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**THE DEVELOPMENT OF GLASS PRODUCTION IN SYRIA DURING ROMAN
PERIOD FROM AN ARCHAEOLOGICAL PERSPECTIVE
STUDY CASE: SYRIAN COASTAL REGION “LATAKIA-JABLE-ṬARTÙS-
BĀNYĀS”**

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor in
History and Archaeology

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I- Introduction to Research

There is a significant shortage of information pertaining to burial and funerary sites in Syria on the whole, and within the Syrian Coastal Region in particular; although studying such sites and documenting them can provide immense insights into the various burial rituals and the many objects used for funerary purposes, including glass objects (the subject matter of this study).

This study primarily seeks to introduce new glass specimens that have not been previously examined, discovered at sites along the Syrian coast of the Mediterranean. This coastal area encompasses locations such as Jable, Ṭarṭūs, and Bānyās. The objective is to document these glass artifacts through drawings and photographs of the complete items.

The artifacts included in this study are preserved in the museums of Ṭarṭūs, Latakia, and Jable, where they remain in storage and have yet to undergo systematic scholarly analysis. Given the significance of this material and the absence of prior research, this study aims to provide the first comprehensive academic investigation of Roman glass in Syria, with a particular focus on the Syrian coast. The study sample comprises mostly complete or slightly damaged glass vessels, the majority of which were recovered from cemetery and burial site excavations and documented by the Directorate-General of Antiquities and Museums (DGAM). Additional specimens held in local museums, lacking provenance acquired through seizures, purchases, or private collections, were also examined.

Due to the lack of precise efforts to date the pieces during the documentation process, the author sought similar artifacts found in other regions to assist in their dating and description. The criteria used to establish similarities included manufacturing techniques, shape, color, and decoration methods. These criteria helped identify which Roman styles are the focus of this study. Therefore, this study includes items dated from the first century AD to the third century AD.

This was important in order to establish a comprehensive study of available glass types and styles. This has been a conscious decision on the part of the author since no contextual information pertaining to where these vessels originated or how they were found is available. Any and all information regarding these vessels have been found in excavation reports produced during emergency excavation works where the items were recovered.

The author has only included such vessels that were readily accessible to them and were able to be physically examined and drawn. Additionally, no further opportunities to analyze or examine these vessels in terms of coloration, quality of production, style, ornamentation, etc., in any other way were available. This posed a significant challenge to the study, given that classifying glass vessels heavily relies on such analyses, without which no professional or accurate taxonomy can be produced; for simply having information about the general shape of glass vessels is not enough for classification purposes.

The study of glass encompasses many disciplines, both scientific and artistic, including archaeology, the classics, art history, chemistry, physics, and the natural sciences. This artistic element stems from a chemical compound that dates back to millennia and is a testament to the human drive to dream and create.

In terms of the shapes and patterns of glass items used in funerary contexts and unearthed from Roman tombs, the evidence suggests that the shapes and forms varied based on the time period when these items were produced.

Remarkably, all Roman glass produced during the period from the 1st century BC to the 6th century AD shares the same chemical composition regardless of time or place; namely, a composition of silica, calcium oxide/lime, and soda/natron. The topic chosen for this study is the development of glass production in Syria during the Roman period from an archaeological perspective. The work included herein is based on research conducted on and the analysis of glass vessels produced during the Roman settlement of the coastal region of Syria, particularly at locations in Latakia, Jable, Ṭarṭûs, and Bānyās, to show the development of production in the coastal region.

To date, no naming convention or agreed-upon technical terminologies for glass vessels exist in Syrian academic circles. Even drawings for these vessels vary considerably, and consensus on their usage is lacking as well. Previously published studies do not accurately reflect their production techniques or their details.

It is important to note that the author has disregarded any vessels that could not be personally examined, since relying solely on photographic evidence is not sufficient for an accurate examination of artefacts, or to discern any particular details for any vessel. It is essential when producing technical drawings to ensure as close a match to the original object being drawn as possible, while showing as many of the intricacies and details present as possible.

The primary aim of this study is to conduct a detailed analysis of Roman-period glass vessels discovered at various sites in the Syrian Coastal Region. It seeks to classify these findings based on color, production quality, design elements, ornamentation, and style, utilizing modern and relevant research methods. This effort addresses a gap in Arab academia regarding Roman glass studies to date, with the hope of contributing to the understanding of Roman glass and encouraging the development of a comprehensive classification system for Roman glass objects from Syria.

The author has conducted a geographical and chronological study of the glass objects found in and around Syria in general, and the Syrian Coastal Region in particular, which allowed for raising a number of questions about the locations where glass vessels was found and distributed from in the Syrian Coastal Region during the Roman period; and about the locations of production furnaces pertaining to Roman glass industry.

At the same time, insisting on only considering specimens with corresponding excavation reports was not a prerequisite for their inclusion in this study. Any glass specimen that was, with a considerable degree of certainty, found in a tomb or cemetery of known location where included in the study. This was due to the lack of professional practices on the part of the many directorates and departments of antiquities in Syria, and the inadequate excavation and documentation practices they employed. Therefore, the author saw it necessary to approach this matter based on the reality of archaeological practices in Syria. This way, the largest number of glass vessels could be included in the study, which is important for reaching a comprehensive classification of Roman glass vessels based on their form and function.

Moreover, the glass finds uncovered from the period of prosperity of the Roman Empire indicate that established routes of trade and exchange of craftsmanship and production technologies had been present, both of traditional and blown glass types. Whether in the East or the West, the evidence does suggest that import routes and skills exchange had existed throughout the Roman Empire.

Roman glass finds are amongst the most common archaeological artifacts that can be discovered in Syria. Unfortunately, most of these fragments have been misplaced or lost. Most likely, glass items deemed noteworthy and/or of particular significance were transferred to any of the number of museums around the country. Such items were documented in the excavation reports at the time of their discovery.

During the 1990s, more intensive research and excavation work were conducted in Syria. This allowed for greater opportunities to uncover glass around the country in general, and in the coastal region in particular. Excavation missions during this time yielded a substantial number of finds and discoveries (including glass items), all of which were documented in the corresponding excavation reports. The sites at which these items were uncovered (including graves and burial structures) were identified, dated, and documented. All studied sites were dated back to Roman period. No additional information regarding the conditions of these finds and the exact dates of their production was provided. Numerous glass artifacts from the Syrian coast were subjected to analysis of their major and trace elements. They were subsequently grouped into four main categories. Most of the material consists of blown glass, and the classification follows current standards outlined in the academic literature.

II- Importance of Research

This study is of significant importance stemming from its focus on delivering the following:

- Define the areas that had an impact of glassmaking in Syria.
- Compare how glass was used in the various territories/locations with differing features and characteristics.

It is worth noting that one of the main issues in this study was to determine the typology and chronology of collected glass vessels, as well as cataloguing them, such that these samples could be set within the broader context of Roman glass.

The significance of this study lies in documenting glass vessels long recovered but not fully studied. As such, this research will allow researchers of Roman glass in general, and Arab researchers in particular, to develop and utilize a unified language and terminology when discussing Roman glass vessels, especially since comparable studies are rare.

This research focuses on the analysis of Roman glass production, conduct an analysis of the most representative glass samples, in addition to mapping and identifying glass production centers, workshops, and the manufacturing techniques employed.

Remains analysis is used to examine the function of these vessel forms, which has traditionally incorporated potentially confusing descriptive terminology that assumes function based on the vessels' presumed contents (e.g., Unguents or Balsamic).

An accurate investigation of the visual and material diversity of glass items in Roman Syria will be conducted. This research will attempt to explore what the main function of these glass items was.

A thorough investigation will be conducted into the visual and material diversity of glass pieces from the Roman period in Syria. This research will attempt to explore the primary functions of these glass items through a visual analysis of the samples, which will provide a comprehensive classification of the various types of glass vessels, the quality of materials, production techniques, and decoration methods, among other details. Additionally, accurate cataloguing of the pieces will be established. As previously mentioned, Arabic-language sources lack precise descriptions and standardized labels for these items, causing confusion and inaccuracies in excavation reports; inconsistent naming leads to incorrect descriptions and dating.

III- Objective of Research

The research objective is to study and analyze the chronological and geographical diversity of the glass types, specifically how glass objects were used, how individual workshops defined geographical areas, and how they compare to similar models found in other regions. Further, the research aims to study the forms of Roman glass in terms of the development of its function and use; thus, providing important information about the economic, cultural, and social life of the region.

Moreover, identifying the different types of glass items is mainly based on the typology of the finds in accordance with the most important typologies, classifications, and methodologies adopted by established researchers in the field of Roman glass (such as the typologies presented by Beat Rütli and Isings). Additionally, the glass finds studied herein will be organized into plates and groups, while documenting their forms and the manufacturing techniques used for shape and type.

This will be achieved through documenting and presenting the changes that took place in glass forms and the technologies used to produce them. It will also be achieved by showing the evolution in glass making between the beginning and the end of the Roman period, and also by discussing the new forms that appeared, and those that have been discontinued and have disappeared from the archaeological record.

Lastly, an additional aim for this study is to identify the original contents of the selected samples of glass vessels unearthed from various locations spanning the Roman Period up to the 3rd century AD. Although the contents of such vessels cannot be readily identified, the

fact that these bottles have remained intact and in excellent condition does suggest that most of such items are retrieved from funerary/mortuary contexts rather than inhabited settlements.

The time chosen for the purpose of this study represents the peak period of glass production. A remarkable number of vessels were manufactured, including a whole series of each type (all colorful and diverse). As such, these vessels provided perfect subjects for analysis. This study aims to describe and analyze the stylistic elements of the chosen glass objects.

IV- Research Questions and Hypothesis

The present study examines Roman glass from the Syrian coastal region, with particular attention to undocumented and understudied assemblages. Through an analysis of typology, production techniques, and distribution patterns, it aims to refine the understanding of local manufacturing traditions and their relationship to broader economic and cultural networks within Roman Syria.

Accordingly, the following research questions and hypotheses have been formulated to guide the analytical framework of this study.

	Research Question	Hypothesis
1	How can we systematically document and classify undocumented and previously unstudied Roman glass vessels from the Syrian coastal region, considering the lack of a clear archaeological context?	Even without stratigraphic and contextual data, these vessels can be systematically documented using detailed drawings, typological classification, and comparative analysis with established typologies, thus establishing a reliable framework for their study.
2	What do the typological, stylistic, and functional characteristics of these vessels tell us about the development of Roman glass production in Syria, including techniques, chronology, and usage patterns?	The analysis of form, style, and function will show a gradual evolution in Roman glass production in Syria, highlighting the adoption of new techniques (such as blowing and mold decoration) and regional variations that correspond with broader trends throughout the Roman Empire.
3	Despite their limitations, to what extent can the analysis of museum collections and excavation reports help differentiate local production from imported glass and enhance our understanding of the socio-economic role of glass in Roman Syria?	Although limited, the existing museum collections and excavation reports can still offer evidence to differentiate local production (based on workmanship, color, and typology) from imports. They can also shed light on the economic and cultural significance of glass in both funerary and daily life.

4	Were the cemeteries located on the Syrian coast, and dating back to the Hellenistic period, were they reused during the Roman and Byzantine periods, or were they built during the Roman period, and were being reused multiple times during that time?	We observed that 90% of the cemeteries on the coast date back to the Roman period and are not reused, except for the cemeteries from Jable where some of the findings are from the late Hellenistic and early Roman periods. This confirms the reuse of the burial site in later periods.
5	What were the primary and secondary sources of glass that could meet the glass needs of the Syrian coast?	In the absence of any archaeological evidence for the existence of glass furnaces in Syria in general, and specifically on the Syrian coast, the nearest areas with glass furnaces are Sidon, Tyre, Beirut, and Israel; it is probable that these sites used to meet the market demand for glasses.

V- Problem of Research

It is important to note that a total of 236 items of glass were considered for this study. Arguably, that is not the total number of items available at the National Museums at both Ṭartūs and Latakia, but that is what the author was able to gain access to for this research. Many hindering factors contributed to the limited access to glass artefacts, including, but not limited to, the overall conditions and circumstances surrounding access to Museums. Additionally, many of the artifacts studied were very similar, and a considerable number of fragments were stored without any proper documentation, cataloguing, or dating. Noteworthy, as well, is that many mistakes were found within the Museum records themselves, such as double entry of the same pieces under different serial numbers, or the classification of a non-glass item as a glass item. It is important to clearly note at this stage that this study primarily relies on visual examination without any chemical analysis or geological studies to determine the type of soil used in glass production and coloring. The absence of archaeological evidence for glass production furnaces suggests that the same pottery kilns may have been used for both industries; however, this possibility remains a hypothesis that requires further evidence. Unfortunately, the various directorates of antiquities in Syria have not provided significant assistance to shed more light on this issue.

Extensive work has been done concerning glass, its history, composition, techniques, development process, and its spread around the world. Furthermore, scholars have approached the field from both scientific and practical views. Research on glass had seen a strong collaboration between science and art. Both scientists and artists have worked tirelessly to understand this complex subject. However, most of the body of research has focused on glass from a Western perspective. Eastern glass studies were largely ignored up until approximately 40 years ago.

The focus of this dissertation will be on the types of glass vessels found in the coastal region of Syria. The main purpose of the study is:

- To contribute to the form versus function debate with respect to the field of glass analysis; wherein function would be determined and explained based on form and naming. In other words, each form of a glass vessel type may have a number of differing functions based on evidence, especially since there is no one single name for any given vessel type. For example, a unguentarium specimen can be used as a funerary object or as a vessel storing oils and perfumes for daily use

Since the collection of glass vessels in this dissertation is comprehensive and non-selective, and information regarding the exact date and cultural context of the individual vessels is limited; this study will not be concerned with establishing any specific temporal or cultural contexts. Most of the vessels' forms are Roman type so that the analysis can be applied to functions and types even without exact cultural contextual information.

One of the main limitations encountered during the course of this study is the fact that archaeological contexts of vessels are largely unknown, with most specific geographic and temporal information for the majority of the pieces considered is unreliable. This is particularly evident for all specimens originating from sites in Latakia where the only information available is whether a vessel is in the classical period or the Roman style of glass.

Dating glass artifacts and establishing their provenance has always been a problematic endeavor. And for this particular study, most glass items discussed herein (excepting some items originating from Jable and documented by Dr. Massoud Badawi) do not have any particular information pertaining to their geographic or chronological contexts. Additionally, most such items have not been documented through any drawings or detailed photography.

Furthermore, there are a number of items that have been confiscated and returned to the possession of the authorities for which no provenance could be established. Some artifacts have also been recovered from tombs that had already been looted, which adds an extra layer of difficulty for establishing their origin, bar for any information available within the reports obtained from (DGAM) Directorate-General of Antiquities and Museums.

A very notable issue to consider in this study is the lack of evidence for the existence of glass furnaces to produce the masterpieces found in the coastal region of Syria. So far, no archaeological evidence supporting the existence of glass furnaces has been established, especially since no mention of such furnaces has been documented in any reports (whether published or unpublished). This poses a dilemma particularly since the existence of such

facilities is a logical conclusion given the sites' location within one of the major glass-making regions and the abundance of raw material used in glass making in these same regions. Additionally, those same locations are considered some of the major mercantile seaports of antiquity, which presumes the existence of a glass-making industry designed for trade and export. Also notable is the lack of evidence of tools that were used in the glass industry; despite the recovery of a number of artifacts with distinctive features indicating the use of these tools or molds.

A major challenge encountered in preparing this study was the absence of statistical data regarding the number of glass pieces in local museums, such as those in Jable and Ȧrtũs. This issue arises mainly from the documentation practices of local archaeologists, who deliver all items from excavation work each season without conducting significant studies, only providing a list in the corresponding excavation report. Furthermore, many items or fragments lack accurate dating because they were either confiscated, purchased, or brought in by site workers without consideration for their specific context or location. Additionally, there is no effort to separate artifacts from the same site.

According to one official at the Department of Antiquities in documenting any recovered artifacts is conducted in a manner that pays no regard to their accurate dating. Moreover, no drawing or photographic evidence is established for any particular recovered items. This is especially so for any works conducted during emergency or rescue excavations. Additionally, some recovered items were cataloged as belonging to, or recovered from, Damascus with no further identifying information. This is due to the fact that historically, and prior to establishing the Museum; recovered items in were sent to the National Museum in Damascus for documentation and preservation. After the Museum was established though, those same items were sent there without any documenting information.

VI- Methodology

A comprehensive study of the Roman glass industry along the Syrian coast remains unfinished, so presenting Roman glass from burials and other contexts offers a valuable analytical opportunity. This research also considers burial objects and other finds from various sites along the Syrian coast, aiming to achieve a more accurate understanding of the use and diversity of glass in this region, which some scholars regard as the birthplace of the glass industry.

Access to museum collections was a major constraint; only vessels the author personally examined, described, and drew are included. Unfortunately, a detailed examination of aspects such as color, quality, edge design, decoration, and production techniques has not been possible

due to the lack of established analytical technologies in Syria, particularly for material and archaeometric analysis. Additionally, researchers are prohibited from sending specimens for analysis outside of Syria or to privately-owned laboratories within the country, and the Directorate-General of Antiquities and Museums does not possess such facilities.

Recent research expands beyond typology to include manufacturing technique, vessel construction, functional identification, and consideration of color and size. However, no professional terminology has been developed to describe glassware to date; nor is it standardized in terms of coloring. Even the publications on this topic do not reflect the technical features and details.

For example, it is a convention within the Arabic academic circles to refer to unguentarium as tear bottles (*Lacrimarium*). However, this naming convention is highly inaccurate especially due to the lack of any substantial evidence that such items were used to house tears, instead, they were used to store perfumes or oils to use as funerary objects and to improve the scent within the burial chambers. This is further corroborated by findings of similar objects outside of Syria with evidence of their use as vessels to store oils, balsams and ointments, red and white facial creams, and incense. Therefore, the term: tear bottles is an incorrect name for such items of glass.

The glass specimens examined for the purpose of this study were recovered from documented burial chambers and cemeteries (burial sites in Ṭarṭūs and Latakia will be discussed separately in the next chapter); in addition to all such items available at local museums (be it bought or confiscated). Further, excavation reports were key in gaining access to previous research and, as such, were considered to be an important source for this study.

Many factors beyond shape were considered, including production techniques and function, and each type is described accurately.

This study uses a qualitative approach to research with a focus on the analyzing and understanding of the different types of glass vessels and their usage, quantification, and classification. This study will be based on primary sources, in addition to periodic excavation reports. Additionally, many sources will also be utilized for the purposes of this study including literature found in books, articles, documents, and internet web pages; also, data and items personally accessible to the author.

A number of challenges during the classification process presented themselves including the following:

Most specimens were not properly stored, leading to difficulty handling them.

- No accurate dating could be established with museum identification data not matching with scholarly dating results by experts in the field.
- Some glass objects were produced in forms that are completely local to their area making it challenging to find comparanda items to establish dating or origin information.
- No archaeological evidence exists as of yet for glass production or storage facilities on the Syrian Coast.
- Many specimens are recorded in displays but their place of origin or the context from which they were retrieved is unknown making it difficult to date them properly.

The cataloguing entries include information pertaining to a vessel's style, shape, dimensions, cultural context, and date; followed by an analysis of its type. The analysis suggests that there were many possible uses for any class of vessels being examined.

The items included in this study were documented, counted, tabulated, and registered; locus and registration numbers are listed. No field statistical counts were attempted, and current statistical analysis is limited by restricted access to objects and reports and by imprecise dating with most excavation reports date from around 1993.

A statistical study correlating glass types with stratigraphic, ceramic, and architectural contexts can be undertaken later. All of the glass artifacts drawn are included in illustrations on plates and in catalogues. All raw data on color, weathering, inventory number, registration number, and other information are listed on said annex and labels.

This study follows a defined structure intended by the author to present a comprehensive and cohesive discussion of the thesis. *Chapter One* includes the *Introduction*, which consists of two parts:

- Part I: Introduction and Literature Review, which introduces the topic and the research purpose, structure, as well as aims of the research, along with the importance of the study.
- Part II: includes a review of the current literature about the topic of study and the general history of research, with the state of the art in the Middle East.

Besides the methodology adopted for the study, which focuses on the classification of the extracted glass vessels, and the forms and functions.

In *Chapter Two*, a demonstration of the historical and geographical framework of the Syrian coast is presented, in addition to archaeological contexts and chronology of the discussed sites. Also, a focus on establishing the importance of the strategic location of these sites on the Mediterranean coast and its significance for establishing a link between the East and the West, which provided the sites with great economic, social, and technical importance.

Chapter Three presents the glass vessels: Types, Provenance, and Deposit Modes, and the problems and challenges of the study of glass in Syria. As well as terminology and the classification of the glass items.

An extremely detailed description of the Roman glass artifacts is presented in *Chapter Four*. These artifacts are studied given the context of how these items of glass were distributed *in-situ*, with a review of the production methods (cast vs. blown glass).

Chapter Five presents a detailed analysis of the Roman glass objects discovered at the sites considered for this study. This analysis includes a typological classification of the collected and defined glass vessels, as well as their archaeological contexts. Additionally, an interpretation analysis of glass vessels is presented. In total, the typological classification of over 236 glass finds comprising the main results of the analysis is presented. The chronological and geographical backgrounds of the objects studied are summarized as follows:

Ointment bottles or toilet bottles were produced in large quantities, with the majority, as we will see in the catalogue, being devoid of decorations. Most of our collection belongs to this category. These bottles were typically found in graves dating to the early Roman period. It was common to place more than one perfume bottle in a single grave during the early Roman period, whereas in the late Roman period, it became more typical to find only one perfume bottle per grave.

The form itself can be derived from the Hellenistic ceramic unguentaria. Within the collections studied, bowls and dishes also dominate a large percentage of the finds. However, as they were found only sporadically. As for drinking vessels also occur with less frequency in comparison to previous centuries, although they remain common in late Roman times.

The miscellaneous category includes objects that could not be classified into any of the above types, such as beads and bracelets, which dominate a large percentage of the finds.

As well as the interpretations according to the order of the author's chosen typology, and to the categories based on function, where the tableware, storage, and transport vessels. And the vessels with undefined functions.

The study concludes with *Chapter Six*, which presents the results, followed by *Chapter Seven*, containing the bibliography and appendices, including a catalogue of the artifacts.

Glass specimens recovered over the last century and held in the National Museums of Ṭarṭūs, Latakia, and Jable were classified based on their forms/style and their usage. Each piece's museum accession number, glass type, and excavation site were noted. Based on the year each individual object was found, corresponding data were recovered from the respective museum records and inventory lists. Following, a brief description of the glass specimen's shape and characteristics was provided, including the diameter and height of the vessel, the thickness of the walls, the color of the glass, its opacity, and quality. Notes on bubbling were also recorded to indicate whether a given vessel contained many, few, or virtually no bubbles; notes on impurities and/or streaking were also included. After recording the aforementioned data, the relevant glass pieces were drawn. glass pieces were drawn.

VII- Results

- The study analyzes a large assemblage of Roman glass vessels from the Syrian coast to understand their typology, function, and cultural significance.
- Glass played a key role in both daily life and ritual practices in cities such as Latakia, Jable, Ṭarṭūs, and Bānyās.
- It functioned not only as a practical material but also as a medium of symbolic expression, especially in funerary contexts.
- The assemblage is dominated by **unguentaria** (perfume and oil containers), closely associated with burial practices.
- These vessels acted as sensory objects linked to memory, ritual purification, and commemoration.
- Early Roman burials often contained multiple unguentaria, while later burials typically included only one, reflecting a shift toward simpler funerary customs.
- Other vessel types (bowls, beakers, goblets, and plates) appear in smaller numbers and are classified as tableware.
- Their presence in graves suggests a symbolic connection between dining practices and collective memory.

- Storage vessels (jars and flasks) indicate everyday domestic use but were also incorporated into funerary rituals.
- Most vessels were produced using **free-blowing**, with some examples of **mold-blowing**, reflecting technological developments of the 1st century AD.
- The high quality of the vessels indicates skilled craftsmanship and access to suitable raw materials.
- No primary glass production furnaces have been identified on the Syrian coast.
- This suggests the region functioned mainly as a **secondary production and consumption center**, relying on raw glass from major centers such as Sidon, Tyre, Beirut, and northern Palestine.
- The Syrian coast was well integrated into Mediterranean trade networks.
- The glass vessels closely resemble those found across the Roman Empire in both style and technology, indicating a shared aesthetic tradition.
- Regional variations are evident:
 - Jable shows continuity of Hellenistic and earlier traditions.
 - Latakia and Tartus display more Romanized material culture.
 - Urban areas had greater access to diverse and higher-quality glass than rural areas.
- Glass vessels provide insight into social structure, economic systems, and cultural practices.
- Everyday objects were transformed into meaningful ritual items connected to identity and memory.
- Despite the absence of evidence for primary production, the Syrian coast may have played an important role as a **major recipient and intermediary** in the Roman glass economy (this remains a hypothesis).
- The study emphasizes the importance of combining archaeological, technological, and cultural analysis.
- Further research, especially compositional analysis and excavation, is needed to identify raw material sources and refine interpretations.
- Overall, Roman glass from the Syrian coast reflects a complex system of exchange, ritual, and cultural identity, where objects served both practical and symbolic roles in life and death.

VIII- Publications

- Hammoud. S. “Samples of Roman unguentaria from a typological perspective from the Coastal Region of Syria (Latakia city),” JOURNAL OF AWARENESS 9 : 1 (2024): pp. 83-94.
- Hammoud. S. “Insight into glass production in Roman Syria. A study of unguentaria and flask samples” In: Molnár, Dániel; Molnár, Dóra; Nagy, Adrián Szilárd (eds.) XXVII. Tavaszi Szél Konferencia 2024 Tanulmánykötet II. [Spring Wind Conference 2024] Bp, Hungary : Association of Hungarian PHD and DLA Students (2024): pp. 550-565
- Hammoud. S; Madarati. H. “Rescue excavation at Kurnish al-Bahr Tombs (Latakia city)” JOURNAL OF AWARENESS 9 : 3 (2024): pp. 313-321.
- Hammoud. S. “Roman flasks and unguent bottles from Damascus, Homs, and Daraa” Studies in the Near Eastern Archaeology I., PPKE BTK, Budapest: accepted.

Bio about the author

Sarah Hammoud is an archaeologist specializing in Classical Antiquity. She earned her Bachelor's degree in Archaeology from the University of Damascus in 2015, followed by a Master's degree in Classical Archaeology in 2018. During this period, she briefly worked at the Directorate-General of Antiquities and Museums (DGAM) in Syria, where she advanced her research on Roman glass and gained practical experience in museum documentation and material analysis.

In 2020, she completed a Master's degree with distinction at Pázmány Péter Catholic University in Budapest. Her thesis (Roman Glass Objects from Syria from the 3rd Century BC to the 3rd Century AD: Case Study Damascus, Homs, and Daraa) focused on Classical material culture. During this time, she participated in several training programs offered by the German Archaeological Institute, where she received training in GIS applications, particularly QGIS. She subsequently applied these digital mapping and spatial analysis skills in her research. She also took part in excavation missions conducted by her university in Hungary and Romania, further strengthening her fieldwork and methodological expertise.

Most recently, she completed her doctoral research at Pázmány Péter Catholic University. Her dissertation, *The Development of Glass Production in Syria during the Roman Period from an Archaeological Perspective: Case Study—Syrian Coastal Region (Latakia-Jable-Ṭarṭûs-Bānyās)*, offers original insights into Roman glass production and its regional context. She has authored several peer-reviewed articles on Roman glass from Syria and has developed strong expertise in the documentation, classification, and interpretation of archaeological materials.

She is currently preparing a new article (*A Study of Roman Glass Discovered in the Cemeteries Area of Latakia: New Finds*) submitted to *al-ḥawliyyāt al-athariyya al-ʿarabiyya al-sūriyya*, intending to expand and strengthen the limited scholarly resources available on this subject in the region.