Booklet of the doctoral dissertation (PhD)



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Medieval Rural Settlements in North Lebanon 12th and 13th centuries.

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ABSTRACT

In the twelfth and thirteenth centuries, there was a massive influx of Europeans who migrated to the eastern Mediterranean coastline, which in turn led to the establishment of numerous settlements in the region. The Crusader state of the County of Tripoli had a relatively long existence, spanning almost two centuries, which is considered a significant historical phase.

There were a few monuments that received extensive attention from scholars in the past, but several others were only briefly referenced in Arabic or Latin sources. The significance of this research project is rooted in the fact that it aims to carry out a comprehensive examination of the rural settlements located in the northern region of Lebanon during the 12th and 13th centuries. The primary aim of this study is to provide an initial overview of the various settlement types that are present in the region. The study is designed to offer a comprehensive understanding of the region's history and geography.

The modern era of digital documentation has opened up a new world of possibilities for scholars in architecture and archaeology In order to gain a deeper understanding of the adapted surveying and documenting methods, this study delves into a detailed analysis of their methodology and the significant advantages they offer. By utilizing these methodologies, it is possible to maintain the different stages of the built heritage over the years, as well as provide support for further comparisons and studies that can be conducted off-site.

Many remarkable architectural monuments were built during this era, including such rural settlement types as: fortified sites, rural towers, villages, and monastic landscapes among others. This study outlines the workflow for digital periodization and historical virtual reconstruction of documented sites.

INTRODUCTION

During the historical period between the twelfth and thirteenth centuries, the coastline of the eastern Mediterranean witnessed the settlement of hundreds of thousands of Europeans. The Crusader County of Tripoli managed to maintain its existence for almost two centuries. This period saw the construction of a vast array of distinctive architectural structures, encompassing a diverse range of urban and rural settlement types. These include castles, towers, courtyard houses, villages and other notable edifices. Some monuments have been the subject of previous studies by scholars, while others are only mentioned in Arabic or Latin sources.

After spending approximately two hundred years in the region, the Europeans left behind a significant number of marks of their presence, as well as architectural and archaeological evidence. Castles and other iconic places have been studied to a certain extent by scholars. Although the major focus has often been on larger castles, it is important to recognize that smaller sites also played a key role in the network of rural settlements that connect them to towns. Scholars and historians have largely neglected these smaller settlements, despite their importance. They are essential for understanding the full scope of the European occupation in the region. More extensive research is required to fully comprehend the extent of European impact.

In order to gain a comprehensive understanding of the area's past, it is necessary to utilise a range of sources, including historical documents, archaeological evidence and geographical surveys. This process enables the acquisition of a more nuanced understanding of the region's past and present.

In this work various sources have been combined, such as medieval documents, travellers' accounts, map evidence, toponymy, archive and satellite photographs, and oral sources from locals. In the methodology chapter, these points are discussed and elaborated upon, including the adapted methodologies for documenting architecture and archaeology on

site. The historical background chapter briefly traces the historical events that mainly influenced the development of the settlement network.

In this study, a variety of sources have been integrated, including medieval documents, travellers' accounts, cartographic evidence, toponymy, archival and satellite photographs, and oral accounts from local residents. The methodology chapter discusses and elaborates upon these points, including the adapted methodologies for documenting architecture and archaeology on site. The historical background chapter provides a concise overview of the historical events that have had a significant impact on the evolution of the settlement network.

A brief investigation of the settlement patterns, along with an investigation of the distribution and basic characteristics of their centres, the towns, and the role those various fortifications played in the coastal region's life is presented. Historical sources and field surveys draw attention to sites that have not yet been fully explored. Consequently, further elements and characteristics are incorporated into the context of the 12th-century sites in the region. A review of written sources, when combined with on-site evidence, reveals that medieval settlement patterns have left considerable traces even in the countryside. The collation of data and its integration with an architectural analysis of the surviving remains yields insights into the density and characteristics of medieval villages.

CHAPTERS

The dissertation, entitled "Medieval villages in northern Lebanon, 12th and 13th century", consists of eleven chapters.

Chapter 1: Research outline

This thesis focuses on the rural settlements of the Southern part of the County of Tripoli, the present-day North of Lebanon during the 12th and 13th centuries. The Case studies chosen for analysis represent the various types of medieval rural settlements identified in the region under study.

<u>Aim.</u>

The study has the following aims:

1- To provide an overview of the various settlement types that are present in the region. The study will focus on examining the rural settlements in Northern Lebanon dating from the 12^{th} and 13^{th} centuries.

2- To document this hitherto unexplored and unpublished heritage and provide an updated study and database. The database is comprehensively developed to include all the medieval archaeological and architectural sites located in the northern part of Lebanon dating from the twelfth and thirteenth centuries, and it will also feature an up-to-date map.

3- To examine the area's religious and socio-economic state during the Middle Ages. The roles played during this period were distinct in both the coastal region and the mountains. Researching the remains and settlement patterns of rural areas would contribute to a better understanding of medieval life and coastal history.

4- To examine the cultural practices and beliefs of the settlements' inhabitants, as well as their lifestyle, and to provide an insight into the development of the local economy. For a comprehensive understanding of settlements, it is equally important to comprehend their internal relationships, understand how regional trade and cultural exchange

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developed, and grasp the relationships between the inhabitants of the settlement and other settlements in the region.

Problem.

The information provided in the written sources is fragmentary. Medieval travellers and geographers discussed the occupation and religious affiliation of the individuals who lived in the region.

It is common for written sources and maps to display shifted locations and places, resulting in inaccurate descriptions of distances between them. There are certain places that are explicitly mentioned, but there are others that are completely obscure. Although descriptions of the architecture of the sites are sometimes available, they do not always aid in determining the sequence of construction phases. According to most sources, the Mount Lebanon villages are significant because of their fertility, strategic location, and security.

The unexplored and undocumented rural settlements in the region are facing different threats from neglect, degradation, conflict, urban expansion and climate change. This study will contribute to the documentation and preservation of this endangered region.

The complexity of nature, the management of the COVID closures and the safety of some regions, were decisive factors that made the work more complex and challenging. The survey and the sites were visited during the holiday periods of Christmas and summer in the years 2018-2019 and 2020. Despite the limitations, the thesis's collected data offers valuable insight into the region's archaeological heritage and the effects of human activity on it.

Importance and Contribution to knowledge.

The research project has revealed a previously overlooked aspect of northern Lebanon's history: the rural settlements of the medieval period. Before this research, these settlements were undocumented and unexplored. The exploration of North Lebanon's history is necessary due to the significant gaps in knowledge regarding its historical, archaeological, and architectural heritage. Through detailed topographical and geographical analysis, the hidden narratives of this region were uncovered.

A substantial amount of knowledge about the medieval rural settlements in northern Lebanon, particularly during the 12th and 13th centuries, has been obtained. Meticulously documenting and analysing these settlements has not only enhanced scholarly understanding but also enriched the broader historical narrative of Lebanon's landscape.

It is the first study to take advantage of digital technology to document and analyse the cultural heritage of the area studied. The modern era of digital documentation has opened up a world of possibilities for researchers in architecture and archaeology, as everything can now be captured and stored for future analysis and research. In order to gain a deeper understanding of the adapted survey and documentation methods, it is important to note that the built heritage has become a major focus of attention in recent years, with many new technologies and methodologies emerging that aim to provide better documentation and record keeping. By using these methods, it is possible to maintain the different stages of the built heritage over the years, as well as providing support for further comparisons and studies that can be carried out off-site.

Besides trying to find relevant evidence that could lead to new discoveries, using both written sources and work in the field, we reconsidered former scholarly research on rural site identification. A general map, which showed medieval and present-day place names along with basic archaeological features, was used to identify various locations. This '*Carte Generale*' is accompanied by regional and thematic maps. The study includes site details such as preserved infrastructure, 3D documentation, and geo-referencing. The presentation of some site results is done in 2D plans, sections, and elevation drawings using 3D

documentation. The accuracy of deductions can be improved by using architectural evidence, especially from world heritage sites. It helps understand the layout, form, and design of the individual sites, and how they were used in the past. By using this evidence, we can better inform and guide the conservation and future use of these sites.

This will also help to preserve the sites for future generations. Visitors will be able to learn more about the history of the different places and appreciate their architecture from the comfort of their own homes. It will also make the locations accessible to a wider audience, allowing them to experience the sites without having to travel to the physical locality. It's also a valuable resource for researchers to compare with other monuments and gain a new understanding of their role in the Middle Ages.

Methodology.

The classification of research methods is as follows:

- Descriptive and comparative methods.

Various sources were combined, such as historical sources, medieval documents, travellers' accounts, map evidence, toponymy, archive and satellite photographs, archaeological evidence and oral sources from locals. Through the analysis of written sources and the synthesis of evidence, it clarifies the medieval settlement patterns traces. The collection and integration of data, along with the architectural and archaeological material, yield invaluable insights into the various social, political, religious, and economic aspects of medieval rural settlements sites. A comparison of sites was done based on the similarities and differences mentioned by the scholars, such as the studied case Qulay 'āt castle.

- Analysis and quantitative methods.

Many results revealed that exporting scholars' knowledge of new technologies has a huge impact and will reach deeper analysis. The process of documentation in castles and world heritage sites adapted by the Syro-Hungarian Archaeological Mission (SHAM), which is based on a special way or processing methodology, was also adapted in this present research. The digital preservation of archaeological features and architectural elements was more and more developed and reached an advanced level in the hardware and software capacity to produce affordable three-dimensional documentation.

The Structure from Motion (SfM) is the main chosen 3D documentation technique. Surveying with the usage of the photogrammetry technology or methodology is offering much reliable and precise information about the properties of surfaces and objects and spaces without physical contact or any harm to the heritage. Furthermore, the model produced, or the final product, is an accurate model after scaling and geo-referencing it.

Chapter 2: Previous research

Presents the legacy of the Crusaders in North Lebanon, the main scholars who worked and carried out research in the area under study. It also gives a brief overview of previous research on medieval pottery in Lebanon.

Chapter 3- Sources

Consists of two sub-chapters: historical sources, covering medieval sources in Arabic (histories, topography and geography) and Latin (chronicles, charters), travellers' accounts. As well as some observations on toponymy, which show why it is difficult to work on the identification of the sites to create an extended map.

Chapter 4: Geographical and Historical frame in North Lebanon

This chapter shows the demarcation of the region under study and its importance and strategic location. It shows the historical framework of Carla Chlela

the region during the pre-Crusader and Crusader periods. It mentions denominations found in the region, their origin and the area where they were located during the period under study.

Chapter 5- Settlement

The chapter presents the categories of settlements, an estimation of where the densest area of rural settlements is located and their positions in relation to the towns, and an estimation of the distribution of settlements. A presentation of the centres of the medieval settlement pattern and why these places are considered towns and their characteristics.

Chapter 6- The Fortified centres of the countryside

This chapter presents the fortification, as in the case of Qulay 'āt Castle. Qulay 'āt Castle is one of the main case studies of the dissertation, a detailed description, a periodisation, a 3D periodisation of Qulay 'āt Castle and a comparison with Crac des Chevaliers Castle in Syria have been carried out. This chapter also deals with the smaller rural centres, showing that the presence of the Franks with greater stress on the countryside is reflected in both the sources and the constructions, as most of the surviving Crusader remains in the countryside are fortifications on a small scale or fortified settlements. As a case study, the castle of Felicium/Menjez, showing a smaller fortified corner with a suburb, was treated with a full description and interpretation of the site.

Chapter 7- The Rural Towers and the Courtyard Houses

This chapter begins with an introduction to towers and courtyard houses, and two case studies were the focus of this chapter, the $T\bar{1}b\bar{u}$ tower and analysis of the settlement, and the analysis of the new discovered site courtyard house.

Chapter 8- Fortified Caves

In northern Lebanon, fortified caves were more likely to have been used as shelters and observation points for security purposes. The ' \bar{A} sī al-

Hadath cave, the refuge or garrison, is the case study of this chapter. This grotto shows the characteristics of a medieval village in terms of its plan and all its findings.

Chapter 9- The Village

This chapter shows the characteristics of medieval villages, the materials used in the village houses and the relative density in the region, where is the highest concentration according to the maps, and the number of villages/km2. The types of churches found in the region under study and showing the theories of construction: - Basilica type churches - Single nave churches - Double nave churches - Double churches - Double double churches on the same axes - Twin churches - Grave churches.

This chapter also presents the quantitative analyses of medieval village churches, the regional distribution and survival of churches, the number of churches per km2 in the most densely studied areas, the distribution of single and other double and twin churches. Three case studies were mentioned as examples of medieval village churches.

Part of this chapter also focused on the frescoes found in different types of churches, showing the different impacts that could help the subject.

Chapter 10- The Monastic Landscape

Focuses on the importance of monasteries as a special category of rural settlements in the region and in the Oriental Church. The study of the monastery of Dayr al-Ṣalīb as a case study.

Chapter 11- Conclusion

The study uses a scientific and academic methodology based on analytical and quantitative methods, as well as descriptive and comparative methods. It focuses on medieval rural settlements in North Lebanon during the 12th and 13th centuries. The following points are of particular importance: Carla Chlela

The main objective of this study is to identify the various settlements of the 12th and 13th centuries in North Lebanon. Following a comprehensive review of written and earlier archaeological evidence, it has become clear that the region is characterised by a high concentration of rural settlements dating from the 12th and 13th centuries. The research suggests that, throughout history, the coastal areas have been identified as a favourable location for permanent settlement, while the mountains have been regarded as a place of safety and refuge. As a result, these regions have preserved a significant number of valuable architectural remains from different historical periods, providing insights into the diverse cultural and religious influences that have shaped the region.

Secondly, the categorisation process was determined by two main factors: theoretical (sources and travellers) and practical fieldwork. Consequently, the four main classifications can be defined as follows: fortified sites, rural towers, cave fortifications, villages and monastic landscapes. The category of fortified sites includes both fortified strongholds and smaller rural centres.

In addition, the investigation of several sites led to the discovery of remains that are believed to be from an undocumented medieval structure. The identification of a courtyard house during the fieldwork is a remarkable finding that has not yet been discussed by scholars.

The architectural remains identified are indicative of the social and religious interactions between the villages and the monastic landscape. Towns served as social and economic conduits for villages. The churches, towers and fortified sites attest to the existence of a village, while the monasteries represent isolated hermitages that depend solely on the support of the villages for their sustenance.

This study examined the churches and their architectural typologies in the region in order to determine the percentage of churches present in the study area and the different denominations that could be attributed to a particular church. The study also produced a map showing the locations of the various settlements referred to in historical and scientific sources.

The sites studied are at risk of being destroyed by illegal excavations and unauthorised construction. The 3D replicas offer the possibility of monitoring the condition of the endangered sites through regular documentation, which can identify changes in the landscape and monuments. This could eventually lead to the creation of a digital twin. As well as providing a valuable insight into the development of the local area, the digital twin, a virtual model designed to accurately reflect a physical object or existing site, can be extended to provide an understanding of how it has changed over time. In addition, the tools of landscape archaeology can be used to identify unexplored monuments.

In addition, a digital twin will be developed for these sites as a precursor to monitoring restoration and dissemination.

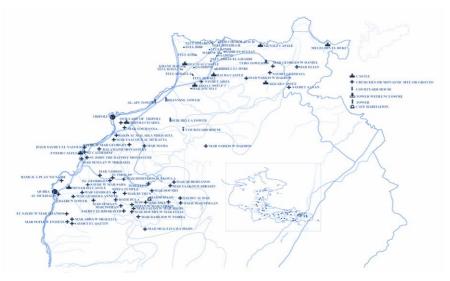


Figure 1- Map showing the medieval rural settlments in North Lebanon dating back to the 12th and 13th centuries. Created by the author.

CONFERENCES & SEMINARS

- [10/2020] Esztergom Hungary, Conference on Geospacial Data Processing. Presented Subject: Digital technologies for documenting and analysing Archaeological and Architectural Eastern Sites.
- [06/2021] Tartus Syria. Conference on The History of Tartus through archaeological discoveries. Process of 3D modeling for Documentation and Analysing Archaeological and Architectural Areas.
- [11/2021] Frankfurt, Germany. Conference on Recovery of Aleppo, Low. Architecture and Geodata Management to revive War-torn Cities. Digital Documentation of Medieval Castles in Syria and Lebanon.
- [09/2020 02/2021] Budapest. Seminar BME university Budapest: Architecture subject, and consultation (guest teacher). Revitalize the port of Beirut, After the explosion in August 2020.
- [03/2021 06/2021] Budapest, Seminar BME university Budapest: Architecture subject, and consultation (guest teacher) "No Choice", Crisis Architecture Studio.

PUBLICATIONS

- Chlela, C. 2024. Some observations on the medieval rural settlements in northern Lebanon in the twelfth and thirteenth centuries, *Social Sciences and Humanities Open*, 9
- Chlela, C. 2024. "Digital documentation of Medieval castles in Syria and Lebanon." *Book: Reviving Aleppo* pp.293-307, *Springe-Nature*

Under Publication 2023-2024:

- Chlela, C. (in press) "The principles of codification of Architectural monuments- Crac des Chevaliers." *Submitted to the PPCU Institute of Archaeology to be published in the volume titled; The works of the Syro-Hungarian Archaeological Mission in the Crac des Chevaliers* (Ed. B. Major).
- Chlela, C. (in press) "Designating the Architectural Spaces in Margat Castle." Submitted to The Archaeology of the Near East vol. I. to be published by the Institute of Archaeology of the PPCU Conference proceeding under publication. (Ed. Major, B.; Vass, L.)

Under review:

• Chlela, C.; Takáts, B. "Documentation Techniques Employed in the Crac des Chevaliers castle." *submitted to the PPCU Institute of Archaeology to be published in the volume titled;* The works of the Syro-Hungarian Archaeological Mission in the Crac des Chevaliers (Ed. B. Major).

<u>BIO</u>

Carla Chlela is a Lebanese architect with a master's degree in Architecture from Holy Spirit University Kaslik Lebanon, obtained in 2018. As part of the Lebanese Hungarian Mission, she participated in surveying the Medieval castle in Menjez North Lebanon in 2017 and 2019. For her PhD dissertation, Carla surveyed several medieval settlements in North Lebanon between 2019-2020.

Since she received the (Stipendium Hungaricum) scholarship in 2018, Carla has been a permanent member of the Syro-Hungarian Archaeological Mission (SHAM) of the Pázmány Péter Catholic University, Hungary. In that capacity, she worked on several Medieval castle surveys in Syria, such as Margat Castle, Crac des Chevaliers Castle, etc. Carla has experience in 3D documentation and visualisation of cultural heritage objects, sites and landscapes, with a special focus on virtual digital reconstruction.

Currently, Carla is an Architect at Narmer Architectural Studio Budapest Hungary. In parallel she is a part-time researcher at the archaeological institute at Pázmány Péter Catholic University Hungary, in the GIS Laboratory.