origin. However, previous buildings with this capital from other regions or periods may have existed.

The key question is about the origin of the Corinthian capital and how it emerged in Greek art and architecture. There are many hypotheses on this topic, presenting various perspectives based on the available evidence.

The earliest reference to the origin of the Corinthian capital is found in the writings of Vitruvius (IV. I. 9, 10). In his work, Vitruvius tells the story of the origin of the capital. He credited its creation to the bronze artisan Callimachus. According to Vitruvius, Callimachus saw a poignant scene while walking one day. On the grave of a recently deceased girl, he saw a basket arranged carefully with some of her belongings and covered by a square tile. At the base, acanthus leaves elegantly enveloped the basket. Callimachus was moved by this sight, and he drew inspiration from it to design the Corinthian capital (Figure 55).

Many scholars have examined the story of Vitruvius and have used it as a cornerstone in their efforts to explain the origins of the Corinthian capital. Additionally, various hypotheses and studies beyond Vitruvius's tale have emerged regarding its origin. They have investigated the factors that contributed to its development. Due to the variety of evidence used by researchers, these theories can be categorized into distinct groups.

Researchers in the first group have developed their hypotheses regarding the origin based on the core morphology of the capital. Fletcher proposes that the Corinthian capital may have been influenced by Egyptian bell-shaped capitals, with the addition of Assyrian spiral motifs (Figure 56).<sup>294</sup>

Durm supported Fletcher's concept and recognized the bell-shaped core as the origin of the Corinthian capital. He referred to it as *"Kelchkapitell"* or *"Glockenkapitell"* in German. According to Durm, this innovation was derived from ancient Egyptian capitals, which had a similar bell-shaped core and are considered the earliest known examples of this type. He strengthened his argument by presenting many examples, suggesting that the Greeks adopted the Egyptian capital design and then improved it by replacing the foliage with native plants of superior artistic quality.<sup>295</sup>

<sup>&</sup>lt;sup>294</sup> Fletcher 1905, 85.

<sup>&</sup>lt;sup>295</sup> Durm, 1910, 347.

Dinsmoor also emphasizes the importance of the core, but this time by referring to the Aeolic basket capitals found at Delphi (Figure 57). By examining these basket capitals, he highlights their role as direct predecessors to the Proto-Ionic capitals at Delphi (Figure 58). Furthermore, he identifies them as direct ancestors to the Corinthian capitals. As a result, he attributes the origin of the Corinthian capital to the basket-shaped Aeolic capitals found at Delphi, rather than those in Egypt.<sup>296</sup>

Researcher Ebeling believes that connecting the origin of the Corinthian capital to its core may hold some validity; however, it cannot be solely responsible for the emergence of this capital. Rather, it should be viewed as a supplementary factor.<sup>297</sup>

There are stronger theories based on more convincing evidence on this subject. They incorporate more significant factors, which will be discussed below. For instance, the emergence of acanthus in ornamentation played an important role in the development of the Corinthian capital, where it had significance in funerary contexts and then transitioned into architectural elements. Moreover, the presence of cubic-shaped capitals, such as the anta capital, among some of the earliest evidence associated with the Corinthian capital does not match the bell-shaped core.

Among these theories, a group of researchers focused on the acanthus leaf itself. These scholars turned to vase-paintings to trace the origins of the Corinthian capital, and they suggested that its development was influenced by funerary practices. According to proponents of this hypothesis, there were efforts to adapt acanthus leaf motifs and incorporate them into the decoration of architectural elements from the same period, such as Phigalian and Aeolian capitals, stele capitals, and acroteria.

Scholars within this group specifically investigate the capitals in existence at that time, particularly the Phigalian capitals. They argue that this process served as the initial stage in the development of the Canonical Corinthian capital. The most notable and ancient example is found in the Temple of Apollo Epicurius in Bassae (Figure 48).<sup>298</sup>

Meurer studied acanthus leaves, exploring their evolution, various species, and their impact on Greek art. He believes that a historical analysis of ornamentation is very similar to the evolutionary processes discussed in Darwin's theories, which means that the development of

<sup>&</sup>lt;sup>296</sup> Dinsmoor 1923, 171.

<sup>&</sup>lt;sup>297</sup> Ebeling 1924, 75.

<sup>&</sup>lt;sup>298</sup> Bauer 1973, 14ff.

artistic forms has been shaped by adaptation and selection, just like biological evolution. The Greeks initially employed the natural form of the acanthus leaf in their decorative arts, this process is considered as a distinctive trait of Greek craftsmanship. Over time, alterations began to appear within these natural representations. Consequently, Meurer rejects the story of Vitruvius where he mentioned that the emergence of the Corinthian capital was just a coincidence or a quick development. Instead, he identifies analogies between the growth of using the acanthus leaf in motif and the Corinthian capital. As the ornamental use of this leaf expanded and flourished, it found its way into capitals. This marked the first stage in the development of the Corinthian capital. Additionally, all the elements of this capital from that period can be seen on steles and antefixes, and this is evident in depictions on *lekythoi*, where the shapes of the leaves closely resemble real acanthus leaves (Figure 59).<sup>299</sup>

This highlights the adaptability of the acanthus leaf to various elements, a quality that prompted artists to prefer it for many architectural features, and eventually leading to its incorporation into capitals. Thus, the development of the acanthus capitals served as the initial step in the evolution of the Corinthian capital.

The researcher Homolle supports this hypothesis in his French article *L'origine du Chapiteau Corinthien* about the origins of the Corinthian capital. He examines how the acanthus plant transitioned from a decorative natural plant to an integral part of architectural design. Initially, he focuses on the presence of real acanthus leaves in funerary contexts, as depicted in Attic white *lekythoi* paintings, which portray ceremonies related to the cult of the dead. These leaves are sometimes shown as garden plants near burial sites, or as decorations tied with ribbons at the base or positioned atop funerary steles (Figure 60). Over time, the acanthus motif evolved from its natural form into painted and carved representations on funerary stelae. Eventually, it makes its way into architecture as sculptural ornamentation, including the Corinthian capitals.<sup>300</sup>

Another scholar who relied on acanthus leaves in studying the origin of the Corinthian capital is Noack. In addition to the acanthus, he emphasizes the significance of the old Aeolic capital, which highlights the continuity of Greek art and confirms that it played a key role in the emergence of the Corinthian capital. Noack argues that the Corinthian and the Ionic capitals have the same origins. They have both evolved from the old Aeolic capital. To support his

<sup>&</sup>lt;sup>299</sup> Meurer 1897, 150–59.

<sup>&</sup>lt;sup>300</sup> Homolle 1916, 18–19.

argument, he references the anta capital discovered in Magara Hyblea, which developed from the Aeolic style (Figure 61). The developmental process is described in his German publication *Die Baukunst des Altertums*. He attempts to visualize and clarify the stages through which the capital evolved. This journey begins with the free-ending acroteria of older Greek gravestones and progresses to the incorporation of the acanthus into them. He characterizes the acanthus as a new foliage that signified a revolution in the realm of Greek art at the time.<sup>301</sup>

Researcher Poulsen also referenced the anta capital examined by Noack in Magara Hyblea, but the process leading to this capital differed. He described the anta as a palmette-crowned capital and suggested that it represents the initial stage in the development of the Corinthian capital. Poulsen outlined the progression that led to its emergence and highlighted the use of acanthus plants on columns and grave steles. Initially, these plants were tied to shafts and steles, as depicted in vase paintings from the 5th century BC (Figure 60). Subsequently, they transitioned from being tied to steles to being carved directly into the stone, alongside spirals and palmettes. This formed an integrated decorative motif. The design quickly spread to Ionic order shafts and eventually became an independent element. This concept is central to supporters of the third hypothesis when investigating the origin of the Corinthian capital.<sup>302</sup>

Riegl also leans towards this hypothesis, where he assigned a significant importance to the capitals of funerary steles and the presence of acanthus motifs on Attic lekythos. Through his discussions and research on the acanthus leaf, he proposes a hypothesis regarding the emergence of the Corinthian capital. He claims that the development of the acanthus leaf was gradual, contrary to the story of Vitruvius. After extensive analysis, Riegl concludes that the main role belongs to acanthus leaves and stele capitals, which closely resemble the Phigalian capital and should be considered essential transitional elements in tracing the origins of the Corinthian capital as a whole.<sup>303</sup>

The scholars who support the third theory turned to the Ionic capital in its various forms as a basis. The first group within this theory argues that the Corinthian capital evolved through a series of changes in motifs and decorations over time. The direct incorporation of acanthus leaves is a crucial factor, and this aligns with perspectives from previous hypotheses. However,

<sup>&</sup>lt;sup>301</sup> Noack 1910, 51–52.

<sup>&</sup>lt;sup>302</sup> Poulsen 1920, 249–51.

<sup>&</sup>lt;sup>303</sup> Riegl 1893, 227–29.

they specifically emphasize the significance of the Ionic column-neck capital as its direct precursor.

P. Pedersen suggests that the Corinthian order is not a separate architectural style but a variation of the Ionic order. The main difference is that the Corinthian capital features more intricate floral decorations (Figure 62). The main argument focuses on the Ionic column-neck capital, which was commonly used in Archaic and Early Classical Ionic architecture. He identifies it as the predecessor to the Corinthian capital (Figure 63). Pedersen maintains that changes in ornamentation influenced various architectural elements, such as the introduction of the acanthus plant. He notes that during the second half of the 5th century BC, these leaves became common decorative features with a more three-dimensional style. These leaves first appeared on acroteria and gravestones, and later on simas. He proposes that Ionic column-neck capitals underwent similar changes but acknowledges a significant difference between these and the oldest fully developed Corinthian capital, such as the one found in the Temple of Apollo Epicurius at Bassae. To close this gap, Pedersen introduces an intermediary form called the double-volute capital, which shares features with both the Ionic column-neck capital and the Bassae capital (Figure 64). These observations lead Pedersen to date the capital of the Delphi tholos earlier than that of the Temple of Apollo Epicurius at Bassae. He claims that the Bassae capital represents a transitional form between the double-volute capital and the fully developed Corinthian capital of the 4th century BC.<sup>304</sup>

Ebeling, in turn, studied all available research, drawings, and reconstructions of the Phigalian capital, found in the Temple of Apollo Epicurius at Bassae, and he recognized it as the original prototype for the Corinthian capital. He connected it to a unique Ionic capital, different from the one in Pedersen's study, called the Ionic diagonal capital. This capital was designed for corner columns where two columns meet at right angles. Ebeling contends that this design inspired Ictinus, the architect of the Temple of Apollo Epicurius, to create a new capital for the entrance of the temple. Ebeling describes how Ictinus created a bell-shaped capital with spiral-acanthus-palmette decoration. For the leaves below the capital, he indicates a single row, mostly non-acanthus. He concludes that the Phigalian capital was not a complete Corinthian capital but the starting point for the Corinthian order, which fully developed a century later in the Epidaurus capital, known for its detailed acanthus decorations by Callimachus.

<sup>&</sup>lt;sup>304</sup> Pedersen 1989, 32–40.

Additionally, Ebeling identifies the Lysicrates capital in Athens as a transitional stage between these two architectural developments.<sup>305</sup>

Finally, researchers of the fourth theory thoroughly examine the different components of the Corinthian capital to uncover its origin. One such scholar is Scahill, who leaned on the story of Vitruvius (IV, IV, 1, 9). He noted that although it was written 350 years after the invention of that capital, it could still contain elements of truth. In his analysis, Scahill focuses on three key connections within the narrative. The first is the link between funerary monuments, the calathus, and the acanthus plant. The second is the role of the artisan Callimachus. The third concerns the relationship between this capital and the city of Corinth. Scahill contends that the earliest instance had a simple design, while later versions became more complex. He describes the Corinthian capital at Tholos Epidaurus as a fully developed Greek version. By the Roman era, Scahill points out that the proportions and ornamentation followed Vitruvian principles and had become standardized. He further emphasizes that the evolution of Corinthian capitals from the Bassae capital and the Tholos of Delphi was likely not linear, and multiple lines of influence may have existed.<sup>306</sup>

# 3.3 Designing the Corinthian Capital

"This type of capital is the most complex and three-dimensional element of the classical architect's repertoire. Without some sort of system or set of guidelines it is easy to imagine that both the design and the carving of such an object would be fraught with difficulty and prone to (costly) errors."<sup>307</sup>

The size and design of the Corinthian capital and its various adornments raise questions about the manufacturing process. Unfortunately, there is no information in the historical records about the techniques used to craft Corinthian capitals. This leaves researchers constantly searching for answers. The only ancient written guide is the proportions outlined by Vitruvius (IV. I. 11-12).<sup>308</sup> Nevertheless, there are many hypotheses about how this capital was made, with researchers proposing different methods and steps.

The first attempt to understand the manufacturing process of Corinthian capital was made by Asgari in the late 1980s. Her scheme was developed based on unfinished stone blocks and

<sup>&</sup>lt;sup>305</sup> Ebeling 1924, 76-80.

<sup>&</sup>lt;sup>306</sup> Scahill 2009.

<sup>&</sup>lt;sup>307</sup> M. W. Jones 1991, 127.

<sup>&</sup>lt;sup>308</sup> M. W. Jones 1991, 89.

capitals discovered in marble quarries on the island of Proconnesus (now known as Marmara Island). Asgari used a collection of unfinished marble blocks in various stages of production, found near the village of Saraylar, to provide first insights into the manufacturing process. She suggested that these imperfect items were abandoned in the quarries because of their defects. By analyzing the different stages of these unfinished capitals, she enabled the identification of the steps involved in creating the Canonical Corinthian capitals.<sup>309</sup>

In contrast, M. W. Jones focused on proportions in his study, considering them the basis for analyzing how the capital was made. He asserted that comprehending the nature of these proportions and the factors influencing them is crucial to understanding the design and production process. However, Jones did not rely on the proportions mentioned by Vitruvius, as they were rarely observed in the capitals he studied. Instead, he proposed two fundamental rules, with particular emphasis on the abacus. The first rule is that the height of the capital is equal to the distance between the concave faces of the abacus, where the fleurons are attached. This distance is called the cross-sectional width of the abacus. The consistency of this ratio led Jones to deem it crucial for its control over dimensions. When this rule was not applied to the capitals he studied, Jones attributed the deviations to alternative design schemes or craftsmanship issues. The second rule, known as the diagonal rule, states that the distance between this condition to be secondary in importance, but clearer than the first rule.<sup>310</sup>

Researcher Toma examined a set of incised lines discovered on capitals. These lines were engraved by craftsmen on the upper surface of the stone block intended for the future capital, which influences the carving process. They serve as important markers at different stages and help re-evaluate the manufacturing of Corinthian capitals during the Roman imperial period. These lines, known as "*construction lines*," played a pivotal role in carving the prefabricated capitals. They help guide sculptors in taking dimensions and following procedural steps. They were systematically applied to components like shafts and capitals across all orders and can be found at installation sites and quarries.<sup>311</sup>

The manufacturing process of Corinthian capitals comprised two distinct stages: first, completing the half-finished capital, and second, carving the decoration. Asgari, Jones, and Toma have proposed hypotheses about the manufacturing steps of the Corinthian capital. In the

<sup>&</sup>lt;sup>309</sup> Asgari 1988.

<sup>&</sup>lt;sup>310</sup> M. W. Jones 1991.

<sup>&</sup>lt;sup>311</sup> Toma 2014; 2015.

following discussion, they will be explained, starting with the first stage of carving the Corinthian capital, shaping the half-finished capital.

#### Half-finished capital

Commencing with Asgari, who states that the process starts with a stone block arranged and shaped roughly using a quarry-block tool. The size of this block does not matter; however, its height must be smaller than its width. She described each stage, illustrating it with a drawing (Figure 65).<sup>312</sup>

The first stage begins by marking the block with working lines using charcoal or paint. These lines divide the block into five equal sections. The center of the upper surface is located by drawing a circle with a diameter equal to half the diagonal width of the upper surface (Figure 65.1). In stage two, the block is shaped into a cylindrical part based on the previously drawn circle on the upper surface. The height of this cylinder is about one-fifth of the total height of the block (Figure 65.2). This cylindrical section will serve as the base of the capital. In the third step, a second cylinder is carved above the first, with the same height but slightly swollen to resemble a torus (Figure 65.3). At this point, the stone block comprises three parts: a cylinder, a torus, and a large rectangular section. Additional lines are introduced on the block, possibly through drawing, to guide the next stage. The second stage involves the formation of the abacus profile. In step four, the upper corners of the rectangular shape are cut off, creating oblique triangular surfaces at each corner. (Figure 65.4). These triangular cuts must not meet at their bases but should be retained on a small horizontal ledge in the center of each side. All these steps are done using a pick.<sup>313</sup>

Upon transitioning to the fifth step, the block is turned over to carve the abacus outline (Figure 65.5). The upper part of the block is carved with a pick to form a distinct rectangular protrusion at the center of each side. This protrusion must align with the horizontal ledge formed in the third stage. The sixth step is part of the third stage and deals with the roughed-out layout of decorative elements. It involves elongating the rectangular protrusion to align with the horizontal ledge (Figure 65.6). However, it is crucial to note that the block is flipped again and

<sup>&</sup>lt;sup>312</sup> Asgari 1988, 115–25.

<sup>&</sup>lt;sup>313</sup> The preceding four stages outlined by Asgari were an endeavor to suggest procedural steps toward reaching the fourth stage, as no blocks were found in the quarry during those stages. The earliest archaeological evidence on the island corresponds to this fourth phase. Asgari 1988, 115–16.

placed with its upper surface facing up. This precaution prevents the lower corners of the vertical rectangle from breaking off.<sup>314</sup>

The seventh step is also part of the third stage. It focuses on the torus and cylinder from the second and third stages (Figure 65.7). Here, eight bulging parts are shaped by hollowing them out at regular intervals with a point and mallet. These elements represent the eight acanthus leaves.<sup>315</sup>

The eighth and ninth steps together form the fourth stage. In the eighth step, the block is flipped onto its base for further processing, where the attention shifts to the abacus (Figure 60.8). Then, the height of the abacus is established by incising a horizontal line with a point, which was not made during the engraving of the rectangular protrusion in earlier stages. Additionally, the upper surface of the abacus is smoothed using a claw chisel.<sup>316</sup>

In the ninth step, which is the final phase of crafting the Corinthian capital in the quarry, the emphasis is placed on the vertical rectangle or rectangular protrusion formed in the sixth and seventh stages (Figure 65.9). Here, the vertical rectangle is refined by thinning the middle to create a figure-eight shape. The upper half of this projection is then shaped with a claw chisel. This process forms a semicircular curve in preparation for the central fleuron of the abacus. This marks the end of the semi-finished capital phase. The last two stages of completing the capital, including steps 10-11-12, take place at the final destination of the capital.<sup>317</sup>

According to Jones, the carving steps also begin with the preparation of a parallel block. Since his study focuses on Italian Corinthian capitals, the initial step involves extending a tongue at the base of the block to align it with the column shaft (Figure 66). Next, the upper and lower centers, along with the perpendicular and diagonal axes are marked. Some of these marks may still be visible on unfinished capital blocks. The height of the capital is then divided to determine the levels for the rows of leaves and form protrusions for each leaf around the capital. It is worth noting that the detailing of the leaves does not commence at this stage. As the work advances, different sections are carved, beginning with the abacus at the top and then proceeding to the spirals. This signifies the half-finished stage of the capital.<sup>318</sup>

<sup>&</sup>lt;sup>314</sup> Asgari 1988, 116.

<sup>&</sup>lt;sup>315</sup> Asgari 1988, 116.

<sup>&</sup>lt;sup>316</sup> Asgari 1988, 116–17.

<sup>&</sup>lt;sup>317</sup> Asgari 1988, 117.

<sup>&</sup>lt;sup>318</sup> M. W. Jones 1991, 129.

Moving to Toma, she proposes a reconstruction of the Corinthian capital carving stages based on incised construction lines. The beginning of manufacturing and carving involves creating a roughly dressed block using a point tool. It is crucial that both its upper and lower surfaces are plain dressed and parallel to each other. This initial dressing significantly impacts the dimensions of the future capital, which must correspond to the requirements for the shaft order. The height of the block determines the maximum height of the future capital, while the measurements of its upper surface dictate the width of the future abacus. In the beginning, Toma suggests placing the block in a way that the future abacus surface is inclined towards the craftsman for defining construction lines, which are established either with a fine iron point tool, paint or tar, before actual carving begins.<sup>319</sup>

The process of applying these construction lines begins with identifying the center of the block by engraving perpendicular axes  $\alpha$  and  $\beta$  (Figure 67). The height of the capital is marked on the upper surface of the block and marked along these perpendicular axes, to form a square denoted as (a). The width of square (a) is equal to the height of the capital and the lateral width of its abacus, following the cross-section rule outlined by Jones. In the third step, the curvature of the concave sides of the abacus is incised. The diagonal width of the abacus is specified along the diagonal axes. The small segments extending from the sides of the square may serve as support constructions for cutting the concave side of the abacus. The incised lines on orthogonal axes define the dimensions of the fleuron and aid in its carving. As a final step, the dimension of the lower diameter is set on the upper surface of the base. These markings often exhibit various divisions and additional types of annotations such as dots indicating the positions of acanthus leaves and midribs. With this step, the construction lines of the abacus along with the upper and lower diameters are completed and will now serve as a guide for finishing the block.<sup>320</sup>

Before carving, the center of the upper surface must align with the bedding surface to ensure the abacus center and lower diameter center are on the same vertical axis (Figure 68). According to Toma, the carving process of the block begins from the bottom, akin to Asgari's indication. However, Toma emphasizes that while some examples show incised outlines of the abacus, it does not imply work began from the top; rather, it proceeds from bottom to top. Consequently, carving the abacus is considered the fourth step. Following this, two cylinders

<sup>&</sup>lt;sup>319</sup> Toma 2014, 90–91; 2015, 816–18.

<sup>&</sup>lt;sup>320</sup> Toma 2015, 814–16.

of different diameters are made, determining the maximum height of the bottom row of leaves. The lower row of eight leaves is divided immediately after carving the two cylinders. This differs from Asgari, who suggests dividing the lower row of leaves after shaping the upper prismatic part of the future capital. At this stage, the carved block is considered a half-finished Corinthian capital.<sup>321</sup>

## **Carving the decoration**

At this stage, various workshop tools were necessary for crafting the decoration.<sup>322</sup> These included thick and thin points, claw chisels, flat chisels, drills, narrow tooth chisels, and rasps.<sup>323</sup>

Two different methods of decoration appeared during the Roman Imperial period and likely continued into the Byzantine era. The first approach involves an intermediate stage of decoration before it reaches its final form. It is called the "*Bossenzustand*" (boss state in English). This method has two stages. The first one is shaping each decorative element into a smooth boss and then adding details in the final stage. The second approach became popular in the 2nd century AD. It involves carving the decorations of the capital in a single process from bottom to top, without using the boss stage as in the previous method.<sup>324</sup>

Regarding the work steps in this stage, Asgari highlights that in the tenth step, the block is positioned on its upper surface (Figure 65.10). Here, the focus is on the eight bulging parts formed in the seventh step, which serve as the base for the lower row of acanthus leaves. As a result, the craftsman works on the details of the lower row of acanthus leaves during this stage. Step eleven covers the upper row of acanthus leaves and most of the remaining decoration on the upper section of the capital, including calyces, caulicoles, calathus' rim, helices, and outer volutes. These are carved and refined to their finished form (Figure 65.11). Finally, in step twelve, the work shifts to the abacus. The capital is turned over one last time to rest on its base, which allows for the completion of its detailed decoration (Figure 65.12).<sup>325</sup>

Moving on to Jones, the carving of the decorative elements starts with the acanthus leaves. It begins with the upper row and then moves to the lower row. This approach contrasts with Asgari's theory, which suggests that the lower row of leaves is carved first. It claims that the

<sup>&</sup>lt;sup>321</sup> Toma 2014, 90–91; 2015, 816–18.

<sup>&</sup>lt;sup>322</sup> For details about the stone carving tools, see: Chapter 2. 3.

<sup>&</sup>lt;sup>323</sup> Asgari 1988, 117.

<sup>&</sup>lt;sup>324</sup> Toma 2014, 91.

<sup>&</sup>lt;sup>325</sup> Asgari 1988, 117.

second row cannot be carved until two adjacent leaves from the bottom row are finished.<sup>326</sup> Subsequently, attention is directed towards the abacus fleuron, along with the helices, volutes, and other elements of the Corinthian capital.<sup>327</sup>

Regarding Toma's theory, the process of finishing the capital commences with carving the acanthus leaves of the bottom row. This happens while the half-finished capital is positioned on the upper bearing (Figure 68.4). Subsequently, attention shifts to the cauliculi and the remaining decorative elements, which are shaped without repositioning the half-finished capital. Only lifting is needed at this stage, allowing the stonemason to work comfortably. After finishing the acanthus leaves, the volutes and helices are crafted. These elements are made last due to their fragile nature and position at the top. Their spirals conform to a geometric pattern, with varying degrees of complexity. Finally, the focus turns to the abacus and its fleuron. With this fourth step, the Corinthian capital is finished.<sup>328</sup>

#### Corinthian Capital Workmanships in Byzantine Period

According to Asgari, the strict design rules applied to the Canonical Corinthian capital of all sizes in the Roman Empire, and to large capitals in byzantine period. However, some capitals in the roughed-out state deviated from classical craftsmanship stages.<sup>329</sup> In these cases, the abacus had its finished form with a central rounded knob, similar to step nine of the previously studied capital of the Roman imperial period (Figure 65.9). At the same time, the lower half of this capital retained a cylinder and continuous torus, as in steps four to six of the previous technique (Figure 65.4-6). In this step, the torus lacked the eight prominent bosses required for the acanthus leaves, which are seen in step seven (Figure 65.7). Thus, craftsmen in this new strategy completed the abacus before forming the prominent bosses of the leaves. This schematic design represents the byzantine Corinthian capital, which was extensively produced on Proconnesus in the 5th and 6th centuries and mainly shipped to Constantinople for final finishing.<sup>330</sup>

Concerning the crafting stages of the byzantine Corinthian capital, the first stage (Stage A) begins with a marble block sharing the same form as the Canonical Corinthian capital (Figure 69.A, Figure 65.4). Both instances have a square top and a lower half consisting of a cylinder

<sup>&</sup>lt;sup>326</sup> Asgari 1988, 117.

<sup>&</sup>lt;sup>327</sup> M. W. Jones 1991, 129.

<sup>&</sup>lt;sup>328</sup> Toma 2014, 91; 2015, 818.

<sup>&</sup>lt;sup>329</sup> Asgari 1988, 119; 1995, 175–275.

<sup>&</sup>lt;sup>330</sup> Asgari 1995, 175–277.

and a wider torus. In the next stage (B), the abacus is shaped into its final form, while the lower part of the capital remains the same (Figure 69.B). This is where the difference between the carving processes of the Canonical Corinthian capital in the imperial and Byzantine periods appears. In stage C, the torus is carved with deep vertical lines, with the number of lines varying depending on the leaves to be carved in that row (Figure 69.C). Stage D involves giving each unit formed to shape acanthus leaves a curved beak-like form, which becomes the middle petal of those leaves (Figure 69.D). This is followed by forming units between these petals in a semicircular form, which will be the side lobes of two adjacent acanthus leaves in the final stage E (Figure 69.E).<sup>331</sup>

Jones offers a different perspective based on the evidence he found. He suggests that in some capitals, work starts with the abacus. According to him, the abacus is made first, then the block is flipped to shape the cylinder and torus of acanthus leaves (Figure 70). In rare cases, work on the abacus began before the block was cut from the rock, as shown in Figure 71.<sup>332</sup>

Finally, Asgari points out that Stage B of the manufacturing process was mainly exported in a half-finished state (Figure 69.B). This stage was used not only for Canonical Corinthian capitals but also for other types that became popular in the Byzantine period, such as Lyre and V-Shaped capitals.<sup>333</sup>

In conclusion, researchers supported their theories by analyzing different types of evidence related to the manufacturing. This included the proportions of the Corinthian capital, drawings on surfaces, marks on capitals or stone blocks, and the use of stone blocks at various stages. Notably, unfinished blocks were especially useful, as they provided the clearest examples. By combining all this evidence, researchers formed a complete understanding.

## Unfinished Corinthian Capital in Syria

As for the unfinished Corinthian capitals examined in this thesis, only a few examples from different time periods have been discovered. These capitals are at various stages of production and are currently housed in museums, with no information available regarding their original context. As such, they are insufficient for conducting a comprehensive study of their manufacturing process.

<sup>&</sup>lt;sup>331</sup> Asgari 1995, 277.

<sup>&</sup>lt;sup>332</sup> M. W. Jones 1991, 134.

<sup>&</sup>lt;sup>333</sup> Asgari 1995, 285.

One of these capitals is housed in the Hama Museum (Cap.383). According to museum records, it was confiscated and is considered an attempted forgery. However, when it is compared to another capital in the Tartous Museum (Cap.384), as well as to a schematic Proconnesian capital in the Istanbul Archaeological Museum (Figure 72), it is clear that all three closely resemble each other. They correspond to Stage D in the diagram of Asghari (Figure 73). It is likely that these pieces arrived in the region in their current unfinished state, intended to be completed locally.

Therefore, only a limited number of capitals are available, which are insufficient for studying the production process. The study of the stages in Syria requires incomplete pieces from various phases of production, similar to those studied by Asghari and Toma. Hopefully, future excavation work will lead to the discovery of several incomplete pieces, which could help establish a strategy for the design steps of the Corinthian capital in Syria.

# CHAPTER FOUR: TYPES AND CHARACTERISTICS OF CORINTHIAN CAPITALS IN SYRIA

There are two main types of Corinthian capitals within the borders of the Syrian Arab Republic: The Canonical type and the Non-Canonical type, which includes several sub-divisions.

These capitals are distributed across various governorates of Syria, particularly in regions that were part of the Roman and Byzantine Empires (Figure 74). Most are housed in museums, while others are found in locations such as public parks (Figure 75) and villages (Figure 76). A few remain in their original locations (Figure 77), or at least in the last place where they were installed (Figure 78).

A large number of these capitals are of unknown provenance. They have arrived at museums through various means such as purchase, donation, or confiscation (Figure 79). However, the origins of some have been identified either through their association with their archaeological context or through their discovery during excavations at certain sites (Figure 80).

During the discussion, a few examples of each case will be mentioned. For a complete list of all capitals related to each case, please refer to the appendices.

# 4.1 Canonical Corinthian Capitals

The capitals of this type, which have been previously identified, are characterized by the essential elements of the Corinthian capital (Cap.1-159). These include two rows of acanthus leaves, the caulicole, the calyx, the helix and volute, and finally the abacus, which features a central motif on the axis of each face (Figure 38).

This thesis includes 159 Canonical capitals. They represent 42% of the total number studied (Figure 81). Of these, 95 are made of marble, 42 limestone, and 22 of basalt (Figure 82).

The Canonical Corinthian capitals of Syria consist of a lower row of eight toothed acanthus leaves. Each leaf in this row typically has two (e.g., Cap.4, 136, 141) or three (e.g., Cap.1, 51, 122) pairs of lobes, along with a top leaflet. In most capitals, the leaves of this lower row emerge directly from the base of the capital. However, in some cases, the acanthus leaves arise

slightly higher than the base, which creates a small empty recessed band between the base and the point where the leaves of the first row begin (e.g., Cap.13, 38, 98).<sup>334</sup>

The leaves of the first row may either be completely spaced apart with no contact (e.g., Cap.2, 44, 137) or touch each other only at the folioles of the first lobe (e.g., Cap.3, 4, 17), the first and second lobes (e.g., Cap.1, 49, 76), or the first, second, and third lobes (e.g., Cap.108, 139, 149). Sometimes, the leaves of the first row appear as if they are set against a background that resembles a flat surface, such as a screen. The upper boundary is formed by the outline of the folioles from the acanthus leaves of the upper row (e.g., Cap.14, 35, 38).<sup>335</sup>

Moving to the upper row of leaves, it also consists of eight acanthus leaves of the toothed type, identical to those in the lower row. The starting point of these upper leaves depends on the shape and arrangement of the first row. When the leaves of the first row are spaced apart, the leaves of the second row could originate at the base of the capital (e.g., Cap.105, 112, 145). However, in some cases, they emerge higher up, between the tips of the folioles of the lobes of the leaves of the first row, even when there is an empty space between the non-touching leaves of the first row (e.g., Cap.107, 111, 157). In some instances, a triangular rim can sometimes be observed between the first lobes of the acanthus leaves in the first row. It seems to indicate the point where the stem of the leaves of the second row begins to develop (e.g., Cap.3, 6, 35).<sup>336</sup>

In cases where the leaves are in contact at the first, second, or third lobes (if present), the leaves in the second row appear directly above the point of contact or between the top leaflets of the leaves in the first row (e.g., Cap.1, 49, 106).

The leaves of the second row may be identical in shape to those of the first row. They consist of two or three pairs of lobes and a top leaflet. However, in most cases, the lower part of the leaf is usually hidden behind the leaves of the first row, making the lower lobes invisible. As a result, the number of lobes in the second row is typically one less than those in the first row in most Corinthian capitals.

The leaves of the second row may either be completely separated, with no contact between them. This is often due to the presence of the caulicole, which creates space between the leaves

<sup>&</sup>lt;sup>334</sup> Kautzsch considered this recessed band as making the leaves more impressive. Kautzsch 1936, 7–8.

<sup>&</sup>lt;sup>335</sup> Kahwagi-Janho referred to this background as *un écran lisse* in French. Pensabene 1997, 394; Kahwagi-Janho 2014, 323.

<sup>&</sup>lt;sup>336</sup> Kautzsch describes this rim in German as *Blattscheiden*, meaning "leaf sheaths." Kautzsch 1936, 5.

(e.g., Cap.58, 105, 118). Alternatively, the lobes of these leaves may touch, typically at one or two folioles (e.g., Cap.1, 42, 287).

Additionally, an arched rim may appear between the folioles of the lower lobes of the leaves in the second row (e.g., Cap.25, 56, 69). This rim, together with the folioles of the lower lobes, could create a motif called *motivo*  $\hat{a}$  *corna* (e.g., Cap.14).<sup>337</sup>

The caulicole is located between the leaves of the upper row and typically originates either from the top leaflets of the leaves of the lower row, from above the point where the folioles of the lobes touch, or from the rim formed by the leaves of the upper row when the leaves are nearly in contact. On Canonical Corinthian capitals in Syria, the caulicole can take various forms. It may take the shape of a cylindrical shaft, which can be undecorated (e.g., Cap.98) or ornamented with longitudinal (e.g., Cap.154) or oblique flutes (e.g., Cap.138). This shaft might also be provided with or without a collar (e.g., Cap.80), and the collar, if present, may be decorated (e.g., Cap.144) or plain (e.g., Cap.145). In other cases, the caulicole takes on a prismatic shape (e.g., Cap.9, 11, 57). Additionally, it may be absent altogether, either because it is obscured by the overlapping leaves of the second row, which prevent it from being visible (e.g., Cap.110, 139), or because it is completely omitted. This creates the appearance that the two parts of the calyx emerge directly from the calathus (e.g., Cap.4).

The calyx is composed of two distinct parts: the inner section, which is oriented towards the axis of the face, and the outer section, which extends towards the corner of the capital beneath the abacus. Each of these parts consists of an acanthus leaf made up of several lobes. The analysis will focus on two key aspects of this element. First, the interrelationship between the two parts of the calyx. Second, the manner in which the inner sections meet at the axis of the face, and the resulting form they create.

Regarding the first aspect in Canonical Corinthian capitals in Syria, these parts typically adopt one of two basic forms. In the first form, the two parts are open and widely spaced. The outer part moves towards the corner of the capital, while the inner part is directed sharply and almost horizontally towards the axis of the capital. In this arrangement, the inner and outer parts may not touch at all, or they may touch only slightly, forming a small and simple geometric shape (e.g., Cap.112, 138, 145).

<sup>&</sup>lt;sup>337</sup> Pensabene introduced the term because the shape created by the two smooth folioles, connected by the arched rim, resembles a pair of horns. Pensabene 1986, 312; Poljak & Botić 2018, 197.

In the second, more common form, the two parts of the calyx are arranged almost vertically, which brings the inner and outer parts close together. This proximity causes the two parts to touch at their folioles. This creates either an elongated shape (e.g., Cap.1, 70, 139) or various superimposed geometric shapes (e.g., Cap.2, 82, 106), with the ends of the two parts directed toward the axis and corner of the capital.

While the outer parts of the calyces extend to the corners of the capital and terminate beneath the volutes, the inner parts exhibit several variations in their shapes and terminations. In some cases, the ends of the inner parts touch each other at the axis of the faces of the capital, either just above the top leaflet of the axial acanthus leaf of the second row (e.g., Cap.2, 116, 151) or directly on it (e.g., Cap.149). Occasionally, they reach the top leaflet of the axial acanthus leaf without touching each other (e.g., Cap.11, 14). Alternatively, these ends may remain completely free on the calathus without making contact (e.g., Cap.5, 150). Additionally, they of the inner parts may meet and touch a stem of the central motif of the abacus, which takes two forms: straight (e.g., Cap.13) and wavy (e.g., Cap.106). The ends of the inner parts of the calyces can also terminate on a central element located at the axis of the capital, above the axial leaf of the second row. These additional elements are a leaf in various forms and a tongue (e.g., Cap.32, 45, 69).

The stalks of the helices emerge between the two parts of the calyx and extend towards the axis of the face of the capital. They ascend obliquely upwards and inwards before curving downwards to form the helix spiral. Typically, these stalks curve beneath the abacus, as seen in most capitals. However, in some cases, they extend slightly onto the abacus before curving downward (e.g., Cap.138, 142).

These stalks conclude in various forms in the Canonical Corinthian capitals found in Syria. It may end as a spiral composed of several turns (e.g., Cap.79) or, in some cases, with only one incomplete turn (e.g., Cap.155). In other instances, it may take the shape of a hook, where the turn does not complete into a full spiral (e.g., Cap.6). In certain rare cases, it can adopt unusual shapes, curving to resemble a wavy stalk or a fluttering semi-palmette (e.g., Cap.15, 16, 89).

Regarding the position of these spirals relative to each other, they may be in contact at the axis of the face of the capital (e.g., Cap.81). In other cases, the spirals might be non-contacting, where they may be spaced apart and terminate on the body of the capital without touching any element, leaving an empty space between them (e.g., Cap.3). Alternatively, they might touch a decorative element at the axis of the capital, such as the stem (e.g., Cap.82), or be touched and

sometimes separated by the central motif of the abacus (e.g., Cap.110). In only one of the Canonical Corinthian capitals, the stalks of the helices are intertwined with each other (e.g., Cap.72).

The stalks of the volutes emerge from the same location as the helix, situated between the two parts of the calyx, and move towards the corners of the capital. They ascend obliquely upwards and outwards before curving downward to form the volute spiral. Typically, these stalks touch the abacus and curve beneath it, as seen in most capitals. However, in some cases, they extend slightly onto the abacus before curving downward (e.g., Cap.137).

These stalks of the typically end in spirals consisting of one or two turns. In many capitals, this part, including the corner of the capital, is often damaged due to its protrusion, which makes it vulnerable to any kind of accident.

As for the structure of the stalks and spirals of the helices and volutes, the helices in some capitals are modeled in a three-dimensional form (e.g., Cap.149), while in others, they are shallow (e.g., Cap.70). The volutes, on the other hand, are typically sculpted in three dimensions, although in some cases, they are simply projected (e.g., Cap.59).

The calathus on Canonical Corinthian capitals is typically cylindrical in shape (e.g., Cap.64). However, in some instances, it takes the form of a flat rim (e.g., Cap.105). In other examples, it is entirely absent, with elements from the upper register dominating the area and replacing the calathus entirely (e.g., Cap.4). Occasionally, parts of the calathus appear between the stalks of the helix and volute as prominent, boss-like structures, unlike the traditional cylindrical form (e.g., Cap.132).

The capital is topped with an abacus, which takes various shapes on Canonical Corinthian capitals from the Syrian Arab Republic. In some examples, it consists of a receding double-profiled (e.g., Cap.3) or triple-profiled design, composed of three main moldings: the cavetto, the ovolo, and the listel (e.g., Cap.6). In rare cases, it may have a single section, in the form of a flat, straight band (e.g., Cap.2) or a receding band (e.g., Cap.132). In all designs, one or more of these parts of the abacus may be decorated. Predominant decorative elements include foliage (e.g., Cap.121) and gadroons (e.g., Cap.124) on the cavetto, as well as egg-and-dart (e.g., Cap.126) and oblique lines (e.g., Cap.25) on the listel and ovolo. In one instance, an egg-and-rose motif can be seen (e.g., Cap.2).

The motif at the center of the abacus typically takes the form of a fleuron (e.g., Cap.25). The design of this fleuron varies across different capitals, and sometimes a single capital features multiple rose designs on its different faces. It may include a stem that extends downward and enters between or beneath the elements of the upper register of the capital. This stem can be either straight (e.g., Cap.12) or wavy (e.g., Cap.33). The fleuron is often damaged due to its protrusion, which makes it vulnerable to accidental impacts.

#### - Variations of Canonical Corinthian Capitals in Syria

#### **Smooth Acanthus Capitals**

There are Canonical Corinthian capitals that feature smooth acanthus leaves. The lower row consists of eight separate leaves. These leaves are outlined by defining lines and end with a top leaflet. The leaves usually emerge directly from the base of the capital, except in one case where they spring from above a recessed ring (e.g., Cap.104).

The upper row also consists of eight smooth acanthus leaves, each with a defined body outlined by lines that shape the leaf, along with a top leaflet. Like the leaves in the first row, most of the upper leaves originate from the base of the capital. Their midribs are sometimes visible between the leaves of the lower row, and the outlines of these upper leaves begin at the tops of the lower row (e.g., Cap.98). In some cases, there is an edge with a triangular end between the lower part of the leaves of the first row, which causes the leaves of the second row to emerge from between the top leaflets of the leaves of the first row (e.g., Cap.97).

The leaves of the second row do not touch each other, as they are separated by the caulicole, which can take various forms, such as band-like (e.g., Cap.131), cylindrical (e.g., Cap.129), or an edge-like (e.g., Cap.100).

In smooth-leafed capitals, each part of the calyx is formed from a mass of unworked acanthus leaves. In some rare examples, the calyces take the shape of smooth strips (e.g., Cap.100), while in others, they take the form of a smooth band (e.g., Cap.103). The outer parts extend to the corners of the capital and terminate beneath the volute spirals. The inner parts move toward the axis of the face, where they meet, either above or directly on top of the axial leaf in the second row.

The helices and volutes on Canonical Corinthian capitals with smooth leaves found in Syria are almost identical to those in the main group. The primary aspect to examine is the design of the stalks and spirals. In some cases, the helices and volutes are three-dimensional (e.g.,

Cap.104, 131, 132), while in others, they are rendered in a shallow relief, closely attached to the body of the capital and lacking any three-dimensional quality (e.g., Cap.97).

Additionally, variations in the calathus can be observed on these capitals. In some cases, the slightly cylindrical rim of the calathus is visible beneath the abacus and between the stalks of the helices and volutes (e.g., Cap.98), while in others, the rim is flat (e.g., Cap.130). This rim is completely absent in capitals with shallow helices and volutes (e.g., Cap.97).

Finally, these capitals are topped with an abacus. In some cases, the abacus is recessed and features various profiles, often with a central fleuron made up of multiple lobes (e.g., Cap.98). Other capitals have an abacus with a flat, receding band, cantered by a semi-cylindrical motif (e.g., Cap.101) or a boss adorned with grooves (e.g., Cap.131). In one instance, the central motif of the abacus is rectangular (e.g., Cap.96).

It seems that the semi-cylindrical shape of the central motif is more resistant to shocks than the fleuron, likely because its design is less prominent and better protected.

## Capitals with Only One Part of the Calyx

Few capitals have this feature (e.g., Cap.4, 125, 136). They contain all the essential elements of the Canonical Corinthian capital, but the calyx only has an outer part, with the inner part missing. The capitals feature a lower row of spaced apart acanthus leaves emerging from the base.

Each leaf in the lower row is composed of a pair of lobes and a top leaflet. The leaves appear to be attached to the body of the capital, with only the top leaflet projecting outward and downward. What makes these leaves unique is that the upper foliole of the lower lobe curves upward and backward to make contact with the lower foliole of the upper lobe.

The second row of leaves emerges between the upper lobes of the first row. Each leaf consists of a lobe and a top leaflet, with the leaves spaced apart and separated by the caulicole. The caulicole may take on a cylindrical shape adorned with grooves (e.g., Cap.125), or it may lack any distinct projection and be defined only by the grooves (e.g., Cap.136). At its end, the caulicole may either end without a distinct feature (e.g., Cap.134) or may terminate with a collar, which is sometimes decorated with overlapping circles (e.g., Cap.125).

The calyx, which includes only the outer portion, arises from the top of the caulicole and extends towards the angle of the capital beneath the spirals of the volutes. It has an acanthus

leaf with multiple lobes and a top leaflet. The inner part of the calyx is omitted, and the two inner sections of the calyces on each face are replaced by an acanthus leaf. This leaf grows from the top leaflet of the axial acanthus leaf of the leaves of the second row and resembles those of the first and second rows.

Next are the helices and volutes, which both come from the same point on the outer calyx. The volute stalk moves toward the corner of the capital just below the abacus, where it slightly overlaps it before curving downward to form the spiral. The helices are slender bands that attach to the body of the capital and curve upward vertically. They end in an incomplete, hook-shaped spiral beneath the rim of the calathus, which appears as a three-dimensional cylindrical form just below the abacus. The helices are separated by a wavy stem that rises from the top of an additional leaf situated above the axial leaf of the second row and then toward the central motif of the abacus.

The capital is topped with a recessed abacus. It has a cavetto surmounted by an ovolo and further capped by a listel. At the center of the abacus is the fleuron, which is often broken in most capitals but appears as a single rosette in one of the capitals (Cap.125). This rosette consists of a central disk surrounded by several identical petals.

# 4.2 Non-Canonical Corinthian Capitals

These capitals are distinguished by the absence of one or more essential elements of the Canonical Corinthian capital. There are numerous variations of this type in the Syrian Arab Republic. They can be categorized into several groups based on the specific characteristics of the elements they have. Each group will be named according to the missing elements.

The number of pieces of this type in this thesis is 217, which represents 58% of the total number of capitals studied. The percentage of each Non-Canonical type can also be seen in the chart (Figure 83). Of these, 32 are made of marble, 161 pieces are made of limestone, and 23 pieces are made of basalt (Figure 84).

## 4.2.1 Without-Helix Corinthian Capitals

These capitals are distinguished by the absence of the helix element, while all other essential components of the Canonical Corinthian capital remain intact (Cap.160-181) (Figure 85).

The first row in the capitals of this group consists of eight toothed acanthus leaves. Each one has two lobes and a top leaflet, and they emerge directly from the base of the capital. The lobes

touch one another and create superimposed geometric shapes. In some instances, the leaves also connect at the top part, creating an edge (e.g., Cap.160).

The second row also contains eight toothed acanthus leaves. Their arrangement depends on the configuration of the lower row. If only the lobes of the first-row leaves touch without the top parts, the leaves of the second row spring from between the top leaflets. Whereas when those tops touch, the leaves of the second row arise from the edge created.

Each leaf in the second row has a first lobe (mostly the upper folioles), along with the upper lobes and the top leaflet. These leaves are usually spaced apart and separated by the caulicole. However, in some cases, the leaves touch and hide the caulicole behind them, though its upper end may still be visible (e.g., Cap.165, 166, 181).

The caulicole originates from the top leaflets of the lower row and manifests as a band-like structure in all capitals.

The calyx comprises two parts. The inner part is oriented toward the axis of the face of the capital, and the outer part is directed toward the corners beneath the abacus. Each part consists of a toothed acanthus leaf with one or more lobes and folioles. The bottom part of the inner part, which is the midrib of the leaf, typically continues downward and forms a band in most capitals.

These two parts are usually open and distinctly separated due to the compressed and squat shape of the capital. This limits space for the second register and affects the arrangement of elements. Despite this openness, the inner and outer parts touch, creating an elongated or superimposed geometric shape. The outer part extends to the corners of the capital and terminates beneath the volutes. The inner parts meet at the axis, where they can either remain separate (e.g., Cap.166) or touch and form a rhombus shape, as seen in most capitals. Meanwhile, the bands formed by the bottoms of these inner parts curve downward to meet atop the axial leaf of the second row.

In some cases, the curved band may bend beneath the calyx and create a spiral at its end. This element resembles a helix, although it is not an actual helix (e.g., Cap.175).

The stalk of the volute emerges between the two parts of the calyx. It inclines slightly upward and outward toward the corners of the capital beneath the abacus, where it forms a spiral that rests on the outer part of the calyx. While this stalk in most capitals is wide, clearly defined, and projected, it can be short and closely integrated with the body of the capital (e.g., Cap.162).

Due to the limited vertical space between the calyx and the abacus, the volute appears compressed and steeply inclined. This limited space likely prevents helices, as there is not enough room to carve them. In some capitals, the volute seems very flat and less prominent (e.g., Cap.161).

The stalk terminates in spirals with one or more turns. Many of these spirals are damaged due to their position on the protruding corners of the capitals, which make them vulnerable to accidental impacts.

The calathus is clearly visible above the calyx and between the stalks of the volute. It usually has the typical cylindrical shape, but in some cases, it may be hidden by parts of the calyx (e.g., Cap.177).

This type of capital is topped with an abacus in the form of a receding band, which in some cases is divided by a groove (e.g., Cap.175). At the center is its motif, often in the shape of a half-cylinder. In some capitals, this motif takes the form of an indistinct mass that may include grooves (e.g., Cap.181).

## - Variations of Without-Helix Corinthian Capitals

#### Wind-Blown Acanthus Capitals

These capitals share the same elements as those in the Without-Helix category. The only difference is that the acanthus leaves in both the first and second rows are of the wind-blown variety (e.g., Cap.176, 177). This small difference in leaf type distinguishes them from the standard type.

#### **Smooth Acanthus Capitals**

This variation is represented by single capital (e.g., Cap.161). The main difference is the use of smooth leaves instead of toothed ones, while the overall structure follows the standard Without-Helix design. The lower row features acanthus leaves that emerge from the base of the capital and are spaced apart. Each leaf has a flat body with a central midrib that resembles a stem and a prominent top. The leaves in the second row originate between the leaves of the first row. Here, the central midrib may start from an edge with a triangular end, located between the lower parts of the first-row leaves. The outlines of these leaves extend from the tops of the leaves in the lower row. Like those in the first row, these leaves have a flat body with a midrib and a distinctive, projecting top.

The leaves of the second row are separated by the caulicole, which emerges from the tops of the leaves in the first row and takes on a band-like shape.

The calyx is made up of narrow leaves and has inner and outer parts. The inner section ends on either side of the axis of the face of the capital and is separated by a garland, which prevents it from reaching the center. The outer section reaches to the corner of the capital and tapers into a pointed shape.

In this version of the capital, the calathus is omitted, leaving the capital crowned by a flat, recessed abacus. At the center of the abacus is a motif in the form of a semi-cylindrical shape.

## 4.2.2 Without-Helix, Without-Volute (Without-Crosses)

As the name suggests, this type of capital retains all the essential elements of the Corinthian capital, except for the helices and volutes (Figure 86). The overall shape of these capitals closely resembles that of the previous group, the primary difference being the absence of volutes (Cap.182-281).

This form seems to result from the reduced space between the calyx and the abacus, which makes it impossible to carve helices (as seen in the Without-Helix type) or even volutes in this group. This spatial limitation likely led to the development of this particular type of Corinthian capital.

The description of this capital is akin to that of the previous type. This supports the idea that it is a variation of the former. The elements of these capitals include a first row of eight toothed acanthus leaves emerging directly from the base. Each leaf has one (e.g., Cap.256), two (e.g., Cap.237), three (e.g., Cap.271), or four (e.g., Cap.190) lobes, with a top leaflet. The lobes touch each other and create superimposed geometric shapes. In some cases, the leaves may also connect at the top part, which forms a prominent edge around the capital (e.g., Cap.208).

Although the leaves in most of the capitals spring directly from the base, there are some examples where the first row starts from a projected plain band, a rope-like band (e.g., Cap.195), or even a decorative frame at the base of the capital (e.g., Cap.249). In the latter case, the first row begins at the top of this frame.

The second row contains eight acanthus leaves similar to those in the lower row. These leaves grow between the top leaflets of the first-row leaves or from the prominent edge formed by connecting the tops of these leaves. In some cases, the leaves of the second row may begin from the base of the capital, which happens only in pilaster capitals (e.g., Cap.204). Each leaf

has the same number of lobes as those in the first row, but they are more pronounced due to their increased height. As a result, in some capitals, the second-row leaves have one more lobe than those of the first row (e.g., Cap.193). Typically, these leaves are spaced apart and separated by the caulicole. However, in some cases, they touch each other and hide the caulicole behind them (e.g., Cap.253).

The caulicole emerges as a stem from the tops of the leaves of the first row. It reaches a point just below the second-row leaves. From there, the calyx rises with its two sections: the inner part points toward the axis of the face, while the outer part heads to the corners of the capital.

As with the previous type, the two parts are spaced far apart due to the compression of the capital. It causes a squat shape and limited space for the second register, which affects the arrangement of the calyx elements. Despite this openness, the inner and outer sections still touch, forming elongated or superimposed geometric shapes.

Each part of the calyx consists of a toothed acanthus leaf with one or more lobes. In most capitals, the lower part of the inner section forms a band that curves downward and ends at the top leaflet of the second row, where it meets the corresponding calyx band (e.g., Cap.270). In one instance, this band continues to form a complete turn (e.g., Cap.271). The folioles of the inner parts touch at the axis of the face of the capital, creating a rhombus shape along with the band (e.g., Cap.265) or forming a superimposed geometric figure (e.g., Cap.243). In some cases, an additional decorative element may separate the inner parts of the calyx (e.g., Cap.195). Occasionally, the calyx may take on a kite-like shape (e.g., Cap.210).

In this type, the calathus is completely absent, unlike in the previous type. The craftsmen removed the calathus and the space it usually occupies, which would normally allow for the inclusion of helices and volutes. As a result, these elements are missing from the capitals of this type. Finally, the capital is topped with an abacus in the form of a receding band, with a half-cylinder-shaped motif at its center.

#### - Variations of Without-Helix, Without-Volute Capitals

#### Wind-Blown Acanthus Capitals

These capitals are identical to the primary Without-*Crosses* type, with the main difference being that the acanthus leaves in the first and second rows are wind-blown style (e.g., Cap.250).

#### **Smooth Acanthus Capitals**

In this case, the capital has the same general shape as the main type. The only distinction is the use of smooth leaves instead of toothed ones.

These capitals feature a first row of acanthus leaves that emerge from the base. The leaves have a flat body and a prominent top, and they are spaced apart. In one capital, the bodies of these leaves are in contact at their lower parts (e.g., Cap.183).

The leaves of the second row either emerge between the leaves of the first row or directly from the base of the capital, and their outlines extend from the tops of the lower leaves. These leaves are identical to those in the lower row, with a flat body and a projecting top.

The leaves in the second row are separated by the caulicole, which takes on various forms in these Corinthian capitals. In most cases, the caulicole manifests in a band-like shape that rises from the top of the first row of leaves (e.g., Cap.185). The caulicole in this design may extend further to form the calyx. These two elements can be distinguished from each other by various shapes, such as a circle (e.g., Cap.203) or an arrowhead (e.g., Cap.183). In one instance, the caulicole is hollowed out, seemingly for decorative effect (e.g., Cap.209).

Another form of caulicole is an edge-like structure. It resembles a horizontal lip from which the calyx emerges (e.g., Cap.219). There are some rare cases where the caulicole takes on other shapes, such as an inverted teardrop ending with a circle (e.g., Cap.203), a kite-like shape (e.g., Cap.201), or a twisted column ending in a rhombus (e.g., Cap.213).

The calyx consists of two parts and varies in shape. In most instances, it looks like an unworked acanthus leaf, which can be either mass-like (e.g., Cap.216) or narrow (e.g., Cap.251). On occasion, it is shown in a more decorative style, such as a row of equal-sized triangles (Cap.235) or strips (e.g., Cap.212). Sometimes, the calyx is made of intricately toothed leaves, in contrast to the smooth elements on the rest of the capital (e.g., Cap.194).

The inner parts of the calyx terminate at the axis of the capital's face, atop the axial leaf of the second row. Typically, they meet at this point.

As for the outer part, it generally extends toward the corner of the capital and ends in a pointed shape. However, in one instance, it curves slightly like a hook (e.g., Cap.228).

Sometimes, there is an additional decorative element that serves to fill the upper space between the two parts of the calyx. This element can take various forms, including multiple folioles (e.g., Cap.182) or a triangular shape with the point facing upward (e.g., Cap.229).

The calathus is absent, and the capital is topped with a receding band abacus, which has a semicylindrical motif at its center.

#### **Reduced Capitals**

In this variation, four of the eight acanthus leaves in both rows and one of the two calyces on each side of the capital are missing (Cap.272-281).

The toothed acanthus leaves have one or two lobes and a top leaflet. Both the first and second rows spring from the base of the capital. The leaves of the first row are spaced apart and positioned along the axis of each face, while the second row is placed at the four corners, with a band-like caulicole located between them and comes from the top leaflets of the first row.

The caulicole ends in a calyx with two identical parts resembling acanthus leaves. Each part moves toward the corners of the capital, between the top leaflet and the abacus. The two parts join at the axis of the face of the capital, forming a geometric shape.

The caulicole ends in a calyx made up of two identical parts that are acanthus leaves. Each part reaches toward the corners of the capital, between the top leaflet and the abacus. The two parts join at the axis of the face of the capital to create a geometric shape.

The calathus is also absent here, while the capital is crowned by a receding band abacus, and a central motif in the shape of a half-cylinder. Sometimes, this motif appears as two stacked cylinders, with the upper one having a smaller radius (e.g., Cap.275).

Further reduction also occurred, as in the case of omitting the lower row of acanthus leaves. In this version, the capital keeps all the characteristics mentioned above, with the only difference being that the caulicole originates directly from the base of the capital (e.g., Cap.27).

## 4.2.3 Without-Calyx Corinthian Capitals

In some Corinthian capitals, the calyx may be absent (Cap.282-313) (Figure 87). However, this occurrence does not represent a distinct type or group. Based on examples from Syria, the absence of the calyx appears in individual capitals that share no other common features aside from this characteristic. Beyond the missing calyx, the remaining elements of these capitals are highly varied and cannot be classified within a single category.

## 4.2.4 Without-Helix, Without-Calyx Capitals

In this group, the capitals have two rows of acanthus leaves, caulicoles, volutes, and an abacus (Cap.314-347) (Figure 88). Although they all share the same essential elements, differences in design have led to their division into two categories. The first one consists of capitals made from local stones, while the second includes capitals made from imported materials, particularly marble.

For the first category, the first row of leaves consists of eight toothed acanthus leaves that start at the base of the capital. Each leaf has two pairs of lobes and a top leaflet. The lobes of adjacent leaves touch and form geometric shapes. In some cases, the top parts of the leaves also connect, creating a distinct edge. However, in one case (e.g., Cap.347), the leaves are entirely spaced apart.

The toothed leaves of the second row either emerge from between the top leaflets of the firstrow leaves or from the prominent edge formed by their tops. Like the first row, each leaf has two pairs of lobes and a top leaflet. In most capitals, these leaves touch at both lobes and hide the caulicole completely. There are only a few cases where the leaves are spaced apart because of the caulicole (e.g., Cap.343).

The caulicole has a band-like shape and seems to continue to form the volutes without any distinct boundary. The volute curve toward the corners of the capital and end in spiral resting on the top of the angular leaf of the second row (e.g., Cap.336). As mentioned earlier, in some capitals, the caulicole is hidden (e.g., Cap.339), however, it is still considered present because of the strong design similarities across the capitals. The caulicole disappears only because the second-row leaves touch.

In some capitals, the calathus is visible between the stalks of the volutes, positioned above the top leaflets of the second-row leaves and below the abacus. It appears clearly, three-dimensional, and cylindrical (e.g., Cap.346). However, in certain cases, the calathus is obscured by other elements, such as the presence of a garland on the capital (e.g., Cap.342).

The capital has a flat, receding band at the top, often without decoration. Its central motif is a half-cylinder shape.

Arriving at the second category of capitals. The first row of acanthus leaves in this group varies between six (e.g., Cap.321), seven (e.g., Cap.325), and eight (e.g., Cap.325). Each leaf consists of a pair of lobes and a top leaflet, and they are in contact with each other.

The reduction in the number of acanthus leaves on the lower row of Corinthian capitals seems to have become a common technique in the 5th century AD, a change not observed in earlier periods.<sup>338</sup>

The second row also contains eight acanthus leaves, which emerge from an implied line that connects the top leaflets of the first-row leaves. Like the first row, each second-row leaf has a pair of lobes and a top leaflet. In all cases, these leaves touch at both lobes, completely concealing the caulicole.

The volute on these marble capitals is achieved as a prominent line that extends from the top leaflet of the second-row axial leaves. It moves into the corner where it forms a spiral. This style of volutes at each corner of the capital resembles the edge of a single thick leaf, which is referred to in German as "*Lederblätter*," (leather leaves in English). Capitals with this style are referred to as "*Kapitelle mit Abdachung der Kernmasse*." They date to the second half of the 5th century AD.<sup>339</sup>

In these capitals, the calathus diminishes significantly and becomes flatter between the volute stalks. The capital is topped by a flat, receding band, sometimes divided by a notch. This band is usually plain but may sometimes have oblique lines on its upper part. At the center of the abacus is the motif in the form of a mass with irregular grooves, similar to a fleuron.

## - Variations of Without-Helix, Without-Calyx Capitals

## **Smooth Acanthus Capitals**

In these capitals, the only difference from the main type is that the acanthus leaves used are smooth (e.g., Cap.345). They consist of a lower row that springs from the base of the capital. The leaves are either spaced apart or occasionally very close to each other. Each leaf has a flat body and a projecting top.

The place from where the leaves of the second row arise depends on the state of the lower row. If the leaves of the first row are spaced apart, they spring from the base, with the central midrib visible between them. While they start from between the tops of the first-row leaves if they are

<sup>&</sup>lt;sup>338</sup> Kautzsch 1936, 55.

<sup>&</sup>lt;sup>339</sup> Kautzsch viewed the volutes and spirals gathered at each corner as the edges of a single thick leaf, with its tops wrapped beneath the prominent angle of the abacus. He referred to these features as *Lederblätter*. Kautzsch 1936, 56–57, 61.

close and touching. The outlines of the leaves originate from the tops of the first-row leaves and also have a flat body and a projecting top.

The caulicole grows from the tops of the first row of leaves and typically has a band-like shape, which continues to form the stalk of the volute. In one capital, it takes on a trident-like shape (e.g., Cap.340).

In instances where the capital has a garland, the extension of the caulicole is interrupted by it, with the stalk re-emerging from the garland to appear as a continuation of the caulicole and the stalk of the volute. Still, there might sometimes be a noticeable difference in alignment, likely due to manufacturing flaws (e.g., Cap.345).

The calathus on some capitals appears cylindrical yet slightly flattened. However, the presence of additional elements, such as garlands (e.g., Cap.345), makes it difficult to display it.

The capital is topped with an abacus, typically a flat, receding band. In most instances, this band is plain, but it is occasionally decorated, as seen in Cap.337, where it has horizontal and oblique lines. The central motif of the abacus is shaped like a half-cylinder. In rare cases, it may also be adorned, as in the same Cap.337, which displays overlapping triangles.

## 4.2.5 Lyre and V-Shaped Capitals

This type of Corinthian capital was one of the most prevalent forms produced in the Proconnesian workshops during the Byzantine period, specifically between the second half of the 5th century and the first half of the 6th century AD (Cap.348-355) (Figure 89).<sup>340</sup> During this time, the capital of Constantinople underwent a further reduction of the traditional Corinthian structure.<sup>341</sup>

According to Kautzsch, the emergence of these types of capital is attributed to the *"lederblätter*," which developed into the *V-shaped* and *lyre-shaped* designs, eventually leading to the appearance of these capitals.<sup>342</sup>

What distinguishes them is the shape of the stalks of the volutes, which direct toward the axis of the faces and join to form a single band. This band ends at each corner of the capital with the spiral of the volute. When the stalks meet at an acute angle, the capitals are called V-

<sup>&</sup>lt;sup>340</sup> Kautzsch 1936, 59–61; Yalçin 2004, 59.

<sup>&</sup>lt;sup>341</sup> Kautzsch 1936, 72; Ertel 2005, 314.

<sup>&</sup>lt;sup>342</sup> Kautzsch 1936, 58.

Shaped.<sup>343</sup> In contrast, if the stalks converge in a rounder curve, the capitals are referred to as Lyre-Shaped.<sup>344</sup>

The oldest Lyre capitals can be found in the Church of St. Sophia in Constantinople, built by Theodosius II in AD 415.<sup>345</sup> In Syria, according to the capitals examined in this dissertation, only one standard Lyre capital was discovered (Cap.349). This capital consists of two rows of acanthus leaves and volutes, with all other essential elements omitted.

The leaves are positioned flat against the body of the capital, with only their top leaflets projecting slightly. Each leaf in the first row consists of two pairs of lobes and a top leaflet. The lobes of these leaves touch each other and create superimposed geometric shapes.

The second row of acanthus leaves emerges between the top leaflets of the first row. Each leaf has two pairs of lobes and a top leaflet that extends to the corners of the capital.

The volute takes the shape of a lyre. The stalks are connected and begin just above the top leaflets of the middle leaves of the first row. The stalks then extend toward the corners of the capital beneath the abacus, where the spirals rest on the top leaflets of the first-row leaves.

The capital is topped with a flat abacus that has a recessed center, divided into two sections by a central groove. At the center of the abacus is the central motif resembling a mass adorned with irregular grooves. Below this mass, between the stalks of the volute, there is sometimes additional foliate decoration.

Another capital found belongs to this type (Cap.348), but it seems like the volutes are not completed, which makes it impossible to determine whether they are Lyre-Shaped or V-Shaped. However, it generally shares the same features as the previous example.

There is also the capital Cap.350. It was initially considered part of this type due to its similarities with the general characteristics of this group. However, upon closer inspection of the volute stalks at their ends, it becomes clear that they do not form any recognizable or completed shape. This capital can be compared to another one found in Laodikeia<sup>346</sup>, located

<sup>&</sup>lt;sup>343</sup> The V-shaped Corinthian capital was first seen in Ravenna at the church of S. Francesco, which dates back to the time of Bishop Neone in the third quarter of the 5th century AD. It is also prominently featured in the church of S. Apollinare Nuovo, built by Theodoric between 493 and 526. This style of capital became one of the most commonly produced by the Proconnesian workshops in the late 5th and early 6th centuries. Yalçin 2004, 59.

<sup>&</sup>lt;sup>344</sup> The lyre is an antique musical instrument. Kautzsch 1936, 75–76; Dimitrov 2012, 163; Khrushkova 2012, 137. Some other researchers call it: Lira-shaped capital. Šiljeg 2007, 259.

<sup>&</sup>lt;sup>345</sup> Khrushkova 2012, 137.

<sup>&</sup>lt;sup>346</sup> This site is located 6 kilometers to the north of the province of Denizli, within the borders of the Eskihisar, Goncali and Bozburun districts, in Turkey. Yener 2015, 125.

on the top floor of A Nymphaeum and dated to the Severan period. It becomes apparent that this capital predates the Lyre and V-Shaped types.<sup>347</sup> This is supported by the design of the acanthus leaves on the capital, along with the flat calathus. These details suggest that it likely dates to the 3rd century AD.<sup>348</sup> Moreover, the noticeably lower quality of this capital in comparison to the one from Laodikeia indicates that it was crafted by a local artisan.

#### - Variations of Lyre and V-Shaped Capitals

#### **One-Row Acanthus Capitals**

These capitals introduce only a single row of acanthus leaves. The leaves are similar to the main design, and they emerge from the base of the capital. Each leaf has one (e.g., Cap.354) or two (e.g., Cap.355) pairs of lobes and a top leaflet. They are positioned at the four corners of the capital and lie flat against its surface. The lobes are touching and form geometric shapes.

The volute stalks connect at their bases above each pair of leaves on each face, between the lobes and top leaflets of the acanthus leaves and form a V-shape. Each stalk extends toward the corners of the capital and terminates with a spiral that rests on the top leaflets. In one example (Cap.355), the stalk formed by the joining of the two stalks continues to the base of the capital, causing the separation of the leaves.

The capital is topped with an abacus, typically has a flat band shape and a groove. At the middle of the abacus is the central motif, a fleuron, with petals that usually extend downward into the space between the volutes.

## 4.2.6 Four-Acanthus Capitals

This type of capital consists of a single row of four acanthus leaves, positioned at the four corners and topped with an abacus (Cap.356-358) (Figure 90). In German, this type of capital is referred to as "*Vierblattkapitelle*," and it is believed to have originated in the first half, or at least the middle, of the 5th century AD.<sup>349</sup>

An example from Syria features this design, with four acanthus leaves at the corners, each consisting of two lobes and a top leaflet. The capital is topped with a receding band abacus, sometimes divided by a groove, and includes a small central motif, usually a fleuron (e.g.,

<sup>&</sup>lt;sup>347</sup> Yener 2015, Figure 7, 136.

<sup>&</sup>lt;sup>348</sup> See: Chapter Five, 5.1.1 and 5.1.5.

<sup>&</sup>lt;sup>349</sup> Kautzsch 1936, 79.

Cap.357). In another example, however, the abacus is a simple flat band without any central motif (e.g., Cap.358).

## 4.2.7 Bell-Shaped Double Capitals

These capitals take the form of a bell. They have a row of acanthus leaves at the base and a frieze above them (Cap.359-362) (Figure 91). This frieze consists of one of two types of elements. The first one is the reed leaves ("*Schilfblättern*") or water leaves ("*Wasserblätter*"). The leaves are narrow and tapering gradually to a point. Finally, they are topped by a rectangular abacus. This distinctive shape gave them the name "*Kapitelle mit Schilfblättern*" in German, which means "capitals with reed leaves" in English.<sup>350</sup> It is also known as "lotus-and-acanthus" capital.<sup>351</sup>

The earliest known examples of Corinthian capitals with this shape date back to the 1st or maybe the 2nd century BC at latest. One of the earliest instances is the capital of the Tower of the Winds in Athens (Figure 54). This type continued to appear during the Roman Imperial period and later in the Byzantine period.<sup>352</sup>

The other design that appeared above the row of acanthus leaves is a frieze of tongues. This design is considered flutes as well, which gave the capital the name "flutes-and-acanthus."<sup>353</sup> This type of capital is also referred to as a Bell-Shaped Double Capital and was used as an impost support. The combination of a row of acanthus leaves topped by a tongue frieze was a popular decorative architectural element during the Roman Imperial and Byzantine periods, as seen in the Arch of Theodosius the Great and the propylon of the Theodosian Hagia Sophia.<sup>354</sup>

A very small number of such capitals have been found in Syria. The leaves touch each other and create superimposed geometric shapes. Typically, they emerge from the base of the capital (e.g., Cap.359). In the other example (Cap.360), a ridge forms at the base. It seems to be served as the starting point for these leaves.

Above the frieze of tongues, a smooth rim defines the edge of the cylindrical calathus, and the capital is finally topped by a square abacus with relatively high plain edges and no central motif.

<sup>&</sup>lt;sup>350</sup> Kautzsch 1936, 210.

<sup>&</sup>lt;sup>351</sup> Ronczewski 1923, 135; Ward-Perkins 1948, 66–67; Yegül and Favro 2019, 532; Bassioni 2022, 117.

<sup>&</sup>lt;sup>352</sup> Kautzsch 1936, 211; Bassioni 2022, 117.

<sup>&</sup>lt;sup>353</sup> Ward-Perkins 1948, 66.

<sup>&</sup>lt;sup>354</sup> Asgari 1995, 271.
#### - Variations of Bell-Shaped Double Capitals

#### **Smooth Acanthus Capitals**

In the last Bell-Shaped Double capital (Cap.362), the acanthus leaves are of the smooth type. These leaves arise from the base and touch each other at their lower parts. The flutes are inclined, descending from the top and curving towards the tips of the leaves. The capital has a rectangular abacus with a straight face adorned with decorations resembling olive leaves. At the center of the abacus is a rectangular shape with a plant design.

## 4.2.8 Nabataean Capitals

These capitals are associated with the Nabataeans, which is why they are referred to as Nabataean capitals (Cap.364-376) (Figure 92). The most common form of this type of Corinthian capital may appear to have only one row of acanthus leaves, but in reality, it has two rows of nearly the same height. Each row is composed of four toothed acanthus leaves with undefined lobes and a top leaflet. These leaves emerge from a plain (e.g., Cap.369) or rope-like band (e.g., Cap.367, 368) at the base of the capital.

The first row consists of fully visible leaves along the axes of the faces. The other leaves, located in the corners of the capital, appear to be located behind the axial leaves, so they could be considered to belong to the second row. This arrangement achieves two aspects. First, the acanthus leaves of both the first and second rows emerge from the base of the capital. Second, the leaves in the first row are spaced apart. Both of these aspects align with the traditional design practices for Corinthian capitals in the 1st century BC and the 1st century AD, which is the expected date of when these Nabataean capitals were crafted.

The main idea is that the leaves in both rows are almost the same height, which makes it difficult to distinguish between them. In some cases, the craftsman added a second group of acanthus leaves above the first. This gives the impression of two distinct rows (e.g., Cap.371), although they are actually just repetitions of the first and second rows.

The volute of the capital begins behind the axial leaf. It extends beneath the abacus at the corners and then curves downward to form a spiral with a single turn that rests atop the corner acanthus leaf.

This type of capital is topped with an abacus shaped like a recessed band, with various grooves and moldings. In most Nabataean capitals, a bust of a nude man is situated between the stalks of the volutes, above the axial leaf, where it occupies the center of the abacus. However, when there is no bust, the center of the abacus is instead decorated with a rosette.

One of the most complete examples of Nabataean capitals discovered in Syria, in terms of possessing the essential elements of a Corinthian capital, is the capital Cap.374. It is composed of two rows of toothed acanthus leaves. The body of each leaf is attached to the calathus of the capital, with indistinct separation between the lobes, and the top of each leaf projecting outward. The leaves in both rows emerge from a twisted-rope-shaped band at the base of the capital.

The caulicole springs from the top of the leaves in the first row. It has a cylindrical shape, with a shaft decorated with vertical grooves and topped with a collar divided by a groove. A smooth segment rises from the caulicole, considered the outer part of a calyx, which extends horizontally to the corners of the capital.

Next are the volutes, which rise above the caulicole and calyx. They incline toward the abacus at the corners of the capital. Each volute has a stalk with a twisted-rope shape and ends in a two-turn spiral that rests on the outer part of the calyx.

There is a damaged figure between the stalks of the volutes, which is almost certainly a bust of a man. The capital is crowned with an abacus that takes the form of a wide recessed band, divided by two smooth grooves.

This capital shows the attempt of the craftsman to replicate the classical Corinthian style, though the result is rather simple.

## - Variations of Nabataean Capitals

#### **Smooth Acanthus Capitals**

As a variation of the Nabataean type of capitals, the acanthus leaves could be smooth. Only one capital pilaster with this feature has been found (Cap.373). This capital belongs to the common type of Nabataean capitals. It has eight acanthus leaves at the same level. These leaves are divided into four axial acanthus leaves in the lower row and four corner acanthus leaves in the upper row. All of these leaves spring from a band at the base of the capital. Above them are the volutes and the bust, and the capital is topped with a recessed band with a molding.

# CHAPTER FIVE: EXAMINING THE ELEMENTS AND THEIR ROLE IN DATING CORINTHIAN CAPITALS IN SYRIA

In this chapter, the focus will be on exploring the components of Corinthian capitals and their significance in dating these capitals in Syria. There are two types of elements in the Corinthian capitals. The first one is the essential elements, and the second will be referred to as additional elements.

# 5.1 Essential Elements

## 5.1.1 Acanthus Leaves

The Corinthian capitals in Syria have two types of acanthus leaves: toothed and smooth. The capitals with toothed leaves are categorized into several forms based on the contact between the leaves in the first row.

The first case is when the leaves in the lower row are spaced apart, with no contact between the folioles of adjacent leaves. Each leaf appears independent. The midrib of the leaves in the second row occupies the space between the leaves of the first row. The grooves of these midribs may originate from the base of the capital. They consist of two parallel grooves running from the bottom to the top of the acanthus leaf. This feature suggests an ancient origin and can be observed in capitals dating to the 1st century AD.<sup>355</sup>

In the second case, these grooves start higher and are positioned between the upper lobes and top leaflets of the first row. The reason for this is the narrow space between the leaves in the first row, which they may touch each other minimally at the lower lobes or not touch at all. This configuration suggests a later period compared to the first case, likely dating to the 2nd century AD.<sup>356</sup> In such instances, a triangular rim may be added between the lower lobes of the first-row leaves.

Arriving at the third case, the leaves of the first row make contact at both the first and second lobes and fill all the space between the lower leaves. This contact creates dark, empty spaces

<sup>&</sup>lt;sup>355</sup> Schlumberger 1933, 292.

<sup>&</sup>lt;sup>356</sup> Schlumberger 1933, 292.

in the form of superimposed geometric shapes. The second-row leaves emerge between the top leaflets of the first-row leaves, just above where the folioles of the upper lobes touch.<sup>357</sup>

It is important to note that in this period, capitals with both separated and touching leaves appeared simultaneously.<sup>358</sup> The contact between the folioles of the acanthus leaf lobes primarily depends on the movement of the foliole from a vertical to a more horizontal position, which bring the folioles of opposite lobes closer together. This phenomenon is known as the *"horizontal refraction"* of the folioles.<sup>359</sup>

The complete refraction of the lower folioles from the upper lobe is the most distinctive decorative feature of acanthus ornamentation on Corinthian capitals from the mid-2nd century AD. This style spread throughout the rest of the Roman period (2nd to 4th centuries AD) and can be traced back to monuments and structures in Asia Minor.<sup>360</sup>

In the fourth case, the acanthus leaves in the lower row make contact at all lobes. Additionally, they create a border-like edge at the top of the leaves surrounding the capital. The second-row leaves start from this border and rise from the imaginary line connecting the top leaflets of the leaves of the first row.

Through the analysis of Corinthian capitals from Syria in this research, it becomes evident that this decorative feature first appeared on Corinthian capitals in northern part, made from local limestone. This region experienced a golden age of Christian architecture during the 4th to 6th centuries AD. The 5th century AD was the peak of this flourishing period, and it was characterized by innovative and rich decorative elements.<sup>361</sup> As a result, these capitals can be confidently dated between the 4th and the beginning of the 7th century AD, with no examples from earlier periods.

#### - Smooth Acanthus Leaves

There are many Corinthian capitals in Syria have smooth acanthus leaves. This style began to emerge as a separate decorative motif in the eastern Mediterranean around the 1st century AD. However, most Corinthian capitals in Syria with smooth acanthus leaves do not date to this

<sup>&</sup>lt;sup>357</sup> According to Schlumberger, the contact between the lobes of adjacent acanthus leaves directly relates to the emergence of Byzantine capitals. However, this is inaccurate, as the style began to appear in the second half of the 2nd century AD, well before the start of the Byzantine period. See: Schlumberger 1933, 292.

<sup>&</sup>lt;sup>358</sup> Kautzsch 1936, 5–6.

<sup>&</sup>lt;sup>359</sup> Dimitrov 2012, 166.

<sup>&</sup>lt;sup>360</sup> Heilmeyer 1970, 99–100, pl. 32, 2.4; Freyberger 1990, 128, pl. 45–46; Dimitrov 2012, 166.

<sup>&</sup>lt;sup>361</sup> Butler 1929, 3.

early period. Based on the evidence from the capitals studied in this dissertation, this style appears in only a few examples before the Byzantine period, such as the Corinthian capitals from the site of Husn Suleiman, dated to the 2nd-3rd century AD.

One example is from southern Syria (Cap.373), and it is dated to the 1st century AD. However, this capital should be considered unfinished. This suggestion is based on the fact that all other existing similar capitals of the same type are characterized by toothed acanthus leaves. Additionally, the design of the leaves on this capital, as well as on another one from the same region (Cap.159), follows a similar pattern. In the latter, the initial stages of carving the toothed acanthus leaves can be observed, even though it is incomplete. In the first stage, the midrib is shaped, followed by the folioles, which are absent on both Cap.373 and Cap.159.

As for other examples of Corinthian capitals with smooth acanthus leaves that date to earlier centuries in Syria, the presence of this design of acanthus may be due to the fact that they were unintentionally left in an unfinished state, representing the initial phase of manufacturing. This idea is supported by the discovery of unfinished capitals in various regions, such as Cap.72 and Cap.95.

Therefore, most examples of Corinthian capitals with smooth acanthus leaves as a separate decorative motif in Syria date no earlier than the 4th century AD.

However, for capitals with this type of acanthus leaf design, whose provenance and date are unknown, attention must be given to other elements of the capital to help determine its approximate period.

#### - Wind-Blown Acanthus Leaves

Similar to smooth acanthus leaves, the exact date or origin of the wind-blown shape of toothed acanthus leaves is uncertain. However, no such design has been found on any capitals in Syria prior to the 5th century AD.<sup>362</sup> Consequently, all Corinthian capitals with this type of acanthus leaf can be dated to the 5th century AD or later.

Various states of movement in the acanthus leaves can be observed on Syrian capitals. In some examples, both the first and second rows of acanthus leaves are oriented to the left, while in others, both rows move to the right. In certain instances, the direction of movement differs

<sup>&</sup>lt;sup>362</sup> For more information about this design of acanthus leaves, see: Chapter 3.1.

between rows, with the leaves of the first row moving in one direction and those of the second row moving in another.<sup>363</sup>

Again, it should be noted that all other elements, in addition to the acanthus leaves on Corinthian capitals, must also be considered to significantly aid in dating these capitals.

#### - Grooves of Acanthus Leaves

The acanthus leaves on Corinthian capitals in Syria were executed in various styles. This variation may help in dating the capitals. Some leaves have incised lines defining the midrib and the lobes, while others utilize deep grooves. The latter style was typical in the 1st and 2nd centuries AD. However, it gradually disappeared during the end of the Imperial Roman period, around the 3rd and 4th centuries AD. They reappeared during the reign of Theodosius I and continued into the 5th century AD. The style lasted until the second half of the 6th century AD, when they disappeared after the reign of Justinian.<sup>364</sup> Notable examples of Byzantine-period capitals with grooves include those from Deīr Samʿān and al-Halawiyah Madrasa in Aleppo (e.g., Cap.190-193).<sup>365</sup>

#### - Folioles of Acanthus Leaves

The number of folioles on the lobes of toothed acanthus leaves varies across Syria. Some leaves have three folioles, while others have four, five, or even more. This number can sometimes provide useful information when dating Corinthian capitals, especially those made of marble. In the Roman Empire, the traditional number of folioles on acanthus leaves was four, though in many cases, this number increased to five. This increase is often linked to specific centers, such as the Pergameno-Ephesian workshops, where they used five-foliole leaves. This style dates back to the first third of the 2nd century AD.<sup>366</sup>

While this observation may apply to imported marble Corinthian capitals in Syria, some capitals made from local materials, like basalt in southern Syria (e.g., Cap.153, 157) or limestone in Palmyra (e.g., Cap.110), also have acanthus leaves with five folioles. This local variation likely reflects the influence of regional artistic traditions. The increase in folioles may

<sup>&</sup>lt;sup>363</sup> For a detailed study of wind-blown acanthus leaves from various perspectives, see: Grabiner 1993; Kahwagi-Janho 2014, 339–40.

<sup>&</sup>lt;sup>364</sup> Weigand 1920, 195–96; Kautzsch 1936, 27; Poljak & Botić 2018, 202.

<sup>&</sup>lt;sup>365</sup> Weigand 1920, 200–201.

<sup>&</sup>lt;sup>366</sup> Kahwagi-Janho 2014, 26.

have been an aesthetic choice to create more detailed designs by adding extra eyelets where the folioles touch.<sup>367</sup>

Regarding the basalt capitals, these date back to the late 2nd and early 3rd century AD. They have distinctive features, especially the leaves in the second row, which are significantly taller than those in the first row and the rest of the capital. This tradition was of ancient Hellenistic origin and seems to have lasted longer in southern Syria than in other Roman provinces. This is likely due to the delayed direct Roman control over the region, which had previously been under Nabataean rule. It is worth noting that there must have been a regional workshop operating in southern Syria during the 2nd and 3rd centuries, specializing in the hard local basalt. They were different from those that worked with soft limestone for crafting entablature elements. However, it is still unclear whether they were independent or if they included local artisans with different skills working together.<sup>368</sup>

As for the capitals found in Palmyra, made from local limestone, there is much evidence that confirms the existence of stone workshops in the city. Palmyra is known for the quarries of hard limestone located about 15 km northeast of the city. They provided the material for almost all the structures and sculptures of ancient Palmyra. Many incomplete pieces have been found in the city (Figure 93), with parts of the building still show remaining quarry stone (Figure 94).<sup>369</sup>

Another piece of evidence supporting this theory comes from the inscriptions. Although such examples are rare, they mention several professions and crafts that existed in Palmyra. One inscription mentions the word sculptor. An example of this can be seen in a bas-relief on a stone tablet dated to AD 113 (Figure 95), where the craftsman signed his work, with his name (Yarhay) written in smaller characters and separated from the rest of the dedicatory inscription. This confirms that specialized craftsmen operated in the city and held an important place among local professions.<sup>370</sup>

Besides proving that workshops existed in Palmyra, there is also evidence that several operated at the same time, or that different artisans were part of one. Sculptures found in the temples of Baalshamin and Allat in Palmyra, dating to the early artistic history of the city, specifically between the 1st and mid-2nd centuries AD, offer more insight into this period, which matches

<sup>&</sup>lt;sup>367</sup> Kahwagi-Janho 2014, 26.

<sup>&</sup>lt;sup>368</sup> Pensabene 1997, 377.

<sup>&</sup>lt;sup>369</sup> Schmidt-Colinet 2020, 54.

<sup>&</sup>lt;sup>370</sup> Cassini 2017, 84–85.

the dating of the capital Cap.110. Artistic production was active in Palmyra during this time, and people in the city frequently requested sculptures. They produced all types of sculpture, including architectural decorations, honorific statues, and funerary reliefs. Differences in certain carving marks have been observed in some sculptures, such as the honorific heads from the Temple of Allat. This led to the assumption that at least two workshops existed or that different artists from the same group were involved.<sup>371</sup>

Returning to the number of folioles, capitals with three-foliole lobes became common from the middle of the 3rd century AD.<sup>372</sup> However, no Corinthian capitals from this period with this design have been found in Syria. On the other hand, a different design of three-foliole leaf spreads in later periods. It has a distinctive shape characterized by lobes with three folioles, known as the "acanthus mask" (Figure 44).<sup>373</sup> These folioles are simply grooved, without deep indentations, and have flattened margins. The inner one, closest to the midrib, curves sharply backward, and creates rounded or oval eyelets. They are arranged obliquely and touch the adjacent folioles to form deep, dark figures ("*Tiefendunkelfiguren*").<sup>374</sup>

This design appeared toward the end of the 4th century AD, particularly in coastal cities of Greece and the western Aegean, such as Pergamon, Ephesus, and Miletus. It became prominent in Constantinople and Egypt by the early 5th century AD, around AD 415. The use of the acanthus mask became widespread in the latter half of the 5th century AD.<sup>375</sup>

In spite of the fact that this style of acanthus leaves was familiar from ancient buildings in Constantinople, but it gained popularity during the reign of Theodosius II and continued to be in vogue until the 6th century AD, particularly in the quarries of Proconnesus.<sup>376</sup> However, although this design is closely linked to the Byzantine period and was called the typical Byzantine acanthus leaf, capitals with this design should not be automatically labeled as Byzantine. The origin of this leaf form predates the Byzantine era. In fact, no Canonical capitals featuring this leaf type have been found in Constantinople.<sup>377</sup>

<sup>&</sup>lt;sup>371</sup> Wielgosz-Rondolino 2016.

<sup>&</sup>lt;sup>372</sup> Poljak & Botić 2018, 202.

<sup>&</sup>lt;sup>373</sup> Kautzsch referred to this leaf form as "*Akanthus mit aufgekrümmten Innenzacken*," which means "acanthus with curved inner points" in English. Kautzsch 1936, 20, 46, 53, 70, 87. This style of acanthus is also known as "broad-pointed." Demir 2019; Niewöhner 2021, 26.

<sup>&</sup>lt;sup>374</sup> Kautzsch 1936, 53–54, 87.

<sup>&</sup>lt;sup>375</sup> Kautzsch 1936, 20, 46, 53–54, 70, 87; Demir 2019, 143–44.

<sup>&</sup>lt;sup>376</sup> Asgari 1995, 271.

<sup>&</sup>lt;sup>377</sup> Kautzsch 1936, 20, 46, 53–54, 70, 87.

The earliest examples of this leaf form, which came up in the end of the Roman Empire and the early of the Byzantine period, actually date back to the Hellenistic period, with examples found on capitals from southern Syria (Cap.143-145).<sup>378</sup> This design also later seen in Syria, Asia Minor, and Greece during the 2nd and 3rd centuries.<sup>379</sup>

Furthermore, the characteristics of this form were also present on Corinthian capitals from the 1st century AD in Syria, particularly in Palmyra (e.g., Cap.112), which were crafted from local limestone. These features included folioles that are merely grooved with flattened margins, a strongly curved inner foliole closest to the midrib, and rounded or oval eyelets. The only notable difference is in the number of folioles, in this case, there are four lobes instead of three. Additionally, the leaves are spaced apart, unlike the Corinthian capitals of the 5th century AD, where the folioles touch each other and form dark figures.

Interestingly, the three-foliole design reappeared again suddenly and widely on capitals during the Byzantine period, although with a distinct treatment compared to the Hellenistic period.<sup>380</sup> The use of this acanthus leaf type on Corinthian capitals reflects a renewal and transformation of the Corinthian order in the spirit of Byzantine art. Whether this new foliole design is viewed as a revival of an ancient Hellenistic type or part of a broader incorporation of pre-existing elements, the change marks a significant shift.<sup>381</sup>

#### - Design of Acanthus Leaves

Many variations and styles of acanthus leaves emerged during the Byzantine period. Some unique designs were developed locally in Syria, such as in the northern regions, where workshops used local limestone, which was often found in sites near or directly beneath buildings. At such sites, certain craftsmen specialized in architectural or decorative work. Some obtained the necessary stones and carved them based on the type and size of the building, while others focused on constructing arches, planning houses, or carving decorations on facades.<sup>382</sup> During the 4th century AD, they continued Roman traditions in the production of Corinthian capitals, while also creating their own styles.<sup>383</sup> One of these local forms is the acanthus leaves crafted using a technique that resembles lace-like patterns of foliage, with designs executed through small triangular incisions (e.g., Cap.199, 202, 249, 388). This technique, known as the

<sup>&</sup>lt;sup>378</sup> For examples from Hellenistic period, see: Weigand 1914b, 24–26.

<sup>&</sup>lt;sup>379</sup> Kautzsch 1936, 45.

<sup>&</sup>lt;sup>380</sup> Weigand 1914b, 23.

<sup>&</sup>lt;sup>381</sup> Gütschow 1923; Kautzsch 1936, 45.

<sup>&</sup>lt;sup>382</sup> Abdulkarim and Laila 2020, 191.

<sup>&</sup>lt;sup>383</sup> Niewöhner 2021, 22.

drill technique, is particularly common in the capitals of Byzantine churches from the 5th-7th centuries AD.<sup>384</sup>

Another style of acanthus leaves is found specifically in the northern parts of Syria, where this distinctive design has not been observed elsewhere, either within or outside Syria.<sup>385</sup> This design has veins of the lobes characterized by deep, almost vertical grooves that run parallel to each other. They start from the base of the leaf and extend into the lobe. In addition to these main veins, there are other grooves parallel to them, which have a thickness similar to that of the main veins and gradually narrow as they move downward (e.g., Cap.163, 188).

This design appears to be exclusive to Byzantine capitals in Syria, with examples dating from the 4th to the beginning of the 7th century AD. This variety underscore the rich artistic heritage of the region during this period.<sup>386</sup>

A study of the decorations in the village of Sergilla, one of the forgotten cities, revealed differences in the way some acanthus leaves were carved. This difference may not seem obvious at first, but upon closer inspection, it can be noticed that the acanthus leaf was carved in a different style. This suggests the presence of more than one workshop operating at the site or perhaps multiple professional craftsmen specializing in carving acanthus leaves within the same one.<sup>387</sup>

## 5.1.2 Caulicole

Despite the large number of Corinthian capitals in Syria from various time periods, the caulicoles were limited to just a few specific designs, with only a few variations.

The first form is the cylindrical. Generally, this form stands as one of the earliest shapes seen in Corinthian capitals. It is traced back to ancient Hellenistic times. It looks rigid, with a broad, cylindrical shaft decorated with either vertical or diagonal grooves. It often ended with a ring or collar at the top, which could be decorated or left plain.<sup>388</sup>

This characteristic is evident in numerous capitals originating from the Hellenistic era, as displayed in the capital of the temple of Athena Alea in Tegea, which dated back to the early

<sup>&</sup>lt;sup>384</sup> Butler 1929, 237; Naccache & Sodini 1989, 485; Niewöhner 2021, 22.

<sup>&</sup>lt;sup>385</sup> Niewöhner 2021, 22.

<sup>&</sup>lt;sup>386</sup> For more details about the acanthus patterns in northern Syria during this period, see: Strube 1983, Figs. 1/7, 8/14.

<sup>&</sup>lt;sup>387</sup> Abdulkarim and Laila 2020, 200.

<sup>&</sup>lt;sup>388</sup> Weigand 1914a, 58–61; Schlumberger 1933, 293; Dentzer-Feydy 1990, 640; Kahwagi-Janho 2017, 95.

3rd century BC (Figure 96). The caulicole is grooved, slightly inclined, and ends with a swollen ring fixed perpendicular to the grooves on the shaft.<sup>389</sup>

In the eastern Mediterranean, the understanding of Hellenistic Corinthian capitals is limited, as there are only a few known examples. Nevertheless, there are Nabataean capitals that exhibit similar caulicole features (e.g., Cap.370). While these capitals may not fully originate from the Hellenistic period, they clearly show Hellenistic stylistic influences.<sup>390</sup>

Another notable instance of a Hellenistic capital with the cylindrical-shaped caulicole originates from Samaria (Figure 97). This capital is older than the Flavian period and shows a clearly ancient form of caulicole. Unlike the styles prevalent during the Imperial period, it has a strong, broad base similar to the inception of the caulicole. The flutes resemble a bundle of leaf veins, tied together by a double-ring attachment, with the foliage growing above the ring within the calyx.<sup>391</sup>

Another capital comes from Antioch, it has characteristics suggesting a more recent origin compared to the previous capital from Samaria (Figure 98). The caulicole presents a sturdy, slanted shape decorated with flutes. It is similar to that of the Samaria capital, but it lacks the distinctive ring at its end. It looks more distinctly like an organic structure, resembling botanical growth rather than architectural design. This capital is dated to the end of the 1st century BC, and it reveals a clear evolution from its predecessors.<sup>392</sup>

The cylindrical form of caulicoles begins to take on a conical shape in capitals towards the end of the Hellenistic period and the start of the Roman imperial era.<sup>393</sup>

The shaft of the caulicole remains strong and maintains a plant-like form in the earliest examples, before 1st century AD. But it starts to take on an architectural shape during the 1st century AD.<sup>394</sup>

Over time, the caulicole adopted different shapes and arrangements, and it departed from ancient Hellenistic conventions. The old cylindrical shape of this element changes significantly. It keeps its basic form with a collar at the top but loses its fluting and becomes shorter and thinner. This transformation occurs during the late Trajanic-Hadrianic period, roughly at the

<sup>&</sup>lt;sup>389</sup> Abramson 1974, 6.

<sup>&</sup>lt;sup>390</sup> Schlumberger 1933, 284.

<sup>&</sup>lt;sup>391</sup> Schlumberger 1933, 303.

<sup>&</sup>lt;sup>392</sup> Schlumberger 1933, 304.

<sup>&</sup>lt;sup>393</sup> Dentzer-Feydy 1990, 650.

<sup>&</sup>lt;sup>394</sup> Schlumberger 1933, 307.

transition from the first half to the second half of the 2nd century AD. These alterations are evident in the Corinthian capitals located on the upper floor of the Library of Ephesus (Figure 99), as well as in the capitals from Anjar and from the mosque in Baalbek (Figure 100), and, dating from the latter part of the 2nd century AD to the early 3rd century AD.<sup>395</sup>

In some cases, the cylindrical form changes into a shorter form, deeply integrated into the surface, and it loses its rounded shape and appears stubby.<sup>396</sup>

Consequently, the form of caulicoles can be used to approximate the dating of the capital. The strong, often fluted ones on Corinthian capitals are particularly characteristic of early 1st century AD. During the transition from the first to the second half of the 2nd century AD, the form quickly changed. It lost its ornamentation, became thinner and shorter, and eventually turned into a shapeless ring.

By understanding and applying this information to the caulicoles on the Corinthian capitals found in Syria, along with considering the other elements of the capital, an approximate date for these capitals can be determined.

The cylindrical caulicoles on Corinthian capitals in Syria emerge either from the top leaflets of the first row of leaves or from a ledge above them, where the lower folioles of the lobes of the second row meet. In some cases, it ends with a collar; in others, it lacks this collar.

Sometimes, this structure is plain and without any decoration, while at other times, it is adorned with grooves that may be either longitudinal or oblique. The caulicole rises between the leaves of the second row. It shows different heights. In some cases, it is shorter than the leaves of the second row, while in others, it is equal to them. In two-piece Corinthian capitals, the top of the cylindrical caulicole typically aligns with the top leaflets of the second row of leaves. They both form the upper boundary of the first section of the capital (e.g., Cap.155). However, in some cases, this alignment is not achieved (e.g., Cap.111).<sup>397</sup>

Another variation of the cylindrical caulicole on Corinthian capitals in Syria presents a flattened form. In this case, the craftsman may depict it by creating longitudinal notches in its place or by using a straight transverse notch to indicate the upper boundary of the caulicole, where the parts of the calyx begin to emerge (e.g., Cap.155). Here, the craftsman does not emphasize the cylindrical shape in a projecting form. Instead, he uses the cylindrical shape of

<sup>&</sup>lt;sup>395</sup> Weigand 1914a, 58–61; Kahwagi-Janho 2017, 93, 95.

<sup>&</sup>lt;sup>396</sup> Weigand 1914a, 58–61.

<sup>&</sup>lt;sup>397</sup> For more information about two-pieces capitals, see: Chapter 6.3.

the calathus core to distinguish its body and accentuate it with vertical grooves along its surface. Finally, he defines its end with a horizontal groove.

The second form of caulicole seen on Corinthian capitals in Syria is the prismatic form. This element is also located between the leaves of the second row of the capital and is arranged vertically. It is sometimes elongated and other times shorter in length, from which the calyx emerges. This trend seems to originate in the latter half of the 2nd century AD but becomes more pronounced in the 3rd century AD. During this period, the caulicole takes on more varied forms. It moves away from strict adherence to ancient traditions. This diversity becomes particularly evident in Asian marble capitals crafted between the late 3rd and early 4th centuries AD.<sup>398</sup>

During the second half of the 2nd century and the beginning of the 3rd century AD, Corinthian capitals exhibited both cylindrical and prismatic forms at the same time. Therefore, when attempting to determine the timeframe of the capital, it is important to consider additional elements as well.

One of the shapes observed on the Corinthian capitals in Syria is the band-like caulicole, named for its resemblance to a band. It arises from the top leaflets of the first row of leaves and extends straight up. This band can vary in dimensions, ranging from thin to wide. Sometimes, it ends in a small circular shape or a ball that represents the top of the caulicole, where the calyx begins. In other cases, the end of the caulicole is not defined by any particular element and continues to form without a distinct termination. In such instances, the end can be distinguished by the separation between the inner and outer parts of the calyx. However, in some situations, it extends to form the stalks of the helices and volutes, where no clear separation point is recognized.

This shape is commonly found on Corinthian capitals made of local limestone in Syria, particularly in the northern region, and is primarily associated with structures dating to the Byzantine period. As a result, any capital with this type of caulicole can be directly dated to between the 4th and 7th centuries AD.

Other local forms from the Byzantine period in Syria include the "edge shape." In this form, the caulicole is defined by a transverse rim that extends between the leaves of the upper row and creates a small edge from which the two parts of the caulicole emerge.

<sup>&</sup>lt;sup>398</sup> Poljak & Botić 2018, 205.

Additionally, there are some rare and unique shapes found on Corinthian capitals that showcase the artistic skills of Syrian craftsmen, particularly in northern Syria. Examples of these designs are the kite-like shape, the trident-like form, and the inverted teardrop shape.

All of these variations can be regarded as distinctive forms unique to the local Corinthian capitals of the Limestone Massif in northern Syria, the Dead Cities. These specific designs of the caulicole have not been found in other locations or periods. Moreover, their appearance is limited to a small number of capitals in this region, and this suggests that these forms were personal innovations of local craftsmen working in regional workshops.

Another development observed in Corinthian capitals is the "invisible caulicole," which occurs in two distinct scenarios. In the first one, the caulicole remains present but is concealed from view. in this case, it is set back behind the leaves, making it invisible from below. In the second scenario, the caulicoles are completely omitted. This allows the calyx to rest directly on the first row of acanthus leaves.<sup>399</sup>

The disappearance of this element occurred at various historical stages and for different reasons. This phenomenon was particularly noted between the 2nd and 4th centuries AD. During this time, the calyx appeared to emerge directly from the body of the calathus, due to the complete omission of the caulicole from the capital.<sup>400</sup>

In other cases, such as Corinthian capitals from the Byzantine period, the calyx becomes obscured as the second-row acanthus leaves touch each other. This state makes it impossible to carve the caulicoles. However, occasionally, the upper end of the caulicole is still visible between the tops of the second-row leaves.

## 5.1.3 Calyx

Calyces on Corinthian capitals in Syria come in several shapes. The typical and traditional shape features both parts of the calyx as acanthus leaves, characterized by multiple lobes and a prominent top leaflet. However, at times, these parts may appear as a smooth boss, which can be described as a rough-out acanthus leaf.

Other variations of the calyx on the Corinthian capitals in Syria include kite-like, strip-like, and thin band shapes.

<sup>&</sup>lt;sup>399</sup> Weigand 1914a, 58-61.

<sup>&</sup>lt;sup>400</sup> Weigand 1920, 194; Schlumberger 1933, 292; Kahwagi-Janho 2017, 95.

When studying the calyces on these capitals, two important considerations arise regarding the relationships between the parts of the calyx. The first is the relationship between the two parts concerning their shape and arrangement. The second focuses on the relationship between the inner parts of the calyx. It highlights the shape and condition of the ends of each part.

In the first consideration, the two parts of the calyx emerge from the top of the caulicole, with the inner part oriented toward the axis of the capital and the outer part directed toward the corner of the face. These parts may extend almost horizontally, where they move away from each other after they leave the caulicole. As a result, the two parts might not touch at all, or if they do, only minimally.

Corinthian capitals with this form of calyx can be dated to the end of the 1st century BC and the 1st century AD. During the Hellenistic period, these elements were short in height, bilateral, and widely open. Moreover, they were large and gave a sense of density and pressure in the upper part of the capital. This form continued into capitals from the early Roman Empire.<sup>401</sup>

This style appeared in Syria, such as the Corinthian capitals from Palmyra, including those from the Temple of Bel, which date back to the end of the 1st century AD (e.g., Cap.112).

In the second case, the two parts of the calyx rise almost vertically. Then, they shift at the end toward the axis and the corners of the capital. This design brings the two sections closer together. However, if they did not touch each other at their folioles, the Corinthian capital can still be dated to the 1st and early 2nd century AD. On the other hand, if the folioles of these inner and outer parts touch and create various superimposed geometric figures in the contact area, it can be said that the Corinthian capital with this form of calyx dates to after the 1st century AD, as this feature first appeared in the 2nd century AD.<sup>402</sup>

During the 2nd century AD, the two rows of acanthus leave in the lower register grow higher, which reduced the space available for elements in the upper register, such as calyces, volutes, and helices. This compression in the upper part of the capital reduced the space between the second row of acanthus leaves and the abacus. As a result, the calyx elements took on more expansive shapes. Despite this, the folioles in both the inner and outer parts continue to touch

<sup>&</sup>lt;sup>401</sup> Examples include capitals from Nablus and Jerusalem dating to the middle of the 1st century AD, where both parts of the calyces are open and do not touch each other, signifying a clear continuation of the Hellenistic tradition. These distinctive characteristics were also found in the capitals at the North Gate of Jerash, dating to AD 115. Schlumberger 1933, 292; Dentzer-Feydy 1990, 640, 646–645, 650.

<sup>&</sup>lt;sup>402</sup> Dimitrov 2016, 381.

and form geometric patterns. However, the calyx parts in this period become more compressed and weakened, and they lack the harmonious balance seen in the 1st century AD.<sup>403</sup>

The second consideration, regarding the relationship between the two inner parts of the opposing calyces, also has different forms. The end of the inner calyx section can vary. In its traditional form, represented by the acanthus leaf, the end resembles a leaflet with folioles.

Sometimes, the lower part of the leaf, which is the midrib, extends and takes on a band-like shape. In this case, the ends of the calyx may either remain free on the core and terminate at the top leaflet of the axial acanthus leaf of the second row, or they may meet at the axis of the face of the capital. When the folioles of the leaves make contact, this connection results in various shapes, such as rhombuses or superimposed geometric figures. Notably, this last configuration appears only in Corinthian capitals from the Byzantine period.

In rare examples, the end of the midrib band may turn outward and form one turn that rests at the top leaflet of the axial leaf of the second row. This configuration is also seen only on the Corinthian capitals from the Byzantine period in Syria.

Finally, in all cases where the inner parts of the calyces are separated, a decorative element may be placed on the axis of the face, positioned above the second row of acanthus leaves. This element can separate the inner parts of the calyces, with each part either positioned away from this element or ending on its surface. These decorative elements can include various features, such as an axial leaf, a garland, or the straight or wavy stem of the central decorative motif of the abacus.

Regarding the capitals with calyces consisting of smooth parts, the previous two considerations about the two parts of the calyces differ slightly. In these capitals, the inner and outer parts do not have any lobes or folioles, this results in no contact between the two parts, regardless of their condition.

As for the inner parts and their relationship, they usually end freely or terminate at the top leaflet of the axial leaf of the second row. Alternatively, they may be separated by one of the additional decorative elements mentioned earlier, located on the axis of the face above the second row of acanthus leaves.

<sup>&</sup>lt;sup>403</sup> Schlumberger 1933, 292–93.

Typically, there are two calyces on the face of the capital, with each calyx comprising an inner and an outer part. However, in some Corinthian capitals in Syria, only a single calyx is present. In these cases, the calyx is positioned along the axis of the capital's face, with the two parts spreading out symmetrically on either side of the axis and moving toward the corners of the face beneath the abacus.

Finally, it is worth noting that some Corinthian capitals in Syria feature only one part of the calyx, which can be considered the outer one. It extends from the presumed location of the calyx on the capital to the corner of the abacus.

## 5.1.4 Helix and Volute (Crosses)

Understanding the historical development and design changes of these elements is crucial for a thorough study of Corinthian capitals across different periods in the Eastern Mediterranean.

Beginning with the Hellenistic era, a notable feature of Corinthian capitals from this period is the presence of underdeveloped helices. These helices do not ascend fully to meet the abacus, and their spirals remain separate along the axis of the capital's face.<sup>404</sup> Although no definitive Hellenistic Corinthian capitals have been documented in Syria, there are several examples that exhibit properties associated with this period. This suggests that early influences were present (e.g., Cap.155, 157).

By the middle of the 1st century AD, the imbalance observed in earlier capitals began to disappear. The helices became more pronounced and moved closer to the abacus. However, the spirals of the helices often remained smaller than those of the volutes. This phase marks a clear advancement from the earlier Hellenistic designs, with the helices gaining a more prominent structural role.<sup>405</sup> During this time, the capitals were crafted with a distinctive three-dimensional quality, and they emphasized the interaction between depth and surface.<sup>406</sup>

In the transition between Classical and Byzantine styles, the helices became less prominent again compared to the volutes, similar to their role in the Hellenistic period.<sup>407</sup> By the 4th century AD, significant changes in the design of the capitals began to happen. The helices and volutes in Byzantine capitals exhibit distinct features that differ from their earlier forms. Instead of being three-dimensional elements, the helices appear as flattened or integrated on the body

<sup>&</sup>lt;sup>404</sup> Schlumberger 1933; Dentzer-Feydy 1990, 640, 645.

<sup>&</sup>lt;sup>405</sup> Schlumberger 1933, 307.

<sup>&</sup>lt;sup>406</sup> Weigand 1914b, 22; Kautzsch 1936, 31, 56–66; Yalçin 2004, 60.

<sup>&</sup>lt;sup>407</sup> Weigand 1914b, 26–27.

of the capital. The space between the volutes and the outer part of the calyx beneath them gradually diminished as the calathus filled the space, and the volutes began to encircle it more closely at the top.<sup>408</sup>

A notable change in this period is the transformation of the spiral forms. In pre-Byzantine capitals, the spirals are typically spherical and swollen. However, in later capitals, especially during the 4th century AD, they flatten considerably. Rather than forming complete spirals, the helices often terminate in a flat, rounded swelling or eyelet, which mark a change from their earlier, more voluminous appearance. By the 5th century AD, the Corinthian capital as a whole had become more rigid. It lost much of the organic fluidity characteristic of earlier designs.<sup>409</sup>

Throughout the 4th and 5th centuries AD, the helices and volutes continued to merge with the body of the capital. They led to a significant departure from the previously three-dimensional, sculptural quality of earlier designs.<sup>410</sup> Capitals from northern Syria from this period confirm this trend. The stalks of the helices and volutes in Byzantine capitals are often very thin and they are carved shallowly into the stone, which emphasizes their integration into the overall structure rather than existing as independent, dynamic elements (e.g., Cap.97).

## - Other Features of Crosses on Corinthian Capitals in Syria

When analyzing the helices and volutes on Corinthian capitals in Syria, several key aspects must be considered. These include the relationship between *crosses* and the abacus, the shape and form of the spirals, and the interaction between the opposite spirals on each face of the capital.

The relationship between the helices and the abacus varies. In some cases, the helices do not reach the abacus, which causes a gap between these two elements. In other instances, they come into contact, where the stalks of the helices only touch the abacus before descending downward to form spirals. A final variation shows helices extending onto the abacus, with the stalks continuing onto the abacus's surface before bending downward to the spirals.

The volutes, which typically support the abacus, often suffer more damage than other parts of the capital, which make it more challenging to study. In classical Corinthian capitals, volutes contact the abacus at the corners, positioned just beneath it. However, another variation is when

<sup>&</sup>lt;sup>408</sup> Weigand 1914b, 22; Kautzsch 1936, 31, 65–66; Yalçin 2004, 60.

<sup>&</sup>lt;sup>409</sup> Weigand 1914b, 22; Kautzsch 1936, 31, 65–66; Yalçin 2004, 60.

<sup>&</sup>lt;sup>410</sup> Kautzsch 1936, 71.

the volutes enter the abacus, where their stalks extend onto the abacus's surface before bending downward to form spirals.

Regarding the shape of the spirals, both helices and volutes on Corinthian capitals in Syria can have one, two, or three turns. In some examples, the spirals of the helices resemble a hook (e.g., Cap.3). In certain instances, they curve to resemble a wavy stalk<sup>411</sup> (e.g., Cap.15, 16) or a fluttering semi-palmette (e.g., Cap.33).<sup>412</sup>

The relationship between the stalks and spirals of opposite helices on the faces of Corinthian capitals also varies.

In the first case, the spirals of the helices touch at the axis of the capital's face (e.g., Cap.31, 68). The stalks rise upwards, then bend downwards at the axis, where they form the spirals that meet precisely at the center of the face.

In the second case, the spirals are spaced apart from each other. Sometimes, there is nothing separating them (e.g., Cap.60). On the other hand, a decorative element may be present between the spirals. These decorative elements include garlands (e.g., Cap.290), the central motif of the abacus (e.g., Cap.91), and occasionally a leaf extending downward from the central motif (e.g., Cap.111). Additionally, the stem of the central motif may appear in two forms: straight or wavy (e.g., Cap.95). In these instances, the spirals may or may not come into contact with these elements.

The third case, though rare, involves the helices twisting around each other (e.g., Cap.72.Face2). In this variation, the stalks and spirals overlap and wrap around one another. It displays the replacement of classical helices with those that have intertwining stems. According to Dimitrov, this feature seems to have its origins in Anatolia. In contrast, Nassar suggests that this type first appeared in the Western Roman provinces before spreading to the Eastern regions, with the oldest example found in the Temple of Castor in Rome, dating back to the Augustan period.<sup>413</sup>

Furthermore, in addition to their proportional adjustments in shape and size, another factor impacting these *crosses* is the thickness of their stalks. When the stalks are relatively thin, this

<sup>&</sup>lt;sup>411</sup> This design can be seen on capitals from the Proconnesian quarries, dating back to the Severan period. Pensabene 1997, 394.

<sup>&</sup>lt;sup>412</sup> This heterodox shape of helices can be found in parallels from Asia Minor, made of Proconnesian marble, and dating back to the Antonine and Severan periods. Pensabene 1997, 398; Kahwagi-Janho 2014, 342–47.

<sup>&</sup>lt;sup>413</sup> Nassar 2014; Dimitrov 2018, 95.

is a characteristic feature observed in capitals dating back to the 1st century AD, particularly those found along the western coast of Asia Minor.<sup>414</sup>

Towards the end of the 2nd century and the beginning of the 3rd century AD, the stalks of helices and volutes became notably slender, and the spirals of these elements opened up. This characteristic is also a distinctive trait of Corinthian capitals from Asia Minor.<sup>415</sup>

Finally, it is important to note that helices began to disappear entirely from Corinthian capitals starting in the 5th century AD. However, some capitals from this period were occasionally found to still feature helices. Researchers believe this was due to the desire of certain craftsmen to preserve traditional designs, which deviated from the common styles of the time. For example, a local workshop in Cilicia continued to produce models with internal helices, even though this design element had largely vanished from capitals by the early 5th century AD.<sup>416</sup> The abandonment of helices resulted in the widespread use of Corinthian capitals with volutes during this time, and this established them as a common Byzantine style.<sup>417</sup>

## 5.1.5 Calathus

The calathus appears on Corinthian capitals in Syria in two distinct shapes. The first resembles a cylindrical form located beneath the abacus, a prominent feature of classical Corinthian capitals since their inception (e.g., Cap.22). This distinctive element continued to hold significance in the eastern Mediterranean region through the late 2nd and early 3rd centuries AD.<sup>418</sup>

In its second form, the calathus appears flatter (e.g., Cap.144). This shows the transition from a three-dimensional structure to a more decorative design. This shift signifies the beginning of the Byzantine period, during which the calathus underwent significant transformation. The upper part evolved into an irregular, amorphous mass that swells slightly in the middle. It mainly serves as a background for decoration, not as the core element of the Corinthian capital. Although traces of the older design occasionally remained, they lost the strong curve of earlier forms and flattened into a plate shape.<sup>419</sup>

<sup>&</sup>lt;sup>414</sup> Dentzer-Feydy 1990, 660.

<sup>&</sup>lt;sup>415</sup> Kahwagi-Janho 2017, 95.

<sup>&</sup>lt;sup>416</sup> Yalçin 2004, 57–62.

<sup>&</sup>lt;sup>417</sup> Weigand 1914b, 26.

<sup>&</sup>lt;sup>418</sup> Yalçin 2004, 57–62.

<sup>&</sup>lt;sup>419</sup> Weigand 1914b, 26.

The final configuration seen in Corinthian capitals in Syria is the complete omission of the calathus. By the 5th century AD, its rim had disappeared entirely. This trend is evident in Corinthian capitals from the 5th and 6th centuries and reflects this evolutionary development.<sup>420</sup>

## 5.1.6 Abacus

One characteristic of ancient abaci preceding the Roman Empire is the tall abacus with blunted corners, which provides a spacious area. In the later imperial era, the high abacus was replaced by a low one with pointed corners, rather than blunted.<sup>421</sup> Perrault highlights that the pointed shape of the abacus corners aligns with Vitruvius's description of the Corinthian capital, where he specifically mentions only four corners. This corresponds to the pointed corners, as opposed to the eight corners seen in blunted versions.<sup>422</sup>

Corinthian capitals in Syria display various forms of the abacus that differ across periods. The earliest form has a double-profile design, which consists of two moldings stacked above one another (e.g., Cap.3). This style is characteristic of early Corinthian capitals and is commonly referred to in German as *"Hohlkehle"* and *"Welle."*<sup>423</sup> Pensabene describes this form in Italian as *"abaco classicistico con ovolo e cavetto,"* translating to "classical abacus with ovolo and cavetto."<sup>424</sup>

In some instances, the upper molding may not take the shape of an *ovolo* and instead might appear as a thin strip known as a *listel*, or it could be wider, resembling a band (e.g., Cap.12, 13). Both the lower and upper moldings may be left undecorated, or they can be decorated, either both or just one of them. In capitals where the lower molding, the cavetto, is decorated, ornaments such as gadroons are typically used (e.g., Cap.36). Another decorative motif for the *cavetto* is foliage (e.g., Cap.25).

As for the upper moldings, one of the common decorative elements is the egg-and-dart motif (e.g., Cap.6). These decorations add complexity and personality to the design and enhance the visual appeal of the capitals. Indeed, many examples of abaci featuring the egg-and-dart motif

<sup>&</sup>lt;sup>420</sup> Kautzsch 1936, 87.

<sup>&</sup>lt;sup>421</sup> Gütschow 1923, 70.

<sup>&</sup>lt;sup>422</sup> Perrault & McEwen 1993, 134.

<sup>&</sup>lt;sup>423</sup> "*Hohlkehle*" is a German term that translates to "hollow" or "concave fillet" in English. In the context of architectural terminology, it refers to a concave molding or groove typically found in classical architecture. "*Welle*" is a German term that translates to "wave" or "undulation" in English. In the context of architectural terminology, it could refer to a decorative motif resembling a wave or undulating pattern.

<sup>&</sup>lt;sup>424</sup> Pensabene 1986, 306.

on the upper molding and gadroons on the cavetto have been found in the eastern Mediterranean, including Lebanon, dating back to the late 2nd century AD.<sup>425</sup>

In some Corinthian capitals dating back to the early Imperial period in Syria, an additional element is incorporated into the *abaco classicistico con ovolo e cavetto*. In these instances, a third molding, a *listel*, is added either above the *cavetto* or above the *ovolo* (e.g., Cap.108-127). This modification may reflect the local influence on the design of the abacus of the Corinthian capital. This style of abacus will be referred to as triple-profile.

This form of abacus, consisting of cavetto, ovolo, and/or listel, appears to have been applied to all Corinthian capitals in the Roman imperial period. It continued through the late Roman and early Byzantine periods, when new modified forms began to emerge. The second form of the abacus found on Corinthian capitals in Syria appeared during the Byzantine period. It is considered as a departure from previous profiles. Here, the traditional *Hohlkehle* and *Welle* shapes were replaced by two strips divided by a notch. Pensabene referred to this "*abacus as a due zone*" in Italian, which mean "with two zones." The upper ovolo has been flattened and expanded to form a broader listel, while the lower cavetto has also flattened its curvature.<sup>426</sup>

This second form of abacus became popular during the Byzantine period and was commonly found on imported capitals in Syria (e.g., Cap.314-335). Usually, this form of abacus is not decorated; however, in some cases, motifs can be added. The only motif found on this type of abacus in Syria is oblique lines, which decorate the upper part of the abacus (e.g., Cap.329). A notable example of this design can be seen on the Marcian capital in Constantinople, dating to the mid-5th century AD.<sup>427</sup>

Additionally, another form of the abacus seen on Corinthian capitals in Syria is the recessed band (e.g., Cap.204). In some instances, this band is divided by a groove (e.g., Cap.282). Moreover, in rare cases, this style of abacus does not recede or become concave at its center; instead, it maintains a straight line across its face (e.g., Cap.209). Specifically, in the flat form of the band, there is no central motif at the center. This design is mainly linked to the Byzantine period in central and northern Syria. Although the prominent and most common form of abacus in early Corinthian capitals was the traditional *Hohlkehle* and *Welle* shapes, one capital from that period features this flat band abacus, specifically the capital Cap.2 from Aleppo.

<sup>425</sup> Kahwagi-Janho 2017, 93.

<sup>&</sup>lt;sup>426</sup> Pensabene 1986, 313.

<sup>&</sup>lt;sup>427</sup> Kautzsch 1936, 60-61.

## 5.1.7 Central Motif of Abacus

Various forms of the central motif were used on Corinthian capitals in Syria. These forms are related to the period in which the Corinthian capitals belong. Many of these capitals feature a plant-shaped central motif, often a fleuron with different designs, ranging from a multi-lobed rose to a rose with overlapping petals (e.g., Cap.11, 22).

In general, the fleuron on Corinthian capitals can take many forms. In Pre-Imperial capitals, the fleuron exhibited a physical change in level between itself and the abacus. This distinction later evolved into a more seamless integration.<sup>428</sup> Regarding the placement of the fleuron on the abacus, it can be positioned in various ways at the center. Vitruvius specifies that its width should be equal to that of the abacus, although it extends below the edge of the capital's bell. One example of this can be observed in the capital of the Temple of the Sibyl at Tivoli, where the fleuron nearly conceals the helices and takes on a different shape (Figure 101).<sup>429</sup>

The fleuron may sometimes be depicted with a stem, a feature present in early Corinthian capitals. It can be observed on the capitals of the Tholos Epidaurus (Figure 50) and on the capitals of the Olympieion (Figure 52), which are among the oldest Canonical Corinthian capitals, dating back to the 2nd century BC. The stem starts from the fleuron positioned at the center of the abacus, and it descends straight downward along the axis of the capital's face. Thus, it is referred to as the "stem of the abacus central motif." The Olympieion capitals, brought to Rome by Sulla, served as significant prototypes for subsequent Corinthian capitals in Rome. Consequently, there is a notable resemblance in the design of later Corinthian capitals in Rome and the Olympieion capitals, including the presence of the stem, as seen in structures such as the Round Temple in the Forum Boarium (Figure 102) and the standard capitals of the theater balcony at the Upper Sanctuary of Fortuna Primigenia in Praeneste.<sup>430</sup>

In the Roman Pre-Imperial period, one distinguishing feature of the stem of the ancient abacus fleuron is its thick structure. However, in the post-Imperial period, the stem of the fleuron transitions to a slender form.<sup>431</sup> This thick form of the stem appeared rarely in Corinthian capitals in Syria, as seen in capitals such as Cap.125, 157.

<sup>&</sup>lt;sup>428</sup> M. W. Jones 1991, footnote 7.

<sup>&</sup>lt;sup>429</sup> Perrault & McEwen 1993, 134–35.

<sup>&</sup>lt;sup>430</sup> Abramson 1974, 6, 9–10.

<sup>&</sup>lt;sup>431</sup> Gütschow 1923, 70.

On Corinthian capitals in Syria, the stem is typically either straight (e.g., Cap.13) or wavy (e.g., Cap.148). The first one is commonly found in Hellenistic capitals from the eastern regions, particularly those influenced by the Seleucid Empire.<sup>432</sup>

When a stem is present on a Corinthian capital, it can either be fully visible and clearly defined without being obscured by other elements (e.g., Cap.37), or it can be partially hidden behind features like adjacent helices or calyces (e.g., Cap.64). The stem may be visible on one face while absent from the others (e.g., Cap.82). This variation often results from the placement of other decorations, such as touching helices, which can obscure the stem. In cases where the stem is evident on one face but not on others, it typically reflects an issue with the carving process rather than intentional design.

Turning to another form of central motif on Corinthian capitals in Syria, the motif may take on a less pronounced boss shape (e.g., Cap.330). Kautzsch describes this as a knob with a few furrows. This style is primarily associated with capitals from the end of the Roman Empire, particularly the Byzantine period.<sup>433</sup> It seems that the craftsman did not work with great care, using only simple marks to suggest the shape of the fleuron.

Another variation of the central motif on Corinthian capitals in Syria displays a geometric design. This form typically takes the shape of a cylinder, which is commonly seen in capitals from the Byzantine period. This cylindrical motif is associated with the flattened, receding abacus previously discussed, also a characteristic of the Byzantine era in Syria.

Finally, this central motif may be absent in some capitals, particularly those with a straight, flat abacus, where there appears to be no central motif at all (e.g., Cap.360).

# 5.2 Additional Elements

In the same way that essential elements could be removed from the Canonical Corinthian capital, it was also common to introduce new decorative motifs into its design. However, the number of Corinthian capitals with additional elements is lower than those without. The ratios and types of these elements varied across the studied capitals, which include axial motifs, figures, crosses, garlands, and grapevines (Figure 103). These added elements could have

<sup>&</sup>lt;sup>432</sup> This style is evident in the capitals of Baalbek, Jerash, and Caesarea, as well as in Asia Minor and Greece, and is characteristic of 1st-century AD capitals on the western coast of Asia Minor. Dentzer-Feydy 1990, 654, 660.
<sup>433</sup> Kautzsch 1936, 60, 61, 72.

symbolic significance or simply serve aesthetic functions. The following discussion will explore these decorations and their role within the framework of the Corinthian capital.

## 5.2.1 Axial Motif

The first element to be studied in the Corinthian capitals found in Syria is referred to as the "axial motif." This name derives from its position along the central axis of the face of the capital, situated between the inner parts of the calyces and above the central acanthus leaves of the second row.

This motif takes various forms. The earliest and most common of these forms is the acanthus leaf, which appears prominently in many Corinthian capitals in the region (e.g., Cap.4, 136, 196). Some scholars suggest that this additional acanthus leaf appeared in Corinthian capitals across Asia Minor and the eastern Mediterranean starting in the Hellenistic period and remained a characteristic feature in the East until the time of Trajan.<sup>434</sup>

However, this element can be seen on Corinthian capitals from the 1st and 3rd centuries AD (e.g., Cap.34-37), although this relatively new design of the acanthus leaf is less vibrant.

The second form observed on Corinthian capitals in Syria is a three-part leaf known as the "palmette."<sup>435</sup> This motif, similar to the additional acanthus leaf, is positioned directly above the axial acanthus leaf of the second row. The palmette consists of three segments: two on the sides and one at the apex (e.g., Cap.3). It is characterized by its smooth surface, generally without any additional decoration, although a central rib may occasionally be present in some examples (e.g., Cap.12).

In some Corinthian capitals which have the calyces with the band-like element on their inner parts, the axial motif is designed to occupy the space between the two bands of the inner calyx. Due to the relatively small space, neither an acanthus leaf nor a palmette can be accommodated. This led to the use of alternative forms for the axial motif.

One variation is a flower design with two petals on each side and one upper petal. In some instances, the upper petal extends to form the stem of the central motif of the abacus (e.g., Cap.80-83). Occasionally, the side petals are omitted, and only the upper petal visible. This adjustment occurs when the space between the ends of the inner calyces is too restricted (e.g., Cap.62, 81, 86).

<sup>&</sup>lt;sup>434</sup> Schlumberger 1933, 303–4, 306; Dentzer-Feydy 1990, 641.

<sup>&</sup>lt;sup>435</sup> Poljak & Botić 2018, 202.

The additional axial motif might also take a shape known as the "tongue," a name derived from its resemblance to the shape of a tongue. It is an unadorned, smooth element that emerges from the top leaflet of the central acanthus leaf in the second row. It extends vertically and tapers as it rises (e.g., Cap.6, 22, 41, 69). The earliest examples of this motif on Corinthian capitals date back to the 2nd and 3rd centuries AD, with its use becoming more widespread in the 4th century AD.<sup>436</sup> Occasionally, a midrib and outline are added to the tongue, as in Cap.18. This motif can appear on all four faces of the capitals, as in all the capitals found in Syria, though it may also be present on just one, two, or three faces.<sup>437</sup>

## 5.2.2 Figure

Various figures may be incorporated into Corinthian capitals, resulting in what are known as "figural capitals" or "figured capitals." There are many theories about the origins of these capitals.<sup>438</sup> Research has been conducted throughout the eastern Mediterranean by scholars such as von Mercklin, Fischer, and Kahwagi-Janho, who explored these elements in various regions of the eastern Roman Empire.<sup>439</sup> In the Corinthian capitals of Syria, a range of figures representing diverse subjects was included. This allows for their classification into distinct categories.

## 5.2.2.1 Depictions of Deities

Corinthian capitals frequently display depictions of Greek and Roman deities across various regions.<sup>440</sup> In Syria, such capitals are relatively rare, but notable examples have been discovered in the coastal city Latakia, particularly in the ancient area of Laodicea.<sup>441</sup> Four of these capitals are part of the Columns of Bacchus (Cap.128), located within the boundaries of the ancient city and crafted from local limestone (Figure 104).<sup>442</sup>

The capitals of these columns have three faces adorned with the essential elements typical of Canonical Corinthian capitals, while the fourth face exhibits a bust. Despite the significant damage, which destroyed many details, some features are still visible. The figure looks like a person with a hand holding a bunch of grapes. Additionally, there is a spear-like element behind

<sup>&</sup>lt;sup>436</sup> Maver et al. 2009, 126.

<sup>&</sup>lt;sup>437</sup> Poljak & Botić 2017, 96; 2018, 202.

<sup>&</sup>lt;sup>438</sup> von Mercklin 1962, 3; Ward-Perkins 1965, 175–79; Boethius & Ward-Perkins 1970, 142.

<sup>&</sup>lt;sup>439</sup> von Mercklin 1962, 23–27; Fischer 1989, 112–32; Kahwagi-Janho 2019.

<sup>&</sup>lt;sup>440</sup> von Mercklin 1962, 343–44; Kahwagi-Janho 2019, 315–16; Fischer 1989.

<sup>&</sup>lt;sup>441</sup> Burns 1992, 143.

<sup>&</sup>lt;sup>442</sup> Texier 1864, 86–87.

the figure. These attributes strongly suggest that the bust represents the god Bacchus, known for his association with grapes and wine.<sup>443</sup>

In addition to the Bacchus columns, there are three marble Corinthian capitals that were discovered alongside several granite column shafts during construction work in the al-Saliba quarter, a part of the ancient city of Laodicea. These capitals are now housed in the Latakia Museum, and they consist of an upper section that includes busts of deities, while the lower sections are missing.

One of these capitals presents a clear depiction of Bacchus (Cap.92). It is portrayed as a bearded young man wearing a Roman toga, which is considered a typical representation of this god. There is also a *thyrsus* behind him, a staff that is closely linked to Bacchus. This element further confirms this identification.<sup>444</sup> The second capital has a female figure with a stern, masculine expression. She is wearing a helmet and a medallion resembling Medusa (Cap.94). These characteristics align with traditional depictions of the goddess Minerva.<sup>445</sup> The third capital depicts a figure with a displeased expression, a prominent beard, and pointed ears (Cap.93). These features, along with a crooked shepherd's staff (*lagobolon*) carved behind the figure, strongly suggest this is a representation of Pan or Faunus.<sup>446</sup>

While no comparable depictions of these deities have been found elsewhere in the eastern Mediterranean, a capital from Baalbek, Lebanon, introduces a miniature figure of Bacchus.<sup>447</sup> Similarly, in Roman Palestine, there is a column that displays a small depiction of the goddess Tyche and resembles the Bacchus depiction in Latakia.<sup>448</sup>

#### 5.2.2.2 Animal Depictions

There are many Corinthian capitals with representations of animals around the Mediterranean, such as cows, bulls, rams, lions, and birds, including doves and eagles.<sup>449</sup> However, in Syria, such capitals are rarely found. Among the few examples, two capitals adorned with eagles have been discovered. The first is made of marble (Cap.2), and the second is of limestone (Cap.195). These capitals are both located in the Aleppo Museum.

<sup>443</sup> Gnecchi 1911, 13; Gasparri 1986, 3-1:542-66.

<sup>&</sup>lt;sup>444</sup> Gnecchi 1911, 13; Gasparri 1986, 3-1:542-66.

<sup>&</sup>lt;sup>445</sup> Gnecchi 1911, 20; Colonna et al. 1984, 2–1:1050–1110.

<sup>&</sup>lt;sup>446</sup> Berens 2009, 5–6.

<sup>447</sup> Kahwagi-Janho 2019, 317, fig.8.

<sup>&</sup>lt;sup>448</sup> Fischer 1989, 11-figs.7–8.

<sup>&</sup>lt;sup>449</sup> von Mercklin 1962; Fischer 1989; Schmidt & Schmidt 2007, 17–18; Kahwagi-Janho 2019.

The eagle figure on the capital from marble is poorly preserved. It shows faint outlines of the legs and wings, which have elongated feathers. The eagle appears to be standing, with its legs positioned on the calyces of the capital. As for the limestone capital, the eagle is also in a standing posture. It is damaged, with only part of the left wing and the outline of the figure visible.

The freestanding posture of the eagle on the Corinthian capital is relatively uncommon. Similar figures can be seen on other objects in Syria, such as the lintel of the Baalshamin Temple in Palmyra, which dates back to the early 3rd century AD.<sup>450</sup> The use of eagle continued in the art of Roman and Byzantine periods.<sup>451</sup> Many capitals have been discovered in various locations, such as in Tyre, Lebanon, where eagles with wings at their sides appear on capitals from Roman Imperial period.<sup>452</sup> In Palestine, standing eagles with spread wings have also been documented.<sup>453</sup>

The inclusion of animal figures in Corinthian capitals served both decorative and symbolic purposes.<sup>454</sup> The eagle may have had symbolic significance, particularly in temple context where it was associated with the gods, as seen in the Temple of Baalshamin in Palmyra.<sup>455</sup> However, it is not easy to establish this connection with the marble capital in the Aleppo Museum, because this capital is not linked to specific buildings, like temples, which makes interpretation harder. Accordingly, despite the symbolic significance of eagle in Syria, its specific role in these Corinthian capitals remains unclear.

The limestone capital dates to the Byzantine period, where the eagle symbol took on different meanings within Christian iconography. It was a symbol of Christ, resurrection, and ascension, and frequently appeared in representations of salvation, baptism, and the Eucharist. The significance of the eagle was often discussed by Christian theologians, who connected it to Biblical texts.<sup>456</sup>

<sup>&</sup>lt;sup>450</sup> Gawlikowski 2021, 131.

<sup>&</sup>lt;sup>451</sup> Kautzsch 1936, 30.

<sup>&</sup>lt;sup>452</sup> Kahwagi-Janho 2019, 322–23, figs20–22.

<sup>&</sup>lt;sup>453</sup> Fischer 1989, 115, fig.1.

<sup>&</sup>lt;sup>454</sup> Kahwagi-Janho 2019, 235.

<sup>&</sup>lt;sup>455</sup> For more details, see: Greet 2015.

<sup>&</sup>lt;sup>456</sup> For more details, see: Schmidt & Schmidt 2007, 34–40; Filipek 2023.

While animal representations on Corinthian capitals in regions surrounding Syria include a variety of creatures like doves, lizards, snakes, lions, and bulls, eagles are the only animal figures discovered on Corinthian capitals within Syria itself.<sup>457</sup>

#### 5.2.2.3 Masks

In Roman times, masks were a significant architectural element, and they were commonly seen in buildings related to theater and performances.<sup>458</sup> During this period, the construction of theatres in Syria increased significantly. Many of these structures still stand today.<sup>459</sup> However, it is very rare to find Corinthian capitals adorned with masks in Syria. A unique example of this architectural feature was discovered in the Roman theater of Jableh, located along the Syrian coast (Cap.385).<sup>460</sup> This theater dates to the first half of the 3rd century AD, during the reign of the Severan dynasty.<sup>461</sup>

The capital from Jableh is extensively damaged. Only a fragment of the lower row of acanthus leaves remains, along with a partially visible mask instead of the usual abacus decoration. This mask shows two eyes and a smiling open mouth. A similar mask can be seen on a capital of unknown origin from Lebanon.<sup>462</sup>

#### 5.2.2.4 Human Depictions

Many Corinthian capitals with human figures have been found in Syria. The earliest examples date back to the Hellenistic period.<sup>463</sup> These figurative capitals are mainly found on Nabataean capitals in southern Syria, especially in the temples of Seī<sup>c</sup> (e.g., Cap.365, 367), the Museum of As-Suwayda (e.g., Cap.372, 373), and isolated example from the nearby city of Ṣalkhad (Cap.376).

These capitals have two rows of acanthus leaves, volutes, and an abacus on top. Between the stalks of the volutes, just above the acanthus leaves, a nude male bust is depicted. In some cases, the figure appears without arms (e.g., Cap.373), while in others, it has arms resting on the top of the axial motif, as in capital Cap.358. Sometimes, it seems as if he is grasping it (e.g., Cap.367).<sup>464</sup>

<sup>&</sup>lt;sup>457</sup> Kahwagi-Janho 2019; Fischer 1989.

<sup>&</sup>lt;sup>458</sup> von Mercklin 1962, 135–46; Pensabene 2007, 347–50; Kahwagi-Janho 2019, 319.

<sup>&</sup>lt;sup>459</sup> Sear 2006, 105–10.

<sup>&</sup>lt;sup>460</sup> Besides the theater and the harbor, other urban features such as an agora/forum and temples cannot be identified in Jableh. Lund 2004, 62.

<sup>&</sup>lt;sup>461</sup> Patricio & Stevens 2003, 1601.

<sup>&</sup>lt;sup>462</sup> Kahwagi-Janho 2019, 318, fig.12.

<sup>&</sup>lt;sup>463</sup> Kahwagi-Janho 2019, 320.

<sup>&</sup>lt;sup>464</sup> For more information about this type of capitals, see: Chapter 4.2.8.

The human figure may represent Dushara, a significant deity in Nabataean religion. This interpretation is based on the fact that several of these capitals were found at the Baalshamin Temples, including the presumed Temple of Dushara at Seī<sup>c</sup> in As-Suwayda, which dates to the early 1st century AD (e.g., Cap.365, 367, 369). This temple was identified by a fragment showing feet treading grapes to make wine, thought to represent Dushara. However, some scholars challenge this, and they argue that there is no clear evidence linking the temple to the Nabatean god Dushara.<sup>465</sup>

Even though the dedication of the temple to Dushara remains uncertain, it is plausible that the god was venerated there. The nude, beardless male bust depicted on the capital from this temple supports this hypothesis, as it could represent Dushara. This is further supported by the fact that the only confirmed representations of Dushara on coins from southern Syria show the god as beardless.<sup>466</sup>

During this period, southern Syria was part of the Nabatean Kingdom.<sup>467</sup> Early Nabataean art was mostly aniconic, but by the 1st century AD, external influences like Alexandrian, Hellenistic, Parthian, and Greco-Oriental styles introduced figurative elements. These figures, particularly from the 1st and 2nd centuries AD, often depicted animals, some with anthropomorphic traits. While depictions of deities were relatively rare, human representations likely held religious significance.<sup>468</sup> These anthropomorphic portrayal shows a clear Greek influence, while the facial features retain distinct Nabatean traits, illustrating a blend of cultural and artistic traditions.<sup>469</sup>

Another example of a human figure in a capital is found in the Damascus Museum (Cap.363). This capital has two rows of four acanthus leaves, volutes, and an abacus, with a male figure depicted between the volutes. The shape of acanthus leaves suggests that this capital dates to a later period than the earlier Nabatean examples. Additionally, the male figure is dressed in a Roman toga, contrasting with the earlier nude depictions. These differences may provide insight into the cultural changes in southern Syria after its incorporation into the Roman Empire in AD 106. As Nabatean culture became integrated into the Roman world, there were significant social and artistic transformations, including the adoption of Roman sculptural

<sup>&</sup>lt;sup>465</sup> Butler 1909, II, III:388; J. Dentzer 1979, 325–32; Kropp 2011, 192.

<sup>&</sup>lt;sup>466</sup> J. Dentzer 1979, 325.

<sup>&</sup>lt;sup>467</sup> Gibson 2004; Augé 2014, 142–50.

<sup>&</sup>lt;sup>468</sup> Patrich 2007, 86–89, 96–99.

<sup>&</sup>lt;sup>469</sup> Bowersock 1990, 8.

techniques.<sup>470</sup> This suggests that the Damascus Museum capital dates to the 2nd or 3rd century AD, which reflects the influence of Roman artistry.

Human representations on capitals are also found in Lebanon, including examples of unknown origin with feminine features dating to the early 2nd century AD. Additionally, similar capitals from the Byzantine period have been discovered in Lebanon and Palestine.<sup>471</sup> It is worth noting that while the figures in both Lebanon and Palestine are mostly feminine, the capitals of southern Syria exclusively feature masculine representations.

## 5.2.3 Crosses

Another element added to the Corinthian capitals found in Syria is the cross. Before analyzing these capitals, it is important to provide a brief overview of the cross symbol and its significance.

The Latin term *Crux* and the Greek *Stauros*, both originally referring to a pointed pole. They were associated with suffering and punishment in pre-Christian and early Christian contexts. The cross, likely resembling a T-shaped structure, became closely linked with the brutal practice crucifixion.<sup>472</sup> Despite this association, the cross holds central importance in Christianity due to the crucifixion of Jesus Christ, as described in the Gospels.<sup>473</sup> This event is central to Christian theology, especially in the Paschal Triduum, which represents themes of death, redemption, and salvation. Over the first few centuries AD, the cross transitioned from a symbol of punishment to a powerful emblem of Christian faith, filled with religious and philosophical meaning. In the 2nd century AD, it began to be used as a seal and symbol, often represented by the letter "T" to signify the instruments of the Passion. By the 3rd and 4th centuries AD, and especially during the Byzantine era when Christianity became widely accepted, new cross shapes emerged, such as the familiar Greek and Latin crosses (Figure 105).<sup>474</sup>

The Greek Cross, also known as the Tau Cross (*crux commissa*), is distinguished by its four arms of equal length intersecting at right angles. This design is said to represent both Christ and His devoted followers. In contrast, the Latin Cross, with a longer vertical arm than the

<sup>470</sup> Gibson 2004, 229; Frel 1981, 9.

<sup>&</sup>lt;sup>471</sup> Fischer 1989, 121, figs.12–13; Kahwagi-Janho 2019, 319–21, figs.14–17.

<sup>&</sup>lt;sup>472</sup> Johns 2019, 46.

<sup>&</sup>lt;sup>473</sup> Matthew 27:22, 35-38.

<sup>&</sup>lt;sup>474</sup> Johns 2019, 46–47.

horizontal, first appeared in the 4th century AD. It eventually became the most widely recognized symbol in the Christian tradition.<sup>475</sup>

The crosses on Corinthian capitals in Syria exhibit various designs. One common motif features a simple, unadorned circular frame, as seen on capital Cap.281 (Figure 106). In some cases, the circular frame is braided, as observed on a capital from the Aleppo Museum (Cap.97.Face 2) (Figure 107). In other examples, the outline of the circular frame is embellished with triangles, as on capitals from the Aleppo and Hama Museums (Cap.161, 226) (Figures 108, 109), or adorned with small circles, as on capitals from the Aleppo Museum (Cap.163) (Figure 110). Another example shows the cross encircled by three frames. The innermost is braided, the second is plain, and the outermost resembles a wreath, as illustrated on a capital from the Hama Museum (Cap.219.Face2) (Figure 111).

In some cases, the design becomes more elaborate, like on capitals Cap.202 and Cap.387, where the cross-in-circle is surrounded by geometric decorations.

One of the forms of crosses depicted on capitals is the "plus" shape, characterized by four equal arms, as seen on examples such as capitals Cap.201 and Cap.387. Another distinct design appears on a capital from the Latakia Museum (Cap.12) (Figure 112), where a freestanding Latin cross is engraved on a flat surface. This cross belongs to the "open-end" Latin cross type. The use of this specific cross form in the Eastern Mediterranean cannot be traced back earlier than 5th century AD.<sup>476</sup>

On either side of the cross are the Greek letters "A" and " $\Omega$ ," representing Alpha ( $\check{\alpha}\lambda\varphi\alpha$ ) and Omega ( $\Omega\mu\acute{\epsilon}\gamma\alpha$ ). These symbols signify the eternal nature of God and illustrate Jesus as both the beginning and the end of all things.<sup>477</sup>

The design elements of this capital indicate that it originally dates to the 1st or 2nd century AD. It seems that during the Byzantine period, Christians repurposed the capital by adding the cross along with the Alpha and Omega symbols. Based on the style of the cross and the presence of these symbols, these modifications were likely made in the 5th or 6th century AD.

Other forms of crosses were used in Byzantine art in addition to the typical styles, such as the Chi-Rho monogram. This symbol predates Christianity and was originally employed as a

<sup>&</sup>lt;sup>475</sup> Demorest 1882, 45; Finegan 1993, 352; Garipzanov 2018, 82.

<sup>&</sup>lt;sup>476</sup> Lübke 1887, 156; Peña 2000, 79.

<sup>&</sup>lt;sup>477</sup> von Campenhausen 1929, 39–68.

decorative and symbolic motif.<sup>478</sup> It is often associated with Constantine the Great, who played a pivotal role in the Christianization of the Roman Empire. Later, Christians adopted this symbol and interpreted it as a combination of the first two letters of the Greek word for Christ, "XPIΣTOΣ," which translates to "Christus" or "the Anointed One" (chi X and rho P). The Chi-Rho became quite prevalent in early Christian art and iconography as a representation of Christ's divinity. The use of this symbol by Christians increased around the mid-4th century AD.<sup>479</sup>

A notable example of this form can be found in the capital Cap.190 located at al-Halawiyah Madrasa in Aleppo (Figure 113). It is thought that this section of the Madrasa, which has these capitals, was built during the 6th century AD, specifically on the site of the former St. Helen's Church. The existing Corinthian capitals in the Madrasa are believed to be remnants of the original Byzantine *exedrae* that were part of the church. This suggests that these capitals date back to the 6th century AD.<sup>480</sup>

When considering the placement of these capitals within their original structures, it is important to note that most of the studied capitals are now housed in museums without any provenance information. Still, some capitals can still shed light on their initial contexts.

Among the examined capitals, several date back to the 6th century AD and were originally part of churches, such as capitals Cap.97, Cap.161 and Cap.163. Although these capitals were found lying on the ground, their original locations can be easily inferred from the visible bases of the columns, which indicate where they once stood. These columns would have divided the main hall of the church into three distinct areas: a central nave flanked by two aisles. Centrally located in the nave is the bema, a prominent feature characteristic of Syrian churches from the 5th and 6th centuries AD.<sup>481</sup>

Other capitals are found in the Dead Cities in northern Syria, which generally date back to the Byzantine period. This suggests that these capitals may have belonged to religious structures as well.

Regarding the position of the crosses on these capitals, in some cases, the cross-in-circle is located in the corners of the capital, where the outer parts of the calyces meet the spirals of the

<sup>&</sup>lt;sup>478</sup> Bardill 2012, 220.

<sup>&</sup>lt;sup>479</sup> Goodenough 1968, 7:178; Thomas 1981, 86–87; Bardill 2012, 220.

<sup>&</sup>lt;sup>480</sup> Sauvaget 1929, 129, 133–59; 1941, 140–41; Guidetti 2009, 21; Neglia 2010, 138.

<sup>&</sup>lt;sup>481</sup> Tchalenko & Baccache 1979, 3:202–3, pl.339–40.

volutes, as seen in Cap.190 and Cap.164-166. In other instances, the capitals feature crosses on the body of the acanthus leaf, either in the lower row, as observed in Cap.281, or in the upper row, as in Cap.161 and Cap.219. Sometimes, the cross takes the place of the axial leaf in the second row, like in Cap.202 and Cap.387. In one instance from al-Halawiyah Madrasa (Cap.190), the cross is found above the axial leaf of the second row, in the position of the inner parts of the calyces. Additionally, crosses on Corinthian capitals in Syria can be found between the two parts of the calyces, such as in Cap.201. Finally, in one example (Cap.271), the cross is located in place of the axial motif of the abacus.

Notably, these crosses were only found on one face of each capital, which raises questions about the orientation of the face displaying the cross.

Although these symbols may be decorative, their deeper meaning and connection to Christian beliefs suggest that they were included on purpose.

Some of these capitals were positioned on the doorways of structures (e.g., Cap.201, 271). The presence of the cross at the entrance suggests its role in protecting the building. This protective function is reflected in early Christian practices, where crosses were placed on or near doorways primarily for their apotropaic purpose. It serves to block access to evil powers from entering from doorways and other openings.<sup>482</sup>

As for the capitals found inside the structure, typically a church, the face of the capital bearing a cross was likely directed toward the nave, where the bema is located. In Syrian Christian thought, the bema and its altar represent Golgotha. This belief may explain the orientation of the crosses toward this holy feature.<sup>483</sup>

As for the capitals discovered in graves, capital Cap.281 was found in the 'Azār necropolis, just a few kilometers south of Tartous city, and dates to the late 3rd century AD.<sup>484</sup> The use of crosses by Christians began in homes and tombs before being adopted in churches, which occurred at the end of the 4th century and the start of the 5th century AD.<sup>485</sup> Crosses found in burial settings represent the salvation that Christ's death offers to humanity.<sup>486</sup> However, Cap.281 does not appear to be directly connected to any part of the tomb. Its small size suggests that it was likely made for a small structure. Unfortunately, there is not much historical

<sup>&</sup>lt;sup>482</sup> A. Grabar 1946, 2:378–83; Kitzinger 1970, 640.

<sup>&</sup>lt;sup>483</sup> Lassus & Tchalenko 1951, 91; Renhart 1995, 154.

<sup>&</sup>lt;sup>484</sup> Elayi & Haykal 1996, 36; Mustafa 2018, 29.

<sup>&</sup>lt;sup>485</sup> Kitzinger 1970, 639–41, note10, fig.1.

<sup>&</sup>lt;sup>486</sup> Roussin 1985, 65–66.

information available about this area during the Byzantine period in Syria. Future excavations at this site and nearby locations may provide more insights into its history.

It is essential to understand that finding a cross on a capital or any other item does not necessarily mean it comes from the Byzantine period. In fact, early Christians generally refrained from incorporating architectural features from pagan temples into their religious buildings. This point is highlighted in *The Life of Theodosius*, where Constantine famously commanded the complete destruction of remnants of pagan temples, viewing them as abominable, before constructing a church.<sup>487</sup> However, there are numerous cases where elements from pagan sites were reused in Christian structures, likely due material shortages.<sup>488</sup> These components were modified by adding Christian symbols, which removed their pagan connotations and made them suitable for Christian use, signifying purification and the embrace of Christianity.<sup>489</sup>

A notable example of this practice can be seen in the capital Cap.12, which exhibits design characteristics that suggest it dates back to the 1st or 2nd century AD.<sup>490</sup> During the Byzantine period in Syria, this capital was probably repurposed by Christians, who added a cross and the letters Alpha and Omega. The style of the cross and the inclusion of these letters indicate that this modification occurred no earlier than the 5th or 6th centuries AD. The changes made to the capital seem rather basic and lack intricate craftsmanship, which suggests that it was reused by an individual rather than for an official church structure. This shows how early Christians adapted older elements and gave them new meanings that matched their beliefs and practices.

## 5.2.4 Garland

Another feature introduced to the Corinthian capitals in Syria is the garlands. In Roman times, garlands were crafted from various plant materials and came in multiple forms, serving different purposes. The Latin terms *serta* and *corolla* specifically referred to garlands, while *corona* was commonly used for crowns. However, the meanings of these terms could vary based on context.<sup>491</sup>

<sup>&</sup>lt;sup>487</sup> Eusebius 1999, 279.

<sup>&</sup>lt;sup>488</sup> Jacobs 2010, 278; Hall 2017; Niewöhner 2021, 33.

<sup>&</sup>lt;sup>489</sup> Saradi 1997, 495.

<sup>&</sup>lt;sup>490</sup> See: Appendix 2.

<sup>&</sup>lt;sup>491</sup> Dylan 2020, 4.

Garlands were usually made in three main shapes: crowns, hanging decorations, and garlands supported by frames of other plant materials.<sup>492</sup> Each form had its own symbolic significance within different Roman religious ceremonies.<sup>493</sup>

In the Corinthian capitals found in Syria, garlands are often composed of leafy swags. They typically hang from the corners and seem to support the upper leaves of the corner acanthus in the second row. From these positions, the garlands curve upward toward the axial motif of the abacus and create various designs.

In the first design, the garland extends beneath the abacus before descending again, as in Cap.103, Cap.284 and Cap.389. In capital (Cap.153), the garland seems to be attached to the central motif of the abacus by a feature that resembles a rope. On the other hand, in capital (Cap.103), the garland is situated beneath the spirals of the volutes and does not reach the abacus.

In the second design, the garland may form a knot beneath or on the central motif of the abacus before continuing downward, as illustrated in various capitals (e.g., Cap.161, 196, 208).

In the third case, the garland may end at the abacus' central motif, then restart and move downward toward the corner. It finishes beneath the top leaflet of the corner acanthus leaf in the second row, as seen in Cap.337.

There are two scenarios regarding the movement of the garland and its relationship with other elements of the capital. In the first one, the garland travels above all other elements until it reaches the abacus, without altering or modifying any other features, as observed in Cap.208 and Cap.222. In the second scenario, the craftsman adjusted certain elements, such as the inner parts of the calyces, to create space for the garland and its knot beneath the central motif of the abacus (e.g., Cap.161, 196, 295).

In central and northern Syria, which were part of the provinces of Syria Prima and Syria Secunda, Christians were under the jurisdiction of the Diocese of the East. They adhered to the decrees issued in Constantinople, particularly those related to religious practices.<sup>494</sup> Their

<sup>&</sup>lt;sup>492</sup> Guillaume-Coirier 2002.

<sup>493</sup> Lain 1963, 214; Dylan 2020, 6-7.

<sup>&</sup>lt;sup>494</sup> Filipczak 2015, 1, 3, 13–14.
compliance with these laws was likely influenced by their proximity to Antioch, the capital of the Eastern Diocese.<sup>495</sup>

This adherence seems to have impacted the tradition of using garlands, which remained common until the enactment of the *Theodosian Code* in AD 392. This law banned all pre-Christian Roman religious practices, including the use of garlands.<sup>496</sup> The mention of this practice in the code reflects how commonly it was used in pagan practices.<sup>497</sup> Consequently, devout Christians began to avoid using garlands and wreaths, as they became associated with pagan rituals.<sup>498</sup>

Despite the commitment to avoid using garlands for a time, they were brought back into use due to their significant importance in Christian beliefs. The meaning of the garland evolved within Christian ideology, where it came to symbolize consecration and total devotion to God. Additionally, it became associated with martyrdom and victory over sin.<sup>499</sup> This new interpretation may also be linked to its portrayal in Scripture as the "crown of life."

Revelation (2:10): "Don't be afraid of what you are about to suffer. Look, the devil is about to throw some of you into prison to test you, and you will experience affliction for ten days. Be faithful to the point of death, and I will give you the crown of life."

James (1:12): "Blessed is the one who endures trials, because when he has stood the test he will receive the crown of life that God has promised to those who love him."

As a result, the Christian community began to reintegrate garlands with their new meanings.

It seems that garlands were no longer used in Corinthian capitals between the second quarter of the 5th century and the start of the 6th century AD. This period likely represented a transitional phase when garlands, associated with pre-Christian traditions, were briefly abandoned. However, as their symbolic meaning evolved in the Christian context, they were reintroduced into art and architecture, which reflects a renewed spiritual significance. This

<sup>&</sup>lt;sup>495</sup> This commitment is underscored by a decree from AD 427 that prohibited placing crosses in disrespectful locations, such as on floors. The rarity of prominent crosses in mosaic floors and their absence along traffic routes and building entrances further support this adherence to the law. Mango 1986, 36; Kitzinger 1970, 641, notes 12-13; Donceel-Voûte 1988.

<sup>&</sup>lt;sup>496</sup> Some of banned rituals in Theodosian Code (16.10.12): "...*He shall not, by more secret wickedness, venerate his lar with fire, his genius with wine, his benated with fragrant odors; he shall not burn lights to them, place incense before them, of suspend wreaths for them.*" Pharr et al. 2001, 473.

<sup>&</sup>lt;sup>497</sup> This importance is further underscored by Tertullian's account of a Roman soldier who secretly embraced Christianity and refused to wear a wreath during a particular ceremony. Dodgson 1842, 1:177–78. <sup>498</sup> Lain 1963, 214–15.

<sup>&</sup>lt;sup>499</sup> Lain 1963, 214–15; Mikayelyan 2016, 371.

theory is supported by the securely dated Corinthian capitals with garland discussed in this dissertation. They date either to the late 4th and early 5th centuries AD (e.g., Cap.290, 337) or to the 6th century AD (e.g., Cap.161).<sup>500</sup>

#### 5.2.5 Grapevine

The final decorative element introduced to Corinthian capitals in Syria is the grapevine. Depictions of grapes and grapevines have been prominent in Syrian art and architecture since the Hellenistic and Roman periods.<sup>501</sup> The grapevine was known as *Vitis vinifera* in Latin. It held significant cultural meaning across various ancient societies and was often associated with specific deities.<sup>502</sup> This motif appeared widely in sculptures, reliefs, frescoes, and mosaics throughout the Mediterranean region. After the acanthus, the grapevine was the second most commonly depicted plant in ancient art.<sup>503</sup>

In both Greek and Roman traditions, the symbolic meaning of grapevines was almost identical. Grapes frequently appeared on funerary reliefs, tombs, and sarcophagi, where it symbolizes offerings for the journey into the afterlife and the hope for renewal beyond death. Outside funerary contexts, grapevines symbolized wealth, abundance, and prosperity.<sup>504</sup> They were also closely linked to deities like Dionysus in Greek mythology and Bacchus in Roman culture.<sup>505</sup>

In Christian art, grapevine motifs became widespread due to their metaphorical significance in the Gospel. This symbolism is particularly evident in the words of Christ:

"Remain in me, and I in you. Just as a branch is unable to produce fruit by itself unless it remains on the vine, neither can you unless you remain in me. I am the vine; you are the branches. The one who remains in me and I in him produces much fruit, because you can do nothing without me."<sup>506</sup>

When Jesus declared, "*I am the vine, ye are the branches*," he did not clearly explain its significance, which lead early Church Fathers to provide interpretations. One interpretation suggests that the vine represents the Church and its life-giving connection to believers. It

<sup>&</sup>lt;sup>500</sup> Based on this discussion and the evidence presented, all the capitals featuring garlands can be dated to this period. I believe that further examination of this issue would be valuable in either supporting or challenging this theory.

<sup>&</sup>lt;sup>501</sup> de Vogüé & Waddington 1865b, 2: fig.5; Jacqueline 1957, 99–127.

<sup>&</sup>lt;sup>502</sup> McGovern et al. 1996; McGovern 2003.

<sup>&</sup>lt;sup>503</sup> Savo et al. 2016.

<sup>&</sup>lt;sup>504</sup> Savo et al. 2016, 193.

<sup>&</sup>lt;sup>505</sup> Gnecchi 1911, 13; Gasparri 1986, 3–1:542–66.

<sup>&</sup>lt;sup>506</sup> John (15:4-5).

became further associated with the Incarnation and the Eucharist, where it was considered to bear deep soteriological and eschatological meanings.<sup>507</sup>

Additionally, it was related to the wine in Christian thought, which is a symbol of Christ's blood, as made explicit in the Bible:

"For this is my blood of the covenant, which is poured out for many for the forgiveness of sins. But I tell you, I will not drink from this fruit of the vine from now on until that day when I drink it new with you in my Father's kingdom."<sup>508</sup>

As a result, during the Byzantine era, grapes and grapevines began to appear across various forms of art, including the Corinthian capitals.<sup>509</sup> Only a few Corinthian capitals adorned with this motif have been found in Syria. The only capital that belongs to the pre-Byzantine period and bears grape clusters is the Nabataean capital Cap.369, a pilaster from the temple of Seī<sup><</sup>, dated to the 1st century AD.<sup>510</sup> This capital is considered one of the rare examples of grapes use on Corinthian capitals before the Byzantine period. This usage appears to be connected to local traditions, specifically the worship of the Nabataean god Dushara, who is associated with grapes and vines.<sup>511</sup>

From the Byzantine period, one notable example is a capital located in the Tartous Museum (Cap.249). This capital dates from the 5th to the first third of the 7th centuries AD based on the technique of carving the acanthus leaves.<sup>512</sup> It has two rows of acanthus leaves, caulicoles, calyces, and an abacus. There is a decorative frame surrounding the base of the capital. While much of it is damaged, some sections still show vine and plant motifs with grape clusters.

Another example from this period is a capital housed in the Aleppo Museum (Cap.195), which features a frame of engraved motifs above the first row of acanthus leaves includes grapevines. This design is nearly identical to a capital from Qasr Ibn Wardan (Cap.247), and therefore, Cap.195 could likely be dated to the same period.

<sup>&</sup>lt;sup>507</sup> Mantas 2003.

<sup>&</sup>lt;sup>508</sup> Matthew (26:28-29).

<sup>&</sup>lt;sup>509</sup> de Vogüé & Waddington 1865b, 2: Fig.62; Norris 2005, Fig.4; Niewöhner 2021, 74, 106, 109, 112.

<sup>&</sup>lt;sup>510</sup> Butler 1909, II, III:388; Kropp 2011, 192; J. Dentzer 1979, 325–32.

<sup>&</sup>lt;sup>511</sup> J. Dentzer 1979, 325–32.

<sup>&</sup>lt;sup>512</sup> Chapter 5.1.1.

## 5.3 Dating the Corinthian Capitals

The Corinthian capitals examined in this dissertation can be divided into two main groups, with the dating of the 390 capitals based on different methods depending on their location and association with well-documented architectural contexts, as well as on the characteristics of the capitals, the features of their elements, and other related indicators (Figure 114).

The first group (110 capitals) consists of capitals that come from clearly identified buildings or archaeological sites. Most of these were still in place or had been found in their original architectural settings. For example, some capitals are directly linked to structures such as the capital (Cap. 153) in Temple of Tyche in al-Ṣanameīn, Daraa. In total, a large portion of this group (105 capitals) can be securely connected to a specific building. In a few cases (5 capitals), although the exact building is not known, the site where the capital was found is datable. An example is a capital from Deīr Samʿān (Cap.187), where the broader archaeological context provides a general timeframe, even if the specific structure remains unidentified.

Studying the types of buildings to which these capitals belonged helps in understanding how Corinthian capitals were used across different architectural forms (Figure 115). It can be seen from the chart that most of the capitals with known locations were found in religious buildings, including Roman pagan temples and Byzantine churches or basilicas. Others were found in theaters, and, in a few cases, bathhouses or honorary columns. In addition, some were found in tombs from both the Roman and Byzantine periods, especially in the region of the Dead Cities in northern Syria.

The second group is more difficult to date. These capitals were found without clear architectural context. Some were reused in later constructions as *spolia*<sup>513</sup>, while others were discovered in towns or sites without additional information. Many of them are now in the museums, having been acquired through confiscation, purchase, or accidental discovery during modern construction projects.

To date this group, several approaches were applied. The chart in Figure 116 illustrates each method along with the percentage of capitals dated using each approach. The first, and least frequently employed, was referencing museum records. These provided dates that were accepted when based on excavation reports or scholarly research (e.g., Cap.353). The second strategy involved the use of previous literature, where dating was derived from earlier studies

<sup>&</sup>lt;sup>513</sup> Spolia refers to materials reused from earlier periods in the construction of new structures, whether modified or left in their original form. Deichmann 1975; Geymonat 2012, 47.

that examined certain Corinthian capitals in specific regions of Syria (e.g., Cap.33) or mentioned them as part of a more comprehensive study of an archaeological site (e.g., Cap.99).

It should be noted that valuable information about these capitals has sometimes been uncovered in literature from before the crisis in Syria, especially concerning the confiscated capitals and those whose locations were changed for various reasons after 2011. One example is Cap.249 from the Tartous Museum, which has been identified as a Byzantine capital from Northern Syria, dated to the 6th century AD based on the carving technique of its acanthus leaves. Interestingly, while searching the literature, this capital was also found in a study on the Corinthian capitals of Qasr ibn Wardān, where it was identified as a capital from the Church of Mā'iz in Jabal Barisha. Another example is a capital from the Aleppo Museum, which lacks an inventory number (Cap.288). According to Tchalenko's work, this capital was originally found in al-Dāna-North, al-Burdaqli, so its provenance and date are known.<sup>514</sup>

The last and most commonly used method in this dissertation was based on the historical, analytical, and stylistic study of the elements of the capitals, along with the use of parallels. Numerous cases were considered in this approach, such as the type of capital, as some were only found in specific periods. For example, the Without-*Crosses* Corinthian capitals did not emerge before the 4th or 5th centuries, during the Byzantine period in Syria, while the Lyre and V-Shaped capitals appeared exclusively in the 5th century AD.

In addition, it was necessary to examine all of its components. In this approach, each element of the Corinthian capital should be analyzed, as specific features can sometimes help in dating. For instance, the capital Cap.256 exhibits a distinct type of acanthus leaves created using a drill technique, which did not appear before the 5th century AD. Another case involves the use of the Christian cross. The cross was not seen outside funerary contexts until the late 4th or early 5th century AD, so any Corinthian capital holding a cross is typically dated to the end of the 4th century AD or later.

The results of these dating efforts are summarized in the tables included in Appendix 2. For each capital, the method employed for dating is clearly noted. When a capital is associated with a specific structure, the name of the building, its date, and the literature supporting that information are provided. In cases where the original context is unknown, the alternative dating methods are indicated, along with the references cited. When stylistic or typological analysis

<sup>&</sup>lt;sup>514</sup> Tchalenko 1953a, 2:Pl. CLXVII.

was the main approach, this is also clearly marked. For more complex cases, where dating relied on multiple features, the table includes keywords pointing to the specific elements that helped determine the date. These keywords direct readers to the relevant chapters of the dissertation, where the reasoning behind each date is explained in detail.

# CHAPTER SIX: ANALYSING THE CORINTHIAN CAPITALS IN SYRIA

## 6.1 Marble Corinthian Capitals in Syria

The Corinthian capitals in Syria are made of various kinds of stones. Most of them are from local materials such as limestone and basalt, while others are made of imported stones like marble.<sup>515</sup> Studying the different sources and distribution of marble capitals over time in Syria, in addition to the state of workmanship, provide valuable information about these capitals. It reflects the trade networks and economic exchanges, in addition to their symbolic and decorative significance, which introduces a deeper understanding of the role of marble in the cultural and political landscape of Syria.

#### - Coastal Region

Although Syria lacked its own marble quarries, a variety of imported marble and other materials were used in the public buildings of its coastal cities, including theatres, hippodromes, baths, and churches. One of these materials is the *Proconnesian marble*, which was used especially for column capitals and bases. Other materials included grey granite from Troy, red granite from Aswan, and monolithic columns made of green *cipollino* from Evia or *pavonazzetto* from Dokimeion, though the latter were less common.<sup>516</sup>

Numerous types of marble Corinthian capitals have been discovered along the coastal region of Syria. Several of these capitals are now preserved in the museums of its major cities, while others have also been found at what is believed to be their original locations, such as in the theater of the coastal city of Jableh.

#### Latakia

The Latakia Museum houses a significant collection of marble capitals. Although their exact find locations are unknown, all these capitals were discovered within the boundaries of the ancient city of Laodicea (Figure 117). Most of the Corinthian capitals in the museum represent the Canonical type, including notable examples made of Proconnesian marble.<sup>517</sup>

<sup>&</sup>lt;sup>515</sup> For details regarding the type of stone used for each of the capitals, see: Appendix 1.

<sup>&</sup>lt;sup>516</sup> Hirt 2021.

<sup>&</sup>lt;sup>517</sup> Pensabene 1997, 396.

Some of these capitals were previously studied, such as capitals Cap.15 and Cap.16, which resembles examples found in the theater at Caesarea. Geochemical analysis confirms that these capitals were crafted from Proconnesian marble, directly sourced from the quarry, as indicated by matching sample results. They are dated to the Severan period.<sup>518</sup>

Another capital (Cap.33) has fluttering semi-palmette helices and a wavy stem of the fleuron of the abacus. There are identical examples of Severan period made of Proconnesian marble found in the theater at Caesarea. This resemblance suggests a shared origin and timeframe.<sup>519</sup>

In addition to the Corinthian capitals made of Proconnesian marble, there are examples from other regions. One such capital in the Latakia Museum (Cap.11) bears similarities to models from Asia Minor, with both its structural form and decorative elements remarkably well-preserved. It is likely that this capital was not produced in Proconnesus but rather in workshops located in Aphrodisias or Docimium. Its creation can be dated to the Nerva–Antonine dynasty, and specifically to the last decade of the 2nd century AD.<sup>520</sup>

Additionally, there are several identical capitals such as Cap.20 and Cap.23-28, that date back to the Severan period, with parallels found in Crete and Caesarea. They are made of marble with small crystals and may belong to Proconnesian marble.<sup>521</sup>

These capitals have a first row of acanthus leaves that spring from the base of the capital. The leaves are spaced apart, with a triangular rim between the lower lobes. The design consists of three pairs of leaves and a top leaflet, arranged on a surface that resembles a flat screen. The second row of leaves begins between the second pair of lobes of the first row. They are also separated and consist of one foliole of the second pair of lobes, the third pair, and the top leaflet. These folioles of the lower lobes form what is called "*motivo a corna*." These capitals have an additional element, which is the acanthus leaf. The helices are carved in a projected style, with hook-shaped spirals. while the volutes are three-dimensional, ending in spirals with two turns. The abacus is double-profiled, consisting of a cavetto and ovolo.

The capital (Cap.14) is very similar to the previous group. It is also made of Proconnesian marble, but it lacks the additional element.<sup>522</sup>

<sup>&</sup>lt;sup>518</sup> Pensabene 1997, 394.

<sup>&</sup>lt;sup>519</sup> Pensabene 1997, 398.

<sup>&</sup>lt;sup>520</sup> Pensabene 1997, 396.

<sup>&</sup>lt;sup>521</sup> Pensabene 1997, 394.

<sup>&</sup>lt;sup>522</sup> Pensabene 1997, 395.

In addition to the previously studied capitals, there are also some that have not yet been examined, including capitals Cap.392-394. Each of these capitals consists of two pieces, with the upper section adorned with unique busts of deities. The size of these capitals and the figures they bear suggest that they may have belonged to the same religious structure.

Most of the various marble capitals discovered in Latakia date from the Roman period, particularly the 1st and 2nd centuries AD.<sup>523</sup> However, the majority of the Corinthian capitals in the Latakia Museum are from the Severan period. This is likely because Laodicea was severely damaged in the late 2nd century AD during the conflict between Pescennius Niger and Septimius Severus.<sup>524</sup> After the victory of Severus, the city regained prominence due to its loyalty to him against Niger, which led to a renewed focus on architectural development. This urban revival aligns with the rise of Laodicea to major city and colony status in AD 196.<sup>525</sup> At the same time, there was a significant arrival of marble objects, including column capitals, during this period.<sup>526</sup> Among these, the three capitals decorated with statues of deities can also be dated to this time.

This theory is supported by the fact that the Severan emperors began extensive building and restoration projects in Rome in the early 3rd century AD, which led to a widespread use of Proconnesian marble.<sup>527</sup> This period saw increased maritime trade between Rome and the East. Septimius Severus seems to have practiced this tradition by gifting many of these marbles to Latakia as a gesture of appreciation for the city's cooperation. These factors support the theory that the Roman marble artifacts found in Latakia primarily date to the 2nd century AD.

#### Jableh

To the south of Latakia lies the city of Jableh (Roman city of Gabala), which has very few remains. The only features still recognizable today are the Roman theater and the port.<sup>528</sup>

Several marble Corinthian column capitals were found within the theatre of Jableh. They are nearly identical, with only slight variations (e.g., Cap.45-47, 49-53). These capitals were imported in a half-finished state from quarries in Asia Minor. The marble is bluish white with small crystals and sometimes it displays slightly darker veins. This makes the exact source

<sup>&</sup>lt;sup>523</sup> Saade 1986.

<sup>&</sup>lt;sup>524</sup> Malalas 1986, 156.

<sup>&</sup>lt;sup>525</sup> Dodge 1988, 217–27; Pensabene 1997, 285; Burns 2017, 209.

<sup>&</sup>lt;sup>526</sup> Pensabene 1997, 385–98.

<sup>&</sup>lt;sup>527</sup> Taelman 2022, 867.

<sup>&</sup>lt;sup>528</sup> Lund 2004, 62.

difficult to determine, potentially from Docimium or Mylasa.<sup>529</sup> The capitals are most likely dated to the period of the construction of the theatre, which is estimated to be the first half of the 3rd century AD, during the Severan dynasty.<sup>530</sup> The presence of multiple identical capitals confirms their association with the theatre and reinforces their dating to the same period as the construction date of the theatre.<sup>531</sup>

Another capital was found in the Jableh Theatre (Cap.385). It is notable for the mask carved on one of its faces and can be dated to the same period as the theatre's construction. Its link to the theatre is confirmed by the mask and its location within the structure.

#### Tartous

This city is located to the south of Jableh and was founded by the Phoenicians during the Hellenistic period. Tartus initially played a secondary role compared to the major center of Aradus during the Seleucid and Roman periods. This is reflected in its ancient name, Antaradus, meaning "the city facing the island of Arwad." However, the situation changed when Constantine declared it a separate city between AD 306 and AD 337. His successor, Constantius, favored its inhabitants over those of pagan Aradus and renamed it Constantia in AD 346.<sup>532</sup> During the Byzantine period, Tartus flourished, particularly from the 4th century AD onwards, with the spread of Christianity and the construction of many churches.<sup>533</sup>

There are several marble Corinthian capitals of unknown origin in the museum of Tartous. Two of these capitals are identical to those found in the Jableh Theatre (Cap.56, 60), while another (Cap.58) resembles those from Caesarea. All dates to the Severan period.<sup>534</sup>

Another group of capitals includes twenty-one marble Corinthian capitals dating from the second half of the 5th to the first half of the 6th century AD, with heights ranging from 58 to 68 cm (Cap.315-335). These capitals share a similar design, with variations primarily in the abacus decoration and the number of acanthus leaves in the lower register, which range from six to eight. Some capitals feature a grooved abacus, while others have a plain abacus. This variation may indicate different workshops or craftsmen. Specifically, capitals with continuously grooved abacuses typically have six acanthus leaves, whereas the others have a

<sup>&</sup>lt;sup>529</sup> Pensabene 1997, 380.

<sup>&</sup>lt;sup>530</sup> Patricio & Stevens 2003, 1601.

<sup>&</sup>lt;sup>531</sup> Pensabene 1997, 383.

<sup>&</sup>lt;sup>532</sup> Burns 1992, 224–25.

<sup>&</sup>lt;sup>533</sup> La Boda 1994, 4:453; Peña 2000, 113.

<sup>&</sup>lt;sup>534</sup> Pensabene 1997, 389–403.

variable number of leaves. It is plausible that the grooved abacus capitals were produced by a single group, while the non-grooved ones originated from a different source. Additional indication for this theory is found in the different letters carved on the ungrooved capitals, which are believed to be signatures of various workers or workshops. This suggests that there were multiple contributors to their production.<sup>535</sup>

These capitals, as previously mentioned, were imported from Proconnesus and were likely intended for the construction of a large church. This hypothesis is supported by the fact that Christianity was flourishing in the coastal areas of Latakia, Tartous, and their surroundings.<sup>536</sup> Latakia became a bishopric in the 3rd century AD.<sup>537</sup> On the other hand, Tartous was renowned for its devotion to the Virgin Mary, with an altar dedicated to her since the 3rd century AD. During the Byzantine period, these cities experienced significant prosperity and development.<sup>538</sup> By the 5th century AD, several churches were constructed, including one dedicated to the Mother of God and another to St. John, commissioned by Emperor Justinian.<sup>539</sup>

#### - Inland Regions

The importation of various types of stone, such as marble and granite, was common and easily accessible in the coastal cities of Syria. Despite the fact that land transport is generally more challenging and costly than sea transport, numerous artifacts, including columns, capitals, and bases made from various imported stones, have also been discovered in inland areas, far from the Mediterranean coast.<sup>540</sup>

Only a few marble capitals have been found away from the coastline in Syria. In the Aleppo Museum, several marble capitals are on display. The first is a Corinthian capital of the Canonical type, decorated with eagles on all four faces between the stalks of the volute (Cap.2). This capital dates from the late 2nd to the early 3rd century AD, during the Antonine and Severan periods. This dating is based on various features of the capital, including the design of the acanthus leaves in the first row, the shape of the caulicole, and the raised, closed parts of the calyces.<sup>541</sup>

<sup>&</sup>lt;sup>535</sup> Westphalen & Dennert 2004.

<sup>&</sup>lt;sup>536</sup> Burns 1992, 179; Major & Kázmér 2015, 185; Major 2015, 105–6.

<sup>&</sup>lt;sup>537</sup> McGeer et al. 2005, 5:35.

<sup>&</sup>lt;sup>538</sup> La Boda 1994, 4:453.

<sup>&</sup>lt;sup>539</sup> Peña 2000, 12, 21, 113.

<sup>&</sup>lt;sup>540</sup> Mango 1978, 14.

<sup>&</sup>lt;sup>541</sup> See, Appendix 2.

Another capital in the Aleppo Museum is the Bell-Shaped Double Capital (Cap.359). It has a single row of acanthus leaves topped by a tongue frieze, with a flat, straight, rectangular abacus. This design was a popular architectural decoration throughout the Roman Empire and continued to be favored during the Byzantine period. The capital was likely intended to serve as an impost.<sup>542</sup>

This type of Corinthian capital first appeared in the Hellenistic period and continued into the Roman and Byzantine eras.<sup>543</sup> It is distinguished by its mask acanthus leaves with three folioles, which date back to the second half of the 5th and 6th centuries AD.<sup>544</sup> These capitals were imported fully finished, as evidenced by similar capitals discovered in the Saraylar quarries. This suggests that they were exported in their completed form to the sites where they were installed.<sup>545</sup>

Another capital in the Homs Museum (Cap.349) is a Lyre capital.<sup>546</sup> It has acanthus leaves designed also as mask acanthus, similar to the previous example. Consequently, this capital can also be dated to the same period as the earlier capital, the second half of the 5th century and into the 6th century AD.

Moving to southern Syria, several Corinthian capitals have also been found in important cities such as Bosra. Most of these capitals were in the Bosra theater, which dates to the late 2nd century and early 3rd century AD (e.g., Cap.88, 89, 157).<sup>547</sup> In addition to those found in the theater, isolated capitals such as Cap.8 and Cap.156 were used as *spolia* in the mosques of Bosra. They also date to the 2nd and 3rd centuries AD, based on their stylistic features.

For towns and sites located inland near the Levantine coast, proximity to a seaport may have been a significant factor in accessing the marble or granite commonly used in public buildings along the coast. However, a clear picture of the distribution is obscured by the removal, reuse, or destruction of architectural elements in later periods.<sup>548</sup> The presence of these architectural elements raises questions about why they were transported to remote areas, despite the challenges and high costs of overland transport. This highlights the exceptional significance of this type of stone in ancient architecture. It suggests that its symbolic and aesthetic value

<sup>&</sup>lt;sup>542</sup> Asgari 1995, 271.

<sup>&</sup>lt;sup>543</sup> For more information about this type, see: Chapter 4.2.7.

<sup>&</sup>lt;sup>544</sup> For more information about this design of acanthus, see: Chapter 5.1.1.

<sup>&</sup>lt;sup>545</sup> Asgari 1995, 271.

<sup>&</sup>lt;sup>546</sup> For more information about this type, see: Chapter 4.2.5.

<sup>&</sup>lt;sup>547</sup> de Vogüé & Waddington 1865a, 1:40; Freyberger 1988; Pensabene 1997, 373.

<sup>&</sup>lt;sup>548</sup> Hirt 2021.

outweighed the practical difficulties of transportation. This significance will be further explored.

#### - Distribution of marble Corinthian capitals in Syria Over Time

The graph shows that the proportion of capitals made from marble changed over time. A high number of marble capitals found in Syria in the 2nd and 3rd centuries AD, especially toward the end of the 2nd century and the beginning of the 3rd century AD. However, the number of marble Corinthian capitals began to decline from the start of the 4th century, while it remains low and stable until the 6th century AD. However, a notable increase can be seen around the end of the 5th and beginning of the 6th century AD (Figure 118).

The import of Corinthian capitals made of marble is part of the distribution of various marble objects in the region. The Mediterranean basin has many marble quarries, with the major quarries are concentrated in the Italian peninsula, the Greek mainland, the Aegean islands, and Asia Minor, with smaller production centers in regions like the Iberian Peninsula. Because of this uneven availability of marble, it led to a trade process around the Mediterranean, where marble objects, including Corinthian capitals, were transported in large quantities over long distances.<sup>549</sup>

Evidence from an inventory of marbles found in shipwrecks dating between the 1st and 6th centuries AD indicates that the majority of marble distribution in the Mediterranean took place between the 1st and 3rd centuries AD, with its highest increase in the 3rd century AD.<sup>550</sup> This result is also supported by an inventory of white marbles of known provenance, which includes both architectural and sculptural works distributed across the Roman Mediterranean from 200 BC to AD 500.<sup>551</sup>

However, the distribution of marble began to decline at the beginning of the Byzantine period. A significant decrease was observed by the mid-4th century and continuing through the 5th century AD.<sup>552</sup> This decline is accompanied by a noticeable decrease in the number of marble Corinthian capitals in Syria during the same time period (Figure 118).

<sup>&</sup>lt;sup>549</sup> Russell 2013b; Taelman 2022, 849.

<sup>&</sup>lt;sup>550</sup> Until 2015, around 35 known marble cargoes were discovered in the Mediterranean Sea, most of them from the Imperial period, dating from the 1st century BC to the 6th century AD. Russell 2013a; Berlinghieri 2015, 1034. <sup>551</sup> Russell 2013a; 2013b; Berlinghieri 2015, 1033; Taelman 2022, 866.

<sup>&</sup>lt;sup>552</sup> Taelman 2022, 855.

Examining the significance of marble at different times is crucial to understanding the notable variation in its spread. By recognizing the value and role of marble, its influence on distribution patterns can be better comprehended. Consequently, the movement of imported Corinthian capitals made from this material over time can be clarified.

Marble used as a symbol of status and power since the Republican period in Rome. The introduction of exotic-colored marbles in the late Republican era further increased its prestige, which led to a significant expansion of marble production in the 1st and 2nd centuries AD. During this time, marble was widely used in Roman architecture and can be found in almost every major building.<sup>553</sup> Roman society was diverse and hierarchical. The upper classes sought to display and protect their power and status, and one of the most effective ways to achieve this was through monumental architecture and sculpture, specially made of marble.<sup>554</sup>

Monumental structures in ancient cities were often highly decorated. These buildings had many details that went beyond basic functionality, but they also symbolized the wealth and prestige of their patrons. Wealthy elites were trying to solidify their political, social, and economic influences, by funding grand marble statues and the covering of buildings with marble slabs in the cities. This can be noted from the grandeur of late Roman and Early Byzantine interiors, which was heavily based on the extensive use of marble.<sup>555</sup> The importance of marble in these societies is reflected in the significant imports of marble capitals into Syria, especially during the first three centuries AD.

One example of this significance is the use of marble in Roman theaters, which were highly valued by the Roman elite. These structures hosted a variety of public events in Roman society, such as plays, performances, and celebrations. Spectators were clearly separated according to their class and social status. Within the theater, the stage (*orchestra*) and the richly decorated backdrop (*scaenae frons*), where marble Corinthian capitals were employed, played a key role in communicating messages and influencing the audience.<sup>556</sup>

From the 4th century AD onward, there was a decline in the number of marble Corinthian capitals in Syria. The reason for this was not that marble lost its importance, but rather its growing significance and the high demand for it during this period. Marble quarries in some regions, like Greece, Asia Minor, and Egypt, became very active during this time. The

<sup>&</sup>lt;sup>553</sup> Mango 1978, 12.

<sup>&</sup>lt;sup>554</sup> Zuiderhoek 2009; Taelman 2022, 848–49.

<sup>&</sup>lt;sup>555</sup> Mango 1978, 12; Taylor 2003, 214; Taelman 2022, 849.

<sup>&</sup>lt;sup>556</sup> Taelman et al. 2019, 238.

establishment of Constantinople as a new capital in AD 324 also played a crucial role in the rise of marble extraction. In addition, Emperor Constantine the Great and his successors started many building programs in Constantinople and other cities in the eastern Mediterranean, where they constructed numerous religious and civil structures. These extensive building projects required large-scale marble production, which led to an extensive system of production and trade between the 4th and 6th centuries AD.<sup>557</sup>

Marble kept its importance in the 5th and 6th centuries AD. However, getting and transporting it became more difficult and expensive due to the higher demand. As a result, it was mainly concentrated in the central parts of the empire, while it became rarer in remote areas.<sup>558</sup> These circumstances caused a significant decrease in the number of marble Corinthian capitals found in Syria during this period. A few examples from this period have been found, such as the capitals discovered in Amrit. These marble capitals indicate that their imports may have been encouraged by the emperor or other high-ranking officials.<sup>559</sup>

#### - State of Workmanship of Marble Corinthian capitals

It is clear that the marble capitals discovered in Syria were imported, as there were no local marble sources. However, the question remains: how did these capitals arrive in Syria? Were they fully finished, partially finished, or shipped as unworked blocks?

There are many studies about the transportation of marble artifacts from quarries to various destinations during the Roman Empire.<sup>560</sup> They demonstrate that marble pieces were often imported as rough blocks or partially finished. The presence of unfinished Corinthian capitals in Syria supports this theory. For instance, two unfinished Corinthian capitals (Cap.72, 95) show that the work was interrupted before the detailed elements could be completed, which suggests that these capitals were finished locally. It also indicates the existence of workshops

<sup>&</sup>lt;sup>557</sup> Berlinghieri 2015, 1033.

<sup>&</sup>lt;sup>558</sup> Šiljeg 2007, 259.

<sup>&</sup>lt;sup>559</sup> In the 4th and 5th centuries AD, the state was responsible for building public structures. However, church construction involved three types of support that are not always clear: the state, local churches, and private donors. Mango 1978, 18–19. For more information about marble exploitation and trade in Roman and Byzantine period, see: Sodini 2002, 133–35; Berlinghieri and Paribeni 2011, 64–65; Hirt 2021; Taelman 2022, 866.

<sup>&</sup>lt;sup>560</sup> Cargoes of Proconnesian marble, sometimes mixed with other varieties, were shipwrecked in the Black Sea, Aegean Sea, and Mediterranean from the 1st century BC to the 2nd century AD: Khouri 2005, 249, fig.59. Cargo of column drums, likely intended for the Temple of Apollo at Claros, was found in a shipwreck at Kizilburun. Deborah Nicole Carlson 2009; Deborah N. Carlson and Aylward 2010. Statue, sarcophagus lid, ionic capitals and columns from the Şile shipwreck: Beykan 1988. Marble cargoes composed of different kind of marbles from the Punta Scifo and Torre Sgarrata wrecks: Pensabene 1978; Bartoli 2008; Gabellone and Giannotta 2009.

in Syria that either started the carving from the rough state or continued carving the details upon the arrival of the half-finished capitals.

Further evidence comes from studying the decoration details on parts of marble pediments housed in the Latakia Museum. The details of these decorations indicate that, although the carving demonstrates a certain level of skill, the lower quality of some elements clearly suggest that the decorations were executed by local artisans.<sup>561</sup>

As for the Corinthian capital in the Latakia Museum (Cap.13), it can be compared to marble capitals found in Ashkelon (Figures 119, 120). On the other hand, similar designs can also be observed in capitals made of local stone, such as those in the Temple of Hercules in Amman and the Temple of Bacchus in Baalbek. Based on this, the capital can be dated between AD 150 and AD 190, and by considering all these observations, it can be attributed to local Syrian groups.<sup>562</sup>

In addition, Pensabene believes that the capitals from the Jableh theater arrived in the region in a half-finished state, where they were completed by local craftsmen. He confirms that local Syrian artisans were active in marble work, as revealed by the study of other marble pieces found in the theater (Figure 121). The evidence shows that the poor decoration and a certain sloppiness in the plastic rendering point to a Syrian workshop responsible for carving the imported marble blocks.<sup>563</sup>

Besides the existence of unfinished capitals and local craftsmen, it is important to consider cases where capital arrived fully finished. This indicates direct importation from foreign quarries. Many of the Corinthian capitals found in Syria arrived in a fully finished state from marble quarries abroad, as in the case of the capitals Cap.15 and Cap.16, which were manufactured directly in Proconnesian quarries, and the capital Cap.11, which was made by those of Aphrodisias or Docimium.<sup>564</sup>

In the Byzantine period, marble pieces were typically imported fully finished. Prefabrication and finishing of architectural elements before delivery became a common practice in Byzantine quarries during the 5th and 6th centuries AD. Archaeological evidence reinforces this practice, including capitals recovered from shipwrecks at Mirzamimi and Amrit. In addition to that,

<sup>&</sup>lt;sup>561</sup> Pensabene 1997, 391–94.

<sup>&</sup>lt;sup>562</sup> Pensabene 1997, 394.

<sup>&</sup>lt;sup>563</sup> For more details, see: Pensabene 1997, 383.

<sup>&</sup>lt;sup>564</sup> Pensabene 1997, 394, 396.

quarry surveys support this theory. As in the work of Asgari, who documented many capitals, column bases, and other architectural elements scattered throughout the quarry sites.<sup>565</sup>

Nonetheless, this theory should not be regarded as an absolute rule in the Byzantine period. Historical sources provide evidence of unworked marble being transported by sea. For example, the Life of Lawrence, which recounts the activities of Lawrence, a cousin of Emperor Zeno and bishop of Siponto, mentions craftsmen sent by imperial decree to work in an Apulian city.<sup>566</sup> This suggests that, at times, unworked marble was indeed shipped and then worked upon locally.

This story, along with several other cases from the Roman Imperial period, confirms the movement of craftsmen with marble pieces to their final destination, where the pieces were worked on and completed before being installed. A clear example of this is the Mausoleum of the Roman centurion Germanus in Gerasa. The decoration of this structure was done by so-called "travelling stonemason groups" who worked in various parts of the Empire with different types of marble (Figure 122).<sup>567</sup> This raises uncertainty about whether the craftsmen who worked on finishing the marble capitals at the site were local artisans or whether they were the travelling stonemasons.

Archaeological evidence in Syria shows that capitals arrived in the region also in an uncompleted state. For example, there are two semi-finished marble capitals from the Byzantine period housed in the Tartus and Hama museums (Cap. 383, 384). These capitals are considered additional examples of the presence of craftsmen and workshops in Syria.

These two capitals are partially finished. The upper part is fully completed, with a rounded central knob. In contrast, the lower half is unfinished, and it consists of a simple cylinder and a continuous torus. This torus has not yet been cut to form the eight projecting bosses that were intended to represent the acanthus leaves of the lower row. This condition is similar to that of a Proconnesian capital discovered by Asgari in Istanbul. These capitals represent Stage D in the manufacturing process of Corinthian marble capitals from the Proconnesian quarries during the Byzantine period.<sup>568</sup>

<sup>&</sup>lt;sup>565</sup> Berlinghieri & Paribeni 2011, 65–66; Berlinghieri 2015, 1034; Asgari 1995.

<sup>&</sup>lt;sup>566</sup> Berlinghieri & Paribeni 2011, 65–66.

<sup>&</sup>lt;sup>567</sup> Dimitrov 2016, 381.

<sup>&</sup>lt;sup>568</sup> For more details about the stages of manufacturing a Corinthian capital in late antiquity, see: Asgari 1995, 263–88.

Thus, the presence of such incomplete capitals in Syria demonstrates that marble capitals from the Proconnesus, and possibly other quarries, were also imported in an unfinished state during the Byzantine period, unlike those from the Amrit shipment, which were fully finished.

In conclusion, marble Corinthian capitals reached Syria during the Roman and Byzantine periods at various stages of completion. Some of these capitals came fully completed, while others were finished locally.

#### - Source of Marble Used in Corinthian Capitals in Syria

Since no analytical examinations could be conducted on the marble of the Corinthian capitals, the primary method for determining the source of the stone relied on the views of previous experts who studied some of these capitals. For example, the capitals Cap.15 and Cap.16 were analyzed by Pensabene. Additionally, the source of the marble was sometimes identified by finding identical or parallel examples of the capitals in quarries. A case in point is Cap.359, for which an identical copy was discovered in the Saraylar quarries. This area of study requires further research, and it is hoped that one day this goal will be achieved when financial and technical resources become available.

According to the Corinthian capitals with known marble provenance in Syria, most of them were crafted from Proconnesian marble (Figure 123). There are only a few examples that originated from Aphrodisias, Docimium, and Mylasa. These capitals mostly date to the Roman period, while from the 4th century AD onward, capitals found in the region were only made of Proconnesian marble.<sup>569</sup>

This observation aligns with research showing that Carrara, Proconnesus, and, to a lesser extent, Pentelicon were dominant in the architectural marble market, while other marbles were infrequently used for architectural purposes. Carrara marble was the primary source of architectural marble in the western Mediterranean, particularly in Italy. However, it was not widely used in the eastern Mediterranean for architectural purposes until the end of the 1st century AD. By the 2nd century AD, Proconnesian marble had increasingly assumed this role across the Mediterranean. Proconnesus solidified its status as the principal source of architectural marble in both Italy and the eastern Mediterranean throughout the middle of the Roman Imperial and into Byzantine period. Despite its dominance, Proconnesian marble's

<sup>&</sup>lt;sup>569</sup> The current data is based on marble with known provenance to date, with the hope that the remaining samples will be analyzed someday for more detailed and accurate results.

distribution began to decline in the 4th century AD, with a slight recovery in the 5th century AD, particularly in the eastern Mediterranean (Figure 124).<sup>570</sup>

## 6.2 Simplifying the Corinthian Capitals Without-Crosses

The Corinthian Capital Without-*Crosses* style emerges when both helices and volutes are omitted from the Canonical Corinthian capital. The transitional stage before this involves the disappearance of the helices while retaining the volutes. This intermediate style is commonly observed in many Corinthian capitals in Syria and is categorized as the Corinthian Capitals Without-Helices.

The reason behind this step of reduction lies in the changes to the design and proportions of the elements of the Corinthian capital. Typically, the height of the leaves in the second row is shorter than that of the leaves in the first row. However, when the height of the leaves in these rows and consequently the number of lobes became the same, it affected the height of other elements of the entire capital, as the proportions for manufacturing the Corinthian capital are fixed.

In this case, the space between the calyx and the abacus decreases. Consequently, this affects the shape of the two parts of the calyx, which move farther apart and appear compressed to create space for the helices and volutes to be carved. However, this space became unsuitable for carving the helices, so they were omitted, and only the volute was retained at this stage. The rim of the calathus became more prominent and filled the space between the calyx and the abacus.

In other cases, the leaves of the second row in these capitals become higher than those of the first row, it results even in a narrower space between the calyces and the abacus. This, in turn, led craftsmen to omit not only the helices but also the volutes. This is where the Corinthian capitals Without-*Crosses* appear.

Corinthian capitals Without-*Crosses* were widespread in Byzantine Syria, although an example suggest that this style had been in use since Roman times.<sup>571</sup> The development and modifications of this design, however, represent a local achievement originating in Syria.<sup>572</sup>

<sup>&</sup>lt;sup>570</sup> Taelman 2022, 856.

<sup>&</sup>lt;sup>571</sup> An example from Egypt clarifies that this type of Corinthian capitals was found in the Roman period. (Website 37)

<sup>&</sup>lt;sup>572</sup> For more information about this type, see: Chapter 4.2.2.

Numerous decorative elements were added to this type of Corinthian capital. One such element is the garland, which hangs down at the corners of the capital and appears to hold the angular acanthus leaves of the second row. It then ascends toward the central axis of the faces and reaches the abacus decoration. Upon arriving the abacus, the garland takes on two distinct forms.<sup>573</sup>

Another element of the Corinthian Capital Without-*Crosses* is the cross, which sometimes led to modifications of its basic elements. An example of this can be seen in the capital from the Hama Museum (Cap.226.Face2). In this instance, the craftsman incorporated a cross into the capital by replacing the central acanthus leaf of the second row with a large, folded, circular acanthus leaf. This circular leaf is composed of two lobes adapted to form a closed circle, which includes triangles along its borders and a cross at its center. This modification appears only on one face of the capital.

Due to the large space occupied by this new element, the craftsmen had to reposition the caulicoles to the top leaflets of the acanthus leaves in the lower row. This modification extended the inner calyx parts to reach the axis of the face below the decorative motif of the abacus.

Furthermore, a variation of the Corinthian capital Without-*Crosses* occurs when wind-blown acanthus leaves are used. In this form, the capitals retain the basic elements in the same order as the typical design. The only difference lies in the acanthus leaves, which appear to move as if blown by the wind. The orientation of the acanthus leaves varies. In some cases, the leaves in both rows turn to the left, as seen in the capital from the Hama Museum (Cap.225), while in others, they turn to the right, as in the capital from the Damascus Museum (Cap.250). The calyces stay in their usual place on the capital, while the caulicoles move and align with the acanthus leaves in the second row.

In addition to these variations, the use of smooth elements on this type of capital is also considered a significant variation. The process of incorporating smooth elements across all faces of the capital was likely carried out in stages. This gradual evolution in design is referred to as the stages of simplification of the Corinthian capitals Without-*Crosses* (Figure 125).

First Stage: Initial Shift to Smooth Elements

<sup>&</sup>lt;sup>573</sup> For information about the various designs of garlands on Corinthian capitals in Syria and their symbolic meaning, see: Chapter 4.2.2.

The first stage of simplification began when craftsmen started to favor smooth, undecorated elements over the traditionally detailed ones (Figure 125.1). This shift is evident in examples such as the capital from the Hama Museum (Cap.209), which features two distinct faces. The first face has detailed toothed acanthus leaves, while the other has smooth, undecorated leaves.

Previously, it was noted that this leaf form represents an early, incomplete stage of acanthus leaf carving, which resulted in the assumption that capitals with these leaves were unfinished.<sup>574</sup> Several theories have been proposed to explain why these leaves were used. Some suggest that this intermediate stage in acanthus leaf carving was preserved due to external circumstances like earthquakes, invasions, or the sudden death of the craftsman. Others argue that these leaves were left unfinished intentionally due to a defect or error during production.<sup>575</sup>

Although such cases are common in capitals found in quarries or workshops, in the case of the Hama Museum capital (Cap.209), the incomplete leaves are believed to have been deliberately left in this state. Evidence supporting this hypothesis includes the caulicole, which is clearly carved as a distinct, complete form rather than a transitional phase. Additionally, the acanthus leaves themselves feature a midrib, introduced to add vitality and prevent a lifeless appearance.

An alternative view holds that these leaves were left completely unworked due to their beauty. This approach was already practiced in the East during the 1st century AD.<sup>576</sup> However, in our example, this theory does not apply because, if that were the case, the entire capital would have been left unworked, not just one face.

Some scholars believe that the widespread use of these smooth surfaces may have occurred for practical reasons, particularly to save time and resources. Leaving the details of the capital incomplete would indeed save a great deal of time and effort and therefore reduce expenses.<sup>577</sup>

Another theory on the condition of the acanthus leaves indicates that they were intentionally left unfinished because they were located on the less visible side of the capital. In this case, it was not deemed necessary to complete that particular face of the capital.<sup>578</sup>

The last two interpretations can be considered applicable to our capitals. At this stage, the capital has two sides, the first one visible to the viewer and the other hidden or invisible. In

<sup>&</sup>lt;sup>574</sup> Kautzsch 1936, 22; Kiss 1987, 114–15.

<sup>&</sup>lt;sup>575</sup> For more information about the smooth leaves, see: Chapter 3.1.

<sup>&</sup>lt;sup>576</sup> Dentzer-Feydy 1990, 640.

<sup>&</sup>lt;sup>577</sup> Pensabene 1986, 288; Kiss 1987, 114–15; Kahwagi-Janho 2017, 86.

<sup>&</sup>lt;sup>578</sup> Kautzsch 1936, 22; Pensabene 1986, 288; Dimitrov 2018, 92.

such cases, it makes sense to put the worked elements on the visible side and leave the elements on the other side unworked, thus saving effort and time. But at the same time, the craftsman does not leave the elements on this side completely unworked but rather tries to finish them in a simple way.

#### Second Stage: Fully Smooth Leaves Across All Faces

In the second stage, smooth elements were extended to all faces of the capital (Figure 125.2). This phase can be seen in the capital from the Hama Museum (Cap.219), where smooth acanthus leaves appear on all sides, though the calyces are still worked. It is important to note that this capital does not represent an instance of incomplete work. Instead, the smooth leaves were intentionally left in that state. This is evidenced by the cross-in-circle motif on the central acanthus leaf of the second row, as well as the carved midrib. All of these signs point to a deliberate choice to leave the leaves smooth without intending to add the traditional toothed design.

#### Final Stage: Complete Simplification

In the final stage, the capital underwent full simplification, with all elements on all faces becoming smooth (Figure 125.3). This can be observed in several capitals from Syria, such as those in the Damascus Museum (e.g., Cap.264) and the Hama Museum (e.g., Cap.220).

At this stage, as the capital had become very simple and less ornate, the craftsmen aimed to improve its appearance (Figure 125.4). Their efforts can be seen in the simple changes they made to some elements of the capital. For example, they attempted to give the caulicoles a more dynamic and visually appealing design. An example of this is the capital from the Hama Museum (Cap.213), which has twined cylindrical caulicoles. In another instance, the craftsmen gave the calyces a slender, strip-like appearance, as seen in the capital from the Hama Museum (Cap.212). Thus, the craftsmen were working to simplify the Corinthian capital Without-*Crosses* while preserving its beauty and visual appeal as much as possible.

It should be noted that despite these changes and the spread of the simplified variation of the Corinthian capital Without-*Crosses*, the standard type of these capitals continued to be used throughout the Byzantine period in Syria. During this time, both the standard and simplified types were used together. There are many examples of this use, such as the capital (Cap.256). This capital cannot be dated earlier than the 5th century AD due to the shape of its acanthus leaves, a form that did not appear before that time. Additionally, there are instances from dated

structures, like the capital (Cap.271) from the North Gate of Sergiopolis, dated to the 6th century AD, and the capital (Cap.195) from the southern nave of the Church of Qasr Ibn Wardan in Hama, which dates to the second half of the 6th century AD.

#### - Reasons for Simplification

The reason for the simplification of Corinthian capitals in general, including the type Without-*Crosses*, could have been related to political factors. During the 4th century AD, Constantinople was declared the new capital, and Christianity became the official religion of the Eastern Empire. This period marked significant advancements in architectural traditions and innovations, with intense building efforts in Constantinople and other major cities of the Byzantine Empire, especially during the reign of Constantine II. As a result, there was an increased demand for columns and capitals.<sup>579</sup>

Syria was also influenced by these changes, as it held an important position within the Byzantine Empire with several significant cities. Accordingly, during the 4th and 5th centuries AD, Syria experienced a period of prosperity that spurred architectural growth, including the construction of many churches and monasteries as a result of urban expansion. This, in turn, increased the demand for various architectural elements, such as capitals.<sup>580</sup>

During the 5th and 6th centuries AD, Syrian artisans faced a high demand for such elements. As manufacturing detailed capital takes a lot of time and involves high costs, this creates significant challenges for the widespread architectural projects in Constantinople and other major cities of the Byzantine world, including Syria. As a result, there was an increasing need to manage these time and resource constraints. This led to the emergence of a new trend that favored simpler architectural elements, which allowed for faster and more efficient production to meet growing demands.<sup>581</sup>

They began to simplify their design by reducing decorative details, as seen in the Corinthian capitals. Consequently, smooth acanthus leaves became more common in Corinthian capitals, and the simplified Without-*Crosses* Corinthian capitals spread widely due to their ease and speed of production.

<sup>&</sup>lt;sup>579</sup> Betsch 1977, 163, 167–74, 192; Demir 2019, 140–41.

<sup>&</sup>lt;sup>580</sup> McKenzie 1996, 590; Bryce 2014, 320.

<sup>&</sup>lt;sup>581</sup> Demir 2019, 140–41.

### 6.3 Two-Piece Corinthian Capitals

The two-piece Corinthian capital first appeared in the 2nd century BC in Greece. The oldest known example comes from the Temple of Zeus at Olympia in Athens, which was constructed by the Seleucid king Antiochus IV Epiphanes. Other examples from the Hellenistic period come from the city of Alexandria.<sup>582</sup>

After its employment in the Olympieion, the technology of the two-piece capital seems to have decreased in the second century BC. However, at this the same time, it expanded in Rome and central Italy and became common in the latter half of the first century BC. The technique was especially prevalent in regions where the Romans were involved in construction, such as Spain, North Africa, and the Eastern Mediterranean. This technique was employed extensively in the cities of Judea, where they stand as prime examples of its use during the reign of Herod the Great.<sup>583</sup>

The use of two-piece Corinthian capitals continued in Rome until the end of the Flavian dynasty and disappeared by the Severan period, when all Corinthian capitals were made from a single block of stone. The reasons for the disappearance of this style of capital remain unclear. Various factors may have contributed to the end of this practice, such as advances in lifting technology or changes in the manufacturing methods of Corinthian capitals.<sup>584</sup>

Using the two-piece Corinthian capital could be linked to practical construction methods rather than aesthetic concerns. The evidence for this is that the division between the two parts of the capital is not visible to the viewer, particularly from the ground. Therefore, the reasons for adopting this technique could be attributed to several factors. First, the desire to reduce the weight of large Corinthian capitals in bigger structures. Second, the material efficiency this method offered, as the upper and lower sections required stones of different diameters, which makes the two-piece technique practical when large, monolithic blocks were hard to source. However, S. Bernard argues that while weight and material efficiency were factors, they were not the primary motivations for implementing this technique. He asserts that the existence of numerous small Corinthian capitals challenges the idea that material efficiency was the primary

<sup>&</sup>lt;sup>582</sup> Bernard 2012, 3, 5–6.

<sup>&</sup>lt;sup>583</sup> Bernard suggests that this technique does not appear to have originated from the connection between Judaea and the Hellenistic kingdoms in the east, but rather moved directly from Rome: "To my mind, the commonality of the two-piece technique in this place and time is owed to strong architectural connections between Herodian Judea and Rome... Within this context, it seems feasible that the two-piece technology was not a legacy of Judea's connections with the Hellenistic kingdoms of the east, but was transmitted from Rome eastward, perhaps moving again with masons themselves." Bernard 2012, 9.

<sup>&</sup>lt;sup>584</sup> Bernard 2012, 14.

motivation. Bernard thinks that the extensive adoption of this technique belongs to design factors.<sup>585</sup>

Typically, the two-piece Corinthian capital is divided at the top of the lower register, which consists of two rows of acanthus leaves. This division usually occurs at the top of the caulicole, near the midpoint of the height of the capital. For example, in the capital from the Temple of Mars Ultor, built in 2 BC, the division occurs about one meter from the top, on a capital that measures two meters in total height.<sup>586</sup>

The location of the division is not arbitrary. It is closely related to the geometric shapes of the upper and lower parts of the capital. H. Lauter-Bufe describes the Roman Corinthian capital as it consists of two superimposed geometric forms. The first one is a truncated cone for the lower part, which incorporates the lower register. The second part is a rectangular shape for the upper section, which includes the upper register and the abacus. In contrast, the Greek Corinthian capital was viewed as a single geometric form, which may explain why the Romans continued to use the two-piece technique longer than the Greeks.<sup>587</sup>

In early examples, such as those from the Mid-Republican period (125–75 BC), the top leaflets of the second row of acanthus leaves typically end exactly at the division. This can be observed in the lower half of a capital from Temple B in Largo Argentina, dated to 101 BC. However, in later periods, these leaflets may curve downward above the break, as seen in the capital of the Temple of Mars Ultor.<sup>588</sup>

Before discussing the two-piece capitals in Syria, it is important to note that Bernard attributes the spread of the technique during the Roman period to design factors. However, this explanation does not seem to apply to the Hellenistic period, which requires further investigation.

In Syria, numerous two-piece Corinthian capitals have been found, some still in their original positions within structures, and others isolated at various sites. The isolated pieces typically consist of either the lower or upper section of the capital, with the other part missing.

Some of these capitals are made of imported marble (e.g., Cap.91, 378), while others are crafted from local basalt (e.g., Cap.155) and limestone (e.g., Cap.123). The cuts in these capitals vary.

<sup>&</sup>lt;sup>585</sup> Strong 1963; Ganzert & Herz 1996; Bernard 2012, 10–12.

<sup>&</sup>lt;sup>586</sup> Bernard 2012, 3–4.

<sup>&</sup>lt;sup>587</sup> Lauter-Bufe 1972; Bernard 2012, 11–12.

<sup>&</sup>lt;sup>588</sup> Bernard 2012, 4.

The most common division occurs precisely at the top of the upper leaflets of the second row of acanthus leaves, just above the upper end of the caulicole.

One exception is the capital found in the Temple of Bel in Palmyra (Cap.111), where the division is located at the top of the first row of acanthus leaves. In this case, the leaves of the second row are positioned in the upper piece, with the midribs of these leaves starting from between the lobes of the leaves of the first row on the lower piece.

Additionally, one of the basalt Corinthian capitals from southern Syria consists of three sections, rather than two (Cap.143). The first row of acanthus leaves is located on the first section, similar to the Palmyra capital, while the second row of acanthus leaves along with the caulicoles is positioned on the second section. The upper third section contains the remaining elements of the Corinthian capital, which are the calyces, helices, volutes, and abacus.

It is noteworthy that the first and third sections are not carved from a single block. Each of these sections consists of two blocks. This technique appears to be common among basalt Corinthian capitals from the southern region, as seen in examples such as Cap.144 and Cap.158.

There are various theories about the reason behind using the two-piece technique on Corinthian capitals in Syria. Starting with the capitals from southern Syria before the 2nd century AD, it can be said that this technique was influenced by the reign of Herod the Great, who used it in the buildings he constructed. His reign in southern Syria played a crucial role in the architectural development of the region. This control continued under his successors until the area became part of the Roman province of Syria in the 2nd century AD.<sup>589</sup>

During this period, these two-piece Corinthian capitals were composed of two courses, and in some cases, three, with each course consisting of one or two blocks. This design can be explained by the need to control the overall height of the capital, which appears to have been governed by the building technique of the structure, with rectangular blocks placed one on top of the other, as seen in al-Mushannef (Cap.144) and Slaīem temples (Cap.143).

As for the capitals from the time and regions under the direct control of the Roman Empire in the province of Syria. Some of these capitals are made of local basalt and limestone. They can sometimes be seen in their original positions, such as the columns of Bacchus in Latakia (Cap.128), and the capitals from Kalybe of Bosra in southern Syria (Cap.155). All of these

<sup>&</sup>lt;sup>589</sup> Sartre 1991, 29–34.

capitals, which are made in two pieces, align with the design theory for the Roman period, which is based on the idea of two superimposed geometric forms, with a cut precisely above the top leaflets of the acanthus leaves in the second row and the caulicole.

Moreover, this theory is also evident in the capital with an unusual cut from Palmyra (Cap.111), where it is clearly demonstrated. In this case, the lower part has a perfect cylindrical shape, while the upper part takes the form of a truncated cone.

Regarding the imported marble Corinthian capitals, it is important to note that they were easier to transport in two pieces, particularly when they are large in size, whether finished, halffinished, or roughed-out. This practical consideration, in addition to the design reasons discussed by Bernard, provides a further rationale for the use of this technique in the Roman Empire.

Finally, an important issue must be addressed. It is related to the dating of some two-piece Corinthian capitals in Syria and the date of disappearance of this technique. Bernard argues that this design stopped being used entirely by the Severan period, stating:

"I have yet to uncover a suitable historical explanation for this late proliferation in North Africa, but, in any case, by the Severan period, the practice seems to have completely disappeared, and Corinthian capitals are from then onward cut only from a single block of stone."<sup>590</sup>

However, there are two-piece Corinthian capitals in Syria from later periods, such as those from Kalybe of Bosra in southern Syria (Cap.253), dated to the late 3rd century AD. This is over a century after the proposed date by Bernard for the disappearance of this design. Additionally, some of the Corinthian capitals studied in this dissertation were dated based on their elements and the historical context of the Severan period (e.g., Cap.92). All these instances indicate a need to reconsider the date suggested by Bernard.

# 6.4 Corinthian Capitals After the Byzantine: Reuse and Adaptation in Islamic Syria

After the Muslims arrived and took control of the region, no Corinthian capitals with distinct Islamic features were found in Syria. However, the Muslims did reuse Corinthian capitals from

<sup>&</sup>lt;sup>590</sup> Bernard 2012, 10.

earlier Roman and Byzantine buildings in the areas they conquered, where they incorporated them into their architecture.

Notable examples include the Umayyad Mosque in Damascus, which was originally the Roman Temple of Jupiter and later converted into a church during the Byzantine period. Another example is the al-Nuri Mosque in Homs, which is believed to have been a pagan temple dedicated to a local deity prior to its conversion into a Christian church. al-Halawiyah Madrasa in Aleppo also offers another instance, as it is thought to have been St. Helen's Church. Remarkably, parts of the nave of the church, including the columns and capitals, are still intact and have been incorporated into the new Islamic building.

In some cases, only certain elements of older buildings, such as Corinthian capitals, were reused in the construction of new mosques. Examples of this can be seen in the mosques of Daraa, Apamea, Kafr Ruma, and Qasr al-Heir al-Sharqi.

Finally, although Islamic Corinthian capitals can be found in other regions (Figure 126)<sup>591</sup>, the reason no new Corinthian capitals with distinct Islamic designs were made in Syria likely lies in the abundance of existing architectural elements available when the Muslims arrived. The region was rich in structures that provided more than enough material to be reused, and this makes it unnecessary to create new Corinthian capitals. Additionally, the decorative style of Corinthian capitals, with their plant motifs, was in harmony with Islamic aesthetics and beliefs. Muslims favored vegetal designs, which were already present on the Corinthian capitals from the Roman and Byzantine periods, as long as they did not feature human figures or Christian symbols, such as crosses.<sup>592</sup>

<sup>&</sup>lt;sup>591</sup> Ekhtiar & Moore 2012, 117, Figure 21.

<sup>&</sup>lt;sup>592</sup> O. Grabar 1987, 72; Burckhardt 2009, 29, 62.

# CONCLUSION

In conclusion, this dissertation focuses on the Corinthian capitals found in the Syrian Arab Republic (referred to as "Syria") from the end of the 1st century BC to the beginning of the 7th century AD. It studies the various designs of this architectural feature and its components, and the modifications they underwent during this period.

This study identifies a direct relationship between political transformations and stylistic changes in the Corinthian capitals of Syria. As in the case of the southern part of Syria, which was under Nabataean control until the beginning of the 1st century AD. At this time, the Hellenistic influences on the Corinthian capitals dominated. However, after the region came under the direct control of the Romans, the design evolved into a more standardized Roman Corinthian style. Other changes can also be noted on the Corinthian capitals after the whole region of Syria became part of the Byzantine Empire. This relationship highlights the direct role of politics in affecting art and architectural expressions, and it provides valuable insights into the interaction between local traditions and external influences on the cultural heritage of Syria.

As for their dating, many of the Corinthian capitals in Syria are of unknown provenance. Therefore, it was essential to try to date them, at least for a range of time. This could be achieved through examination of the elements of the Corinthian capitals in detail, where the various designs of each of them are usually linked to a specific period of time. It is important to note that when trying to give a date to a capital, it is very necessary to consider all the components of the Corinthian capital rather than focusing only on one or two, as certain designs continued to appear across varied periods. This provides greater accuracy and a deeper understanding of the historical and stylistic development of Corinthian capitals.

This dating process resulted in the creation of charts that illustrate the distribution rate of each type of Corinthian capital studied in this thesis over the examined time period. The Canonical Corinthian capitals started to spread in the 1st century AD, with their proportion increasing significantly in the 2nd and 3rd centuries AD. However, this proportion declined in the following centuries, becoming rare by the 6th century and almost disappearing by the 7th century. In contrast, Non-Canonical capitals did not begin to appear until the 4th century AD, even though some examples like Nabataean capitals existed in the 1st century AD (Figure 127). These include Corinthian capitals Without-Helix, as well as Corinthian capitals Without-*Crosses*, which were not present before the 4th century (Figure 128, 129). Capitals (Without-

Calyx,) (Without-Helix, Without-Calyx,) appeared in small numbers during the 2nd and 3rd centuries AD, but their frequency increased notably between the 4th-6th centuries AD (Figure 130, 131).

Moreover, the study highlights the creativity of local workshops, especially in northern Syria during the Byzantine period. They began to develop unique designs for elements of the Corinthian capital, such as the band-like shape of the caulicole and the abacus with a recessed band and a half-cylindrical central motif. These features are particularly linked to capitals from northern Syria and became defining characteristics of Byzantine capitals in the region. Craftsmen also introduced new carving methods, such as lace-like drilling and vertical groove techniques on the acanthus leaves. These innovations reflect the vitality of Syrian art from the 4th to the 7th centuries AD.

In addition to the essential elements, other ornamental motifs, known as additional elements, played a significant role in reflecting the stylistic and temporal development of the Corinthian capitals in Syria, and reflect both the evolution of artistic traditions and the changing cultural influences in the region. These features include the axial motifs, including the acanthus leave (Figure 132) and the tongue (Figure 133), figures, crosses (Figure 134), garlands (Figure 135), and grapevines (Figure 136).

Besides the high importance of each of the elements of the Corinthian capitals, the design of the Corinthian capital itself introduces valuable information about their chronological and cultural context. Examples of such cases found in Syria include the Lyre, V-Shaped (Figure 137), Four-Acanthus (Figure 138), and Bell-Shaped types (Figure 139), which appeared by the 5th century AD. These variations not only show the artistic taste of the time but also are related to regional and cultural shifts in the design of architecture. Likewise, Nabataean capitals originally date to the 1st century AD, with a few rare examples extending into the 2nd century AD (Figure 140). These earlier designs reflect the Hellenistic influence and the later transition towards Roman imperial styles. Therefore, the types of Corinthian capitals can help in the dating of these capitals and provide a clearer understanding of regional variations, which demonstrates changing artistic and architectural tastes.

Furthermore, examining the type of stone the Corinthian capitals are made of provides valuable information about the availability of resources, cost considerations, and aesthetic preferences.

Local stones like limestone and basalt were used intensively in manufacturing Corinthian capitals all around Syria, with basalt being more prevalent in the southern parts. In addition to

that, although there are no marble quarries in Syria, many capitals made of marble can be found. These capitals were mainly concentrated in the coastal regions of Syria, with only a few instances in the inland areas. The reason for these differences is due to the high costs related to transportation issues. This existence in such far locations reflect their symbolic and aesthetic values.

The distribution of marble capitals in Syria during this time shows a peak in the late 2nd and early 3rd centuries AD, before becoming less common in the 5th and 6th centuries. This decrease is probably related to the increasing demand, where the growing role of marble as a luxury material made it associated directly with imperial patronage, which likely influenced its distribution.

The production stages and importation of marble Corinthian capitals also highlight a change in craft practices and trade networks. During the Roman period, the Corinthian capitals made of marble arrived in Syria either fully or partially finished, where they were completed at the final destination. This confirms the existence of local workshops specializing in marble in Syria. In the Byzantine period, most marble capitals were imported fully finished, which indicates a shift in production processes. Some unfinished pieces suggest that local artisans still existed in this period, which reflects a degree of continuity in local craftsmanship.

Additionally, identifying the sources of marble used in the Corinthian capitals found in Syria provides a clearer picture of trade in the region. Most of these capitals are made from Proconnesus marble, while others come from sources like Aphrodisias, Docimium, and Mylasa. These results point out that importation was not limited to a single region or institution, but rather that capitals were part of a broader network.

However, it should be noted that many marble capitals in Syria still lack a definitive source due to the challenges of tracing marble origins because of the limitations of current analytical techniques. Therefore, there is a high need for future studies with the help of technology to provide more accurate identification for marble sources, which highlights the complex network of trade and the changes in the cultural dynamics that influenced the material culture of the region.

This dissertation also demonstrates how the design of Corinthian capitals underwent significant transformations related to political changes during the Byzantine period in Syria. One such modification was the simplification process, particularly evident in the "Without-*Crosses*" capitals of northern Syria. In this style, capitals changed from using the traditional toothed

acanthus leaves in the first and second rows and in the calyces to the use of smooth types. As for the reason for this reduction, which occurred in three stages, it was mainly related to practical reasons, particularly the high demand for Corinthian capitals due to the significant increase of the construction of churches and monasteries as Christianity became the official religion of the Byzantine Empire. Despite the shift towards simplicity, craftsmen tried to preserve the beauty and elegance of the Corinthian capital by adding simple decorations to the elements of this type of capital. This adaptation highlights the relationship between art, politics, and practicality in Byzantine architecture.

Moreover, the presence of numerous two-piece Corinthian capitals in Syria provides information about the architectural practices and capital design in Syria. This type of capital was made from both local stone, such as limestone and basalt, and from imported marble. The division between the two parts of these capitals was usually located at the top of the second acanthus row. However, there are some cases where the cut occurs right above the top of the acanthus leaves of the first row, with the beginning of the leaves of the second row starting in between the leaves of the first row in the lower part. Another design, particularly common in southern Syria, reflects a combination of structural and practical considerations, with multi-sectioned capitals used to control height.

The reason for applying the two-piece technique in the Corinthian capitals is probably due to factors related to the design. As for the end date of using this technique, S. Bernard claims that it disappeared in the Severan period; nevertheless, the existence of some instances of Corinthian capitals in Syria dated to the 3rd century AD disagrees with this view. This suggests that the two-piece Corinthian capital continued beyond the time proposed by Bernard, which introduces a deeper understanding of the continuity of this type of capital in Syria.

Finally, this dissertation plays a crucial role in documenting many of the Corinthian capitals found in Syria, a region that has experienced ongoing conflict. Besides cataloguing these capitals, this work is essential for dating them, depending on many data sources, including the original locations of these capitals. Many Corinthian capitals found in museums today are either transported from other regions during the conflict or were confiscated while being smuggled, which makes it hard to identify their original context. In this case, the dating of the capitals depended on a detailed analysis of the individual elements of these capitals, with studying their stylistic features and historical context. This methodology has led to the creation of a database with valuable information about the components of Corinthian capitals in Syria.

This database is considered the foundation for developing an analytical tool that could help in approximating the dating of unknown Corinthian capitals based on their characteristics.

It is also worth noting that this study has played a crucial role in identifying many of these Corinthian capitals with unknown provenance brought to museums in Syria during the crisis. This was possible with the help of several studies that had previously documented these capitals. This is considered very important for preserving the cultural heritage of Syria in the face of ongoing conflict.

# **FIGURES**



Figure 1: Map of the Syrian Arab Republic and surrounding countries. (Naaouf and Torma 2023, 682, Figure 2)



Figure 2: Coastal region and mountain ranges of Syria. (Major 2015, 4, Figure 1)



Figure 3: The northern region of Syria, characterized by six hill groups. (Scheck and Odenthal 1998, Figure 282)



Figure 4: Approximate boundaries of the province of Syria in the Early Roman Empire after Pompey's arrival. (By the author, based on Butcher 2003, 83, Figure 22.1)



Figure 5: Approximate boundaries of the provinces of Syria under Hadrian. (By the author, based on Butcher 2003, 83, Figure 22.2)



Figure 6: Approximate boundaries of the provinces of Syria under Septimius Severus. (By the author, based on Butcher 2003, 85, Figure 23)



Figure 7: Approximate boundaries of the provinces of Syria in the Late Empire under Constantius II. (By the author, based on Butcher 2003, 86, Figure 24)



Figure 8: Approximate boundaries of the provinces of Syria in the Late Empire under Justinian. (By the author, based on Butcher 2003, 86, Figure 24)



Figure 9: Map of stone type distribution across Syria. (Tchalenko 1953, Pl. 1)



Figure 10: Proportions of stone types in the studied Corinthian capitals in Syria. (By the author)


Figure 11: Map showing the distribution of studied Corinthian capitals with known provenance in Syria according to the type of stone. (By the author)



Figure 12: A carver working with an axe in present-day Palermo. (Wootton et al 2013, Figure 15)



Figure 13: A carver working with a small pick in the Swat Valley, Pakistan. (Wootton et al 2013, Figure 3)



Figure 14: Wedge holes visible on a quarry-face at Aphrodisias. (Wootton et al 2013, Figure 4)



Figure 15: Shapes and techniques of wedge use. (Rockwell 1993, Drawing 1)



Figure 16: Various types of point chisels. (Rockwell 1993, Drawing 3)



Figure 17: Different positions of the point. (Rockwell 1993, Drawing 3)



Figure 18: Markings resembling axe marks on carved stone. (Wootton et al 2013, Figure 16)



Figure 19: Different designs of tooth chisels. (Wootton et al 2013, Figure 7)



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Figure 21: Traces of chisel marks on a capital from the Damascus Museum (Cap. 179). (By the author)



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Figure 23: Different designs of flat chisel. (Wootton et al 2013, Figure 9)



Figure 24: Marks from flat chisel visible in the background detail of the frieze on the Column of Trajan. (Wootton et al 2013, Figure 10)



Figure 25: Different designs of roundel chisel. (Wootton et al 2013, Figure 11)



Figure 26: Marks of a roundel observed on the leg of Tiberius in a panel from the Sebasteion at Aphrodisias. (Wootton et al 2013, Figure 12)



Figure 27: Channeling tool. (Wootton et al 2013, Figure 13)



Figure 28: Stone carver using a hammer depicted on the frieze of the Column of Trajan. (Wootton et al 2013, Figure 14)



Figure 29: Saw marks on the entablature of the Temple of Vespasian in Rome. (Wootton et al 2013, Figure 18)



Figure 30: Strap drill. (Wootton et al 2013, Figure 19)



Figure 31: In the De Tomassi workshop in Rome, a pair of carvers can be seen using a cord drill. (Wootton et al 2013, Figure 20)



Figure 32: Rows of unconnected drill holes on a capital at the Temple of Vespasian in Rome. (Wootton et al 2013, Figure 21)



Figure 33: Various types of rasps. (Rockwell 1993, Drawing 9)



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Figure 35: Pumice stone used as a scraper. (Wootton et al 2013, Figure 25)

Figure 36: Measuring tools. (Rockwell 1993, Drawing 13)



Figure 37: Peter Rockwell utilizing a straight edge and calipers to verify measurements on a portrait head. (Wootton et al 2013, Figure 27)



Figure 38: Drawing of the Corinthian capital and the terms used for its elements. (By the author)



Figure 39: Depiction on an Attic lekythos showing acanthus plants at the base of the stele or sepulchral column, tied in large bouquets around the middle of the column. (Poulsen 1920, Figure 115)



Figure 40: Acanthus spinosus in flower, from his natural habitat in Albania. (Minissale 2019, 333, Figure 2)



Figure 41: Drawing of Acanthus spinosus. (Meyer 1994, 45, Figure 22.7)



Figure 42: Acanthus mollis in flower on Mount Erice (Northwest Sicily). (Minissale et al 2019, 333, Figure 1)



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Figure 49: The capital from the Tholos of Delphi. (Website 33)



Figure 50: The Corinthian capital from the Tholos of Epidaurus. (Minissale et al 2019, 333, Figure 1)



Figure 51: Corinthian capital of the Monument of Lysicrates. (Stuart and Reyett 1855, Pl. XIV)



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Figure 67: Steps of incising construction lines. (Toma 2015, Figure 8)



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Figure 75: Umm al-Hasn Park. (By the author)

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Figure 88: Without-Helix, Without-Calyx Corinthian capital. (By the author)



Figure 89: Lyer and V-Shaped Corinthian capital. (By the author)



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Figure 95: An inscription mentions the word "sculptor" on a bas-relief on a stone tablet dated to AD 113, National Museum of Damascus. (Long and Sørensen 2017, fig.7, 13.)



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Figure 97: Cylindrical-shaped caulicole on a capital from Samaria. (Schlumberger 1933, Ol. XXXII. 3)



Figure 98: Caulicole design on a capital from Antioch. (Schlumberger 1933, Ol. XXXII. 4)



Figure 99: A capital from Ephesus Library. (Weigand 1914, Figure 17)



Figure 100: A capital from the mosque in Baalbek. (Weigand 1914, Figure 24)



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Figure 102: Round Temple in the Forum Boarium. (Website 36)



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Figure 105: Greek (left) and Latin (right) Crosses. (By the author)



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Figure 107: Cross-in-circle with braided circular frame (Cap.97). (By the author)



Figure 108: Cross-in-circle with circular frame is embellished with triangles (Cap. 161). (By the author)



Figure 109: Cross-in-circle with circular frame is embellished with triangles (Cap.226). (By the author)



Figure 110: Cross-in-circle with circular frame adorned with small circles (Cap. 163). (By the author)



Figure 111: Cross-in-circle with three frames (Cap.219). (By the author)



Figure 112: A freestanding Latin cross with alpha and omega Greek letters on either side (Cap. 12). (By the author)



Figure 113: A Chi-Rho monogram (Cap.190). (By the author)



Figure 114: Chart showing the percentage of Corinthian capitals with known provenance that can be dated based on their origin. (By the author)



Figure 115: Chart showing the types of buildings in which the Corinthian capitals were used and the number of capitals in each type. (By the author)



Figure 116: Chart showing the methods used to date the Corinthian capitals with unknown provenance and the number of capitals in each group. (By the author)



Figure 117: The boundaries of the ancient city of Laodicea. (By the author)



Figure 118: Distribution of imported stone capitals in Syria between the 1st and 7th century AD. (By the author)



Figure 119: Marble Corinthian capital from the basilica at Ashkelon. (Pensabene 1997, Figure 120, 369)



Figure 120: Marble Corinthian capital from the basilica at Ashkelon. (Pensabene 1997, Figure 121, 369)



Figure 121: General view of the Theatre of Jableh. (By the author)



Figure 122: A map showing "Travelling Stonemason Groups" and their activity during the Roman Imperial Era. (Dimitrov 2016, 382, Figure 20)



Figure 123: Distribution of marble types of Corinthian capitals in Syria. (By the author)



Figure 124: A graph about the distribution of various types of architectural marble in different locations around the Mediterranean between 200BC-AD500. (Taelman 2022, 858, Figure 6)



Figure 125: Simplification process of Corinthian capital Without-Crosses. (By the author)



Figure 126: 10th-Century Marble Corinthian Capital from Córdoba, Spain. (Ekhtiar and Moore (eds.) 2012, 117, Figure 21)



Figure 127: Distribution of Canonical and Non-Canonical types over time. (By the author)



Figure 128: Distribution of Without-Helix type over time. (By the author)



Figure 129: Distribution of Without-Helix, Without-Volute type over time. (By the author)



Figure 130: Distribution of Without-Calyx type over time. (By the author)



Figure 131: Distribution of Without-Helix, Without-Calyx type over time. (By the author)



Figure 132: Distribution of the additional element (axial motif – acanthus leaf) on studied Corinthian capitals over time. (By the author)



Figure 133: Distribution of the additional element (axial motif – tongue) on studied Corinthian capitals over time. (By the author)



Figure 134: Distribution of the additional element (crosses) on studied Corinthian capitals over time. (By the author)



Figure 135: Distribution of the additional element (garland) on studied Corinthian capitals over time. (By the author)



Figure 136: Distribution of the additional element (grapevines) on studied Corinthian capitals over time. (By the author)



Figure 137: Distribution of Lyre and V-Shaped type over time. (By the author)



Figure 138: Distribution of Bell-Shaped Double type over time. (By the author)



Figure 139: Distribution of Four-Acanthus type over time. (By the author)



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## BIBLIOGRAPHY

| Abdulkarim & Laila 2020 | <ul> <li>M. Abdulkarim &amp; A. Laila (2020) 'The Decorations in the</li> <li>Domestic Architecture in the Village of Sergilla in Northern</li> <li>Syria During the Byzantine Period'. In <i>Drawing the Threads</i></li> <li><i>Together: Studies on Archaeology in Honour of Karin Bartl</i>,</li> <li>edited by Alexander Ahrens, Dörte Rokitta-Krumnow,</li> <li>Franziska Bloch, and Claudia Bührig, pp. 187–208. Zaphon.</li> </ul> |
|-------------------------|--|
| Abramson 1974           | H. Abramson (1974) 'The Olympieion in Athens and Its<br>Connections with Rome', in <i>California Studies in Classical</i><br><i>Antiquity</i> . London: University of California Press (7), pp. 1–<br>27.  |
| Adam 1999               | JP. Adam (1999) <i>Roman Building, Materials and Techniques</i> . United Kingdom: Routledge.   |
| Amer <i>et al.</i> 1982 | G. Amer, JL. Biscop, J. Dentzer-Feydy and JP. Sodini (1982) 'Qanawat. L'Ensemble basilical de Qanawat (Syrie du sud)', <i>Syria</i> , 59(3–4), pp. 257–318.  |
| Amy & Gros 1979         | R. Amy & P. Gros (1979) <i>La Maison Carrée de Nîmes</i> . Paris:<br>Éditions du Center national de la recherche scientifique.   |
| Asgari 1988             | N. Asgari (1988) 'The Stages of Workmanship of the<br>Corinthian Capital in Proconnesus and its Export Form', in N.<br>Herz and M. Waelkens (eds.) <i>Classical Marble:</i><br><i>Geochemistry, Technology, Trade.</i> (NATO Science Series E,<br>153), pp. 115–125.   |
| Asgari 1995             | N. Asgari (1995) 'The Proconnesian Production of<br>Architectural Elements in Late Antiquity, Based on Evidence<br>from the Marble Quarries', in C. Mango and G. Dagron (eds.)<br><i>Constantinople and its hinterland. Papers from the Twenty-</i><br><i>Seventh Spring Symposium of Byzantine Studies, Oxford, April</i><br>1993. Aldershot: Routledge, pp. 263–288.   |

| Attanasio <i>et al.</i> 2009 | D. Attanasio, M. Bruno & A.B. Yavuz (2009) 'Quarries in the region of Aphrodisias: the black and white marbles of Göktepe (Muğla)', <i>Journal of Roman Archaeology</i> , 22(1), pp. 312–348.   |
|------------------------------|---|
| Augé 2014                    | C. Augé (2014) 'The Nabataean Age (4th century BC - 1st century AD)', in M. Ababsa (ed.) <i>Atlas of Jordan: History, Territories and Society</i> . Lebanon: Presses de l'Ifpo, Institut français du Proche-Orient, pp. 142–150.  |
| Ausonius 1919                | D.M. Ausonius (1919) <i>Ausonius</i> . Translated by H.G.E. White.<br>United Kingdom: Heinemann.  |
| Bahn 2017                    | P. Bahn (ed.) (2017) Archaeology: The Essential Guide to Our<br>Human Past. Washington.   |
| Ball 2000                    | W. Ball (2000) <i>Rome in the East: The Transformation of an Empire</i> . 1st edn. London: Routledge.   |
| Bandinelli 1966              | R.B. Bandinelli (1966) 'Spaetantike', in <i>Enciclopedia dell'</i><br><i>Arte Antica</i> . Rome, pp. 426–427.   |
| Bardill 2012                 | J. Bardill (2012) Constantine, Divine Emperor of the Christian Golden Age. New York.  |
| Barker & Russell 2012        | S.J. Barker & B. Russell (2012) 'Labour figures for Roman<br>stone-working: pitfalls and potential', in S. Camporeale, H.<br>Dessales, and A. Pizzo (eds.) <i>Arqueología de la construcción</i><br><i>III Los procesos constructivos en el mundo romano: la</i><br><i>economía de las obras</i> , pp. 83–94. |
| Bartoli 2008                 | D.G. Bartoli (2008) Marble Transport in the Time of the<br>Severans: a new Analysis of the Punta Scifo A Shipwreck at<br>Croton, Italy. PhD Dissertation. Texas A&M University.   |
| Bassioni 2022                | A.M Bassioni (2022) The Alexandrian Corinthian Capital and<br>Its Role in the Evolution of the Corinthian Order in<br>Hellenistic, Roman, and Late Roman Architecture: A  |

|                              | Comparative Study (3rd Century BC - 7th Century AD).<br>United Kingdom: Archaeopress Publishing Limited.  |
|------------------------------|---|
| Berens 2009                  | E.M. Berens (2009) <i>The Myths and Leaends of Ancient Greece and Rome</i> . Amsterfam.   |
| Berlinghieri 2015            | E.F.C. Berlinghieri (2015) 'Marble production and marble trade along the Mediterranean coast in Early Byzantine Age (5th-6th centuries): data from quarries, shipwrecks and monuments', in <i>Proceedings of the 15th Symposium on Mediterranean Archaeology, Catania, 3-5 March 2011</i> . Oxford, pp. 1033–1041.                        |
| Berlinghieri & Paribeni 2011 | E.F.C. Berlinghieri & A. Paribeni (2011) 'Byzantine Merchant<br>Ships and Marble Trade - New Data from the Central<br>Mediterranean - In Memory of Gerhard Kapitän (1920 -<br>2011)', <i>SKYLLIS</i> , 11(1), pp. 64–75.  |
| Bernard 2012                 | S.G. Bernard (2012) 'The two-piece Corinthian capital and the working practice of Greek and Roman masons', in R. Ousterhout, R. Holod, and L. Haselberger (eds.) <i>Masons at Work: Architecture and Construction in the Pre-Modern World. Center for Ancient Studies Symposium</i> , Philadelphia: University of Pennsylvania, pp. 1–18. |
| Bessac 1986                  | JC. Bessac (1986) <i>L'outillage traditionnel du tailleur de pierre, de l'antiquité à nos jours</i> . Paris (Revue archéologique deNarbonnaise supplement, 14).   |

Bessac & Francovich 1993 J.-C. Bessac & R. Francovich (1993) 'Traces d'outil sus la pierre: problématique, methods d'études et interpretation', in Archeologia delle attività estrattive e metallurgiche. V Ciclo di Lezioni sulla Ricerca applicata in Archeologia (Certosa di Pontignano, SI-Campiglia Marittima, LI 1991). Florence (Quaderni del Dipartimento di archeologia e storia delle arti, Sezione archeologica, Università di Siena, 32-33), pp. 143-176.

| Bessac & Nehmé 2007          | JC. Bessac & L. Nehmé (2007) <i>Le travail de la pierre à Pétra: technique et économie de la taille rupestre</i> . France: Éditions Recherche sur les civilisations.   |
|------------------------------|--|
| Bessac et al. 1988           | JC. Bessac, N. Herz & M. Waelkens (1988) 'Problems of identification and interpretation of tool marks on ancient marbles and decorative stones', in <i>Classical marble: geochemistry, technology, trade.</i> Dordrecht (NATO ASI series, series E, applied sciences, 153), pp. 41–53. |
| Betsch 1977                  | W.E. Betsch (1977) <i>The History, Production and Distribution</i><br>of the Late Antique Capital in Constantinople. Michigan:<br>University of Pennsylvania.  |
| Beykan 1988                  | M. Beykan (1988) 'The Marble Architectural Elements in Export-Form from the Şile Shipwreck', in N. Herz and M. Waelkens (eds.) <i>Classical Marble: Geochemistry, Technology, Trade</i> . Dordrecht, pp. 127–137.  |
| Biscop & Blanc 2014          | JL. Biscop & PM. Blanc (2014) 'Les bains de Télanissos,<br>entre village et sanctuaire', in MF. Boussac, S. Denoix, Th.<br>Fournet and B. Redon (eds.) 25 siècles de bain collectif en<br>Orient: Proche-Orient, Egypte et péninsule Arabique. Etudes<br>urbaines. (9), pp. 412–432.   |
| Blagg 1976                   | T.F.C. Blagg (1976) Tools and techniques of the Roman stone-<br>mason in Britain. (Britannia, 7).  |
| Boak 1921                    | A.E.R. Boak (1921) <i>A History of Roma to 565 AD</i> . United States: The Machmillan Company.   |
| Boardman 1978                | J. Boardman (1978) <i>Greek Sculpture: The Archaic Period: a handbook.</i> United Kingdom: Oxford University Press.  |
| Boardman 1989                | J. Boardman (1989) Greek Art. Thames and Hudson.   |
| Boethius & Ward-Perkins 1970 | A. Boethius & J.B. Ward-Perkins (1970) <i>Etruscan and Roman Architecture</i> . Harmondsworth.   |

| Borriello 2002a         | M. Borriello (2002a) 'Calibro', in M. De Nuccio and L. Ungara (eds.) <i>I marmi colorati della Roma imperiale</i> . Venice: Marsilio, p. 505.   |
|-------------------------|---|
| Borriello 2002b         | M. Borriello (2002b) 'Compassi a chiave', in M. De Nuccio<br>and L. Ungara (eds.) <i>I marmi colorati della Roma imperiale</i> .<br>Venice: Marsilio, p. 507.   |
| Borriello 2002c         | M. Borriello (2002c) 'Compasso', in M. De Nuccio and L. Ungara (eds.) <i>I marmi colorati della Roma imperiale</i> . Venice: Marsilio, p. 505.  |
| Borriello 2002d         | M. Borriello (2002d) 'Pesi per filo a piombo', in M. De<br>Nuccio and L. Ungara (eds.) <i>I marmi colorati della Roma</i><br><i>imperiale</i> . Venice: Marsilio, pp. 508–509.  |
| Borriello 2002e         | M. Borriello (2002e) 'Squadro', in M. De Nuccio and L. Ungara (eds.) <i>I marmi colorati della Roma imperiale</i> . Venice: Marsilio, p. 511.   |
| Borriello 2002f         | M. Borriello (2002f) 'Unità di misura', in M. De Nuccio and<br>L. Ungara (eds.) <i>I marmi colorati della Roma imperiale</i> .<br>Venice: Marsilio, p. 510.   |
| Boschung & Pfanner 1988 | D. Boschung & M. Pfanner (1988) 'Antike Bildhauertechnik.<br>Vier Untersuchungen an Beispielen in der Münchner<br>Glyptothek', in. Prestel Verlag (Münchner Jahrbuch der<br>bildenden Kunst, 3), pp. 7–28.                                    |
| Bouchier 1916           | E.S. Bouchier (1916) <i>Syria as a Roman Province</i> . 1st edn. Oxford: Benjamin Henry Blackwell.  |
| Bounni 1991             | A. Bounni (1991) 'Les Nabatéens en Syrie du Sud', in JM.<br>Dentzer and J. Dentzer (eds.) <i>Le djebel al-'Arab: Histoire et Patrimoine au musée de Suweida'</i> . Paris: Institut Français d'Archéologie du Proche-Orient (IFPO), pp. 21–23. |

| Bounni et al. 1992 | <ul> <li>A. Bounni, J. Seigne &amp; N. Saliby (1992) Le sanctuaire de Nabu à Palmyre (Planches). Paris: Paul Geuthner (bibliothèque archéologique et histoire, 131).</li> </ul>              |
|--------------------|--|
| Bowersock 1990     | G.W. Bowersock (1990) <i>Hellenism in Late Antiquity</i> . Ann Arbor: Cambridge University Press.  |
| Braunstein 2010    | D. Braunstein (2010) 'Use of the drill in Archaic sculpture: the technique of the running drill', <i>Bulletin de correspondance hellénique</i> , 134, pp. 71–96.                             |
| Browne 1912        | E.A. Browne, (1912) <i>Early Christian and Byzantine Architecture</i> . London: Adam and Charles Black.  |
| Brown 1971         | <ul><li>P. Brown (1971) <i>The World of Late Antiquity, AD 150-750.</i></li><li>United Kingdom: Harcourt Brace Jovanovich.</li></ul>   |
| Bruno 2002a        | M. Bruno (2002a) 'Piccolo piedistallo con dedica a Silvano',<br>in M. De Nuccio and L. Ungara (eds.) <i>I marmi colorati della</i><br><i>Roma imperiale</i> . Venice: Marsilio, pp. 502–504. |
| Bruno 2002b        | M. Bruno (2002b) 'Quattro subbie grande', in M. De Nuccio<br>and L. Ungara (eds.) <i>I marmi colorati della Roma imperiale</i> .<br>Venice: Marsilio, pp. 510–511.                           |
| Bruno 2002c        | M. Bruno (2002c) 'Tre cunei', in M. De Nuccio and L. Ungara (eds.) <i>I marmi colorati della Roma imperiale</i> . Venice: Marsilio, p. 507.  |
| Bryce 2014         | T. Bryce (2014) Ancient Syria: A Three Thousand Year History. Oxford.  |
| Burckhardt 2009    | T. Burckhardt (2009) <i>Art of Islam: language and meaning.</i><br>Bloomington: World Wisdom.  |
| Burns 1992         | R. Burns (1992) <i>Monuments of Syria: An Historical Guide</i> . 1st edn. London: I.B Tauris & Co Ltd.   |
| Burns 2017         | R. Burns (2017) Origin of the Colonnaded Streets in the Cities of the Roman East. Oxford.  |

| Butcher 2003       | K. Butcher (2003) <i>Roman Syria and the Near East</i> . London:<br>The British Museum Press.   |
|--------------------|---|
| Butler 1904        | H.C. Butler (1904) Architecture and Other Arts: Part II of the<br>Publications of the American Archaeological Expedition to<br>Syria in 1899–1900. New York: The Century Co.  |
| Butler 1906        | H.C. Butler (1906) 'The Tychaion at Is-Sanamên and the Plan<br>of Early Churches in Syria', <i>Revue Archéologique</i> . Edited by<br>E. Leroux, VIII, pp. 413–423.   |
| Butler 1909        | H.C. Butler (1909) Publications of the Princeton University<br>Archaeological Expeditions to Syria in 1904-5 and 1909:<br>Division II. Ancient architecture in Syria, by Howard Crosby<br>Butler. Division III. Greek and Latin inscriptions in Syria, by<br>Enno Littmann, D. Magie, D. R. Stuart. Section A: Southern<br>Syria, Parts 1-7. Sections B: Northern Syria, Parts 1-6.<br>Leyden: Brill. |
| Butler 1929        | H.C. Butler (1929) <i>Early Churches in Syria (Fourth to Seventh Centuries)</i> . Edited by E.B. Smith. Princeton: Publication for the Department of Art and Archaeology of Princeton University.   |
| Butler et al. 1930 | H.C. Butler, A.M. Frederick, A. Norris & E.R. Stoever (1930)<br>Publications of the Princeton University Archaeological<br>Expeditions to Syria in 1904-5 and 1909. Division I.<br>Geography and Itinerary. Leyden: Brill.  |
| Cameron 2012       | A. Cameron (2012) <i>The Mediterranean World in Late Antiquity 395–700.</i> 2nd edn. New York: Routledge.   |
| Carlson 2009       | D.N. Carlson (2009) 'A Marble Cargo of Monumental<br>Proportions: the Late Hellenistic Shipwreck of Kızılburun,<br>Turkey', in P. Jockey (ed.) <i>AEYKOS AIOOS. Marbres et</i><br><i>autres roches de la Méditerranée antique: études</i><br><i>interdisciplinaires. Interdisciplinary Studies on</i><br><i>Mediterranean Ancient Marble and Stones, Actes du VIIIe</i>                               |

|                        | <i>Coll. Internat. de l'ASMOSIA.</i> Paris ((Association for the Study of Marble and Other Stones Used in Antiquity), Aix-en-Provence 2006), pp. 475–493.   |
|------------------------|---|
| Carlson & Aylward 2010 | D.N. Carlson & W. Aylward (2010) 'The Kızılburun<br>Shipwreck and the Temple of Apollo at Claros', <i>American</i><br><i>Journal of Archaeology</i> , 114(1), pp. 145–159.  |
| Casana 2017            | J. Casana (2017) 'The Northern Levant: Archaeology', in L.Z.<br>Ullmann and M. Weeden (eds.) <i>Hittite Landscape and Geography</i> . Netherlands: Brill, pp. 160–387.  |
| Cassini 2017           | E. Cassini (2017) 'The Pious Butcher and the Physicians:<br>Palmyrene Professions in Context'. In <i>Positions and</i><br><i>Professions in Palmyra</i> , edited by Tracey Long and Annette<br>Højen Sørensen, pp. 84–96. Det Kongelige Danske<br>Videnskabernes Selskab. |
| Chitham 2005           | R. Chitham (2005) <i>The Classical Orders of Architecture</i> . 2nd edn. Oxford: Architectural Press.   |
| Chwalkowski 2016       | F. Chwalkowski (2016) <i>Symbols in Arts, Religion and Culture: The Soul of Nature.</i> United Kingdom: Cambridge Scholars Publishing.  |
| Clarke 1886            | J.T. Clarke (1886) <i>A Proto-Ionic Capital from the Site of Neandreia</i> . New York: American journal of archaeology.   |
| Cohen 2006             | G.M. Cohen (2006) The Hellenistic Settlements in Syria, The Red Sea Basin, and Northern Africa. Los Angles & London.  |
| Collart & Vicari 1969  | P. Collart & J. Vicari (1969) <i>Le sanctuaire de Baalshamin à Palmyre</i> . Rome: Institut suisse de Rome (Bibliotheca Helvetica Romana, 10).  |
| Colledge 1976          | M.A.R. Colledge (1976) <i>The Art of Palmyra</i> . Boulder: Westview Press.   |
| Colonna et al. (1984)  | G. Colonna, F. Canciani & G. Charles-Picard (1984) Lexicon<br>Iconographicum Mythologiae Classicae (LIMC).  |

|                            | APHRODISIAS-ATHENA. Zürich und München: Artemis Verlag.  |
|----------------------------|--|
| Conlin 1997                | D.A. Conlin (1997) The Artists of the Ara Pacis: The Process of Hellenization in Roman Relief Sculpture. Chapel Hill, Carolina.  |
| Cooper 1987                | J.C. Cooper (1987) An Illustrated Encyclopaedia of<br>Traditional Symbols. New York: Thames and Hudson.  |
| Cormack 2018               | R. Cormack (2018) <i>Byzantine Art</i> . 2nd edn. Oxford University Press.   |
| Day 1928                   | A.E. Day (1928) 'Pipes in the Coast Sandstone of Syria', <i>Geological Magazine</i> , 65(9), pp. 412–415.  |
| de Maria 1981              | S. de Maria (1981) 'Il problema del corinzio-italico in Italia settentrionale', <i>Mélanges de l'école française de Rome</i> , 93–2, pp. 565–616.  |
| de Vogüé & Waddington 1865 | M. de Vogüé & W.H. Waddington (1865) <i>Syrie centrale:</i><br><i>architecture civile et religieuse du Ier au VIIe siècle</i> . France:<br>Noblet et Baudry.   |
| Deichmann 1975             | F.W. Deichmann (1975) <i>Die Spolien in der spätantiken</i><br><i>Architektur</i> . Munich (Sitzungsberichte der Bayerischen<br>Akademie der Wissenschaften: Philosophisch-Historische<br>Klasse, 6).  |
| Delbrueck 1907             | R. Delbrueck (1907) <i>Hellenistische Bauten in Latium</i> . Strassburg.   |
| Demir 2019                 | H. Demir (2019) 'Anadolu'da II. Theodosius Dönemi Sütun<br>Başliklarında Maske Akanthus Motifi Kullanımi / The Usage<br>of Mask Acanthus Motif in the Theodosius II Era at Anatolia',<br><i>Akademik Hassasiyetler / The Academic Elegance</i> , 6, pp. 135–<br>157. |
| Demorest 1882              | W.J. Demorest (1882) <i>Demorests' Monthly Magazine</i> . New York (18).   |

| Dentzer 1979           | J. Dentzer (1979) 'A propos du temple dit de "Dusarès" à Sī',<br><i>Syria. Archéologie, Art et histoire</i> , 56(3–4), pp. 325–332.   |
|------------------------|---|
| Dentzer & Dentzer 1981 | J. Dentzer & JM. Dentzer (1981) 'Les fouilles de Sî ' et la phase hellénistique en Syrie du Sud', <i>Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres</i> , 125(1), pp. 78–102.  |
| Dentzer 1985a          | JM. Dentzer (ed.) (1985a) <i>Hauran I: Recherches</i><br><i>Archéologiques Sur La Syrie Du Sud à l'époque Hellénistique</i><br><i>et Romaine</i> . Vol. 1 of 2 vols. France: Paul Geuthner.   |
| Dentzer 1985b          | JM. Dentzer (ed.) (1985b) <i>Hauran I: Recherches</i><br><i>Archéologiques Sur La Syrie Du Sud à l'époque Hellénistique</i><br><i>et Romaine</i> . Vol. 2 of 2 vols. France: Paul Geuthner.   |
| Dentzer 1986           | JM. Dentzer (1986) 'Décor architectural et développement<br>du Hauran du Ier siècle avant JC. au VIIe siècle après JC.',<br>in J. Dentzer-Feydy (ed.) <i>Hauran. I, Recherches</i><br><i>archéologiques sur la Syrie du Sud à l'époque hellénistique et</i><br><i>romaine. Deuxième partie.</i> Paris: Librairie Orientaliste Paul<br>Geuthner (Bibliothèque archéologique et historique, CXXIV),<br>pp. 261–310. |
| Dentzer-Feydy 1990     | J. Dentzer-Feydy (1990) 'Les chapiteaux corinthiens normaux<br>de Syrie méridionale (1ère partie)', <i>Syria</i> , 67(3–4), pp. 633–<br>663.  |
| Dentzer-Feydy 1993     | J. Dentzer-Feydy (1993) 'Introduction de l'acanthe dans la sculpture monumentale du Proche-Orient à l'époque greco-<br>romaine', in <i>L'Acanthe dans la sculpture monumentale de l'Antiquité à la Renaissance</i> . Paris: Editions du Comité des Travaux Historiques et Scientifiques, Publications de la Sorbonne, pp. 98–112.   |
| Dentzer-Feydy 1997     | J. Dentzer-Feydy (1997) 'Remarques sur les temples de<br>Hebrân et de Sleim (Syrie du Sud) dessinés par W. J. Bankes<br>(1786-1855)', <i>Syria</i> , 74, pp. 161–164.   |

| Desgodets 1682 | Desgodets, A.B. (1682) Les Edifices Antiques De Rome:<br>Dessinés Et Mesurés Très Exactement. Paris.  |
|----------------|---|
| Dimitrov 2012  | Z. Dimitrov (2012) 'Two Figural Capitals from the Late<br>Antiquity in National Archaeological Museum – Sofia',<br><i>НИШ И ВИЗАНТИЈА: ДЕСЕТИ НАУЧНИ СКУП ниш, 3-</i><br><i>5. ЈУН 2011. ЗБОРНИК РАДОВА.</i> Edited by M.<br>РАКОЦИЈА, X, pp. 165–183.  |
| Dimitrov 2016  | Z. Dimitrov (2016) 'A Stage of Corinthian Order<br>Development at Gerasa: An Analysis of the Mausoleum of<br>Germanus', in <i>Studies in the History and Archaeology of</i><br><i>Jordan</i> . (12), pp. 369–384.   |
| Dimitrov 2018  | Z. Dimitrov (2018) 'Architectural Decorations of the Lower<br>Danube Frontier Area: A Unique Mixture of Order Systems,<br>Models, Trends and Stonemasons' Techniques from the Era of<br>the Principate', in E.Y. Klenina (ed.) <i>NOVAE</i> . Poznan: Instutyt<br>Historii UAM (Studies and Materials, IV), pp. 87–111. |
| Dinsmoor 1933  | W.B. Dinsmoor (1933) 'The Temple of Apollo at Bassae',<br>Metropolitan Museum Studies, 4, pp. 204–227.  |
| Dinsmoor 1950  | W.B. Dinsmoor (1950) <i>The Architecture of Ancient Greece:</i><br><i>An Account of Its Historic Development</i> . London: B. T. Batsford.  |
| Dinsmoor 1984  | W.B. Dinsmoor and J.M. Camp (1984) <i>Ancient Athenian Building Methods (Agora Picture Book)</i> . (American School of Classical Studies at Athens, XXI).   |
| Dodge 1988     | H. Dodge (1988) 'Palmyra and the Roman Marble Trade', <i>Levant</i> , 20, pp. 215–230.  |
| Dodgson 1842   | C. Dodgson (1842) <i>Tertullian</i> . Oxford (Apologetic and Practical Treatises).  |

| Donceel-Voûte 1988        | <ul> <li>P. Donceel-Voûte (1988) Les pavements des eglises byzantines</li> <li>de Syrie et du Liban: décor, archéologie et liturgie. Belgium:</li> <li>Département d'archéologie et d'histoire de l'art.</li> </ul>   |
|---------------------------|---|
| Durm 1910                 | J. Durm (1910) Die Baukunst der Griechen. Leipzig: Kröner.  |
| Dussaud 1922              | R. Dussaud (1922) 'Le temple de Jupiter Damascénien et ses<br>transformations aux époques chrétienne et musulmane', <i>Syria.</i><br><i>Archéologie, Art et histoire</i> , 3(3), pp. 219–250.   |
| Dylan 2020                | R. Dylan (2020) 'The Hanging Garlands of Pompeii: Mimetic Acts of Ancient Lived Religion', <i>Arts</i> , 2(65).   |
| Ebeling 1924              | H.L. Ebeling (1924) 'The Origin of the Corinthian Capital', <i>The Art Bulletin</i> , 6(3), pp. 75–81.  |
| Ekhtiar & Moore 2012      | M.D. Ekhtiar & C. Moore (eds.) (2012) <i>Art of the Islamic World A Resource for Educators</i> . New York: The Metropolitan Museum of Art.  |
| Elayi & Haykal 1996       | J. Elayi & M.R. Haykal (1996) <i>Nouvelles découvertes sur les usages funéraires des Phéniciens d'Arwad</i> . Netherlands: Peeters Publishers & Booksellers.  |
| Elsner 2002               | J. Elsner (2002) 'The Birth of Late Antiquity: Riegl and Strzygowski in 1901', 25(3), pp. 358–379.  |
| Ertel 2005                | C. Ertel (2005) 'Machtsplitter – Architekturteile aus der<br>Kaiserresidenz Sirmium (Sremska Mitrovica)', in M. Sanader<br>and A.R. Miocevic (eds.) <i>Religion and Myth as an Impetus or</i><br><i>the Roman Provincial Sculpture. The 8th International</i><br><i>Colloquium on Problems of Roman Provincial Art.</i> Zagreb,<br>pp. 311–318. |
| Eusebius                  | Eusebius (1999) <i>Life of Constantine (Clarendon Ancient History Series)</i> . Translated by A. Cameron and S. Hall. United Kingdom: Clarendon Press.  |
| Evans <i>et al</i> . 2001 | H.C. Evans, M. Holcomb & R. Hallman (2001) <i>The Art of Byzantium</i> . (The Metropolitan Museum of Art Bulletin, 58).   |

| Fant 2008       | J.C. Fant (2008) 'Quarrying and stoneworking', in J.P. Oleson (ed.) <i>The Oxford handbook of engineering and technology in the Classical world</i> . Oxford, pp. 121–35.  |
|-----------------|--|
| Filipczak 2015  | P. Filipczak (2015) An Introduction to the Byzantine<br>Administration in Syro-Palestine on the Eve of the Arab<br>Conquest. Poland: Wydawnictwo Uniwersytetu Łódzkiego.   |
| Filipek 2023    | S. Filipek (2023) 'The King of Birds and the Bird of Kings<br>About the Symbolism of the Eagle in Culture, Beliefs and<br>Art', <i>Asian Journal of Social Science Studies</i> , 8(2), pp. 17–24.                |
| Finegan 1993    | J. Finegan (1993) <i>The Archeology of the New Testament: The Life of Jesus and the Beginning of the Early Church.</i><br>Princeton: Princeton University Press.   |
| Fischer 1986    | M. Fischer (1986) 'The Corinthian Capitals of the Capernaum Synagogue: A Revision', <i>Levant</i> , 18, pp. 131–142.   |
| Fischer 1989    | M. Fischer (1989) 'Figured Capitals in Roman Palestine:<br>Marble Imports and Local Stone. Some Aspects of "Imperial"<br>and "Provincial" Art', <i>Palestine Exploration Quarterly</i> ,<br>121(2), pp. 112–132. |
| Fletcher 1905   | B.F. Fletcher (1905) <i>A History of Architecture on the Comparative Method: For the Students, Craftsmen, and Amature.</i> London.   |
| Fowden 1999     | E.K. Fowden (1999) <i>The Barbarian Plain: Saint Sergius</i><br><i>Between Rome and Iran.</i> Switzerland: University of California<br>Press.  |
| Frel 1981       | J. Frel (1981) <i>Roman Portraits in The Getty Museum</i> . Tulsa: Philbrook Art Center.   |
| Freyberger 1988 | K.S. Freyberger (1988) 'Zur Datierung des Theaters in Bosra',<br>Damaszener Mitteilungen, 3, pp. 17–26.  |
| Freyberger 1990 | K.S. Freyberger (1990) Stadtrömische Kapitelle aus der Zeit<br>von Domitian bis Alexander Severus. Zur Arbeitsweise und  |

Organisation stadtrömischer Werkstätten der Kaiserzeit. Mainz am Rhein: Verlag Philipp von Zabern.

Freyberger 2000
K.S. Freyberger (2000) 'Qanawat. Der "Südtempel" (Tempel des Zeus Megistos). Deutung und Funktion im städtischen Kontext von Kanatha', *Damaszener Mitteilungen*, 12, pp. 187–222.

Gabellone & Giannotta 2009
F. Gabellone & M.T. Giannotta (2009) 'The Torre Sgarrata Wreck (South Italy): Marble Artefacts in the Cargo', in Y. Maniatis (ed.) ASMOSIA VII, Actes du VIIe colloque international de l'ASMOSIA, Thassos 15-20 september, 2003. Athens: ÉCOLE FRANÇAISE D'ATHÈNES (BCH Supplément, 51), pp. 319–331.

Ganzert & Herz 1996J. Ganzert & P. Herz (1996) Der Mars-Ultor-Tempel auf dem<br/>Augustusforum in Rom. Germany: P. von Zabern.

Garipzanov 2018 I. Garipzanov (2018) Graphic Signs of Authority in Late Antiquity and the Early Middle Ages, 300-900. United Kingdom: OUP Oxford.

Gasparri (1986)Gasparri, C. (1986) Lexicon Iconographicum MythologiaeClassicae (LIMC). Atherion-Eros. Zürich und München:Artemis Verlag.

Gawlikowski 2021M. Gawlikowski (2021) Tadmor - Palmyra: A Caravan City<br/>Between East and West. Poland: IRSA Publishing House.

Genequand 2008 D. Genequand (2008) 'The New Urban Settlements at Qar al-Hayr al-Sharqi: Components and Development in the Early Islamic Period', in K. Bartl and A. al-Razzaq Moaz (eds.) Residences, Castles, Settlements: Transformation Processes from Late Antiquity to Early Islam in Bilad Al-Sham: Proceedings of the International Conference Held at

|                         | Damascus, November 5-9, 2006. Damascus: Verlag Marie Leidorf, pp. 261–285.   |
|-------------------------|--|
| Gérard 1994             | C. Gérard (1994) 'Les bains de Sergilla', Syria, 71(1–2), pp. 113–142.   |
| Geymonat 2012           | L.V. Geymonat (2012) 'The Syntax of Spolia in Byzantine<br>Thessalonike M.J. Johnson, R. Ousterhout, & A.<br>Papalexandrou (eds.)', in M.J. Johnson, R. Ousterhout, and A.<br>Papalexandrou (eds.) <i>Approaches to Byzantine Architecture</i><br><i>and its Decoration: Studies in Honor of Slobodan Ćurčić</i> .<br>Surrey, pp. 47–66. |
| Gibson 2004             | D. Gibson (2004) <i>The Nabataeans: Builders of Petra</i> . United States: Xlibris.  |
| Gilani & Siddiqui 2021  | S.M. Gilani & K.S. Siddiqui (2021) 'Acanthus Leaves in Gandhara Art: A Symbol or a Decorative Pattern', <i>Quarterly Journal of the Pakistan Historical Society</i> , 68(3), pp. 7–34.   |
| Ginouèvs 1992           | R. Ginouèvs (1992)DictionnaireMéthodiquedeL'architecture Grecque et Romanie.Rome and Athene.   |
| Gnecchi 1911            | F. Gnecchi (1911) <i>The Coin Types of Imperial Rome: With 28</i><br><i>Plates and 2 Synoptical Tables</i> . Translated by E.A. Hands.<br>London.  |
| Goodenough 1968         | E.R. Goodenough (1968) <i>Jewish Symbols in the Greco-Roman</i><br><i>Period</i> . Pantheon Books.   |
| Goodman & Sherwood 1997 | M. Goodman & J. Sherwood (1997) <i>The Roman World 44 BC-</i><br><i>AD 180</i> . 1st edn. London: Routledge.   |
| Grabar 1946             | A. Grabar (1946) <i>Martyrium: Recherches sur le Culte des Reliques et l'art Chrétien Antique</i> . Paris: College de France.  |
| Grabar 1987             | O. Grabar (1987) <i>The Formation of Islamic Art</i> . United Kingdom: Yale University Press.  |

| Grabiner 1993          | E. Grabiner (1993) 'Chapiteaux à feuilles d'acanthe fouettées<br>par le vent', in L. Pressouyre (ed.) <i>L'acanthe dans la sculpture</i><br><i>monumentale de l'Antiquité à la Renaissance</i> . Paris<br>(Mémoires de la section d'archéologie et d'histoire de l'art,<br>IV, Histoire de l'art, VI), pp. 357–382. |
|------------------------|---|
| Grasby 1996            | R.D. Grasby (1996) 'A comparative study of five Latin inscriptions: measurement and making', <i>Papers of the British School at Rome</i> , 64, pp. 95–138.  |
| Grasby 2002            | R.D. Grasby (2002) 'Latin inscriptions: studies in measurement and making', <i>Papers of the British School at Rome</i> , 70, pp. 151–176.  |
| Grasby 2009            | R.D. Grasby (2009) Processes in the Making of Roman<br>Inscriptions: Introduction to the Studies. Oxford.   |
| Grawehr 2022           | M. Grawehr (2022) 'Review of H. Kahwagi-Janho, Les<br>chapiteaux corinthiens du Liban. Formes et évolution du Ier<br>au IVe siècle p.C., Mémoires 58 (Bordeaux 2020)', <i>Bryn</i><br><i>Mawr Classical Reviews</i> [Preprint].   |
| Greenhalgh 2016        | M. Greenhalgh (2016) Syria's Monuments: Their Survival and Destruction. Netherlands: Brill.   |
| Greet 2015             | B.J.R. Greet (2015) <i>The Roman Eagle: A Symbol and Its Evolution</i> . PhD thesis. University of Leeds.   |
| Guidetti 2009          | M. Guidetti (2009) 'The Byzantine Heritage in the Dār al-<br>Islām: Churches and Mosques in al-Ruha between the Sixth<br>and Twelfth Centuries', in <i>Muqarnas: An Annual on the Visual</i><br><i>Cultures of the Islamic World</i> . Brill, pp. 1–36.   |
| Guillaume-Coirier 2002 | G. Guillaume-Coirier (2002) 'Techniques coronaires<br>romaines: Plantes "liées" et plantes "enfilées.", <i>Revue</i><br><i>Archéologique</i> , 2, pp. 61–71.  |

| Gütschow 1923   | <ul> <li>M. Gütschow (1923) 'Untersuchungen zum korinthischen</li> <li>Kapitell. I', Jahrbuch Deutschen Archäologischen Instituts,</li> <li>36, pp. 44–83.</li> </ul>  |
|-----------------|--|
| Hall 2017       | C. Hall (2017) 'Assimilation or Destruction: The Christianization of Late Antique Statuary', <i>Berkeley Undergraduate Journal of Classics</i> , 5(2).   |
| Heilmeyer 1970  | <ul> <li>WD. Heilmeyer (1970) Korinthische Normalkapitelle:<br/>Studien zur Geschichte der römischen Architekturdekoration.</li> <li>Heidelberg (Mitteilungen des Deutschen Archäologischen<br/>Instituts, Römische Abteilung, Ergänzungsheft, 16).</li> </ul> |
| Hirt 2021       | A. Hirt (2021) 'Palmyra, Syria, and Imperial Marble', in R.<br>Raja and J. Steding (eds.) <i>Production Economy in Greater</i><br><i>Roman Syria. Trade Networks and Production Processes.</i><br>Turnhout: Brepols, pp. 101–122.                              |
| Homolle 1916    | T. Homolle (1916) 'L'origine du chapiteau corinthien', <i>Revue Archéologique</i> , 5(4), pp. 17–60.   |
| Jacobs 2010     | I. Jacobs (2010) 'Production to Destruction? Pagan and Mythological Statuary in Asia Minor', <i>American Journal of Archaeology</i> , 114(2), pp. 267–303.   |
| Jacqueline 1957 | P. Jacqueline (1957) 'Le rinceau dans l'évolution de l'art sud-<br>arabe', <i>Syria</i> , 34(1–2), pp. 99–127.   |
| Jensen 2023     | R.M. Jensen (2023) Understanding Early Christian Art (Understanding the Ancient World). London: Routledge.   |
| Johns 2019      | J. Johns (2019) 'Ornamentations Around the Symbol of The Cross: A Comparative Overview', <i>Xploe Research Journal</i> , 10(1), pp. 45–55.   |
| Jones 1964      | A.H.M. Jones (1964) <i>The Later Roman Empire 284-602. A</i><br><i>Social, Economic and Adminstrative Survey.</i> Norman:<br>Univeristy of Oklahoma.   |

| Jones 1971         | A.H.M. Jones (1971) <i>The Cities of the Eastern Roman</i><br><i>Provinces</i> . 2nd edn. Oxford: Clarendon Press.  |
|--------------------|---|
| Jones 1991         | M.W. Jones (1991) 'Designing the Roman Corinthian Capital', <i>Papers of the British School at Rome</i> , 59, pp. 89–151.   |
| Jones 2000         | M.W. Jones (2000) <i>Principles of Roman Architecture</i> .<br>London: New Haven.   |
| Kader 1996         | I. Kader (1996) Propylon und Bogentor: Untersuchungen zum<br>Tetrapylon von Latakia und anderen frühkaiserzeitlichen<br>Bogenmonumenten im Nahen Osten. Mainz am Rhein: P. von<br>Zabern.                           |
| Kahwagi-Janho 2014 | H. Kahwagi-Janho (2014) 'Chapiteaux corinthiens d'époque romaine à Tyr', <i>Syria</i> , 91, pp. 319–350.  |
| Kahwagi-Janho 2017 | H. Kahwagi-Janho (2017) 'De Baalbeck à Anjar: A propos de quelques séries de chapiteaux antiques', <i>Orient-Occident</i> , 21(1), pp. 83–103.  |
| Kahwagi-Janho 2019 | <ul> <li>H. Kahwagi-Janho (2019) 'Antique Figured Capitals from<br/>Lebanon', <i>bulletin d'archéologie et d'architecture libanaises</i>,<br/>19, pp. 313–332.</li> </ul>   |
| Kahwagi-Janho 2020 | <ul><li>H. Kahwagi-Janho (2020) Les Chapiteaux corinthiens du Liban. Formes et évolution du Ier au IVe s. P.C. bordeaux: Ausonius Éditions (Mémoires, 58).</li></ul>  |
| Kautzsch 1936      | R. Kautzsch (1936) Kapitellstudien. Beiträge zu einer<br>geschichte des spätantiken kapitells im osten vom vierten bis<br>ins siebente jahrhundert. Studien zur spätantiken<br>kunstgeschichte. Berlin and Leipzig. |
| Khouri 2005        | W. Khouri (2005) 'Banassara, un site de pèlerinage dans le massif calcaire. Rapport sur les travaux menés en 2002-2004', <i>Syria</i> , 82, pp. 225–266.  |

| Khrushkova 2012 | L.G. Khrushkova (2012) 'Chersonesus in the Crimea: Early<br>Byzantine Capitals with Fine-Toothed Acanthus Leaves', in<br>G.R. Tsetskhladze (ed.) <i>The Black Sea, Paphlagonia, Pontus</i><br><i>and Phrygia in Antiquity - Aspects of Archaeology and Ancient</i><br><i>History</i> . Oxford: Oxford University Press, pp. 129–139. |
|-----------------|--|
| Kiss 1987       | Á. Kiss (1987) Pannonische Architekturelemente und Ornamentik in Ungarn. Budapest.   |
| Kitzinger 1970  | <ul><li>E. Kitzinger (1970) 'The threshold of the holy shrine.</li><li>Observations on floor mosaics at Antioch and Bethlehem,</li><li>Kyriakon', <i>Festschrift Johannes Quasten</i>, pp. 639–647.</li></ul>  |
| Kotapish 2001   | D. Kotapish (2001) <i>Daily Life in Ancient and Modern Athens</i> .<br>Minnesota.  |
| Kramer 1972     | J. Kramer (1972) 'Wolf-Dieter Heilmeyer, Korinthische<br>Normalkapitelle', in <i>Bonner Jahrbücher - Des Rheinischen</i><br><i>Landesmuseums In Bonn (Im Landschaftsverband Rheinland)</i><br><i>Und Des Vereins Von Aetertumsfreunden Im Rheinlande.</i><br>Kevelaer: Butzon And Bercker (172), pp. 633–634.                        |
| Kramer 1994     | J. Kramer (1994) <i>Korinthische Pilasterkapitelle in Kleinasien und Konstantinopel antike und spätantike Werkstattgruppen</i> . Tübingen: Wasmuth (Istanbuler Mitteilungen, 39).  |
| Kropp 2011      | A.J.M. Kropp (2011) 'NABATAEAN DUSHĀRĀ<br>(DUSARES) — AN OVERLOOKED CUIRASSED GOD',<br><i>Palestine Exploration Quarterly</i> , 143(3), pp. 176–197.   |
| La Boda 1994    | S. La Boda (1994) International Dictionary of Historic Places: Middle East and Africa. Chicago & London.   |
| Lain 1963       | G.J. Lain (1963) Survivals of Roman Religion. New York.  |
| Lambraki 1982   | A. Lambraki (1982) 'L'emploi de la scie lisse en tant qu'outil<br>de carrier, en Grèce, à l'époque paléochrétienne', in<br><i>Troisièmes journée de l'industrie minérale, le marbre, Namur,</i><br>16–18 novembre 1981. Rapport d'archéologie et d'histoire de   |

|                         | l'art, Bulletin des musées royaux d'art et d'histoire. (53, 2),<br>pp. 81–88.   |
|-------------------------|---|
| Lassus 1947             | J. Lassus (1947) Sanctuaires chrétiens de Syrie. Paris.   |
| Lassus & Tchalenko 1951 | J. Lassus & G. Tchalenko (1951) 'Ambons Syriens', <i>Cahiers</i> Archeologiques, 5, pp. 75–122.   |
| Lauter-Bufe 1972        | H. Lauter-Bufe (1972) 'Zur Kapitellfabrikation in<br>spätrepublikanischer Zeit', <i>Mitteilungen des Deutschen</i><br><i>Archäologischen Instituts. Römische Abteilung</i> , 79, pp. 323–<br>329.   |
| Lawler 2004             | J. Lawler (2004) <i>Encyclopedia of the Byzantine Empire</i> . North Carolina.  |
| Lee-Niinioja 2009       | H.S. Lee-Niinioja (2009) 'When Intangible Heritage Creates<br>Tangible Heritage: Eternal Acanthus', in S. Lira (ed.) <i>Sharing</i><br><i>cultures 2009. International Conference on Intangible</i><br><i>Heritage</i> , Pico Island, Azores, Portuga, pp. 561–570. |
| Lee-Niinioja 2018       | H.S. Lee-Niinioja (2018) The Death of Acanthus. Helsinki.   |
| Long & Sørensen 2019    | T. Long & A.H. Sørensen (2017) 'Introduction'. In <i>Positions and Professions in Palmyra</i> , edited by Tracey Long and Annette Højen Sørensen, pp. 7–19. Det Kongelige Danske Videnskabernes Selskab.  |
| Lübke 1881              | W. Lübke (1881) <i>Outlines of the History of Art. A new translation from the seventh German edition</i> . Edited by C. Cook. New York: Dodd, Mead, and Company.  |
| Lübke 1887              | W. Lübke (1887) <i>Ecclesiastical Art in Germany During the Middle Ages</i> . Translated by L.A. Wheatley. Edinburgh.   |
| Lund 2004               | J. Lund (2004) 'The Iron Age and the Graeco-Roman Period',<br>in <i>Topographical Studies in the Ğabla Plain</i> . Denmark: Det<br>Kongelige Danske Videnskabernes Selskab, pp. 38–75.  |
| Mahon 1848              | H.L. Mahon (1848) The Life of Belisarius. London.   |

| Major 2015               | <ul><li>B. Major (2015) Medieval Rural Settlements in the Syrian<br/>Coastal Region (12th and 13th Centuries). United Kingdom:<br/>Archaeopress Publishing Limited.</li></ul>   |
|--------------------------|---|
| Major & Kázmér 2015      | <ul> <li>B. Major &amp; M. Kázmér (2015) 'Sāfitā Castle and Rockfalls in<br/>the "Dead Villages" of Coastal Syria – An<br/>Archaeoseismological Study', <i>Comptes Rendus Geoscience</i>,<br/>347(4), pp. 181–190.</li> </ul>                       |
| Malalas                  | J. Malalas (1986) <i>The Chronicle of John Malalas</i> . Translated<br>by E. Jeffreys, M. Jeffreys, and R. Scott. Melbourne:<br>Australian Association for Byzantine Studies.   |
| Mangartz 2010            | F. Mangartz (2010) <i>Die byzantinische Steinsäge von Ephesos:</i><br><i>Baubefund, Rekonstruktion, Architekturteile</i> . Mainz<br>(Monographien Römisch-Germanisches Zentralmuseum<br>Mainz. Forschungsinstitut für Vor- und Frühgeschichte, 86). |
| Mango 1978               | C. Mango (1978) Byzantine Architecture. Milan.  |
| Mango 1986               | C. Mango (1986) <i>The Art of the Byzantine 312-1453: Sources and Documents</i> . Canada: University of Toronto Press.  |
| Mantas 2003              | A. Mantas (2003) 'The Iconographical Subject "Christ the Vine" in Byzantine and Post-byzantine Art', $T \delta \mu o \varsigma$ , (2003), pp. 347–360.  |
| Mattern 1994             | J. Mattern (1944) Villes Morte de la haut Syrie. Beyrouth.  |
| Maver <i>et al.</i> 2009 | A. Maver, H. Müller & I. Rižnar (2009) 'Roman Capitals from<br>Sirmium (Sremska Mitrovica, Serbia).', <i>Starinar</i> , 59, pp. 119–<br>148.  |
| McGeer et al. 2005       | E. McGeer, J. Nesbitt & N. Oikonomides (eds.) (2005)<br>Catalogue of Byzantine Seals at Dumbarton Oaks and in the<br>Fogg Museum of Art. Washington.  |
| McGovern 2003            | P.E. McGovern (2003) Ancient wine: The search for the origins of finiculture. Princeton & New Jersey: Princeton University Press.   |

| McGovern 1996                | P.E. McGovern, S.J. Flemin and S.H. Katz (1996) <i>The origin and ancient history of wine</i> . New York: Gordon and Breach Publishers.  |
|------------------------------|--|
| McGovern 1996                | J.S. McKenzie (1996) 'Alexandria and the Origin of Baroque<br>Architecture', in K. Hamma (ed.) <i>Alexandria and</i><br><i>Alexandrianism</i> . California, pp. 109–126.   |
| Meurer 1897                  | M. Meurer (1897) 'Das griechische Akanthusornament und seine natürlichen Vorbilder', <i>JAHRBUCH DES KAISERLICH DEUTSCHEN. Archäologischen Instituts</i> , XI, pp. 117–159.  |
| Meyer 1994                   | F.S. Meyer (1994) <i>Manual de ornamentación. Barcelona:</i><br>Edited by Editorial Gustavo Gili. Barcelona.   |
| Middleton 2015               | J. Middleton (2015) <i>World Monarchies and Dynasties</i> .<br>London & New York.  |
| Mikayelyan 2016              | L. Mikayelyan (2016) 'Depictions of Glory Wreaths in the<br>Early Medieval Armenian Sculpture and Their Parallels in the<br>Art of Byzantium and Sasanian Iran', in <i>23rd International</i><br><i>Congress of Byzantine Studies</i> . Belgrade, pp. 2–7. |
| Millar 2001                  | F. Millar (2001) <i>The Roman Near East 31 BC – AD 337</i> .<br>Cambridge, Massachusetts & London.   |
| Minissale <i>et al.</i> 2019 | P. Minissale, V. Magro & F.M. Raimondo (2019) 'Why did<br>Acanthus mollis, native to West Mediterranean, become a so<br>relevant artistic and symbolic element arising from ancient<br>Greece?', <i>Flora Mediterranea</i> , 29, pp. 119–128.              |
| Morris 2007                  | I. Morris and W. Scheidel (2007) 'The Cambridge Economic<br>History of the Greco-Roman World', in W. Scheidel, I. Morris,<br>and R.P. Saller (eds.). Cambridge University Press, pp. 1–12.   |
| Mould & Loewe 2006           | D.R. Mould & M. Loewe (2006) <i>Historic Gravestone Art of</i><br><i>Charleston: South Carolina 1695-1802.</i> United States:<br>McFarland, Incorporated, Publishers.  |

| Mulloy 1970            | W. Mulloy (1970) 'A speculative reconstruction of techniques<br>of carving transporting and erecting Easter Island statues',<br><i>Archaeology and physical anthropology in Oceania</i> , 5(1), pp.<br>1–23.   |
|------------------------|--|
| Mustafa 2018           | B. Mustafa (2018) 'Funerary Architecture From Amrīt<br>(Syria): New Mausoleum In Ard Al-Bayada Cemetery',<br><i>Scientific Culture</i> , 4(2), pp. 25–33.  |
| Naaouf & Torma 2023    | N. Naaouf & C.Z. Torma (2023) 'Climate of Syria Based on<br>Cordex Simulations: Present and Future', <i>Earth Systems and</i><br><i>Environment</i> , 7(3), pp. 679–697.   |
| Naccache & Sodini 1989 | <ul> <li>A. Naccache &amp; JP. Sodini (1989) 'Le décor architectural en<br/>Syrie byzantine', in JM. Dentzer and W. Orthmann (eds.)<br/>Archéologie et histoire de la Syrie. II. La Syrie de l'époque<br/>achéménide à l'avénement de l'Islam. Saarbrücken, pp. 477–<br/>491.</li> </ul> |
| Nassar 2014            | M. Nassar (2014) 'Corinthian Capitals with Interlocked<br>Helices from Roman Period, Jordan: A Comparative Study',<br><i>Mediterranean Archaeology and Archaeometry</i> , 14(1), pp.<br>167–179.   |
| Neglia 2010            | G.A. Neglia (2010) 'The forma urbis of Aleppo (Syria) during<br>the Middle Ages', in J. Schryver (ed.) <i>Studies in the</i><br><i>Archaeology of the Medieval Mediterranean</i> . (The Medieval<br>Mediterranean, 86), pp. 115–153.   |
| Newcomb 1921           | R. Newcomb (1921) <i>The Volute in Architecture and Architectural Decoration</i> . (Bulletin, 121).  |
| Niewohner 2021         | P. Niewohner (2021) <i>Byzantine Ornaments in Stone:</i><br><i>Architectural Sculpture and Liturgical Furnishings</i> . De<br>Gruyter.   |
| Noack 1910             | F. Noack (1910) Die Baukunst des Altertums. Berlin.  |

| Norris 2005             | Norris, M. (2005) Medieval Art: A Resource for Educators.<br>New York.   |
|-------------------------|--|
| Palagia 2006            | O. Palagia (2006) 'Marble carving techniques', in O. Palagia (ed.) <i>Greek sculpture: function, materials, and techniques in the archaic and classical periods</i> . Cambridge, pp. 243–279.  |
| Papadopoulos 2023       | K.A. Papadopoulos (2023) <i>The Temple of Apollo at the</i><br><i>Arcadian Bassai: the Least Well-Known of the Famous</i><br><i>Monuments of Ancient Greek Architecture</i> . Edited by R.<br>Jeffreys and S. Carroll. Translated by R. Tzanaki. Pyrgos:<br>Hellenic Ministry of Culture, Ephorate of Antiquities of Ilia.   |
| Patrich 2007            | J. Patrich (2007) 'Nabataean Art Between East and West: A methodical assessment', in K. D. Politis (ed.) <i>The World of the Nabataeans: Volume 2 of the International Conference "The World of the Herods and the Nabataeans" held at the British Museum, 17–19 April 2001.</i> , pp. 79–102.   |
| Patricio & Stevens 2003 | T. Patricio & T. Stevens (2003) 'The Roman Theatre of Jebleh<br>in Syria: Analysis of the Construction Form', in S. Huerta<br>(ed.) <i>Proceedings of the First International Congress on</i><br><i>Construction History (3 Volumes). First International</i><br><i>Congress on Construction History - Madrid, 20-24.01.2003,</i><br><i>Madrid.</i> Madrid, pp. 1601–1612. |
| Pedersen 1989           | P. Pedersen (1989) <i>The Parthenon and the Origin of the Corinthian Capital</i> . Odense University Press (Odense University Classical Studies, 13).  |
| Peña 2000               | I. Peña (2000) <i>Lieux de pèlerinage en Syrie</i> . Milano (Studium Biblicum Franciscanum Collectio Minor, 38).   |
| Peña <i>et al.</i> 1980 | I. Peña, P. Castellana & R. Fernández (1980) <i>Les Reclus Syrien</i> . Milano (Studium Biblicum Franciscanum Collectio Minor, 23).  |

| Peña et al. 1983         | I. Peña, P. Castellana & R. Fernández (1983) <i>Les Cenobites Syriens</i> . Milano (Studium Biblicum Franciscanum Collectio Minor, 28).  |
|--------------------------|--|
| Peña <i>et al</i> . 1987 | I. Peña, P. Castellana & R. Fernández (1987) <i>Inventaire du Jébel Baricha: Recherches archéologiques dans la region des Villes Morte de la Syrie du Nord.</i> Jeursalem (Studium Biblicum Franciscanum: Colletctio Minor, 33).   |
| Pensabene 1978           | P. Pensabene (1978) 'Cargo of Marble Shipwrecked at Punta<br>Scifo near Crotone (Italy)', <i>Internat. Journal of Nautical</i><br><i>Archaeology</i> , 7, pp. 105–118.   |
| Pensabene 1986           | P. Pensabene (1986) 'La decorazione architettonica, l'impiego<br>del marmo e l'importazione di manufatti orientali a Roma, in<br>Italia e in Africa (II-VI d.C.)', in A. Giardina (ed.) <i>Le merci,</i><br><i>gli insediamenti. Società Romana e Impero Tardoantico</i> , pp.<br>285–429. |
| Pensabene 1997           | P. Pensabene (1997) 'Marmi d'importazione, pietre locali e committenza nella decorazione architettonica di età severiana in alcuni centri delle province Syria et Palestina e Arabia', <i>Archeologia Classica</i> , 49, pp. 275–422.  |
| Pensabene 2007           | P. Pensabene (2007) 'Gli elementi marmorei della scena', in D.B. Ferrero, G.C. Ciotta, and P. Pensabene (eds.) <i>Il teatro di Hierapolis di Frigia</i> . Genova, pp. 229–388.   |
| Perrault & McEwen 1993   | C. Perrault & I.K. McEwen (1993) Ordonnance for the Five Kinds of Columns After the Method of the Ancients. Oxford.  |
| Petrie 1917              | W.M.F. Petrie (1917) Tools and Weapons Illustrated by the Egyptian Collection in University College, London, and 2,000 outlines from other sources. London.  |
| Pettijohn 1975           | F.J. Pettijohn (1975) <i>Sedimentary Rocks</i> . United Kingdom: Harper and Row.   |

| Pfanner 1989             | M. Pfanner (1989) 'Über das Herstellen von Porträts. Ein<br>Beitrag zu Rationalisierungsmassnahmen und<br>Produktionsmechanismen von Massenware im späten<br>Hellenismus und in der Römischen Kaiserzeit', in. Berlin: De<br>Gruyter (Jahrbuch des deutschen Archäologischen Instituts,<br>104), pp. 157–257.                                    |
|--------------------------|--|
| Pharr <i>et al.</i> 2001 | C. Pharr, M.B. Pharr & T.S. Davidson (eds.) (2001) <i>The Theodosian Code and Novels, and the Sirmondian Constitutions</i> . United States: Lawbook Exchange.  |
| Poljak 2018              | D.M. Poljak (2018) 'Roman and Late Antique Capitals Spolia<br>in the City of Trogir (Croatia)', in P. Pensabene, M. Milella,<br>and F. Caprioli (eds.) <i>Decor. Decorazione e architettura nel</i><br><i>mondo romano. Atti del Convegno Internazionale Roma, 21-</i><br>24 maggio 2014 (F. Caprioli). (Thiasos Monografie, 9), pp.<br>925–934. |
| Poljak & Botić 2017      | D.M. Poljak & D.B. Botić (2017) 'Dva azijatska korintska<br>kapitela (spolije) iz Kaštel Sućurca i Kaštel Novoga', in<br><i>Kaštelanski zbornik</i> . Kaštela (12), pp. 91–108.  |
| Poljak & Botić 2018      | D.M. Poljak & D.B. Botić (2018) 'Five Roman Capitals from<br>Kaštel Sućurac', <i>Vjesnik za arheologiju i historiju</i><br><i>dalmatinsku</i> , 111, pp. 191-213.  |
| Poulsen 1920             | F. Poulsen (1920) <i>Delphi</i> . Translated by G.C. Richards. London.   |
| Prentice 1908            | W.K. Prentice (1908) Prentice, W. K. (1908). Greek and Latin<br>Inscriptions. New York. New York.  |
| Rawson 1984              | J. Rawson (1984) <i>Chinese Ornament: The Lotus and the Dragon</i> . Kiribati: Trustees of the British Museum.   |
| Renhart 1995             | E. Renhart (1995) Das syrische Bema: liturgisch-<br>archäologische Untersuchungen. Austria: Im Eigenverlag des   |

|                   | Institutes für Ökumenische Theologie und Patrologie an der Universität Graz.  |
|-------------------|---|
| Rhodes 2007       | P.J. Rhodes (2007) <i>The Greek City States: A Source Book</i> . 2nd edn. New York: Cambridge University Press.   |
| Riegl 1893        | A. Riegl (1893) <i>Stilfragen. Grundlegungen zu einer Geschichte der Ornamentik.</i> Berlin.  |
| Riis 2004         | P.J. Riis (2004) <i>Topographical studies in the Ğabla Plain</i> .<br>Copenhagen (Publications of the Carlsberg Expedition to<br>Phoenicia, 13).  |
| Ritti et al. 2007 | T. Ritti, Grewe & P. Kessener (2007) 'A relief of a water-<br>powered stone saw mill on a sarcophagus at Hierapolis and its<br>implications', <i>Journal of Roman Archaeology</i> , 20(1), pp. 139–<br>163.   |
| Robertson 1929    | D.J. Robertson (1929) <i>A Handbook of Greek and Roman Architecture</i> . Cambridge University Press.   |
| Rockwell 1985     | P. Rockwell (1985) 'Preliminary Study of the Carving<br>Techniques on the Column of Trajan', in P. Pensabene (ed.)<br><i>Marmi antichi: Problemi d'impiego, di restauro e</i><br><i>d'identificazione.</i> Rome: L'Erma di Bretschneider (Studi<br>Miscellanei, 26), pp. 101–111. |
| Rockwell 1987     | P. Rockwell (1987) 'Carving instructions on the Temple of Vespasian', <i>Rendicoti: Atti della Pontificia Accademia romana di archeologia</i> , 60, pp. 53–69.  |
| Rockwell 1989     | P. Rockwell (1989) Lavorare la pietra: manuale per<br>l'archeologo, lo storico d'arte e il restauratore. Rome: La<br>Nuova Italia scientifica (Beni culturali, 7).  |
| Rockwell 1990     | P. Rockwell (1990) 'Stone-carving tools: a stone-carver's view', <i>Journal of Roman Archaeology</i> , 3, pp. 351–357.  |
| Rockwell 1991     | P. Rockwell (1991) 'Unfinished statuary associated with a sculptor's studio', in R.R.R. Smith and K.T. Erim (eds.)  |

|                      | Aphrodisias papers 2: the theatre, a sculptor's workshop,<br>philosophers and coin-types: including the papers given at the<br>Third International Aphrodisias Colloquium held at New York<br>University on 7 and 8 April 1989. Ann Arbor: Department of<br>Classical Studies: University of Michigan (Journal of Roman<br>Archaeology, supplementary series, 2), pp. 127–142.                    |
|----------------------|---|
| Rockwell 1993        | P. Rockwell (1993) The art of stoneworking: a reference guide. Cambridge.   |
| Rockwell et al. 2008 | P. Rockwell, E.A. Friedland, Sh. Herbert & Y.Z. Eliav (2008)<br>'The Sculptor's studio at Aphrodisias: the working methods<br>and varieties of sculpture produced', in <i>The sculptural</i><br><i>environment of the Roman Near East: reflections on culture,</i><br><i>ideology, and power</i> . Leuven: Peeters (Interdisciplinary<br>studies in ancient culture and religion, 9), pp. 91–115. |
| Röder 1971           | <ul> <li>J. Röder (1971) 'Marmor phrygium. Die antiken</li> <li>Marmorrüche von Iscehisar in Westanatolien', in. Berlin: De</li> <li>Gruyter (Jahrbuch des deutschen Archäologischen Instituts,</li> <li>86), pp. 253–312.</li> </ul>   |
| Ronczewski 1923      | K. Ronczewski (1923) 'Variantes des chapiteaux romains:<br>(matériaux pour l'étude de l'art décoratif)', <i>Acta Universitatis</i><br><i>Latvensis</i> , 8, pp. 115–171.  |
| Rousset et al. 2022  | MO. Rousset, M. Bovagne and M. Rochette (2022) 'Blocs<br>architecturaux et mobilier lithique dans le village d'al-'Iss', in<br>MO. Rousset (ed.) <i>Chalcis/Qinnasrin (Syrie): De l'âge du</i><br><i>Bronze à l'époque mamelouke. Qinnasrin II.</i> France: MOM<br>Éditions, pp. 299–350.   |
| Roussin 1985         | L.A. Roussin (1985) <i>The Iconography of the Figural</i><br><i>Pavements of Early Byzantine Palestine</i> . Ph.D. dissertation.<br>Columbia University - University Microfilms International.  |
| Rumscheid 1994       | F. Rumscheid (1994) Untersuchungen Zur Kleinasiatischen<br>Bauornamentik Des Hellenismus. Vol. 1. 2 vols. Beiträge Zur  |

|                          | Erschließung Hellenistischer Und Kaiserzeitlicher Skulptur<br>Und Architektur 14. Mainz am Rhein: Philipp von Zabern.   |
|--------------------------|---|
| Russell 2013a            | B. Russell (2013a) 'Roman and Late Antique shipwrecks with stone cargoes: A new inventory', <i>Journal of Roman Archaeology</i> , 26(1), pp. 331–361.   |
| Russell 2013b            | B. Russell (2013b) <i>The Economics of the Roman Stone Trade</i> . Oxford.  |
| Saade 1986               | G. Saade (1986) 'Découvertes archéologiques à Lattaquié', <i>Syria. Archéologie, Art et histoire</i> , 63(1–2), pp. 157–159.  |
| Saradi 1997              | H. Saradi (1997) 'The use of ancient spolia in Byzantine monuments: The archaeological and literary evidence', <i>International Journal of the Classical Tradition</i> , 3(4), pp. 395–423.   |
| Sartre 1991              | M. Sartre (1991) 'La Syrie du Sud à l'époque gréco-romaine',<br>in JM. Dentzer and J. Dentzer (eds.) <i>Le djebel al-'Arab:</i><br><i>Histoire et Patrimoine au musée de Suweida'</i> . Paris: Institut<br>Français d'Archéologie du Proche-Orient (IFPO), pp. 29–34. |
| Sartre 2007              | M. Sartre (2007) <i>The Middle East Under Rome</i> . Translated by C. Porter and E. Rawlings. United Kingdom: Belknap Press of Harvard University Press.  |
| Sauvaget 1929            | J. Sauvaget (1929) 'L'enceinte primitive de la ville d'alep',<br>Mélanges de l'Institut Français de Damas. Section Des<br>Arabisants, 1, pp. 131–159.   |
| Sauvaget 1941            | J. Sauvaget (1941) <i>ALEP: Essai sur le développement d'une grande ville syrienne, des origines au milieu du XIX e siècle.</i> Paris.  |
| Savo <i>et al</i> . 2016 | V. Savo, A. Kumbaric and G. Caneva (2016) 'Grapevine (Vitis Vinifera L.) Symbolism in the Ancient Euro-Mediterranean Cultures', <i>Economic Botany</i> , 70(2), pp. 190–197.  |

| Scahill 2009           | <ul> <li>D. Scahill (2009) 'The Origins of the Corinthian Capital', in</li> <li>P. Schultz and R. von den Hoff (eds.) <i>Structure, Image,</i></li> <li><i>Ornament: Architectural Sculpture in the Greek World.</i></li> <li><i>Proceedings of an international conference held at the</i></li> <li><i>American School of Classical Studies, 27–28 November 2004,</i></li> <li>pp. 40–54.</li> </ul> |
|------------------------|---|
| Scheck & Odenthal 1998 | F.R. Scheck & J. Odenthal (1998) Syrien: Hochkulturen zwischen Mittelmeer und Arabischer Wüste. DuMont.   |
| Schlumberger 1933      | D. Schlumberger (1933) 'Les formes anciennes du chapiteau corinthien en Syrie, en Palestine et en Arabie', <i>Syria</i> , 13(4), pp. 283–317.   |
| Schmidt-Colinet 2020   | <ul> <li>A. Schmidt-Colinet (2020) 'A Method to Date Stones, Just Stones: The Quarries of Palmyra'. In <i>Methods and Models in Ancient History: Essays in Honor of Jørgen Christian Meyer</i>, edited by Ingvar B. Mæhle, Per Bjarne Ravnå, and Eivind Heldaas Seland (9), pp. 53–64. Norwegian Institute at Athens.</li> </ul>  |
| Schmidt & Schmidt 2007 | H. Schmidt & M. Schmidt (2007) Die vergessene<br>Bildersprache christlicher Kunst: ein Führer zum Verständnis<br>der Tier-, Engel- und Mariensymbolik. Germany: Beck.   |
| Schön 2011             | J. Schön (2011) <i>Physical Properties of Rocks: A Workbook</i> .<br>Netherlands: Elsevier Science.   |
| Schraudolph 1993       | <ul> <li>E. Schraudolph (1993) Römische Götterweihungen mit<br/>Reliefschmuck aus Italien. Altäre, Basen und Reliefs.</li> <li>Heidelberg (Archäologie und Geschichte, 2).</li> </ul>   |
| Schuhmann 2016         | A. Schuhmann (2016) 'Die Sakrallandschaft von Resafa<br>(Sergiupolis) – Liturgie einer Pilgerstadt an der östlichen<br>Peripheriet', in O. Brandt and V.F. Nicolai (eds.) <i>Costantino e</i><br><i>i Costantinidi. L'innovazione Costantiniana, le sue radici e i</i><br><i>suoi sviluppi II.</i> Vatikanstad (Studi di Antichità Cristiana,<br>LXVI), pp. 1805–1820.                                |

| Sear 1983    | F. Sear (1983) <i>Roman Architecture</i> . United Kingdom: Cornell University Press.  |
|--------------|---|
| Sear 2006    | <ul><li>F. Sear (2006) <i>Roman Theatres: An Architectural Study</i>.</li><li>Oxford: Oxford University Press.</li></ul>  |
| Segal 1997   | <ul><li>A. Segal (1997) From Function to Monument: Urban<br/>Landscapes of Roman Palestine, Syria and Provincia Arabia.</li><li>Oxford: Oxbow Books.</li></ul>  |
| Segal 2011   | A. Segal (2001) 'The "Kalybe Structures" –Temples for the<br>Imperial Cult in Hauran and Trachon: An Historical-<br>Architectural Analysis', <i>Assaph. Studies in art history</i> , 6, pp.<br>91–118.                              |
| Segal (2013) | <ul><li>A. Segal (2013) <i>Temples and Sanctuaries in the Roman East</i>.</li><li>Oxford: Oxbow Books.</li></ul>  |
| Seigne 2002  | J. Seigne (2002) 'A Sixth-Century Water-Powered Sawmill at Jerash', <i>Annual of the Department of Antiquities of Jordan</i> , 26, pp. 205–213.   |
| Séiquer 1999 | G.M Séiquer (1999) 'Columbarios Y Relicarios En El<br>Próximo Oriente', <i>Los columbarios de La Rioja</i> , 16, pp. 57–<br>86.   |
| Shaw 1852    | E. Shaw (1852) <i>Shaw's Civil Architecture: Being a Complete</i><br><i>Theoretical and Practical System of Building, Containing the</i><br><i>Fundamental Principles of the Art.</i> United States: John P.<br>Jewett and Company. |
| Šiljeg 2007  | <ul> <li>B. Šiljeg (2007) 'Early Christian Marble Corinthian Capitals</li> <li>from Dubrovnik', <i>Prilozi Instituta za Arheologiju u Zagrebu</i>,</li> <li>24, pp. 257–261.</li> </ul>   |
| Skinner 2013 | C.M Skinner (2013) Myths and Legends of Flowers, Trees,<br>Fruits and Plants. United Kingdom: Read Books Limited.   |
| Sodini 2002  | JP. Sodini (2002) 'Marble and stoneworking in Byzantium, seventh-fifteenth centuries', in A.E. Laiou (ed.) <i>The economic</i>  |

|                           | history of Byzantium: from the seventh through the fifteenth<br>century (Vol. 1-3). United States (Dumbarton Oaks studies,<br>39), pp. 129–146.   |
|---------------------------|---|
| Sodini 2003               | JP. Sodini (2003) 'Deux chapiteaux byzantins découvert à l'abbaye de Valmagne (Hérault)', <i>Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres</i> , 147(2), pp. 867–887. |
| Sodini <i>et al.</i> 2002 | JP. Sodini, JL. Biscop, D. Orssaud & PM. Blanc (2002)<br>'Qal'at Sem'an et son environnement: essai de synthèse',<br><i>Annales archéologiques arabes syriennes</i> , 45–46, pp. 345–<br>357.       |
| Stanton 2012              | A.I. Steinsapir (2012) Cultural Sociology of the Middle East,<br>Asia, and Africa: An Encyclopedia. Los Angeles, London,<br>New Delhi, Singapore & Washington.                                      |
| Steinsapir 1999           | A.I. Steinsapir (1999) 'The Sancutary Dedicated to Holy,<br>Heavenly Zeus Baetocaece', <i>Near Eastern Archaeology</i> ,<br>62(3), pp. 182–194.   |
| Strickland 2010           | M. Strickland (2010) Roman Building Materials,<br>Construction Methods, and Architecture: The Identity of an<br>Empire. MA thesis. Clemson University.  |
| Strong 1953               | D.E. Strong (1953) 'Late Hadriantic Architectural Ornament<br>in Rome', <i>Papers of the British School at Rome</i> , 21, pp. 118–<br>151.  |
| Strong 1963               | D.E. Strong (1963) 'Some observations on the early Roman Corinthian', <i>Journal of Roman Studies</i> , 53, pp. 73–84.  |
| Strong & Claridge 1976    | D.E. Strong & A. Claridge (1976) 'Marble sculpture', in D. Strong and D. Brown (eds.) <i>Roman crafts</i> . London, pp. 195–207.  |
| Strube 1979               | C. Strube (1979) 'Tempel und Kirche in Me'ez', Istanbuler<br>Mitteilungen, 29, pp. 355–365.   |

| Strube 1983                | C. Strube (1983) 'Die Kapitelle von Qasr ibn Wardan.<br>Antiochia und Konstantinopel im 6. Jahrhundert', <i>Jahrbuch für Antike und Christentum</i> , 26, pp. 59–106.   |
|----------------------------|---|
| Strube 1993                | C. Strube (1993) Baudekoration im nordsyrischen<br>Kalksteinmassiv (Band 1): Kapitell-, Tür- und Gesimsformen<br>der Kirchen des 4. und 5. Jahrhunderts n. Chr. Mainz am<br>Rhein: Verlag Philipp von Zabern.   |
| Strzygowski et al. 1893    | J. Strzygowski, E. Diez, J. Quitt & Ph. Forchheimer (1893)<br>Byzantinische Denkmäler: II. Austria: Mechitharisten-<br>Congregation.  |
| Stuart & Reyett 1855       | J. Stuart & N. Reyett (1855) <i>The Antiquities of Athens and Other Monuments of Geeece</i> . 3rd edn. London.  |
| Taelman 2022               | D. Taelman (2022) 'Marble Trade in the Roman<br>Mediterranean: A Quantitative and Diachronic Study',<br><i>Journal of Roman Archaeology</i> , 35(2), pp. 848–875.   |
| Taelman <i>et al.</i> 2019 | D. Taelman, C. Delpino & F. Antonelli (2019) 'Marble decoration of the Roman theatre of Urvinum Mataurense (Urbino, Marche region, Italy): An archaeological and archaeometric multi-method provenance study', <i>Journal of Cultural Heritage</i> , 39, pp. 238–250. |
| Takács 2009                | S. Takács (2009) The Construction of Authority in Ancient<br>Rome and Byzantium: The Rhetoric of Empire. New York.  |
| Tate 1991                  | G. Tate (1991) 'Prospérité économique de la Syrie du Nord à<br>l'époque Byzantine (IVe-VIIe s.)', <i>Alep et la Syrie du Nord,</i><br><i>Revue du monde musulman et de la Méditerranée</i> , 62, pp. 41–<br>47.   |
| Taylor 2003                | R. Taylor (2003) Roman Builders: A Study in Architectural Process. Cambridge: Cambridge University Press.   |

| Tchalenko 1953a           | <ul> <li>G. Tchalenko (1953a) Villages antiques de la Syrie du Nord:</li> <li>le massif du Bélus à l'époque romaine, Planches. Paris: P.</li> <li>Geuthner (Bibliothèque archéologique et historique, 50).</li> </ul>   |
|---------------------------|---|
| Tchalenko 1953b           | G. Tchalenko (1953b) <i>Villages antiques de la Syrie du Nord:</i><br><i>le massif du Bélus à l'époque romaine, Text</i> . Paris: P. Geuthner<br>(Bibliothèque archéologique et historique, 50).  |
| Tchalenko 1958            | G. Tchalenko (1958) Villages antiques de la Syrie du Nord: le massif du Bélus à l'époque romaine. Paris: P. Geuthner (Bibliothèque archéologique et historique, 50).  |
| Tchalenko 1990            | G. Tchalenko (1990) <i>Eglises Syrienne a Bema</i> . Paris (Bibliothèque archéologique et historique, 105).   |
| Tchalenko & Baccache 1979 | G. Tchalenko & E. Baccache (1979) <i>Eglises de village de la Syrie du nord: Planches</i> . Paris: P. Geuthner (Bibliothèque archéologique et historique, 105).   |
| Tchalenko & Baccache 1980 | G. Tchalenko & E. Baccache (1980) <i>Eglises de village de la Syrie du nord: Album</i> . Paris: P. Geuthner (Bibliothèque archéologique et historique, 105).  |
| Texier 1864               | C. Texier (1864) <i>Byzantine Architecture illustrated by a series</i> of the earliest Christian edifices in the East. London.  |
| Thomas 1981               | C. Thomas (1981) <i>Christianity in Roman Britain to AD 500</i> .<br>Berkeley & Los Angeles.  |
| Toma 2014                 | N. Toma (2014) 'Von Marmorblock über Halbfabrikat zu<br>korinthischem Kapitell Zur Kapitellproduktion in der<br>Kaiserzeit', in J. Lipps and D. Maschek (eds.) <i>Antike</i><br><i>Bauornamentik: Grenzen und Möglichkeiten ihrer</i><br><i>Erforschung. Studien zur antiken Stadt.</i> Wiesbaden (12), pp.<br>83–98. |
| Toma 2015                 | N. Toma (2015) 'Carving a Corinthian Capital. New Technical<br>Aspects Regarding the Carving Process', in P. Pensabene and<br>E. Gasparini (eds.) <i>Interdisciplinary Studies on Ancient Stone</i> .   |

|                | Proceedings of the Xth Association for the Study of Marble &<br>Other Stones in Antiquity Conference - Rome 21st to 26th of<br>May 2012, Bretschneider, 21st to 26th of May 2012, pp. 811–<br>821.  |
|----------------|---|
| Tresidder 2011 | J. Tresidder (2011) <i>The Watkins Dictionary of Symbols</i> . 2nd edn. United Kingdom: Watkins Media.  |
| Uhde 1871a     | C. Uhde (1871a) 'The Acanthus Leaf', <i>The Workshop</i> , 4(6), pp. 81–87.   |
| Uhde 1871b     | C. Uhde (1871b) 'The Acanthus Scroll', <i>The Workshop</i> , 4(2), pp. 177–178.   |
| Ulbert         | Th. Ulbert (1973) 'Corinthian Normal Capitals. Studies in the<br>History of Roman Architectural Decoration (Communications<br>of the German Archaeological Institute, Roman Department,<br>16th Supplementary Text) ["Korinthische Normalkapitelle.<br>Studien Zur Geschichte Der Römischen<br>Architekturdekoration (Mitteilungen Des Deutschen<br>Archäologischen Instituts, Römische Abteilung : Ergänzungs-<br>Heft 16)"] Heidelberg: Kerle, 1970; 195 Pp'. <i>Philosophy and</i><br><i>History</i> 6 (213–214).<br>https://doi.org/10.5840/philhist19736240. |
| Ulbert 1989    | T. Ulbert (1989) 'Villes et forifications de l'Euphrate a<br>l'epoque paleo-chretienne (IVe – VIIe s.)', in JM. Dentzer<br>and W. Orthmann (eds.) <i>Archéologie et histoire de la Syrie. II.</i><br><i>La Syrie de l'époque achéménide à l'avénement de l'Islam</i> ,<br>pp. 283–296.  |
| Vitruvius      | <i>Ten Books on Architecture</i> . Translated by Ingrid D. Rowland. Cambridge.  |
| von Alten 1913 | W. von Alten (1913) Geschichte des Altchistlichen. München.   |

| von Campenhausen 1929        | H.E.F. von Campenhausen (1929) 'Die Passionssarkophage:<br>Zur Geschichte eines Altchristlichen Bildkreises', in<br><i>Marburger Jahrbuch für Kunstwissenschaft</i> . (5), pp. 39–85.   |
|------------------------------|---|
| von Hesberg 1981             | H. von Hesberg (1981) 'Lo sviluppo dell'ordine corinzio in età tardo-repubblicana', <i>Publications de l'École Française de Rome</i> , 55, pp. 19–60.   |
| von Mercklin 1962            | E. von Mercklin (1962) Antike Figuralkapitelle. Berlin.   |
| Waelkens <i>et al</i> . 1990 | M. Waelkens, P. De Paepe & L. Moens (1990) 'The Quarrying<br>Techniques of the Greek World', in M. True and J. Podany<br>(eds.) <i>Marble: Art Historical and Scientific Perspectives on</i><br><i>Ancient Sculpture</i> . United States: J. Paul Getty Museum, pp.<br>47–73. |
| Wagner 2015                  | S.R. Wagner (2015) 'The Origins of the Byzantine Empire:<br>Anachronism and Evolution in Modern Historiography',<br><i>Historia</i> , 24, pp. 59–66.  |
| Ward 1907                    | C. Ward (1907) 'The Temple at Mushennef, Haurân, Syria', <i>American Journal of Archaeology</i> , 11(1), pp. 1–6.   |
| Ward-Perkins 1948            | JB. Ward-Perkins (1948) 'Severan Art and Architecture at Lepcis Magna'. <i>The Journal of Roman Studies</i> 38(1–2), pp. 59–80.   |
| Ward-Perkins 1965            | J.B. Ward-Perkins (1965) 'The Roman West and the Parthian East', <i>Proceedings of the British Academy</i> , 51, pp. 175–199.   |
| Ward-Perkins 1992            | J.B. Ward-Perkins (1992) <i>Roman Imperial Architecture</i> . New Haven & London: Yale University Press.  |
| Weigand 1914a                | E. Weigand (1914a) Baalbek und Rom. Die römische Reichskunst in ihrer Entwicklung und Differenzierung. Berlin.  |
| Weigand 1914b                | E. Weigand (1914b) 'Neue Untersuchungen über das Goldene<br>Tor in Konstantinopel.', <i>Mitteilungen des Kaiserlich</i><br><i>Deutschen Archäologischen Instituts, Athenische Abteilung</i> ,<br>39, pp. 1–71.  |
| Weigand 1920               | E. Weigand (1920) 'Das Theodosioskloster', <i>Byzantinische Zeitschrift</i> , 23, pp. 167–216.   |
|----------------------------|--|
| Westphalen & Dennert 2004  | M. Westphalen & S. Dennert (2004) 'Säulen aus<br>Konstantinopel – Ein Schiffsfund im antiken Hafen von<br>Amrit', in <i>Damaszener Mitteilungen</i> . (14), pp. 183–195.   |
| Wielgosz-Rondolino 2016    | D. Wielgosz-Rondolino (2016) 'Palmyrene Portraits from the<br>Temple of Allat: New Evidence on Artists and Workshops'. In<br><i>The World of Palmyra, edited by Andreas Kropp and Rubina</i><br><i>Raja</i> , pp. 166–79. Det Kongelige Danske Videnskabernes<br>Selskab.  |
| Winter & Fedak 2006        | F.E. Winter & J. Fedak (2006) <i>Studies in Hellenistic Architecture</i> . Toronto: University of Toronto Press.   |
| Witakowski 2010            | <ul> <li>W. Witakowski (2010) 'Why Are the So-Called Dead Cities of Northern Syria Dead?', in P.J.J. Sinclair, P.J.J. Sinclair, G. Nordqvist, F. Herschend and Ch. Isendahl (eds.) <i>The Urban Mind: Cultural and Environmental Dynamics</i>. Uppsala: Uppsala University (Studies in Global Archaeology, 15), pp. 295–309.</li> </ul>                |
| Wolf 1568                  | H. Wolf (1568) Corpus Byzantinae Historiae. Munich.  |
| Wootton & Russell 2013     | W. Wootton & B. Russell (2013) 'Carving imperial reliefs at<br>Rome (version 1.0)', in <i>The Art of Making in Antiquity:</i><br><i>Stoneworking in the Roman World</i> . Available at:<br>http://www.artofmaking.ac.uk/content/essays/4-carving-<br>imperial-reliefs-at-rome-w-wootton-b-russell/ (Accessed: 15<br>April 2024).                       |
| Wootton <i>et al.</i> 2013 | W. Wootton, B. Russel & P. Rockwell (2013) 'Stoneworking<br>tools and toolmarks (version 1.0)', in <i>The Art of Making in</i><br><i>Antiquity: Stoneworking in the Roman World</i> . Available at:<br>http://www.artofmaking.ac.uk/content/essays/2-<br>stoneworking-tools-and-toolmarks-w-wootton-b-russell-p-<br>rockwell/ (Accessed: 12 May 2022). |

| Wright 1985        | G.R. Wright (1985) Ancient Building in South Syria and Palestine. Vol. 1 of 2 vols. Leiden & Koln.  |
|--------------------|---|
| Yalçin 2004        | AB. Yalçin (2004) 'Some Recent Early Byzantine Sculptural Finds from Tarsus', in $\Delta \epsilon \lambda \tau i ov \tau \eta \varsigma X \rho \iota \sigma \tau \iota a v \iota \kappa \dot{\eta} \varsigma A \rho \chi a \iota o \lambda o \gamma \iota \kappa \dot{\eta} \varsigma$<br><i>E ται ρείας</i> . (43), pp. 57–62. |
| Yegül & Favro 2019 | F. Yegül & D. Favro (2019) <i>Roman Architecture and</i><br><i>Urbanism: From the Origins to Late Antiquity</i> . United<br>Kingdom: Cambridge University Press.  |
| Yener 2015         | <ul> <li>B. Yener (2015) 'The Corinthian Capitals of Laodikeia'.</li> <li>Scienze dell'Antichità: Storia, Archeologia, Antropologia,<br/>20(2), pp. 125–141.</li> </ul>   |
| Zimmer 1982        | G. Zimmer (1982) <i>Römische Berufsdarstellungen</i> . Berlin (Archäologische Forschungen, 12).   |
| Zuiderhoek 2009    | A. Zuiderhoek (2009) <i>The Politics of Munificence in the</i><br><i>Roman Empire, in: Citizens, Elites and Benefactors in Asia</i><br><i>Minor.</i> Cambridge: Cambridge University Press.   |

### Websites

Website 1

http://id.lib.harvard.edu/images/8001504293/urn-3:DOAK.RESLIB:30198948/catalog (Accessed: 4/6/2023)

Website 2

https://archeologie.culture.fr/saint-symeon/fr/mediatheque (Accessed: 3/7/2022)

Website 3

https://syrian-heritage.org/a-capital-decorated-with-acanthus-leaves-monastery-of-saintsimeon/ (Accessed: 4/3/2022)

Website 4

https://syrian-heritage.org/ar/%D8%AF%D9%8A%D8%B1-

<u>%D8%B3%D9%85%D8%B9%D8%A7%D9%86%D8%8C-</u>

<u>%D8%AA%D9%8A%D8%AC%D8%A7%D9%86-</u>

%D8%A3%D8%B9%D9%85%D8%AF%D8%A9-

%D9%83%D9%88%D8%B1%D9%86%D8%AB%D9%8A%D8%A9/ (Accessed: 4/3/2022)

# Website 5

https://syrian-

heritage.org/ar/%D8%A7%D9%84%D9%85%D8%AF%D8%B1%D8%B3%D8%A9-

<u>%D8%A7%D9%84%D8%AD%D9%84%D9%88%D9%8A%D8%A9%D8%8C-</u>

%D9%85%D8%B4%D9%87%D8%AF-

%D8%AA%D9%81%D8%B5%D9%8A%D9%84%D9%8A-

<u>%D9%84%D8%AA%D8%A7%D8%AC-%D9%83%D9%88%D8%B1-3/</u> (Accessed:

2/8/2022)

Website 6

https://syrian-

heritage.org/ar/%D8%A7%D9%84%D9%85%D8%AF%D8%B1%D8%B3%D8%A9-%D8%A7%D9%84%D8%AD%D9%84%D9%88%D9%8A%D8%A9%D8%8C-%D8%AA%D8%A7%D8%AC-%D9%83%D9%88%D8%B1%D9%86%D8%AB%D9%8A/

Website 7

https://alchetron.com/Cyrrhus#cyrrhus-30a47c9e-d249-4b9d-be81-42ae18f3a48-resize-750.jpeg (Accessed: 4/2/2024)

Website 8

 https://syrian-heritage.org/ar/%D8%A3%D8%B9%D9%85%D8%AF%D8%A9 

 %D8%A8%D9%8A%D8%B2%D9%86%D8%B7%D9%8A%D8%A9 

 %D8%A8%D8%AA%D9%8A%D8%AC%D8%A7%D9%86 

 %D9%83%D9%88%D8%B1%D9%86%D8%AB%D9%8A%D8%A9 

 %D8%AA%D8%B9%D9%88%D8%AF-%D9%84%D8%A3%D8%AD/

 (Accessed:

 26/2/2022)

Website 9

https://commons.wikimedia.org/wiki/File:Ruweiha\_other\_funerary\_temple\_8721.jpg (Accessed: 8/5/2024)

Website 10

https://commons.wikimedia.org/wiki/File:Ruweiha\_other\_funerary\_temple\_8721.jpg (Accessed: 8/5/2024)

Website 11

https://images.hollis.harvard.edu/primo-

explore/fulldisplay?vid=HVD\_IMAGES&docid=HVD\_VIA8001349205&sortby=rank&q=a ny,contains,Syria&searchString=Syria&offset=0&tab=default\_tab&search\_scope=default\_sc ope (Accessed: 26/4/2024)

Website 12

https://images.hollis.harvard.edu/primo-

explore/fulldisplay?vid=HVD\_IMAGES&docid=HVD\_VIA8001349205&sortby=rank&q=a ny,contains,Syria&searchString=Syria&offset=0&tab=default\_tab&search\_scope=default\_sc ope (Accessed: 26/4/2024)

Website 13

https://arachne.dainst.org/entity/5941867/image/5941867 (Accessed: 2/11/2023)

Website 14

https://images.hollis.harvard.edu/primoexplore/viewcomponent/L/HVD\_VIA8001347328?vid=HVD\_IMAGES&imageId=urn-3:DOAK.RESLIB:32069646&adaptor= (Accessed: 5/6/2023)

Website 15

https://images.hollis.harvard.edu/primoexplore/viewcomponent/L/HVD\_VIA8001347328?vid=HVD\_IMAGES&imageId=urn-3:DOAK.RESLIB:32069646&adaptor= (Accessed: 5/6/2023)

Website 16

https://images.hollis.harvard.edu/primo-

explore/viewcomponent/L/HVD\_VIA8001347328?vid=HVD\_IMAGES&imageId=urn-

3:DOAK.RESLIB:32069646&adaptor= (Accessed: 5/6/2023)

Website 17

http://vrc.princeton.edu/archives/items/show/47843 (Accessed: 25/4/2024)

Website 18

https://www.swissinfo.ch/ara/%D9%82%D8%B5%D8%B1-

%D8%A7%D9%84%D8%AD%D9%8A%D8%B1-

%D8%A7%D9%84%D8%B4%D8%B1%D9%82%D9%8A/18016114 (Accessed: 4/11/2023)

Website 19

https://classicalmonuments.tumblr.com/post/635440457165455360/temple-of-salimsalimslemslim-hauran-syria (Accessed: 3/9/2022)

Website 20

https://images.hollis.harvard.edu/primo-

explore/viewcomponent/L/HVD\_VIA8001347316?vid=HVD\_IMAGES&imageId=urn-3:DOAK.RESLIB:32067828&adaptor= (Accessed: 21/5/2024)

Website 21

https://syrian-heritage.org/ar/%D9%85%D8%B9%D8%A8%D8%AF-%D8%A7%D9%84%D9%85%D8%B4%D9%86%D9%81%D8%8C-%D8%A7%D9%84%D8%B2%D8%A7%D9%88%D9%8A%D8%A9-%D8%A7%D9%84%D8%AC%D9%86%D9%88%D8%A8%D9%8A%D8%A9-%D8%A7%D9%84%D8%BA%D8%B1%D8%A8%D9%8A/ (Accessed: 8/4/2022)

Website 22

https://classicalmonuments.tumblr.com/post/635802863663218690/temple-of-baal-shamin-siseeia-hauran-syria (Accessed: 25/11/2022)

Website 23

https://www.tumblr.com/classicalmonuments/636074631974027264/temple-of-dushara-siseeia-hauran-syria<u>1st?redirect\_to=%2Fclassicalmonuments%2F636074631974027264%2Ftemple-of-dushara-</u> <u>si-secia-hauran-syria-1st&source=blog\_view\_login\_wall</u> (Accessed: 8/11/2023)

Website 24

https://www.tumblr.com/classicalmonuments/636074631974027264/temple-of-dushara-siseeia-hauran-syria-

<u>1st?redirect\_to=%2Fclassicalmonuments%2F636074631974027264%2Ftemple-of-dushara-</u> <u>si-seeia-hauran-syria-1st&source=blog\_view\_login\_wall</u> (Accessed: 8/11/2023)

Website 25

https://monumentsofsyria.com/places/atil-roman-temples/ (Accessed: 1/6/2022)

Website 26

https://sana.sy/?p=1107643 (Accessed: 14/9/2024)

Website 27

https://vrc.princeton.edu/archives/items/show/47262 (Accessed: 25/4/2024)

Website 28

https://images.hollis.harvard.edu/primo-

explore/fulldisplay?vid=HVD\_IMAGES&docid=HVD\_VIA8001349960&sortby=rank&q=a ny,contains,Syria&searchString=Syria&offset=0&tab=default\_tab&search\_scope=default\_sc ope (Accessed: 6/4/2024)

Website 29

https://sana.sy/?p=845668 (Accessed: 22/3/2022)

Website 30

https://syriaphotoguide.com/al-sanamein-

<u>%D8%A7%D9%84%D8%B5%D9%86%D9%85%D9%8A%D9%86/</u> (Accessed: 12/7/2022)

Website 31

https://hpi.tda-

# sy.org/ar/content/615/683/%D8%AA%D9%82%D8%A7%D8%B1%D9%8A%D8%B1-%D8%A7%D9%84%D8%A7%D8%B6%D8%B1%D8%A7%D8%B1/%D8%AA%D9%82

%D8%B1%D9%8A%D8%B1-%D9%88%D8%AA%D9%88%D8%AB%D9%8A%D9%82-%D8%A7%D9%84%D8%A3%D8%B6%D8%B1%D8%A7%D8%B1-%D8%A7%D9%84%D8%AD%D8%A7%D8%B5%D9%84%D8%A9-%D8%B9%D9%84%D9%89-%D8%B3%D8%B1%D9%8A%D8%B1-%D9%85%D9%86-%D8%A7%D8%A8%D9%86%D8%A9-%D8%A7%D9%84%D9%85%D9%84%D9%83-%D9%83%D8%A7%D9%84%D9%8A%D8%A8%D9%87-%D9%A1%D9%A0-%D9%85%D8%A7%D9%8A%D9%88-%D9%A2%D9%A0%D9%A1%D9%A8 (Accessed: 14/1/2022)

Website 32

https://syrian-

heritage.org/ar/%D8%A7%D9%84%D8%B1%D8%B5%D8%A7%D9%81%D8%A9%D8% 8C-%D8%AA%D8%A7%D8%AC-%D8%B9%D9%85%D9%88%D8%AF-%D9%81%D9%8A-%D8%A7%D9%84%D9%88%D8%A7%D8%AC%D9%87%D8%A9-%D8%A7%D9%84%D8%AF%D8%A7%D8%AE%D9%84%D9%8A%D8%A9/ (Accessed: 8/2/2022)

Website 33

https://2steps.gr/index.asp?xkey=4338 (Accessed: 10/9/2024)

Website 34

```
https://penelope.uchicago.edu/encyclopaedia_romana/greece/architecture/lysicrates.html (Accessed: 10/11/2024)
```

Website 35

https://madainproject.com/great\_hypostyle\_hall (Accessed: 21/8/2024)

Website 36

https://www.wmf.org/project/temple-hercules (Accessed: 4/7/2024)

Website 37

<u>Https://Risdmuseum.Org/Art-Design/Collection/Corinthian-Capital-39132</u> (Accessed: 20/07/2023)

# **APPENDICES**

This section contains 10 appendices with all the detailed information about the Corinthian capitals in Syria studied in this dissertation. The Corinthian capitals have been arranged based on two main classification criteria.

The first criterion is the type of Corinthian capital, as categorized in Chapter Five. The sequence begins with the Canonical Corinthian capitals (Cap.1–159), followed by the Non-Canonical types: first the Without-Helix capitals (Cap.160–181), then the Without-Crosses (Cap.182–281), followed by the Without-Calyx (Cap.282–313), the Without-Helix, Without-Calyx (Cap.314–347), then the Lyre and V-Shaped capitals (Cap.348–355), the Four-Acanthus capitals (Cap.363–376). Finally, there is a group of capitals that are not classified under any specific type. These include the lower and upper parts of two-piece capitals, unfinished capitals, and those that cannot be categorized into any specific type (Cap.377–390).

The second criterion in the arrangement is the type of stone. Within each of the above capital types, the order begins with capitals made of marble, followed by those made of limestone, and finally those made of basalt.

Each appendix starts with the code of the capital. The photo related to this code can be found in the (photos of the capitals). The labeling of the capitals is done using the first three letters of the word "Capital," followed by a number, such as (Cap.1). In some cases, there may be a need to focus on two sides of the capital. In this case, the word "Face" is added to the name, followed by a number for the face, such as (Cap.1.Face1). In other cases, where two photographs from different sources exist for the same capital, the label includes an additional number, such as (Cap.1.1 and Cap.1.2).

The appendices are:

#### **Appendix 1: General Information 1**

This table contains general information about the capitals. This information includes the exact location of the capital, which refers to where the capital was located at the time of the study. The origin is also noted, specifying the provenance of the capital or explaining how it was obtained if the origin is unknown. Next, the height and lower diameter of the capital are

provided. After that, the type of stone and the number of parts the capital is made of are described, as well as whether it is a column or pilaster capital. Finally, the type of the capital is specified, based on the typology and categorization outlined in the dissertation.

#### **Appendix 2: General Information 2**

This part is considered a continuation of the previous group. It contains information about the reference for the image of the capital in the (Capitals Photos). It also includes the date of the capital and the reasoning behind this date. Finally, the reference used for dating is provided, if applicable.

#### **Appendix 3: Acanthus Leaves**

It contains information about the acanthus leaves on the capital. It begins with the number of rows, the number of leaves in the lower row, the location where these leaves spring from, the type of leaves, and finally, the relationship between the adjacent leaves. This information is also repeated for the second row.

#### **Appendix 4: Caulicole**

It provides the most important aspects of this element such as its shape, state, and any other information related to its relationship with other elements of the capital.

#### **Appendix 5: Calyx**

This table begins with the morphological traits of the calyx, followed by the shape and relationship of the inner parts. Finally, it describes the relationship between the inner and outer parts.

#### **Appendix 6: Helix and Volute**

In this group, each of the helices and volutes is explained. This includes their morphology, relationship with the abacus, spiral configuration, spiral interaction, and their relationship with each other for the opposite helices.

#### **Appendix 7: Calathus**

It contains only the state of the rim of the calathus and the way it appears on the capital.

#### **Appendix 8: Abacus**

This table shows the form of the abacus and its elements. It is followed by an explanation of the decorations on these elements, if they are decorated.

# **Appendix 9: Central Motif**

It has only two columns: one shows the shape of the central motif of the abacus, and the other indicates whether it has a stem, along with the state of the stem.

# **Appendix 10: Additional Element**

It mentions only the capitals that have additional elements, with an explanation of these elements and their position on the capital.

| ıpital (Cap.) | Exact Location                              | Origin                     | Height (cm) | Lower<br>Diameter (cm) | Stone  | One/Two-piece<br>Capital | Column /<br>Pilaster | Type      |
|---------------|---|----------------------------|-------------|------------------------|--------|--------------------------|----------------------|-----------|
| Cap.1         | no information                              | al-Eiss                    | I           | 1                      | marble | 7                        | column               | Canonical |
| Cap.2         | Aleppo Museum - inv. No: no<br>information  | unknown                    | 69.5        | 45.5                   | marble | 1                        | column               | Canonical |
| Cap.3         | Aleppo Museum - inv. No: 3428               | unknown                    | 59          | 47.5                   | marble | 1                        | column               | Canonical |
| Cap.4         | Aleppo Museum - inv. No: no<br>information  | unknown                    | 54          | 39                     | marble | 1                        | column               | Canonical |
| Cap.5         | Hama Museum - inv. No: 1160                 | Purchased                  | 64          | 44                     | marble | 1                        | column               | Canonical |
| Cap.6         | Hama Museum - inv. No: 1084                 | discovery by chance / Homs | 45          | 33                     | marble | 1                        | column               | Canonical |
| Cap.7         | al-Nūrī Mosque/Homs                         | uwouyun                    | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.8         | al-Nūrī Mosque/Homs                         | uwouyun                    | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.9         | al-Nūrī Mosque/Homs                         | uwouyun                    | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.10        | al-Nūrī Mosque/Homs                         | uwouyun                    | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.11        | Latakia Museum - inv. No: no<br>information | unknown                    | 80          | 72                     | marble | 1                        | column               | Canonical |
| Cap.12        | Latakia Muscum - inv. No: no<br>information | uwouyun                    | 70          | 60                     | marble | 1                        | column               | Canonical |
| Cap.13        | Latakia Museum - inv. No: no<br>information | uwonhun                    | 86          | 80                     | marble | 1                        | column               | Canonical |
| Cap.14        | Latakia Museum - inv. No: no<br>information | uwouyun                    | 64          | 54                     | marble | 1                        | column               | Canonical |
| Cap.15        | Latakia Museum - inv. No: no<br>information | unknown                    | 70          | 54                     | marble | 1                        | column               | Canonical |
| Cap.16        | Latakia Museum - inv. No: no<br>information | unknown                    | 67          | 58                     | marble | 1                        | column               | Canonical |
| Cap.17        | Latakia Muscum - inv. No: no<br>information | unknown                    | 40          | 32.5                   | marble | 1                        | column               | Canonical |

| Capital (Cap.) | Exact Location                              | Origin  | Height (cm) | Lower<br>Diameter (cm) | Stone  | One/Two-piece<br>Capital | Column /<br>Pilaster | Type      |
|----------------|---|---------|-------------|------------------------|--------|--------------------------|----------------------|-----------|
| Cap.18         | Latakia Museum - inv. No: no<br>information | unknown | 40          | 29                     | marble | 1                        | column               | Canonical |
| Cap.19         | Latakia Museum - inv. No: no<br>information | unknown | 42.5        | 41                     | marble | 1                        | column               | Canonical |
| Cap.20         | Latakia Museum - inv. No: no<br>information | unknown | 84          | 64                     | marble | 1                        | column               | Canonical |
| Cap.21         | Latakia Museum - inv. No: no<br>information | unknown | 65.5        | 68                     | marble | 1                        | column               | Canonical |
| Cap.22         | Latakia Museum - inv. No: no<br>information | unknown | 83          | 63                     | marble | 1                        | column               | Canonical |
| Cap.23         | Latakia Museum - inv. No: no<br>information | unknown | 85          | 73                     | marble | 1                        | column               | Canonical |
| Cap.24         | Latakia Museum - inv. No: no<br>information | unknown | 70          | 63                     | marble | 1                        | column               | Canonical |
| Cap.25         | Latakia Museum - inv. No: no<br>information | unknown | 82          | 72                     | marble | 1                        | column               | Canonical |
| Cap.26         | Latakia Museum - inv. No: no<br>information | unknown | 81          | 67                     | marble | 1                        | column               | Canonical |
| Cap.27         | Latakia Museum - inv. No: no<br>information | unknown | 80          | 70                     | marble | 1                        | column               | Canonical |
| Cap.28         | Latakia Museum - inv. No: no<br>information | unknown | 48.5        | 40                     | marble | 1                        | column               | Canonical |
| Cap.29         | Latakia Museum - inv. No: no<br>information | unknown | 76.5        | 67.5                   | marble | 1                        | column               | Canonical |
| Cap.30         | Latakia Museum - inv. No: no<br>information | unknown | 85          | 70                     | marble | 1                        | column               | Canonical |
| Cap.31         | Latakia Museum - inv. No: no<br>information | unknown | 53          | 115                    | marble | 2 - upper part           | column               | Canonical |
| Cap.32         | Latakia Museum - inv. No: no<br>information | unknown | 85          | 66                     | marble | 1                        | column               | Canonical |
| Cap.33         | Latakia Museum - inv. No: no<br>information | unknown | 65.5        | 59                     | marble | 1                        | column               | Canonical |
| Cap.34         | Latakia Museum - inv. No: no<br>information | unknown | 81.5        | 67                     | marble | 1                        | column               | Canonical |

| Exact Location     Origin     Height (cm)     Lower     Stone     One/Two       Capi     Museum - inv. No: no     Museum - inv. No: no     77     70     Musel | Origin Height (cm) Lower One/Two<br>Diameter (cm) Stone Capi | Height (cm) Lower Stone One/Two Capi | Lower Diameter (cm) Stone One/Two | Stone One/Two<br>Capi | One/Two<br>Capi | o-piece<br>tal | Pilaster | Type      |
|--|--|--------------------------------------|-----------------------------------|-----------------------|-----------------|----------------|----------|-----------|
| i Museum - inv. No: no unknown 77 70 n   | unknown 77 70 n  | 77 70 7                              | 70 n                              |                       | narble          | 1              | column   |           |
| information 73 55 73   | unknown 73 55  | 73 55                                | 55                                |                       | marble          | 1              | column   | Canonic   |
| i Museum - inv. No: no unknown 78 67   | unknown 78 67  | 78 67                                | 67                                |                       | marble          | 1              | column   | Canonical |
| information 80 66  | unknown 80 66  | 80 66                                | 66                                |                       | marble          | 1              | column   | Canonical |
| i Museum - inv. No: no 36.5 30 30 information  | unknown 36.5 30  | 36.5 30                              | 30                                |                       | marble          | 1              | column   | Canonical |
| ulex column / Latakia unknown – – – –  | unknown – –  | 1                                    | I                                 |                       | marble          | 1              | column   | Canonical |
|  | nuknown  | 1                                    | I                                 |                       | marble          | 1              | column   | Canonical |
|  | - unknown  | 1                                    | I                                 |                       | marble          | 1              | column   | Canonical |
| ·wār Hārūn / Latakia unknown –   |  | -                                    | I                                 |                       | marble          | 1              | column   | Canonical |
| Jableh Theater Jableh Theater / Jableh 85 67   | Jableh Theater / Jableh 85 67                                | 85 67                                | 67                                |                       | marble          | 1              | column   | Canonical |
| Jableh Theater Jableh Theater / Jableh 64 53   | Jableh Theater / Jableh 64 53                                | 64 53                                | 53                                |                       | marble          | 1              | column   | Canonical |
| Jableh Theater Jableh Theater / Jableh 63.5 67   | Jableh Theater / Jableh 63.5 47                              | 63.5 47                              | 47                                |                       | marble          | 1              | column   | Canonical |
| Jableh Theater / Jableh Theater / Jableh 61.5 61.5 47  | Jableh Theater / Jableh 61.5 47                              | 61.5 47                              | 47                                |                       | marble          | 1              | column   | Canonical |
| Jableh Theater / Jableh Theater / Jableh 23 34   | Jableh Theater / Jableh 43 34                                | 43 34                                | 34                                |                       | marble          | 1              | column   | Canonical |
| Jableh Theater / Jableh Theater / Jableh 64.5 51   | Jableh Theater / Jableh 64.5 64.5                            | 64.5 51                              | 51                                |                       | marble          | 1              | column   | Canonical |
| Jableh Theater Jableh Theater / Jableh 62 64   | Jableh Theater / Jableh 62 46                                | 62 46                                | 46                                |                       | marble          | 1              | column   | Canonical |
| Jableh Theater / Jableh Theater / Jableh 65 damaged  | Jableh Theater / Jableh 65 damaged                           | 65 damaged                           | damaged                           |                       | marble          | 1              | column   | Canonical |

| Capital (Cap.) | Exact Location                               | Origin                  | Height (cm) | Lower<br>Diameter (cm) | Stone  | One/Two-piece<br>Capital | Column /<br>Pilaster | Type      |
|----------------|--|-------------------------|-------------|------------------------|--------|--------------------------|----------------------|-----------|
| Cap.52         | 'Arab al-Mulk                                | unknown                 | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.53         | 'Arab al-Mulk                                | uwouyun                 | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.54         | Tartous Museum - inv. No: no<br>information  | unknown                 | 50          | 39                     | marble | 1                        | column               | Canonical |
| Cap.55         | Tartous Museum - inv. No: 272                | uwouyun                 | 48          | 35                     | marble | 1                        | column               | Canonical |
| Cap.56         | Tartous Museum - inv. No: 279                | Jableh Theater / Jableh | 82          | 59                     | marble | 1                        | column               | Canonical |
| Cap.57         | Tartous Museum - inv. No: 321                | uwouyun                 | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.58         | Tartous Museum - inv. No: 590                | found in Banyas         | 52          | 46                     | marble | 1                        | column               | Canonical |
| Cap.59         | Tartous Museum - inv. No: 607                | uwouyun                 | 43          | 33                     | marble | 1                        | column               | Canonical |
| Cap.60         | Tartous Museum - inv. No: 608                | found in Banyas         | 54          | 35                     | marble | 1                        | column               | Canonical |
| Cap.61         | Tartous Museum - inv. No: 258                | found in Tartous        | 48          | 34                     | marble | 1                        | column               | Canonical |
| Cap.62         | Damascus Museum - inv. No: no<br>information | uwouyun                 | 74          | 57                     | marble | 1                        | column               | Canonical |
| Cap.63         | Damascus Museum - inv. No: no<br>information | uwouyun                 | 79          | 56                     | marble | 1                        | column               | Canonical |
| Cap.64         | Damascus Museum - inv. No: no<br>information | uwouyun                 | 80          | 57                     | marble | 1                        | column               | Canonical |
| Cap.65         | Damascus Museum - inv. No: no<br>information | uwouyun                 | 76          | 56                     | marble | 1                        | column               | Canonical |
| Cap.66         | Damascus Museum - inv. No: no<br>information | uwouyun                 | 64          | 50                     | marble | 1                        | column               | Canonical |
| Cap.67         | Damascus Museum - inv. No: 126               | unknown                 | 49          | 39                     | marble | 1                        | column               | Canonical |
| Cap.68         | Damascus Museum - inv. No: no<br>information | unknown                 | 50.5        | 38                     | marble | 1                        | column               | Canonical |

| Capital (Cap.) | Exact Location  | Origin   | Height (cm) | Lower<br>Diameter (cm) | Stone  | One/Two-piece<br>Capital | Column /<br>Pilaster | Type      |
|----------------|---|--|-------------|------------------------|--------|--------------------------|----------------------|-----------|
| Cap.69         | Damascus Muscum - inv. No: 5976                                     | unknown  | 48.5        | 39                     | marble | 1                        | column               | Canonical |
| Cap.70         | Damascus Museum - inv. No: 5057                                     | found in Latakia   | 44.5        | 34                     | marble | 1                        | column               | Canonical |
| Cap.71         | Damascus Museum - inv. No: 5059                                     | found in Latakia   | 41          | 35                     | marble | 1                        | column               | Canonical |
| Cap.72         | Damascus Museum - inv. No: no<br>information                        | uwouyun  | 77          | 60                     | marble | 1                        | column               | Canonical |
| Cap.73         | Damascus Museum - inv. No: no<br>information                        | uwouyun  | 39.5        | 33                     | marble | 1                        | column               | Canonical |
| Cap.74         | Damascus Museum - inv. No: 19876                                    | found in Damascus  | 67          | 50                     | marble | 1                        | column               | Canonical |
| Cap.75         | Jupiter Gate / Old Damascus   | Jupiter Gate / Old Damascus  | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.76         | Jupiter Gate / Old Damascus   | Jupiter Gate / Old Damascus  | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.77         | Jupiter Gate / Old Damascus   | Jupiter Gate / Old Damascus  | I           | 1                      | marble | 1                        | column               | Canonical |
| Cap.78         | Jupiter Gate / Old Damascus   | Jupiter Gate / Old Damascus  | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.79         | Jupiter Gate / Old Damascus   | Jupiter Gate / Old Damascus  | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.80         | the colonnade of Jupiter Gate / Old<br>Damascus                     | found in the colonnade of Jupiter Gate /<br>Old Damascus           | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.81         | the colonnade of Jupiter Gate / Old<br>Damascus                     | found in the colonnade of Jupiter Gate /<br>Old Damascus           | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.82         | the colonnade of Jupiter Gate / Old<br>Damascus                     | found in the colonnade of Jupiter Gate /<br>Old Damascus           | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.83         | The Courtyard of Salah al-Din's<br>Mausoleum / Damaseus             | uwouyun  | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.84         | a colonnade in courtyard of Salah al-<br>Din's Mausoleum / Damascus | a colonnade in courtyard of Salah al-Din's<br>Mausoleum / Damascus | I           | I                      | marble | 1                        | column               | Canonical |
| Cap.85         | a colonnade in courtyard of Salah al-<br>Din's Mausoleum / Damascus | a colonnade in courtyard of Salah al-Din's<br>Mausoleum / Damascus | I           | I                      | marble | 1                        | column               | Canonical |

| Capital (Cap.) | Exact Location  | Origin   | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type      |
|----------------|---|--|-------------|------------------------|-----------|--------------------------|---------------------------|-----------|
| Cap.86         | a colonnade in courtyard of Salah al-<br>Din's Mausoleum / Damascus | a colonnade in courtyard of Salah al-Din's<br>Mausolcum / Damascus | I           | I                      | marble    | 1                        | column                    | Canonical |
| Cap.87         | a colonnade in courtyard of Salah al-<br>Din's Mausoleum / Damascus | a colonnade in courtyard of Salah al-Din's<br>Mausoleum / Damaseus | I           | I                      | marble    | 1                        | column                    | Canonical |
| Cap.88         | Boşrā Theater / Boşrā   | Bosra Thcater / Bosra  | I           | I                      | marble    | 1                        | column                    | Canonical |
| Cap.89         | no information  | found in a mosque / Bosra  | I           | I                      | marble    | 1                        | column                    | Canonical |
| Cap.90         | Boșră Theater / Boșră   | Bosra Theater / Bosra  | I           | I                      | marble    | 1                        | column                    | Canonical |
| Cap.91         | Latakia Museum - inv. No: no<br>information                         | uwouyun  | 56          | Ι                      | marble    | 2 -upper part            | pilaster<br>(cylindrical) | Canonical |
| Cap.92         | Latakia Museum - inv. No: no<br>information                         | found in_al-Ṣaliba neighborhood / Latakia                          | 65          | 48                     | marble    | 2 - upper part           | column                    | Canonical |
| Cap.93         | Latakia Museum - inv. No: no<br>information                         | found in_al-Şaliba neighborhood / Latakia                          | 02          | 78                     | marble    | 2 - upper part           | column                    | Canonical |
| Cap.94         | Latakia Museum - inv. No: no<br>information                         | found in_al-Ṣaliba neighborhood / Latakia                          | 63          | 06                     | marble    | 2 - upper part           | column                    | Canonical |
| Cap.95         | Latakia Museum - inv. No: no<br>information                         | unknown  | 70          | 53                     | marble    | 1                        | column                    | Canonical |
| Cap.96         | no information  | the nave of the church / Kharāb al-Shams                           | I           | 1                      | limestone | 1                        | column                    | Canonical |
| Cap.97         | Aleppo Museum - inv. No: 3427                                       | Eastern church / Dāḥis   | 59          | 55                     | limestone | Ţ                        | column                    | Canonical |
| Cap.98         | Aleppo Museum - inv. No: no<br>information                          | unknown  | 51          | 45.5                   | limestone | 1                        | column                    | Canonical |
| Cap.99         | mausoleum / Nabī Hūrī   | mausoleum / Nabī Hūrī  | I           | I                      | limestone | 1                        | column                    | Canonical |
| Cap.100        | no information  | Bcḥyū  | I           | I                      | limestone | 1                        | column                    | Canonical |
| Cap.101        | no information  | Serjibla   | I           | I                      | limestone | 1                        | column                    | Canonical |
| Cap.102        | no information  | Senḥār   | I           | I                      | limestone | 1                        | column                    | Canonical |

| apital (Cap.) | Exact Location                     | Origin   | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type      |
|---------------|------------------------------------|--|-------------|------------------------|-----------|--------------------------|---------------------------|-----------|
| Cap.103       | no information                     | Qasr al-Banāt (convent) / Ksèdjbch (?)           | I           | I                      | limestone | 1                        | column                    | Canonical |
| Cap.104       | Hama Museum - inv. No: 3441        | confiscation                                     | 58          | 46.5                   | limestone | 1                        | column                    | Canonical |
| Cap.105       | no information                     | Ithriya Temple / Ithriya                         | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.106       | Homs Museum - inv. No: 1587        | confiscation                                     | 66.5        | 42                     | limestone | 1                        | column                    | Canonical |
| Cap.107       | Qasr al-Ḥeīr al-Sharqī / al-Sukhna | unknown  | I           | I                      | limestone | 1                        | column                    | Canonical |
| Cap.108       | no information                     | pronaos of the Temple of Baalshamin /<br>Palmyra | I           | I                      | limestone | 1                        | column                    | Canonical |
| Cap.109       | no information                     | Temple of Baalshamin / Palmyra                   | Ι           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.110       | no information                     | Temple of Baalshamin / Palmyra                   | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.111       | no information                     | Temple of Bel / Palmyra                          | I           | I                      | limestone | 2                        | column                    | Canonical |
| Cap.112       | no information                     | Temple of Bel / Palmyra                          | I           | I                      | limestone | 1                        | column                    | Canonical |
| Cap.113       | no information                     | Temple of Bel / Palmyra                          | Ι           | Ι                      | limestone | I                        | column                    | Canonical |
| Cap.114       | no information                     | Temple of Bel / Palmyra                          | I           | I                      | limestone | 1                        | pilaster<br>(cylindrical) | Canonical |
| Cap.115       | no information                     | Temple of Bel / Palmyra                          | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.116       | no information                     | Temple of Bel / Palmyra                          | I           | I                      | limestone | 1                        | column                    | Canonical |
| Cap.117       | no information                     | Temple of Bel / Palmyra                          | Ι           | I                      | limestone | 1                        | column                    | Canonical |
| Cap.118       | no information                     | Temple of Bel / Palmyra                          | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.119       | no information                     | Temple of Bel / Palmyra                          | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |

| Capital (Cap.) | Exact Location                               | Origin                               | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type      |
|----------------|--|--------------------------------------|-------------|------------------------|-----------|--------------------------|---------------------------|-----------|
| Cap.120        | no information                               | Temple of Bel / Palmyra              | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.121        | no information                               | Temple of Bel / Palmyra              | Ι           | Ι                      | limestone | τ                        | column                    | Canonical |
| Cap.122        | no information                               | Temple of Bel / Palmyra              | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.123        | no information                               | honorific column / Palmyra           | I           | I                      | limestone | 2                        | column                    | Canonical |
| Cap.124        | no information                               | honorific column / Palmyra           | I           | I                      | limestone | 1                        | column                    | Canonical |
| Cap.125        | no information                               | next to Camp of Diocletian / Palmyra | Ι           | Ι                      | limestone | 1                        | column                    | Canonical |
| Cap.126        | no information                               | Tower of lamblichus                  | I           | 1                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.127        | no information                               | Tower of Elahbel                     | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.128        | Columns of Bacchus / Latakia                 | Columns of Bacchus / Latakia         | I           | I                      | limestone | 2                        | column                    | Canonical |
| Cap.129        | Ḥuṣn Sulacīmān                               | Huşn Sulacīmān                       | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.130        | Ḥuṣn Sulacīmān                               | Ḥuṣn Sulacīmān                       | I           | 1                      | limestone | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.131        | Damascus Museum - inv. No: no<br>information | uwouyun                              | 51          | 55                     | limestone | 1                        | column                    | Canonical |
| Cap.132        | Damascus Museum - inv. No: no<br>information | uwouyun                              | 52          | 56                     | limestone | 1                        | column                    | Canonical |
| Cap.133        | Aleppo Museum - inv. No: 3423                | uwonynu                              | 72          | 44                     | limestone | I                        | column                    | Canonical |
| Cap.134        | Aleppo Museum - inv. No: no<br>information   | unknown                              | 54          | 35                     | limestone | 1                        | column                    | Canonical |
| Cap.135        | no information                               | temple / Bāqīrhā                     | I           | I                      | limestone | 1                        | column                    | Canonical |
| Cap.136        | Hama Museum - inv. No: 1100                  | confiscation                         | 42          | 28                     | limestone | 1                        | column                    | Canonical |

| Capital (Cap.) | Exact Location                               | Origin                                | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type      |
|----------------|--|---------------------------------------|-------------|------------------------|-----------|--------------------------|---------------------------|-----------|
| Cap.137        | Damascus Museum - inv. No: 19822             | confiscation                          | 65          | rectangular<br>42x57   | limestone | 1                        | pilaster<br>(cylindrical) | Canonical |
| Cap.138        | Hama Museum - inv. No: 3470                  | confiscation                          | 55          | rectangular<br>56x55   | basalt    | 1                        | pier                      | Canonical |
| Cap.139        | Hama Museum - inv. No: 3472                  | confiscation                          | 50.5        | 42.5                   | basalt    | 1                        | column                    | Canonical |
| Cap.140        | Hama Museum - inv. No: 3473                  | confiscation                          | 55.5        | 31                     | basalt    | 1                        | column                    | Canonical |
| Cap.141        | Tartous Museum - inv. No: no<br>information  | uwouyun                               | 51          | 35                     | basalt    | 1                        | column                    | Canonical |
| Cap.142        | Damascus Museum - inv. No: no<br>information | uwouyun                               | 54.5        | 42                     | basalt    | 1                        | column                    | Canonical |
| Cap.143        | no information                               | found in Slaicm                       | I           | I                      | basalt    | 3                        | pier                      | Canonical |
| Cap.144        | no information                               | al-Mushannef Temple / As-Suwayda      | 73.5        | I                      | basalt    | 2 - upper part           | pilaster<br>(rectangular) | Canonical |
| Cap.145        | no information                               | isolated capital / Rīmat Hāzem        | 54          | I                      | basalt    | 1                        | pilaster<br>(rectangular) | Canonical |
| Cap.146        | no information                               | western temple of 'Atīl / 'Atīl       | I           | I                      | basalt    | 1                        | pier                      | Canonical |
| Cap.147        | no information                               | Temple of Zeus Megestos / Qanawāt     | I           | I                      | basalt    | 2                        | column                    | Canonical |
| Cap.148        | no information                               | Temple to Zeus-Helios-Rapos / Qanawāt | I           | I                      | basalt    | 1                        | column                    | Canonical |
| Cap.149        | basilica church / Qanawāt                    | found in basilica church / Qanawāt    | I           | I                      | basalt    | 2                        | column                    | Canonical |
| Cap.150        | basilica church / Qanawāt                    | found in basilica church / Qanawāt    | I           | I                      | basalt    | 1                        | column                    | Canonical |
| Cap.151        | basilica church / Qanawāt                    | Hexastyle Temple / Shahba             | I           | I                      | basalt    | 1                        | column                    | Canonical |
| Cap.152        | no information                               | isolated capital / Rīmat Hāzem        | 61          | I                      | basalt    | 1                        | pilaster<br>(cylindrical) | Canonical |
| Cap.153        | no information                               | Temple of Tyche / al-Ṣanameīn         | I           | I                      | basalt    | 1                        | column                    | Canonical |

| Capital (Cap.) | Exact Location                               | Origin                             | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type          |
|----------------|--|------------------------------------|-------------|------------------------|-----------|--------------------------|---------------------------|---------------|
| Cap.154        | no information                               | Temple of Tyche / al-Ṣanameīn      | I           | I                      | basalt    | 1                        | pilaster<br>(rectangular) | Canonical     |
| Cap.155        | no information                               | Kalybe of Bosra / Bosra            | I           | I                      | basalt    | 2                        | column                    | Canonical     |
| Cap.156        | no information                               | found in a mosque / Daraa          | I           | 1                      | basalt    | 1                        | pilaster<br>(rectangular) | Canonical     |
| Cap.157        | Boșră Theater / Boșră                        | Bosra Theater / Bosra              | I           | 1                      | basalt    | 2                        | pilaster<br>(rectangular) | Canonical     |
| Cap.158        | found in Maison du Sheikh / Slaīem           | found in Maison du Sheikh / Slaīem | I           | Ι                      | basalt    | 2 - upper part           | pilaster<br>(rectangular) | Canonical     |
| Cap.159        | Slaïem                                       | found in Slaīem                    | 43.5        | I                      | basalt    | 1                        | column                    | Canonical     |
| Cap.160        | Damascus Museum - inv. No: no<br>information | unknown                            | 51          | ellipse 51x34          | marble    | 1                        | column                    | Without-Helix |
| Cap.161        | Aleppo Museum - inv. No: 3425                | eastern church / Dāḥis             | 58.5        | 56.5                   | limestone | 1                        | column                    | Without-Helix |
| Cap.162        | Aleppo Museum - inv. No: 3422                | uwouyun                            | 52.5        | 52.5                   | limestone | 1                        | column                    | Without-Helix |
| Cap.163        | Aleppo Museum - inv. No: 3426                | castern church / Dāḥis             | 58.5        | 50                     | limestone | 1                        | column                    | Without-Helix |
| Cap.164        | no information                               | western church / Dāḥis             | I           | 1                      | limestone | 1                        | column                    | Without-Helix |
| Cap.165        | no information                               | western church / Dāḥis             | I           | I                      | limestone | 1                        | column                    | Without-Helix |
| Cap.166        | no information                               | western church / Dāḥis             | I           | I                      | limestone | 1                        | column                    | Without-Helix |
| Cap.167        | no information                               | western church / Dāḥis             | I           | I                      | limestone | 1                        | column                    | Without-Helix |
| Cap.168        | no information                               | al-Bāra                            | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Without-Helix |
| Cap.169        | no information                               | Qasr al-Banāt (?)                  | I           | I                      | limestone | 1                        | column                    | Without-Helix |
| Cap.170        | Hama Museum - inv. No: 3580                  | confiscation                       | 54          | 51                     | limestone | 1                        | pilaster<br>(cylindrical) | Without-Helix |

| Capital (Cap.) | Exact Location                               | Origin                                   | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster | Туре                              |
|----------------|--|--|-------------|------------------------|-----------|--------------------------|----------------------|-----------------------------------|
| Cap.171        | Hama Muscum - inv. No: 3480                  | confiscation                             | 48          | 32                     | limestone | 1                        | column               | Without-Helix                     |
| Cap.172        | Hama Museum - inv. No: 1452/4                | confiscation                             | 39          | 31                     | limestone | 1                        | column               | Without-Helix                     |
| Cap.173        | Hama Museum - inv. No: 1452/3                | confiscation                             | 47          | 33                     | limestone | 1                        | column               | Without-Helix                     |
| Cap.174        | Aleppo Museum - inv. No: no<br>information   | confiscation                             | 47          | 36                     | limestone | 1                        | column               | Without-Helix                     |
| Cap.175        | Tartous Muscum - inv. No: 1660               | unknown                                  | 68.5        | 55                     | limestone | 1                        | column               | Without-Helix                     |
| Cap.176        | Damascus Museum - inv. No: 20570             | uwenwn                                   | 43          | 36                     | limestone | 1                        | column               | Without-Helix                     |
| Cap.177        | Damascus Museum - inv. No: no<br>information | unknown                                  | 45          | 30                     | limestone | 1                        | column               | Without-Helix                     |
| Cap.178        | Damascus Museum - inv. No: no<br>information | uwenwn                                   | 44          | 68                     | limestone | 1                        | column               | Without-Helix                     |
| Cap.179        | Damascus Museum - inv. No: no<br>information | unknown                                  | 62          | 52                     | limestone | 1                        | column               | Without-Helix                     |
| Cap.180        | Damascus Museum - inv. No: no<br>information | unknown                                  | 39.5        | 38                     | limestone | 1                        | column               | Without-Helix                     |
| Cap.181        | Damascus Museum - inv. No: no<br>information | unknown                                  | 43          | ellipse 55x44          | limestone | 1                        | column               | Without-Helix                     |
| Cap.182        | no information                               | the nave of the church / Kālūța          | I           | I                      | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
| Cap.183        | no information                               | Julianos Church / Brād                   | I           | I                      | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
| Cap.184        | no information                               | Basilica al-Mushabbak / Kfir Dárct 'izza | I           | I                      | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
| Cap.185        | no information                               | bath / Deīr Samʿān                       | I           | I                      | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
| Cap.186        | no information                               | northern basilica / Deīr Sam'ān          | I           | I                      | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
| Cap.187        | no information                               | Deīr Samʿān                              | I           | I                      | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |

| Appendix | 1: | General | Information | 1 |
|----------|----|---------|-------------|---|
|----------|----|---------|-------------|---|

| Exact Location   |  | Origin  | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type                              |
|--|--|---------|-------------|------------------------|-----------|--------------------------|---------------------------|-----------------------------------|
| no information Deīr Sam'ān   | Deīr Sam'ān  |         | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| no information al-'Eiss  | al-'Eiss   |         | -           | -                      | limestone | I                        | column                    | Without-Helix, Without-<br>Volute |
| al-Halawiyah Madrasa / Aleppo al-Halawiyah Madrasa / Al                        | al-Halawiyah Madrasa / Al                          | eppo    | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| al-Halawiyah Madrasa / Aleppo al-Halawiyah Madrasa / A                         | al-Halawiyah Madrasa / A                           | leppo   | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| al-Halawiyah Madrasa / Aleppo al-Halawiyah Madrasa / A                         | al-Halawiyah Madrasa / A                           | leppo   | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| al-Halawiyah Madrasa / Aleppo al-Halawiyah Madrasa / Al                        | al-Halawiyah Madrasa / Al                          | eppo    | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Aleppo Museum - inv. No: 3421 Western church / Dāḥi                            | Western church / Dāḥi                              | s       | 65          | 99                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Aleppo Museum - inv. No: 3424 southern nave of the church / C<br>Wardān / Hama | southern nave of the church / Ç<br>Wardān / Hama   | asr Ibn | 65.6        | 51                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Aleppo Museum - inv. No: no<br>information                                     | unknown  |         | 57          | 41                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| no information Church of St. Phocas / Bā                                       | Church of St. Phocas / Bā;                         | sūfān   | I           | I                      | limestone | 1                        | pilaster<br>(cylindrical) | Without-Helix, Without-<br>Volute |
| no information bath / Scrjflä  | bath / Serjīlā                                     |         | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| no information unknown church / Serjī  | unknown church / Serjī                             | ā       | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| no information functory temple / Ruweil  | funerary temple / Ruweīł                           | ia      | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| no information functory temple / Ruweil  | funcrary temple / Ruweīł                           | ia      | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Without-Helix, Without-<br>Volute |
| no information Băfiîn  | Bāftīn   |         | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| no information<br>Moses / Dār Qītā   | nave of the Church of Saints F<br>Moses / Dār Qītā | aul and | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| no information al-Bāra   | al-Bāra  |         | I           | I                      | limestone | 1                        | pilaster<br>(rectangular) | Without-Helix, Without-<br>Volute |

| Appendix 1 | : | General | Information | 1 |
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| ation | Origin                            | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster | Type                              |
|-------|-----------------------------------|-------------|------------------------|-----------|--------------------------|----------------------|-----------------------------------|
|       | al-Bāra                           | I           | I                      | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
| oyra  | midal roofed tomb / al-Dāna-South | I           | I                      | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
| yraı  | nidal roofed tomb / al-Dāna-South | -           | -                      | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 19          | 51                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 46.5        | 48                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 45.5        | 32                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 44.5        | 31                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 47          | 45                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 47          | 37                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 49          | 43                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 48          | 47                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 43.5        | 33.5                   | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 47          | 43.5                   | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 45          | 38                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 57.5        | 61                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 37          | 36                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |
|       | confiscation                      | 64          | 49                     | limestone | 1                        | column               | Without-Helix, Without-<br>Volute |

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| Capital (Cap.) | Exact Location                             | Origin       | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type                              |
|----------------|--|--------------|-------------|------------------------|-----------|--------------------------|---------------------------|-----------------------------------|
| Cap.222        | Hama Muscum - inv. No: 3478                | confiscation | 60          | 48                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.223        | Hama Museum - inv. No: 3479                | confiscation | 47          | 38                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.224        | Hama Museum - inv. No: 3481                | confiscation | 51          | 37                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.225        | Hama Museum - inv. No: 3483                | confiscation | 44.5        | 36                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.226        | Hama Museum - inv. No: 3484                | confiscation | 47          | 41                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.227        | Hama Museum - inv. No: 420                 | confiscation | 58          | rectangular<br>65x49   | limestone | 1                        | pilaster<br>(rectangular) | Without-Helix, Without-<br>Volute |
| Cap.228        | Hama Museum - inv. No: 1099                | confiscation | 47          | 34                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.229        | Hama Museum - inv. No: 1794                | confiscation | 41          | 33.5                   | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.230        | Hama Museum - inv. No: 1452/2              | confiscation | 47          | 38.5                   | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.231        | Aleppo Museum - inv. No: no<br>information | confiscation | 43.5        | 30                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.232        | Aleppo Museum - inv. No: no<br>information | confiscation | 43.5        | 30                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.233        | Aleppo Museum - inv. No: no<br>information | confiscation | 57          | rectangular<br>47x70   | limestone | 1                        | pilaster<br>(rectangular) | Without-Helix, Without-<br>Volute |
| Cap.234        | Aleppo Museum - inv. No: no<br>information | confiscation | 48          | 45                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.235        | Aleppo Museum - inv. No: no<br>information | confiscation | 53          | 39                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.236        | Umm al-Ḥaṣn Park / Hama                    | unknown      | 52          | damaged                | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.237        | Umm al-Ḥaṣn Park / Hama                    | unknown      | 48.5        | 41.5                   | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| Cap.238        | Umm al-Ḥaṣn Park / Hama                    | unknown      | 66.5        | 49                     | limestone | 1                        | pilaster<br>(cylindrical) | Without-Helix, Without-<br>Volute |

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| ap.) | Exact Location                               | Origin                        | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type                              |
|------|--|-------------------------------|-------------|------------------------|-----------|--------------------------|---------------------------|-----------------------------------|
|      | Umm al-Ḥaṣn Park / Hama                      | unknown                       | 60          | 43                     | limestone | 7                        | column                    | Without-Helix, Without-<br>Volute |
|      | Umm al-Ḥaṣn Park / Hama                      | unknown                       | 42.5        | 40                     | limestone | Ч                        | pilaster<br>(rectangular) | Without-Helix, Without-<br>Volute |
|      | Mașīāf Castle                                | uwouyun                       | 20          | 57                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
|      | Maşīāf Castle                                | uwouyun                       | 69          | 58                     | limestone | 7                        | column                    | Without-Helix, Without-<br>Volute |
|      | Mașīāf Castle                                | uwouyun                       | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
|      | no information                               | Qasr Ibn Wardān / Hama        | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
|      | no information                               | Qasr Ibn Wardān / Hama        | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
|      | no information                               | Qasr Ibn Wardān / Hama        | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
|      | no information                               | Qasr Ibn Wardān / Hama        | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
|      | Homs Museum - inv. No: 2041                  | Tell Mannas                   | 39.5        | 32.5                   | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
|      | Tartous Museum - inv. No: 593                | confiscation / $M\bar{a}$ 'iz | 77          | 57                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
|      | Damascus Museum - inv. No: 19819             | confiscation                  | 47          | 39                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| _    | Damascus Museum - inv. No: 19847             | confiscation                  | 49          | 42                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
|      | Damascus Museum - inv. No: no<br>information | uwouyun                       | 42          | 37                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
|      | Damascus Museum - inv. No: no<br>information | uwouyun                       | 45          | 40                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
| _    | Damascus Museum - inv. No: 19833             | confiscation                  | 48          | 37                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |
|      | Damascus Museum - inv. No: no<br>information | unknown                       | 45          | 45                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute |

| Appendix 1 | : | General | Information | 1 |
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| l (Cap.) | Exact Location                               | Origin                             | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type  |
|----------|--|------------------------------------|-------------|------------------------|-----------|--------------------------|---------------------------|---|
|          | Damascus Museum - inv. No: no<br>information | unknown                            | 65          | 61                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | Damascus Museum - inv. No: no<br>information | unknown                            | 43          | 45                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | Damascus Muscum - inv. No: no<br>information | unknown                            | 51.5        | 39                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | Damascus Museum - inv. No: no<br>information | unknown                            | 62          | 50                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | Damascus Museum - inv. No: no<br>information | unknown                            | 61          | 50                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | Damascus Museum - inv. No: no<br>information | unknown                            | 58          | damaged                | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | Damascus Museum - inv. No: no<br>information | unknown                            | 63          | damaged                | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
| ~        | Damascus Muscum - inv. No: no<br>information | uwouyun                            | 68          | damaged                | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | Damascus Museum - inv. No: 19826             | confiscation                       | 46          | 47                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | Damascus Museum - inv. No: 19835             | confiscation                       | 49          | rectangular<br>58×47   | limestone | 1                        | pilaster<br>(rectangular) | Without-Helix, Without-<br>Volute           |
| 10       | Damascus Museum - inv. No: 19825             | confiscation                       | 48          | square 53×53           | limestone | 1                        | pilaster<br>(rectangular) | Without-Helix, Without-<br>Volute           |
|          | Damascus Muscum - inv. No: no<br>information | unknown                            | 47          | 46                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | Damascus Muscum - inv. No: no<br>information | unknown                            | 43.5        | 44                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | Damascus Museum - inv. No: no<br>information | unknown                            | 46          | 44.5                   | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | Damascus Muscum - inv. No: no<br>information | unknown                            | 44          | 39                     | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | no information                               | north gate of Sergiopolis / Ruṣāfa | I           | I                      | limestone | 1                        | column                    | Without-Helix, Without-<br>Volute           |
|          | no information                               | Qalb Laŭza                         | I           | I                      | limestone | 1                        | pilaster<br>(cylindrical) | Without-Helix, Without-<br>Volute (reduced) |

| Exact Location     Origin     Lower     Lower     Sto       po Muscum - inv. No: no     conficention     d6     28.5     limest   | Origin Height (cm) Lower Sto            | Height (cm) Lower Sto           | Lower Sto  | Sto<br>limes | an ch                  | One/Two-piece<br>Capital | <b>Pilaster</b>  | Type<br>Without-Helix, Without-  |
|---|---|---------------------------------|------------|--------------|------------------------|--------------------------|------------------|--|
| pp Museum - inv. No: no         confiscation         46         28.5           information         and with the second s | confiscation 46 28.5<br>unknown 29 24   | 46 28.5<br>29 24                | 28.5<br>24 |              | limestone<br>limestone | 1                        | column<br>column | Without-Hellx, M<br>Volute (reduc<br>Without-Helix, W<br>Volute (reduc |
| kia Museum - inv. No: no<br>information 30 22   | unknown 30 22                           | 30 22                           | 22         |              | limestone              | 1                        | column           | Without-Helix, Without<br>Volute (reduced)                             |
| kia Museum - inv. No: no<br>information 29.5 22   | unknown 29.5 22                         | 29.5 22                         | 22         |              | limestone              | 1                        | column           | Without-Helix, Without-<br>Volute (reduced)                            |
| kia Museum - inv. No: no<br>information 37 27   | unknown 37 27                           | without the ball 27             | 27         |              | limestone              | 1                        | column           | Without-Helix, Without-<br>Volute (reduced)                            |
| kia Museum - inv. No: no unknown without the ball 22 information  | unknown without the ball 22 and base 44 | without the ball 22 and base 44 | 22         |              | limestone              | 1                        | column           | Without-Helix, Without-<br>Volute (reduced)                            |
| us Museum - inv. No: 918 38 21  | unknown 38 2                            | 38 20                           | 28         | 8            | limestone              | 1                        | column           | Without-Helix, Without-<br>Volute (reduced)                            |
| us Museum - inv. No: 919 found in 'Aāzār Cemetry / Tartous 41   | found in 'Aāzār Cemetry / Tartous 41    | 41                              |            | 27           | limestone              | 1                        | column           | Without-Helix, Without-<br>Volute (reduced)                            |
| ıs Museum - inv. No: 1693 unknown 40  | unknown 40                              | 40                              |            | 45           | limestone              | 1                        | column           | Without-Helix, Without-<br>Volute (reduced)                            |
| kia Museum - inv. No: no 39 information   | unknown 39                              | 39                              |            | 38           | marble                 | 1                        | column           | Without-Calyx  |
| sus Museum - inv. No: 9677 unknown 55   | unknown 55                              | 55                              |            | 35           | marble                 | 1                        | column           | Without-Calyx  |
| scus Muscum - inv. No: no unknown 47.5 3  | unknown 47.5                            | 47.5                            | (1)        | 37           | marble                 | 1                        | column           | Without-Calyx  |
| no information Julianos Church / Brād   | Julianos Church / Brãd                  | I                               |            | I            | limestone              | 1                        | column           | Without-Calyx  |
| no information al-'Eiss –   | al-Eiss –                               | I                               |            | Ι            | limestone              | 1                        | column           | Without-Calyx  |
| po Museum - inv. No: no<br>information 48   | unknown 48                              | 48                              |            | 42           | limestone              | 1                        | column           | Without-Calyx  |
| po Museum - inv. No: no al-Burdaqli / al-Dāna-North 55 3<br>information   | al-Burdaqli / al-Dāna-North 55 3        | 55 3                            | ŝ          | 8.5          | limestone              | 1                        | column           | Without-Calyx  |
| no information nave of the northern church / Kīmār  | nave of the northern church / Kīmār     | I                               |            | I            | limestone              | 1                        | column           | Without-Calyx  |

| Capital (Cap.) | Exact Location                               | Origin  | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type          |
|----------------|--|---|-------------|------------------------|-----------|--------------------------|---------------------------|---------------|
| Cap.290        | no information                               | K hirbat al-Ksīiba  |             |                        | limestone | -                        | column                    | Without-Calvx |
|                |  | 5   | I           | I                      |           |                          |                           |               |
| Cap.291        | no information                               | nave of the Church of Saints Paul and<br>Moses / Dār Qīțā | I           | I                      | limestone | 1                        | column                    | Without-Calyx |
| Cap.292        | no information                               | nave of the Church of Saints Paul and<br>Moses / Dār Qīțā | I           | I                      | limestone | 1                        | column                    | Without-Calyx |
| Cap.293        | no information                               | Kefr Hawwār   | Ι           | I                      | limestone | Ţ                        | column                    | Without-Calyx |
| Cap.294        | Hama Museum - inv. No: 3440                  | confiscation  | 71          | 66                     | limestone | 1                        | column                    | Without-Calyx |
| Cap.295        | Hama Museum - inv. No: 3448                  | confiscation  | 67          | 43                     | limestone | 1                        | column                    | Without-Calyx |
| Cap.296        | Hama Museum - inv. No: 3451                  | confiscation  | 57.5        | 32.5                   | limestone | 1                        | pilaster<br>(cylindrical) | Without-Calyx |
| Cap.297        | Umm al-Ḥaṣn Park / Hama                      | uwnown  | 61          | 37                     | limestone | 1                        | column                    | Without-Calyx |
| Cap.298        | Greek Orthodox Patriarchate / Hama           | uwouyun   | 31.5        | 28                     | limestone | 1                        | column                    | Without-Calyx |
| Cap.299        | Damascus Museum - inv. No: 19851             | confiscation  | 35          | 38                     | limestone | 1                        | column                    | Without-Calyx |
| Cap.300        | Damascus Museum - inv. No: no<br>information | uwouyun   | 45          | 42                     | limestone | 1                        | column                    | Without-Calyx |
| Cap.301        | Damascus Museum - inv. No: no<br>information | unknown   | 45          | 39                     | limestone | 1                        | column                    | Without-Calyx |
| Cap.302        | Damascus Museum - inv. No: 19818             | confiscation  | 38          | ellipse 160x48         | limestone | 1                        | column                    | Without-Calyx |
| Cap.303        | Damascus Museum - inv. No: no<br>information | unknown   | 51          | rectangular<br>45x48   | limestone | 1                        | pilaster<br>(rectangular) | Without-Calyx |
| Cap.304        | Aleppo Museum - inv. No: no<br>information   | unknown   | 52          | 35                     | basalt    | 1                        | column                    | Without-Calyx |
| Cap.305        | Aleppo Museum - inv. No: no<br>information   | unknown   | 43.5        | 35                     | basalt    | 1                        | column                    | Without-Calyx |
| Cap.306        | Hama Museum - inv. No: 352                   | confiscation  | 49          | 40.5                   | basalt    | 1                        | column                    | Without-Calyx |

| Capital (Cap.) | Exact Location                               | Origin                         | Height (cm) | Lower<br>Diameter (cm) | Stone  | One/Two-piece<br>Capital | Column /<br>Pilaster | Type                            |
|----------------|--|--------------------------------|-------------|------------------------|--------|--------------------------|----------------------|---------------------------------|
| Cap.307        | Aleppo Museum - inv. No: no<br>information   | confiscation                   | 46          | 38                     | basalt | 1                        | column               | Without-Calyx                   |
| Cap.308        | Hama Museum - inv. No: 1162                  | confiscation                   | 40          | 26.5                   | basalt | 1                        | column               | Without-Calyx                   |
| Cap.309        | Aleppo Museum - inv. No: no<br>information   | confiscation                   | 43          | 32.5                   | basalt | 1                        | column               | Without-Calyx                   |
| Cap.310        | Damascus Muscum - inv. No: 19816             | confiscation                   | 43.5        | 32                     | basalt | 1                        | column               | Without-Calyx                   |
| Cap.311        | Damascus Museum - inv. No: no<br>information | unknown                        | 45          | 32                     | basalt | 1                        | column               | Without-Calyx                   |
| Cap.312        | Damascus Museum - inv. No: 19802             | confiscation                   | 48          | 36                     | basalt | 1                        | column               | Without-Calyx                   |
| Cap.313        | Damascus Museum - inv. No: no<br>information | unknown                        | 48.5        | 35                     | basalt | 1                        | column               | Without-Calyx                   |
| Cap.314        | al-Nūrī Mosque/Homs                          | unknown                        | I           | I                      | marble | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.315        | Tartous Museum - inv. No: 652                | found in a shipwreck in 'Amrīt | 58          | 47                     | marble | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.316        | Tartous Museum - inv. No: 653                | found in a shipwreck in 'Amrīt | 57          | 46                     | marble | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.317        | Tartous Museum - inv. No: 654                | found in a shipwreck in 'Amrīt | 61.5        | 52                     | marble | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.318        | Tartous Museum - inv. No: 655                | found in a shipwreck in 'Amrīt | 61.5        | 55                     | marble | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.319        | Tartous Museum - inv. No: 656                | found in a shipwreck in 'Amrīt | 59          | 47                     | marble | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.320        | Tartous Museum - inv. No: 657                | found in a shipwreck in 'Amrīt | 57          | 47                     | marble | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.321        | Tartous Museum - inv. No: 658                | found in a shipwreck in 'Amrīt | 60          | 54                     | marble | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.322        | Tartous Museum - inv. No: 662                | found in a shipwreck in 'Amrīt | 65.5        | 53                     | marble | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.323        | Tartous Museum - inv. No: 663                | found in a shipwreck in 'Amrīt | 66          | 54                     | marble | 1                        | column               | Without-Helix, Without<br>Calyx |

| Appendix 1 | General | Information | 1 |
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| Capital (Cap.) | Exact Location                 | Origin                         | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster | Type                            |
|----------------|--------------------------------|--------------------------------|-------------|------------------------|-----------|--------------------------|----------------------|---------------------------------|
| Cap.324        | Tartous Museum - inv. No: 664  | found in a shipwreck in 'Amrīt | 60          | 49                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.325        | Tartous Museum - inv. No: 665  | found in a shipwreck in 'Amrīt | 68.5        | 56                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.326        | Tartous Museum - inv. No: 667  | found in a shipwreck in 'Amrīt | 68          | 56                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.327        | Tartous Museum - inv. No: 668  | found in a shipwreck in 'Amrīt | 63          | 53                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.328        | Tartous Museum - inv. No: 669  | found in a shipwreck in 'Amrīt | 67.5        | 60                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.329        | Tartous Museum - inv. No: 670  | found in a shipwreck in 'Amrīt | 59.5        | 50                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.330        | Tartous Museum - inv. No: 672  | found in a shipwreck in 'Amrīt | 56.5        | 46                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.331        | Tartous Museum - inv. No: 674  | found in a shipwreck in 'Amrīt | 60          | I                      | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.332        | Tartous Museum - inv. No: 675  | found in a shipwreck in 'Amrīt | 60          | 48                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.333        | Tartous Museum - inv. No: 676  | found in a shipwreck in 'Amrīt | 61.5        | 50                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.334        | Tartous Museum - inv. No: 680  | found in a shipwreck in 'Amrīt | 62          | 46                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.335        | Tartous Museum - inv. No: 683  | found in a shipwreck in 'Amrīt | 61          | 50                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.336        | Tartous Museum - inv. No: 4785 | uwouyun                        | 30          | 24                     | marble    | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.337        | no information                 | Bābīsqā                        | I           | I                      | limestone | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.338        | Hama Museum - inv. No: 3468    | confiscation                   | 47.5        | 32                     | limestone | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.339        | Hama Museum - inv. No: 3469    | confiscation                   | (5)         | 41                     | limestone | 1                        | column               | Without-Helix, Without<br>Calyx |
| Cap.340        | Hama Museum - inv. No: 3439    | confiscation                   | 67.5        | 66                     | limestone | 1                        | column               | Without-Helix, Without<br>Calyx |

| Capital (Cap.) | Exact Location                               | Origin                  | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type                            |
|----------------|--|-------------------------|-------------|------------------------|-----------|--------------------------|---------------------------|---------------------------------|
|                |  |                         |             |                        |           |                          | •                         |                                 |
| Cap.341        | Hama Museum - inv. No: 3482                  | confiscation            | 43          | 38                     | limestone | 1                        | column                    | Without-Helix, Without<br>Calyx |
| Cap.342        | Umm al-Ḥaṣn Park / Hama                      | unknown                 | 46.5        | 33.5                   | limestone | 1                        | column                    | Without-Helix, Without<br>Calyx |
| Cap.343        | Damascus Museum - inv. No: 19845             | confiscation            | 46          | 40                     | limestone | 1                        | column                    | Without-Helix, Without<br>Calyx |
| Cap.344        | Damascus Muscum - inv. No: 19827             | confiscation            | 45          | 43                     | limestone | 1                        | column                    | Without-Helix, Without<br>Calyx |
| Cap.345        | Damascus Museum - inv. No: no<br>information | unknown                 | 45          | 44                     | limestone | 1                        | column                    | Without-Helix, Without<br>Calyx |
| Cap.346        | Damascus Museum - inv. No: no<br>information | unknown                 | 44          | 42                     | limestone | 1                        | column                    | Without-Helix, Without<br>Calyx |
| Cap.347        | Damascus Museum - inv. No: no<br>information | unknown                 | 44.5        | rectangular<br>40x33.5 | limestone | 1                        | pilaster<br>(rectangular) | Without-Helix, Without<br>Calyx |
| Cap.348        | Hama Museum - inv. No: 3582                  | confiscation            | 39          | 33.5                   | marble    | 1                        | column                    | Lyre and V-Shaped               |
| Cap.349        | Homs Museum - inv. No: 2801                  | donation to the museum  | 41.5        | 32                     | marble    | 7                        | column                    | Lyre and V-Shaped               |
| Cap.350        | Jableh Theater                               | Jableh Theater / Jableh | 27          | 25                     | limestone | 1                        | column                    | Lyre and V-Shaped<br>(reduced)  |
| Cap.351        | Tartous Museum - inv. No: 323                | unknown                 | 37.5        | 35                     | limestone | 1                        | column                    | Lyre and V-Shaped<br>(reduced)  |
| Cap.352        | Damascus Museum - inv. No: no<br>information | unknown                 | 16.5        | I                      | limestone | 1                        | column                    | Lyre and V-Shaped<br>(reduced)  |
| Cap.353        | Damascus Museum - inv. No: no<br>information | unknown                 | 16.5        | I                      | limestone | 1                        | column                    | Lyre and V-Shaped<br>(reduced)  |
| Cap.354        | Damascus Museum - inv. No: 3877              | unknown                 | 25.5        | 27                     | (¿)       | 1                        | column                    | Lyre and V-Shaped<br>(reduced)  |
| Cap.355        | Damascus Museum - inv. No: 15215             | found in Darayya        | 30.5        | 31                     | marble    | 1                        | column                    | I                               |
| Cap.356        | Jablch Thcater                               | Jablch Thcater / Jablch | 34.5        | 23                     | limestone | 1                        | column                    | Four-Acanthus                   |
| Cap.357        | Jablch Theater                               | Jableh Theater / Jableh | 17          | damaged                | limestone | 1                        | pier                      | Four-Acanthus                   |

| Type                     | Four-Acanthus                    | Bell-Shaped Double                         | Bell-Shaped Double                           | Bell-Shaped Double | Bell-Shaped Double | Nabataean                                    | Nabataean                                    | ) Nabataean                | Nabataean                  | ) Nabataean                                       | ) Nabataean                                       | ) Nabataean                | ) Nabataean                | ) Nabataean                   | ) Nabataean              |  |
|--------------------------|----------------------------------|--|--|--------------------|--------------------|--|--|----------------------------|----------------------------|---|---|----------------------------|----------------------------|-------------------------------|--------------------------|--|
| Column /<br>Pilaster     | column                           | column                                     | column                                       | column             | column             | column                                       | column                                       | pilaster<br>(cylindrical   | column                     | pilaster<br>(cylindrical                          | pilaster<br>(cylindrical                          | pilaster<br>(cylindrical   | pilaster<br>(cylindrical   | pilaster<br>(cylindrical      | pilaster<br>(cylindrical |  |
| One/Two-piece<br>Capital | 1                                | 1  | 1  | 1                  | 1                  | 1  | 1  | 1                          | 1                          | 1   | 1   | 1                          | 1                          | 1                             | 1                        |  |
| Stone                    | limestone                        | marble                                     | marble                                       | limestone          | limestone          | basalt                                       | basalt                                       | basalt                     | basalt                     | basalt  | basalt  | basalt                     | basalt                     | basalt                        | basalt                   |  |
| Lower<br>Diameter (cm)   | I                                | 37.5                                       | 30   | I                  | I                  | 32   | 33   | Ι                          | I                          | Ι   | I   | I                          | I                          | Ι                             | I                        |  |
| Height (cm)              | I                                | 47   | 43.5   | I                  | I                  | 42   | 40   | Ι                          | 80                         | 56.5  | I   | 45                         | I                          | I                             | Ι                        |  |
| Origin                   | Basilica of St. Sergius / Ruṣāfa | unknown                                    | unknown                                      | Bābīsqā            | Bābīsqā            | uwonynu                                      | uwonynu                                      | Temple of Baalshamin / Sef | Temple of Baalshamin / Sef | Temple of Baalshamin (Dushara) / Seī <sup>c</sup> | Temple of Baalshamin (Dushara) / Seī <sup>c</sup> | Temple of Baalshamin / Sef | Temple of Baalshamin / Sef | found in As-Suwayda           | found in As-Suwayda      |  |
| Exact Location           | no information                   | Aleppo Museum - inv. No: no<br>information | Damascus Museum - inv. No: no<br>information | no information     | no information     | Damascus Muscum - inv. No: no<br>information | Damascus Museum - inv. No: no<br>information | no information             | no information             | no information                                    | no information                                    | no information             | no information             | isolated capital / As-Suwayda | As-Suwayda Muscum        |  |
| Capital (Cap.)           | Cap.358                          | Cap.359                                    | Cap.360                                      | Cap.361            | Cap.362            | Cap.363                                      | Cap.364                                      | Cap.365                    | Cap.366                    | Cap.367   | Cap.368   | Cap.369                    | Cap.370                    | Cap.371                       | Cap.372                  |  |

| Capital (Cap.) | Exact Location                              | Origin                     | Height (cm) | Lower<br>Diameter (cm) | Stone     | One/Two-piece<br>Capital | Column /<br>Pilaster      | Type           |
|----------------|---|----------------------------|-------------|------------------------|-----------|--------------------------|---------------------------|----------------|
| Can 374        | no information                              | Temnle of A c.Suwavda      |             |                        | hasalt    | -                        | amilos                    | Mahataean      |
|                |   | and an and an and and      | I           | I                      |           | 4                        |                           |                |
| Cap.375        | no information                              | Temple of As-Suwayda       | I           | I                      | basalt    | 1                        | pilaster<br>(cylindrical) | Nabataean      |
| Cap.376        | no information                              | isolated capital / Ṣalkhad | I           | I                      | basalt    | 1                        | pilaster<br>(cylindrical) | Nabataean      |
| Cap.377        | Aleppo Museum - inv. No: no<br>information  | confiscation               | 57          | 107                    | marble    | 2 - lower part           | column                    | lower-part     |
| Cap.378        | Latakia Museum - inv. No: no<br>information | unknown                    | 43.5        | 110                    | marble    | 2 - lower part           | column                    | lower-part     |
| Cap.379        | Latakia Museum - inv. No: no<br>information | unknown                    | 74          | I                      | marble    | 2 - lower part           | column                    | lower-part     |
| Cap.380        | Latakia Museum - inv. No: no<br>information | unknown                    | 46          | 102                    | marble    | 2 - lower part           | column                    | lower-part     |
| Cap.381        | Qasr al-Ḥeīr al-Sharqī / al-Sukhna          | unknown                    | I           | I                      | (¿)       | 2 - lower part           | pilaster<br>(rectangular) | lower-part     |
| Cap.382        | Tartous Museum - inv. No: no<br>information | unknown                    | 51          | I                      | marble    | 2 - upper part           | column                    | upper-part     |
| Cap.383        | Hama Museum - inv. No: 3491                 | confiscation               | 50          | 45.5                   | marble    | 1                        | column                    | unfinished     |
| Cap.384        | Tartous Museum - inv. No: 1650              | found in 'Amrīt            | 66.5        | 37                     | marble    | 1                        | column                    | unfinished     |
| Cap.385        | Jableh Theater                              | Jablch Theater / Jablch    | 73          | damaged                | marble    | Ţ                        | column                    | damaged        |
| Cap.386        | Latakia Museum - inv. No: no<br>information | unknown                    | 42          | 33.5                   | marble    | 1                        | column                    | not identified |
| Cap.387        | no information                              | Bāftīn                     | I           | I                      | limestone | 1                        | column                    | not identified |
| Cap.388        | no information                              | northern church / Bāftīn   | I           | I                      | limestone | 1                        | column                    | not identified |
| Cap.389        | Hama Muscum - inv. No: 3485                 | confiscation               | 44.5        | 33                     | limestone | 1                        | column                    | not identified |
| Cap.390        | Damascus Museum - inv. No: 19844            | confiscation               | 38          | 38                     | limestone | 1                        | column                    | not identified |

| Capital<br>(Cap.) | Image References                        | Date   | Basis for the Date                            | Dating References  |
|-------------------|---|--|---|--|
| Cap.1             | (Rousset <i>et al</i> 2022, figure 24a) | second half of the 2nd century -<br>3rd century AD | touching fir                                  | st-row leaves/prismatic caulicole/deep grooves   |
| Cap.2             | author                                  | 2nd century AD                                     | spaced apart first-ro                         | w leaves/elongated upward, touching parts of the calyx   |
| Cap.3             | author                                  | 2nd-3rd century AD                                 | spaced apart first-row leaves/Second-r        | ow leaves emerge from the upper level of the first row/prismatic caulicole   |
| Cap.4             | author                                  | 2nd-3rd century AD                                 | touching leaves/omitted caulicole/e           | ongated upward, touching parts of the calyx/three-dimensional crosses  |
| Cap.5             | author                                  | 3rd-4th century                                    | touching first-row leaves/prisr               | natic caulicole/relative arrangement of the outer calyx and volute   |
| Cap.6             | author                                  | 2nd-3rd century                                    | spaced apart first-row leaves/prismat<br>cala | ic caulicole/elongated upward calyx/three-dimensional volute/cylindrical<br>thus/abacus shape/axial motif (tongue) |
| Cap.7             | author                                  | 2st-3rd century AD                                 |   | damaged/prismatic caulicole  |
| Cap.8             | author                                  | 2st-3rd century AD                                 |   | damaged/prismatic caulicole  |
| Cap.9             | author                                  | 2st-3rd century AD                                 |   | damaged/prismatic caulicole  |
| Cap.10            | author                                  | Severan period (193–235 AD)                        | elements / parallels                          | (parallel: Cap.15)   |
| Cap.11            | author                                  | end of the 2nd century AD                          | according to Pensabene                        | (Pensabene 1997, 396)  |
| Cap.12            | author                                  | 3rd century AD                                     | touching first-row leaves/s                   | hallow grooves/projected helix/axial motif (three partite leaf)  |
| Cap.13            | author                                  | 150-190 AD   | according to Pensabene                        | (Pensabene 1997, 391)  |
| Cap.14            | author                                  | Severan period (AD 193-235)                        | according to Pensabene                        | (Pensabene 1997, 396)  |

| Capital<br>(Cap.) | Image References | Date                        | Basis for the Date           | Dating References  |
|-------------------|------------------|-----------------------------|------------------------------|--|
| Cap.15            | author           | Severan period (AD 193-235) | according to Pensabene       | (Pensabene 1997, 391)  |
| Cap.16            | author           | Severan period (AD 193-235) | elements / parallels         | (parallel: Cap.15)   |
| Cap.17            | author           | 2nd-3rd century AD          | partially                    | touching first-row leaves/prismatic caulicole                  |
| Cap.18            | author           | 3rd-4th century AD          | touching leaves/sh           | allow grooves/prismatic caulicole/axial motif (tongue)         |
| Cap.19            | author           | 3rd-4th century AD          | touching leaves/hidden cauli | ole/shallow crosses/flat calathus/shallow grooves/abacus shape |
| Cap.20            | author           | 2nd-3rd century AD          | elements / parallels         | (parallel: Cap.35, 36)   |
| Cap.21            | author           | 3rd-4th century AD          | partially touching first-ro  | w leaves/shallow grooves/prismatic caulicole/projected helix   |
| Cap.22            | author           | 2nd-3rd century AD          | elements / parallels         | (parallel: Cap.41)   |
| Cap.23            | author           | 2nd-3rd century AD          | elements / parallels         | (parallel: Cap.35, 36)   |
| Cap.24            | author           | 2nd-3rd century AD          | elements / parallels         | (parallel: Cap.35, 36)   |
| Cap.25            | author           | 2nd-3rd century AD          | elements / parallels         | (parallel: Cap.35, 36)   |
| Cap.26            | author           | 2nd-3rd century AD          | elements / parallels         | (parallel: Cap.35, 36)   |
| Cap.27            | author           | 2nd-3rd century AD          | elements / parallels         | (parallel: Cap.35, 36)   |
| Cap.28            | author           | 2nd-3rd century AD          | touching first-row l         | saves/deep grooves/prismatic caulicole/projected helix         |

| Capital<br>(Cap.) | Image References | Date                                    | Basis for the Date         | Dating References   |
|-------------------|------------------|---|----------------------------|---|
| Cap.29            | author           | 2nd-3rd century AD                      | elements / parallels       | (parallel: Cap.35, 36)  |
| Cap.30            | author           | 2nd-3rd century AD                      | elements / parallels       | (parallel: Cap.35, 36)  |
| Cap.31            | author           | 2nd- beginning of the 3rd century<br>AD | two-piece capital/elongati | d upward, touching parts of the calyx/three-dimensional helix |
| Cap.32            | author           | 2nd-3rd century AD                      | elements / parallels       | (parallel: Cap.35, 36)  |
| Cap.33            | author           | Severan period (AD 193-235)             | according to Pensabene     | (Pensabene 1997, 398)   |
| Cap.34            | author           | 2nd-3rd century AD                      | elements / parallels       | (parallel: Cap.35, 36)  |
| Cap.35            | author           | Severan period (AD 193-235)             | according to Pensabene     | (Pensabene 1997, 394)   |
| Cap.36            | author           | Severan period (AD 193-235)             | according to Pensabene     | (Pensabene 1997, 396)   |
| Cap.37            | author           | 2nd-3rd century AD                      | elements / parallels       | (parallel: Cap.35, 36)  |
| Cap.38            | author           | 2nd-3rd century AD                      | elements / parallels       | (parallel: Cap.35, 36)  |
| Cap.39            | author           | 3rd-4th century AD                      | touching first-row l       | saves/deep grooves/prismatic caulicole/projected helix        |
| Cap.40            | author           | 2nd-3rd century AD                      | elements / parallels       | (parallel: Cap.35, 36)  |
| Cap.41            | author           | Severan period (AD 193-235)             | according to Pensabene     | (Pensabene 1997, 398)   |
| Capital<br>(Cap.) | Image References            | Date   | Basis for the Date                          | Dating References  |
|-------------------|-----------------------------|--|---|--|
| Cap.42            | author                      | Severan period (AD 193-235)                                    | according to Pensabene                      | (Pensabene 1997, 391)  |
| Cap.43            | author                      | Severan period (AD 193-235)                                    | according to Pensabene                      | (Pensabene 1997, 396)  |
| Cap.44            | author                      | end of the 2nd century AD -<br>beginning of the 3rd century AD | construction date of the theater            | (Patricio and Stevens 2003, 1601)                                  |
| Cap.45            | author                      | end of the 2nd century AD -<br>beginning of the 3rd century AD | elements / construction date of the theater | (Patricio and Stevens 2003, 1601)                                  |
| Cap.46            | author                      | end of the 2nd century AD -<br>beginning of the 3rd century AD | elements / construction date of the theater | (Patricio and Stevens 2003, 1601)                                  |
| Cap.47            | author                      | end of the 2nd century AD -<br>beginning of the 3rd century AD | elements / construction date of the theater | (Patricio and Stevens 2003, 1601)                                  |
| Cap.48            | author                      | 2nd-3rd century AD   | touching first-row leaves/dee               | o grooves/prismatic caulicole/projected helix/axial motif (tongue) |
| Cap.49            | author                      | end of the 2nd century AD -<br>beginning of the 3rd century AD | elements / construction date of the theater | (Patricio and Stevens 2003, 1601)                                  |
| Cap.50            | author                      | end of the 2nd century AD -<br>beginning of the 3rd century AD | elements / construction date of the theater | (Patricio and Stevens 2003, 1601)                                  |
| Cap.51            | author                      | end of the 2nd century AD -<br>beginning of the 3rd century AD | elements / construction date of the theater | (Patricio and Stevens 2003, 1601)                                  |
| Cap.52            | (Riis 2004, 155, figure 52) | Severan period (193–235 AD)                                    | elements / parallels                        | (parallel: Cap.60)   |
| Cap.53            | (Riis 2004, 155, figure 54) | 2nd-3rd century AD   | touching first-row leaves/dee               | o grooves/prismatic caulicole/projected helix/axial motif (tongue) |

| Capital<br>(Cap.) | Image References                          | Date                        | Basis for the Date                          | Dating References   |
|-------------------|---|-----------------------------|---|---|
|                   |   |                             |   | + rour l'aviennetie en li ecto / avoi ocead baliv   |
| tcdp.             |   | ziia-si'a ceritury AD       |   | הריוסטי ובפאפט לאושווים נור במתוורטובל לא חלפרובת וובו א  |
| Cap.55            | author                                    | 2nd-3rd century AD          | touching firs                               | st-row leaves/prismatic caulicole/projected helix   |
| Cap.56            | (Pensabene 1997, 401, figure 169)         | Severan period (193–235 AD) | according to Pensabene / elements           | (Pensabene 1997, 403)   |
| Cap.57            | author                                    | 2nd-4rd century AD          | dam   | aged/prismatic caulicole/projected helix  |
| Cap.58            | (Pensabene 1997, 401, figure 171); author | Severan period (193–235 AD) | according to Pensabene / elements           | (Pensabene 1997, 403)   |
| Cap.59            | author                                    | 3rd-4th century AD          | touching first-row leaves/hidden cauli      | cole/Short calyx/relative arrangement of the outer calyx and volute/Squat<br>capital                                |
| Cap.60            | author; (Pensabene 1997, 401, figure 170) | Severan period (193–235 AD) | according to Pensabene / elements           | (Pensabene 1997, 403)   |
| Cap.61            | author                                    | 2nd-3rd century             | touching first-row l                        | eaves/deep grooves/prismatic caulicole/projected helix  |
| Cap.62            | author                                    | 2nd century AD              | partially touching first-row leaves/c<br>di | /lindrical caulicole/elongated upward, touching parts of the calyx/three-<br>mensional crosses/cylindrical calathus |
| Cap.63            | author                                    | 2nd century AD              | partially touching first-row leaves/c<br>di | /lindrical caulicole/elongated upward, touching parts of the calyx/three-<br>mensional crosses/cylindrical calathus |
| Cap.64            | author                                    | 2nd century AD              | partially touching first-row leaves/c<br>di | /lindrical caulicole/elongated upward, touching parts of the calyx/three-<br>mensional crosses/cylindrical calathus |
| Cap.65            | author                                    | 2nd century AD              | partially touching first-row leaves/c<br>di | /lindrical caulicole/elongated upward, touching parts of the calyx/three-<br>mensional crosses/cylindrical calathus |
| Cap.66            | author                                    | 2nd-3rd century AD          | touching first-row leaves/cylindrical c     | aulicole/elongated upward, touching parts of the calyx/three-dimensional crosses/cylindrical calathus               |

| Capital<br>(Cap.) | Image References | Date   | Basis for the Date                          | Dating References   |
|-------------------|------------------|--|---|---|
| Cap.67            | author           | 2nd-3rd century AD   | touching first-row leaves/prismatic         | caulicole/elongated upward, touching parts of the calyx/projected helix   |
| Cap.68            | author           | 3rd century AD   | touching first-row leaves/shallow gro<br>di | oves/elongated upward, touching parts of the calyx/projected helix/three-<br>mensional volutes/cylindrical calathus         |
| Cap.69            | author           | end of the 2nd century AD -<br>beginning of the 3rd century AD                                 | elements / parallels                        | (parallel: Cap.49)  |
| Cap.70            | author           | 3rd-4th century AD   | touching first-row leaves/shallo            | w grooves/prismatic caulicole/projected crosses/axial motif (tongue)  |
| Cap.71            | author           | 3rd century AD   | touching first-row leaves/shallow           | grooves/prismatic caulicole/projected helix/three-dimensional volutes   |
| Cap.72            | author           | 1st century AD   | acanthus design/spaced apart first          | <ul> <li>row leaves/cylindrical caulicole with collar/Simple contact of the calyx<br/>parts/cylindrical calathus</li> </ul> |
| Cap.73            | author           | 2nd-3rd century AD   | touching first-row leaves/hidden            | caulicole/Slightly elongated upward, touching parts of the calyx/three-<br>dimensional crosses                              |
| Cap.74            | author           | 2nd century AD   | spaced apart first-row leaves/cylindrica    | I caulicole/elongated upward, touching parts of the calyx/three-dimensional crosses/cylindrical calathus                    |
| Cap.75            | author           | end of the 2nd century - beginning<br>of the 3rd century AD (Septimus<br>Severus or Caracalla) | construction date of the temple             | (Dussaud 1922, 232–33)  |
| Cap.76            | author           | end of the 2nd century - beginning<br>of the 3rd century AD (Septimus<br>Severus or Caracalla) | construction date of the temple             | (Dussaud 1922, 232–33)  |
| Cap.77            | author           | end of the 2nd century - beginning<br>of the 3rd century AD (Septimus<br>Severus or Caracalla) | construction date of the temple             | (Dussaud 1922, 232–33)  |
| Cap.78            | author           | end of the 2nd century - beginning<br>of the 3rd century AD (Septimus<br>Severus or Caracalla) | construction date of the temple             | (Dussaud 1922, 232–33)  |

| Capital<br>(Cap.) | Image References                  | Date   | Basis for the Date                            | Dating References  |
|-------------------|-----------------------------------|--|---|--|
| Cap.79            | author                            | end of the 2nd century - beginning<br>of the 3rd century AD (Septimus<br>Severus or Caracalla) | construction date of the temple               | (Dussaud 1922, 232–33)   |
| Cap.80            | author                            | 2nd-3rd century AD   | partially touching first-row leaves/cy<br>dii | lindrical caulicole/elongated upward, touching parts of the calyx/three-<br>nensional crosses/cylindrical calathus |
| Cap.81            | author                            | 2nd-3rd century AD   | partially touching first-row leaves/cy<br>di  | lindrical caulicole/elongated upward, touching parts of the calyx/three-<br>nensional crosses/cylindrical calathus |
| Cap.82            | author                            | 2nd-3rd century AD   | partially touching first-row leaves/cy<br>di  | lindrical caulicole/elongated upward, touching parts of the calyx/three-<br>nensional crosses/cylindrical calathus |
| Cap.83            | author                            | 2nd-3rd century AD   | touching first-row leaves/cylindrical c       | uulicole/elongated upward, touching parts of the calyx/three-dimensional crosses/cylindrical calathus              |
| Cap.84            | author                            | 2nd-3rd century AD   | touching first-row leaves/prismatic ca        | ulicole/elongated upward, touching parts of the calyx/three-dimensional crosses/cylindrical calathus               |
| Cap.85            | author                            | 2nd-3rd century AD   | touching first-row leaves/prismatic ca        | ulicole/elongated upward, touching parts of the calyx/three-dimensional crosses/cylindrical calathus               |
| Cap.86            | author                            | 2nd-3rd century AD   | touching first-row leaves/prismatic ca        | ulicole/elongated upward, touching parts of the calyx/three-dimensional crosses/cylindrical calathus               |
| Cap.87            | author                            | 2nd-3rd century AD   | touching first-row leaves/prismatic ca        | ulicole/elongated upward, touching parts of the calyx/three-dimensional crosses/cylindrical calathus               |
| Cap.88            | (Pensabene 1997, 376, figure 128) | end of the 2nd century - beginning<br>of the 3rd century AD                                    | construction date of the theater              | (Marquis de Vogüé and Waddington 1865, 1:40; Pensabene 1997, 373;<br>Freyberger 1988)                              |
| Cap.89            | (Pensabene 1997, 376, figure 130) | end of the 2nd century - beginning<br>of the 3rd century AD                                    | according to Pensabene / elements             | (Pensabene 1997, 375-377)  |
| Cap.90            | (Pensabene 1997, 376, figure 127) | end of the 2nd century - beginning<br>of the 3rd century AD                                    | construction date of the theater              | (Marquis de Vogüé and Waddington 1865, 1:40; Pensabene 1997, 373;<br>Freyberger 1988)                              |
| Cap.91            | author                            | 2nd- beginning of the 3rd century<br>AD  | two-piece capital/elongatec                   | upward, touching parts of the calyx/three-dimensional crosses  |

| Capital<br>(Cap.) | Image References                              | Date  | Basis for the Date                              | Dating References   |
|-------------------|---|---|---|---|
| Cap.92            | author  | 2nd- beginning of the 3rd century<br>AD     | two-piece capital/elongate                      | d upward, touching parts of the calyx/three-dimensional crosses   |
| Cap.93            | author  | 2nd- beginning of the 3rd century<br>AD     | two-piece capital/elongate                      | d upward, touching parts of the calyx/three-dimensional crosses   |
| Cap.94            | author  | 2nd- beginning of the 3rd century<br>AD     | two-piece capital/elongate                      | d upward, touching parts of the calyx/three-dimensional crosses   |
| Cap.95            | author  | 1st century AD                              | acanthus design/spaced apart first-row<br>sir   | leaves/cylindrical caulicole with collar/elongated upward of calyx parts with nple contact/axial motif (acanthus leaf)  |
| Cap.96            | (Tchalenko and Baccache 1979, 3:57, Pl. 108)  | 4th century AD                              | construction date of the church                 | (Tchalenko and Baccache 1979, 3:57, Pl. 108)  |
| Cap.97            | author  | 6th century AD                              | construction date of the church                 | (Tchalenko and Baccache 1979, 3:201, 208, Pl. 337, 346; Tchalenko 1953a,<br>2:Pl. CXXXVIII; Peña <i>et al</i> 1980, 179–80; Peña <i>et al</i> 1987, 93–95; Tchalenko<br>1990, 1:135–40) |
| Cap.98            | author  | 1st-3rd century AD                          | spaced apart first-row leaves/cylindri          | cal caulicole/three-dimensional crosses/cylindrical calathus/abacus shape   |
| Cap.99            | (Website 7)                                   | 3rd century AD                              | construction date of the tomb                   | (Tchalenko 1953b, 1:257)  |
| Cap.100           | (Tchalenko and Baccache 1979, 3:253, Pl. 415) | mid-5th century AD                          | construction date of the church                 | (Tchalenko and Baccache 1979, 3:253, Pl. 415)   |
| Cap.101           | (Tchalenko and Baccache 1979, 3:153, Pl. 260) | beginning of the 5th century AD             | construction date of the church                 | (Tchalenko and Baccache 1979, 3:149–50, figures 225, 254; Peña,<br>Castellana, and Fernández 1980, 262)   |
| Cap.102           | (Tchalenko and Baccache 1979, 3:28, Pl. 57)   | mid-4th century AD                          | construction date of the church                 | (Tchalenko 1953a, 2:Pl. IX. 1)  |
| Cap.103           | (Butler 1929, 237, III.257b)                  | beginning of the 5th century AD<br>(AD 414) | construction date of the structure<br>(convent) | (Prentice 1908, 93; Butler 1904, 140–42)  |
| Cap.104           | author  | 4th - beginning of the 7th century<br>AD    | smooth acanthus/ba                              | nd-like caulicole/abacus shape/half-cylinder central motif  |

| Capital<br>(Cap.) | Image References                   | Date  | Basis for the Date                       | Dating References   |
|-------------------|------------------------------------|---|--|---|
| Cap.105           | (Website 13)                       | 3rd century AD  | proposed construction date of the temple | (Ball 2000, 235)  |
| Cap.106           | author                             | 2nd century AD  | touching first-row leaves/Short cy<br>di | indrical caulicole/elongated upward, touching parts of the calyx/three-<br>mensional crosses/cylindrical calathus |
| Cap.107           | (Website 18)                       | 2nd-3rd century AD  | touching first-row leaves/cylindrical c  | aulicole/elongated upward, touching parts of the calyx/three-dimensional crosses/cylindrical calathus             |
| Cap.108           | (Schlumberger 1933, Pl. XXXII.1)   | end of the 1st century - beginning<br>of the 2nd century AD | according to Schlumberger                | (Schlumberger 1933, 306)  |
| Cap.109           | (Schlumberger 1933, Pl. XXXIII. 2) | end of the 1st century - beginning<br>of the 2nd century AD | according to Schlumberger                | (Schlumberger 1933, 306)  |
| Cap.110           | (Schlumberger 1933, Pl. XXXIII. 2) | end of the 1st century - beginning<br>of the 2nd century AD | according to Schlumberger                | (Schlumberger 1933, 306)  |
| Cap.111           | (Schlumberger 1933, Pl. XXVIII. 4) | 120-150 AD  | according to Schlumberger                | (Schlumberger 1933, 295)  |
| Cap.112           | (Schlumberger 1933, Pl. XXXIII.1)  | Flavian period (80-120 AD)                                  | according to Schlumberger                | (Schlumberger 1933, 297)  |
| Cap.113           | (Schlumberger 1933, Pl. XXIX.1)    | 120-150 AD  | according to Schlumberger                | (Schlumberger 1933, 295)  |
| Cap.114           | (Schlumberger 1933, Pl. XXXII.2)   | 80-100 AD   | according to Schlumberger                | (Schlumberger 1933, 299)  |
| Cap.115           | (Schlumberger 1933, Pl. XXIX.2)    | 120-150 AD  | according to Schlumberger                | (Schlumberger 1933, 295)  |
| Cap.116           | (Schlumberger 1933, Pl. XXIX.3)    | 80-120 AD   | according to Schlumberger                | (Schlumberger 1933, 297)  |
| Cap.117           | (Schlumberger 1933, Pl. XXIX.4)    | 80-120 AD   | according to Schlumberger                | (Schlumberger 1933, 297)  |

| Capital<br>(Cap.) | Image References                  | Date                             | Basis for the Date                     | Dating References  |
|-------------------|-----------------------------------|----------------------------------|--|--|
| Cap.118           | (Schlumberger 1933, Pl. XXXI.4)   | 80-120 AD                        | according to Schlumberger              | (Schlumberger 1933, 297)   |
| Cap.119           | (Schlumberger 1933, Pl. XXX.1)    | 80-120 AD                        | according to Schlumberger              | (Schlumberger 1933, 297)   |
| Cap.120           | (Schlumberger 1933, Pl. XXX.3)    | 80-120 AD                        | according to Schlumberger              | (Schlumberger 1933, 297)   |
| Cap.121           | (Schlumberger 1933, Pl. XXX.2)    | 80-120 AD                        | according to Schlumberger              | (Schlumberger 1933, 297)   |
| Cap.122           | (Schlumberger 1933, Pl. XXX.4)    | 80-120 AD                        | according to Schlumberger              | (Schlumberger 1933, 297)   |
| Cap.123           | (Schlumberger 1933, Pl. XXXIV.1)  | 82 AD                            | according to Schlumberger              | (Schlumberger 1933, 305)   |
| Cap.124           | (Schlumberger 1933, Pl. XXXI.1)   | 138 AD                           | according to Schlumberger              | (Schlumberger 1933, Pl. XXXI.1)  |
| Cap.125           | (Schlumberger 1933, Pl. XXXVII.4) | first half of the 1st century AD | according to Schlumberger              | (Schlumberger 1933, 311–13)  |
| Cap.126           | (Schlumberger 1933, Pl. XXXI.2)   | 83 AD                            | according to Schlumberger              | (Schlumberger 1933, 296, 306)  |
| Cap.127           | (Schlumberger 1933, Pl. XXXI.3)   | 103 AD                           | according to Schlumberger              | (Schlumberger 1933, 296, 306)  |
| Cap.128           | author                            | 2nd century AD                   | two-piece capital/touching first-row k | aves/cylindrical caulicole with collar/elongated upward, touching parts of the calyx/three-dimensional crosses |
| Cap.129           | author                            | 2nd-3rd century AD               | construction date of the temple        | (Steinsapir 1999)  |
| Cap.130           | author                            | 2nd-3rd century AD               | construction date of the temple        | (Steinsapir 1999)  |
| Cap.131           | author                            | 4th-5th century AD               | smooth acanthus/band-like cau          | licole/cylindrical calathus/three-dimensional crosses/abacus shape   |

| Capital<br>(Cap.) | Image References   | Date                                     | Basis for the Date   | Dating References  |
|-------------------|--|--|--|--|
| Cap.132           | author   | 4th-5th century AD                       | smooth acanthus/band-like cau                              | licole/cylindrical calathus/three-dimensional crosses/abacus shape   |
| Cap.133           | author   | 2nd century AD                           | touching first-row leaves/cylindrical c                    | aulicole/elongated upward, touching parts of the calyx/three-dimensional crosses   |
| Cap.134           | author   | 1st century AD                           | acanthus design/spaced apart first-row                     | leaves/caulicole design/shallow and undeveloped helix/three-dimensional volute/axial motif (acanthus leaf)               |
| Cap.135           | (Butler 1904, 67; Tchalenko 1953, 2:CLXXIII)                       | 2nd century AD                           | construction date of the temple                            | (Peña <i>et a</i> / 1987, 79; Lassus 1947, 117; Mattern 1944, 72)  |
| Cap.136           | author   | 1st century AD                           | acanthus design/spaced apart first-row<br>volute/Thick wav | leaves/caulicole design/shallow and undeveloped helix/three-dimensional  |
| Cap.137           | author   | 1st-2nd century AD                       | spaced apart first-row leaves/Second-<br>touching          | row leaves emerge from the base/cylindrical caulicole/elongated upward,<br>parts of the calyx/three-dimensional crosses  |
| Cap.138           | author   | 1st-2nd century AD                       | acanthus design/spaced a part first-<br>parts/th           | row leaves/cylindrical caulicole with collar/Simple contact of the calyx<br>ree-dimensional crosses/cylindrical calathus |
| Cap.139           | author   | 2nd-3rd century AD                       | touching first-row leave                                   | s/hidden caulicole/three-dimensional crosses/abacus shape  |
| Cap.140           | author   | 2nd-3rd century AD                       | touching first-row leaves/hidden ca                        | llicole/elongated upward, touching parts of the calyx/three-dimensional<br>crosses                                       |
| Cap.141           | author   | last half of the 2nd - 3rd century<br>AD | touching first-row leaves/Short cyl                        | indrical caulicole/elongated upward, touching parts of the calyx/three-<br>dimensional crosses                           |
| Cap.142           | author   | 3rd century                              | touching first-row leaves/deep groov<br>d                  | es/hidden caulicole/elongated upward, touching parts of the calyx/three-<br>imensional crosses/Invisible calathus        |
| Cap.143           | (Dentzer-Feydy 1990, figure 19, 20); (Website 19),<br>(Website 20) | 1st century AD                           | according to Dentzer-Feydy                                 | (Dentzer-Feydy 1990, 651; 1997, 164; Dentzer 1986, 277)  |
| Cap.144           | (Dentzer-Feydy 1990, 655, figure 14, 15);<br>(Website 21)          | 1st century AD                           | construction date of the temple                            | (Dentzer-Feydy 1990, 660–61)   |

| Capital<br>(Cap.) | Image References                      | Date  | Basis for the Date                  | Dating References  |
|-------------------|---------------------------------------|---|-------------------------------------|--|
| Cap.145           | (Dentzer-Feydy 1990, 658, figure 21)  | 1st century AD  | according to Dentzer-Feydy          | (Dentzer-Feydy 1990, 660–61)   |
| Cap.146           | (Website 25); (Website 26)            | mid-2nd century AD (Antonius Pios<br>151 AD)                | construction date of the temple     | (Butler 1904, 343–46)  |
| Cap.147           | (Butler 1904, 353); (Website 27)      | second half of the 2nd century AD                           | construction date of the temple     | (Butler 1904, 351; Freyberger 2000)  |
| Cap.148           | (Website 28)                          | second half of the 2nd century AD                           | construction date of the temple     | (Ward 1907, 387)   |
| Cap.149           | (Amer et al. 1982, 297, figure 25)    | 2nd - beginning of the 3rd century<br>AD                    | two-piece capital/touching first-ro | w leaves/cylindrical caulicole/elongated upward, touching parts of the calyx/three-dimensional crosses |
| Cap.150           | (Amer et al. 1982, 303, figure 30)    | 2nd-3rd century AD  | elongated upward                    | touching parts of the calyx/three-dimensional crosses  |
| Cap.151           | (Butler 1904, 379)                    | mid-3rd century AD  | construction date of the temple     | (Segal 1997, 13–15, 55–57; 2001, 95–97)  |
| Cap.152           | (Dentzer-Feydy 1990, 658, figure 22)  | 1st century AD  | according to Dentzer-Feydy          | (Dentzer-Feydy 1990, 660–61)   |
| Cap.153           | (Website 30)                          | second half of the 2nd century AD                           | construction date of the temple     | (Butler 1906, 418; Schlumberger 1933, 249)   |
| Cap.154           | (Website 30)                          | second half of the 2nd century AD                           | construction date of the temple     | (Butler 1906, 418; Schlumberger 1933, 249)   |
| Cap.155           | (Website 31)                          | 2nd - beginning of the 3rd century                          | according to Segal                  | (Segal 2001, 101, 106)   |
| Cap.156           | (Dentzer-Feydy 1990, 695, figure 128) | 1st century AD  | according to Dentzer-Feydy          | (Dentzer-Feydy 1990, 660–61)   |
| Cap.157           | (Pensabene 1997, 376, figure 129)     | end of the 2nd century - beginning<br>of the 3rd century AD | construction date of the theater    | (Marquis de Vogüé and Waddington 1865, 1:40; Pensabene 1997, 373;<br>Freyberger 1988)                  |

| Capital<br>(Cap.) | Image References   | Date                                     | Basis for the Date                                 | Dating References   |
|-------------------|--|--|--|---|
| Cap.158           | (Dentzer-Feydy 1990, 648, figure 9)  | 1st century AD                           | according to Dentzer-Feydy                         | (Dentzer-Feydy 1990, 651; 1997, 164; Dentzer 1986, 277)   |
| Cap.159           | (Dentzer 1986, 278, Pl. X.c; Dentzer-Feydy 1990,<br>646, 647, figure 7, 9) | 1st century AD                           | according to Dentzer-Feydy                         | (Dentzer-Feydy 1990, 651; 1997, 164; Dentzer 1986, 277)   |
| Cap.160           | author   | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming a rh            | in edge/band-like caulicole/inner calyx parts meet at the axis, forming a ombus/projected volute/abacus shape   |
| Cap.161           | author   | 6th century AD                           | construction date of the church                    | (Tchalenko and Baccache 1979, 3:201, 208, Pl. 337, 346; Tchalenko 1953a,<br>2:Pl. CXXXVIII; Peña <i>et al</i> 1980, 179–80; Peña <i>et al</i> 1987, 93–95; Tchalenko<br>1990, 1:135–40)     |
| Cap.162           | author   | 4th - beginning of the 7th century<br>AD | touching first-row leaves/band-like ca             | ulicole/relative arrangement of the outer calyx and volute/abacus design  |
| Cap.163           | author   | 6th century AD                           | construction date of the church                    | (Tchalenko and Baccache 1979, 3:201, 208, Pl. 337, 346; Tchalenko 1953a,<br>2:30, Pl. CXXXVIII; Peña <i>et al</i> 1980, 179–80; Tchalenko 1990, 1:135–40)                                   |
| Cap.164           | (Tchalenko and Baccache 1979, 3:208, Pl. 346)                              | 5th century AD                           | construction date of the church                    | (Tchalenko and Baccache 1979, 3:201, 208, Pl. 337, 346; Tchalenko 1953a,<br>2:30, Pl. CXXXVIII; Peña <i>et al</i> 1980, 179–80; Peña <i>et al</i> 1987, 93–95;<br>Tchalenko 1990, 1:135–40) |
| Cap.165           | (Tchalenko and Baccache 1979, 3:208, Pl. 346)                              | 5th century AD                           | construction date of the church                    | (Tchalenko and Baccache 1979, 3:201, 208, Pl. 337, 346; Tchalenko 1953a,<br>2:30, Pl. CXXXVIII; Peña <i>et al</i> 1980, 179–80; Peña <i>et al</i> 1987, 93–95;<br>Tchalenko 1990, 1:135–40) |
| Cap.166           | (Tchalenko and Baccache 1979, 3:208, Pl. 346)                              | 5th century AD                           | construction date of the church                    | (Tchalenko and Baccache 1979, 3:201, 208, Pl. 337, 346; Tchalenko 1953a,<br>2:30, Pl. CXXXVIII; Peña <i>et al</i> 1980, 179–80; Peña <i>et al</i> 1987, 93–95;<br>Tchalenko 1990, 1:135–40) |
| Cap.167           | (Tchalenko and Baccache 1979, 3:209, Pl. 347)                              | 5th century AD (400-425)                 | construction date of the church                    | (Tchalenko and Baccache 1979, 3:201, 208, Pl. 337, 346; Tchalenko 1953a,<br>2:30, Pl. CXXXVIII; Peña <i>et al</i> 1980, 179–80; Peña <i>et al</i> 1987, 93–95;<br>Tchalenko 1990, 1:135–40) |
| Cap.168           | (Marquis de Vogüé and Waddington 1865, 2:pl.<br>62)                        | 5th century AD                           | construction date of the church                    | (Butler 1929, 66)   |
| Cap.169           | (Butler 1904, 142; Prentice 1908, 93, inscription 76)                      | beginning of the 5th century AD          | construction date of the structure (?)             | (Prentice 1908, 93; Butler 1904, 140–42)  |
| Cap.170           | author   | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming a<br>rhombus/sf | ın edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>hallow volute/abacus shape/central motif shape   |

| Capital<br>(Cap.) | Image References   | Date  | Basis for the Date   | Dating References  |
|-------------------|--|---|--|--|
| Cap.171           | author   | 4th - beginning of the 7th century<br>AD            | touching first-row leaves, forming a<br>rhombus/projected volute | ın edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>:/cylindrical calathus/abacus shape/half-cylinder central motif |
| Cap.172           | author   | 4th - beginning of the 7th century<br>AD            | touching first-row leaves, forming a<br>rhombus/projected volut  | n edge/band-like caulicole/inner calyx parts meet at the axis, forming a e/Invisible calathus/abacus shape/half-cylinder central motif       |
| Cap.173           | author   | 4th - beginning of the 7th century<br>AD            | touching first-row leaves/band-like<br>calathu                   | caulicole/inner calyx parts meet at the axis/projected volute/cylindrical<br>is/abacus shape/half-cylinder central motif                     |
| Cap.174           | author   | 4th - beginning of the 7th century<br>AD            | touching first-row leaves/band-like c<br>volute/cylindric        | aulicole/inner calyx parts meet at the axis, forming a rhombus/projected<br>al calathus/abacus shape/half-cylinder central motif             |
| Cap.175           | author   | 4th - beginning of the 7th century<br>AD            |  | acanthus design/band-like caulicole  |
| Cap.176           | author   | 4th - beginning of the 7th century<br>AD            | wind-blown leaves/band-like caul<br>volute/cylindric             | icole/inner calyx parts meet at the axis, forming a rhombus/projected<br>al calathus/abacus shape/half-cylinder central motif                |
| Cap.177           | author   | 4th - beginning of the 7th century<br>AD            | wind-blown leaves/band-like caul<br>volute/cylindric             | icole/inner calyx parts meet at the axis, forming a rhombus/projected<br>al calathus/abacus shape/half-cylinder central motif                |
| Cap.178           | author   | 4th - beginning of the 7th century<br>AD            | touching first-row leaves/band-like c<br>volute/cylindric        | aulicole/inner calyx parts meet at the axis, forming a rhombus/projected<br>al calathus/abacus shape/half-cylinder central motif             |
| Cap.179           | author   | 4th - beginning of the 7th century<br>AD            | touching first-row leaves/band-like c<br>volute/cylindric        | aulicole/inner calyx parts meet at the axis, forming a rhombus/projected<br>al calathus/abacus shape/half-cylinder central motif             |
| Cap.180           | author   | 4th - beginning of the 7th century<br>AD            | touching first-row leaves, forming a<br>rhombus/projected volute | ın edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>:/cylindrical calathus/abacus shape/half-cylinder central motif |
| Cap.181           | author   | 4th - beginning of the 7th century<br>AD            | touching first-row leaves/band-like c<br>volute/cylindric        | aulicole/inner calyx parts meet at the axis, forming a rhombus/projected<br>al calathus/abacus shape/half-cylinder central motif             |
| Cap.182           | (Tchalenko and Baccache 1979, 3:116, Pl. 204)                                | end of 5th century AD                               | construction date of the church                                  | (Tchalenko and Baccache 1979, 3:116, Pl. 204)  |
| Cap.183           | (Tchalenko and Baccache 1979, 3:14, Pl. 26;<br>Tchalenko 1953, 2:Pl. CLIX.3) | end of the 4th - beginning of the<br>5th century AD | construction date of the church                                  | (Tchalenko 1990, 1:19–24; Peña 2000, 138–41)   |
| Cap.184           | (Website 1)  | second half of the 5th century AD                   | construction date of the church                                  | (Butler 1929, 62)  |

| Capital<br>(Cap.) | Image References                                     | Date  | Basis for the Date   | Dating References   |
|-------------------|--|---|--|---|
| Cap.185           | (Biscop and Blanc 2014, 425, figure 10); (Website 2) | last quarter of the 5th century AD                                    | construction date of the bath  | (Biscop and Blanc 2014, 415)  |
| Cap.186           | (Ulbert 1989, 485, figure 167a); (Website 3)         | 5th century AD  | construction date of the church                                      | (Butler 1929, 61)   |
| Cap.187           | (Website 4)  | 5th-6th century AD  | date of the site (unknown structure)                                 | (Sodini et al. 2002, 245–57)  |
| Cap.188           | (Marquis de Vogüé and Waddington 1865, 2:146)        | 5th-6th century AD  | date of the site (unknown structure)                                 | (Sodini et al. 2002, 245–57)  |
| Cap.189           | (Rousset <i>et al</i> 2022, figure 25d)              | 4th - early 5th century AD / 6th -<br>beginning of the 7th century AD | smo  | ith acanthus/band-like caulicole/Garland  |
| Cap.190           | (Website 5)  | 6th century AD  | proposed construction date of this section of the structure (church) | (Sauvaget 1929; 1941; Guidetti 2009, 21; Neglia 2010, 138)  |
| Cap.191           | (Butler 1929, 171, III.183)                          | 6th century AD  | proposed construction date of this section of the structure (church) | (Sauvaget 1929; 1941; Guidetti 2009, 21; Neglia 2010, 138)  |
| Cap.192           | (Butler 1929, 171, III.183)                          | 6th century AD  | proposed construction date of this section of the structure (church) | (Sauvaget 1929; 1941; Guidetti 2009, 21; Neglia 2010, 138)  |
| Cap.193           | (Website 6)  | 6th century AD  | proposed construction date of this section of the structure (church) | (Sauvaget 1929; 1941; Guidetti 2009, 21; Neglia 2010, 138)  |
| Cap.194           | author   | 5th century AD  | construction date of the church                                      | (Tchalenko and Baccache 1979, 3:201, 208, Pl. 337, 346; Tchalenko 1953a,<br>2:Pl. CXXXVIII; Peña <i>et al</i> 1980, 179–80; Peña <i>et al</i> 1987, 93–95; Tchalenko<br>1990, 1:135–40) |
| Cap.195           | author; (Ulbert 1989, 479, figure 161b)              | second half of the 6th century AD                                     | construction date of the church                                      | (Ulbert 1989, 479, figure 161b; Strube 1983, 59, 63)  |
| Cap.196           | author   | 4th - early 5th century AD / 6th -<br>beginning of the 7th century AD | touching first-row leaves  | /band-like caulicole/abacus shape/half-cylinder central motif   |

| Capital<br>(Cap.) | Image References  | Date  | Basis for the Date                                 | Dating References   |
|-------------------|---|---|--|---|
| Cap.197           | (Butler 1929, 67, III.71.)  | end of the 5th century AD   | construction date of the church                    | (Butler 1929, 220, 238–39, III.263)   |
| Cap.198           | (Gérard 1994, 129, figure 24)   | 5th century AD  | construction date of the bath                      | (Butler 1904, 288–93; Gérard 1994, 114)   |
| Cap.199           | (Website 8)   | 5th - beginning of the 7th century<br>AD                              |  | drill technique   |
| Cap.200           | (Website 9)   | end of the 4th century  | date of the tomb                                   | (Strube 1993, 159; Butler 1904, 113–14)   |
| Cap.201           | (Website 10)  | end of the 4th century  | date of the tomb                                   | (Strube 1993, 159; Butler 1904, 113–14)   |
| Cap.202           | (Ulbert 1989, 487, figure 169b; Peña, Castellana,<br>and Fernandez 1987, figure 24) | 6th century AD  | construction date of the church                    | (Peña, Castellana, and Fernández 1980, 250; Peña, Castellana, and<br>Fernandez 1987, 47; Peña 2000, 183–84; Tchalenko 1990, 1:141–44) |
| Cap.203           | (Tchalenko and Baccache 1979, 3:186, Pl. 312)                                       | beginning of the 5th century AD                                       | construction date of the church                    | (Tchalenko 1953b, 1:326; Peña <i>et al</i> 1987, 88–89; Peña <i>et al</i> 1980,<br>267–68; Séiquer 1999, 63)                          |
| Cap.204           | (Marquis de Vogüé and Waddington 1865, 2:pl.<br>76)                                 | 5th century AD  | construction date of the church                    | (Butler 1929, 66)   |
| Cap.205           | (Ulbert 1989, figure 167c)  | 5th century AD  | construction date of the church                    | (Butler 1929, 66)   |
| Cap.206           | (Website 11)  | 5th - beginning of the 7th century<br>AD                              | construction date of the tomb                      | (Burns 1992, 108)   |
| Cap.207           | (Website 12)  | 4th century AD (324 AD)   | construction date of the tomb                      | (Burns 1992, 108)   |
| Cap.208           | author  | 4th - early 5th century AD / 6th -<br>beginning of the 7th century AD | touching first-row leaves, forming a<br>rhombus/al | an edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>pacus shape/half-cylinder central motif/Garland          |
| Cap.209           | author  | 4th - beginning of the 7th century<br>AD                              | touching first-row leaves, forming a               | an edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>rhombus  |

| Dating References  | low grooves/Calyx shape/abacus shape/half-cylinder central motif | low grooves/Calyx shape/abacus shape/half-cylinder central motif | : caulicole/Calyx shape/abacus shape/half-cylinder central motif | nd-like caulicole/abacus shape/half-cylinder central motif | e caulicole/inner calyx parts meet at the axis | inner calyx parts meet at the axis/abacus shape/half-cylinder central motif | nd-like caulicole/abacus shape/half-cylinder central motif | inner calyx parts meet at the axis/abacus shape/half-cylinder central motif | wind-blown acanthus leaves               | calyx parts meet at the axis/abacus shape/half-cylinder central motif/Cross | nd-like caulicole/abacus shape/half-cylinder central motif | caulicole/inner calyx parts meet at the axis, forming a rhombus/abacus<br>shape/half-cylinder central motif | : caulicole/inner calyx parts meet at the axis, forming a rhombus/abacus<br>ape/half-cylinder central motif/Garland |
|--------------------|--|--|--|--|--|---|--|---|--|---|--|---|---|
| Basis for the Date | touching first-row leaves/shal                                   | touching first-row leaves/shal                                   | smooth acanthus/band-like  | smooth acanthus/ba   | band-lik                                       | smooth acanthus/band-like caulicole/  | smooth acanthus/ba   | smooth acanthus/band-like caulicole/  |  | smooth acanthus/caulicole shape/inner                                       | smooth acanthus/ba   | touching first-row leaves/band-like   | touching first-row leaves/band-like<br>sha  |
| Date               | second half of the 6th - beginning<br>of the 7th century AD      | second half of the 6th - beginning<br>of the 7th century AD      | 4th - beginning of the 7th century<br>AD                         | 4th - beginning of the 7th century<br>AD                   | 4th - beginning of the 7th century<br>AD       | 4th - beginning of the 7th century<br>AD                                    | 4th - beginning of the 7th century<br>AD                   | 4th - beginning of the 7th century<br>AD                                    | 4th - beginning of the 7th century<br>AD | end of the 4th - beginning of the<br>7th century AD                         | 4th - beginning of the 7th century<br>AD                   | 4th - beginning of the 7th century<br>AD  | 4th - early 5th century AD / 6th -<br>beginning of the 7th century AD   |
| Image References   | author   | author   | author   | author   | author   | author  | author   | author  | author                                   | author  | author   | author  | author  |
| Capital<br>(Cap.)  | Cap.210  | Cap.211  | Cap.212  | Cap.213  | Cap.214  | Cap.215   | Cap.216  | Cap.217   | Cap.218                                  | Cap.219   | Cap.220  | Cap.221   | Cap.222   |

| Capital<br>(Cap.) | Image References | Date  | Basis for the Date                            | Dating References   |
|-------------------|------------------|---|---|---|
| Cap.223           | author           | 4th - beginning of the 7th century<br>AD                    | touching first-row leaves/band-like           | caulicole/inner calyx parts meet at the axis, forming a rhombus/abacus<br>shape/half-cylinder central motif               |
| Cap.224           | author           | 4th - beginning of the 7th century<br>AD                    | touching first-row leaves/band-like           | caulicole/inner calyx parts meet at the axis, forming a rhombus/abacus<br>shape/half-cylinder central motif               |
| Cap.225           | author           | 4th - beginning of the 7th century<br>AD                    | wind-blown acanthus/t                         | and-like caulicole/abacus shape/half-cylinder central motif   |
| Cap.226           | author           | end of the 4th - beginning of the<br>7th century AD         | touching first-row leaves, forming a rhombus/ | n edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>bacus shape/half-cylinder central motif/Cross |
| Cap.227           | author           | 4th - beginning of the 7th century<br>AD                    | touching first-row leaves/band-like           | caulicole/inner calyx parts meet at the axis, forming a rhombus/abacus<br>shape/half-cylinder central motif               |
| Cap.228           | author           | 4th - beginning of the 7th century<br>AD                    | smooth acanthus/ba                            | ıd-like caulicole/abacus shape/half-cylinder central motif  |
| Cap.229           | author           | 4th - beginning of the 7th century<br>AD                    | smooth acanthus/ba                            | ıd-like caulicole/abacus shape/half-cylinder central motif  |
| Cap.230           | author           | 4th - beginning of the 7th century<br>AD                    | touching first-row leaves/band-like           | caulicole/inner calyx parts meet at the axis, forming a rhombus/abacus<br>shape/half-cylinder central motif               |
| Cap.231           | author           | second half of the 6th - beginning<br>of the 7th century AD | touching first-row leaves/shal                | ow grooves/calyx shape/abacus shape/half-cylinder central motif   |
| Cap.232           | author           | second half of the 6th - beginning<br>of the 7th century AD | touching first-row leaves/shal                | ow grooves/calyx shape/abacus shape/half-cylinder central motif   |
| Cap.233           | author           | 4th-5th century AD  |   | museum's records  |
| Cap.234           | author           | 4th-5th century AD  |   | museum's records  |
| Cap.235           | author           | 4th-5th century AD  |   | museum's records  |

| Capital<br>(Cap.) | Image References | Date                                     | Basis for the Date                             | Dating References   |
|-------------------|------------------|--|--|---|
| Cap.236           | author           | 4th - beginning of the 7th century<br>AD | smooth acanthus/c                              | ulicole shape/abacus shape/half-cylinder central motif  |
| Cap.237           | author           | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming a rhombu    | n edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>is/abacus shape/half-cylinder central motif |
| Cap.238           | author           | 4th - beginning of the 7th century<br>AD | touching first-row leaves/band-like            | caulicole/inner calyx parts meet at the axis, forming a rhombus/abacus<br>shape/half-cylinder central motif             |
| Cap.239           | author           | 4th - beginning of the 7th century<br>AD | smooth acanthus/c.                             | aulicole shape/abacus shape/half-cylinder central motif   |
| Cap.240           | author           | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming<br>rhombu   | an edge/caulicole shape/inner calyx parts meet at the axis, forming a<br>is/abacus shape/half-cylinder central motif    |
| Cap.241           | author           | second half of the 6th century AD        | acanthus leave                                 | s resemble those on capitals from Qasr Ibn Wardan   |
| Cap.242           | author           | second half of the 6th century AD        | acanthus leave                                 | s resemble those on capitals from Qasr Ibn Wardan   |
| Cap.243           | author           | second half of the 6th century AD        | acanthus leave                                 | s resemble those on capitals from Qasr Ibn Wardan   |
| Cap.244           | (Website 14)     | second half of the 6th century AD        | construction date of the structure<br>(church) | (Strube 1983, 59)   |
| Cap.245           | (Website 15)     | second half of the 6th century AD        | construction date of the structure<br>(church) | (Strube 1983, 59)   |
| Cap.246           | (Website 16)     | second half of the 6th century AD        | construction date of the structure<br>(church) | (Strube 1983, 59)   |
| Cap.247           | (Website 17)     | second half of the 6th century AD        | construction date of the structure<br>(church) | (Strube 1983, 59)   |
| Cap.248           | author           | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming<br>rhombu   | an edge/hidden caulicole/inner calyx parts meet at the axis, forming a<br>Is/abacus shape/half-cylinder central motif   |

| Capital<br>(Cap.) | Image References                                  | Date                                     | Basis for the Date                             | Dating References   |
|-------------------|---|--|--|---|
| Cap.249           | author; (Strube 1983, Tafel 17c; 1979, Tafel 127) | 6th century AD                           | according to Strube                            | (Strube 1983, Tafel 17c)  |
| Cap.250           | author  | 4th - beginning of the 7th century<br>AD | wind-blown leaves/band-like caulicole          | /inner calyx parts meet at the axis, forming a rhombus/abacus shape/half-<br>cylinder central motif                     |
| Cap.251           | author  | 4th - beginning of the 7th century<br>AD | smooth acanthus/c                              | aulicole shape/abacus shape/half-cylinder central motif   |
| Cap.252           | author  | 4th - beginning of the 7th century<br>AD | wind-blown leaves/band-like caulicole          | /inner calyx parts meet at the axis, forming a rhombus/abacus shape/half-<br>cylinder central motif                     |
| Cap.253           | author  | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming<br>rhombu   | an edge/hidden caulicole/inner calyx parts meet at the axis, forming a<br>is/abacus shape/half-cylinder central motif   |
| Cap.254           | author  | 4th - beginning of the 7th century<br>AD | smooth acanthus/c                              | aulicole shape/abacus shape/half-cylinder central motif   |
| Cap.255           | author  | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming<br>rhombu   | an edge/hidden caulicole/inner calyx parts meet at the axis, forming a<br>is/abacus shape/half-cylinder central motif   |
| Cap.256           | author  | 5th - beginning of the 7th century<br>AD | drill technique/band-like caulicole/i          | iner calyx parts meet at the axis, forming a rhombus/abacus shape/half-<br>cylinder central motif                       |
| Cap.257           | author  | 4th - beginning of the 7th century<br>AD | smooth acanthus/ba                             | ıd-like caulicole/abacus shape/half-cylinder central motif  |
| Cap.258           | author  | 4th - beginning of the 7th century<br>AD | touching first-row leaves/band-like            | caulicole/inner calyx parts meet at the axis, forming a rhombus/abacus<br>shape/half-cylinder central motif             |
| Cap.259           | author  | 4th - beginning of the 7th century<br>AD | touching first-row leaves/band-like            | caulicole/inner calyx parts meet at the axis, forming a rhombus/abacus<br>shape/half-cylinder central motif             |
| Cap.260           | author  | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming a<br>rhombu | n edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>is/abacus shape/half-cylinder central motif |
| Cap.261           | author  | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming a<br>rhombi | n edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>is/abacus shape/half-cylinder central motif |
| Cap.262           | author  | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming a<br>rhombi | n edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>is/abacus shape/half-cylinder central motif |

| Capital<br>(Cap.) | Image References                                     | Date                                     | Basis for the Date                             | Dating References  |
|-------------------|--|--|--|--|
| Cap.263           | author   | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming a           | n edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>s/abacus shape/half-cylinder central motif |
| Cap.264           | author   | 4th - beginning of the 7th century<br>AD | smooth acanthus/bar                            | d-like caulicole/abacus shape/half-cylinder central motif  |
| Cap.265           | author   | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming a rhombu    | n edge/band-like caulicole/inner calyx parts meet at the axis, forming a s/abacus shape/half-cylinder central motif    |
| Cap.266           | author   | 4th - beginning of the 7th century<br>AD | spaced apart leaves/band-like caulicole        | /inner calyx parts meet at the axis, forming a rhombus/abacus shape/half-<br>cylinder central motif                    |
| Cap.267           | author   | 4th - beginning of the 7th century<br>AD | smooth acanthus/bar                            | d-like caulicole/abacus shape/half-cylinder central motif  |
| Cap.268           | author   | 4th - beginning of the 7th century<br>AD | smooth acanthus/bar                            | d-like caulicole/abacus shape/half-cylinder central motif  |
| Cap.269           | author   | 4th - beginning of the 7th century<br>AD | smooth acanthus/bar                            | d-like caulicole/abacus shape/half-cylinder central motif  |
| Cap.270           | author   | 4th - beginning of the 7th century<br>AD | touching first-row leaves, forming a<br>rhombu | n edge/band-like caulicole/inner calyx parts meet at the axis, forming a<br>s/abacus shape/half-cylinder central motif |
| Cap.271           | (Website 32)   | 5th-6th century AD                       | date of the site (church)                      | (Schuhmann 2016, 1805)   |
| Cap.272           | (Marquis de Vogüé and Waddington 1865, 2:pl.<br>128) | beginning of the 5th century AD          | construction date of the church                | (Butler 1929, 48–74; Tchalenko and Baccache 1979, 3:Pl. CCII)  |
| Cap.273           | author   | 4th - beginning of the 7th century<br>AD | band-like ca                                   | ılicole/abacus shape/half-cylinder central motif   |
| Cap.274           | author   | second half of the 6th century AD        | band-like ca                                   | ılicole/abacus shape/half-cylinder central motif   |
| Cap.275           | author   | second half of the 6th century AD        | band-like ca                                   | ılicole/abacus shape/half-cylinder central motif   |
| Cap.276           | author   | second half of the 6th century AD        | band-like ca                                   | ılicole/abacus shape/half-cylinder central motif   |

| Capital<br>(Cap.) | Image References  | Date  | Basis for the Date                      | Dating References   |
|-------------------|---|---|---|---|
| Cap.277           | author  | 5th-6th century AD                                  | band-like ca                            | ulicole/abacus shape/half-cylinder central motif  |
| Cap.278           | author  | 5th-6th century AD                                  | band-like ca                            | ulicole/abacus shape/half-cylinder central motif  |
| Cap.279           | author  | second half of the 6th century AD                   | band-like ca                            | ulicole/abacus shape/half-cylinder central motif  |
| Cap.280           | author  | second half of the 6th century AD                   | band-like ca                            | ulicole/abacus shape/half-cylinder central motif  |
| Cap.281           | author  | second half of the 6th century AD                   | band-like ca                            | ulicole/abacus shape/half-cylinder central motif  |
| Cap.282           | author  | 3rd-4th century AD                                  | touching first-row leaves/sh            | nallow grooves/caulicole shape/projected crosses/flat calathus  |
| Cap.283           | author  | 2nd-3rd century AD                                  | touching first-row leaves/hidden cauli  | cole/projected helix/three-dimensional volute/cylindrical calathus/abacus<br>shape/central motif shape                  |
| Cap.284           | author  | 4th century AD                                      | touching first-row leaves/caulicole sha | ipe/projected helix/three-dimensional volute/abacus shape/central motif<br>shape/Garland                                |
| Cap.285           | (Tchalenko and Baccache 1979, 3:9, Pl. 10;<br>Tchalenko 1953, 2:Pl. CLIX.4) | end of the 4th - beginning of the<br>5th century AD | construction date of the church         | (Tchalenko 1990, 1:19–24; Peña 2000, 138–41)  |
| Cap.286           | (Rousset <i>et al</i> 2022, figure 25e)                                     | 4th - beginning of the 7th century<br>AD            |   | smooth leaves/band-like caulicole   |
| Cap.287           | author  | 4th - beginning of the 7th century<br>AD            | smooth leaves/caulicol                  | e shape/shallow crosses/abacus shape/central motif shape  |
| Cap.288           | author; (Tchalenko 1953, 2:Pl. CLXVII)                                      | second half of the 5th century AD                   | date of the site (unknown structure)    | (Butler 1929, 64)   |
| Cap.289           | (Tchalenko and Baccache 1979, 3:99, Pl. 175)                                | 5th century AD                                      | construction date of the church         | (Tchalenko and Baccache 1979, 3:92, 96, Pl. 165, 170)   |
| Cap.290           | (Butler 1929, 50, III.47)   | beginning of the 5th century AD                     | construction date of the church         | (Butler 1929, 50, III.47; Peña 2000, 205; Peña <i>et al</i> 1983, 117; Peña,<br>Castellana, and Fernandez 1987, 157–58) |

| Capital<br>(Cap.) | Image References                              | Date  | Basis for the Date              | Dating References  |
|-------------------|---|---|---------------------------------|--|
| Cap.291           | (Tchalenko and Baccache 1979, 3:186, Pl. 312) | beginning of the 5th century AD                                       | construction date of the church | (Tchalenko 1953b, 1:326; Peña <i>et a</i> / 1987, 88–89; Peña <i>et a</i> / 1980,<br>267–68; Séiquer 1999, 63) |
| Cap.292           | (Butler 1929, 237, III. 267a)                 | beginning of the 5th century AD                                       | construction date of the church | (Tchalenko 1953b, 1:326; Peña <i>et al</i> 1987, 88–89; Peña <i>et al</i> 1980,<br>267–68; Séiquer 1999, 63)   |
| Cap.293           | (Tchalenko and Baccache 1979, 3:163, Pl. 276) | end of the 4th - beginning of the<br>7th century AD                   | smooth leaves/caulicole         | shape/projected crosses/abacus shape/central motif shape   |
| Cap.294           | author  | 4th - beginning of the 7th century<br>AD                              | smooth leaves/caulicol          | e shape/shallow crosses/abacus shape/central motif shape   |
| Cap.295           | author  | 4th - early 5th century AD / 6th -<br>beginning of the 7th century AD | smooth leaves/band-like caul    | cole/shallow crosses/abacus shape/central motif shape/Garland  |
| Cap.296           | author  | 4th - beginning of the 7th century<br>AD                              | smooth leaves                   | caulicole shape/abacus shape/central motif shape   |
| Cap.297           | author  | 4th - beginning of the 7th century<br>AD                              | smooth leaves/caulicole         | shape/projected crosses/abacus shape/central motif shape   |
| Cap.298           | author  | 4th - beginning of the 7th century<br>AD                              | smoot                           | n leaves/caulicole shape/projected crosses   |
| Cap.299           | author  | 4th - beginning of the 7th century<br>AD                              | smoot                           | n leaves/abacus shape/central motif shape  |
| Cap.300           | author  | 4th - beginning of the 7th century<br>AD                              | smooth leaves                   | caulicole shape/abacus shape/central motif shape   |
| Cap.301           | author  | 4th - beginning of the 7th century<br>AD                              | smooth leaves                   | caulicole shape/abacus shape/central motif shape   |
| Cap.302           | author  | 4th - beginning of the 7th century<br>AD                              | smoot                           | n leaves/abacus shape/central motif shape  |
| Cap.303           | author  | 4th century AD  | smooth leaves/caulicole sha     | oe/three-dimensional crosses/cylindrical calathus/abacus shape   |

| Capital<br>(Cap.) | Image References | Date  | Basis for the Date                  | Dating References  |
|-------------------|------------------|---|-------------------------------------|--|
| Cap.304           | author           | 4th - beginning of the 7th century<br>AD                              | smooth leaves/                      | shallow crosses/abacus shape/central motif shape                   |
| Cap.305           | author           | 4th - early 5th century AD / 6th -<br>beginning of the 7th century AD | smooth leaves/                      | shallow crosses/abacus shape/central motif shape                   |
| Cap.306           | author           | 4th - beginning of the 7th century<br>AD                              | smooth leaves/                      | shallow crosses/abacus shape/central motif shape                   |
| Cap.307           | author           | 4th-5th century AD  | touching first-row leaves, formin   | g an edge/band-like caulicole/three-dimensional helix/abacus shape |
| Cap.308           | author           | 4th - beginning of the 7th century<br>AD                              | smooth leaves/                      | shallow crosses/abacus shape/central motif shape                   |
| Cap.309           | author           | 4th - beginning of the 7th century<br>AD                              | smooth leaves/                      | shallow crosses/abacus shape/central motif shape                   |
| Cap.310           | author           | 4th - beginning of the 7th century<br>AD                              | smooth leaves/                      | shallow crosses/abacus shape/central motif shape                   |
| Cap.311           | author           | 4th - beginning of the 7th century<br>AD                              | smooth leaves/                      | orojected crosses/abacus shape/central motif shape                 |
| Cap.312           | author           | 4th - beginning of the 7th century<br>AD                              | smooth leaves/                      | shallow crosses/abacus shape/central motif shape                   |
| Cap.313           | author           | 4th - beginning of the 7th century<br>AD                              | smooth leaves/                      | shallow crosses/abacus shape/central motif shape                   |
| Cap.314           | author           | Second half of the 5th century -<br>first half of the 6th century AD  | elements / parallels                | (parallel: Cap.308-328)  |
| Cap.315           | author           | second half of the 5th century -<br>first half of the 6th century AD  | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196)                                 |
| Cap.316           | author           | second half of the 5th century -<br>first half of the 6th century AD  | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196)                                 |

| Capital<br>(Cap.) | Image References | Date   | Basis for the Date                  | Dating References                  |
|-------------------|------------------|--|-------------------------------------|------------------------------------|
| Cap.317           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.318           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.319           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.320           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.321           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.322           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.323           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.324           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.325           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.326           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.327           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.328           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.329           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |
| Cap.330           | author           | second half of the 5th century -<br>first half of the 6th century AD | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196) |

| Capital<br>(Cap.) | Image References                               | Date  | Basis for the Date                  | Dating References   |
|-------------------|--|---|-------------------------------------|---|
| Cap.331           | author   | second half of the 5th century -<br>first half of the 6th century AD  | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196)  |
| Cap.332           | author   | second half of the 5th century -<br>first half of the 6th century AD  | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196)  |
| Cap.333           | author   | second half of the 5th century -<br>first half of the 6th century AD  | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196)  |
| Cap.334           | author   | second half of the 5th century -<br>first half of the 6th century AD  | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196)  |
| Cap.335           | author   | second half of the 5th century -<br>first half of the 6th century AD  | according to Westphalen and Dennert | (Westphalen and Dennert 2004, 196)  |
| Cap.336           | author   | 3rd-4th century AD  | smooth leaves/projected             | volute/cylindrical calathus/abacus shape/central motif shape  |
| Cap.337           | (Tchalenko and Baccache 1979, 3:177, Pl. 298a) | end of the 4th century AD -<br>beginning of the 5th century AD        | construction date of the church     | (Tchalenko 1953b, 1:315; 1990, 1:113–20; Peña 2000, 131–32; Peña <i>et al</i><br>1983, 110–15; Peña <i>et al</i> 1987, 27–29) |
| Cap.338           | author   | 4th - beginning of the 7th century<br>AD                              | touching first-r                    | ow leaves/abacus shape/half-cylinder central motif  |
| Cap.339           | author   | 4th - beginning of the 7th century<br>AD                              | touching first-r                    | ow leaves/abacus shape/half-cylinder central motif  |
| Cap.340           | author   | 4th - beginning of the 7th century<br>AD                              | smooth leaves,                      | /caulicole shape/abacus shape/central motif shape   |
| Cap.341           | author   | 4th - beginning of the 7th century<br>AD                              | touching first-r                    | ow leaves/abacus shape/half-cylinder central motif  |
| Cap.342           | author   | 4th - early 5th century AD / 6th -<br>beginning of the 7th century AD | touching first-r                    | ow leaves, forming an edge/abacus shape/Garland   |
| Cap.343           | author   | 4th - beginning of the 7th century<br>AD                              | touching first-row leaves, forming  | an edge/band-like caulicole/abacus shape/half-cylinder central motif  |

| Capital<br>(Cap.) | Image References | Date  | Basis for the Date             | Dating References   |
|-------------------|------------------|---|--------------------------------|---|
| Cap.344           | author           | 4th - early 5th century AD / 6th -<br>beginning of the 7th century AD | touching first-row leaves, for | ming an edge/abacus shape/half-cylinder central motif/Garland |
| Cap.345           | author           | 4th - early 5th century AD / 6th -<br>beginning of the 7th century AD | smooth leaves/band-like        | : caulicole/abacus shape/half-cylinder central motif/Garland  |
| Cap.346           | author           | 4th - early 5th century AD / 6th -<br>beginning of the 7th century AD | touching first-r               | ow leaves/abacus shape/half-cylinder central motif            |
| Cap.347           | author           | 4th - beginning of the 7th century<br>AD                              | spaced aparl                   | . leaves/abacus shape/half-cylinder central motif             |
| Cap.348           | author           | second half of the 6th - beginning<br>of the 7th century AD           |                                | acanthus mask/shallow grooves                                 |
| Cap.349           | author           | second half of the 5th - 6th century<br>AD                            |                                | acanthus mask/capital type                                    |
| Cap.350           | author           | 5th - beginning of the 7th century<br>AD                              |                                | capital type/shallow grooves                                  |
| Cap.351           | author           | 5th - beginning of the 7th century<br>AD                              |                                | capital type/shallow grooves                                  |
| Cap.352           | author           | 5th - beginning of the 7th century<br>AD                              |                                | museum's records  |
| Cap.353           | author           | 5th - beginning of the 7th century<br>AD                              |                                | museum's records  |
| Cap.354           | author           | 5th-6th century AD  |                                | acanthus mask/capital type                                    |
| Cap.355           | author           | 3rd century AD  | discussed in thesis            | Chapter 4.2.5   |

| Capital<br>(Cap.) | Image References   | Date   | Basis for the Date                | Dating References  |
|-------------------|--|--|-----------------------------------|--|
| Cap.356           | author   | 5th - beginning of the 7th century<br>AD                       |                                   | capital type   |
| Cap.357           | author   | 5th - beginning of the 7th century<br>AD                       |                                   | capital type/shallow grooves   |
| Cap.358           | (Tchalenko and Baccache 1979, 3:338, Pl. 533)                    | second half of the 5th century AD                              | construction date of the basilica | (Fowden 1999, 80–83)   |
| Cap.359           | author   | 5th - beginning of the 7th century<br>AD                       |                                   | acanthus mask/capital type   |
| Cap.360           | author   | second half of the 6th century AD                              |                                   | capital type/shallow grooves   |
| Cap.361           | (Tchalenko and Baccache 1979, 3:177, Pl. 298b)                   | end of the 4th century AD -<br>beginning of the 5th century AD | construction date of the church   | (Tchalenko 1953b, 1:315; 1990, 1:113–20; Peña 2000, 131–32; Peña <i>et al</i><br>1983, 110–15; Peña <i>et a</i> / 1987, 27–29) |
| Cap.362           | (Tchalenko and Baccache 1979, 3:177, Pl. 298c)                   | end of the 4th century AD -<br>beginning of the 5th century AD | construction date of the church   | (Tchalenko 1953b, 1:315; 1990, 1:113–20; Peña 2000, 131–32; Peña <i>et al</i><br>1983, 110–15; Peña <i>et a</i> / 1987, 27–29) |
| Cap.363           | author   | 2nd-3rd century  | discussed in thesis               | Chapter 5.2.2.4  |
| Cap.364           | author   | 2nd-3rd century  | elements / parallels              | (parallel: Cap.356 but with no bust)   |
| Cap.365           | (Marquis de Vogüé and Waddington 1865, 2:Pl.<br>3); (Website 22) | first half of the 1st century AD                               | construction date of the temple   | (Dentzer-Feydy 1990, 660–61)   |
| Cap.366           | (Dentzer 1986, 276, Pl. IX. a)                                   | first half of the 1st century AD                               | construction date of the temple   | (Dentzer-Feydy 1990, 660–61)   |
| Cap.367           | (Dentzer 1986, 276, Pl. IX.b); (Website 23)                      | mid-1st century AD   | construction date of the temple   | (Dentzer-Feydy 1990, 660–61)   |
| Cap.368           | (Dentzer 1986, 275, Pl. VIII. a); (Website 24)                   | mid-1st century AD   | construction date of the temple   | (Dentzer-Feydy 1990, 660–61)   |

| Capital<br>(Cap.) | Image References   | Date                                     | Basis for the Date              | Dating References                                  |
|-------------------|--|--|---------------------------------|--|
| Cap.369           | (Marquis de Vogüé and Waddington 1865, 2:Pl. 4;<br>Butler 1904, 339) | mid-1st century AD                       | construction date of the temple | (Dentzer-Feydy 1990, 660–61)                       |
| Cap.370           | (Marquis de Vogüé and Waddington 1865, 2:Pl. 4)                      | mid-1st century AD                       | construction date of the temple | (Dentzer-Feydy 1990, 660–61)                       |
| Cap.371           | (Schlumberger 1933, 289, Pl. XXVIII.1)                               | 1st century AD                           | according to Schlumberger       | (Schlumberger 1933, 314)                           |
| Cap.372           | author   | 1st century AD                           |                                 | Nabataean capital / elements                       |
| Cap.373           | (Website 29)   | 1st century AD                           |                                 | Nabataean capital / elements                       |
| Cap.374           | (Dentzer 1986, 269, Pl. IX.c)  | 1st century AD                           | construction date of the temple | (Marquis de Vogüé and Waddington 1865, 1:39)       |
| Cap.375           | (Marquis de Vogüé and Waddington 1865, 2:Pl. 4)                      | 1st century AD                           | construction date of the temple | (Marquis de Vogüé and Waddington 1865, 1:39)       |
| Cap.376           | (Schlumberger 1933, 287, Pl. XXXVIII.2)                              | 1st century AD                           | according to Schlumberger       | (Schlumberger 1933, 288–90)                        |
| Cap.377           | author   | 2nd - beginning of the 3rd century<br>AD | two-piece ca                    | pital/touching first-row leaves/Cylinder caulicole |
| Cap.378           | author   | 2nd - beginning of the 3rd century<br>AD | two-piece ca                    | pital/touching first-row leaves/Cylinder caulicole |
| Cap.379           | author   | 2nd - beginning of the 3rd century<br>AD | two-piece ca                    | pital/touching first-row leaves/Cylinder caulicole |
| Cap.380           | author   | 2nd - beginning of the 3rd century<br>AD | two-piece ca                    | pital/touching first-row leaves/Cylinder caulicole |
| Cap.381           | (Schlumberger 1933, Pl. XXXIV.2)                                     | mid-1st century AD                       | according to Schlumberger       | (Schlumberger 1933, 306)                           |
| Cap.382           | author   | 1st-3nd century AD                       | discussed in thesis             | Chapter 6.3  |

| Capital<br>(Cap.) | Image References                                  | Date  | Basis for the Date                     | Dating References   |
|-------------------|---|---|--|---|
|                   |   |   |  |   |
| Cap.383           | author  | 4th - beginning of the 7th century<br>AD                              | The stage of the manufacturing process | (Asgari 1995, 263–88)   |
| Cap.384           | author  | 4th - beginning of the 7th century<br>AD                              | The stage of the manufacturing process | (Asgari 1995, 263–88)   |
| Cap.385           | author  | end of the 2nd century AD -<br>beginning of the 3rd century AD        | construction date of the theater       | (Patricio and Stevens 2003, 1601)   |
| Cap.386           | author  | 5th-7th century AD  |  | acanthus mask   |
| Cap.387           | (Peña, Castellana, and Fernandez 1987, figure 21) | 6th century AD  | construction date of the church        | (Peña, Castellana, and Fernández 1980, 250; Peña <i>et al</i> . 1987, 47; Peña<br>2000, 183–84; Tchalenko 1990, 1:141–44) |
| Cap.388           | (Peña, Castellana, and Fernandez 1987, figure 23) | 6th century AD  | construction date of the church        | (Peña, Castellana, and Fernández 1980, 250; Peña <i>et al.</i> 1987, 47; Peña<br>2000, 183–84; Tchalenko 1990, 1:141–44)  |
| Cap.389           | author  | 4th - early 5th century AD / 6th -<br>beginning of the 7th century AD | touching first-r                       | ow leaves, forming an edge/abacus shape/Garland   |
| Cap.390           | author  | 4th - beginning of the 7th century<br>AD                              | edge-like caulicol                     | e/shallow crosses/abacus shape/central motif shape  |

| Appendix 3 | 3: | Acanthus | Leaf |
|------------|----|----------|------|
|------------|----|----------|------|

| Capital<br>(Cap.) | Rows | Leaves in<br>Row 1 | Spring Point             | Shape                      | Acanthus Leaves Alignment                        | Leaves in<br>Row 2 | Spring Point  | Shape                      | Acanthus Leaves Alignment  |
|-------------------|------|--------------------|--------------------------|----------------------------|--|--------------------|---|----------------------------|--|
| Cap.1             | 2    | ∞                  | base                     | three-pair<br>toothed leaf | touching at the first and second pairs           | ∞                  | between the third pairs of lobes of the<br>leaves of first row  | two-pair toothed<br>leaf   | touching in the upper pair,<br>forming a ridge and a triangular<br>shape |
| Cap.2             | 2    | 8                  | base                     | three-pair<br>toothed leaf | spaced apart                                     | 8                  | base  | three-pair<br>toothed leaf | touching in the second pair  |
| Cap.3             | 2    | 8                  | base                     | two-pair toothed<br>leaf   | spaced apart with a triangular<br>rim in between | 8                  | between the top leaflets of the leaves<br>of the first row      | one-pair toothed<br>leaf   | separated by the caulicole   |
| Cap.4             | 2    | 8                  | base                     | two-pair toothed<br>leaf   | touching at the first pair                       | 8                  | between the top leaflets of the leaves<br>of the first row      | two-pair toothed<br>leaf   | touching in the first pair, forming<br>a rhombus shape                   |
| Cap.5             | 2    | 8                  | base                     | two-pair toothed<br>leaf   | touching at all pairs                            | 8                  | between the top leaflets of the leaves<br>of the first row      | two-pair toothed<br>leaf   | spaced apart   |
| Cap.6             | 2    | 8                  | base                     | three-pair<br>toothed leaf | spaced apart with a triangular<br>rim in between | 8                  | between the third pairs of lobes of the<br>leaves of first row  | two-pair toothed<br>leaf   | spaced apart   |
| Cap.7             | 2    | 8                  | base                     | three-pair<br>toothed leaf | damaged  | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf   | separated by the caulicole   |
| Cap.8             | 2    | 8                  | base                     | damaged                    | damaged  | 8                  | damaged   | damaged                    | damaged  |
| Cap.9             | 2    | 8                  | damaged                  | damaged                    | damaged  | 8                  | pagemeb   | damaged                    | separated by the caulicole   |
| Cap.10            | 2    | 8                  | damaged                  | damaged                    | damaged  | 8                  | between the top leaflets of the leaves<br>of the first row      | damaged                    | separated by the caulicole   |
| Cap.11            | 2    | 8                  | above a recessed<br>ring | three-pair<br>toothed leaf | touching at the first and second pairs           | 8                  | between the third pairs of lobes of the<br>leaves of first row  | three-pair<br>toothed leaf | spaced apart   |
| Cap.12            | 2    | 8                  | base                     | three-pair<br>toothed leaf | touching at the first and second pairs           | 8                  | between the top leaflets of the leaves<br>of the first row      | two-pair toothed<br>leaf   | separated by the caulicole   |
| Cap.13            | 2    | 8                  | above a recessed<br>ring | three-pair<br>toothed leaf | spaced apart with a triangular<br>rim in between | 8                  | between the third pairs of lobes of the<br>leaves of first row  | two-pair toothed<br>leaf   | spaced apart, forming a ridge  |
| Cap.14            | 2    | 8                  | above a recessed<br>ring | three-pair<br>toothed leaf | spaced apart with a triangular<br>rim in between | 8                  | between the third pairs of lobes of the<br>leaves of first row  | two-pair toothed<br>leaf   | spaced apart, forming a ridge  |

| Acanthus Leaves Alignment | ouching in the first pair, causing<br>a ridge and a triangular shape | ouching in the first pair, causing<br>a ridge and a triangular shape | spaced apart, forming a ridge                              | spaced apart, forming a ridge                              | touching in the first pair                                      | spaced apart, forming a ridge                                   | spaced apart, forming a ridge                                   | spaced apart, forming a ridge                                  | separated by the caulicole                                      | ouching in the first pair, causing<br>a rectangular shape      | spaced apart, forming a ridge                                   | spaced apart, forming a ridge                                   | spaced apart, forming a ridge                                   | spaced apart  |
|---------------------------|--|--|--|--|---|---|---|--|---|--|---|---|---|---|
| Shape                     | two-pair toothed t   | two-pair toothed t   | two-pair toothed<br>leaf                                   | one-pair toothed<br>leaf                                   | two-pair toothed<br>leaf  | three-pair<br>toothed leaf                                      | two-pair toothed<br>leaf  | two-pair toothed<br>leaf                                       | three-pair<br>toothed leaf                                      | two-pair toothed t<br>leaf                                     | three-pair<br>toothed leaf                                      | three-pair<br>toothed leaf                                      | three-pair<br>toothed leaf                                      | two-pair toothed<br>leaf  |
| Spring Point              | between the top leaflets of the leaves<br>of the first row           | between the top leaflets of the leaves<br>of the first row           | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row |
| Leaves in<br>Row 2        | ø  | ø  | ∞  | 8  | 8   | 8   | 8   | 8  | 8   | 8  | 8   | 8   | 8   | ∞   |
| Acanthus Leaves Alignment | touching at all pairs  | touching at all pairs  | touching at first pair with a<br>triangular rim in between | touching at all pairs                                      | touching at all pairs   | damaged   | touching at the first pair                                      | damaged  | touching at first pair with a<br>triangular rim in between      | touching at first pair with a<br>triangular rim in between     | touching at first pair with a<br>triangular rim in between      | damaged   | touching at first pair with a<br>triangular rim in between      | touching at first pair with a<br>triangular rim in between      |
| Shape                     | two-pair toothed<br>leaf   | two-pair toothed<br>leaf   | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf  | three-pair<br>toothed leaf                                      | two-pair toothed<br>leaf  | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                      | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                      | three-pair<br>toothed leaf                                      | three-pair<br>toothed leaf                                      | three-pair<br>toothed leaf                                      |
| Spring Point              | above a recessed<br>ring   | above a recessed<br>ring   | above a recessed<br>ring                                   | base   | base  | base  | base  | base   | base  | base   | above a recessed<br>ring  | base  | base  | base  |
| Leaves in<br>Row 1        | ∞  | ø  | ø  | 8  | 8   | 8   | 8   | 8  | 8   | 8  | 8   | 8   | 8   | ø   |
| Rows                      | 2  | 2  | 2  | 2  | 2   | 2   | 2   | 2  | 2   | 2  | 2   | 2   | 2   | 2   |
| Capital<br>(Cap.)         | Cap.15   | Cap.16   | Cap.17   | Cap.18   | Cap.19  | Cap.20  | Cap.21  | Cap.22   | Cap.23  | Cap.24   | Cap.25  | Cap.26  | Cap.27  | Cap.28  |

| Capital<br>(Cap.) | Rows       | Leaves in<br>Row 1 | Spring Point             | Shape                      | Acanthus Leaves Alignment                                  | Leaves in<br>Row 2 | Spring Point  | Shape                      | Acanthus Leaves Alignment  |
|-------------------|------------|--------------------|--------------------------|----------------------------|--|--------------------|---|----------------------------|--|
| ap.29             | 2          | 8                  | pase                     | three-pair<br>toothed leaf | damaged  | ∞                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf   | spaced apart, forming a ridge  |
| Cap.30            | 2          | 8                  | base                     | three-pair<br>toothed leaf | touching at first pair with a triangular rim in between    | ∞                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf   | spaced apart, forming a ridge  |
| Cap.31            | upper part | I                  | I                        | I                          | I  | upper<br>part      | I   | I                          | I  |
| Cap.32            | 2          | 8                  | base                     | three-pair<br>toothed leaf | touching at first pair with a triangular rim in between    | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf   | spaced apart, forming a ridge  |
| Cap.33            | 2          | 8                  | above a recessed<br>ring | three-pair<br>toothed leaf | touching at first pair with a triangular rim in between    | 8                  | between the third pairs of lobes of the<br>leaves of first row  | two-pair toothed<br>leaf   | spaced apart, forming a ridge  |
| Cap.34            | 2          | 8                  | base                     | three-pair<br>toothed leaf | damaged  | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf   | spaced apart, forming a ridge  |
| Cap.35            | 2          | 8                  | base                     | three-pair<br>toothed leaf | spaced apart with a triangular<br>rim in between           | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf   | spaced apart, forming a ridge  |
| Cap.36            | 2          | 8                  | base                     | three-pair<br>toothed leaf | touching at first pair with a triangular rim in between    | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf   | spaced apart, forming a ridge  |
| Cap.37            | 2          | 8                  | base                     | three-pair<br>toothed leaf | touching at first pair with a triangular rim in between    | 8                  | between the second pairs of lobes of<br>the leaves of first row | three-pair<br>toothed leaf | spaced apart, forming a ridge  |
| Cap.38            | 2          | 8                  | above a recessed<br>ring | three-pair<br>toothed leaf | touching at first pair with a triangular rim in between    | 8                  | between the second pairs of lobes of<br>the leaves of first row | three-pair<br>toothed leaf | spaced apart, forming a ridge  |
| Cap.39            | 2          | 8                  | base                     | one-pair toothed<br>leaf   | touching at all pairs                                      | 8                  | between the top leaflets of the leaves<br>of the first row      | two-pair toothed<br>leaf   | spaced apart, forming a ridge  |
| Cap.40            | 2          | 8                  | base                     | three-pair<br>toothed leaf | damaged  | 8                  | cannot be recognized  | two-pair toothed<br>leaf   | touching in the first pair, causing<br>a triangular shape              |
| Cap.41            | 2          | 8                  | base                     | three-pair<br>toothed leaf | touching at first pair with a<br>triangular rim in between | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf   | spaced apart, forming a ridge  |
| Cap.42            | 2          | 8                  | above a recessed<br>ring | three-pair<br>toothed leaf | spaced apart with a triangular<br>rim in between           | 8                  | between the second pairs of lobes of<br>the leaves of first row | three-pair<br>toothed leaf | touching in the first pair, causing<br>a ridge and a rectangular shape |

| Capital<br>(Cap.) | Rows | Leaves in<br>Row 1 | Spring Point             | Shape                      | Acanthus Leaves Alignment                                  | Leaves in<br>Row 2 | Spring Point  | Shape                    | Acanthus Leaves Alignment   |
|-------------------|------|--------------------|--------------------------|----------------------------|--|--------------------|---|--------------------------|---|
| Cap.43            | 2    | ∞                  | base                     | three-pair<br>toothed leaf | damaged  | ∞                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf | touching in the first pair, causing<br>a ridge and a triangular shape |
| Cap.44            | 2    | 8                  | base                     | three-pair<br>toothed leaf | spaced apart   | 8                  | between the first pairs of lobes of the<br>leaves of first row  | two-pair toothed<br>leaf | spaced apart, forming a ridge   |
| Cap.45            | 2    | 8                  | base                     | three-pair<br>toothed leaf | touching at first pair with a triangular rim in between    | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf | spaced apart, forming a ridge   |
| Cap.46            | 2    | 8                  | base                     | three-pair<br>toothed leaf | touching at first pair with a<br>triangular rim in between | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf | spaced apart, forming a ridge   |
| Cap.47            | 2    | 8                  | base                     | three-pair<br>toothed leaf | touching at first pair with a<br>triangular rim in between | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf | spaced apart, forming a ridge   |
| Cap.48            | 2    | 8                  | base                     | two-pair toothed<br>leaf   | touching at all pairs                                      | 8                  | between the top leaflets of the leaves<br>of the first row      | one-pair toothed<br>leaf | spaced apart, forming a ridge   |
| Cap.49            | 2    | 8                  | base                     | three-pair<br>toothed leaf | touching at the first and second pairs                     | 8                  | between the third pairs of lobes of the<br>leaves of first row  | two-pair toothed<br>leaf | spaced apart, forming a ridge   |
| Cap.50            | 2    | 8                  | base                     | three-pair<br>toothed leaf | touching at the first and second pairs                     | 8                  | between the third pairs of lobes of the<br>leaves of first row  | two-pair toothed<br>leaf | spaced apart, forming a ridge   |
| Cap.51            | 2    | 8                  | base                     | three-pair<br>toothed leaf | touching at first pair with a<br>triangular rim in between | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf | spaced apart, forming a ridge   |
| Cap.52            | 2    | 8                  | base                     | two-pair toothed<br>leaf   | touching at all pairs                                      | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf | spaced apart, forming a ridge   |
| Cap.53            | 2    | 8                  | base                     | two-pair toothed<br>leaf   | touching at all pairs                                      | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf | touching in the first pair, causing<br>a triangular shape             |
| Cap.54            | 2    | 8                  | base                     | two-pair toothed<br>leaf   | touching at all pairs                                      | 8                  | between the top leaflets of the leaves<br>of the first row      | two-pair toothed<br>leaf | touching in the first foliole of the<br>first pair                    |
| Cap.55            | 2    | 8                  | above a recessed<br>ring | two-pair toothed<br>leaf   | touching at all pairs                                      | 8                  | between the top leaflets of the leaves<br>of the first row      | two-pair toothed<br>leaf | spaced apart  |
| Cap.56            | 2    | 8                  | above a recessed<br>ring | three-pair<br>toothed leaf | touching at first pair with a triangular rim in between    | ∞                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf | spaced apart, forming a ridge   |

| Appendix 3 | 3: | Acanthus | Leaf |
|------------|----|----------|------|
|------------|----|----------|------|

| Acanthus Leaves Alignment | red touching in the second pair,<br>causing a rectangular shape | separated by the caulicole                                      | red touching in the first pair, causing a triangular shape | spaced apart, forming a ridge                              | spaced apart, forming a ridge                              | separated by the caulicole                                  | separated by the caulicole                                     | separated by the caulicole                                     | separated by the caulicole                                     | touching in the first pair                                 | ned spaced apart  | touching in the first foliole of the first pair                 | spaced apart, forming a ridge                              | ed spaced apart  | ned spaced apart, forming a ridge    |
|---------------------------|---|---|--|--|--|---|--|--|--|--|---|---|--|--|--------------------------------------|
| Shape                     | two-pair tooth<br>leaf  | two-pair tooth<br>leaf  | one-pair tooth<br>leaf                                     | two-pair tooth<br>leaf                                     | damaged  | two-pair tooth<br>leaf                                      | two-pair tooth<br>leaf   | two-pair tooth<br>leaf   | two-pair tooth<br>leaf   | two-pair tooth<br>leaf                                     | two-pair tooth<br>leaf  | two-pair tooth<br>leaf  | two-pair tooth<br>leaf                                     | one-pair tooth<br>leaf                                     | two-pair tooth                       |
| Spring Point              | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the third pairs of lobes of the leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the top leaflets of the leaves<br>of the first row | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the second pairs of lobes of |
| Leaves in<br>Row 2        | ø   | 8   | 8  | 8  | 8  | 8   | 8  | 8  | 8  | 8  | 8   | 8   | 8  | 8  | 8                                    |
| Acanthus Leaves Alignment | damaged   | touching at all pairs   | touching at all pairs                                      | touching at all pairs                                      | touching at all pairs                                      | touching at the first and second pairs                      | touching at the first and second pairs                         | touching at the first and second pairs                         | touching at the first and second pairs                         | touching at the first and second pairs                     | touching at all pairs   | touching at all pairs   | touching at all pairs                                      | touching at all pairs                                      | touching at all pairs                |
| Shape                     | three-pair<br>toothed leaf                                      | two-pair toothed<br>leaf  | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | three-pair<br>toothed leaf                                  | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                 | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | two-pair toothed                     |
| Spring Point              | base  | base  | above a recessed<br>ring                                   | above a recessed<br>ring                                   | base   | base  | base   | base   | base   | base   | base  | base  | base   | base   | base                                 |
| Leaves in<br>Row 1        | 8   | 8   | 8  | 8  | 8  | 8   | 8  | 8  | 8  | 8  | 8   | 8   | 8  | 8  | 8                                    |
| Rows                      | 2   | 2   | 2  | 2  | 2  | 2   | 2  | 2  | 2  | 2  | 2   | 2   | 2  | 2  | 2                                    |
| Capital<br>(Cap.)         | Cap.57  | Cap.58  | Cap.59   | Cap.60   | Cap.61   | Cap.62  | Cap.63   | Cap.64   | Cap.65   | Cap.66   | Cap.67  | Cap.68  | Cap.69   | Cap.70   | Cap.71                               |

| Acanthus Leaves Alignment | separated by the caulicole | separated by the caulicole | spaced apart   | damaged  | separated by the caulicole                                     | touching in the lowest foliole of<br>the first pair            | touching in the lowest foliole of<br>the first pair            | touching in the lowest foliole of<br>the first pair            | touching in the first and second folioles of the first pair    | touching in the lowest foliole of<br>the first pair            |
|---------------------------|----------------------------|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Shape                     | smooth (both)              | one-pair toothed<br>leaf   | two-pair toothed<br>leaf                                   | damaged  | two-pair toothed<br>leaf                                       |
| Spring Point              | base                       | base                       | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row |
| Leaves in<br>Row 2        | 8                          | 8                          | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  |
| Acanthus Leaves Alignment | spaced apart               | spaced apart               | touching at all pairs                                      | spaced apart   | touching at the first and second pairs                         | touching at the first pair                                     | touching at the first pair                                     | touching at the first pair                                     | touching at the first and second pairs                         | touching at the first and second pairs                         |
| Shape                     | smooth (both)              | two-pair toothed<br>leaf   | two-pair toothed<br>leaf                                   | three-pair<br>toothed leaf                                 | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     |
| Spring Point              | base                       | base                       | base   | base   | base   | base   | base   | base   | base   | above a recessed<br>ring                                       | above a recessed<br>ring                                       | above a recessed<br>ring                                       | base   | base   |
| Leaves in<br>Row 1        | 8                          | 8                          | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  |
| Rows                      | 2                          | 2                          | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  |
| Capital<br>(Cap.)         | Cap.72.<br>Face1           | Cap.72.<br>Face2           | Cap.73   | Cap.74   | Cap.75   | Cap.76   | Cap.77   | Cap.78   | Cap.79   | Cap.80   | Cap.81   | Cap.82   | Cap.83   | Cap.84   |

|                           |  |  |  | 1  |   | 1  |               |               |               |               |  |                                 |                            | 1  |                                 |
|---------------------------|--|--|--|--|---|--|---------------|---------------|---------------|---------------|--|---------------------------------|----------------------------|--|---------------------------------|
| Acanthus Leaves Alignment | touching in the lowest foliole of the first pair               | touching in the lowest foliole of<br>the first pair            | touching in the lowest foliole of<br>the first pair            | separated by the caulicole                                 | touching in the first pair, causing<br>a ridge and a triangular shape | touching in the first pair                                 | -             | -             | -             | L             | separated by the caulicole                                 | separated by the caulicole      | separated by the caulicole | separated by the caulicole                       | separated by the caulicole      |
| Shape                     | two-pair toothed<br>leaf                                       | two-pair toothed<br>leaf                                       | two-pair toothed<br>leaf                                       | one-pair toothed<br>leaf                                   | two-pair toothed<br>leaf  | two-pair toothed<br>leaf                                   | I             | I             | I             | I             | one-pair toothed<br>leaf                                   | smooth (both)                   | smooth                     | smooth   | smooth                          |
| Spring Point              | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row            | between the top leaflets of the leaves<br>of the first row | I             | 1             | I             | I             | between the top leaflets of the leaves<br>of the first row | between the leaves of first row | base                       | between the leaves of first row                  | between the leaves of first row |
| Leaves in<br>Row 2        | œ  | ø  | 8  | 8  | 80  | 8  | upper<br>part | upper<br>part | upper<br>part | upper<br>part | 8  | 8                               | ø                          | 8  | ø                               |
| Acanthus Leaves Alignment | touching at the first and second pairs                         | touching at the first and second pairs                         | touching at the first and second pairs                         | touching at all pairs                                      | touching at all pairs   | touching at first pair with a<br>triangular rim in between | I             | I             | I             | I             | spaced apart   | spaced apart                    | spaced apart               | spaced apart with a triangular<br>rim in between | spaced apart                    |
| Shape                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf  | two-pair toothed<br>leaf                                   | I             | I             | -             | Ι             | two-pair toothed<br>leaf                                   | smooth (both)                   | smooth                     | smooth   | smooth                          |
| Spring Point              | base   | base   | base   | above a recessed<br>ring                                   | above a recessed<br>ring  | above a recessed<br>ring                                   | I             | I             | -             | I             | base   | base                            | base                       | base   | above a recessed<br>ring        |
| Leaves in<br>Row 1        | œ  | ø  | ø  | 8  | œ   | 8  | I             | I             | I             | I             | 8  | 8                               | 8                          | 8  | 8                               |
| Rows                      | 2  | 2  | 2  | 2  | 2   | 2  | upper part    | upper part    | upper part    | upper part    | 2  | 2                               | 2                          | 2  | 2                               |
| Capital<br>(Cap.)         | Cap.85   | Cap.86   | Cap.87   | Cap.88   | Cap.89  | Cap.90   | Cap.91        | Cap.92        | Cap.93        | Cap.94        | Cap.95.<br>Face1   | Cap.95.<br>Face2                | Cap.96                     | Cap.97   | Cap.98                          |

| Appendix 3: | Acanthus | Leaf |
|-------------|----------|------|
|-------------|----------|------|

| Acanthus Leaves Alignment | touching in the first pair                                     | separated by the caulicole                       | separated by the caulicole | separated by the caulicole                       | parated by the caulicole and calyx               | separated by the caulicole | separated by the caulicole | paced apart, forming a ridge                                   | separated by the caulicole                                 | separated by the caulicole                                 | separated by the caulicole                                 | touching in the first pair                                     | touching in the first pair                                     | separated by the caulicole | touching in the first pair                                      | separated by the caulicole |
|---------------------------|--|--|----------------------------|--|--|----------------------------|----------------------------|--|--|--|--|--|--|----------------------------|---|----------------------------|
| Shape                     | two-pair toothed<br>leaf                                       | smooth   | smooth                     | smooth   | smooth   | smooth                     | two-pair toothed<br>leaf   | two-pair toothed sl  | two-pair toothed<br>leaf                                   | cannot be<br>recognized                                    | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                       | two-pair toothed<br>leaf                                       | one-pair toothed<br>leaf   | two-pair toothed<br>leaf  | two-pair toothed<br>leaf   |
| Spring Point              | between the third pairs of lobes of the<br>leaves of first row | between the leaves of first row                  | base                       | between the leaves of first row                  | between the leaves of first row                  | base                       | base                       | between the third pairs of lobes of the<br>leaves of first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | base                       | between the second pairs of lobes of<br>the leaves of first row | base                       |
| Leaves in<br>Row 2        | 12   | 8  | 8                          | ∞  | 8  | 8                          | 8                          | 8  | 8  | 8  | 8  | 80   | 8  | 8                          | 8   | 8                          |
| Acanthus Leaves Alignment | touching at the first and second pairs                         | spaced apart with a triangular<br>rim in between | spaced apart               | spaced apart with a triangular<br>rim in between | spaced apart with a triangular<br>rim in between | spaced apart               | spaced apart               | touching at the first and second pairs                         | spaced apart   | touching at all pairs                                      | touching at the first and second pairs                     | touching at the first and second pairs                         | spaced apart   | spaced apart               | spaced apart  | spaced apart               |
| Shape                     | three-pair<br>toothed leaf                                     | smooth   | smooth                     | smooth   | smooth   | smooth                     | two-pair toothed<br>leaf   | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                 | three-pair<br>toothed leaf                                 | three-pair<br>toothed leaf                                 | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf | three-pair<br>toothed leaf                                      | three-pair<br>toothed leaf |
| Spring Point              | base   | base   | base                       | base   | base   | base                       | base                       | base   | base   | base   | base   | base   | base   | base                       | base  | base                       |
| Leaves in<br>Row 1        | 12   | 8  | 8                          | ∞  | 8  | 8                          | 8                          | 8  | 8  | 8  | 8  | 8  | 8  | 8                          | 8   | 8                          |
| Rows                      | 2  | 2  | 2                          | 2  | 2  | 2                          | 2                          | 2  | 2  | 2  | 2  | 2  | 2  | 2                          | 2   | 2                          |
| Capital<br>(Cap.)         | Cap.99   | Cap.100  | Cap.101                    | Cap.102  | Cap.103  | Cap.104                    | Cap.105                    | Cap.106  | Cap.107  | Cap.108  | Cap.109  | Cap.110  | Cap.111  | Cap.112                    | Cap.113   | Cap.114                    |

| Acanthus Leaves Alignment | separated by the caulicole | separated by the caulicole                                      | separated by the caulicole                                      | separated by the caulicole                                      | separated by the caulicole                                      | separated by the caulicole                                      | separated by the caulicole                                     | separated by the caulicole                                     | separated by the caulicole                                     | separated by the caulicole                                     | separated by the caulicole                                      | separated by the caulicole | separated by the caulicole | separated by the caulicole                                 | separated by the caulicole |
|---------------------------|----------------------------|---|---|---|---|---|--|--|--|--|---|----------------------------|----------------------------|--|----------------------------|
| Shape                     | two-pair toothed<br>leaf   | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | three-pair<br>toothed leaf                                      | two-pair toothed<br>leaf                                       | two-pair toothed<br>leaf                                       | one-pair toothed<br>leaf                                       | cannot be<br>recognized  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf   | two-pair toothed<br>leaf   | two-pair toothed<br>leaf                                   | smooth                     |
| Spring Point              | base                       | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the first pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | between the second pairs of lobes of<br>the leaves of first row | base                       | base                       | between the top leaflets of the leaves<br>of the first row | base                       |
| Leaves in<br>Row 2        | 8                          | 8   | 8   | 8   | 8   | 8   | 8  | 8  | 8  | 8  | 8   | 8                          | 8                          | 8  | 8                          |
| Acanthus Leaves Alignment | spaced apart               | spaced apart  | spaced apart  | spaced apart  | spaced apart  | spaced apart  | spaced apart   | spaced apart   | damaged  | spaced apart   | spaced apart  | spaced apart               | spaced apart               | touching at the first and second pairs                     | spaced apart               |
| Shape                     | three-pair<br>toothed leaf | three-pair<br>toothed leaf                                      | three-pair<br>toothed leaf                                      | three-pair<br>toothed leaf                                      | two-pair toothed<br>leaf  | three-pair<br>toothed leaf                                      | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                     | two-pair toothed<br>leaf                                       | three-pair<br>toothed leaf                                     | two-pair toothed<br>leaf  | three-pair<br>toothed leaf | three-pair<br>toothed leaf | three-pair<br>toothed leaf                                 | smooth                     |
| Spring Point              | base                       | base  | base  | base  | base  | base  | base   | base   | base   | base   | base  | base                       | base                       | base   | base                       |
| Leaves in<br>Row 1        | ø                          | 8   | 8   | 8   | 8   | 8   | 8  | 8  | 8  | 8  | 8   | 8                          | 8                          | 8  | 8                          |
| Rows                      | 2                          | 2   | 2   | 2   | 2   | 2   | 2  | 2  | 2  | 2  | 2   | 2                          | 2                          | 2  | 2                          |
| Capital<br>(Cap.)         | Cap.115                    | Cap.116   | Cap.117   | Cap.118   | Cap.119   | Cap.120   | Cap.121  | Cap.122  | Cap.123  | Cap.124  | Cap.125   | Cap.126                    | Cap.127                    | Cap.128  | Cap.129                    |
| Acanthus Leaves Alignment | separated by the caulicole                                 | separated by the caulicole                                      | separated by the caulicole                                      | separated by the caulicole                                      | separated by the caulicole | separated by the caulicole | touching in the first pair                                 | spaced apart   | separated by the caulicole                                 | ouching only in the first foliole of<br>the first pair     | separated by the caulicole  | separated by the caulicole                                      |
|---------------------------|----------------------------|----------------------------|----------------------------|--|---|---|---|----------------------------|----------------------------|--|--|--|--|---|---|
| Shape                     | smooth                     | smooth                     | smooth                     | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf   | one-pair toothed<br>leaf   | one-pair toothed<br>leaf                                   | one-pair toothed<br>leaf                                   | damaged  | two-pair toothed to<br>leaf                                | two-pair toothed<br>leaf  | one-pair toothed<br>leaf  |
| Spring Point              | base                       | base                       | base                       | between the top leaflets of the leaves<br>of the first row | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | between the second pairs of lobes of<br>the leaves of first row | base                       | base                       | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | from the line connecting the top<br>leaflets of the leaves of first row | between the second pairs of lobes of<br>the leaves of first row |
| Leaves in<br>Row 2        | 8                          | 8                          | 8                          | ø  | 8   | 8   | 8   | 8                          | 8                          | 8  | 8  | 8  | 8  | 8   | 8   |
| Acanthus Leaves Alignment | spaced apart               | spaced apart               | spaced apart               | touching at all pairs                                      | spaced apart  | spaced apart  | spaced apart  | spaced apart               | spaced apart               | touching at all pairs                                      | touching at the first and second pairs                     | touching at all pairs                                      | touching at the first and second pairs                     | spaced apart  | spaced apart  |
| Shape                     | smooth                     | smooth                     | smooth                     | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf  | three-pair<br>toothed leaf                                      | two-pair toothed<br>leaf  | two-pair toothed<br>leaf   | two-pair toothed<br>leaf   | three-pair<br>toothed leaf                                 | three-pair<br>toothed leaf                                 | two-pair toothed<br>leaf                                   | three-pair<br>toothed leaf                                 | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  |
| Spring Point              | base                       | base                       | base                       | base   | base  | base  | base  | base                       | base                       | base   | base   | base   | base   | base  | base  |
| Leaves in<br>Row 1        | 8                          | 8                          | ø                          | ø  | 8   | 8   | 8   | 8                          | 8                          | 8  | 8  | 8  | 8  | 8   | ø   |
| Rows                      | 2                          | 2                          | 2                          | 2  | 2   | 2   | 2   | 2                          | 2                          | 2  | 2  | 2  | 2  | 2   | 2   |
| Capital<br>(Cap.)         | Cap.130                    | Cap.131                    | Cap.132                    | Cap.133  | Cap.134   | Cap.135   | Cap.136   | Cap.137                    | Cap.138                    | Cap.139  | Cap.140  | Cap.141  | Cap.142  | Cap.143   | Cap.144   |

| Acanthus Leaves Alignment | separated by the caulicole | cannot be recognized       | touching in the first and second pairs                     | touching in all pairs  | I  | I  | touching in all pairs   | separated by the caulicole | touching in all pairs                                      | separated by the caulicole | spaced apart   | 1             |
|---------------------------|----------------------------|----------------------------|--|--|--|--|---|----------------------------|--|--|--|--|----------------------------|--|---------------|
| Shape                     | one-pair toothed<br>leaf   | cannot be<br>recognized    | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                       | two-pair toothed<br>leaf                                   | cannot be<br>recognized                                    | two-pair toothed<br>leaf  | one-pair toothed<br>leaf   | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf   | two-pair toothed<br>leaf                                   | I             |
| Spring Point              | base                       | cannot be recognized       | between the top leaflets of the leaves<br>of the first row | between the third pairs of lobes of the<br>leaves of first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the second pairs of lobes of<br>the leaves of first row | base                       | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | pase                       | between the top leaflets of the leaves<br>of the first row | -             |
| Leaves in<br>Row 2        | 8                          | 8                          | 8  | 8  | 8  | 8  | 8   | 8                          | 8  | 8  | 8  | 8  | 8                          | 8  | upper<br>part |
| Acanthus Leaves Alignment | spaced apart               | spaced apart               | touching at the first and second pairs                     | touching at the first and second pairs                         | touching at all pairs                                      | spaced apart   | touching at all pairs   | spaced apart               | touching at all pairs                                      | spaced apart   | touching at all pairs                                      | touching at all pairs                                      | spaced apart               | spaced apart   | I             |
| Shape                     | three-pair<br>toothed leaf | three-pair<br>toothed leaf | three-pair<br>toothed leaf                                 | three-pair<br>toothed leaf                                     | three-pair<br>toothed leaf                                 | three-pair<br>toothed leaf                                 | two-pair toothed<br>leaf  | three-pair<br>toothed leaf | three-pair<br>toothed leaf                                 | three-pair<br>toothed leaf                                 | three-pair<br>toothed leaf                                 | three-pair<br>toothed leaf                                 | two-pair toothed<br>leaf   | three-pair<br>toothed leaf                                 | I             |
| Spring Point              | base                       | base                       | base   | base   | base   | base   | base  | base                       | base   | base   | base   | base   | base                       | base   | I             |
| Leaves in<br>Row 1        | 8                          | 8                          | 8  | 8  | 8  | 8  | 8   | 8                          | 8  | 8  | 8  | 8  | 8                          | 8  | upper part    |
| Rows                      | 2                          | 2                          | 2  | 2  | 2  | 2  | 2   | 2                          | 2  | 2  | 2  | 2  | 2                          | 2  | 2             |
| Capital<br>(Cap.)         | Cap.145                    | Cap.146                    | Cap.147  | Cap.148  | Cap.149  | Cap.150  | Cap.151   | Cap.152                    | Cap.153  | Cap.154  | Cap.155.<br>Face1  | Cap.155.<br>Face2  | Cap.156                    | Cap.157  | Cap.158       |

| Acanthus Leaves Alignment | separated by the caulicole      | separated by the caulicole  | separated by the caulicole                       | separated by the caulicole                                     | touching with the upper part<br>separated by the caulicole              | touching with the upper part<br>separated by the caulicole              | touching with the upper part<br>separated by the caulicole              | touching with the upper part<br>separated by the caulicole              | separated by the caulicole      | separated by the caulicole | cannot be recognized     | separated by the caulicole  | separated by the caulicole  | separated by the caulicole  |
|---------------------------|---------------------------------|---|--|--|---|---|---|---|---------------------------------|----------------------------|--------------------------|---|---|---|
| Shape                     | smooth                          | two-pair toothed<br>leaf  | smooth   | two-pair toothed<br>leaf                                       | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | smooth                          | two-pair toothed<br>leaf   | cannot be<br>recognized  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  |
| Spring Point              | between the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | between the leaves of first row                  | between the third pairs of lobes of the<br>leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | between the leaves of first row | əseq                       | cannot be recognized     | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row |
| Leaves in<br>Row 2        | 8                               | 8   | 8  | 8  | 8   | 8   | 8   | 8   | 8                               | 8                          | 8                        | 8   | 8   | 8   |
| Acanthus Leaves Alignment | spaced apart                    | touching at all pairs with an<br>edge at the top                        | spaced apart with a triangular<br>rim in between | touching at all pairs  | touching at all pairs with the top part                                 | touching at all pairs with the top part                                 | touching at all pairs with the top part                                 | touching at all pairs with the top part                                 | spaced apart                    | spaced apart               | touching at all pairs    | touching at all pairs with the top part                                 | touching at all pairs with the top part                                 | touching at all pairs with the top<br>part                              |
| Shape                     | smooth                          | two-pair toothed<br>leaf  | smooth   | two-pair toothed<br>leaf                                       | two-pair toothed<br>leaf  | cannot be<br>recognized   | cannot be<br>recognized   | cannot be<br>recognized   | smooth                          | two-pair toothed<br>leaf   | two-pair toothed<br>leaf | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  |
| Spring Point              | base                            | base  | base   | base   | base  | base  | base  | base  | pase                            | base                       | pase                     | base  | base  | base  |
| Leaves in<br>Row 1        | 8                               | 8   | 8  | 8  | 8   | 8   | 8   | 8   | 8                               | 8                          | 8                        | 8   | 8   | 8   |
| Rows                      | 2                               | 7   | 2  | 2  | 2   | 2   | 2   | 2   | 2                               | 2                          | 2                        | 2   | 2   | 2   |
| Capital<br>(Cap.)         | Cap.159                         | Cap.160   | Cap.161  | Cap.162  | Cap.163   | Cap.164   | Cap.165   | Cap.166   | Cap.167                         | Cap.168                    | Cap.169                  | Cap.170   | Cap.171   | Cap.172   |

| Capital<br>(Cap.) | Rows | Leaves in<br>Row 1 | Spring Point | Shape                    | Acanthus Leaves Alignment                  | Leaves in<br>Row 2 | Spring Point  | Shape                    | Acanthus Leaves Alignment                                  |
|-------------------|------|--------------------|--------------|--------------------------|--|--------------------|---|--------------------------|--|
| Cap.173           | 2    | ∞                  | base         | two-pair toothed<br>leaf | touching at all pairs                      | ∞                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf | separated by the caulicole                                 |
| Cap.174           | 2    | 8                  | base         | damaged                  | damaged                                    | 8                  | cannot be recognized  | two-pair toothed<br>leaf | separated by the caulicole                                 |
| Cap.175           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs                      | 8                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf | separated by the caulicole                                 |
| Cap.176           | 2    | 8                  | base         | two-pair toothed<br>leaf | wind-blown                                 | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | separated by the caulicole                                 |
| Cap.177           | 2    | 8                  | base         | two-pair toothed<br>leaf | wind-blown                                 | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | separated by the caulicole                                 |
| Cap.178           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs with the top<br>part | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | separated by the caulicole                                 |
| Cap.179           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs with the top part    | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | separated by the caulicole                                 |
| Cap.180           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs with the top<br>part | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | separated by the caulicole                                 |
| Cap.181           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs                      | 8                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf | touching with the upper part<br>separated by the caulicole |
| Cap.182           | 2    | 8                  | base         | smooth                   | spaced apart                               | 8                  | base  | smooth                   | separated by the caulicole                                 |
| Cap.183           | 2    | 8                  | base         | smooth                   | touching at the lower part of the leaves   | 8                  | between the leaves of first row   | smooth                   | separated by the caulicole                                 |
| Cap.184           | 2    | 8                  | base         | smooth                   | spaced apart                               | 8                  | base  | smooth                   | separated by the caulicole                                 |
| Cap.185           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs                      | 8                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf | separated by the caulicole                                 |
| Cap.186           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs                      | 8                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf | separated by the caulicole                                 |
| Cap.187           | 2    | 8                  | base         | two-pair toothed<br>leaf | wind-blown                                 | ∞                  | between the upper part of the leaves<br>of the first row                | two-pair toothed<br>leaf | separated by the caulicole                                 |

| Acanthus Leaves Alignment | ned separated by the caulicole                           | separated by the caulicole | ed separated by the caulicole                                  | ed separated by the caulicole                                  | ed separated by the caulicole                           | ed separated by the caulicole                           | separated by the caulicole | 1                        | separated by the caulicole                                 | separated by the caulicole  | hed touching in the first pair  | f separated by the caulicole                               | separated by the caulicole | separated by the caulicole | touching in all pairs            |
|---------------------------|--|----------------------------|--|--|---|---|----------------------------|--------------------------|--|---|---|--|----------------------------|----------------------------|----------------------------------|
| Shape                     | two-pair tooth<br>leaf                                   | smooth                     | five-pair tooth<br>leaf  | five-pair tooth<br>leaf  | five-pair tooth<br>leaf                                 | five-pair tooth<br>leaf                                 | smooth                     | I                        | two-pair tooth<br>leaf                                     | two-pair tooth<br>leaf  | two-pair tooth<br>leaf  | three-pair<br>toothed lea                                  | smooth                     | smooth                     | cannot be                        |
| Spring Point              | between the upper part of the leaves<br>of the first row | base                       | between the third pairs of lobes of the<br>leaves of first row | between the third pairs of lobes of the<br>leaves of first row | behind the upper part of the leaves of<br>the first row | behind the upper part of the leaves of<br>the first row | base                       | I                        | between the top leaflets of the leaves<br>of the first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | between the top leaflets of the leaves<br>of the first row | base                       | base                       | from the line connecting the top |
| Leaves in<br>Row 2        | 8  | 8                          | 8  | 8  | 8   | 8   | 8                          | one-row<br>capital       | 8  | 8   | 8   | 8  | 8                          | 8                          | ۲                                |
| Acanthus Leaves Alignment | wind-blown   | damaged                    | touching at the first and second pairs                         | touching at the first and second pairs                         | wind-blown  | wind-blown  | spaced apart               | touching at all pairs    | damaged  | wind-blown  | touching at all pairs with an<br>edge at the top                        | touching at all pairs                                      | spaced apart               | spaced apart               | touching at all pairs with an    |
| Shape                     | two-pair toothed<br>leaf                                 | smooth                     | four-pair<br>toothed leaf                                      | four-pair<br>toothed leaf                                      | four-pair<br>toothed leaf                               | four-pair<br>toothed leaf                               | smooth                     | two-pair toothed<br>leaf | damaged  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | two-pair toothed<br>leaf                                   | smooth                     | smooth                     | two-pair toothed                 |
| Spring Point              | base   | pase                       | base   | əseq   | base  | əseq  | base                       | rope-like band           | base   | base  | base  | base   | base                       | pase                       |                                  |
| Leaves in<br>Row 1        | 8  | 8                          | 8  | 8  | 8   | 8   | 8                          | 8                        | 8  | 8   | 8   | 8  | 8                          | 16                         | c                                |
| Rows                      | 2  | 2                          | 2  | 2  | 2   | 2   | 2                          | 2                        | 2  | 2   | 2   | 2  | 2                          | 2                          | ſ                                |
| Capital<br>(Cap.)         | Cap.188  | Cap.189                    | Cap.190  | Cap.191  | Cap.192   | Cap.193   | Cap.194                    | Cap.195                  | Cap.196  | Cap.197   | Cap.198   | Cap.199  | Cap.200                    | Cap.201                    | (JC 45)                          |

| Acanthus Leaves Alignment | separated by the caulicole                                 | separated by the caulicole | separated by the caulicole  | separated by the caulicole  | separated by the caulicole | touching in all pairs                                      | touching in all pairs                                      | separated by the caulicole      | separated by the caulicole | separated by the caulicole                                 | separated by the caulicole | separated by the caulicole | separated by the caulicole |
|---------------------------|----------------------------|----------------------------|----------------------------|--|----------------------------|---|---|----------------------------|--|--|---------------------------------|----------------------------|--|----------------------------|----------------------------|----------------------------|
| Shape                     | smooth                     | two-pair toothed<br>leaf   | three-pair<br>toothed leaf | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf   | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | smooth                     | one-pair toothed<br>leaf                                   | one-pair toothed<br>leaf                                   | smooth                          | smooth                     | two-pair toothed<br>leaf                                   | smooth                     | smooth                     | smooth                     |
| Spring Point              | base                       | base                       | wind-blown                 | between the top leaflets of the leaves<br>of the first row | wind-blown                 | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | base                       | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the leaves of first row | base                       | between the top leaflets of the leaves<br>of the first row | base                       | base                       | base                       |
| Leaves in<br>Row 2        | 8                          | 8                          | 8                          | 8  | 8                          | 8   | 8   | 8                          | 8  | 8  | 8                               | 8                          | 9  | 6                          | 8                          | 8                          |
| Acanthus Leaves Alignment | spaced apart               | spaced apart               | wind-blown                 | touching at all pairs                                      | wind-blown                 | touching at all pairs with an<br>edge at the top                        | touching at all pairs with an<br>edge at the top                        | spaced apart               | touching at all pairs                                      | touching at all pairs                                      | spaced apart                    | spaced apart               | damaged  | spaced apart               | spaced apart               | spaced apart               |
| Shape                     | smooth                     | two-pair toothed<br>leaf   | damaged                    | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf   | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | smooth                     | one-pair toothed<br>leaf                                   | one-pair toothed<br>leaf                                   | smooth                          | smooth                     | damaged  | smooth                     | smooth                     | smooth                     |
| Spring Point              | base                       | base                       | base                       | base   | base                       | base  | base  | base                       | base   | base   | base                            | base                       | base   | base                       | base                       | base                       |
| Leaves in<br>Row 1        | ∞                          | 8                          | 8                          | 8  | 8                          | 8   | 8   | 8                          | 8  | 8  | 8                               | 8                          | 8  | 8                          | 8                          | 8                          |
| Rows                      | 2                          | 2                          | 2                          | 2  | 2                          | 2   | 2   | 2                          | 2  | 2  | 2                               | 2                          | 2  | 2                          | 2                          | 2                          |
| Capital<br>(Cap.)         | Cap.203                    | Cap.204                    | Cap.205                    | Cap.206  | Cap.207                    | Cap.208   | Cap.209.<br>Face1   | Cap.209.<br>Face2          | Cap.210  | Cap.211  | Cap.212                         | Cap.213                    | Cap.214.<br>Face1  | Cap.214.<br>Face2          | Cap.215                    | Cap.216                    |

| Capital<br>(Cap.) | Rows | Leaves in<br>Row 1 | Spring Point | Shape                    | Acanthus Leaves Alignment                        | Leaves in<br>Row 2 | Spring Point  | Shape                    | Acanthus Leaves Alignment  |
|-------------------|------|--------------------|--------------|--------------------------|--|--------------------|---|--------------------------|----------------------------|
| Cap.217           | 2    | 8                  | base         | smooth                   | spaced apart                                     | ∞                  | base  | smooth                   | separated by the caulicole |
| Cap.218           | 2    | 8                  | base         | damaged                  | wind-blown                                       | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | separated by the caulicole |
| Cap.219.<br>Face1 | 2    | 8                  | base         | smooth                   | spaced apart with a triangular<br>rim in between | ∞                  | between the leaves of first row   | smooth                   | separated by the caulicole |
| Cap.219.<br>Face2 | 2    | 8                  | base         | smooth                   | spaced apart with a triangular<br>rim in between | 8                  | between the leaves of first row   | smooth                   | separated by the caulicole |
| Cap.219.<br>Face3 | 2    | 8                  | base         | smooth                   | spaced apart with a triangular<br>rim in between | 8                  | between the leaves of first row   | smooth                   | separated by the caulicole |
| Cap.220           | 2    | 8                  | base         | smooth                   | spaced apart                                     | 8                  | base  | smooth                   | separated by the caulicole |
| Cap.221           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf | separated by the caulicole |
| Cap.222           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf | separated by the caulicole |
| Cap.223           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf | separated by the caulicole |
| Cap.224           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | separated by the caulicole |
| Cap.225           | 2    | 8                  | base         | two-pair toothed<br>leaf | wind-blown                                       | 8                  | w ind-blown   | two-pair toothed<br>leaf | separated by the caulicole |
| Cap.226           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | separated by the caulicole |
| Cap.227           | 2    | 8                  | base         | one-pair toothed<br>leaf | touching at all pairs                            | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | one-pair toothed<br>leaf | separated by the caulicole |
| Cap.228           | 2    | 8                  | base         | smooth                   | spaced apart                                     | 8                  | base  | smooth                   | separated by the caulicole |
| Cap.229           | 2    | 8                  | base         | smooth                   | spaced apart                                     | 8                  | base  | smooth                   | separated by the caulicole |
| Cap.230           | 2    | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf | separated by the caulicole |

| oital<br>ap.) | Rows    | Leaves in<br>Row 1 | Spring Point | Shape                    | Acanthus Leaves Alignment                        | Leaves in<br>Row 2 | Spring Point  | Shape                      | Acanthus Leaves Alignment  |
|---------------|---------|--------------------|--------------|--------------------------|--|--------------------|---|----------------------------|----------------------------|
| 31            | 1       | 8                  | base         | one-pair toothed<br>leaf | touching at all pairs                            | one-row<br>capital | I   | I                          | 1                          |
| 232           | 2       | 8                  | base         | one-pair toothed<br>leaf | touching at all pairs                            | 8                  | between the top leaflets of the leaves<br>of the first row              | one-pair toothed<br>leaf   | touching in all pairs      |
| 233           | 2       | 8                  | base         | two-pair toothed<br>leaf | spaced apart                                     | 8                  | between the second pairs of lobes of<br>the leaves of first row         | two-pair toothed<br>leaf   | separated by the caulicole |
| 234           | 2       | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf   | separated by the caulicole |
| 235           | 2       | 8                  | base         | smooth                   | spaced apart                                     | 8                  | between the leaves of first row   | smooth                     | separated by the caulicole |
| .236          | 2       | 8                  | base         | smooth                   | spaced apart                                     | 8                  | base  | smooth                     | separated by the caulicole |
| .237          | 2       | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf   | separated by the caulicole |
| .238          | 2       | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf   | separated by the caulicole |
| .239          | 2       | 8                  | base         | smooth                   | spaced apart                                     | 8                  | base  | smooth                     | separated by the caulicole |
| .240          | 2       | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf   | separated by the caulicole |
| .241          | 2       | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf   | separated by the caulicole |
| .242          | 2       | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf   | separated by the caulicole |
| 243           | 2       | 8                  | base         | two-pair toothed<br>leaf | touching at all pairs with an<br>edge at the top | 8                  | from a frame of folioles above the<br>lower row                         | two-pair toothed<br>leaf   | separated by the caulicole |
| 244           | 2       | 8                  | base         | smooth                   | spaced apart                                     | 8                  | base  | smooth                     | separated by the caulicole |
| .245          | damaged | damaged            | damaged      | damaged                  | damaged  | 8                  | damaged   | three-pair<br>toothed leaf | separated by the caulicole |

| Acanthus Leaves Alignment | separated by the caulicole                                 | -                        | ed touching in all pairs  | separated by the caulicole                                 | ed separated by the caulicole                              | separated by the caulicole | ed separated by the caulicole                              | ed touching in all pairs  | ed touching in all pairs  | separated by the caulicole | ed touching in all pairs  | ed separated by the caulicole | separated by the caulicole | ed separated by the caulicole                              | ed separated by the caulicole   |
|---------------------------|--|--------------------------|---|--|--|----------------------------|--|---|---|----------------------------|---|-------------------------------|----------------------------|--|---|
| Shape                     | three-pair<br>toothed leaf                                 | I                        | one-pair tooth<br>leaf  | three-pair<br>toothed leaf                                 | one-pair tooth<br>leaf                                     | smooth                     | one-pair tooth<br>leaf                                     | two-pair tooth<br>leaf  | two-pair tooth<br>leaf  | smooth                     | two-pair tooth<br>leaf  | two-pair tooth<br>leaf        | smooth                     | two-pair tooth<br>leaf                                     | two-pair tooth<br>leaf  |
| Spring Point              | between the top leaflets of the leaves<br>of the first row | -                        | from the line connecting the top<br>leaflets of the leaves of first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | base                       | between the top leaflets of the leaves<br>of the first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | base                       | from the line connecting the top<br>leaflets of the leaves of first row | base                          | base                       | between the top leaflets of the leaves<br>of the first row | from the line connecting the top<br>leaflets of the leaves of first row |
| Leaves in<br>Row 2        | ∞  | one-row<br>capital       | 8   | 8  | 8  | 8                          | 8  | 8   | 8   | 8                          | 8   | 8                             | 8                          | 8  | 8   |
| Acanthus Leaves Alignment | touching at all pairs                                      | touching at all pairs    | touching at all pairs with an<br>edge at the top                        | touching at all pairs                                      | wind-blown   | spaced apart               | wind-blown   | touching at all pairs with an<br>edge at the top                        | touching at all pairs with an<br>edge at the top                        | spaced apart               | touching at all pairs with an<br>edge at the top                        | spaced apart                  | spaced apart               | touching at all pairs                                      | touching at all pairs   |
| Shape                     | damaged  | two-pair toothed<br>leaf | one-pair toothed<br>leaf  | three-pair<br>toothed leaf                                 | one-pair toothed<br>leaf                                   | smooth                     | one-pair toothed<br>leaf                                   | two-pair toothed<br>leaf  | two-pair toothed<br>leaf  | smooth                     | two-pair toothed<br>leaf  | one-pair toothed<br>leaf      | smooth                     | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf  |
| Spring Point              | base   | rope-like band           | base  | decorative frame   | base   | base                       | base   | base  | base  | base                       | base  | projected plain<br>band       | base                       | base   | base  |
| Leaves in<br>Row 1        | ∞  | 8                        | 8   | 8  | 8  | 8                          | 8  | 8   | 8   | 8                          | 8   | 8                             | 8                          | 8  | ø   |
| Rows                      | 2  | 1                        | 2   | 2  | 2  | 2                          | 2  | 2   | 2   | 2                          | 2   | 2                             | 2                          | 2  | 2   |
| Capital<br>(Cap.)         | Cap.246  | Cap.247                  | Cap.248   | Cap.249  | Cap.250  | Cap.251                    | Cap.252  | Cap.253.<br>Face1   | Cap.253.<br>Face2   | Cap.254                    | Cap.255   | Cap.256                       | Cap.257                    | Cap.258  | Cap.259   |

| Capital<br>(Cap.) | Rows | Leaves in<br>Row 1 | Spring Point   | Shape                      | Acanthus Leaves Alignment                        | Leaves in<br>Row 2 | Spring Point  | Shape                      | Acanthus Leaves Alignment  |
|-------------------|------|--------------------|----------------|----------------------------|--|--------------------|---|----------------------------|----------------------------|
| Cap.260           | 2    | 8                  | base           | one-pair toothed<br>leaf   | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | one-pair toothed<br>leaf   | separated by the caulicole |
| Cap.261           | 2    | 8                  | base           | one-pair toothed<br>leaf   | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | one-pair toothed<br>leaf   | separated by the caulicole |
| Cap.262           | 2    | 8                  | rope-like band | two-pair toothed<br>leaf   | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf   | separated by the caulicole |
| Cap.263           | 2    | 8                  | base           | two-pair toothed<br>leaf   | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf   | separated by the caulicole |
| Cap.264           | 2    | 8                  | base           | smooth                     | spaced apart                                     | 8                  | base  | smooth                     | separated by the caulicole |
| Cap.265           | 2    | 8                  | base           | two-pair toothed<br>leaf   | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf   | touching in all pairs      |
| Cap.266           | 2    | 8                  | base           | two-pair toothed<br>leaf   | spaced apart                                     | 8                  | between the first pairs of lobes of the leaves of first row             | two-pair toothed<br>leaf   | separated by the caulicole |
| Cap.267           | 2    | 8                  | base           | smooth                     | spaced apart                                     | 8                  | base  | smooth                     | separated by the caulicole |
| Cap.268           | 2    | 8                  | base           | smooth                     | spaced apart                                     | 8                  | base  | smooth                     | separated by the caulicole |
| Cap.269           | 2    | 8                  | base           | smooth                     | spaced apart with a triangular<br>rim in between | 8                  | between the leaves of first row   | smooth                     | separated by the caulicole |
| Cap.270           | 2    | 8                  | base           | two-pair toothed<br>leaf   | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf   | separated by the caulicole |
| Cap.271           | 2    | 8                  | base           | three-pair<br>toothed leaf | touching at all pairs                            | 8                  | between the top leaflets of the leaves<br>of the first row              | three-pair<br>toothed leaf | touching in the first pair |
| Cap.272           | 1    | 4                  | base           | two-pair toothed<br>leaf   | separated by the caulicole                       | one-row<br>capital | -   |                            | 1                          |
| Cap.273           | 2    | 4                  | base           | two-pair toothed<br>leaf   | spaced apart                                     | 4                  | base  | two-pair toothed<br>leaf   | spaced apart               |
| Cap.274           | 2    | 4                  | base           | cannot be<br>recognized    | spaced apart                                     | 4                  | base  | cannot be<br>recognized    | separated by the caulicole |

| Acanthus Leaves Alignment | separated by the caulicole | spaced apart             | I                          | I                          | separated by the caulicole                                 | touching in the first pair                                 | spaced apart   | touching in the first and second pairs                     | separated by the caulicole | separated by the caulicole | separated by the caulicole                  | separated by the caulicole                  | separated by the caulicole |
|---------------------------|----------------------------|--------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--|--|--|--|----------------------------|----------------------------|---|---|----------------------------|
| Shape                     | one-pair toothed<br>leaf   | one-pair toothed<br>leaf | I                          | I                          | cannot be<br>recognized    | cannot be<br>recognized    | cannot be<br>recognized    | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | smooth                     | smooth                     | smooth                                      | smooth                                      | smooth                     |
| Spring Point              | base                       | base                     | I                          | I                          | base                       | base                       | base                       | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | between the top leaflets of the leaves<br>of the first row | damaged                    | base                       | between the leaves of first row             | base  | base                       |
| Leaves in<br>Row 2        | 4                          | 4                        | one-row<br>capital         | one-row<br>capital         | 4                          | 4                          | 4                          | 8  | 4  | 8  | 8  | 8                          | 8                          | 8   | 8   | 8                          |
| Acanthus Leaves Alignment | spaced apart               | spaced apart             | separated by the caulicole | separated by the caulicole | spaced apart               | spaced apart               | spaced apart               | touching at all pairs                                      | damaged                    | spaced apart               | touching at the lower part of the<br>leaves | touching at the lower part of the<br>leaves | spaced apart               |
| Shape                     | one-pair toothed<br>leaf   | one-pair toothed<br>leaf | two-pair toothed<br>leaf   | two-pair toothed<br>leaf   | cannot be<br>recogni zed   | cannot be<br>recognized    | two-pair toothed<br>leaf   | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | two-pair toothed<br>leaf                                   | four-pair<br>toothed leaf                                  | smooth                     | smooth                     | smooth                                      | smooth                                      | smooth                     |
| Spring Point              | base                       | base                     | base                       | base                       | base                       | base                       | base                       | base   | base   | base   | base   | damaged                    | base                       | base  | base  | base                       |
| Leaves in<br>Row 1        | 4                          | 4                        | 4                          | 4                          | 4                          | 4                          | 4                          | 8  | 4  | 8  | 8  | 8                          | 8                          | 8   | 8   | 8                          |
| Rows                      | 2                          | 2                        | 1                          | 1                          | 2                          | 2                          | 2                          | 2  | 2  | 2  | 2  | 2                          | 2                          | 2   | 2   | 2                          |
| Capital<br>(Cap.)         | Cap.275                    | Cap.276                  | Cap.277                    | Cap.278                    | Cap.279                    | Cap.280                    | Cap.281                    | Cap.282  | Cap.283  | Cap.284  | Cap.285  | Cap.286                    | Cap.287                    | Cap.288                                     | Cap.289                                     | Cap.290                    |

| Capital<br>(Cap.) | Rows | Leaves in<br>Row 1 | Spring Point            | Shape  | Acanthus Leaves Alignment | Leaves in<br>Row 2 | Spring Point                           | Shape  | Acanthus Leaves Alignment  |
|-------------------|------|--------------------|-------------------------|--------|---------------------------|--------------------|--|--------|----------------------------|
| Cap.291           | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap.292           | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap.293           | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap. 294          | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap. 295          | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap.296           | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap. 297          | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap. 298          | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap. 299          | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | between the leaves of first row        | smooth | separated by the caulicole |
| Cap.300           | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap.301           | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap.302           | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap.303           | 2    | 8                  | base                    | smooth | spaced apart              | 8                  | base                                   | smooth | separated by the caulicole |
| Cap.304           | 2    | 8                  | projected plain<br>band | smooth | spaced apart              | 8                  | above the leaves of first row          | smooth | separated by the caulicole |
| Cap.305           | 2    | 8                  | projected plain<br>band | smooth | spaced apart              | 8                  | above the leaves of first row          | smooth | separated by the caulicole |
| Cap.306           | 2    | 8                  | projected plain<br>band | smooth | spaced apart              | 8                  | from above the leaves of the first row | smooth | separated by the caulicole |

|   | ws Le:<br>R | eaves in<br>Row 1 | Spring Point            | Shape                    | Acanthus Leaves Alignment                        | Leaves in<br>Row 2 | Spring Point  | Shape                    | Acanthus Leaves Alignment  |
|---|-------------|-------------------|-------------------------|--------------------------|--|--------------------|---|--------------------------|----------------------------|
| 2 |             | 8                 | base                    | two-pair toothed<br>leaf | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | separated by the caulicole |
| 2 |             | 8                 | base                    | smooth                   | spaced apart                                     | 8                  | base  | smooth                   | separated by the caulicole |
| 2 |             | 8                 | base                    | smooth                   | spaced apart                                     | 8                  | base  | smooth                   | separated by the caulicole |
| 2 |             | 8                 | projected plain<br>band | smooth                   | spaced apart                                     | 8                  | between the leaves of first row   | smooth                   | separated by the caulicole |
| 2 |             | 8                 | projected plain<br>band | smooth                   | spaced apart                                     | 8                  | between the leaves of first row   | smooth                   | separated by the caulicole |
| 2 |             | 80                | base                    | smooth                   | spaced apart                                     | 8                  | from above the leaves of the first row                                  | smooth                   | separated by the caulicole |
| 2 |             | ø                 | base                    | smooth                   | spaced apart                                     | 8                  | above the leaves of first row   | smooth                   | separated by the caulicole |
| 5 |             | œ                 | base                    | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | touching in all pairs      |
| 2 |             | 8                 | base                    | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | touching in all pairs      |
| 2 |             | 9                 | base                    | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | touching in all pairs      |
| 5 |             | 9                 | base                    | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | touching in all pairs      |
| 2 |             | 9                 | base                    | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | touching in all pairs      |
| 2 |             | 9                 | base                    | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | touching in all pairs      |
| 2 |             | 9                 | base                    | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | touching in all pairs      |
| 2 |             | 9                 | base                    | two-pair toothed<br>leaf | touching at all pairs                            | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf | touching in all pairs      |

| Acanthus Leaves Alignment | touching in all pairs   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shape                     | two-pair toothed<br>leaf  |
| Spring Point              | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row | from the line connecting the top<br>leaflets of the leaves of first row |
| Leaves in<br>Row 2        | ø   | 8   | 8   | 8   | 8   | 8   | 8   | 8   | 8   | 8   | 8   | 8   | 8   | 8   |
| Acanthus Leaves Alignment | touching at all pairs   |
| Shape                     | two-pair toothed<br>leaf  |
| Spring Point              | base  |
| Leaves in<br>Row 1        | 7   | 8   | 9   | 7   | 9   | 9   | 9   | 9   | 9   | 9   | 9   | 8   | 9   | 9   |
| Rows                      | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   |
| Capital<br>(Cap.)         | Cap.322   | Cap.323   | Cap.324   | Cap.325   | Cap.326   | Cap.327   | Cap.328   | Cap.329   | Cap.330   | Cap.331   | Cap.332   | Cap.333   | Cap.334   | Cap.335   |

| Leaves in Spring<br>Row 1                   | Spring   | Point                     | Shape | Acanthus Leaves Alignment          | Leaves in<br>Row 2 | Spring Point  | Shape                     | Acanthus Leaves Alignment                     |
|---|--|---------------------------|-------|------------------------------------|--------------------|---|---------------------------|---|
| 4 base two-pair tooth leaf                  | base two-pair tooth leaf                       | two-pair tooth<br>leaf    | ed    | touching at all pairs              | one-row<br>capital | I   | L                         | I   |
| 4 base two-pair toothed leaf                | base two-pair toothed leaf                     | two-pair toothed<br>leaf  |       | touching at all pairs              | one-row<br>capital | Ι   | I                         | I   |
| 4 base two-pair toothed leaf                | base two-pair toothed leaf                     | two-pair toothed<br>leaf  |       | touching at all pairs              | one-row<br>capital | I   | I                         | I   |
| 4 base one-pair toothed leaf                | base one-pair toothed leaf                     | one-pair toothed<br>leaf  |       | touching at all pairs              | one-row<br>capital | I   | I                         | I   |
| 4 base two-pair toothed leaf                | base two-pair toothed leaf                     | two-pair toothed<br>leaf  |       | spaced apart                       | one-row<br>capital | -   | Ι                         | 1   |
| 4 base two-pair toothed leaf                | base two-pair toothed leaf                     | two-pair toothed<br>leaf  |       | touching at all pairs              | one-row<br>capital | I   | -                         | 1   |
| 4 base two-pair toothed leaf                | base two-pair toothed leaf                     | two-pair toothed<br>leaf  |       | touching at all pairs              | one-row<br>capital | 1   | I                         | 1   |
| 4 base two-pair toothed leaf                | base two-pair toothed<br>leaf                  | two-pair toothed<br>leaf  |       | touching at all pairs              | one-row<br>capital | 1   | -                         | I   |
| 8 base two-pair toothed leaf                | base two-pair toothed leaf                     | two-pair toothed<br>leaf  |       | touching at all pairs              | one-row<br>capital | T   | -                         | -   |
| 8 projected plain one-pair toothed leaf     | projected plain one-pair toothed band leaf     | one-pair toothed<br>leaf  |       | touching at all pairs              | one-row<br>capital | I   | -                         | -   |
| 8 base two-pair toothed leaf                | base two-pair toothed leaf                     | two-pair toothed<br>leaf  |       | touching at all pairs              | one-row<br>capital | 1   | -                         | -   |
| 8 base smooth                               | base smooth                                    | smooth                    |       | touching along the whole leaf body | one-row<br>capital | I   | I                         | -   |
| 4 base two-pair toothed leaf                | base two-pair toothed<br>leaf                  | two-pair toothed<br>leaf  |       | touching at the first pair         | 4                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf  | spaced apart                                  |
| 4 base two-pair toothed leaf                | base two-pair toothed<br>leaf                  | two-pair toothed<br>leaf  |       | touching at all pairs              | 4                  | between the top leaflets of the leaves<br>of the first row      | two-pair toothed<br>leaf  | spaced apart                                  |
| g projected plain non-lobed to toothed leaf | projected plain non-lobed<br>band toothed leaf | non-lobed<br>toothed leaf |       | overlapped                         | 4                  | above the corner leaves of the first row                        | non-lobed<br>toothed leaf | separated by the axial leaf from<br>first row |
| 8 projected plain non-lobed toothed leaf    | projected plain non-lobed<br>band toothed leaf | non-lobed<br>toothed leaf |       | overlapped                         | 4                  | above the corner leaves of the first<br>row                     | non-lobed<br>toothed leaf | separated by the axial leaf from<br>first row |

|                                | Spring Point | Shape                     | Acanthus Leaves Alignment              | Leaves in<br>Row 2 | Spring Point  | Shape                      | Acanthus Leaves Alignment  |
|--------------------------------|--------------|---------------------------|--|--------------------|---|----------------------------|----------------------------|
| projected plain<br>band        |              | non-lobed<br>toothed leaf | overlapped                             | one-row<br>capital | I   | I                          | T                          |
| projected plain<br>band        |              | non-lobed<br>toothed leaf | overlapped                             | one-row<br>capital | I   | I                          | I                          |
| projected plain<br>band        |              | non-lobed<br>toothed leaf | overlapped                             | one-row<br>capital | I   | I                          | l                          |
| projected plain<br>band        |              | non-lobed<br>toothed leaf | overlapped                             | 8                  | from behind the leaves of the first row                         | non-lobed<br>toothed leaf  | overlapped                 |
| rope-like band t               | t            | non-lobed<br>oothed leaf  | overlapped                             | 8                  | from behind the leaves of the first row                         | non-lobed<br>toothed leaf  | overlapped                 |
| two<br>rope-like band          | two          | -pair toothed<br>leaf     | overlapped                             | one-row<br>capital | I   | I                          | -                          |
| projected plain<br>band        |              | smooth                    | overlapped                             | one-row<br>capital | 1   | I                          | -                          |
| n<br>rope-like band too        | too          | on-lobed<br>othed leaf    | spaced apart                           | 8                  | from a rope-like band   | non-lobed<br>toothed leaf  | I                          |
| rope-like band too             | nc<br>too    | on-lobed<br>thed leaf     | spaced apart                           | 8                  | from a rope-like band   | smooth                     | spaced apart               |
| projected plain no<br>band too | nc<br>too    | on-lobed<br>othed leaf    | overlapped                             | one-row<br>capital | 1   | I                          | T                          |
| th<br>base to                  | th<br>too    | nree-pair<br>othed leaf   | touching at the first and second pairs | 8                  | between the third pairs of lobes of the<br>leaves of first row  | damaged                    | separated by the caulicole |
| projected plain two-<br>band   | two-         | pair toothed<br>leaf      | touching at all pairs                  | 8                  | between the second pairs of lobes of<br>the leaves of first row | two-pair toothed<br>leaf   | separated by the caulicole |
| base to                        | t t          | hree-pair<br>othed leaf   | touching at the first and second pairs | 8                  | between the third pairs of lobes of the<br>leaves of first row  | three-pair<br>toothed leaf | separated by the caulicole |
| t<br>base to                   | to t         | hree-pair<br>othed leaf   | touching at all pairs                  | 8                  | cannot be recognized  | I                          | T                          |
| base to                        | t t          | chree-pair<br>oothed leaf | spaced apart                           | 8                  | base  | damaged                    | separated by the caulicole |
| I                              |              |                           | I                                      | 8                  | damaged   | I                          | _                          |

| Capital<br>(Cap.) | Rows       | Leaves in<br>Row 1 | Spring Point | Shape                     | Acanthus Leaves Alignment                        | Leaves in<br>Row 2 | Spring Point  | Shape                      | Acanthus Leaves Alignment  |
|-------------------|------------|--------------------|--------------|---------------------------|--|--------------------|---|----------------------------|----------------------------|
|                   |            |                    |              |                           |  |                    |   |                            |                            |
| Cap.383           | unfinished | I                  | I            | I                         | -  | Ι                  | -   | I                          | -                          |
| Cap.384           | unfinished | I                  | I            |                           | -  | Ι                  | I   | I                          | -                          |
| Cap.385           | damaged    | I                  | Ι            | I                         | -  | Ι                  | I   | I                          | -                          |
| Cap.386           | 2          | 4                  | base         | two-pair toothed<br>leaf  | touching at all pairs                            | 4                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf   | touching in the first pair |
| Cap.387           | 2          | 8                  | base         | one-pair toothed<br>leaf  | touching at all pairs with an<br>edge at the top | 7                  | from the line connecting the top<br>leaflets of the leaves of first row | three-pair<br>toothed leaf | separated by the caulicole |
| Cap.388           | 2          | 8                  | base         | non-lobed<br>toothed leaf | wind-blown                                       | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | non-lobed<br>toothed leaf  | separated by the caulicole |
| Cap.389           | 2          | 8                  | base         | one-pair toothed<br>leaf  | touching at all pairs with an<br>edge at the top | 8                  | from the line connecting the top<br>leaflets of the leaves of first row | two-pair toothed<br>leaf   | touching in all pairs      |
| Cap.390.<br>Face1 | 2          | 8                  | base         | smooth                    | spaced apart                                     | 8                  | between the leaves of first row   | smooth                     | separated by the caulicole |
| Cap.390.<br>Face2 | 2          | 8                  | base         | smooth                    | spaced apart                                     | 8                  | between the leaves of first row   | smooth                     | separated by the caulicole |
| Cap.390.<br>Face3 | 2          | ∞                  | base         | one-pair toothed<br>leaf  | touching at all pairs                            | ∞                  | between the top leaflets of the leaves<br>of the first row              | two-pair toothed<br>leaf   | touching in all pairs      |

| Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation               | Additional<br>Characteristics                        |
|----------------|--------------------|-------------------------------------|--|
| Cap.1          | prismatic          | _                                   | _  |
| Cap.2          | cylindrical        | ends with a<br>horizontal<br>groove | no collar  |
| Cap.3          | prismatic          | _                                   | _  |
| Cap.4          | no<br>caulicole    | omitted                             | -  |
| Cap.5          | prismatic          | -                                   | -  |
| Cap.6          | prismatic          | -                                   | -  |
| Cap.7          | damaged            | -                                   | _  |
| Cap.8          | prismatic          | -                                   | -  |
| Cap.9          | prismatic          | -                                   | _  |
| Cap.10         | prismatic          | -                                   | -  |
| Cap.11         | prismatic          | -                                   | -  |
| Cap.12         | damaged            | -                                   | -  |
| Cap.13         | prismatic          | -                                   | -  |
| Cap.14         | prismatic          | -                                   | -  |
| Cap.15         | prismatic          | -                                   | _  |
| Cap.16         | prismatic          | -                                   | -  |
| Cap.17         | prismatic          | -                                   | -  |
| Cap.18         | prismatic          | -                                   | -  |
| Cap.19         | no<br>caulicole    | hidden                              | hidden<br>between the<br>leaves of the<br>second row |
| Cap.20         | prismatic          | -                                   | -  |
| Cap.21         | edge               | _                                   | -  |
| Cap.22         | prismatic          | -                                   | -  |
| Cap.23         | prismatic          | -                                   | _  |
| Cap.24         | prismatic          | -                                   | -  |

| Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation | Additional<br>Characteristics |
|----------------|--------------------|-----------------------|-------------------------------|
| Cap.25         | prismatic          | _                     | -                             |
| Cap.26         | prismatic          | -                     | -                             |
| Cap.27         | prismatic          | -                     | -                             |
| Cap.28         | prismatic          | -                     | -                             |
| Cap.29         | prismatic          | -                     | _                             |
| Cap.30         | prismatic          | -                     | -                             |
| Cap.31         | cylindrical        | upper part            | upper part                    |
| Cap.32         | prismatic          | -                     | -                             |
| Cap.33         | prismatic          | _                     | _                             |
| Cap.34         | prismatic          | -                     | -                             |
| Cap.35         | prismatic          | -                     | _                             |
| Cap.36         | prismatic          | -                     | -                             |
| Cap.37         | prismatic          | -                     | -                             |
| Cap.38         | prismatic          | -                     | -                             |
| Cap.39         | prismatic          | -                     | -                             |
| Cap.40         | prismatic          | -                     | -                             |
| Cap.41         | prismatic          | -                     | _                             |
| Cap.42         | prismatic          | -                     | -                             |
| Cap.43         | prismatic          | -                     | -                             |
| Cap.44         | prismatic          | -                     | -                             |
| Cap.45         | prismatic          | -                     | -                             |
| Cap.46         | prismatic          | -                     | -                             |
| Cap.47         | prismatic          | -                     | -                             |
| Cap.48         | prismatic          | -                     | -                             |

| Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation | Additional<br>Characteristics                        |
|----------------|--------------------|-----------------------|--|
| Cap.49         | prismatic          | _                     | _  |
| Cap.50         | prismatic          | -                     | -  |
| Cap.51         | prismatic          | _                     | -  |
| Cap.52         | prismatic          | -                     | -  |
| Cap.53         | prismatic          | -                     | -  |
| Cap.54         | prismatic          | -                     | -  |
| Cap.55         | prismatic          | -                     | -  |
| Cap.56         | prismatic          | -                     | -  |
| Cap.57         | prismatic          | -                     | -  |
| Cap.58         | prismatic          | -                     | -  |
| Cap.59         | no<br>caulicole    | hidden                | hidden<br>between the<br>leaves of the<br>second row |
| Cap.60         | prismatic          | -                     | -  |
| Cap.61         | prismatic          | -                     | -  |
| Cap.62         | cylindrical        | plain                 | no collar  |
| Cap.63         | cylindrical        | plain                 | no collar  |
| Cap.64         | cylindrical        | plain                 | no collar  |
| Cap.65         | cylindrical        | plain                 | no collar  |
| Cap.66         | cylindrical        | plain                 | no collar  |
| Cap.67         | prismatic          | -                     | -  |
| Cap.68         | damaged            | -                     | -  |
| Cap.69         | prismatic          | -                     | _  |
| Cap.70         | prismatic          | -                     | -  |
| Cap.71         | no<br>caulicole    | hidden                | hidden<br>between the<br>leaves of the<br>second row |

| Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation                 | Additional<br>Characteristics                        |
|----------------|--------------------|---------------------------------------|--|
|                |                    |                                       |  |
| Cap.72. Face1  | cylindrical        | plain                                 | plain collar   |
| Cap.72. Face2  | cylindrical        | decorated<br>with vertical<br>grooves | plain double-<br>collar                              |
| Cap.73         | no<br>caulicole    | hidden                                | hidden<br>between the<br>leaves of the<br>second row |
| Cap.74         | cylindrical        | plain                                 | no collar  |
| Cap.75         | cylindrical        | plain                                 | no collar  |
| Cap.76         | cylindrical        | plain                                 | no collar  |
| Cap.77         | cylindrical        | plain                                 | no collar  |
| Cap.78         | cylindrical        | plain                                 | no collar  |
| Cap.79         | cylindrical        | plain                                 | no collar  |
| Cap.80         | cylindrical        | plain                                 | no collar  |
| Cap.81         | cylindrical        | plain                                 | no collar  |
| Cap.82         | cylindrical        | plain                                 | no collar  |
| Cap.83         | cylindrical        | plain                                 | no collar  |
| Cap.84         | cylindrical        | plain                                 | no collar  |
| Cap.85         | cylindrical        | plain                                 | no collar  |
| Cap.86         | cylindrical        | plain                                 | no collar  |
| Cap.87         | cylindrical        | plain                                 | no collar  |
| Cap.88         | prismatic          | -                                     | _  |
| Cap.89         | prismatic          | -                                     | -  |
| Cap.90         | prismatic          | -                                     | -  |
| Cap.91         | cylindrical        | upper part                            | upper part   |
| Cap.92         | cylindrical        | upper part                            | upper part   |
| Cap.93         | cylindrical        | upper part                            | upper part   |
| Cap.94         | cylindrical        | upper part                            | upper part   |

| Capital (Cap.) | Caulicole<br>Shape   | State of<br>Formation  | Additional<br>Characteristics              |
|----------------|----------------------|--|--|
| Cap.95         | cylindrical          | plain  | plain collar                               |
| Cap.96         | band-like            | extends to<br>form the<br>stalks of the<br>helix and<br>volute | -  |
| Cap.97         | band-like            | ends with a<br>circle  | -  |
| Cap.98         | cylindrical          | plain  | no collar                                  |
| Cap.99         | cannot be recognized | -  | -  |
| Cap.100        | edge                 | _  | _  |
| Cap.101        | band-like            | extends to<br>form the<br>calyx                                | -  |
| Cap.102        | band-like            | extends to<br>form the<br>calyx                                | -  |
| Cap.103        | band-like            | -  | very short                                 |
| Cap.104        | band-like            | -  | _  |
| Cap.105        | cylindrical          | -  | -  |
| Cap.106        | cylindrical          | plain  | no collar                                  |
| Cap.107        | cylindrical          | -  | -  |
| Cap.108        | cylindrical          | decorated<br>with oblique<br>grooves                           | plain double-<br>collar                    |
| Cap.109        | cylindrical          | decorated<br>with vertical<br>grooves                          | plain double-<br>collar                    |
| Cap.110        | no<br>caulicole      | hidden   | behind the<br>leaves of<br>second row      |
| Cap.111        | cylindrical          | cannot be recognized   | collar<br>decorated with<br>petals         |
| Cap.112        | cylindrical          | decorated<br>with vertical<br>grooves                          | plain double-<br>collar                    |
| Cap.113        | cylindrical          | decorated<br>with vertical<br>grooves                          | plain collar                               |
| Cap.114        | cylindrical          | decorated<br>with vertical<br>grooves                          | plain double-<br>collar                    |
| Cap.115        | cylindrical          | decorated<br>with vertical<br>grooves                          | plain double-<br>collar                    |
| Cap.116        | cylindrical          | decorated<br>with vertical<br>grooves                          | double collar<br>decorated with<br>circles |

| Capital (Cap.) | Caulicole<br>Shape   | State of<br>Formation                 | Additional<br>Characteristics               |
|----------------|----------------------|---------------------------------------|---|
| Cap.117        | cylindrical          | decorated<br>with vertical<br>grooves | double collar<br>decorated with<br>circles  |
| Cap.118        | cylindrical          | decorated<br>with vertical<br>grooves | double collar<br>decorated with<br>circles  |
| Cap.119        | cylindrical          | decorated<br>with vertical<br>grooves | plain double-<br>collar                     |
| Cap.120        | cylindrical          | decorated<br>with vertical<br>grooves | plain double-<br>collar                     |
| Cap.121        | cylindrical          | decorated<br>with vertical<br>grooves | plain double-<br>collar                     |
| Cap.122        | cylindrical          | decorated<br>with vertical<br>grooves | plain double-<br>collar                     |
| Cap.123        | cylindrical          | decorated<br>with vertical<br>grooves | plain double-<br>collar                     |
| Cap.124        | cylindrical          | decorated<br>with vertical<br>grooves | double collar<br>decorated with<br>circles  |
| Cap.125        | cylindrical          | decorated<br>with vertical<br>grooves | collar consists<br>of overlapped<br>circles |
| Cap.126        | cylindrical          | decorated<br>with vertical<br>grooves | plain double-<br>collar                     |
| Cap.127        | cylindrical          | decorated<br>with vertical<br>grooves | plain double-<br>collar                     |
| Cap.128        | cylindrical          | plain                                 | plain collar                                |
| Cap.129        | cylindrical          | plain                                 | plain collar                                |
| Cap.130        | cylindrical          | plain                                 | plain collar                                |
| Cap.131        | band-like            | -                                     | -   |
| Cap.132        | band-like            | -                                     | _   |
| Cap.133        | cylindrical          | with vertical<br>grooves              | no collar                                   |
| Cap.134        | cylindrical          | decorated<br>with vertical<br>grooves | no collar                                   |
| Cap.135        | cannot be recognized | -                                     | -   |
| Cap.136        | cylindrical          | decorated<br>with vertical<br>grooves | no collar                                   |
| Cap.137        | cylindrical          | plain                                 | no collar                                   |
| Cap.138        | cylindrical          | decorated<br>with oblique<br>grooves  | plain collar                                |

| Capital (Cap.) | Caulicole<br>Shape      | State of Additiona<br>Formation Characterist |  |
|----------------|-------------------------|--|--|
| Cap.139        | no<br>caulicole         | hidden                                       | hidden<br>between the<br>leaves of the<br>second row |
| Cap.140        | no<br>caulicole         | hidden                                       | bidden<br>between the<br>leaves of the<br>second row |
| Cap.141        | cylindrical             | -  | ends with a vertical groove                          |
| Cap.142        | no<br>caulicole         | hidden                                       | hidden<br>between the<br>leaves of the<br>second row |
| Cap.143        | cylindrical             | decorated<br>with oblique<br>grooves         | collar<br>decorated with<br>petals                   |
| Cap.144        | cylindrical             | plain  | collar<br>decorated with<br>circles                  |
| Cap.145        | cylindrical             | decorated<br>with oblique<br>grooves         | plain collar   |
| Cap.146        | cannot be recognized    | -  | -  |
| Cap.147        | cylindrical             | plain  | plain collar   |
| Cap.148        | cylindrical             | plain  | cannot be<br>recognized                              |
| Cap.149        | cylindrical             | cannot be recognized                         | cannot be<br>recognized                              |
| Cap.150        | cannot be<br>recognized | _  | -  |
| Cap.151        | cannot be recognized    | -  | -  |
| Cap.152        | cylindrical             | decorated<br>with oblique<br>grooves         | plain collar   |
| Cap.153        | no<br>caulicole         | hidden                                       | hidden<br>between the<br>leaves of the<br>second row |
| Cap.154        | no<br>caulicole         | hidden                                       | hidden<br>between the<br>leaves of the<br>second row |
| Cap.155        | cylindrical             | plain  | no collar  |
| Cap.156        | cylindrical             | decorated<br>with oblique<br>grooves         | plain collar   |
| Cap.157        | cylindrical             | plain  | no collar  |
| Cap.158        | cylindrical             | -  | -  |
| Cap.159        | cylindrical             | plain  | plain collar   |

| Capital (Cap.) | Caulicole<br>Shape   | State of<br>Formation | Additional<br>Characteristics                                 |
|----------------|----------------------|-----------------------|---|
|                |                      |                       |   |
| Cap.160        | band-like            | -                     | -   |
| Cap.161        | band-like            | -                     | -   |
| Cap.162        | band-like            | _                     | _   |
| Cap.163        | band-like            | -                     | 2/3 of it hidden<br>behind the<br>leaves of the<br>second row |
| Cap.164        | band-like            | _                     | 2/3 of it hidden<br>behind the<br>leaves of the<br>second row |
| Cap.165        | band-like            | -                     | 1/2 of it hidden<br>behind the<br>leaves of the<br>second row |
| Cap.166        | band-like            | band-like _           |   |
| Cap.167        | band-like            | -                     | -   |
| Cap.168        | band-like            | -                     | _   |
| Cap.169        | cannot be recognized | -                     | -   |
| Cap.170        | band-like            | -                     | -   |
| Cap.171        | band-like            | -                     | -   |
| Cap.172        | band-like            | -                     | -   |
| Cap.173        | band-like            | -                     | -   |
| Cap.174        | band-like            | -                     | _   |
| Cap.175        | band-like            | -                     | -   |
| Cap.176        | band-like            | _                     | moves with the<br>wind-blown<br>leaves                        |
| Cap.177        | band-like            | -                     | -   |
| Cap.178        | band-like            | _                     | _   |
| Cap.179        | band-like            | -                     | -   |
| Cap.180        | band-like            | _                     | _   |
| Cap.181        | band-like            | -                     | -   |

| Capital (Cap.) | Caulicole<br>Shape   | State of<br>Formation           | Additional<br>Characteristics                                 |
|----------------|----------------------|---------------------------------|---|
| Cap.182        | band-like            | _                               | _   |
| Cap.183        | band-like            | ends with<br>arrowhead          | -   |
| Cap.184        | band-like            | extends to<br>form the<br>calyx | -   |
| Cap.185        | band-like            | -                               | -   |
| Cap.186        | band-like            | -                               | _   |
| Cap.187        | band-like            | -                               | moves with the<br>wind-blown<br>leaves                        |
| Cap.188        | band-like            | -                               | does not move<br>with the wind-<br>blown leaves               |
| Cap.189        | band-like            | -                               | -   |
| Cap.190        | band-like            | -                               | -   |
| Cap.191        | band-like            | -                               | -   |
| Cap.192        | band-like            | _                               | moves with the<br>wind-blown<br>leaves                        |
| Cap.193        | band-like            | -                               | moves with the<br>wind-blown<br>leaves                        |
| Cap.194        | band-like            | -                               | -   |
| Cap.195        | band-like            | -                               | 2/3 of it hidden<br>behind the<br>leaves of the<br>second row |
| Cap.196        | band-like            | -                               | _   |
| Cap.197        | band-like            | -                               | does not move<br>with the wind-<br>blown leaves               |
| Cap.198        | no<br>caulicole      | hidden                          | hidden<br>between the<br>leaves of the<br>second row          |
| Cap.199        | band-like            | -                               | -   |
| Cap.200        | edge                 | _                               | _   |
| Cap.201        | kite-like            | -                               | -   |
| Cap.202        | band-like            | -                               | _   |
| Cap.203        | inverted<br>teardrop | ends with a circle              | -   |

| Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation                          | Additional<br>Characteristics                        |  |
|----------------|--------------------|--|--|--|
| Cap.204        | band-like          | _  | _  |  |
| Cap.205        | band-like          | -  | moves with the<br>wind-blown<br>leaves               |  |
| Cap.206        | band-like          | -  | -  |  |
| Cap.207        | band-like          | -  | moves with the<br>wind-blown<br>leaves               |  |
| Cap.208        | band-like          | -  | _  |  |
| Cap.209.Face1  | band-like          | -  | -  |  |
| Cap.209.Face2  | band-like          | featuring a<br>hollowed<br>rectangular<br>area | _  |  |
| Cap.210        | no<br>caulicole    | hidden   | hidden<br>between the<br>leaves of the<br>second row |  |
| Cap.211        | no<br>caulicole    | hidden   | hidden<br>between the<br>leaves of the<br>second row |  |
| Cap.212        | band-like          | -  | -  |  |
| Cap.213        | twisted<br>column  | ends with a<br>rhombus                         | -  |  |
| Cap.214.Face1  | band-like          | -  | -  |  |
| Cap.214.Face2  | band-like          | -  | -  |  |
| Cap.215        | band-like          | -  | -  |  |
| Cap.216        | band-like          | -  | _  |  |
| Cap.217        | band-like          | -  | -  |  |
| Cap.218        | band-like          |  | moves with the<br>wind-blown<br>leaves               |  |
| Cap.219.Face1  | band-like          | ends with a circle                             | -  |  |
| Cap.219.Face2  | band-like          | ends with a circle                             | -  |  |
| Cap.219.Face3  | edge               | -  | -  |  |
| Cap.220        | band-like          | -  | -  |  |
| Cap.221        | band-like          | -  | -  |  |

| Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation | Additional<br>Characteristics                        |
|----------------|--------------------|-----------------------|--|
| Cap.222        | band-like          | _                     | _  |
| Cap.223        | band-like          | -                     | -  |
| Cap.224        | band-like          | _                     | _  |
| Cap.225        | band-like          | -                     | moves with the<br>wind-blown<br>leaves               |
| Cap.226        | band-like          | -                     | -  |
| Cap.227        | band-like          | -                     | -  |
| Cap.228        | band-like          | -                     | -  |
| Cap.229        | band-like          | -                     | -  |
| Cap.230        | band-like          | -                     | -  |
| Cap.231        | no<br>caulicole    | hidden                | hidden<br>between the<br>leaves of the<br>second row |
| Cap.232        | no<br>caulicole    | hidden                | hidden<br>between the<br>leaves of the<br>second row |
| Cap.233        | band-like          | -                     | -  |
| Cap.234        | band-like          | -                     | -  |
| Cap.235        | edge               | -                     | -  |
| Cap.236        | band-like          | ends with a<br>circle | -  |
| Cap.237        | band-like          | -                     | -  |
| Cap.238        | band-like          | _                     | _  |
| Cap.239        | band-like          | -                     | -  |
| Cap.240        | band-like          | _                     | _  |
| Cap.241        | band-like          | -                     | -  |
| Cap.242        | band-like          | _                     | _  |
| Cap.243        | band-like          | -                     | -  |
| Cap.244        | band-like          | _                     | _  |

| Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation                          | Additional<br>Characteristics                                 |
|----------------|--------------------|--|---|
| Cap.245        | band-like          | -  | moves with the<br>wind-blown<br>leaves                        |
| Cap.246        | band-like          | -  | -   |
| Cap.247        | band-like          | -  | -   |
| Cap.248        | no<br>caulicole    | hidden   | hidden<br>between the<br>leaves of the<br>second row          |
| Cap.249        | band-like          | featuring a<br>hollowed<br>rectangular<br>area | ends with<br>three fingers                                    |
| Cap.250        | band-like          | -  | moves with the<br>wind-blown<br>leaves                        |
| Cap.251        | band-like          | -  | -   |
| Cap.252        | band-like          | -  | moves with the<br>wind-blown<br>leaves                        |
| Cap.253        | no<br>caulicole    | hidden   | hidden<br>between the<br>leaves of the<br>second row          |
| Cap.254        | band-like          | -  | _   |
| Cap.255        | no<br>caulicole    | hidden   | hidden<br>between the<br>leaves of the<br>second row          |
| Cap.256        | band-like          | -  | _   |
| Cap.257        | band-like          | -  | _   |
| Cap.258        | band-like          | -  | -   |
| Cap.259        | band-like          | -  | _   |
| Cap.260        | band-like          | -  | _   |
| Cap.261        | band-like          | -  | -   |
| Cap.262        | band-like          | -  | -   |
| Cap.263        | band-like          | -  | -   |
| Cap.264        | band-like          | -  | -   |
| Cap.265        | band-like          | -  | 2/3 of it hidden<br>behind the<br>leaves of the<br>second row |

| Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation  | Additional<br>Characteristics                                 |
|----------------|--------------------|--|---|
| Cap.266        | band-like          | _  | _   |
| Cap.267        | band-like          | -  | -   |
| Cap.268        | band-like          | -  | -   |
| Cap.269        | band-like          | -  | -   |
| Cap.270        | band-like          | -  | -   |
| Cap.271        | no<br>caulicole    | hidden   | hidden<br>between the<br>leaves of the<br>second row          |
| Cap.272        | band-like          | -  | _   |
| Cap.273        | band-like          | -  | -   |
| Cap.274        | band-like          | -  | _   |
| Cap.275        | band-like          | -  | _   |
| Cap.276        | band-like          | -  | _   |
| Cap.277        | band-like          | -  | -   |
| Cap.278        | band-like          | -  | -   |
| Cap.279        | band-like          | -  | _   |
| Cap.280        | band-like          | _  | _   |
| Cap.281        | band-like          | -  | -   |
| Cap.282        | edge               | _  | -   |
| Cap.283        | no<br>caulicole    | hidden   | -   |
| Cap.284        | edge               | _  | -   |
| Cap.285        | band-like          | extends to<br>form the<br>stalks of the<br>helix and<br>volute | 1/2 of it hidden<br>behind the<br>leaves of the<br>second row |
| Cap.286        | band-like          | -  | _   |
| Cap.287        | edge               | -  | -   |
| Cap.288        | kite-like          | _  | _   |

| Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation  | Additional<br>Characteristics |
|----------------|--------------------|--|-------------------------------|
| Cap.289        | band-like          | ends with a circle   | -                             |
| Cap.290        | band-like          | band-like extends to<br>form the<br>stalks of the<br>helix and |                               |
| Cap.291        | edge               | -  | _                             |
| Cap.292        | edge               | -  | _                             |
| Cap.293        | decorated<br>band  | ends with a<br>flower  | _                             |
| Cap.294        | band-like          | -  | -                             |
| Cap.295        | band-like          | extends to<br>form the<br>calyx                                | -                             |
| Cap.296        | edge               | _  | _                             |
| Cap.297        | band-like          | extends to<br>form the<br>stalks of the<br>helix and<br>volute | -                             |
| Cap.298        | band-like          | extends to<br>form the<br>stalks of the<br>helix and<br>volute | _                             |
| Cap.299        | band-like          | extends to<br>form the<br>stalks of the<br>helix and<br>volute | -                             |
| Cap.300        | band-like          | extends to<br>form the<br>stalks of the<br>helix and<br>volute | _                             |
| Cap.301        | band-like          | extends to<br>form the<br>stalks of the<br>helix and<br>volute | -                             |
| Cap.302        | band-like          | extends to<br>form the<br>stalks of the<br>helix and<br>volute | _                             |
| Cap.303        | band-like          | extends to<br>form the<br>stalks of the<br>helix and<br>volute | _                             |
| Cap.304        | band-like          | extends to<br>form the<br>stalks of the<br>helix and<br>volute | _                             |

| Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation  | Additional<br>Characteristics                                      | Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation                            |
|----------------|--------------------|--|--|----------------|--------------------|--|
| Cap.305        | band-like          | extends to<br>form the<br>stalks of the<br>helix and<br>yolute | _  | Cap.321        | no<br>caulicole    | hidden   |
| Cap.306        | edge               | -  | _  | Cap.322        | no<br>caulicole    | hidden   |
| Cap.307        | band-like          | extends to<br>form the<br>stalks of the<br>helix and           | -  | Cap.323        | no<br>caulicole    | hidden   |
| Cap.308        | band-like          | extends to<br>form the<br>stalks of the<br>helix and           | _  | Cap.324        | no<br>caulicole    | hidden   |
|                |                    | extends to<br>form the   |  | Cap.325        | no<br>caulicole    | hidden   |
| Cap.309        | band-like          | stalks of the<br>helix and<br>volute                           | -  | Cap.326        | no<br>caulicole    | hidden   |
| Cap.310        | band-like          | extends to<br>form the<br>stalks of the<br>helix and<br>volute | _  | Cap.327        | no<br>caulicole    | hidden   |
| Cap.311        | band-like          | -  | -  | Cap.328        | no                 | hidden   |
| Cap.312        | band-like          | _  | -  |                | caulcole           |  |
| Cap.313        | band-like          | extends to<br>form the<br>stalks of the                        | _  | Cap.329        | no<br>caulicole    | hidden   |
|                |                    | volute   | hidden   | Cap.330        | no<br>caulicole    | hidden   |
| Cap.314        | no<br>caulicole    | hidden   | between the<br>leaves of the<br>second row                         | Cap 331        | no                 | hidden   |
| Cap.315        | no<br>caulicole    | hidden   | hidden<br>between the<br>leaves of the                             | Cup.551        | caulicole          |  |
| (an 216        | no                 | hiddon   | second row<br>hidden<br>between the                                | Cap.332        | no<br>caulicole    | hidden   |
|                | caulicole          |  | leaves of the<br>second row<br>hidden                              | Cap.333        | no<br>caulicole    | hidden   |
| Cap.317        | no<br>caulicole    | hidden   | between the<br>leaves of the<br>second row                         | Cap.334        | no                 | hidden   |
| Cap.318        | no<br>caulicole    | hidden   | hidden<br>between the<br>leaves of the                             |                | caulicole          |  |
| Cap.319        | no                 | hidden   | hidden<br>between the<br>leaves of the                             | Cap.335        | caulicole          | hidden   |
| Cap.320        | no<br>caulicole    | hidden   | second row<br>hidden<br>between the<br>leaves of the<br>second row | Cap.336        | band-like          | form the<br>stalks of the<br>helix and<br>volute |

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Additional Characteristics

hidden between the leaves of the second row hidden between the leaves of the second row

| Capital (Cap.) | Caulicole<br>Shape | State of<br>Formation                  | Additional<br>Characteristics                        | Capital (C |
|----------------|--------------------|--|--|------------|
| Cap.337        | band-like          | extends to<br>form the<br>stalk of the | -  | Cap.35     |
| Cap.338        | no<br>caulicole    | hidden                                 | hidden<br>between the<br>leaves of the               | Cap.35     |
| Cap.339        | no<br>caulicole    | hidden                                 | second row<br>hidden<br>between the<br>leaves of the | Cap.36     |
| Cap.340        | trident-like       | _                                      | second row   | Cap.36     |
| Cap.341        | no                 | hidden                                 | _  | Cap.36     |
| Cap.342        | no<br>caulicole    | hidden                                 | hidden<br>between the<br>leaves of the<br>second row | Cap.36     |
| Cap.343        | band-like          | extends to<br>form the<br>stalk of the | -  | Cap.36     |
| Cap.344        | no                 | hidden                                 | hidden<br>between the                                | Cap.36     |
|                | caulicole          | ovtondo to                             | second row   | Cap.36     |
| Cap.345        | band-like          | form the<br>stalk of the<br>volute     | -  | Cap.36     |
| Cap.346        | no<br>caulicole    | hidden                                 | hidden<br>between the<br>leaves of the               | Cap.36     |
| Cap.347        | no<br>caulicole    | hidden                                 | hidden<br>between the<br>leaves of the<br>second row | Cap.37     |
| Cap.348        | no<br>caulicole    | _                                      | _  | Cap.37     |
| Cap.349        | no<br>caulicole    | -                                      | -  | Cap.37     |
| Cap.350        | no<br>caulicole    | _                                      | _  | Cap.37     |
| Cap.351        | no<br>caulicole    | -                                      | -  | Cap.37     |
| Cap.352        | no<br>caulicole    | _                                      | -  | Cap.37     |
| Cap.353        | no<br>caulicole    | -                                      | -  | Cap.37     |
| Cap.354        | no<br>caulicole    | -                                      | -  | Cap.37     |
| Cap.355        | no<br>caulicole    | -                                      | -  | Cap.37     |
| Cap.356        | no<br>caulicole    | -                                      | -  | Cap.38     |
|                |                    |  |  |            |

| Capital (Cap.) | Caulicole<br>Shape   | State of<br>Formation                 | Additional<br>Characteristics |  |
|----------------|----------------------|---------------------------------------|-------------------------------|--|
| Cap.357        | no<br>caulicole      | -                                     | -                             |  |
| Cap.358        | no<br>caulicole      | _                                     | _                             |  |
| Cap.359        | no<br>caulicole      | -                                     | -                             |  |
| Cap.360        | no<br>caulicole      | -                                     | _                             |  |
| Cap.361        | no<br>caulicole      | _                                     | -                             |  |
| Cap.362        | no<br>caulicole      | _                                     | _                             |  |
| Cap.363        | no<br>caulicole      | -                                     | -                             |  |
| Cap.364        | no<br>caulicole      | _                                     | -                             |  |
| Cap.365        | no<br>caulicole      | -                                     | -                             |  |
| Cap.366        |                      | damaged                               | damaged                       |  |
| Cap.367        | no<br>caulicole      | -                                     | -                             |  |
| Cap.368        | no<br>caulicole      | -                                     | -                             |  |
| Cap.369        | no<br>caulicole      | _                                     | -                             |  |
| Cap.370        | no<br>caulicole      | _                                     | -                             |  |
| Cap.371        | no<br>caulicole      | -                                     | -                             |  |
| Cap.372        | no<br>caulicole      | _                                     | -                             |  |
| Cap.373        | no<br>caulicole      | -                                     | _                             |  |
| Cap.374        | Cylindrical          | decorated<br>with vertical<br>grooves | collar divided<br>by a groove |  |
| Cap.375        | edge                 | -                                     | _                             |  |
| Cap.376        | no<br>caulicole      | _                                     | -                             |  |
| Cap.377        | cylindrical          | decorated<br>with oblique<br>grooves  | plain collar                  |  |
| Cap.378        | cylindrical          | plain                                 | cannot be recognized          |  |
| Cap.379        | cylindrical          | decorated<br>with vertical<br>grooves | plain collar                  |  |
| Cap.380        | cannot be recognized | cannot be recognized                  | cannot be recognized          |  |

| Capital (Cap.) | Caulicole<br>Shape    | State of<br>Formation                 | Additional<br>Characteristics                        |  |
|----------------|-----------------------|---------------------------------------|--|--|
|                |                       |                                       |  |  |
| Cap.381        | cylindrical           | decorated<br>with vertical<br>grooves | plain double-<br>collar                              |  |
| Cap.382        |                       | upper part                            | upper part   |  |
| Cap.383        | unfinished<br>capital | -                                     | -  |  |
| Cap.384        | unfinished<br>capital | unfinished<br>capital                 | unfinished<br>capital                                |  |
| Cap.385        | damaged               | -                                     | -  |  |
| Cap.386        | no<br>caulicole       | -                                     | _  |  |
| Cap.387        | band-like             | ends on the<br>abacus                 | -  |  |
| Cap.388        | band-like             | _                                     | moves with the<br>wind-blown<br>leaves               |  |
| Cap.389        | no<br>caulicole       | -                                     | -  |  |
| Cap.390.Face1  | edge                  | -                                     | _  |  |
| Cap.390.Face2  | edge                  | -                                     | _  |  |
| Cap.390.Face3  | no<br>caulicole       | hidden                                | hidden<br>between the<br>leaves of the<br>second row |  |

| Capital<br>(Cap.) | Morphological<br>Traits             | Inner Parts  | Inner and Outer Parts                     |
|-------------------|-------------------------------------|--|---|
| Cap.1             | toothed acanthus<br>leaf with lobes | damaged  | touching and forming an elongated shape   |
| Cap.2             | toothed acanthus<br>leaf with lobes | meet at the axis   | touching and forming superimposed figures |
| Cap.3             | toothed acanthus<br>leaf with lobes | terminates on a three-partite leaf   | touching and forming an elongated shape   |
| Cap.4             | toothed acanthus<br>leaf with lobes | meet at the axis   | touching and forming superimposed figures |
| Cap.5             | toothed acanthus<br>leaf with lobes | free   | touching and forming an elongated shape   |
| Cap.6             | toothed acanthus<br>leaf with lobes | damaged  | touching and forming superimposed figures |
| Cap.7             | toothed acanthus<br>leaf with lobes | damaged  | touching and forming an elongated shape   |
| Cap.8             | toothed acanthus<br>leaf with lobes | damaged  | damaged                                   |
| Cap.9             | toothed acanthus<br>leaf with lobes | band-like end terminates on the top leaflet of the axial leaf of the first row | touching and forming an elongated shape   |
| Cap.10            | toothed acanthus<br>leaf with lobes | free pointed end   | damaged                                   |
| Cap.11            | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row               | touching and forming an elongated shape   |
| Cap.12            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf   | touching and forming an elongated shape   |
| Cap.13            | toothed acanthus<br>leaf with lobes | touch a stem   | touching and forming an elongated shape   |
| Cap.14            | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row               | touching and forming an elongated shape   |
| Cap.15            | toothed acanthus<br>leaf with lobes | free pointed end   | touching and forming an elongated shape   |
| Cap.16            | toothed acanthus<br>leaf with lobes | free pointed end   | touching and forming an elongated shape   |
| Cap.17            | toothed acanthus<br>leaf with lobes | pointed end terminates on the top leaflet of the axial leaf of the first row   | touching and forming an elongated shape   |
| Cap.18            | toothed acanthus<br>leaf with lobes | pointed end terminates on a tongue   | touching and forming an elongated shape   |
| Cap.19            | toothed acanthus<br>leaf with lobes | only outer part  | -   |
| Cap.20            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf   | touching and forming superimposed figures |
| Cap.21            | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row               | touching and forming an elongated shape   |
| Cap.22            | toothed acanthus<br>leaf with lobes | terminates on a tongue   | touching and forming an elongated shape   |
| Cap.23            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf   | touching and forming superimposed figures |
| Cap.24            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf   | touching and forming superimposed figures |

| Capital<br>(Cap.) | Morphological<br>Traits             | Inner Parts   | Inner and Outer Parts                     |
|-------------------|-------------------------------------|---|---|
| Cap.25            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.26            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.27            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.28            | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row                      | touching and forming an elongated shape   |
| Cap.29            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.30            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.31            | toothed acanthus<br>leaf with lobes | meet at the axis  | touching and forming superimposed figures |
| Cap.32            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.33            | toothed acanthus<br>leaf with lobes | free pointed end  | touching and forming an elongated shape   |
| Cap.34            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.35            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.36            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.37            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming superimposed figures |
| Cap.38            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.39            | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row                      | touching and forming an elongated shape   |
| Cap.40            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.41            | toothed acanthus<br>leaf with lobes | terminates on a tongue  | touching and forming an elongated shape   |
| Cap.42            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming an elongated shape   |
| Cap.43            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf  | touching and forming superimposed figures |
| Cap.44            | toothed acanthus<br>leaf with lobes | meet at the axis and terminates on the top leaflet of the axial leaf of the first row | touching and forming an elongated shape   |
| Cap.45            | toothed acanthus<br>leaf with lobes | terminates on a tongue  | touching and forming an elongated shape   |
| Cap.46            | toothed acanthus<br>leaf with lobes | terminates on a tongue  | touching and forming an elongated shape   |
| Cap.47            | toothed acanthus<br>leaf with lobes | terminates on a tongue  | touching and forming an elongated shape   |
| Cap.48            | toothed acanthus<br>leaf with lobes | terminates on a tongue  | touching and forming an elongated shape   |

| Capital<br>(Cap.) | Morphological<br>Traits             | Inner Parts  | Inner and Outer Parts                     |
|-------------------|-------------------------------------|--|---|
| Cap.49            | toothed acanthus<br>leaf with lobes | terminates on a tongue   | touching and forming an elongated shape   |
| Cap.50            | toothed acanthus<br>leaf with lobes | terminates on a tongue   | touching and forming an elongated shape   |
| Cap.51            | toothed acanthus<br>leaf with lobes | terminates on a tongue   | touching and forming an elongated shape   |
| Cap.52            | toothed acanthus<br>leaf with lobes | terminates on a tongue   | touching and forming an elongated shape   |
| Cap.53            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf   | touching and forming an elongated shape   |
| Cap.54            | toothed acanthus<br>leaf with lobes | free pointed end   | touching and forming an elongated shape   |
| Cap.55            | toothed acanthus<br>leaf with lobes | band-like end terminates on the top leaflet of the axial leaf of the first row | touching and forming an elongated shape   |
| Cap.56            | toothed acanthus<br>leaf with lobes | band-like end terminates on a tongue   | touching and forming an elongated shape   |
| Cap.57            | toothed acanthus<br>leaf with lobes | pointed end terminates on the top leaflet of the axial leaf of the first row   | touching and forming an elongated shape   |
| Cap.58            | toothed acanthus<br>leaf with lobes | band-like end terminates on the top leaflet of the axial leaf of the first row | touching and forming an elongated shape   |
| Cap.59            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf   | touching and forming an elongated shape   |
| Cap.60            | toothed acanthus<br>leaf with lobes | band-like end terminates on a tongue   | touching and forming an elongated shape   |
| Cap.61            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf   | touching and forming an elongated shape   |
| Cap.62            | toothed acanthus<br>leaf with lobes | touch a stem   | touching and forming superimposed figures |
| Cap.63            | toothed acanthus<br>leaf with lobes | touch a stem   | touching and forming superimposed figures |
| Cap.64            | toothed acanthus<br>leaf with lobes | touch a stem   | touching and forming superimposed figures |
| Cap.65            | toothed acanthus<br>leaf with lobes | touch a stem   | touching and forming superimposed figures |
| Cap.66            | toothed acanthus<br>leaf with lobes | terminates on a three-partite leaf   | touching and forming superimposed figures |
| Cap.67            | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row               | touching and forming an elongated shape   |
| Cap.68            | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row               | touching and forming an elongated shape   |
| Cap.69            | toothed acanthus<br>leaf with lobes | terminates on a tongue   | touching and forming an elongated shape   |
| Cap.70            | toothed acanthus<br>leaf with lobes | terminates on an acanthus leaf   | touching and forming an elongated shape   |
| Cap.71            | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row               | touching and forming an elongated shape   |
| Cap.72.<br>Face1  | smooth mass (both)                  | meet at the axis   | -   |

| Capital<br>(Cap.) | Morphological<br>Traits                       | Inner Parts  | Inner and Outer Parts                     |
|-------------------|---|--|---|
| Cap.72.<br>Face2  | toothed acanthus<br>leaf with lobes<br>(both) | meet at the axis   | simple touch - circular shape             |
| Cap.73            | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row | touching and forming an elongated shape   |
| Cap.74            | toothed acanthus<br>leaf with lobes           | terminates on an acanthus leaf                                   | touching and forming superimposed figures |
| Cap.75            | toothed acanthus<br>leaf with lobes           | damaged  | touching and forming superimposed figures |
| Cap.76            | toothed acanthus<br>leaf with lobes           | damaged  | touching and forming superimposed figures |
| Cap.77            | toothed acanthus<br>leaf with lobes           | damaged  | touching and forming superimposed figures |
| Cap.78            | toothed acanthus<br>leaf with lobes           | damaged  | touching and forming superimposed figures |
| Cap.79            | toothed acanthus<br>leaf with lobes           | damaged  | touching and forming superimposed figures |
| Cap.80            | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row | touching and forming superimposed figures |
| Cap.81            | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row | touching and forming superimposed figures |
| Cap.82            | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row | touching and forming superimposed figures |
| Cap.83            | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row | touching and forming superimposed figures |
| Cap.84            | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row | touching and forming superimposed figures |
| Cap.85            | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row | touching and forming superimposed figures |
| Cap.86            | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row | touching and forming superimposed figures |
| Cap.87            | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row | touching and forming superimposed figures |
| Cap.88            | toothed acanthus<br>leaf with lobes           | free pointed end   | touching and forming an elongated shape   |
| Cap.89            | toothed acanthus<br>leaf with lobes           | free pointed end   | touching and forming an elongated shape   |
| Cap.90            | toothed acanthus<br>leaf with lobes           | free pointed end   | touching and forming an elongated shape   |
| Cap.91            | toothed acanthus<br>leaf with lobes           | meet at the axis   | touching and forming superimposed figures |
| Cap.92            | toothed acanthus<br>leaf with lobes           | meet at the axis   | touching and forming superimposed figures |
| Cap.93            | toothed acanthus<br>leaf with lobes           | meet at the axis   | touching and forming superimposed figures |
| Cap.94            | toothed acanthus<br>leaf with lobes           | meet at the axis   | touching and forming superimposed figures |

| Capital<br>(Cap.) | Morphological<br>Traits                       | Inner Parts  | Inner and Outer Parts                     |
|-------------------|---|--|---|
| Cap.95.<br>Face1  | toothed acanthus<br>leaf with lobes<br>(both) | free pointed end   | simple touch - circular shape             |
| Cap.95.<br>Face2  | smooth mass (both)                            | free pointed end   | smooth (both)                             |
| Cap.96            | smooth mass                                   | meet at the axis   | smooth                                    |
| Cap.97            | smooth mass                                   | pointed end terminates on the top leaflet of the axial leaf of the first row | smooth                                    |
| Cap.98            | smooth mass                                   | meet at the axis   | smooth                                    |
| Cap.99            | toothed acanthus<br>leaf with lobes           | cannot be recognized   | cannot be recognized                      |
| Cap.100           | smooth strips                                 | pointed end terminates on the top leaflet of the axial leaf of the first row | smooth                                    |
| Cap.101           | smooth mass                                   | pointed end terminates on the top leaflet of the axial leaf of the first row | smooth                                    |
| Cap.102           | smooth mass                                   | pointed end terminates on the top leaflet of the axial leaf of the first row | smooth                                    |
| Cap.103           | smooth band                                   | meet at the axis   | smooth                                    |
| Cap.104           | smooth band                                   | pointed end terminates on the top leaflet of the axial leaf of the first row | smooth                                    |
| Cap.105           | toothed acanthus<br>leaf with lobes           | meet at the axis   | touching and forming an elongated shape   |
| Cap.106           | toothed acanthus<br>leaf with lobes           | touch a stem   | touching and forming superimposed figures |
| Cap.107           | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row             | touching and forming superimposed figures |
| Cap.108           | toothed acanthus<br>leaf with lobes           | touch a stem   | touching and forming superimposed figures |
| Cap.109           | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row             | touching and forming superimposed figures |
| Cap.110           | toothed acanthus<br>leaf with lobes           | terminates on the top leaflet of the axial leaf of the first row             | touching and forming superimposed figures |
| Cap.111           | toothed acanthus<br>leaf with lobes           | meet at the axis   | touching and forming superimposed figures |
| Cap.112           | toothed acanthus<br>leaf with lobes           | touch a stem   | simple touch - circular shape             |
| Cap.113           | toothed acanthus<br>leaf with lobes           | damaged  | touching and forming superimposed figures |
| Cap.114           | toothed acanthus<br>leaf with lobes           | terminates on an acanthus leaf   | simple touch - circular shape             |
| Cap.115           | toothed acanthus<br>leaf with lobes           | touch a stem   | simple touch - circular shape             |
| Cap.116           | toothed acanthus<br>leaf with lobes           | meet at the axis   | simple touch - circular shape             |
| Cap.117           | toothed acanthus<br>leaf with lobes           | meet at the axis   | simple touch - circular shape             |

| Capital<br>(Cap.) | Morphological<br>Traits             | Inner Parts  | Inner and Outer Parts                     |
|-------------------|-------------------------------------|--|---|
| Cap.118           | toothed acanthus<br>leaf with lobes | touch a stem   | touching and forming superimposed figures |
| Cap.119           | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row             | touching and forming superimposed figures |
| Cap.120           | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row             | touching and forming superimposed figures |
| Cap.121           | toothed acanthus<br>leaf with lobes | meet at the axis   | touching and forming superimposed figures |
| Cap.122           | toothed acanthus<br>leaf with lobes | touch a stem   | touching and forming superimposed figures |
| Cap.123           | toothed acanthus<br>leaf with lobes | touch a stem   | simple touch - circular shape             |
| Cap.124           | toothed acanthus<br>leaf with lobes | damaged  | damaged                                   |
| Cap.125           | toothed acanthus<br>leaf with lobes | only outer part  | _   |
| Cap.126           | toothed acanthus<br>leaf with lobes | free   | open - not touched                        |
| Cap.127           | toothed acanthus<br>leaf with lobes | touch a stem   | simple touch - circular shape             |
| Cap.128           | toothed acanthus<br>leaf with lobes | meet at the axis   | touching and forming an elongated shape   |
| Cap.129           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row | smooth                                    |
| Cap.130           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row | smooth                                    |
| Cap.131           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row | smooth                                    |
| Cap.132           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row | smooth                                    |
| Cap.133           | toothed acanthus<br>leaf with lobes | meet at the axis   | touching and forming superimposed figures |
| Cap.134           | toothed acanthus<br>leaf with lobes | only outer part  | -   |
| Cap.135           | toothed acanthus<br>leaf with lobes | terminate on the top leaflet of the axial leaf of the first row              | touching and forming an elongated shape   |
| Cap.136           | toothed acanthus<br>leaf with lobes | only outer part  | -   |
| Cap.137           | toothed acanthus<br>leaf with lobes | damaged  | touching and forming superimposed figures |
| Cap.138           | toothed acanthus<br>leaf with lobes | meet at the axis   | simple touch - circular shape             |
| Cap.139           | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row             | touching and forming an elongated shape   |
| Cap.140           | toothed acanthus<br>leaf with lobes | damaged  | touching and forming an elongated shape   |
| Cap.141           | toothed acanthus<br>leaf with lobes | meet at the axis   | touching and forming an elongated shape   |

| Capital<br>(Cap.) | Morphological<br>Traits             | Inner Parts   | Inner and Outer Parts                     |
|-------------------|-------------------------------------|---|---|
| Cap.142           | toothed acanthus<br>leaf with lobes | damaged   | touching and forming superimposed figures |
| Cap.143           | toothed acanthus<br>leaf with lobes | free pointed end  | simple touch - circular shape             |
| Cap.144           | toothed acanthus<br>leaf with lobes | damaged   | simple touch - circular shape             |
| Cap.145           | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row  | simple touch - circular shape             |
| Cap.146           | toothed acanthus<br>leaf with lobes | cannot be recognized  | touching and forming an elongated shape   |
| Cap.147           | toothed acanthus<br>leaf with lobes | terminates on a leaf  | touching and forming superimposed figures |
| Cap.148           | toothed acanthus<br>leaf with lobes | terminates on a leaf  | touching and forming superimposed figures |
| Cap.149           | toothed acanthus<br>leaf with lobes | cannot be recognized  | touching and forming superimposed figures |
| Cap.150           | toothed acanthus<br>leaf with lobes | free  | touching and forming superimposed figures |
| Cap.151           | toothed acanthus<br>leaf with lobes | meet at the axis  | touching and forming superimposed figures |
| Cap.152           | toothed acanthus<br>leaf with lobes | free  | simple touch - circular shape             |
| Cap.153           | toothed acanthus<br>leaf with lobes | damaged   | touching and forming superimposed figures |
| Cap.154           | toothed acanthus<br>leaf with lobes | free  | touching and forming superimposed figures |
| Cap.155.<br>Face1 | toothed acanthus<br>leaf with lobes | meet at the axis  | touching and forming superimposed figures |
| Cap.155.<br>Face2 | toothed acanthus<br>leaf with lobes | meet at the axis  | touching and forming superimposed figures |
| Cap.156           | toothed acanthus<br>leaf with lobes | cannot be recognized  | cannot be recognized                      |
| Cap.157           | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row  | touching and forming superimposed figures |
| Cap.158           | toothed acanthus<br>leaf with lobes | meet at the axis  | open - not touched                        |
| Cap.159           | smooth mass                         | free pointed end  | smooth                                    |
| Cap.160           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row | touching and forming an elongated shape   |
| Cap.161           | smooth mass                         | pointed end terminates on a garland   | smooth                                    |
| Cap.162           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet  | touching and forming an elongated shape   |
| Cap.163           | toothed acanthus<br>leaf with lobes | meet at the axis  | touching and forming an elongated shape   |

| Capital<br>(Cap.) | Morphological<br>Traits             | Inner Parts  | Inner and Outer Parts                            |
|-------------------|-------------------------------------|--|--|
| Cap.164           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming superimposed figures        |
| Cap.165           | toothed acanthus<br>leaf with lobes | free   | touching and forming an elongated shape          |
| Cap.166           | toothed acanthus<br>leaf with lobes | free   | touching and forming an elongated shape          |
| Cap.167           | smooth mass                         | pointed end terminates on a garland  | smooth   |
| Cap.168           | toothed acanthus<br>leaf with lobes | terminate on the top leaflet of the axial leaf of the first row  | there is a third central part                    |
| Cap.169           | cannot be recognized                | A medallion replaces the inner parts   | cannot be recognized                             |
| Cap.170           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape          |
| Cap.171           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape          |
| Cap.172           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape          |
| Cap.173           | toothed acanthus<br>leaf with lobes | meet at the axis   | touching and forming an elongated shape          |
| Cap.174           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape          |
| Cap.175           | toothed acanthus<br>leaf with lobes | meet at the axis and curve outward   | touching and forming an elongated shape          |
| Cap.176           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape          |
| Cap.177           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape          |
| Cap.178           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape          |
| Cap.179           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape          |
| Cap.180           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape          |
| Cap.181           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape          |
| Cap.182           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row   | smooth mass with multiple<br>folioles in between |
| Cap.183           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row   | smooth   |
| Cap.184           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row   | smooth   |
| Cap.185           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet   | touching and forming an elongated shape          |
| Capital<br>(Cap.) | Morphological<br>Traits             | Inner Parts  | Inner and Outer Parts   |  |
|-------------------|-------------------------------------|--|---|--|
| Cap.186           | toothed acanthus<br>leaf with lobes | damaged  | touching and forming an elongated shape                       |  |
| Cap.187           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape                       |  |
| Cap.188           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming superimposed figures                     |  |
| Cap.189           | damaged                             | damaged  | _   |  |
| Cap.190           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming superimposed figures                     |  |
| Cap.191           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming an elongated shape                       |  |
| Cap.192           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming an elongated shape                       |  |
| Cap.193           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming an elongated shape                       |  |
| Cap.194           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming superimposed figures                     |  |
| Cap.195           | toothed acanthus<br>leaf with lobes | terminates on a medallion  | touching and forming superimposed figures                     |  |
| Cap.196           | toothed acanthus<br>leaf with lobes | terminates on a garland  | touching and forming superimposed figures                     |  |
| Cap.197           | toothed acanthus<br>leaf with lobes | meet at the axis   | touching and forming an elongated shape                       |  |
| Cap.198           | toothed acanthus<br>leaf with lobes | cannot be recognized   | touching and forming an elongated shape                       |  |
| Cap.199           | toothed acanthus<br>leaf with lobes | cannot be recognized   | cannot be recognized  |  |
| Cap.200           | smooth band                         | pointed end terminates on the top leaflet of the axial leaf of the first row   | Smooth bands with a triangular section between the two parts. |  |
| Cap.201           | smooth band                         | pointed end terminates on the top leaflet of the axial leaf of the first row   | Smooth bands with a triangular section between the two parts. |  |
| Cap.202           | no calyx                            | -  | -   |  |
| Cap.203           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures   | touching and forming an elongated shape                       |  |
| Cap.204           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures   | touching and forming an elongated shape                       |  |
| Cap.205           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures   | touching and forming superimposed figures                     |  |
| Cap.206           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape                       |  |

| Capital<br>(Cap.) | Morphological<br>Traits             | Inner Parts   | Inner and Outer Parts  |  |
|-------------------|-------------------------------------|---|--|--|
| Cap.207           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row | touching and forming an elongated shape                        |  |
| Cap.208           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row | touching and forming an elongated shape                        |  |
| Cap.209.<br>Face1 | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row | touching and forming an elongated shape                        |  |
| Cap.209.<br>Face2 | smooth mass                         | terminate on the top leaflet of the axial leaf of the first row   | smooth   |  |
| Cap.210           | kite-like                           | free  | -  |  |
| Cap.211           | kite-like                           | free  | -  |  |
| Cap.212           | smooth strips                       | meet at the axis and terminates on the top leaflet of the axial leaf of the first row   | multiple vertical leaves between the two parts                 |  |
| Cap.213           | smooth band                         | pointed end terminates on the top leaflet of the axial leaf of the first row  | smooth   |  |
| Cap.214.<br>Face1 | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row  | touching and forming an elongated shape                        |  |
| Cap.214.<br>Face2 | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row  | Smooth masses with a triangular section between the two parts. |  |
| Cap.215           | smooth mass                         | meet at the axis and terminates on the top leaflet of the axial leaf of the first row   | smooth   |  |
| Cap.216           | smooth band                         | meet at the axis  | smooth   |  |
| Cap.217           | smooth mass                         | meet at the axis and terminates on the top leaflet of the axial leaf of the first row   | smooth   |  |
| Cap.218           | toothed acanthus<br>leaf with lobes | damaged   | touching and forming an elongated shape                        |  |
| Cap.219.<br>Face1 | toothed acanthus<br>leaf with lobes | damaged   | touching and forming superimposed figures                      |  |
| Cap.219.<br>Face2 | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures  | touching and forming superimposed figures                      |  |
| Cap.219.<br>Face3 | smooth band                         | pointed end terminates on the top leaflet of the axial leaf of the first row  | smooth bands with a triangular section between the two parts   |  |
| Cap.220           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row  | smooth   |  |
| Cap.221           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row | touching and forming superimposed figures                      |  |
| Cap.222           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row | touching and forming superimposed figures                      |  |
| Cap.223           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row | touching and forming superimposed figures                      |  |
| Cap.224           | toothed acanthus<br>leaf with lobes | damaged   | touching and forming an elongated shape                        |  |

| Capital<br>(Cap.) | Morphological<br>Traits             | Inner Parts  | Inner and Outer Parts   |  |
|-------------------|-------------------------------------|--|---|--|
| Cap.225           | toothed acanthus<br>leaf with lobes | damaged  | damaged   |  |
| Cap.226           | toothed acanthus<br>leaf with lobes | terminates on the top leaflet of the axial leaf of the first row   | touching and forming an elongated shape   |  |
| Cap.227           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape   |  |
| Cap.228           | smooth mass                         | meet at the axis and terminates at the top leaflet of the axial leaf of the first row  | smooth mass with the end of<br>the outer part form a turn to<br>the outside like a hook |  |
| Cap.229           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row   | Smooth masses with a triangular section between the two parts                           |  |
| Cap.230           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming superimposed figures   |  |
| Cap.231           | kite-like                           | free   | -   |  |
| Cap.232           | kite-like                           | free   | -   |  |
| Cap.233           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape   |  |
| Cap.234           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape   |  |
| Cap.235           | row of equal-sized<br>triangles     | meet at the axis   | row of equal-sized triangles<br>between the two parts                                   |  |
| Cap.236           | smooth mass                         | terminates on the top leaflet of the axial leaf of the first row   | smooth  |  |
| Cap.237           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape   |  |
| Cap.238           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape   |  |
| Cap.239           | smooth mass                         | terminates on the top leaflet of the axial leaf of the first row   | smooth  |  |
| Cap.240           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape   |  |
| Cap.241           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming an elongated shape   |  |
| Cap.242           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming superimposed figures   |  |
| Cap.243           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming superimposed figures   |  |
| Cap.244           | smooth mass                         | meet at the axis and terminates at the top leaflet   | smooth  |  |

| Capital<br>(Cap.) | Morphological<br>Traits             | Inner Parts  | Inner and Outer Parts   |
|-------------------|-------------------------------------|--|---|
| Cap.245           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming superimposed figures                           |
| Cap.246           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming superimposed figures                           |
| Cap.247           | toothed acanthus<br>leaf with lobes | terminates on a medallion  | touching and forming superimposed figures                           |
| Cap.248           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming an elongated shape                             |
| Cap.249           | toothed acanthus<br>leaf with lobes | meet at the axis   | touching and forming superimposed figures                           |
| Cap.250           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape                             |
| Cap.251           | smooth band                         | pointed end terminates on the top leaflet of the axial leaf of the first row   | Smooth bands with a triangular section between the two parts.       |
| Cap.252           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape                             |
| Cap.253.<br>Face1 | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape                             |
| Cap.253.<br>Face2 | no calyx                            | _  | _   |
| Cap.254           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row   | Smooth masses with a<br>triangular section between the<br>two parts |
| Cap.255           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape                             |
| Cap.256           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming superimposed figures                           |
| Cap.257           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row   | smooth  |
| Cap.258           | toothed acanthus<br>leaf with lobes | meet at the axis   | touching and forming superimposed figures                           |
| Cap.259           | toothed acanthus<br>leaf with lobes | meet at the axis, forming superimposed figures, with the lower part<br>extending into a band that terminates at the top leaflet of the axial motif<br>of the first row | touching and forming an elongated shape                             |
| Cap.260           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape                             |
| Cap.261           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape                             |
| Cap.262           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming superimposed figures                           |
| Cap.263           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row            | touching and forming an elongated shape                             |
| Cap.264           | smooth mass                         | pointed end terminates on the top leaflet of the axial leaf of the first row   | Smooth masses with a<br>triangular section between the<br>two parts |

| Capital<br>(Cap.) | Morphological<br>Traits             | Inner Parts   | Inner and Outer Parts   |  |
|-------------------|-------------------------------------|---|---|--|
| Cap.265           | toothed acanthus<br>leaf with lobes | meet at the axis, forming a rhombus, with the lower part extending into<br>a band that terminates at the top leaflet of the axial motif of the first<br>row | touching and forming an elongated shape                       |  |
| Cap.266           | toothed acanthus<br>leaf with lobes | damaged   | touching and forming an elongated shape                       |  |
| Cap.267           | smooth mass                         | terminates on the top leaflet of the axial leaf of the first row  | Smooth masses with a triangular section between the two parts |  |
| Cap.268           | smooth band                         | terminates on the top leaflet of the axial leaf of the first row  | multiple vertical leaves between the two parts                |  |
| Cap.269           | smooth band                         | terminates on the top leaflet of the axial leaf of the first row  | smooth band with the outer part forming a hook outward        |  |
| Cap.270           | toothed acanthus<br>leaf with lobes | meet at the axis and terminates at the top leaflet of the axial leaf of the first row   | touching and forming an elongated shape                       |  |
| Cap.271           | toothed acanthus<br>leaf with lobes | meet at the axis and curve outward  | touching and forming an elongated shape                       |  |
| Cap.272           | toothed acanthus<br>leaf with lobes | one-calyx   | touching and forming an elongated shape                       |  |
| Cap.273           | toothed acanthus<br>leaf with lobes | one-calyx   | touching and forming an elongated shape                       |  |
| Cap.274           | toothed acanthus<br>leaf with lobes | one-calyx   | touching and forming an elongated shape                       |  |
| Cap.275           | toothed acanthus<br>leaf with lobes | one-calyx   | touching and forming an elongated shape                       |  |
| Cap.276           | toothed acanthus<br>leaf with lobes | one-calyx   | touching and forming an elongated shape                       |  |
| Cap.277           | toothed acanthus<br>leaf with lobes | one-calyx   | touching and forming superimposed figures                     |  |
| Cap.278           | toothed acanthus<br>leaf with lobes | one-calyx   | touching and forming superimposed figures                     |  |
| Cap.279           | toothed acanthus<br>leaf with lobes | one-calyx   | touching and forming an elongated shape                       |  |
| Cap.280           | toothed acanthus<br>leaf with lobes | one-calyx   | touching and forming an elongated shape                       |  |
| Cap.281           | toothed acanthus<br>leaf with lobes | one-calyx   | touching and forming an elongated shape                       |  |
| Cap.282           | no calyx                            | -   | -   |  |
| Cap.283           | no calyx                            | -   | -   |  |
| Cap.284           | no calyx                            | -   | -   |  |
| Cap.285           | no calyx                            | -   | _   |  |
| Cap.286           | no calyx                            | _   | _   |  |
| Cap.287           | no calyx                            | _   | _   |  |

| Capital<br>(Cap.) | Morphological<br>Traits | Inner Parts | Inner and Outer Parts |  |  |
|-------------------|-------------------------|-------------|-----------------------|--|--|
| Cap.288           | no calyx                | -           | -                     |  |  |
| Cap.289           | no calyx                | -           | _                     |  |  |
| Cap.290           | no calyx                | -           | _                     |  |  |
| Cap.291           | no calyx                | -           | _                     |  |  |
| Cap.292           | no calyx                | _           | -                     |  |  |
| Cap.293           | no calyx                | -           | _                     |  |  |
| Cap.294.<br>Face1 | no calyx                | -           | -                     |  |  |
| Cap.294.<br>Face2 | no calyx                | -           | _                     |  |  |
| Cap.295           | no calyx                | _           | -                     |  |  |
| Cap.296           | no calyx                | -           | _                     |  |  |
| Cap.297           | no calyx                | _           | -                     |  |  |
| Cap.298           | no calyx                | _           | -                     |  |  |
| Cap.299           | no calyx                | _           | -                     |  |  |
| Cap.300           | no calyx                | _           | -                     |  |  |
| Cap.301           | no calyx                | _           | -                     |  |  |
| Cap.302           | no calyx                | _           | -                     |  |  |
| Cap.303           | no calyx                | _           | -                     |  |  |
| Cap.304           | no calyx                | _           | -                     |  |  |
| Cap.305           | no calyx                | _           | -                     |  |  |
| Cap.306           | no calyx                | _           | -                     |  |  |
| Cap.307           | no calyx                | _           | _                     |  |  |
| Cap.308           | no calyx                | _           | _                     |  |  |
| Cap.309           | no calyx                | _           | _                     |  |  |
| Cap.310           | no calyx                | _           | _                     |  |  |

| Capital<br>(Cap.) | Morphological<br>Traits | Inner Parts | Inner and Outer Parts |
|-------------------|-------------------------|-------------|-----------------------|
| Cap.311           | no calyx                | -           | -                     |
| Cap.312           | no calyx                | -           | _                     |
| Cap.313           | no calyx                | -           | -                     |
| Cap.314           | no calyx                | -           | _                     |
| Cap.315           | no calyx                | -           | _                     |
| Cap.316           | no calyx                | -           | _                     |
| Cap.317           | no calyx                | _           | _                     |
| Cap.318           | no calyx                | -           | _                     |
| Cap.319           | no calyx                | _           | _                     |
| Cap.320           | no calyx                | -           | _                     |
| Cap.321           | no calyx                | -           | _                     |
| Cap.322           | no calyx                | _           | _                     |
| Cap.323           | no calyx                | -           | -                     |
| Cap.324           | no calyx                | _           | -                     |
| Cap.325           | no calyx                | _           | -                     |
| Cap.326           | no calyx                | -           | _                     |
| Cap.327           | no calyx                | -           | -                     |
| Cap.328           | no calyx                | -           | _                     |
| Cap.329           | no calyx                | _           | _                     |
| Cap.330           | no calyx                | _           | _                     |
| Cap.331           | no calyx                | _           | _                     |
| Cap.332           | no calyx                | _           | _                     |
| Cap.333           | no calyx                | _           | _                     |
| Cap.334           | no calyx                | _           | _                     |

| Capital<br>(Cap.) | Morphological<br>Traits | Inner Parts | Inner and Outer Parts |
|-------------------|-------------------------|-------------|-----------------------|
| Cap.335           | no calyx                | -           | -                     |
| Cap.336           | no calyx                | -           | _                     |
| Cap.337           | no calyx                | -           | -                     |
| Cap.338           | no calyx                | -           | _                     |
| Cap.339           | no calyx                | -           | _                     |
| Cap.340           | no calyx                | _           | _                     |
| Cap.341           | no calyx                | _           | -                     |
| Cap.342           | no calyx                | _           | -                     |
| Cap.343           | no calyx                | -           | -                     |
| Cap.344           | no calyx                | _           | -                     |
| Cap.345           | no calyx                | _           | -                     |
| Cap.346           | no calyx                | _           | -                     |
| Cap.347           | no calyx                | _           | -                     |
| Cap.348           | no calyx                | _           | _                     |
| Cap.349           | no calyx                | _           | -                     |
| Cap.350           | no calyx                | _           | -                     |
| Cap.351           | no calyx                | _           | -                     |
| Cap.352           | no calyx                | _           | -                     |
| Cap.353           | no calyx                | _           | -                     |
| Cap.354           | no calyx                | _           | -                     |
| Cap.355           | no calyx                |             | _                     |
| Cap.356           | no calyx                | _           | -                     |
| Cap.357           | no calyx                | _           | -                     |
| Cap.358           | no calyx                | -           | -                     |

| Capital<br>(Cap.) | Morphological<br>Traits | Inner Parts     | Inner and Outer Parts |  |
|-------------------|-------------------------|-----------------|-----------------------|--|
| Cap.359           | no calyx                | _               | -                     |  |
| Cap.360           | no calyx                | _               | _                     |  |
| Cap.361           | no calyx                | _               | -                     |  |
| Cap.362           | no calyx                | -               | -                     |  |
| Cap.363           | no calyx                | -               | -                     |  |
| Cap.364           | no calyx                | -               | -                     |  |
| Cap.365           | no calyx                | _               | -                     |  |
| Cap.366           | no calyx                | -               |                       |  |
| Cap.367           | no calyx                | _               | -                     |  |
| Cap.368           | no calyx                | -               | _                     |  |
| Cap.369           | no calyx                | -               | -                     |  |
| Cap.370           | no calyx                | _               | _                     |  |
| Cap.371           | no calyx                | -               | -                     |  |
| Cap.372           | no calyx                | -               | _                     |  |
| Cap.373           | no calyx                | -               | -                     |  |
| Cap.374           | smooth mass             | only outer part | _                     |  |
| Cap.375           | smooth leaf             | only outer part | _                     |  |
| Cap.376           | no calyx                | -               | _                     |  |
| Cap.377           | no calyx                | -               | -                     |  |
| Cap.378           | no calyx                | _               | _                     |  |
| Cap.379           | no calyx                |                 | _                     |  |
| Cap.380           | no calyx                | _               | _                     |  |
| Cap.381           | no calyx                | _               | _                     |  |
| Cap.382           | damaged                 | damaged         | _                     |  |

| Capital<br>(Cap.) | Morphological<br>Traits | Inner Parts  | Inner and Outer Parts |
|-------------------|-------------------------|--------------|-----------------------|
| Can 383           | unfinished (type)       |              | unfinished (type)     |
| cup.505           | annishea (type)         |              |                       |
| Cap.384           | unfinished (type)       | _ unfinished |                       |
| Cap.385           | damaged                 | damaged      | damaged               |
| Cap.386           | no calyx                | -            | -                     |
| Cap.387           | no calyx                | _            | -                     |
| Cap.388           | no calyx                | -            | _                     |
| Cap.389           | no calyx                | -            | _                     |
| Cap.390.<br>Face1 | no calyx                | -            | -                     |
| Cap.390.<br>Face2 | no calyx                | _            | -                     |
| Cap.390.<br>Face3 | no calyx                | _            | _                     |

| Capital<br>(Cap.) | Helix<br>Morphology  | Extends Over<br>the Abacus? | Spiral<br>Configuration    | Spiral Interaction                                     | Volute<br>Morphology | Extends Over the<br>Abacus? | Spiral<br>Configuration |
|-------------------|----------------------|-----------------------------|----------------------------|--|----------------------|-----------------------------|-------------------------|
| Cap.1             | projected            | no                          | hook                       | damaged  | three<br>dimensional | damaged                     | damaged                 |
| Cap.2             | three<br>dimensional | no                          | spiral                     | detached   | three<br>dimensional | no                          | spiral                  |
| Cap.3             | projected            | no                          | hook                       | detached   | three<br>dimensional | damaged                     | damaged                 |
| Cap.4             | three<br>dimensional | no                          | spiral                     | touch each other                                       | three<br>dimensional | yes                         | spiral                  |
| Cap.5             | three<br>dimensional | no                          | spiral                     | separated by wavy stem                                 | three<br>dimensional | no                          | spiral                  |
| Cap.6             | projected            | no                          | hook                       | detached   | three<br>dimensional | no                          | damaged                 |
| Cap.7             | damaged              | -                           | _                          | -  | damaged              | -                           | _                       |
| Cap.8             | projected            | no                          | hook                       | detached   | three<br>dimensional | no                          | spiral                  |
| Cap.9             | projected            | no                          | hook                       | detached   | three<br>dimensional | no                          | damaged                 |
| Cap.10            | no helix             | -                           | -                          | -  | damaged              | -                           | -                       |
| Cap.11            | projected            | no                          | hook                       | touch each other                                       | three<br>dimensional | no                          | spiral                  |
| Cap.12            | projected            | yes                         | spiral                     | touch each other                                       | three<br>dimensional | yes                         | spiral                  |
| Cap.13            | projected            | no                          | spiral                     | touch each other                                       | three<br>dimensional | no                          | damaged                 |
| Cap.14            | projected            | no                          | hook                       | detached   | three<br>dimensional | no                          | spiral                  |
| Cap.15            | projected            | -                           | no spiral - wavy<br>stalks | meet and form a stem of the<br>central motif of abacus | damaged              | _                           | -                       |
| Cap.16            | projected            | -                           | no spiral - wavy<br>stalks | meet and form a stem of the<br>central motif of abacus | damaged              | -                           | -                       |
| Cap.17            | projected            | no                          | hook                       | detached   | three<br>dimensional | no                          | spiral                  |
| Cap.18            | projected            | no                          | hook                       | detached   | three<br>dimensional | damaged                     | damaged                 |
| Cap.19            | shallow              | no                          | spiral                     | touch each other                                       | shallow              | no                          | spiral                  |
| Cap.20            | projected            | no                          | hook                       | detached   | three<br>dimensional | damaged                     | damaged                 |
| Cap.21            | projected            | no                          | hook                       | detached   | three<br>dimensional | damaged                     | damaged                 |
| Cap.22            | projected            | no                          | hook                       | detached   | three<br>dimensional | yes                         | spiral                  |
| Cap.23            | projected            | no                          | hook                       | detached   | three<br>dimensional | no                          | spiral                  |
| Cap.24            | projected            | no                          | hook                       | detached   | three<br>dimensional | yes                         | spiral                  |
| Cap.25            | projected            | no                          | hook                       | detached   | three<br>dimensional | no                          | damaged                 |
| Cap.26            | projected            | no                          | hook                       | detached   | three<br>dimensional | no                          | damaged                 |
| Cap.27            | projected            | no                          | hook                       | detached   | three<br>dimensional | no                          | spiral                  |
| Cap.28            | projected            | no                          | hook                       | detached   | three<br>dimensional | no                          | spiral                  |

| Capital<br>(Cap.) | Helix<br>Morphology  | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction                            | Volute<br>Morphology | Extends Over the<br>Abacus? | Spiral<br>Configuration |
|-------------------|----------------------|-----------------------------|-------------------------|---|----------------------|-----------------------------|-------------------------|
| Cap.29            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | spiral                  |
| Cap.30            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | damaged                 |
| Cap.31            | three<br>dimensional | yes                         | spiral                  | touch each other                              | three<br>dimensional | no                          | damaged                 |
| Cap.32            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | damaged                 |
| Cap.33            | projected            | -                           | no spiral - free<br>end | end on the abacus as fluttering semi-palmette | three<br>dimensional | no                          | damaged                 |
| Cap.34            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | damaged                 |
| Cap.35            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | damaged                 |
| Cap.36            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | damaged                 |
| Cap.37            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | spiral                  |
| Cap.38            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | damaged                 |
| Cap.39            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | spiral                  |
| Cap.40            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | spiral                  |
| Cap.41            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | spiral                  |
| Cap.42            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | spiral                  |
| Cap.43            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | spiral                  |
| Cap.44            | projected            | no                          | spiral                  | separated by wavy stem                        | three<br>dimensional | no                          | damaged                 |
| Cap.45            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | damaged                     | damaged                 |
| Cap.46            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | damaged                     | damaged                 |
| Cap.47            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | damaged                 |
| Cap.48            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | damaged                     | damaged                 |
| Cap.49            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | damaged                 |
| Cap.50            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | yes                         | spiral                  |
| Cap.51            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | yes                         | damaged                 |
| Cap.52            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | yes                         | spiral                  |
| Cap.53            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | yes                         | spiral                  |
| Cap.54            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | damaged                     | damaged                 |
| Cap.55            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | spiral                  |
| Cap.56            | projected            | no                          | hook                    | detached                                      | three<br>dimensional | no                          | cannot be recognized    |

| Capital<br>(Cap.) | Helix<br>Morphology  | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction  | Volute<br>Morphology | Extends Over the<br>Abacus? | Spiral<br>Configuration |
|-------------------|----------------------|-----------------------------|-------------------------|---|----------------------|-----------------------------|-------------------------|
| Cap.57            | projected            | no                          | hook                    | detached  | three<br>dimensional | no                          | spiral                  |
| Cap.58            | projected            | no                          | hook                    | separated by wavy stem  | three<br>dimensional | no                          | damaged                 |
| Cap.59            | projected            | no                          | hook                    | detached  | projected            | no                          | spiral                  |
| Cap.60            | projected            | no                          | hook                    | detached  | three<br>dimensional | damaged                     | damaged                 |
| Cap.61            | projected            | no                          | hook                    | detached  | three<br>dimensional | no                          | damaged                 |
| Cap.62            | three<br>dimensional | no                          | spiral                  | touch each other  | three<br>dimensional | no                          | spiral                  |
| Cap.63            | three<br>dimensional | no                          | spiral                  | touch each other  | three<br>dimensional | no                          | spiral                  |
| Cap.64            | three<br>dimensional | no                          | spiral                  | touch each other  | three<br>dimensional | no                          | spiral                  |
| Cap.65            | three<br>dimensional | no                          | spiral                  | touch each other  | three<br>dimensional | no                          | spiral                  |
| Cap.66            | three<br>dimensional | yes                         | spiral                  | touch each other  | three<br>dimensional | damaged                     | damaged                 |
| Cap.67            | projected            | no                          | hook                    | detached  | three<br>dimensional | no                          | damaged                 |
| Cap.68            | projected            | no                          | spiral                  | touch each other  | three<br>dimensional | damaged                     | damaged                 |
| Cap.69            | projected            | no                          | hook                    | detached  | three<br>dimensional | damaged                     | damaged                 |
| Cap.70            | projected            | no                          | hook                    | detached  | projected            | yes                         | spiral                  |
| Cap.71            | projected            | no                          | hook                    | detached  | three<br>dimensional | no                          | spiral                  |
| Cap.72.<br>Face1  | projected            | no                          | spiral                  | Intertwined spirals   | three<br>dimensional | damaged                     | damaged                 |
| Cap.72.<br>Face2  | projected            | no                          | spiral                  | Intertwined spirals, with<br>stalks that resemble twisted<br>rope | three<br>dimensional | damaged                     | damaged                 |
| Cap.73            | three<br>dimensional | yes                         | spiral                  | touch each other  | three<br>dimensional | yes                         | spiral                  |
| Cap.74            | projected            | yes                         | spiral                  | touch each other  | three<br>dimensional | damaged                     | damaged                 |
| Cap.75            | three<br>dimensional | no                          | spiral                  | damaged   | three<br>dimensional | no                          | damaged                 |
| Cap.76            | three<br>dimensional | no                          | spiral                  | damaged   | three<br>dimensional | no                          | damaged                 |
| Cap.77            | three<br>dimensional | no                          | spiral                  | damaged   | three<br>dimensional | no                          | damaged                 |
| Cap.78            | three<br>dimensional | no                          | spiral                  | damaged   | three<br>dimensional | no                          | damaged                 |
| Cap.79            | three<br>dimensional | no                          | spiral                  | damaged   | three<br>dimensional | no                          | damaged                 |
| Cap.80            | three<br>dimensional | no                          | spiral                  | touch each other  | three<br>dimensional | no                          | spiral                  |
| Cap.81            | three<br>dimensional | no                          | spiral                  | touch each other  | three<br>dimensional | no                          | spiral                  |
| Cap.82            | three<br>dimensional | no                          | spiral                  | touch a wavy stem   | three<br>dimensional | no                          | spiral                  |
| Cap.83            | three<br>dimensional | no                          | spiral                  | touch a wavy stem   | three<br>dimensional | no                          | damaged                 |

| Capital<br>(Cap.) | Helix<br>Morphology  | Extends Over<br>the Abacus? | Spiral<br>Configuration     | Spiral Interaction                                     | Volute<br>Morphology | Extends Over the<br>Abacus? | Spiral<br>Configuration |
|-------------------|----------------------|-----------------------------|-----------------------------|--|----------------------|-----------------------------|-------------------------|
| Cap.84            | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | no                          | damaged                 |
| Cap.85            | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | no                          | damaged                 |
| Cap.86            | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | no                          | damaged                 |
| Cap.87            | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | no                          | damaged                 |
| Cap.88            | projected            | _                           | no spiral - wavy<br>stalks  | -  | damaged              | -                           | _                       |
| Cap.89            | projected            | -                           | no spiral - wavy<br>stalks  | meet and form a stem of the<br>central motif of abacus | three<br>dimensional | no                          | spiral                  |
| Cap.90            | projected            | -                           | no spiral - thick<br>stalks | move toward the central<br>motif of abacus             | damaged              | -                           | _                       |
| Cap.91            | three<br>dimensional | yes                         | spiral                      | touch the central motif of the abacus                  | three<br>dimensional | no                          | spiral                  |
| Cap.92            | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | yes                         | spiral                  |
| Cap.93            | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | yes                         | spiral                  |
| Cap.94            | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | yes                         | spiral                  |
| Cap.95.<br>Face1  | projected            | no                          | spiral                      | separated by straight stem                             | three<br>dimensional | damaged                     | damaged                 |
| Cap.95.<br>Face2  | projected            | no                          | spiral                      | separated by wavy stem                                 | three<br>dimensional | yes                         | spiral                  |
| Cap.96            | projected            | no                          | one turn                    | detached   | projected            | no                          | one turn                |
| Cap.97            | shallow              | no                          | spiral                      | touch each other                                       | shallow              | no                          | spiral                  |
| Cap.98            | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | no                          | spiral                  |
| Cap.99            | three<br>dimensional | no                          | spiral                      | cannot be recognized                                   | three<br>dimensional | no                          | spiral                  |
| Cap.100           | projected            | no                          | spiral                      | detached   | projected            | no                          | spiral                  |
| Cap.101           | shallow              | no                          | spiral                      | touch each other                                       | shallow              | no                          | spiral                  |
| Cap.102           | shallow              | no                          | no spiral - free<br>end     | detached   | shallow              | no                          | hook                    |
| Cap.103           | shallow              | no                          | spiral                      | touch each other                                       | shallow              | no                          | spiral                  |
| Cap.104           | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | no                          | spiral                  |
| Cap.105           | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | no                          | spiral                  |
| Cap.106           | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | yes                         | spiral                  |
| Cap.107           | three<br>dimensional | no                          | spiral                      | touch a wavy stem                                      | three<br>dimensional | yes                         | spiral                  |
| Cap.108           | three<br>dimensional | no                          | spiral                      | touch a wavy stem                                      | three<br>dimensional | yes                         | spiral                  |
| Cap.109           | three<br>dimensional | no                          | spiral                      | touch each other                                       | three<br>dimensional | yes                         | spiral                  |
| Cap.110           | three<br>dimensional | no                          | spiral                      | touch a leaf from the central motif of the abacus      | three<br>dimensional | no                          | spiral                  |

| Capital<br>(Cap.) | Helix<br>Morphology  | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction                                | Volute<br>Morphology | Extends Over the<br>Abacus? | Spiral<br>Configuration |
|-------------------|----------------------|-----------------------------|-------------------------|---|----------------------|-----------------------------|-------------------------|
| Cap.111           | three<br>dimensional | no                          | spiral                  | touch a leaf from the central motif of the abacus | three<br>dimensional | no                          | spiral                  |
| Cap.112           | three<br>dimensional | no                          | spiral                  | touch a wavy stem                                 | three<br>dimensional | no                          | spiral                  |
| Cap.113           | three<br>dimensional | no                          | spiral                  | touch a leaf from the central motif of the abacus | three<br>dimensional | no                          | damaged                 |
| Cap.114           | projected            | no                          | spiral                  | detached  | three<br>dimensional | no                          | damaged                 |
| Cap.115           | three<br>dimensional | no                          | spiral                  | touch each other                                  | three<br>dimensional | no                          | spiral                  |
| Cap.116           | three<br>dimensional | no                          | spiral                  | touch a leaf from the central motif of the abacus | three<br>dimensional | no                          | spiral                  |
| Cap.117           | three<br>dimensional | no                          | spiral                  | touch a leaf from the central motif of the abacus | three<br>dimensional | no                          | spiral                  |
| Cap.118           | three<br>dimensional | no                          | spiral                  | touch each other                                  | three<br>dimensional | no                          | spiral                  |
| Cap.119           | three<br>dimensional | no                          | spiral                  | touch each other                                  | three<br>dimensional | no                          | spiral                  |
| Cap.120           | three<br>dimensional | no                          | spiral                  | touch each other                                  | three<br>dimensional | no                          | spiral                  |
| Cap.121           | three<br>dimensional | no                          | spiral                  | touch each other                                  | three<br>dimensional | no                          | spiral                  |
| Cap.122           | three<br>dimensional | no                          | spiral                  | touch a wavy stem                                 | three<br>dimensional | no                          | spiral                  |
| Cap.123           | three<br>dimensional | no                          | spiral                  | touch a wavy stem                                 | three<br>dimensional | yes                         | spiral                  |
| Cap.124           | three<br>dimensional | no                          | spiral                  | touch each other                                  | three<br>dimensional | no                          | spiral                  |
| Cap.125           | shallow              | no                          | hook                    | separated by straight stem                        | three<br>dimensional | yes                         | spiral                  |
| Cap.126           | three<br>dimensional | no                          | spiral                  | touch a wavy stem                                 | three<br>dimensional | no                          | spiral                  |
| Cap.127           | three<br>dimensional | yes                         | spiral                  | touch a wavy stem                                 | three<br>dimensional | yes                         | spiral                  |
| Cap.128           | three<br>dimensional | yes                         | spiral                  | touch each other                                  | three<br>dimensional | yes                         | spiral                  |
| Cap.129           | projected            | no                          | spiral                  | touch each other                                  | three<br>dimensional | no                          | spiral                  |
| Cap.130           | projected            | no                          | spiral                  | separated by wavy stem                            | three<br>dimensional | no                          | spiral                  |
| Cap.131           | three<br>dimensional | no                          | spiral                  | touch each other                                  | three<br>dimensional | no                          | spiral                  |
| Cap.132           | three<br>dimensional | no                          | spiral                  | touch each other                                  | three<br>dimensional | no                          | spiral                  |
| Cap.133           | three<br>dimensional | no                          | spiral                  | touch each other                                  | three<br>dimensional | yes                         | spiral                  |
| Cap.134           | shallow              | no                          | spiral - one<br>turn    | separated by straight stem                        | three<br>dimensional | damaged                     | damaged                 |
| Cap.135           | three<br>dimensional | no                          | spiral                  | touch a wavy stem                                 | three<br>dimensional | no                          | spiral                  |
| Cap.136           | shallow              | no                          | spiral - one<br>turn    | separated by straight stem                        | three<br>dimensional | yes                         | damaged                 |
| Cap.137           | three<br>dimensional | yes                         | spiral                  | detached  | three<br>dimensional | yes                         | spiral                  |
| Cap.138           | three<br>dimensional | yes                         | spiral                  | touch each other                                  | three<br>dimensional | yes                         | spiral                  |

| Capital<br>(Cap.) | Helix<br>Morphology  | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction                    | Volute<br>Morphology | Extends Over the<br>Abacus? | Spiral<br>Configuration |
|-------------------|----------------------|-----------------------------|-------------------------|---------------------------------------|----------------------|-----------------------------|-------------------------|
| Cap.139           | three<br>dimensional | yes                         | spiral                  | touch each other                      | three<br>dimensional | yes                         | spiral                  |
| Cap.140           | projected            | no                          | spiral                  | touch each other                      | damaged              | -                           | -                       |
| Cap.141           | three<br>dimensional | damaged                     | damaged                 | damaged                               | three<br>dimensional | yes                         | damaged                 |
| Cap.142           | three<br>dimensional | yes                         | spiral                  | touch each other                      | three<br>dimensional | damaged                     | damaged                 |
| Cap.143           | three<br>dimensional | no                          | spiral                  | touch each other                      | three<br>dimensional | no                          | spiral                  |
| Cap.144           | three<br>dimensional | yes                         | spiral                  | touch each other                      | three<br>dimensional | yes                         | spiral                  |
| Cap.145           | three<br>dimensional | yes                         | spiral                  | touch each other                      | three<br>dimensional | yes                         | spiral                  |
| Cap.146           | three<br>dimensional | cannot be recognized        | spiral                  | touch each other                      | three<br>dimensional | yes                         | spiral                  |
| Cap.147           | three<br>dimensional | yes                         | spiral                  | touch each other                      | three<br>dimensional | yes                         | spiral                  |
| Cap.148           | three<br>dimensional | yes                         | spiral                  | touch a wavy stem                     | three<br>dimensional | yes                         | damaged                 |
| Cap.149           | three<br>dimensional | yes                         | spiral                  | touch each other                      | three<br>dimensional | no                          | damaged                 |
| Cap.150           | three<br>dimensional | yes                         | spiral                  | touch each other                      | three<br>dimensional | damaged                     | damaged                 |
| Cap.151           | three<br>dimensional | no                          | spiral                  | touch each other                      | three<br>dimensional | no                          | spiral                  |
| Cap.152           | three<br>dimensional | yes                         | spiral                  | touch each other                      | three<br>dimensional | yes                         | damaged                 |
| Cap.153           | three<br>dimensional | yes                         | spiral                  | touch each other                      | three<br>dimensional | yes                         | spiral                  |
| Cap.154           | three<br>dimensional | yes                         | spiral                  | touch each other                      | three<br>dimensional | yes                         | spiral                  |
| Cap.155.F<br>ace1 | three<br>dimensional | no                          | spiral                  | touch the central motif of the abacus | three<br>dimensional | damaged                     | spiral                  |
| Cap.155.F<br>ace2 | three<br>dimensional | no                          | spiral                  | touch each other                      | three<br>dimensional | yes                         | spiral                  |
| Cap.156           | three<br>dimensional | cannot be recognized        | cannot be<br>recognized | cannot be recognized                  | three<br>dimensional | damaged                     | damaged                 |
| Cap.157           | projected            | _                           | spiral                  | touch each other                      | three<br>dimensional | yes                         | damaged                 |
| Cap.158           | three<br>dimensional | yes                         | spiral                  | touch each other                      | three<br>dimensional | yes                         | damaged                 |
| Cap.159           | three<br>dimensional | no                          | spiral                  | touch each other                      | three<br>dimensional | no                          | damaged                 |
| Cap.160           | no helix             | _                           | _                       | -                                     | projected            | no                          | spiral                  |
| Cap.161           | no helix             | -                           | -                       | _                                     | shallow              | no                          | spiral                  |
| Cap.162           | no helix             | _                           | _                       | _                                     | projected            | no                          | spiral                  |
| Cap.163           | no helix             | -                           | -                       | -                                     | shallow              | no                          | spiral                  |
| Cap.164           | no helix             | -                           | _                       | _                                     | shallow              | no                          | spiral                  |

| Capital<br>(Cap.) | Helix<br>Morphology     | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction | Volute<br>Morphology    | Extends Over the<br>Abacus? | Spiral<br>Configuration |
|-------------------|-------------------------|-----------------------------|-------------------------|--------------------|-------------------------|-----------------------------|-------------------------|
| Cap.165           | no helix                | -                           | -                       | -                  | shallow                 | no                          | spiral                  |
| Cap.166           | no helix                | -                           | -                       | _                  | shallow                 | no                          | hook                    |
| Cap.167           | no helix                | -                           | -                       | -                  | shallow                 | no                          | spiral                  |
| Cap.168           | no helix                | -                           | _                       | _                  | projected               | no                          | spiral                  |
| Cap.169           | cannot be<br>recognized | _                           | -                       | -                  | cannot be<br>recognized | -                           | -                       |
| Cap.170           | no helix                | _                           | _                       | _                  | shallow                 | no                          | spiral                  |
| Cap.171           | no helix                | -                           | _                       | _                  | projected               | no                          | damaged                 |
| Cap.172           | no helix                | _                           | _                       | _                  | projected               | yes                         | spiral                  |
| Cap.173           | no helix                | -                           | _                       | _                  | projected               | no                          | spiral                  |
| Cap.174           | no helix                | -                           | _                       | _                  | projected               | no                          | spiral                  |
| Cap.175           | no helix                | -                           | _                       | _                  | projected               | no                          | spiral                  |
| Cap.176           | no helix                | -                           | _                       | _                  | projected               | no                          | damaged                 |
| Cap.177           | no helix                | -                           | _                       | _                  | projected               | no                          | spiral                  |
| Cap.178           | no helix                | -                           | _                       | _                  | projected               | no                          | spiral                  |
| Cap.179           | no helix                | -                           | -                       | -                  | projected               | no                          | spiral                  |
| Cap.180           | no helix                | -                           | _                       | -                  | projected               | no                          | spiral                  |
| Cap.181           | no helix                | -                           | -                       | -                  | projected               | no                          | spiral                  |
| Cap.182           | no helix                | -                           | _                       | -                  | no volute               | _                           | _                       |
| Cap.183           | no helix                | -                           | -                       | -                  | no volute               | -                           | -                       |
| Cap.184           | no helix                | -                           | -                       | -                  | no volute               | _                           | _                       |
| Cap.185           | no helix                | -                           | -                       | -                  | no volute               | -                           | -                       |
| Cap.186           | no helix                | -                           | -                       | _                  | no volute               | _                           | -                       |
| Cap.187           | no helix                | -                           | _                       | _                  | no volute               | -                           | _                       |
| Cap.188           | no helix                | _                           | _                       |                    | no volute               |                             | _                       |
| Cap.189           | no helix                | _                           | _                       | -                  | no volute               | _                           | -                       |
| Cap.190           | no helix                | _                           | _                       |                    | no volute               |                             | _                       |
| Cap.191           | no helix                | -                           | _                       | _                  | no volute               | -                           | -                       |

| Capital<br>(Cap.) | Helix<br>Morphology | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction | Volute<br>Morphology | Extends Over the<br>Abacus? | Spiral<br>Configuration |
|-------------------|---------------------|-----------------------------|-------------------------|--------------------|----------------------|-----------------------------|-------------------------|
| Cap.192           | no helix            | _                           | _                       | _                  | no volute            | _                           | _                       |
| Cap.193           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.194           | no helix            | -                           | _                       | _                  | no volute            | _                           | _                       |
| Cap.195           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.196           | no helix            | -                           | _                       | _                  | no volute            | _                           | -                       |
| Cap.197           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.198           | no helix            | -                           | -                       | -                  | no volute            | _                           | _                       |
| Cap.199           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.200           | no helix            | -                           | _                       | -                  | no volute            | -                           | _                       |
| Cap.201           | no helix            | -                           | -                       | _                  | no volute            | -                           | -                       |
| Cap.202           | no helix            | -                           | _                       | _                  | -                    | _                           |                         |
| Cap.203           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.204           | no helix            | -                           | _                       | -                  | no volute            | -                           | -                       |
| Cap.205           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.206           | no helix            | -                           | _                       | -                  | no volute            | -                           | -                       |
| Cap.207           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.208           | no helix            | -                           | _                       | -                  | no volute            | -                           | -                       |
| Cap.209           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.210           | no helix            | -                           | _                       | -                  | no volute            | -                           | -                       |
| Cap.211           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.212           | no helix            | -                           | _                       | -                  | no volute            | -                           | -                       |
| Cap.213           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.214           | no helix            | -                           | -                       | -                  | no volute            | _                           | -                       |
| Cap.215           | no helix            | -                           | -                       | _                  | no volute            | -                           | -                       |
| Cap.216           | no helix            | -                           | _                       | _                  | no volute            | _                           | -                       |
| Cap.217           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.218           | no helix            | _                           | _                       | _                  | no volute            | _                           | -                       |
| Cap.219           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |

| Capital<br>(Cap.) | Helix<br>Morphology | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction | Volute<br>Morphology | Extends Over the Abacus? | Spiral<br>Configuration |
|-------------------|---------------------|-----------------------------|-------------------------|--------------------|----------------------|--------------------------|-------------------------|
| Cap.220           | no helix            | _                           | _                       | _                  | no volute            | _                        | _                       |
| Cap.221           | no helix            | _                           | _                       | -                  | no volute            | _                        | _                       |
| Cap.222           | no helix            | _                           | _                       | _                  | no volute            | _                        | _                       |
| Cap.223           | no helix            | -                           | -                       | -                  | no volute            | -                        | -                       |
| Cap.224           | no helix            | _                           | _                       | _                  | no volute            | _                        | _                       |
| Cap.225           | no helix            | -                           | -                       | -                  | no volute            | -                        | -                       |
| Cap.226           | no helix            | -                           | -                       | -                  | no volute            | _                        | _                       |
| Cap.227           | no helix            | -                           | -                       | _                  | no volute            | -                        | -                       |
| Cap.228           | no helix            | -                           | _                       | -                  | no volute            | -                        | _                       |
| Cap.229           | no helix            | -                           | -                       | -                  | no volute            | -                        | -                       |
| Cap.230           | no helix            | -                           | _                       | _                  | no volute            | _                        | -                       |
| Cap.231           | no helix            | -                           | _                       | -                  | no volute            | -                        | -                       |
| Cap.232           | no helix            | -                           | _                       | -                  | no volute            | _                        | _                       |
| Cap.233           | no helix            | -                           | -                       | -                  | no volute            | -                        | -                       |
| Cap.234           | no helix            | -                           | _                       | -                  | no volute            | _                        | _                       |
| Cap.235           | no helix            | -                           | _                       | -                  | no volute            | -                        | -                       |
| Cap.236           | no helix            | -                           | _                       | -                  | no volute            | -                        | _                       |
| Cap.237           | no helix            | -                           | -                       | -                  | no volute            | -                        | -                       |
| Cap.238           | no helix            | -                           | _                       | -                  | projected            | damaged                  | damaged                 |
| Cap.239           | no helix            | -                           | _                       | -                  | no volute            | -                        | -                       |
| Cap.240           | no helix            | -                           | _                       | -                  | no volute            | -                        | _                       |
| Cap.241           | no helix            | -                           | _                       | -                  | no volute            | -                        | -                       |
| Cap.242           | no helix            | -                           | _                       | -                  | no volute            | -                        | _                       |
| Cap.243           | no helix            | -                           | -                       | -                  | no volute            | -                        | -                       |
| Cap.244           | no helix            | -                           | _                       | _                  | no volute            | -                        | -                       |
| Cap.245           | no helix            | -                           | -                       | -                  | no volute            | -                        | -                       |
| Cap.246           | no helix            | _                           | _                       | _                  | no volute            | _                        | -                       |
| Cap.247           | no helix            | -                           | -                       | -                  |                      | _                        |                         |

| Capital<br>(Cap.) | Helix<br>Morphology | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction | Volute<br>Morphology | Extends Over the<br>Abacus? | Spiral<br>Configuration |
|-------------------|---------------------|-----------------------------|-------------------------|--------------------|----------------------|-----------------------------|-------------------------|
| Cap.248           | no helix            | _                           | _                       | _                  | no volute            | _                           | _                       |
| Cap.249           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.250           | no helix            | -                           | _                       | _                  | no volute            | -                           | -                       |
| Cap.251           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.252           | no helix            | -                           | -                       | -                  | no volute            | -                           | _                       |
| Cap.253.F<br>ace1 | no helix            | _                           | -                       | -                  | no volute            | _                           | _                       |
| Cap.253.F<br>ace2 | no helix            | -                           | _                       | -                  | projected            | yes                         | spiral                  |
| Cap.254           | no helix            | -                           | -                       | I                  | no volute            | -                           | -                       |
| Cap.255           | no helix            | -                           | _                       | Ι                  | no volute            | -                           | _                       |
| Cap.256           | no helix            | -                           | -                       | I                  | no volute            | -                           | -                       |
| Cap.257           | no helix            | -                           | _                       | -                  | no volute            | _                           | _                       |
| Cap.258           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.259           | no helix            | -                           | -                       | -                  | no volute            | -                           | _                       |
| Cap.260           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |
| Cap.261           | no helix            | -                           | _                       | -                  | no volute            | _                           | _                       |
| Cap.262           | no helix            | -                           | -                       | I                  | no volute            | -                           | -                       |
| Cap.263           | no helix            | -                           | _                       | Ι                  | no volute            | -                           | _                       |
| Cap.264           | no helix            | -                           | -                       | I                  | no volute            | -                           | -                       |
| Cap.265           | no helix            | -                           | _                       | -                  | no volute            | _                           | _                       |
| Cap.266           | no helix            | -                           | -                       | I                  | no volute            | -                           | -                       |
| Cap.267           | no helix            | -                           | _                       | -                  | no volute            | _                           | _                       |
| Cap.268           | no helix            | -                           | -                       | I                  | no volute            | -                           | -                       |
| Cap.269           | no helix            | -                           | _                       | _                  | no volute            | _                           | -                       |
| Cap.270           | no helix            | -                           | -                       | _                  | no volute            | -                           | -                       |
| Cap.271           | no helix            | -                           | -                       | _                  | no volute            | _                           | -                       |
| Cap.272           | no helix            | -                           | -                       | _                  | no volute            | -                           | -                       |
| Cap.273           | no helix            | _                           | _                       | _                  | no volute            | _                           | _                       |
| Cap.274           | no helix            | -                           | -                       | -                  | no volute            | -                           | -                       |

| Capital<br>(Cap.) | Helix<br>Morphology  | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction                                   | Volute<br>Morphology | Extends Over the Abacus? | Spiral<br>Configuration |
|-------------------|----------------------|-----------------------------|-------------------------|--|----------------------|--------------------------|-------------------------|
| Cap.275           | no helix             | _                           | _                       | _  | no volute            | _                        | _                       |
| Cap.276           | no helix             | -                           | -                       | -  | no volute            | -                        | -                       |
| Cap.277           | no helix             | -                           | _                       | _  | no volute            | -                        | _                       |
| Cap.278           | no helix             | -                           | -                       | -  | no volute            | -                        | -                       |
| Cap.279           | no helix             | -                           | _                       | -  | no volute            | _                        | _                       |
| Cap.280           | no helix             | -                           | -                       | I  | no volute            | -                        | -                       |
| Cap.281           | no helix             | -                           | _                       | -  | no volute            | _                        | _                       |
| Cap.282           | projected            | no                          | spiral                  | touch each other                                     | projected            | no                       | spiral                  |
| Cap.283           | projected            | no                          | hook                    | touch each other                                     | three<br>dimensional | no                       | spiral                  |
| Cap.284           | projected            | no                          | spiral                  | touch each other                                     | three<br>dimensional | no                       | spiral                  |
| Cap.285           | shallow              | no                          | spiral                  | touch each other                                     | shallow              | no                       | spiral                  |
| Cap.286           | three<br>dimensional | cannot be<br>recognized     | spiral                  | damaged  | three<br>dimensional | damaged                  | damaged                 |
| Cap.287           | shallow              | no                          | spiral                  | separated by straight stem                           | shallow              | no                       | spiral                  |
| Cap.288           | three<br>dimensional | no                          | spiral                  | detached   | three<br>dimensional | no                       | spiral                  |
| Cap.289           | projected            | no                          | spiral                  | detached   | projected            | no                       | spiral                  |
| Cap.290           | projected            | no                          | no spiral - free<br>end | separated by a garland                               | projected            | no                       | spiral                  |
| Cap.291           | projected            | no                          | one turn                | stalk with strips-like with spirals touch each other | projected            | no                       | spiral                  |
| Cap.292           | projected            | no                          | spiral                  | touch each other                                     | projected            | no                       | spiral                  |
| Cap.293           | projected            | no                          | spiral                  | touch a straight stem                                | projected            | no                       | spiral                  |
| Cap.294.F<br>ace1 | Shallow              | no                          | one turn                | detached   | Shallow              | no                       | one turn                |
| Cap.294.F<br>ace2 | no helix             | -                           | -                       | Ι  | shallow              | no                       | spiral                  |
| Cap.295           | Shallow              | no                          | spiral                  | separated by a garland                               | Shallow              | no                       | spiral                  |
| Cap.296           | three<br>dimensional | no                          | spiral                  | touch a straight stem                                | three<br>dimensional | no                       | spiral                  |
| Cap.297           | projected            | no                          | one turn                | touch each other                                     | projected            | no                       | one turn                |
| Cap.298           | projected            | no                          | damaged                 | damaged  | projected            | damaged                  | damaged                 |
| Cap.299           | projected            | no                          | spiral                  | touch each other                                     | projected            | no                       | spiral                  |
| Cap.300           | projected            | no                          | spiral                  | touch a straight stem                                | projected            | no                       | spiral                  |
| Cap.301           | projected            | no                          | spiral                  | touch each other                                     | projected            | no                       | spiral                  |

| Capital<br>(Cap.) | Helix<br>Morphology  | Extends Over<br>the Abacus? | Spiral<br>Configuration             | Spiral Interaction               | Volute<br>Morphology | Extends Over the<br>Abacus? | Spiral<br>Configuration |
|-------------------|----------------------|-----------------------------|-------------------------------------|----------------------------------|----------------------|-----------------------------|-------------------------|
|                   |                      |                             |                                     |                                  |                      |                             |                         |
| Cap.302           | projected            | no                          | spiral                              | touch each other                 | projected            | no                          | spiral                  |
| Cap.303           | three<br>dimensional | no                          | spiral                              | touch each other                 | three<br>dimensional | no                          | spiral                  |
| Cap.304           | shallow              | no                          | no spirals -<br>connected<br>stalks | stalks of helices connected      | shallow              | no                          | reversed spiral         |
| Cap.305           | shallow              | no                          | reversed hook                       | detached                         | shallow              | no                          | spiral                  |
| Cap.306           | shallow              | no                          | spiral                              | separated by straight stem       | shallow              | no                          | spiral                  |
| Cap.307           | three<br>dimensional | yes                         | spiral                              | detached                         | three<br>dimensional | no                          | damaged                 |
| Cap.308           | shallow              | no                          | no spirals -<br>connected<br>stalks | connected stalks                 | shallow              | no                          | spiral                  |
| Cap.309           | shallow              | no                          | reversed spiral                     | reversed spiral touch each other | shallow              | no                          | spiral                  |
| Cap.310           | shallow              | no                          | no spirals -<br>connected<br>stalks | connected stalks                 | shallow              | yes                         | spiral                  |
| Cap.311           | projected            | no                          | spiral                              | touch each other                 | projected            | no                          | spiral                  |
| Cap.312           | shallow              | no                          | spiral                              | touch each other                 | shallow              | no                          | spiral                  |
| Cap.313           | shallow              | no                          | no spirals -<br>connected<br>stalks | connected stalks                 | shallow              | no                          | spiral                  |
| Cap.314           | no helix             | -                           | -                                   | -                                | shallow              | no                          | spiral                  |
| Cap.315           | no helix             | -                           | -                                   | _                                | shallow              | no                          | spiral                  |
| Cap.316           | no helix             | -                           | -                                   | -                                | shallow              | no                          | spiral                  |
| Cap.317           | no helix             | -                           | -                                   | -                                | shallow              | no                          | spiral                  |
| Cap.318           | no helix             | -                           | _                                   | _                                | shallow              | no                          | spiral                  |
| Cap.319           | no helix             | -                           | _                                   | _                                | shallow              | no                          | spiral                  |
| Cap.320           | no helix             | _                           | _                                   | -                                | shallow              | no                          | spiral                  |
| Cap.321           | no helix             | -                           | -                                   | -                                | shallow              | no                          | spiral                  |
| Cap.322           | no helix             | -                           | -                                   | _                                | shallow              | no                          | spiral                  |
| Cap.323           | no helix             | -                           | _                                   | -                                | shallow              | no                          | spiral                  |
| Cap.324           | no helix             | -                           | _                                   | _                                | shallow              | no                          | spiral                  |
| Cap.325           | no helix             | -                           | -                                   | -                                | shallow              | no                          | spiral                  |
| Cap.326           | no helix             | _                           | _                                   | _                                | shallow              | no                          | spiral                  |
| Cap.327           | no helix             | -                           | _                                   | -                                | shallow              | no                          | spiral                  |

| Capital<br>(Cap.) | Helix<br>Morphology | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction | Volute<br>Morphology | Extends Over the<br>Abacus?   | Spiral<br>Configuration |
|-------------------|---------------------|-----------------------------|-------------------------|--------------------|----------------------|---|-------------------------|
| Cap.328           | no helix            | -                           | _                       | _                  | shallow              | no  | spiral                  |
| Cap.329           | no helix            | -                           | -                       | -                  | shallow              | no  | spiral                  |
| Cap.330           | no helix            | _                           | -                       | _                  | shallow              | no  | spiral                  |
| Cap.331           | no helix            | _                           | -                       | -                  | shallow              | no  | spiral                  |
| Cap.332           | no helix            | -                           | _                       | _                  | shallow              | no  | spiral                  |
| Cap.333           | no helix            | -                           | -                       | -                  | shallow              | no  | spiral                  |
| Cap.334           | no helix            | -                           | _                       | _                  | shallow              | no  | spiral                  |
| Cap.335           | no helix            | -                           | -                       | -                  | shallow              | no  | spiral                  |
| Cap.336           | no helix            | -                           | _                       | -                  | projected            | no  | spiral                  |
| Cap.337           | no helix            | -                           | -                       | _                  | Shallow              | no  | spiral                  |
| Cap.338           | no helix            | -                           | _                       | -                  | projected            | yes   | damaged                 |
| Cap.339           | no helix            | -                           | -                       | -                  | projected            | no  | damaged                 |
| Cap.340           | no helix            | -                           | _                       | _                  | projected            | no  | spiral                  |
| Cap.341           | no helix            | -                           | -                       | -                  | projected            | no  | damaged                 |
| Cap.342           | no helix            | -                           | _                       | _                  | projected            | no  | spiral                  |
| Cap.343           | no helix            | -                           | -                       | -                  | projected            | no  | spiral                  |
| Cap.344           | no helix            | -                           | _                       | _                  | projected            | no  | spiral                  |
| Cap.345           | no helix            | -                           | -                       | I                  | projected            | no  | cannot be<br>recognized |
| Cap.346           | no helix            | -                           | _                       | _                  | projected            | no  | damaged                 |
| Cap.347           | no helix            | -                           | -                       | _                  | projected            | no  | spiral                  |
| Cap.348           | no helix            | -                           | _                       | -                  | shallow              | no  | cannot be<br>recognized |
| Cap.349           | no helix            | -                           | _                       | _                  | shallow              | no - The stalks<br>connect at their<br>lower ends forming<br>a lyre shape | spiral                  |
| Cap.350           | no helix            | -                           | _                       | _                  | projected            | no  | spiral                  |
| Cap.351           | no helix            | -                           | -                       | _                  | shallow              | no  | spiral                  |
| Cap.352           | no helix            | -                           | -                       | _                  | projected            | no  | spiral                  |
| Cap.353           | no helix            | _                           | -                       | _                  | projected            | no  | spiral                  |
| Cap.354           | no helix            | _                           | _                       | _                  | projected            | no  | one turn                |

| Capital<br>(Cap.) | Helix<br>Morphology | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction | Volute<br>Morphology | Extends Over the<br>Abacus?                 | Spiral<br>Configuration |
|-------------------|---------------------|-----------------------------|-------------------------|--------------------|----------------------|---|-------------------------|
| Cap.355           | no helix            | -                           | -                       | -                  | projected            | no  | spiral                  |
| Cap.356           | no helix            | _                           | _                       | _                  | no volute            | -   | _                       |
| Cap.357           | no helix            | -                           | -                       | -                  | no volute            | -   | -                       |
| Cap.358           | no helix            | _                           | _                       | _                  | no volute            | _   | _                       |
| Cap.359           | no helix            | -                           | -                       | _                  | no volute            | -   | -                       |
| Cap.360           | no helix            | -                           | _                       | _                  | no volute            | _   | -                       |
| Cap.361           | no helix            | -                           | -                       | _                  | no volute            | -   | -                       |
| Cap.362           | no helix            | -                           | _                       | _                  | no volute            | _   | _                       |
| Cap.363           | no helix            | -                           | -                       | _                  | projected            | no  | spiral                  |
| Cap.364           | no helix            | _                           | _                       | _                  | projected            | no  | spiral                  |
| Cap.365           | no helix            | -                           | -                       | -                  | three<br>dimensional | no - The stalks<br>resemble twisted<br>rope | spiral                  |
| Cap.366           | damaged             | -                           | _                       | _                  | damaged              | _   | _                       |
| Cap.367           | no helix            | -                           | -                       | _                  | three<br>dimensional | no  | spiral                  |
| Cap.368           | no helix            | -                           | -                       | -                  | three<br>dimensional | no  | spiral                  |
| Cap.369           | no helix            | -                           | -                       | -                  | three<br>dimensional | no  | spiral                  |
| Cap.370           | no helix            | -                           | _                       | _                  | three<br>dimensional | no  | spiral                  |
| Cap.371           | no helix            | -                           | -                       | _                  | three<br>dimensional | no  | one turn                |
| Cap.372           | no helix            | _                           | _                       | _                  | three<br>dimensional | no  | spiral                  |
| Cap.373           | no helix            | -                           | -                       | _                  | three<br>dimensional | no  | spiral                  |
| Cap.374           | no helix            | -                           | _                       | -                  | three<br>dimensional | no - The stalks<br>resemble twisted<br>rope | spiral                  |
| Cap.375           | no helix            | -                           | -                       | -                  | three<br>dimensional | no - The stalks<br>resemble twisted<br>rope | spiral                  |
| Cap.376           | no helix            | _                           | _                       | _                  | three<br>dimensional | no  | damaged                 |
| Cap.377           | lower part          | _                           | _                       | _                  | lower part           | _   | -                       |
| Cap.378           | lower part          | _                           | _                       | _                  | lower part           | _   | _                       |
| Cap.379           | lower part          | _                           | -                       | _                  | lower part           | -   | -                       |
| Cap.380           | lower part          | _                           | _                       | _                  | lower part           | _   |                         |

| Capital<br>(Cap.) | Helix<br>Morphology | Extends Over<br>the Abacus? | Spiral<br>Configuration | Spiral Interaction | Volute<br>Morphology | Extends Over the<br>Abacus? | Spiral<br>Configuration |
|-------------------|---------------------|-----------------------------|-------------------------|--------------------|----------------------|-----------------------------|-------------------------|
|                   |                     |                             |                         |                    | -                    |                             |                         |
| Cap.381           | lower part          | -                           | -                       | -                  | lower part           | -                           | -                       |
| Cap.382           |                     | no                          |                         | _                  |                      | -                           |                         |
| Cap.383           | unfinished          | -                           | -                       | _                  | unfinished           | -                           |                         |
| Cap.384           | unfinished          | _                           | _                       | _                  | unfinished           | _                           | _                       |
| Cap.385           | damaged             | -                           | -                       | -                  | damaged              | -                           | -                       |
| Cap.386           | shallow             | no                          | spiral                  | detached           | shallow              | yes                         | spiral                  |
| Cap.387           | no helix            | -                           | -                       | _                  | no volute            | -                           | -                       |
| Cap.388           | no helix            | _                           | _                       | _                  | no volute            | _                           | _                       |
| Cap.389           | no helix            | -                           | -                       | _                  | no volute            | -                           | -                       |
| Cap.390.F<br>ace1 | shallow             | no                          | spiral                  | touch each other   | shallow              | no                          | spiral                  |
| Cap.390.F<br>ace2 | no helix            | -                           | -                       | _                  | shallow              | no                          | spiral                  |
| Cap.390.F<br>ace3 | _                   | _                           | _                       | _                  | shallow              | no                          | spiral                  |

| Appendix 7: Calat | thus |
|-------------------|------|
|-------------------|------|

| Capital<br>(Cap.) | Calathus Rim    |
|-------------------|-----------------|
| Cap.1             | cylindrical rim |
| Cap.2             | cylindrical rim |
| Cap.3             | cylindrical rim |
| Cap.4             | not visible     |
| Cap.5             | not visible     |
| Cap.6             | cylindrical rim |
| Cap.7             | cylindrical rim |
| Cap.8             | cylindrical rim |
| Cap.9             | cylindrical rim |
| Cap.10            | cylindrical rim |
| Cap.11            | cylindrical rim |
| Cap.12            | damaged         |
| Cap.13            | cylindrical rim |
| Cap.14            | cylindrical rim |
| Cap.15            | cylindrical rim |
| Cap.16            | cylindrical rim |
| Cap.17            | cylindrical rim |
| Cap.18            | cylindrical rim |
| Cap.19            | flat rim        |
| Cap.20            | cylindrical rim |
| Cap.21            | cylindrical rim |
| Cap.22            | cylindrical rim |
| Cap.23            | cylindrical rim |
| Cap.24            | cylindrical rim |
| Cap.25            | cylindrical rim |
| Cap.26            | cylindrical rim |
| Cap.27            | cylindrical rim |
| Cap.28            | cylindrical rim |

| Capital<br>(Cap.) | Calathus Rim    |
|-------------------|-----------------|
| Cap.29            | cylindrical rim |
| Cap.30            | cylindrical rim |
| Cap.31            | cylindrical rim |
| Cap.32            | cylindrical rim |
| Cap.33            | cylindrical rim |
| Cap.34            | cylindrical rim |
| Cap.35            | cylindrical rim |
| Cap.36            | cylindrical rim |
| Cap.37            | cylindrical rim |
| Cap.38            | cylindrical rim |
| Cap.39            | cylindrical rim |
| Cap.40            | cylindrical rim |
| Cap.41            | cylindrical rim |
| Cap.42            | cylindrical rim |
| Cap.43            | cylindrical rim |
| Cap.44            | cylindrical rim |
| Cap.45            | cylindrical rim |
| Cap.46            | cylindrical rim |
| Cap.47            | cylindrical rim |
| Cap.48            | cylindrical rim |
| Cap.49            | cylindrical rim |
| Cap.50            | cylindrical rim |
| Cap.51            | cylindrical rim |
| Cap.52            | cylindrical rim |
| Cap.53            | cylindrical rim |
| Cap.54            | cylindrical rim |
| Cap.55            | cylindrical rim |
| Cap.56            | cylindrical rim |

| Capital<br>(Cap.) | Calathus Rim    |
|-------------------|-----------------|
| Cap.57            | cylindrical rim |
| Cap.58            | cylindrical rim |
| Cap.59            | cylindrical rim |
| Cap.60            | cylindrical rim |
| Cap.61            | cylindrical rim |
| Cap.62            | cylindrical rim |
| Cap.63            | cylindrical rim |
| Cap.64            | cylindrical rim |
| Cap.65            | cylindrical rim |
| Cap.66            | cylindrical rim |
| Cap.67            | cylindrical rim |
| Cap.68            | cylindrical rim |
| Cap.69            | cylindrical rim |
| Cap.70            | cylindrical rim |
| Cap.71            | cylindrical rim |
| Cap.72            | cylindrical rim |
| Cap.73            | cylindrical rim |
| Cap.74            | cylindrical rim |
| Cap.75            | cylindrical rim |
| Cap.76            | cylindrical rim |
| Cap.77            | cylindrical rim |
| Cap.78            | cylindrical rim |
| Cap.79            | cylindrical rim |
| Cap.80            | cylindrical rim |
| Cap.81            | cylindrical rim |
| Cap.82            | cylindrical rim |
| Cap.83            | cylindrical rim |
| Cap.84            | cylindrical rim |

| Appendix /: Calathi |
|---------------------|
|---------------------|

| Capital<br>(Cap.) | Calathus Rim            |
|-------------------|-------------------------|
| Cap.85            | cylindrical rim         |
| Cap.86            | cylindrical rim         |
| Cap.87            | cylindrical rim         |
| Cap.88            | cylindrical rim         |
| Cap.89            | cylindrical rim         |
| Cap.90            | cylindrical rim         |
| Cap.91            | cylindrical rim         |
| Cap.92            | cylindrical rim         |
| Cap.93            | cylindrical rim         |
| Cap.94            | cylindrical rim         |
| Cap.95            | cylindrical rim         |
| Cap.96            | cannot be<br>recognized |
| Cap.97            | not visible             |
| Cap.98            | cylindrical rim         |
| Cap.99            | cylindrical rim         |
| Cap.100           | not visible             |
| Cap.101           | not visible             |
| Cap.102           | not visible             |
| Cap.103           | not visible             |
| Cap.104           | not visible             |
| Cap.105           | flat rim                |
| Cap.106           | cylindrical rim         |
| Cap.107           | cylindrical rim         |
| Cap.108           | cylindrical rim         |
| Cap.109           | cannot be recognized    |
| Cap.110           | flat rim                |
| Cap.111           | cylindrical rim         |
| Cap.112           | cylindrical rim         |

| Capital<br>(Cap.) | Calathus Rim    |
|-------------------|-----------------|
| Cap.113           | cylindrical rim |
| Cap.114           | cylindrical rim |
| Cap.115           | flat rim        |
| Cap.116           | cylindrical rim |
| Cap.117           | cylindrical rim |
| Cap.118           | flat rim        |
| Cap.119           | flat rim        |
| Cap.120           | flat rim        |
| Cap.121           | cylindrical rim |
| Cap.122           | flat rim        |
| Cap.123           | cylindrical rim |
| Cap.124           | cylindrical rim |
| Cap.125           | cylindrical rim |
| Cap.126           | flat rim        |
| Cap.127           | flat rim        |
| Cap.128           | cylindrical rim |
| Cap.129           | flat rim        |
| Cap.130           | flat rim        |
| Cap.131           | cylindrical rim |
| Cap.132           | cylindrical rim |
| Cap.133           | cylindrical rim |
| Cap.134           | cylindrical rim |
| Cap.135           | cylindrical rim |
| Cap.136           | cylindrical rim |
| Cap.137           | cylindrical rim |
| Cap.138           | flat rim        |
| Cap.139           | cylindrical rim |
| Cap.140           | damaged         |

| Capital<br>(Cap.) | Calathus Rim            |
|-------------------|-------------------------|
| Cap.141           | cylindrical rim         |
| Cap.142           | not visible             |
| Cap.143           | flat rim                |
| Cap.144           | flat rim                |
| Cap.145           | flat rim                |
| Cap.146           | cannot be recognized    |
| Cap.147           | cannot be recognized    |
| Cap.148           | cylindrical rim         |
| Cap.149           | cylindrical rim         |
| Cap.150           | cylindrical rim         |
| Cap.151           | cylindrical rim         |
| Cap.152           | flat rim                |
| Cap.153           | not visible             |
| Cap.154           | flat rim                |
| Cap.155           | cylindrical rim         |
| Cap.156           | cannot be<br>recognized |
| Cap.157           | cannot be recognized    |
| Cap.158           | flat rim                |
| Cap.159           | cylindrical rim         |
| Cap.160           | cylindrical rim         |
| Cap.161           | not visible             |
| Cap.162           | cylindrical rim         |
| Cap.163           | not visible             |
| Cap.164           | not visible             |
| Cap.165           | not visible             |
| Cap.166           | not visible             |
| Cap.167           | not visible             |
| Cap.168           | not visible             |

| appendix 7. Cululius |
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| Capital<br>(Cap.) | Calathus Rim            |
|-------------------|-------------------------|
|                   | connet he               |
| Cap.169           | recognized              |
| Cap.170           | not visible             |
| Cap.171           | cylindrical rim         |
| Cap.172           | not visible             |
| Cap.173           | cylindrical rim         |
| Cap.174           | cylindrical rim         |
| Cap.175           | cylindrical rim         |
| Cap.176           | cylindrical rim         |
| Cap.177           | not visible             |
| Cap.178           | cylindrical rim         |
| Cap.179           | cylindrical rim         |
| Cap.180           | cylindrical rim         |
| Cap.181           | cylindrical rim         |
| Cap.182           | cannot be<br>recognized |
| Cap.183           | not visible             |
| Cap.184           | not visible             |
| Cap.185           | not visible             |
| Cap.186           | damaged                 |
| Cap.187           | not visible             |
| Cap.188           | not visible             |
| Cap.189           | damaged                 |
| Cap.190           | not visible             |
| Cap.191           | not visible             |
| Cap.192           | not visible             |
| Cap.193           | not visible             |
| Cap.194           | not visible             |
| Cap.195           | not visible             |
| Cap.196           | not visible             |

| Capital<br>(Cap.) | Calathus Rim    |
|-------------------|-----------------|
| Cap.197           | not visible     |
| Cap.198           | not visible     |
| Cap.199           | not visible     |
| Cap.200           | not visible     |
| Cap.201           | not visible     |
| Cap.202           | not visible     |
| Cap.203           | not visible     |
| Cap.204           | not visible     |
| Cap.205           | not visible     |
| Cap.206           | not visible     |
| Cap.207           | not visible     |
| Cap.208           | not visible     |
| Cap.209           | not visible     |
| Cap.210           | not visible     |
| Cap.211           | not visible     |
| Cap.212           | not visible     |
| Cap.213           | not visible     |
| Cap.214           | not visible     |
| Cap.215           | cylindrical rim |
| Cap.216           | not visible     |
| Cap.217           | not visible     |
| Cap.218           | not visible     |
| Cap.219           | not visible     |
| Cap.220           | not visible     |
| Cap.221           | not visible     |
| Cap.222           | not visible     |
| Cap.223           | not visible     |
| Cap.224           | not visible     |

| Capital<br>(Cap.) | Calathus Rim    |
|-------------------|-----------------|
| Cap.225           | not visible     |
| Cap.226           | not visible     |
| Cap.227           | not visible     |
| Cap.228           | not visible     |
| Cap.229           | not visible     |
| Cap.230           | not visible     |
| Cap.231           | not visible     |
| Cap.232           | not visible     |
| Cap.233           | not visible     |
| Cap.234           | not visible     |
| Cap.235           | not visible     |
| Cap.236           | cylindrical rim |
| Cap.237           | not visible     |
| Cap.238           | cylindrical rim |
| Cap.239           | not visible     |
| Cap.240           | not visible     |
| Cap.241           | not visible     |
| Cap.242           | not visible     |
| Cap.243           | not visible     |
| Cap.244           | not visible     |
| Cap.245           | not visible     |
| Cap.246           | not visible     |
| Cap.247           | not visible     |
| Cap.248           | not visible     |
| Cap.249           | not visible     |
| Cap.250           | not visible     |
| Cap.251           | not visible     |
| Cap.252           | not visible     |

| Capital<br>(Cap.) | Calathus Rim    |
|-------------------|-----------------|
| Cap.253           | not visible     |
| Cap.254           | not visible     |
| Cap.255           | not visible     |
| Cap.256           | not visible     |
| Cap.257           | not visible     |
| Cap.258           | not visible     |
| Cap.259           | not visible     |
| Cap.260           | not visible     |
| Cap.261           | not visible     |
| Cap.262           | not visible     |
| Cap.263           | not visible     |
| Cap.264           | not visible     |
| Cap.265           | not visible     |
| Cap.266           | not visible     |
| Cap.267           | not visible     |
| Cap.268           | not visible     |
| Cap.269           | not visible     |
| Cap.270           | not visible     |
| Cap.271           | cylindrical rim |
| Cap.272           | not visible     |
| Cap.273           | not visible     |
| Cap.274           | not visible     |
| Cap.275           | not visible     |
| Cap.276           | not visible     |
| Cap.277           | not visible     |
| Cap.278           | not visible     |
| Cap.279           | not visible     |
| Cap.280           | not visible     |

| Capital<br>(Cap.) | Calathus Rim    |
|-------------------|-----------------|
| Cap.281           | not visible     |
| Cap.282           | flat curved rim |
| Cap.283           | cylindrical rim |
| Cap.284           | cylindrical rim |
| Cap.285           | not visible     |
| Cap.286           | damaged         |
| Cap.287           | not visible     |
| Cap.288           | not visible     |
| Cap.289           | not visible     |
| Cap.290           | not visible     |
| Cap.291           | not visible     |
| Cap.292           | not visible     |
| Cap.293           | not visible     |
| Cap.294           | not visible     |
| Cap.295           | not visible     |
| Cap.296           | not visible     |
| Cap.297           | not visible     |
| Cap.298           | not visible     |
| Cap.299           | not visible     |
| Cap.300           | not visible     |
| Cap.301           | not visible     |
| Cap.302           | not visible     |
| Cap.303           | cylindrical rim |
| Cap.304           | cylindrical rim |
| Cap.305           | cylindrical rim |
| Cap.306           | cylindrical rim |
| Cap.307           | not visible     |
| Cap.308           | not visible     |

| Capital<br>(Cap.) | Calathus Rim    |
|-------------------|-----------------|
| Cap.309           | cylindrical rim |
| Cap.310           | cylindrical rim |
| Cap.311           | cylindrical rim |
| Cap.312           | cylindrical rim |
| Cap.313           | cylindrical rim |
| Cap.314           | not visible     |
| Cap.315           | not visible     |
| Cap.316           | not visible     |
| Cap.317           | not visible     |
| Cap.318           | not visible     |
| Cap.319           | not visible     |
| Cap.320           | not visible     |
| Cap.321           | not visible     |
| Cap.322           | not visible     |
| Cap.323           | not visible     |
| Cap.324           | not visible     |
| Cap.325           | not visible     |
| Cap.326           | not visible     |
| Cap.327           | not visible     |
| Cap.328           | not visible     |
| Cap.329           | not visible     |
| Cap.330           | not visible     |
| Cap.331           | not visible     |
| Cap.332           | not visible     |
| Cap.333           | not visible     |
| Cap.334           | not visible     |
| Cap.335           | not visible     |
| Cap.336           | cylindrical rim |

| Appendix 7. Calamus |
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| Capital<br>(Cap.) | Calathus Rim    |
|-------------------|-----------------|
| Cap.337           | not visible     |
| Cap.338           | cylindrical rim |
| Cap.339           | cylindrical rim |
| Cap.340           | cylindrical rim |
| Cap.341           | cylindrical rim |
| Cap.342           | not visible     |
| Cap.343           | cylindrical rim |
| Cap.344           | not visible     |
| Cap.345           | not visible     |
| Cap.346           | cylindrical rim |
| Cap.347           | cylindrical rim |
| Cap.348           | not visible     |
| Cap.349           | not visible     |
| Cap.350           | not visible     |
| Cap.351           | not visible     |
| Cap.352           | flat rim        |
| Cap.353           | flat rim        |
| Cap.354           | not visible     |
| Cap.355           | flat rim        |
| Cap.356           | flat rim        |
| Cap.357           | flat rim        |
| Cap.358           | not visible     |
| Cap.359           | cylindrical rim |
| Cap.360           | cylindrical rim |
| Cap.361           | cylindrical rim |
| Cap.362           | cylindrical rim |
| Cap.363           | not visible     |
| Cap.364           | not visible     |

| Capital<br>(Cap.) | Calathus Rim    |
|-------------------|-----------------|
| Cap.365           | not visible     |
| Cap.366           | damaged         |
| Cap.367           | not visible     |
| Cap.368           | not visible     |
| Cap.369           | not visible     |
| Cap.370           | not visible     |
| Cap.371           | not visible     |
| Cap.372           | not visible     |
| Cap.373           | not visible     |
| Cap.374           | not visible     |
| Cap.375           | not visible     |
| Cap.376           | not visible     |
| Cap.377           | lower part      |
| Cap.378           | lower part      |
| Cap.379           | lower part      |
| Cap.380           | lower part      |
| Cap.381           | lower part      |
| Cap.382           | cylindrical rim |
| Cap.383           | unfinished      |
| Cap.384           | unfinished      |
| Cap.385           | damaged         |
| Cap.386           | not visible     |
| Cap.387           | not visible     |
| Cap.388           | not visible     |
| Cap.389           | not visible     |
| Cap.390           | cylindrical rim |
|                   |                 |

| Capital<br>(Cap.) | Abacus Design   | Ornamentation   |
|-------------------|---|---|
| Cap.1             | damaged   | no  |
| Cap.2             | flat band   | egg-and-dart on one face and egg-and-rose on the other face |
| Cap.3             | receding cavetto topped with ovolo                    | no  |
| Cap.4             | receding cavetto topped with band                     | gadroons on the cavetto and egg-and-dart on the band        |
| Cap.5             | receding cavetto topped with ovolo                    | no  |
| Cap.6             | receding cavetto topped with listel topped with ovolo | plain cavetto and listel, with egg-and-dart on the ovolo    |
| Cap.7             | receding cavetto topped with ovolo                    | no  |
| Cap.8             | receding cavetto topped with ovolo                    | no  |
| Cap.9             | receding cavetto topped with ovolo                    | no  |
| Cap.10            | receding cavetto topped with ovolo                    | no  |
| Cap.11            | receding cavetto topped with band                     | no  |
| Cap.12            | receding cavetto topped with listel                   | no  |
| Cap.13            | receding cavetto topped with band                     | no  |
| Cap.14            | receding cavetto topped with band divided by a groove | no  |
| Cap.15            | damaged   | no  |
| Cap.16            | damaged   | no  |
| Cap.17            | cannot be recognized                                  | no  |
| Cap.18            | receding cavetto topped with ovolo                    | no  |
| Cap.19            | receding band   | no  |
| Cap.20            | receding cavetto topped with band                     | no  |
| Cap.21            | receding cavetto topped with ovolo                    | no  |
| Cap.22            | receding cavetto topped with ovolo                    | no  |
| Cap.23            | receding cavetto topped with band                     | no  |
| Cap.24            | receding cavetto topped with ovolo                    | no  |
| Cap.25            | receding cavetto topped with ovolo                    | foliate on the cavetto, with oblique lines on the ovolo     |
| Cap.26            | receding cavetto topped with band                     | no  |
| Cap.27            | receding cavetto topped with band                     | no  |
| Cap.28            | receding cavetto topped with ovolo                    | no  |
| Cap.29            | receding cavetto topped with band                     | no  |
| Cap.30            | receding cavetto topped with band                     | no  |
| Cap.31            | receding cavetto topped with band                     | no  |
| Cap.32            | receding cavetto topped with band                     | no  |
| Cap.33            | cannot be recognized                                  | no  |
| Cap.34            | receding cavetto topped with band                     | no  |
| Cap.35            | receding cavetto topped with band                     | no  |
| Cap.36            | receding cavetto topped with ovolo                    | gadroons on the cavetto, with oblique lines on the ovolo    |

| Cap.37 | receding cavetto topped with ovolo | no  |
|--------|------------------------------------|---|
| Cap.38 | receding cavetto topped with ovolo | no  |
| Cap.39 | receding cavetto topped with ovolo | no  |
| Cap.40 | receding cavetto topped with band  | gadroons on the cavetto, with egg-and-dart on the ovolo |
| Cap.41 | receding cavetto topped with band  | no  |
| Cap.42 | receding cavetto topped with band  | no  |
| Cap.43 | receding cavetto topped with band  | gadroons on the cavetto, with egg-and-dart on the ovolo |
| Cap.44 | receding cavetto topped with band  | no  |
| Cap.45 | receding cavetto topped with ovolo | no  |
| Cap.46 | receding cavetto topped with ovolo | no  |
| Cap.47 | receding cavetto topped with ovolo | no  |
| Cap.48 | receding cavetto topped with ovolo | no  |
| Cap.49 | receding cavetto topped with ovolo | no  |
| Cap.50 | receding cavetto topped with ovolo | no  |
| Cap.51 | receding cavetto topped with ovolo | no  |
| Cap.52 | receding cavetto topped with ovolo | no  |
| Cap.53 | receding cavetto topped with ovolo | no  |
| Cap.54 | receding cavetto topped with ovolo | no  |
| Cap.55 | receding cavetto topped with ovolo | no  |
| Cap.56 | receding cavetto topped with ovolo | no  |
| Cap.57 | receding cavetto topped with ovolo | no  |
| Cap.58 | receding cavetto topped with ovolo | no  |
| Cap.59 | receding cavetto topped with ovolo | no  |
| Cap.60 | receding cavetto topped with ovolo | no  |
| Cap.61 | receding cavetto topped with ovolo | no  |
| Cap.62 | receding cavetto topped with band  | no  |
| Cap.63 | receding cavetto topped with band  | no  |
| Cap.64 | receding cavetto topped with band  | no  |
| Cap.65 | receding cavetto topped with band  | no  |
| Cap.66 | receding cavetto topped with band  | no  |
| Cap.67 | receding cavetto topped with band  | no  |
| Cap.68 | receding cavetto topped with band  | no  |
| Cap.69 | receding cavetto topped with ovolo | no  |
| Cap.70 | receding cavetto topped with ovolo | no  |
| Cap.71 | receding cavetto topped with band  | no  |
| Cap.72 | receding cavetto topped with band  | no  |
| Cap.73 | receding cavetto topped with band  | no  |
| Cap.74 | cannot be recognized               | no  |

| Cap.75  | receding cavetto topped with ovolo                        | no   |
|---------|---|--|
| Cap.76  | receding cavetto topped with ovolo                        | no   |
| Cap.77  | receding cavetto topped with ovolo                        | no   |
| Cap.78  | receding cavetto topped with ovolo                        | no   |
| Cap.79  | receding cavetto topped with ovolo                        | no   |
| Cap.80  | receding cavetto topped with ovolo                        | no   |
| Cap.81  | receding cavetto topped with ovolo                        | no   |
| Cap.82  | receding cavetto topped with ovolo                        | no   |
| Cap.83  | receding cavetto topped with ovolo                        | no   |
| Cap.84  | receding cavetto topped with ovolo                        | no   |
| Cap.85  | receding cavetto topped with ovolo                        | no   |
| Cap.86  | receding cavetto topped with ovolo                        | no   |
| Cap.87  | receding cavetto topped with ovolo                        | no   |
| Cap.88  | receding cavetto topped with ovolo                        | no   |
| Cap.89  | receding cavetto topped with ovolo                        | no   |
| Cap.90  | receding cavetto topped with ovolo                        | no   |
| Cap.91  | receding cavetto topped with band                         | no   |
| Cap.92  | receding cavetto topped with band                         | no   |
| Cap.93  | receding cavetto topped with band                         | no   |
| Cap.94  | receding cavetto topped with band                         | no   |
| Cap.95  | receding double profiles                                  | no   |
| Cap.96  | receding band   | no   |
| Cap.97  | receding band   | no   |
| Cap.98  | receding cavetto topped with listel                       | no   |
| Cap.99  | receding cavetto topped with ovolo                        | no   |
| Cap.100 | receding band   | no   |
| Cap.101 | receding band   | no   |
| Cap.102 | receding band   | no   |
| Cap.103 | receding band   | no   |
| Cap.104 | receding band   | no   |
| Cap.105 | receding cavetto topped with listel                       | no   |
| Cap.106 | receding cavetto topped with band                         | no   |
| Cap.107 | cannot be recognized                                      | no   |
| Cap.108 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg-and-dart on the ovolo                   |
| Cap.109 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg-and-dart on the ovolo                   |
| Cap.110 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg-and-dart on the ovolo                   |
| Cap.111 | receding cavetto topped with ovolo and topped with listel | gadroons on the cavetto and egg-and-dart on the ovolo, with a plain listel |
| Cap.112 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg-and-dart on the ovolo                   |

| Cap.113 | receding cavetto topped with ovolo and topped with listel | gadroons on the cavetto and egg-and-dart on the ovolo, with a plain listel |
|---------|---|--|
| Cap.114 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg-and-dart on the ovolo                   |
| Cap.115 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg-and-dart on the ovolo                   |
| Cap.116 | receding cavetto topped with ovolo and topped with listel | foliate on the cavetto, egg-and-dart on the ovolo, and a plain<br>listel   |
| Cap.117 | receding cavetto topped with ovolo and topped with listel | foliate on the cavetto, egg and dart on the ovolo, and a plain<br>listel   |
| Cap.118 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg-and-dart on the ovolo                   |
| Cap.119 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg-and-dart on the ovolo                   |
| Cap.120 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg and dart on the ovolo                   |
| Cap.121 | receding cavetto topped with ovolo and topped with listel | foliate on the cavetto, egg-and-dart on the ovolo, and a plain<br>listel   |
| Cap.122 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg-and-dart on the ovolo                   |
| Cap.123 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg-and-dart on the ovolo.                  |
| Cap.124 | receding cavetto topped with ovolo and topped with listel | gadroons on the cavetto and egg-and-dart on the ovolo, with a plain listel |
| Cap.125 | receding cavetto topped with ovolo and topped with listel | no   |
| Cap.126 | receding cavetto topped with ovolo and topped with listel | plain cavetto and listel, with egg-and-dart on the ovolo                   |
| Cap.127 | receding cavetto topped with ovolo and topped with listel | no   |
| Cap.128 | receding cavetto topped with band                         | no   |
| Cap.129 | receding band divided by a groove                         | no   |
| Cap.130 | receding band divided by a groove                         | no   |
| Cap.131 | receding band   | no   |
| Cap.132 | receding band   | no   |
| Cap.133 | receding cavetto topped with band                         | gadroons on the cavetto and egg-and-dart on the band                       |
| Cap.134 | damaged   | no   |
| Cap.135 | receding cavetto topped with listel                       | no   |
| Cap.136 | receding cavetto topped with ovolo                        | no   |
| Cap.137 | receding cavetto topped with band divided by a groove     | no   |
| Cap.138 | receding cavetto topped with listel                       | no   |
| Cap.139 | receding cavetto topped with band divided by a groove     | no   |
| Cap.140 | damaged   | no   |
| Cap.141 | receding cavetto topped with ovolo                        | no   |
| Cap.142 | receding cavetto topped with band                         | no   |
| Cap.143 | receding cavetto topped with band                         | no   |
| Cap.144 | receding cavetto topped with band                         | no   |
| Cap.145 | receding cavetto topped with band                         | no   |
| Cap.146 | receding cavetto topped with band                         | no   |
| Cap.147 | receding cavetto topped with band                         | no   |
| Cap.148 | receding cavetto topped with band                         | no   |
| Cap.149 | receding cavetto topped with band                         | no   |

| Cap.150 | receding cavetto topped with band             | no |
|---------|---|----|
| Cap.151 | receding cavetto topped with band             | no |
| Cap.152 | receding cavetto topped with band             | no |
| Cap.153 | receding cavetto topped with band             | no |
| Cap.154 | receding cavetto topped with band             | no |
| Cap.155 | receding cavetto topped with band             | no |
| Cap.156 | cannot be recognized                          | no |
| Cap.157 | cannot be recognized                          | no |
| Cap.158 | receding cavetto topped with band             | no |
| Cap.159 | receding cavetto topped with band             | no |
| Cap.160 | receding band                                 | no |
| Cap.161 | receding band                                 | no |
| Cap.162 | receding band                                 | no |
| Cap.163 | receding band                                 | no |
| Cap.164 | receding band                                 | no |
| Cap.165 | receding band                                 | no |
| Cap.166 | receding band                                 | no |
| Cap.167 | receding band                                 | no |
| Cap.168 | receding band with engraved rectangular panel | no |
| Cap.169 | cannot be recognized                          | no |
| Cap.170 | receding band                                 | no |
| Cap.171 | receding band                                 | no |
| Cap.172 | receding band                                 | no |
| Cap.173 | receding band                                 | no |
| Cap.174 | receding band                                 | no |
| Cap.175 | receding band divided by a groove             | no |
| Cap.176 | receding band                                 | no |
| Cap.177 | receding band                                 | no |
| Cap.178 | receding band                                 | no |
| Cap.179 | receding band                                 | no |
| Cap.180 | receding band                                 | no |
| Cap.181 | receding band                                 | no |
| Cap.182 | receding band                                 | no |
| Cap.183 | receding band                                 | no |
| Cap.184 | receding band                                 | no |
| Cap.185 | receding band                                 | no |
|         | <u> </u>                                      |    |

| Cap.187 | receding band | no |
|---------|---------------|----|
| Cap.188 | receding band | no |
| Cap.189 | damaged       | no |
| Cap.190 | receding band | no |
| Cap.191 | receding band | no |
| Cap.192 | receding band | no |
| Cap.193 | receding band | no |
| Cap.194 | receding band | no |
| Cap.195 | receding band | no |
| Cap.196 | receding band | no |
| Cap.197 | receding band | no |
| Cap.198 | receding band | no |
| Cap.199 | receding band | no |
| Cap.200 | receding band | no |
| Cap.201 | receding band | no |
| Cap.202 | receding band | no |
| Cap.203 | receding band | no |
| Cap.204 | receding band | no |
| Cap.205 | receding band | no |
| Cap.206 | receding band | no |
| Cap.207 | receding band | no |
| Cap.208 | receding band | no |
| Cap.209 | flat band     | no |
| Cap.210 | receding band | no |
| Cap.211 | receding band | no |
| Cap.212 | receding band | no |
| Cap.213 | receding band | no |
| Cap.214 | flat band     | no |
| Cap.215 | receding band | no |
| Cap.216 | receding band | no |
| Cap.217 | receding band | no |
| Cap.218 | receding band | no |
| Cap.219 | receding band | no |
| Cap.220 | receding band | no |
| Cap.221 | receding band | no |
| Cap.222 | receding band | no |
| Cap.223 | receding band | no |
| Cap.224 | receding band | no |
| Cap.225  | receding band  | no  |
|--|--|---|
| Cap.226  | receding band  | no  |
| Cap.227  | receding band  | no  |
| Cap.228  | receding band  | no  |
| Cap.229  | receding band  | no  |
| Cap.230  | receding band  | no  |
| Cap.231  | receding band  | no  |
| Cap.232  | receding band  | no  |
| Cap.233  | receding band  | no  |
| Cap.234  | receding band  | no  |
| Cap.235  | receding band  | no  |
| Cap.236  | receding band  | no  |
| Cap.237  | receding band  | no  |
| Cap.238  | receding band  | no  |
| Cap.239  | receding band  | no  |
| Cap.240  | receding band  | no  |
| Cap.241  | receding band  | no  |
| Cap.242  | receding band  | no  |
| Cap.243  | receding band  | no  |
| Cap.244  | receding band  | no  |
| Cap.245  | receding band  | no  |
| Cap.246  | receding band  | no  |
| Cap.247  | receding band  | no  |
| Cap.248  | receding band  | no  |
| Cap.249  | receding band  | no  |
| Cap.250  | receding band  | no  |
| Cap.251  | receding band  |   |
|  |  | no  |
| Cap.252  | receding band  | no  |
| Cap.252<br>Cap.253   | receding band  | no<br>no<br>no  |
| Cap.252<br>Cap.253<br>Cap.254  | receding band<br>receding band<br>receding band  | no<br>no<br>no<br>no  |
| Cap.252<br>Cap.253<br>Cap.254<br>Cap.255   | receding band<br>receding band<br>receding band<br>receding band   | no<br>no<br>no<br>no<br>no  |
| Cap.252<br>Cap.253<br>Cap.254<br>Cap.255<br>Cap.256  | receding band<br>receding band<br>receding band<br>receding band<br>receding band<br>receding band   | no<br>no<br>no<br>no<br>no<br>no  |
| Cap.252<br>Cap.253<br>Cap.254<br>Cap.255<br>Cap.256<br>Cap.257   | receding band  | no n  |
| Cap.252<br>Cap.253<br>Cap.254<br>Cap.255<br>Cap.256<br>Cap.257<br>Cap.258                                  | receding band  | no n  |
| Cap.252<br>Cap.253<br>Cap.254<br>Cap.255<br>Cap.256<br>Cap.257<br>Cap.258<br>Cap.259                       | receding band<br>receding band<br>receding band<br>receding band<br>receding band<br>receding band<br>receding band<br>receding band<br>receding band  | no<br>no<br>no<br>no<br>no<br>no<br>no<br>no<br>no<br>no<br>no<br>no            |
| Cap.252<br>Cap.253<br>Cap.255<br>Cap.256<br>Cap.257<br>Cap.258<br>Cap.259<br>Cap.260                       | receding band<br>receding band<br>receding band<br>receding band<br>receding band<br>receding band<br>receding band<br>receding band<br>receding band<br>receding band                                   | no<br>no<br>no<br>no<br>no<br>no<br>no<br>no<br>no<br>no<br>no<br>no<br>no<br>n |
| Cap.252<br>Cap.253<br>Cap.254<br>Cap.255<br>Cap.256<br>Cap.257<br>Cap.258<br>Cap.259<br>Cap.260<br>Cap.261 | receding band<br>receding band | no n  |

| Cap.263 | receding band                        | no                           |
|---------|--------------------------------------|------------------------------|
| Cap.264 | receding band                        | no                           |
| Cap.265 | receding band                        | no                           |
| Cap.266 | receding band                        | no                           |
| Cap.267 | receding band                        | no                           |
| Cap.268 | receding band                        | no                           |
| Cap.269 | receding band                        | no                           |
| Cap.270 | receding band                        | no                           |
| Cap.271 | receding band                        | geometric motifs on the band |
| Cap.272 | receding band                        | no                           |
| Cap.273 | receding band                        | no                           |
| Cap.274 | receding band                        | no                           |
| Cap.275 | receding band                        | no                           |
| Cap.276 | receding band                        | no                           |
| Cap.277 | receding band                        | no                           |
| Cap.278 | receding band                        | no                           |
| Cap.279 | receding band                        | no                           |
| Cap.280 | receding band                        | no                           |
| Cap.281 | receding band                        | no                           |
| Cap.282 | receding band divided by two grooves | no                           |
| Cap.283 | receding cavetto topped with ovolo   | no                           |
| Cap.284 | receding band divided by two grooves | no                           |
| Cap.285 | receding band divided by two grooves | no                           |
| Cap.286 | damaged                              | no                           |
| Cap.287 | receding band                        | no                           |
| Cap.288 | receding band                        | no                           |
| Cap.289 | receding band                        | no                           |
| Cap.290 | receding band                        | no                           |
| Cap.291 | receding band                        | no                           |
| Cap.292 | receding band                        | no                           |
| Cap.293 | receding band                        | no                           |
| Cap.294 | receding band                        | no                           |
| Cap.295 | receding band                        | no                           |
| Cap.296 | receding band                        | no                           |
| Cap.297 | receding band                        | no                           |
| Cap.298 | damaged                              | no                           |
| Cap.299 | receding band                        | no                           |
| Cap.300 | receding band                        | no                           |

| Cap.301 | receding band                      | no                                 |  |
|---------|------------------------------------|------------------------------------|--|
| Cap.302 | receding band                      | no                                 |  |
| Cap.303 | receding cavetto topped with ovolo | no                                 |  |
| Cap.304 | receding band                      | no                                 |  |
| Cap.305 | receding band                      | no                                 |  |
| Cap.306 | receding band                      | no                                 |  |
| Cap.307 | receding cavetto topped with ovolo | no                                 |  |
| Cap.308 | receding band                      | no                                 |  |
| Cap.309 | receding band                      | no                                 |  |
| Cap.310 | receding band                      | no                                 |  |
| Cap.311 | receding band                      | no                                 |  |
| Cap.312 | receding band                      | no                                 |  |
| Cap.313 | receding band                      | no                                 |  |
| Cap.314 | receding band divided by a groove  | no                                 |  |
| Cap.315 | receding band divided by a groove  | oblique lines on the upper profile |  |
| Cap.316 | receding band divided by a groove  | oblique lines on the upper profile |  |
| Cap.317 | receding band divided by a groove  | no                                 |  |
| Cap.318 | receding band divided by a groove  | no                                 |  |
| Cap.319 | receding band divided by a groove  | oblique lines on the upper profile |  |
| Cap.320 | receding band divided by a groove  | oblique lines on the upper profile |  |
| Cap.321 | receding band divided by a groove  | no                                 |  |
| Cap.322 | receding band divided by a groove  | no                                 |  |
| Cap.323 | receding band divided by a groove  | no                                 |  |
| Cap.324 | receding band divided by a groove  | no                                 |  |
| Cap.325 | receding band divided by a groove  | no                                 |  |
| Cap.326 | receding band divided by a groove  | no                                 |  |
| Cap.327 | receding band divided by a groove  | no                                 |  |
| Cap.328 | receding band divided by a groove  | no                                 |  |
| Cap.329 | receding band divided by a groove  | oblique lines on the upper profile |  |
| Cap.330 | receding band divided by a groove  | oblique lines on the upper profile |  |
| Cap.331 | receding band divided by a groove  | no                                 |  |
| Cap.332 | receding band divided by a groove  | oblique lines on the upper profile |  |
| Cap.333 | receding band divided by a groove  | oblique lines on the upper profile |  |
| Cap.334 | receding band divided by a groove  | oblique lines on the upper profile |  |
| Cap.335 | receding band divided by a groove  | oblique lines on the upper profile |  |
| Cap.336 | receding cavetto topped with ovolo | no                                 |  |
| Cap.337 | receding band                      | oblique and vertical lines         |  |
| Cap.338 | receding band divided by a groove  | no                                 |  |

| Cap.339 | receding band                             | no                   |
|---------|---|----------------------|
| Cap.340 | receding band                             | no                   |
| Cap.341 | receding band                             | no                   |
| Cap.342 | receding band                             | no                   |
| Cap.343 | receding band                             | no                   |
| Cap.344 | receding band                             | no                   |
| Cap.345 | receding band                             | no                   |
| Cap.346 | receding band                             | no                   |
| Cap.347 | receding band                             | no                   |
| Cap.348 | receding band                             | no                   |
| Cap.349 | receding band divided by a groove         | no                   |
| Cap.350 | receding band                             | no                   |
| Cap.351 | receding band                             | no                   |
| Cap.352 | receding band                             | no                   |
| Cap.353 | receding band                             | no                   |
| Cap.354 | receding band divided by a groove         | no                   |
| Cap.355 | receding band divided by a groove         | no                   |
| Cap.356 | receding band divided by a groove         | no                   |
| Cap.357 | receding band divided by a groove         | no                   |
| Cap.358 | flat band                                 | no                   |
| Cap.359 | flat band                                 | no                   |
| Cap.360 | flat band                                 | no                   |
| Cap.361 | flat band                                 | no                   |
| Cap.362 | flat band                                 | cannot be recognized |
| Cap.363 | receding band divided by a groove         | no                   |
| Cap.364 | receding band divided by a groove         | no                   |
| Cap.365 | receding scotia                           | no                   |
| Cap.366 | damaged                                   | no                   |
| Cap.367 | receding double-scotia topped with listel | no                   |
| Cap.368 | receding double-scotia                    | no                   |
| Cap.369 | receding double-ovolo                     | no                   |
| Cap.370 | receding scotia                           | no                   |
| Cap.371 | receding scotia                           | no                   |
| Cap.372 | receding scotia                           | no                   |
| Cap.373 | receding scotia                           | no                   |
| Cap.374 | receding band divided by two grooves      | no                   |
| Cap.375 | receding band divided by two grooves      | no                   |
| -       |   |                      |

| Cap.377 | lower-part                        | no |
|---------|-----------------------------------|----|
| Cap.378 | lower-part                        | no |
| Cap.379 | lower-part                        | no |
| Cap.380 | lower-part                        | no |
| Cap.381 | lower-part                        | no |
| Cap.382 | receding cavetto topped with band | no |
| Cap.383 | unfinished                        | _  |
| Cap.384 | unfinished                        | _  |
| Cap.385 | damaged                           | no |
| Cap.386 | flat band                         | no |
| Cap.387 | receding band                     | no |
| Cap.388 | receding band                     | no |
| Cap.389 | receding band                     | no |
| Cap.390 | receding band                     | no |

| Capital<br>(Cap.) | Central Motif      | Stem          |
|-------------------|--------------------|---------------|
| Cap.1             | damaged            | no            |
| Cap.2             | replaced by figure | no            |
| Cap.3             | damaged            | no            |
| Cap.4             | fleuron            | wavy stem     |
| Cap.5             | fleuron            | wavy stem     |
| Cap.6             | fleuron            | no            |
| Cap.7             | fleuron            | no            |
| Cap.8             | fleuron            | not clear     |
| Cap.9             | fleuron            | no            |
| Cap.10            | fleuron            | double-stem   |
| Cap.11            | fleuron            | no            |
| Cap.12            | fleuron            | straight stem |
| Cap.13            | fleuron            | straight stem |
| Cap.14            | fleuron            | no            |
| Cap.15            | fleuron            | double-stem   |
| Cap.16            | fleuron            | double-stem   |
| Cap.17            | fleuron            | no            |
| Cap.18            | fleuron            | no            |
| Cap.19            | fleuron            | no            |
| Cap.20            | fleuron            | no            |
| Cap.21            | damaged            | no            |
| Cap.22            | fleuron            | no            |
| Cap.23            | fleuron            | no            |
| Cap.24            | fleuron            | no            |
| Cap.25            | fleuron            | no            |
| Cap.26            | fleuron            | no            |
| Cap.27            | fleuron            | no            |
| Cap.28            | fleuron            | no            |
| Cap.29            | fleuron            | no            |
| Cap.30            | fleuron            | no            |
| Cap.31            | fleuron            | no            |

| Capital<br>(Cap.) | Central Motif | Stem      |
|-------------------|---------------|-----------|
| Cap.32            | fleuron       | no        |
| Cap.33            | fleuron       | wavy stem |
| Cap.34            | fleuron       | no        |
| Cap.35            | fleuron       | no        |
| Cap.36            | fleuron       | no        |
| Cap.37            | fleuron       | no        |
| Cap.38            | fleuron       | no        |
| Cap.39            | fleuron       | no        |
| Cap.40            | fleuron       | no        |
| Cap.41            | fleuron       | no        |
| Cap.42            | fleuron       | no        |
| Cap.43            | fleuron       | no        |
| Cap.44            | fleuron       | wavy stem |
| Cap.45            | fleuron       | no        |
| Cap.46            | fleuron       | no        |
| Cap.47            | fleuron       | no        |
| Cap.48            | fleuron       | no        |
| Cap.49            | fleuron       | no        |
| Cap.50            | fleuron       | no        |
| Cap.51            | fleuron       | no        |
| Cap.52            | fleuron       | no        |
| Cap.53            | fleuron       | no        |
| Cap.54            | fleuron       | no        |
| Cap.55            | fleuron       | no        |
| Cap.56            | fleuron       | no        |
| Cap.57            | fleuron       | no        |
| Cap.58            | fleuron       | wavy stem |
| Cap.59            | fleuron       | no        |
| Cap.60            | fleuron       | no        |
| Cap.61            | fleuron       | no        |
| Cap.62            | fleuron       | wavy stem |

| Capital<br>(Cap.) | Central Motif                              | Stem                                       |
|-------------------|--|--|
| Cap.63            | fleuron                                    | wavy stem                                  |
| Cap.64            | fleuron                                    | wavy stem                                  |
| Cap.65            | fleuron                                    | wavy stem                                  |
| Cap.66            | fleuron                                    | damaged                                    |
| Cap.67            | fleuron                                    | no   |
| Cap.68            | fleuron                                    | wavy stem                                  |
| Cap.69            | fleuron                                    | no   |
| Cap.70            | fleuron                                    | no   |
| Cap.71            | fleuron                                    | no   |
| Cap.72            | fleuron                                    | wavy stem                                  |
| Cap.73            | fleuron                                    | wavy stem                                  |
| Cap.74            | fleuron                                    | no   |
| Cap.75            | fleuron                                    | damaged                                    |
| Cap.76            | fleuron                                    | damaged                                    |
| Cap.77            | fleuron                                    | damaged                                    |
| Cap.78            | fleuron                                    | damaged                                    |
| Cap.79            | fleuron                                    | damaged                                    |
| Cap.80            | fleuron                                    | wavy stem                                  |
| Cap.81            | fleuron                                    | wavy stem                                  |
| Cap.82            | fleuron                                    | wavy stem                                  |
| Cap.83            | fleuron                                    | wavy stem                                  |
| Cap.84            | fleuron                                    | wavy stem                                  |
| Cap.85            | fleuron                                    | wavy stem                                  |
| Cap.86            | fleuron                                    | wavy stem                                  |
| Cap.87            | fleuron                                    | wavy stem                                  |
| Cap.88            | fleuron                                    | a leaf<br>decending<br>from the<br>fleuron |
| Cap.89            | fleuron                                    | Short stem                                 |
| Cap.90            | damaged                                    | -  |
| Cap.91            | fleuron                                    | no   |
| Cap.92            | fleuron decorated with overlapped folioles | no   |

| Capital<br>(Cap.) | Central Motif                                 | Stem                 |
|-------------------|---|----------------------|
| Cap.93            | fleuron decorated with<br>overlapped folioles | no                   |
| Cap.94            | fleuron decorated with<br>overlapped folioles | no                   |
| Cap.95.<br>Face1  | fleuron                                       | straight stem        |
| Cap.95.<br>Face2  | fleuron                                       | wavy stem            |
| Cap.96            | Rectangular                                   | no                   |
| Cap.97            | half-cylinder                                 | no                   |
| Cap.98            | fleuron                                       | no                   |
| Cap.99            | fleuron                                       | cannot be recognized |
| Cap.100           | half-cylinder                                 | no                   |
| Cap.101           | half-cylinder                                 | no                   |
| Cap.102           | half-cylinder                                 | no                   |
| Cap.103           | half-cylinder                                 | no                   |
| Cap.104           | half-cylinder                                 | no                   |
| Cap.105           | fleuron                                       | wavy stem            |
| Cap.106           | fleuron                                       | wavy stem            |
| Cap.107           | cannot be recognized                          | wavy stem            |
| Cap.108           | fleuron                                       | wavy stem            |
| Cap.109           | fleuron                                       | cannot be recognized |
| Cap.110           | fleuron                                       | wavy stem            |
| Cap.111           | fleuron                                       | not clear            |
| Cap.112           | fleuron                                       | wavy stem            |
| Cap.113           | fleuron                                       | wavy stem            |
| Cap.114           | fleuron                                       | damaged              |
| Cap.115           | fleuron                                       | wavy stem            |
| Cap.116           | fleuron                                       | not clear            |
| Cap.117           | fleuron                                       | not clear            |
| Cap.118           | fleuron                                       | wavy stem            |
| Cap.119           | fleuron                                       | wavy stem            |
| Cap.120           | fleuron                                       | wavy stem            |
| Cap.121           | fleuron                                       | cannot be recognized |

| Capital<br>(Cap.) | Central Motif | Stem       |
|-------------------|---------------|------------|
| Cap.122           | fleuron       | wavy stem  |
| Cap.123           | fleuron       | wavy stem  |
| Cap.124           | fleuron       | wavy stem  |
| Cap.125           | fleuron       | Thick stem |
| Cap.126           | fleuron       | wavy stem  |
| Cap.127           | fleuron       | wavy stem  |
| Cap.128           | fleuron       | no         |
| Cap.129           | fleuron       | wavy stem  |
| Cap.130           | fleuron       | wavy stem  |
| Cap.131           | grooved mass  | no         |
| Cap.132           | grooved mass  | no         |
| Cap.133           | fleuron       | no         |
| Cap.134           | damaged       | wavy stem  |
| Cap.135           | fleuron       | wavy stem  |
| Cap.136           | fleuron       | thick stem |
| Cap.137           | fleuron       | no         |
| Cap.138           | fleuron       | wavy stem  |
| Cap.139           | fleuron       | no         |
| Cap.140           | fleuron       | wavy stem  |
| Cap.141           | fleuron       | no         |
| Cap.142           | fleuron       | no         |
| Cap.143           | fleuron       | no         |
| Cap.144           | fleuron       | no         |
| Cap.145           | fleuron       | no         |
| Cap.146           | fleuron       | wavy stem  |
| Cap.147           | fleuron       | wavy stem  |
| Cap.148           | fleuron       | wavy stem  |
| Cap.149           | fleuron       | not clear  |
| Cap.150           | fleuron       | not clear  |
| Cap.151           | fleuron       | not clear  |
| Cap.152           | fleuron       | no         |

| Capital<br>(Cap.) | Central Motif        | Stem          |
|-------------------|----------------------|---------------|
| Cap.153           | grooved fleuron      | no            |
| Cap.154           | grooved fleuron      | no            |
| Cap.155.<br>Face1 | fleuron              | no            |
| Cap.155.<br>Face2 | fleuron              | wavy stem     |
| Cap.156           | fleuron              | not clear     |
| Cap.157           | damaged              | _             |
| Cap.158           | fleuron              | straight stem |
| Cap.159           | fleuron              | straight stem |
| Cap.160           | half-cylinder        | no            |
| Cap.161           | half-cylinder        | no            |
| Cap.162           | half-cylinder        | no            |
| Cap.163           | half-cylinder        | no            |
| Cap.164           | half-cylinder        | no            |
| Cap.165           | half-cylinder        | no            |
| Cap.166           | half-cylinder        | no            |
| Cap.167           | half-cylinder        | no            |
| Cap.168           | cross-in-circle      | no            |
| Cap.169           | cannot be recognized | no            |
| Cap.170           | damaged              | no            |
| Cap.171           | half-cylinder        | no            |
| Cap.172           | half-cylinder        | no            |
| Cap.173           | damaged              | no            |
| Cap.174           | half-cylinder        | no            |
| Cap.175           | grooved mass         | no            |
| Cap.176           | half-cylinder        | no            |
| Cap.177           | half-cylinder        | no            |
| Cap.178           | half-cylinder        | no            |
| Cap.179           | half-cylinder        | no            |
| Cap.180           | half-cylinder        | no            |
| Cap.181           | grooved mass         | no            |
| Cap.182           | half-cylinder        | no            |

| Capital<br>(Cap.) | Central Motif    | Stem |
|-------------------|------------------|------|
|                   | -                |      |
| Cap.183           | half-cylinder    | no   |
| Cap.184           | half-cylinder    | no   |
| Cap.185           | half-cylinder    | no   |
| Cap.186           | damaged          | no   |
| Cap.187           | half-cylinder    | no   |
| Cap.188           | half-cylinder    | no   |
| Cap.189           | damaged          | no   |
| Cap.190           | half-cylinder    | no   |
| Cap.191           | half-cylinder    | no   |
| Cap.192           | half-cylinder    | no   |
| Cap.193           | half-cylinder    | no   |
| Cap.194           | half-cylinder    | no   |
| Cap.195           | half-cylinder    | no   |
| Cap.196           | half-cylinder    | no   |
| Cap.197           | half-cylinder    | no   |
| Cap.198           | grooved mass     | no   |
| Cap.199           | half-cylinder    | no   |
| Cap.200           | half-cylinder    | no   |
| Cap.201           | half-cylinder    | no   |
| Cap.202           | half-cylinder    | no   |
| Cap.203           | half-cylinder    | no   |
| Cap.204           | half-cylinder    | no   |
| Cap.205           | half-cylinder    | no   |
| Cap.206           | half-cylinder    | no   |
| Cap.207           | half-cylinder    | no   |
| Cap.208           | damaged          | no   |
| Cap.209.<br>Face1 | no central motif | no   |
| Cap.209.<br>Face2 | no central motif | no   |
| Cap.210           | half-cylinder    | no   |
| Cap.211           | half-cylinder    | no   |
| Cap.212           | half-cylinder    | no   |

| Capital<br>(Cap.) | Central Motif    | Stem |
|-------------------|------------------|------|
| Cap.213           | half-cylinder    | no   |
| Cap.214           | no central motif | no   |
| Cap.215           | half-cylinder    | no   |
| Cap.216           | half-cylinder    | no   |
| Cap.217           | half-cylinder    | no   |
| Cap.218           | half-cylinder    | no   |
| Cap.219           | half-cylinder    | no   |
| Cap.220           | damaged          | no   |
| Cap.221           | half-cylinder    | no   |
| Cap.222           | half-cylinder    | no   |
| Cap.223           | half-cylinder    | no   |
| Cap.224           | half-cylinder    | no   |
| Cap.225           | half-cylinder    | no   |
| Cap.226           | half-cylinder    | no   |
| Cap.227           | half-cylinder    | no   |
| Cap.228           | half-cylinder    | no   |
| Cap.229           | half-cylinder    | no   |
| Cap.230           | half-cylinder    | no   |
| Cap.231           | half-cylinder    | no   |
| Cap.232           | half-cylinder    | no   |
| Cap.233           | half-cylinder    | no   |
| Cap.234           | half-cylinder    | no   |
| Cap.235           | half-cylinder    | no   |
| Cap.236           | half-cylinder    | no   |
| Cap.237           | half-cylinder    | no   |
| Cap.238           | half-cylinder    | no   |
| Cap.239           | half-cylinder    | no   |
| Cap.240           | half-cylinder    | no   |
| Cap.241           | half-cylinder    | no   |
| Cap.242           | half-cylinder    | no   |
| Cap.243           | half-cylinder    | no   |

| Capital<br>(Cap.) | Central Motif                           | Stem |
|-------------------|---|------|
| Cap.244           | half-cylinder                           | no   |
| Cap.245           | half-cylinder                           | no   |
| Cap.246           | half-cylinder                           | no   |
| Cap.247           | half-cylinder                           | no   |
| Cap.248           | half-cylinder                           | no   |
| Cap.249           | half-cylinder                           | no   |
| Cap.250           | half-cylinder                           | no   |
| Cap.251           | half-cylinder                           | no   |
| Cap.252           | half-cylinder                           | no   |
| Cap.253           | half-cylinder                           | no   |
| Cap.254           | half-cylinder                           | no   |
| Cap.255           | half-cylinder                           | no   |
| Cap.256           | half-cylinder                           | no   |
| Cap.257           | half-cylinder                           | no   |
| Cap.258           | half-cylinder                           | no   |
| Cap.259           | half-cylinder                           | no   |
| Cap.260           | half-cylinder                           | no   |
| Cap.261           | half-cylinder                           | no   |
| Cap.262           | half-cylinder                           | no   |
| Cap.263           | half-cylinder                           | no   |
| Cap.264           | half-cylinder                           | no   |
| Cap.265           | half-cylinder                           | no   |
| Cap.266           | half-cylinder                           | no   |
| Cap.267           | half-cylinder                           | no   |
| Cap.268           | half-cylinder                           | no   |
| Cap.269           | half-cylinder                           | no   |
| Cap.270           | half-cylinder                           | no   |
| Cap.271           | cross-in-circle                         | no   |
| Cap.272           | Rectangular                             | no   |
| Cap.273           | half-cylinder                           | no   |
| Cap.274           | two half-cylinders above<br>one another | no   |

| Capital<br>(Cap.) | Central Motif                           | Stem          |
|-------------------|---|---------------|
| Cap.275           | two half-cylinders above<br>one another | no            |
| Cap.276           | two half-cylinders above one another    | no            |
| Cap.277           | half-cylinder                           | no            |
| Cap.278           | half-cylinder                           | no            |
| Cap.279           | two half-cylinders above<br>one another | no            |
| Cap.280           | two half-cylinders above<br>one another | no            |
| Cap.281           | two half-cylinders above<br>one another | no            |
| Cap.282           | fleuron                                 | no            |
| Cap.283           | fleuron                                 | wavy stem     |
| Cap.284           | fleuron                                 | no            |
| Cap.285           | half-cylinder                           | no            |
| Cap.286           | damaged                                 | no            |
| Cap.287           | half-cylinder                           | straight line |
| Cap.288           | half-cylinder                           | no            |
| Cap.289           | half-cylinder                           | no            |
| Cap.290           | half-cylinder                           | no            |
| Cap.291           | half-cylinder                           | no            |
| Cap.292           | half-cylinder                           | no            |
| Cap.293           | half-cylinder                           | straight line |
| Cap.294           | half-cylinder                           | no            |
| Cap.295           | half-cylinder                           | no            |
| Cap.296           | half-cylinder                           | straight line |
| Cap.297           | half-cylinder                           | no            |
| Cap.298           | damaged                                 | no            |
| Cap.299           | half-cylinder                           | no            |
| Cap.300           | half-cylinder                           | straight line |
| Cap.301           | half-cylinder                           | straight line |
| Cap.302           | half-cylinder                           | no            |
| Cap.303           | damaged                                 | no            |
| Cap.304           | no central motif                        | no            |
| Cap.305           | half-cylinder                           | no            |

| Capital<br>(Cap.) | Central Motif    | Stem          |
|-------------------|------------------|---------------|
| Cap.306           | half-cylinder    | straight line |
| Cap.307           | damaged          | no            |
| Cap.308           | half-cylinder    | no            |
| Cap.309           | half-cylinder    | no            |
| Cap.310           | half-cylinder    | no            |
| Cap.311           | half-cylinder    | no            |
| Cap.312           | half-cylinder    | no            |
| Cap.313           | no central motif | no            |
| Cap.314           | grooved mass     | no            |
| Cap.315           | grooved mass     | no            |
| Cap.316           | grooved mass     | no            |
| Cap.317           | grooved mass     | no            |
| Cap.318           | grooved mass     | no            |
| Cap.319           | grooved mass     | no            |
| Cap.320           | grooved mass     | no            |
| Cap.321           | grooved mass     | no            |
| Cap.322           | grooved mass     | no            |
| Cap.323           | grooved mass     | no            |
| Cap.324           | grooved mass     | no            |
| Cap.325           | grooved mass     | no            |
| Cap.326           | grooved mass     | no            |
| Cap.327           | grooved mass     | no            |
| Cap.328           | grooved mass     | no            |
| Cap.329           | grooved mass     | no            |
| Cap.330           | grooved mass     | no            |
| Cap.331           | grooved mass     | no            |
| Cap.332           | grooved mass     | no            |
| Cap.333           | grooved mass     | no            |
| Cap.334           | grooved mass     | no            |
| Cap.335           | grooved mass     | no            |
| Cap.336           | fleuron          | no            |

| Capital<br>(Cap.) | Central Motif   | Stem      |
|-------------------|---|-----------|
| Cap.337           | half-cylinder decorated<br>with overlapped<br>triangles | no        |
| Cap.338           | half-cylinder   | no        |
| Cap.339           | half-cylinder   | no        |
| Cap.340           | half-cylinder   | no        |
| Cap.341           | damaged   | no        |
| Cap.342           | damaged   | no        |
| Cap.343           | half-cylinder   | no        |
| Cap.344           | half-cylinder   | no        |
| Cap.345           | half-cylinder   | no        |
| Cap.346           | half-cylinder   | no        |
| Cap.347           | half-cylinder   | no        |
| Cap.348           | grooved mass  | no        |
| Cap.349           | grooved mass  | no        |
| Cap.350           | fleuron   | no        |
| Cap.351           | grooved mass  | no        |
| Cap.352           | grooved mass  | no        |
| Cap.353           | grooved mass  | no        |
| Cap.354           | Mass  | no        |
| Cap.355           | grooved mass  | wavy stem |
| Cap.356           | damaged   | no        |
| Cap.357           | damaged   | no        |
| Cap.358           | no central motif  | no        |
| Cap.359           | no central motif  | no        |
| Cap.360           | no central motif  | no        |
| Cap.361           | no central motif  | no        |
| Cap.362           | incised rectangular                                     | no        |
| Cap.363           | replaced by figure                                      | no        |
| Cap.364           | grooved mass  | no        |
| Cap.365           | replaced by figure                                      | no        |
| Cap.366           | damaged   | no        |
| Cap.367           | replaced by figure                                      | no        |

| Capital<br>(Cap.) | Central Motif      | Stem    |
|-------------------|--------------------|---------|
| Cap.368           | fleuron            | no      |
| Cap.369           | replaced by figure | no      |
| Cap.370           | replaced by figure | no      |
| Cap.371           | replaced by figure | no      |
| Cap.372           | replaced by figure | no      |
| Cap.373           | replaced by figure | no      |
| Cap.374           | replaced by figure | no      |
| Cap.375           | replaced by figure | no      |
| Cap.376           | replaced by figure | no      |
| Cap.377           | lower-part         | no      |
| Cap.378           | lower-part         | no      |
| Cap.379           | lower-part         | no      |
| Cap.380           | lower-part         | no      |
| Cap.381           | lower-part         | no      |
| Cap.382           | fleuron            | no      |
| Cap.383           | unfinished         | -       |
| Cap.384           | unfinished         | _       |
| Cap.385           | replaced by figure | damaged |
| Cap.386           | fleuron            | no      |
| Cap.387           | half-cylinder      | no      |
| Cap.388           | half-cylinder      | no      |
| Cap.389           | half-cylinder      | no      |
| Cap.390.<br>Face1 | mass               | no      |
| Cap.390.<br>Face2 | mass               | no      |
| Cap.390.<br>Face3 | damaged            | no      |

| Capital (Cap.) | Additional Element               |
|----------------|----------------------------------|
| Cap.2          | figure (eagle)                   |
| Cap.3          | axial motif (three-partite leaf) |
| Cap.6          | axial motif (tongue)             |
| Cap.12.Face1   | axial motif (three-partite leaf) |
| Cap.12.Face2   | Latin Cross with Alpha and Omega |
| Cap.18         | axial motif (tongue)             |
| Cap.20         | axial motif (leaf - acanthus)    |
| Cap.22         | axial motif (tongue)             |
| Cap.23         | axial motif (leaf - acanthus)    |
| Cap.24         | axial motif (leaf - acanthus)    |
| Cap.25         | axial motif (leaf - acanthus)    |
| Cap.26         | axial motif (leaf - acanthus)    |
| Cap.27         | axial motif (leaf - acanthus)    |
| Cap.29         | axial motif (leaf - acanthus)    |
| Cap.30         | axial motif (leaf - acanthus)    |
| Cap.32         | axial motif (leaf - acanthus)    |
| Cap.34         | axial motif (leaf - acanthus)    |
| Cap.35         | axial motif (leaf - acanthus)    |
| Cap.36         | axial motif (leaf - acanthus)    |
| Cap.37         | axial motif (leaf - acanthus)    |
| Cap.38         | axial motif (leaf - acanthus)    |
| Cap.40         | axial motif (leaf - acanthus)    |
| Cap.41         | axial motif (tongue)             |
| Cap.42         | axial motif (leaf - acanthus)    |
| Cap.43         | axial motif (leaf - acanthus)    |
| Cap.45         | axial motif (tongue)             |
| Cap.46         | axial motif (tongue)             |
| Cap.47         | axial motif (tongue)             |
| Cap.48         | axial motif (tongue)             |
| Cap.49         | axial motif (tongue)             |

| Capital (Cap.) | Additional Element  |
|----------------|---|
| Cap.50         | axial motif (tongue)  |
| Cap.51         | axial motif (tongue)  |
| Cap.52         | axial motif (tongue)  |
| Cap.53         | axial motif (leaf - acanthus)   |
| Cap.56         | axial motif (tongue)  |
| Cap.60         | axial motif (tongue)  |
| Cap.62         | axial motif (three-petal flower with only the top petal seen)   |
| Cap.63         | axial motif (three-petal flower with only the top petal seen)   |
| Cap.64         | axial motif (three-petal flower with only the top petal seen)   |
| Cap.65         | axial motif (three-petal flower with only the top petal seen)   |
| Cap.66         | axial motif (three-partite leaf)  |
| Cap.69         | axial motif (tongue)  |
| Cap.70         | axial motif (leaf - acanthus)   |
| Cap.72         | axial motif (leaf - ?)  |
| Cap.74         | axial motif (leaf - acanthus)   |
| Cap.80         | axial motif (three-petal flower)  |
| Cap.81         | axial motif (three-petal flower)  |
| Cap.82         | axial motif (three-petal flower)  |
| Cap.83         | axial motif (three-petal flower)  |
| Cap.84         | axial motif (three-petal flower with only the top petal seen)   |
| Cap.85         | axial motif (three-petal flower with only the top petal seen)   |
| Cap.86         | axial motif (three-petal flower with only the top petal seen)   |
| Cap.92         | figure (deity)  |
| Cap.93         | figure (deity)  |
| Cap.94         | figure (deity)  |
| Cap.95         | axial motif (leaf - acanthus)   |
| Cap.97         | cross-in-circle motif   |
| Cap.103        | 1- a garland encircles the capital, moving beneath the helixes<br>2- cross-in-circle motif (Chi-Rho) between the two parts of calyx |
| Cap.114        | axial motif (leaf - acanthus)   |
| Cap.123        | axial motif (leaf - acanthus)   |

| Capital (Cap.) | Additional Element   |
|----------------|--|
| Cap.125        | axial motif (leaf - acanthus)  |
| Cap.128        | figure (deity)   |
| Cap.134        | axial motif (leaf - acanthus)  |
| Cap.136        | axial motif (leaf - acanthus)  |
| Cap.147        | axial motif (leaf - acanthus)  |
| Cap.148        | axial motif (leaf - acanthus)  |
| Cap.155.Face1  | axial motif (leaf - acanthus)  |
| Cap.155.Face2  | axial motif (leaf - acanthus)  |
| Cap.157        | axial motif (leaf - ?)   |
| Cap.161        | cross-in-circle motif  |
| Cap.163        | cross-in-circle motif  |
| Cap.164        | cross-in-circle motif  |
| Cap.167        | 1- a garland encircles the capital<br>2- cross-in-circle motif                     |
| Cap.168        | cross-in-circle motif in place of central motif of abacus                          |
| Cap.169        | inscription in a circle motif  |
| Cap.190        | cross-in-circle motif replacing the inner parts of calyxes                         |
| Cap.195        | 1- figure (eagle)<br>2- cross-in-circle motif / 3- grape                           |
| Cap.196        | a garland encircles the capital, making a knot beneath the central motif of abacus |
| Cap.202        | cross-in-circle motif  |
| Cap.205        | cross-in-circle motif in the corners of the capital under the abacus               |
| Cap.208        | A garland encircles the capital  |
| Cap.219        | cross-in-circle motif  |
| Cap.222        | A garland encircles the capital  |
| Cap.226        | cross-in-circle motif  |
| Cap.247        | circular decorations in the axis of the faces                                      |
| Cap.249        | grapevines and clusters in a decorative frame near the base                        |
| Cap.271        | cross-in-circle motif replacing the central motif of the abacus                    |
| Cap.281        | Cross-in-circle replacing the body of the axial leaf in the first row              |
| Cap.284        | a garland encircles the capital, moving beneath the central motif of abacus        |
| Cap.290        | a garland encircles the capital, moving beneath the central motif of abacus        |

| Capital (Cap.) | Additional Element   |
|----------------|--|
| Cap.294        | inscription  |
| Cap.295        | a garland encircles the capital, making a knot beneath the central motif of abacus                   |
| Cap.305        | a garland encircles the capital  |
| Cap.337        | a garland encircles the capital  |
| Cap.342        | a garland encircles the capital  |
| Cap.344        | a garland encircles the capital, appearing to be tied with a rope to the central motif of the abacus |
| Cap.345        | a garland encircles the capital  |
| Cap.363        | figure (human)   |
| Cap.365        | figure (human)   |
| Cap.367        | figure (human)   |
| Cap.369        | 1- figure (human)<br>2- grape clusters in the corners of the capital                                 |
| Cap.370        | figure (human)   |
| Cap.371        | figure (human)   |
| Cap.372        | 1- figure (human)<br>2- grape clusters in the corners of the capital                                 |
| Cap.373        | 1- figure (human)<br>2- grape clusters in the corners of the capital                                 |
| Cap.374        | figure (human) - damaged   |
| Cap.375        | figure (human)   |
| Cap.376        | figure (human)   |
| Cap.385        | mask   |
| Cap.387        | cross-in-circle motif  |
| Cap.389        | a garland encircles the capital  |

## IMAGES OF CORINTHIAN CAPITALS IN SYRIA





Cap.1



Cap.3















Cap.9





Cap.11

Cap.12.Face1









Cap.14





Cap.16









Cap.20





Cap.22









Cap.26







Cap.31



Cap.32

Cap.33



Cap.34



Cap.37



Cap.38

Cap.39



Cap.40



Cap.43



Cap.44

Cap.45



Cap.46







Cap.50

Cap.51









Cap.55



Cap.56

Cap.57



Cap.58



Cap.61



Cap.62

Cap.63



Cap.64

Cap.65.Face1



Cap.65.Face2

Cap.66



Cap.67

Cap.68



Cap.69



Cap.71

Cap.72.Face1



Cap.72.Face1

Cap.73



Cap.74







Cap.78

Cap.79



Cap.80



Cap.83



Cap.84

Cap.85



Cap.86







Cap.90



Cap.91



Cap.92



Cap.95.Face1



Cap.95.Face2

Cap.96



Cap.97.Face1

Cap.97.Face2























Cap.105



Cap.106



Cap.108

Cap.107









Cap.110





Cap.112



Cap.114

Cap.113








Cap.116





Cap.118

Cap.119



Cap.120





Cap.122

Cap.123



Cap.124

Cap.125



Cap.126





Cap.128



Cap.130

Cap.131



Cap.132





Cap.134





Cap.137



Cap.138



Cap.140

Cap.141



Cap.142







Cap.144.1



Cap.144.2





Cap.146



Cap.148



Cap.147



Cap.149



Cap.150



Cap.151



Cap.152



Cap.154



Cap.153



Cap.155.Face1



Cap.155.Face2



Cap.156



Cap.157



Cap.158



Cap.159.1



Cap.159.2



Cap.161.Face1



Cap.161.Face2

Cap.162



Cap.163.Face1

Cap.163.Face2











Cap.168









Cap.170





Cap.172

Cap.173



Cap.174







Cap.178

Cap.179



Cap.180



Cap.182





Cap.183.2



Cap.184



Cap.185



Cap.187





Cap.189













Cap.193

Cap.194



Cap.195.Face1

Cap.195.Face2



Cap.195.Face3





Cap.197

Cap.198



Cap.199



Cap.200



Cap.201



Cap.202









Cap.205



Cap.206



Cap.207





Cap.209.Face1

Cap.209.Face2



Cap.210

Cap.211



Cap.212



Cap.214.Face1

Cap.214.Face2



Cap.215

Cap.216





Cap.219.Face1

Cap.219.Face2



Cap.219.Face3

Cap.220



Cap.221



Cap.224



Cap.225

Cap.226.Face1



Cap.226.Face2



Cap.229



Cap.230

Cap.231



Cap.232



Cap.235.Face1



Cap.235.Face2

Cap.236



Cap.237



Cap.240



Cap.241

Cap.242



Cap.243



Cap.245



Cap.247

Cap.246



Cap.248





Cap.252



Cap.253.Face1

Cap.253.Face2



Cap.254



Cap.257



Cap.258

Cap.259



Cap.260



Cap.263



Cap.264

Cap.265



Cap.266









Cap.271



Cap.272







Cap.275



Cap.276

Cap.277



Cap.278



Cap.281



Cap.282

Cap.283



Cap.284

Cap.285.1





Cap.285.2





Cap.287

Cap.288.1



Cap.288.2







Cap.292

Cap.293



Cap.394.Face1

Cap.394.Face2



Cap.296



Cap.297

Cap.298



Cap.299



Cap.302



Cap.303

Cap.304



Cap.305



Cap.308



Cap.309

Cap.310



Cap.311


Cap.314



Cap.315

Cap.316



Cap.317



Cap.320



Cap.321

Cap.322



Cap.323



Cap.326



Cap.327

Cap.328



Cap.329



Cap.332



Cap.333

Cap.334



Cap.335



Cap.338



Cap.339

Cap.340



Cap.341



Cap.344



Cap.345

Cap.346





Cap.350



Cap.351

Cap.352



Cap.353



Cap.356



Cap.357

Cap.358



Cap.359



Cap.362



Cap.363

Cap.364



Cap.365





Cap.367



Cap.368



Cap.369



Cap.370



Cap.371





Cap.373





Cap.375



Cap.376



Cap.377



Cap.380



Cap.381

Cap.382



Cap.383



Cap.385





Cap.387



Cap.388



Cap.389

Cap.390.Face1



Cap.390.Face2

Cap.390.Face3

## SUMMARY

This dissertation explores *The Corinthian Capitals in Syria*, focusing on their diverse designs and the elements they are composed of. This subject is crucial for understanding the Corinthian capital as a distinctive feature of Roman and Byzantine architecture within the Syrian Arab Republic, which was a key part of both the Roman and Byzantine empires from the 1st century BC to the early 7th century AD.

The research analyzes the various designs of Corinthian capitals found in Syria, their key elements, and how these characteristics help in dating the capitals. It also examines the interaction between Roman, Byzantine, and local traditions, investigating how social, economic, religious, and cultural factors influenced the capitals' designs and modifications. The study also focuses on the types of stone used in these capitals and their significance in understanding trade relationships.

This investigation involved gathering and classifying Corinthian capitals from a variety of locations across Syria, including those still in their original positions, as well as those in museums, parks, and villages. It also includes capitals referenced in literature for regions that could not be visited. The study then analyzes these capitals and their elements within both artistic and historical contexts.

The dissertation demonstrates that despite their design variety, Corinthian capitals can be categorized into major types with additional subtypes. It highlights the importance of these designs and all the elements in dating capitals of unknown provenance and underscores the role of local craftsmen in their manufacture and modifications to meet needs and circumstances.

Finally, this dissertation introduces a database to launch a future project aimed at developing an analytical program that could assist in dating and comparing Corinthian capitals based on their designs and elements.