Signs of Place

A VISUAL INTERPRETATION OF LANDSCAPE

Rebecca Döhl
Julian Jansen van Rensburg
(eds.)

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THROUGHOUT MILLENNIA people have created place from within space by using an array of different types of signs in a multitude of different environments. Signs that can give insights into the very different ways in which ancient people have interacted with their natural surroundings and how they included it into their social and ideological realms. Within this volume we focus on different implementations of the concept of signs and place and the broad field of meanings, associations, and definitions these interrelated terms cover. In so doing, the papers in this volume explore how different kinds of visual signs were positioned within the physical and morphological features of the landscape; how the landscape was chosen or modified to accommodate them; what value or information these signs provided for the place in which they were created; and how they have been socially, culturally, and spiritually appropriated over time.

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Rebecca Döhl, Julian Jansen van Rensburg

Signs of Place – A Visual Interpretation of Landscape

Summary

The use of signs to create place is widely known and has been in use for millennia. Within this volume we focus on the concept of signs and the place they form as interrelated terms that cover a broad field of meanings, associations, and definitions. In doing so, through the papers in this volume we explore how different kinds of visual signs were positioned within the physical and morphological features of the landscape; how the landscape was chosen or modified to accommodate them; what value or information these signs provided for the place in which they were created; and how they have been socially, culturally, and spiritually appropriated over time.

Keywords: Landscape archaeology; visual signs; place; space; appropriation

Die Verwendung von Zeichen, um aus dem einfachen Raum einen Ort zu erschaffen, ist eine Praxis, die bereits lange bekannt ist und seit Jahrtausenden ausgeübt wurde. In diesem Band konzentrieren wir uns auf das Konzept der Zeichen und der von ihnen geformten Orte als wechselseitigem Begriff, der ein weites Feld an Bedeutungen, Assoziationen und Definitionen abdeckt. In diesem Sinne erforschen wir, durch die Artikel in diesem Band, wie verschiedene Arten von visuellen Zeichen in die physischen und morphologischen Gegebenheiten der Landschaft gesetzt wurden; wie die Landschaft ausgewählt oder verändert wurde, um sich den diversen Anforderungen anzupassen; welchen Wert diese Zeichen für den Ort, den sie mitschufen, darstellten oder welche Informationen sie lieferten, und wie ihre soziale, kulturelle und geistige Verwendung durch die verschiedenen Zeitstufen aussah.

Keywords: Landschaftsarchäologie; visuelle Zeichen; Ort; Raum; Aneignung

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1 Introduction

The 'signing' of landscape and with it the act of 'place making' is a practice that is widely known and has been in use for millennia. Nonetheless, it functions as a means, which can provide insights into the different behaviors ancient people had towards their natural surroundings and how they included these surroundings into their social and ideological realms. In the workshop "Signs of Place – A Visual Interpretation of a Landscape" held at TOPOI in 2016, we aimed to address these challenges.

We thereby focused on two aspects: the spatial aspect and the usage of visual signs, whereby both designations cover a broad field of meanings, associations, and definitions. We intended to use these different concepts as a background against which to explore how different kinds of visual signs were positioned within the physical and morphological features of the landscape; how the landscape was chosen or modified to accommodate them; what value or information these signs provided for the place in which they were created; and how they have been socially, culturally, and spiritually appropriated over time.

Apart from that, some theoretical thoughts had to be posed in the beginning. Since at least the 1990s, space has not been recognized as a given, but rather as a differently realized social construction.[1] Space is thus a meaningful, humanly interpreted space, which in many cases is not changed solely on the basis of human use but is also subject to socially significant changes as a social-symbolic space. This constructed space encompasses all areas of conscious human involvement, whether physical, emotional, or ideological. Furthermore, the action-centered perspective of space concludes that the constitutions of the spaces are different depending on the underlying principles of action and practices.

Therefore, by going beyond the limits of seeing place as small, culturally significant locales within a specific temporal setting, we explore how place has been subject to temporal, social, and ideological changes brought upon by the appropriation of visual signs by specific cultures that prevailed in various regions at different times.

In many cases, this construction can be grasped physically, and the form of this physicality itself can again be taken as a hint about underlying social or ideological structures. This part of the visible interaction is what landscape archaeology has aimed to comprehend since the twentieth century. It has become clear that to achieve this, the basic concepts of place and space need to be continually challenged at different scales of analysis and in varying contexts if we are to fully grasp their meaning. This is especially true for studies into prehistoric and non-literate societies, where being able to decipher the interaction between people and landscape still poses methodological challenges.

1 Werlen 1993, 152.

What can be seen, for example, is that there is a strong difference between the kind of interaction between groups and their surrounding landscape based on their grade of mobility. While mobile groups tend to alter their surrounding landscape only slightly through physical acts, sedentary societies rely heavily on this physical intervention. As Bradley has already shown, it was often monuments that were used to establish or highlight an important space, therefore, transforming it into a place.[2] For mobile people, these kinds of buildings usually take a more natural, less artificial form and are more integrated within the natural elements of the surrounding environment.

Place making, whether by adding distinct features, such as the construction of a monument or the assignment of meaning by the application of signs of a less impressive nature such as an expression of the relationship between man and the landscape within which he operates, is also addressed in this volume. It is primarily a question of turning towards those signs whose information transmission is visual.

The rather broad term 'visual signs' was consciously chosen to include every means of visual marking or transformation of the environment that includes, but is not limited to, rock art, architecture, and modified and anomalous natural features. In this case, we apply the rather broad term of signs that aligns with Charles S. Peirce, including all kinds of meaning making that contributes to building the process of signifying.[3] Based on Peirce, all objects can thus be interpreted as signs that transmit information within a communication act. This definition opens up a broad horizon and various possibilities for concrete implementation, as the present volume hopes to show. Furthermore, even if the visual is the main focus of attention, this is not the only emphasis, as the volume takes into account the perception of space as a full sensory undertaking.

Even with a visual sign, it is not necessarily that the only means of this sign is to be seen. It can have a lot of other meanings, for example the execution of it, which nonetheless has a visual output that can be viewed by others. Ingold argues that it is this 'form giving' that poses the bigger value in creation.[4] Therefore, the visual sign can fulfil many purposes starting with the act of its creation, to its abduction and (re)interpretation by later observers.

The different implementation of the concepts of place and visual signs can be seen in the temporal and spatial spread of the papers provided in this volume.

2 Unseen except for signs in the landscape

Looking at signs in a landscape is especially useful for the study and recognition of those cultural traits or groups that are hidden from historical view for different reasons;

2 Bradley 2000, 97.
3 Peirce 1991.
4 Ingold 2011, 381.

in ancient culture studies it is often found that texts are usually attributed a leading role in the interpretation of past or historical cultures. In addition to this, there is an (often art historically oriented) inclusion of material culture, which mostly refers to the background of ruling elites, be it monumental tombs, temples, or other prestige buildings. If it is not the elites who are the focus of attention, it is usually archaeological material in connection to artificially created spaces that receives attention, whether it is in form of settlement structures or cemeteries.

Through this focus, which is, of course, in part due to the presence of archaeological material, those human groups that are conceived as non-literate or are not included in the prevailing textual and elite traditions are hidden from the field of view. This is true, in particular, when these groups do not establish permanent buildings or create other forms of perpetual or recurrent material constructions. The groups that lose their meaning in this way include not only prehistoric cultures, but can lead to the marginalization of groups that do not serve the permanent expression repertoire of the elites or have only a small, perishable material culture, like many nomadic cultures in historical and modern times.

At this point, however, there are other important expressions of meaning that are available for investigation. Among other things, the signs of the active cultural confrontation with the spatial conditions in which many of these groups develop their actual social life. These signs in space can take very different forms, whereby a distinction must be made between conscious and unconscious changes of the surrounding space. In all cases, however, it is common that, through the interactive engagement with and in space, this space is transferred into an element of meaning and is thus no longer a simple space, but rather forms significant places.

According to Nash, the topographic elements of the landscape can be used as a sign to control political and social behavior and to interweave intergroup, territorialities, and social strategies.[5] However, this requires a certain amount of development, which requires that certain components have to be ritualized, among other things; these rituals, in turn, require attention. As described by Bradley, this can be achieved through the construction of monuments as well as the altering of natural elements like rocks. The former has a more intimate connection with the social landscape thus formed, since they are directly a part of it and not an artificially constructed space.[6]

In this instance, rock art is one of the means that can be named. It gives, for example, mobile groups the possibility to interact with and mark the landscape they are engaged with. The field of usage of this special kind of visual signage is manifest in many different environments. Thus, rock art can be found in dark, enclosed shelters like caves, as

5 Nash 2000, 1–16.

6 Bradley 2000, 64–80.

demonstrated by the contribution of Jansen van Rensburg, or in the open desert hinterland, as shown by the contribution of Döhl. In both cases, rock art plays the crucial role of communicating the concerns of the different groups. Interesting, in this regard, is that the practice of using rock art can be detected over a time span of millennia. Therefore, this special form of marking the landscape cannot only be attested to a specific time period, but shows instead a continuous employment as a mode of expression and connection between a person or group and their spatial surroundings.

That spatial environment does not necessarily need to be a natural landscape, but can also be an artificial building whose usage is altered, as shown in the article by Karberg. The stonemason marks found at Musawwarat es Sufra, Sudan seem to be part of a non-textual marking system that Karberg interprets as team marks used for marking working steps, thereby, representing different work gangs. Nevertheless, Karberg does not rule out that these may have to do with ideological reasons, which further reiterates that the function of the aforementioned markings can and probably did encompass a wider range of meanings that covered different aspects of social, economic, and ideological purposes.

3 Signs, place, and elites

Furthermore, this research area shows that the marking of space and its transformation into landscapes is not only a phenomenon of prehistoric or mobile groups. Indeed, sedentary societies are in constant interaction with their surrounding space, and transform and socialize it by building monuments, inscriptions, and other more long-lasting structures. The classical cultures and, here, especially the elite have shown a long interest in visually altering their environment and, therewith, stating their power and prestige. Lorenzo and Radloff demonstrate this involvement in connection with a maritime environment in the classical Hellenistic period.

Lorenzo shows how the building of naval victory monuments to commemorate the Battle of Actium by Octavian altered the human and natural topographies of northwest Greece; herein, the monuments acted as visual interconnectors and dominators of the formerly wild land and also supported the sacred space generated by the city of Nicopolis and its surroundings.

Within Radloff's contribution it is the seascape that formed a strong part of the Hellenistic Miletos' territory. Indeed, it is the building of monuments, *heroons*, temples, and sanctuaries that were seen as a means to assert ownership and link the land and seascapes, by creating monuments on land that formed a part of the seascape for passing ships.

Following this, Karatas presents the interaction of rocks and belief systems within a religious setting, that of the rock-cut sanctuaries, specifically looking at those of Deme-

ter. The large geographical area and her examination of the appearance of rocks and rock-cuttings in other cults gives new insights, especially when we look at how the cult of Demeter appears through the use of the environment to have retained a Greek identity throughout Asia Minor.

That the symbolic meaning of landscape is not only encountered in the landscape itself is shown in the contribution of da Silva Ferreira. Within his paper, he demonstrates how languages, notably Latin and Sumerian, are connected with a culture's behavior and their interaction with their spatial background, and partially form the way places and natural topographies are constructed. Furthermore, he notes that dependence on farming and herding and the benevolence of nature sets the basis for the rules and conceptions of the Sumerian and Roman life experience.

4 Signs, place, and time

Looking at space, one cannot rule out the idea of time; specifically, the ways in which monuments and other signs change meaning throughout their lifetime. While this is difficult to show within the prehistoric period, it has been approached within this volume by attesting the differences found.

The transformation of space into place, with a strong emphasis on a temporal dimension, is demonstrated by Savkic. Within her contribution, Savkic explores the different architectural phases of the Las Pinturas Group at San Bartolo, Guatemala. In doing so, she demonstrates how the changing architectural shape creates a sacred geography within a cyclical time frame. In this case, it allows for the ruling elite to fuse cosmogenities and politics and construct a social order through the construction of buildings.

Apart from these examples, another aspect of signs of places is that it is not always the deliberate and conscious marking and altering of space that provides the base for the establishing of meaning. In fact, it is often the non-conscious impact human activities have or had on the landscape that build the foundation for later meaning making or interpretation, which is shown in the final paper.

The contribution of Teodor and Ştefan show that it is often remnants of older cultures that shape its face, through their engagement with the landscape, which the following generations can build upon for their own meaning making. This paper demonstrates how the *Limes Transalutanus*, built in the early 3rd century AD in the Roman province Dacia, southern Romania has been used to support the development of distinct cultural traditions on both sides of this artificial border; a cultural tradition that lasted throughout the medieval and modern period, long after this structure was abandoned. Thus, what we see are the long-lasting impacts of monument creation in the landscape, which consciously or unconsciously, have played a significant role in shaping historical developments.

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SIGNS AND NATURAL SPATIALITY

Rebecca Döhl

Rock Art in the Eastern Desert of Egypt – What a Spatial Approach Can Tell Us

Summary

To avoid the problems that stem from an uncertain chronology and missing cultural information, a spatial approach to the rock art in the Eastern Desert of Egypt has been taken. This analysis shows the utilization of the area for subsistence, stone exploitation, and as a link between the Nile Valley and the Red Sea on different levels – landscape, place, and motif. Groups roaming this area since the Epipalaeolithic period, started using rock art as a means of communication, marking their fields of activity and involvement with the landscape; the requirements of desert adapted life had to be fulfilled, which can be seen by the different distribution and clusters of rock art sites and figures. Additionally, the choices of places and motifs point to a broader range of social activities.

Keywords: rock art; spatial analysis; predynastic; Eastern Desert; prehistoric Egypt

Zur Umgehung der unsicheren Chronologie und fehlender kultureller Informationen wurde ein räumlicher Zugang zu der Felskunst in der Ostwüste Ägyptens gewählt. Die Analyse zeigt auf verschiedenen Ebenen – Landschaft, Platz und Motiv – die Nutzung dieses Gebietes zur Subsistenz, Steingewinnung oder als Verbindung zwischen Niltal und Rotem Meer. Seit dem Epipaläolithikum wurde dieses Gebiet durchwandert und Felskunst als ein Mittel zur Kommunikation eingesetzt, das die Einbindung in die Landschaft aufzeigte. Daneben mussten die Anforderungen eines wüstenadaptierten Lebens erfüllt werden, widergespiegelt durch die verschiedenen Verteilungen von Felskunststationen und Figuren. Die Wahl der Plätze und Motive kann Aufschluss geben über die Bandbreite der hier ausgeführten sozialen Aktivitäten.

Keywords: Felskunst; Räumliche Analyse; Prädynastik; Ostwüste; prähistorisches Ägypten

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1 Introduction

Egypt holds a vast corpus of rock art distributed all over the country, with the main bulk found in desert areas. While there is only a small corpus of paintings, with the exception of Gilf Kebir and Jebel Uweinat area,[1] most Egyptian rock art consists of petroglyphs.[2] The dating of this rock art is challenging, because of missing chronometric dates and due to uncertainties in the application of typological and stylistic dating methods. Chronometric dates have been obtained in only a few cases, mostly for the oldest petroglyphs. Huyge gives the AMS C14 dating of petroglyphs in el-Hosh, with a possible date earlier than 5300–5900 BC, and the OSL-dating of sand covering petroglyphs in Qurta provides a minimum age of 15 000 calendar years.[3] However, in most cases the rock art has been dated based upon stylistic and typological grounds adapted from the comparison of images on ceramics, temple walls and other objects.[4] Based on these methods, the main portion of petroglyphs is usually dated to the Predynastic or Early Dynastic Period (ca. 4500–2700 BC), especially those in the Eastern Desert. The absence of chronometric dating for the petroglyphs of this area, however, means such a narrow chronological framework should be used with caution, and earlier or later dates should not be ruled out. This is particularly true because typological and stylistic dating methods show substantial scientific weaknesses; this is mostly due to inconsistencies in categorization and that only a small part of the petroglyphs, mostly the boat depictions, were chosen for analysis, while the animal figures that are the majority of the petroglyphs were often disregarded. Apart from this, the interpretation of these petroglyphs holds even more difficulties. Assuming this rock art is from Predynastic or even earlier prehistoric periods, the cultural context that shapes its meaning is not well known. Nonetheless, it is quite usual in research concerning this rock art to concentrate on the chronology, meaning, and content of the motifs, interpreting them as ideological or religious expressions, especially of elites, or seeing them as political narratives.[5] On the other hand, the spatial aspect so inherent to rock art, as it is not only fixed in space but also semantically related to the place it was created, has been rather neglected in research focusing on rock art in Egypt. Therefore, it is crucial to focus on this semantic link between rock art and space to avoid the problems of uncertainties in dating and a lack of cultural context. This approach follows the approach previously proposed by Chippindale and Nash[6] that has found wide acceptance in rock art research.

1 Kuper 2013; Riemer, Bartz, and Krause 2013; Zboray 2009.
2 Winkler 1938; Winkler 1939; Morrow et al. 2010.
3 Huyge 2001, 71; Huyge et al. 2011, 1184.
4 Červíček 1986; Winkler 1938; Winkler 1939.
5 Darnell 2009; Hendrickx and Friedman 2003; Huyge 2002.
6 Chippindale and Nash 2004.

2 Location – rock art in the Central Eastern Desert

For the present spatial analysis, the rock art of the Central Eastern Desert has been chosen. The reason for this choice was the increased amount of data produced by different surveys in this area in the last two decades. These surveys have not only focused on the images themselves, but also published information on the sites the rock art was attached to and gave their appropriate GPS coordinates,[7] information that is crucial for spatial analysis relying on Geographic Information Systems (GIS).

The Central Eastern Desert forms part of the Eastern Desert, covering the area east of the Nile River in Egypt and Sudan. It comprises the region south of Wadi Hammamat, down to the Egyptian- Sudanese frontier. The division between the northern and central part of the Eastern Desert is characterized by the border of two different geological plateaus: the northern limestone and southern Nubian sandstone. Furthermore, the Central Eastern Desert can be subdivided into three geological-ecological zones: the Nile floodplain and the plateaus with wadi drains in the west, the high mountains of the Red Sea Hills with deep drainage wadis in the central part, and the onshore area next to the Red Sea in the east.[8] This desert, however, is anything but remote in that it has always seen traffic passing through: in Dynastic times, when its rich stone and mineral deposits were exploited, and later on in the Ptolemaic and Roman periods, when this area was used as a link between the harbors at the Red Sea and the towns in the Nile floodplain.

Research in this part of the desert, especially the area between Wadi Hammamat in the north and Wadi Barramiya in the south, has been the focus of several surveys, starting in the 19th century. Initially, it was the discovery of rock inscriptions that drew the main interest, but then rock art sites were also documented and gained increasing attention.[9] In the 1960s, this attention was intensified, leading to a larger amount of survey reports and articles mentioning previously unknown rock art sites, but unfortunately, those surveys only rarely led to intensified archaeological investigations.[10] Relying now on the outcome of two of those surveys, it was possible to collect ca. 230 rock art sites with about 9900 figures that were found to be suitable for a spatial approach (Fig. 1).[11]

7 Morrow et al. 2010; Rohl 2000.
8 Said 1990.
9 Golénischeff 1890; Weigall 1910; Winkler 1938; Winkler 1939.
10 Luft 2010.
11 Morrow et al. 2010; Rohl 2000.

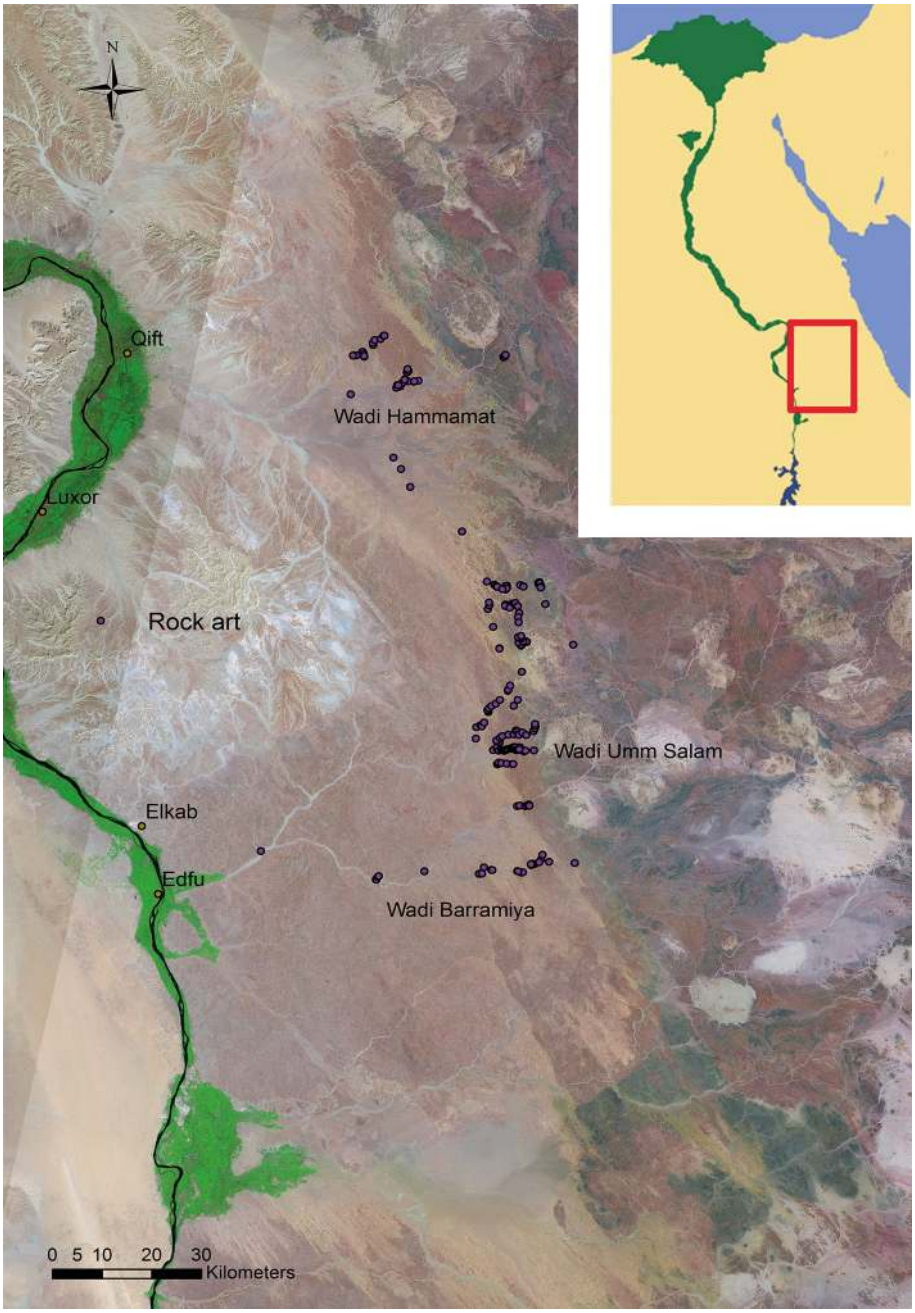

Fig. 1 Rock art sites in the Central Eastern Desert, Egypt.

3 Spatial analysis

The spatial analysis was conducted on three different levels, loosely adapted from Chippindale,[12] each focusing on different aspects of the circumstantial context of the rock art: landscape, place, and motif. The main aspects of interest from the landscape level are, first of all, the distribution and hot spots, or clusters, of rock art sites that can provide information about the main focus of activities and the importance some parts of the landscape held for the people who executed rock art there. While the investigation of possible subsistence bases and other resources can help us to discover why groups of people came to these locations or how they used this particular area, information about movement patterns and distances between rock art sites provides an idea about the kinds of groups that might have been interested in wandering through this part of the landscape, marking it, and how they crossed the landscape. For this analysis, a climatic and environmental reconstruction also played a crucial role in understanding which resources could have been used and what the area would have looked like under alternative conditions.

The analysis of the rock art sites themselves were carried out looking at the topographical and infrastructural characteristics of their locations. This provides information about the possible usage of sites where rock art was executed and the function thereof, including the size of the groups staying in these locations and the frequency of usage of the locations. The third and final level is about the motifs and figures, their distribution, and hot spots. These can offer possible hints of group related differences in motif choices and chronological implications in relation to the spatial context the motifs were set in.

All of the spatial analysis was conducted within a Geographic Information System and based on Digital Elevation Models; one of these was the freely available ASTERGDEM,[13] the other one was produced by the author and adapted from the 1:50,000 Survey of Egypt maps published by the Egyptian General Survey Authority.[14]

4 Discussion – landscape level

Looking at the distribution of rock art in this area in comparison to the distribution of other activities known from the Dynastic to the Roman Period, it is clear that we are dealing with different activity areas (Fig. 2). For instance, inscriptions and petroglyphs

12 Chippindale 2004.

13 https://asterweb.jpl.nasa.gov/gdem.asp (visited on 13/06/2019).

14 First Edition 1989. Maps produced by Egyptian General Survey Authority, E.G.S.A. in co-operation with FINNIDA, Finland.

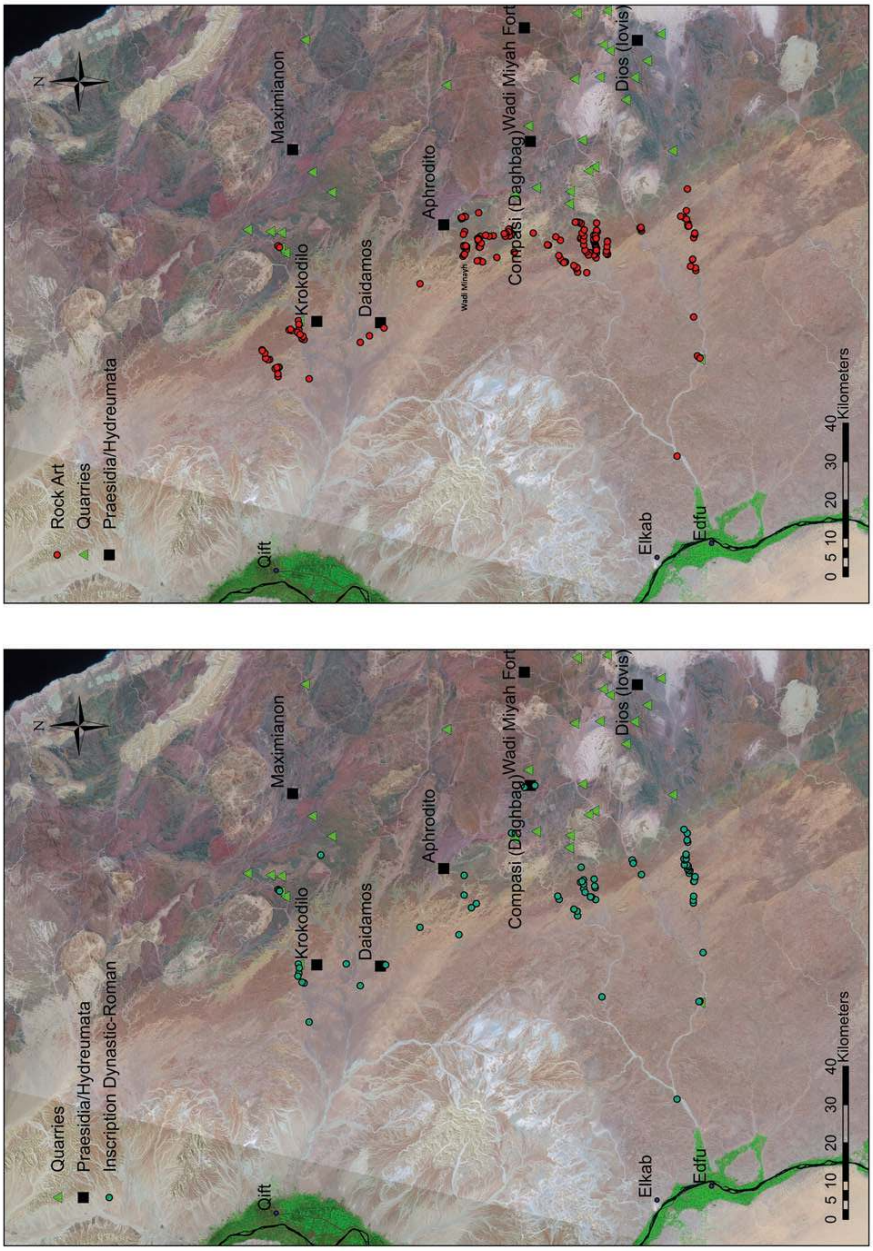

Fig. 2 Distribution of Dynastic-Roman activities in the Eastern Desert, contrasted to rock art sites.

from the Dynastic Period are mainly found along the main east-west leading wadis (Wadi Hammamat, Wadi Barramiya) and in a northwest to southeast direction, extending to the mines in Wadi Hammamat, Wadi Abu Mu Awwad, Bokari, and Wadi Barramiya.[15] Furthermore, in the Ptolemaic-Roman Period, petroglyphs and inscriptions are hardly found at all,[16] but still a strong presence of people can be stated through infrastructure, such as the construction of *hydreumata* or *praesidia*. This Dynastic, and later, distribution is due to the centrally organized expeditions in the Eastern Desert from the Dynastic period onwards, which were focused on the use of roads to the Red Sea Harbors (e.g. Berenice) or the exploitation of stone and metal deposits in this area.

The distribution of these chronologically categorized markers differs from the allocation and distribution of the majority of the petroglyphs. These are far more concentrated in the middle part of this area. They stretch along a north-south direction inbetween Wadi Minayh and Wadi Umm Salam and along a west-east direction in Wadi Umm Salam and the wadis north (Wadi Abu Mu Awwad) and south (Wadi Umm Hajalij). This distribution pattern appears to coincide with the different usages of this area. It can be assumed that the manufacturer of most of the petroglyphs used this part of the Eastern Desert not for rare exploitations of stone resources, or as routes to places in other regions, as is the case for the organized Dynastic to Roman expeditions, but as a normal seasonal subsistence base. This claim is substantiated by a closer look at the climatic development in this area during the Early to Mid-Holocene (ca. 12000–4200 bp). Proxy data, climatic models, and archaeological finds[17] demonstrate that that during this period the Central Eastern Desert had a wetter climate and, therefore, divergent environmental conditions compared to the current hyper arid climate. Taking into account the work of Arz et al. and Geb it was highly probable that during the Early Holocene, this area benefitted from both summer and winter rains.[18] This would have been an exceptional situation, as currently the summer monsoon only reaches the southern parts of Egypt, while the winter rains are found only in the north. So it was probably not until the mid-4th millennium BC that the modern hyper arid climate reached the Central Eastern Desert. Today, Egypt has hardly any precipitation other than in small parts of the northern fringes that get a yearly amount of 100–200 mm. Therefore, this central area with possible rain in winter and summer may have been very attractive to different groups of foragers and/or pastoral nomads from the Early Holocene onwards.

15 The identification of places with inscriptions is based on: Morrow et al. 2010; Rohl 2000; Rothe, Miller, and Rapp 2008.

16 This does not mean that during the Ptolemaic-Roman Period hardly any rock art was produced, but rock art that can definitely be identified as Ptolemaic-Roman based on iconographical style or datable objects is rare. There are, of course, a lot of camel depictions but they are assumed to be of a later date.

17 Broström et al. 1998, 3617–3618, full article; Haynes 1987 69–84; Haynes 2001, 78–81; Neumann 1989, 111–114, full acticle.

18 Arz et al. 2003; Geb 2000.

It can be assumed that this change in climate also was very conducive for the floral and, with it, the faunal environment. This desert area could have offered a favorable, albeit limited, subsistence base, at least for certain times in the year. To find out where those possible patches of grazing ground and fertile soil might have been, a closer look at the soils of the area can be helpful. In this context, it was found that in a north-south direction, parallel to the wadis containing most of the petroglyphs, suitable soils, so called Arenosols,[19] were detected (Fig. 3). These soils can build the base for seasonal pasture. Furthermore, at some distance behind Wadi Umm Salam, a larger area with even more favorable conditions was found. There, not only Arenosols, but also Fluvisols,[20] which are formed by alluvial deposits, were found. These are highly fertile soils – most of the Nile Valley consists of Fluvisols – that point not only to a presumably greater abundance of vegetation in this area, but also to the possible existence of water resources.[21] Thereby, the assumption is supported that mobile groups of people, including foragers and pastoral nomads, maybe moved into this area for subsistence reasons.

The movements of these groups can now be traced based on the distribution and density clusters of the petroglyphs. First of all, it was found that the area of the Wadi Umm Salam represented an extraordinary area both in the number of marked places, as well as in the number of figures executed. To explain this prominence of Wadi Umm Salam, it is likely that its position leading to the aforementioned area with favorable Fluvisols was one of the reasons. The same was proposed for the neighboring wadis. Surprisingly, the calculation of a 'least cost path' analysis, starting at the assumed entrance points to the desert in the North, close to Quft, did not lead through Wadi Umm Salam, but rather showed a straight northwest-southeast line, and the assumed pathways starting around Elkab did not take the main route through Wadi Barramiya (Fig. 3). The reason for this had to be found in the behavior of the people using this desert area. The piece that was missing in this early analysis was the necessity of people, while roaming this area for subsistence reasons, to find sources of water at a regular base. Taking this into account, one has to think about the distances people on the move can cover in a given time. The feasible distance that can be reckoned between water sources depends on the type of mobile group – forager, pastoral nomad, or other – that roams the area. For instance, Layton and Lenssen-Erz, give different estimates of the distances foragers could move daily, depending on whether it was a single person on the move (16–32 km); a whole group (including infants) changing their base camp (8–10 km); or small groups of people roaming for everyday subsistence, including finding water (10–15 km).[22] On

19 Arenosols in dry zones are sandy soils with a shallow humus accumulation created by Aeolian sands.

20 Fluvisols are soils with alluvial deposits, those may be from river sediments, lacustrine or marine.

21 http://esdac.jrc.ec.europa.eu/content/soil-map-soil-atlas-africa (visited on 13/06/2019).

22 Layton 1992, 68; Lenssen-Erz 2001, 267–270.

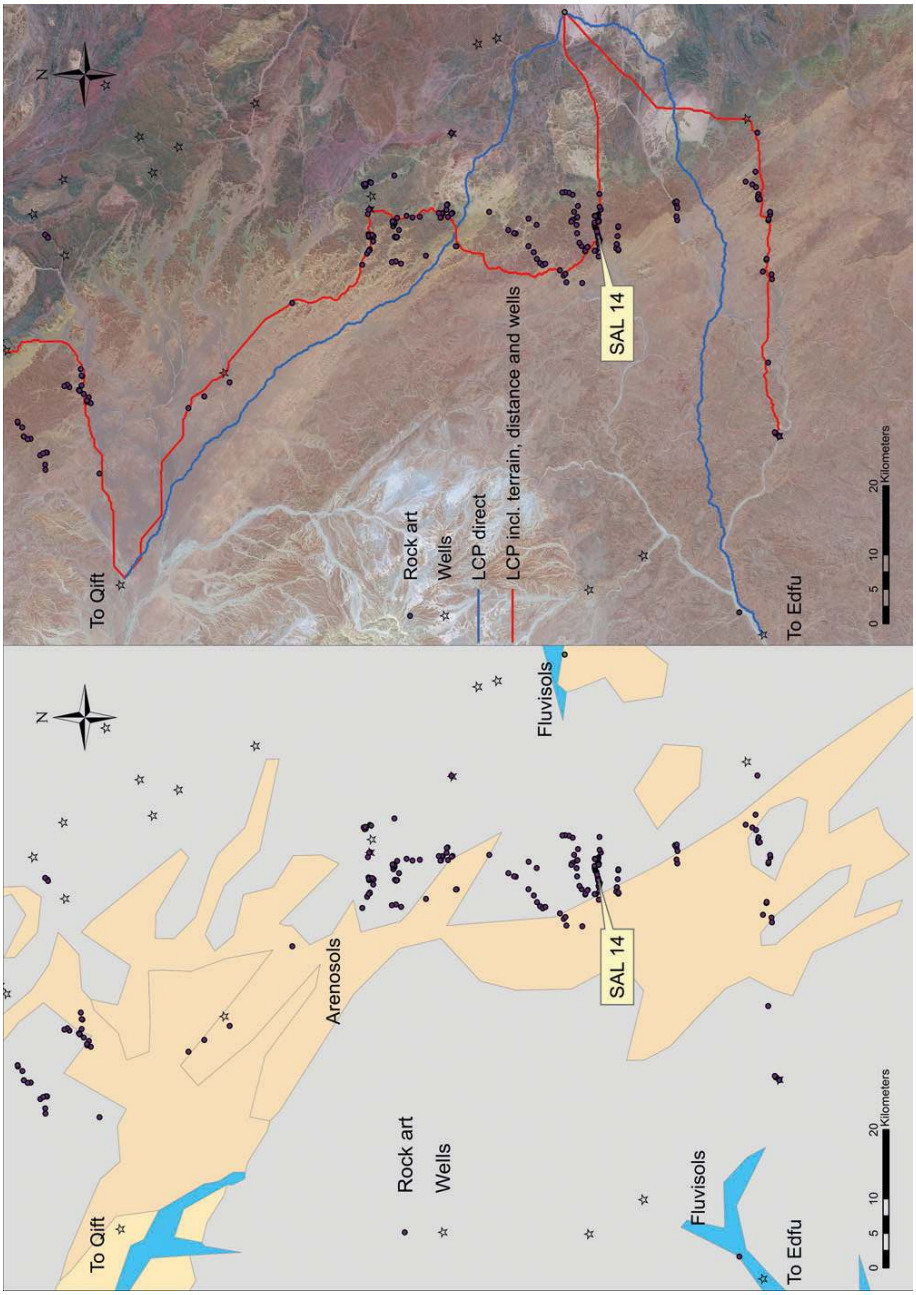

Fig. 3 Soils and 'Least Cost Paths' in the Central Eastern Desert.

the other hand, for pastoral nomads, a maximum distance of 15 km a day can be assumed, depending on what animals they had, e.g. cattle need water every second day.[23] Looking at the distribution of wells in the research area, which are probably from a later date, it can be stated that the mean distance between the known wells is around 30 km and, therefore, at the very edge of what mobile people, be it with or without animals, could bear (Fig. 4). Still, there is the possibility of the storage of surface water in the wadi drainages after longer periods of precipitation that can still be obtained today.[24] Thus, the wells would have probably only served as major water sources for longer and more permanent stays or for the gathering of larger groups.

Nonetheless, including these known water sources into the calculations of movement patterns changed the results a lot. Now, the 'least cost paths' leading from the assumed starting points in the Nile Valley to this easterly area show that the majority of the petroglyphs can be found along these 'least cost paths' (Fig. 3).[25] However, it also appeared that taking this into account, complete coverage of the area with sources of water was not possible, especially around the area of Wadi Umm Salam; over a distance of 60 km, wells and other sources of water were missing, a distance that is far too long for people who have no other water supply to travel through. This could have been counterbalanced by the so-called 'jaccuzi' at site SAL 14[26] in Wadi Umm Salam.[27] This pool, in combination with a small and shallow groove behind, could have functioned as a water hole, at least during rainy seasons and afterwards. Assuming this, a more complete coverage was maintained, with water bodies every 30 km within the area with rock art. Furthermore, this substantiated the assumption that rock art was executed in combination with activities executed by mobile people using the area as their normal living grounds. A look at the places that were used by those people can provide a better idea about the different uses of rock art in its spatial and social contexts.

5 Discussion – place

Relying on the work of Lenssen-Erz,[28] different categories for rock art sites were established based on a set of criteria derived from ethnological studies as well as rock art

23 Fricke 1969, 136-141; Gagnol and Afane 2010, 2–4; Payer 2018, chapter 1.5, Fütterung.

24 Gheith and Sultan 2002; Moneim 2005, 418–420; Luft 2010, 18 fig. 14.

25 Some divergences are probably due to the logic of the GIS calculation, rather than an indication of differences between pathways and rock art sites. There are some examples where the calculated pathways lead up the hills to the plateaus, while it seems more reasonable to assume that the not so steep wadi course was chosen instead, at least if larger animals (cattle, camels) would have accompanied the mobile groups.

26 The sites' names are according to the naming in: Morrow et al. 2010, 43–104.

27 Morrow et al. 2010, 63–64.

28 Lenssen-Erz 2001.

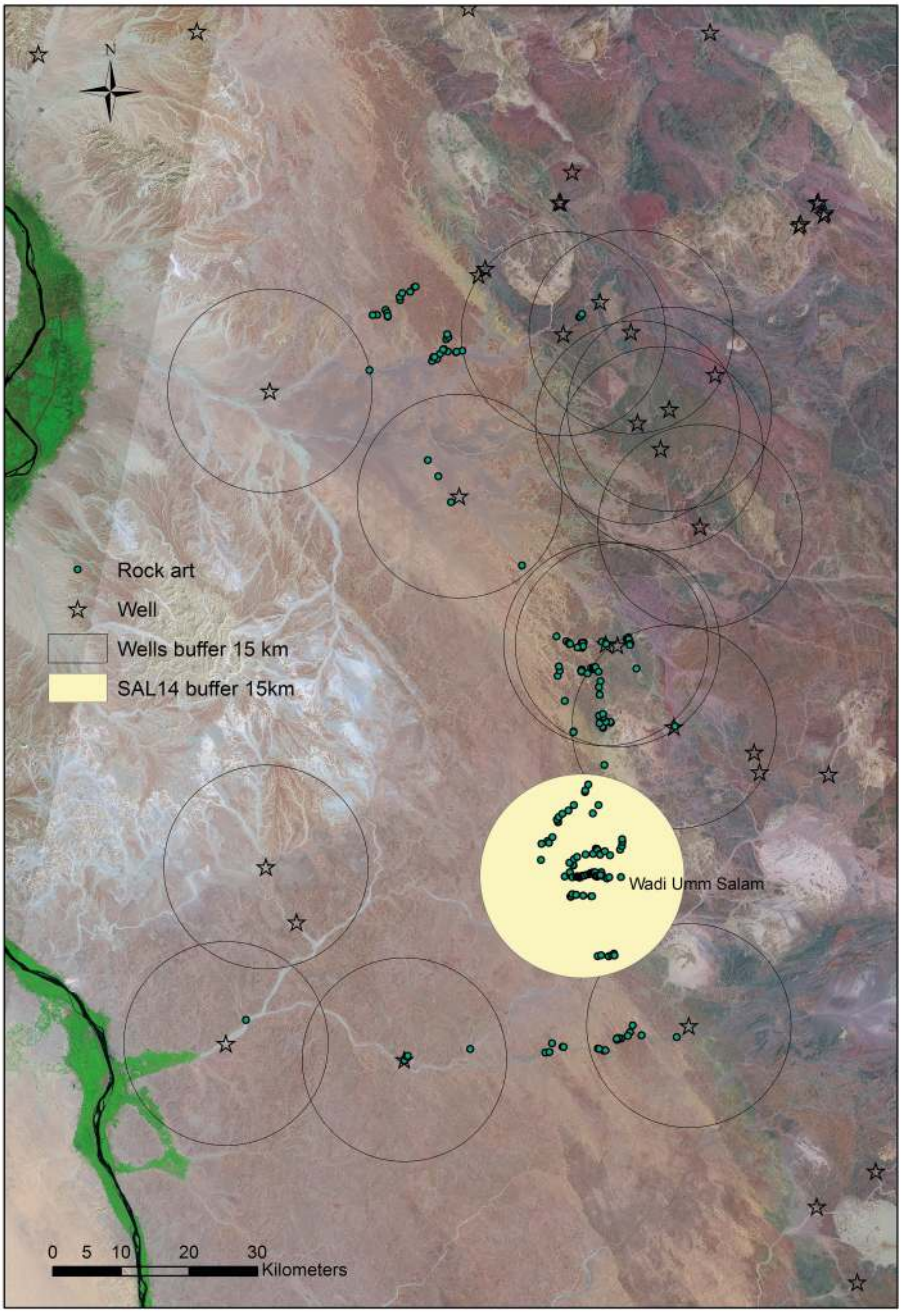

Fig. 4 Wells and water sources with 15 km buffer.

Classification	Number of figures
Low	0 – 28
Low-middle	29 – 68
Middle	69 – 125
High	126 – 247
Very high	248 – 422

Tab. 1 Statistic groups for number of figures per rock art site.

research. Deduced from this research, different criteria seem to have been crucial for the choices made by mobile groups to use a distinct place and put rock art on it. On the one hand, the infrastructural quality of the place and its topographical position, on the other hand, additional criteria like the amount of figures or their visibility, and the places themselves, can provide information about the mode of communication realized and, therefore, the usage of the rock art sites. The infrastructural criteria that were chosen comprised: easy access to the site, cave or shelter, permanent or temporary shade, and a distance of 10 km or less from the next water hole. The topographical position of the rock art site again is essentially related to its function, especially in conjunction with important topographical features. It was reasoned that plains and the courses of wadis can be categorized as less interesting topographical positions, while junctions, entrances of wadis, and slopes show a break in the usual landscape and could demand decisions about the direction to be taken and, therefore, can be understood as topographical features with the potential to be marked for providing and sharing this information. Another criterion constitutes the amount of figures executed per rock art station. It was assumed that places that were visited by larger groups or more regularly would show a higher number of figures, while places used by single persons, small groups, or for a singular stop would have a lower number. In this case, five categories were developed, from low to very high numbers of figures based on statistics with natural breaks (Tab. 1). The last criterion then, encompasses the visibility of the figures and their locations. It was supposed that the more visible the site and its rock art, the more public oriented it would have been in its communicative intent.

Depending on these criteria, different categories of places and place functions were deployed to classify the rock art sites in the Central Eastern Desert (Tab. 2). Altogether, five different categories were established, these are: marking points, temporary resting places, campgrounds, and collective and individual ritual places.[29] The marking points have the characteristic that they show no or only low infrastructural criteria, as it can be

29 See Lenssen-Erz 2001, 313–321.

	Infrastructure	Position	Communication
Marking Point	Insufficient basic provision	Close to prominent topographical features	Easily visible, public display of rock art, few pictures
Temporary Resting Place	Basic provision, simple accommodation for short periods, resources in sufficient proximity	No remarkable position	Visibility of place and rock art not mandatory
Individual Ritual Place	Simple accommodation for short periods, resources in sufficient proximity	Close to prominent topographical features	Not easily visible, few pictures
Campground	Good accommodation, resources in close proximity	Beneficial position with regard to resources	Visibility of place not mandatory, rock art either visible or not, many pictures
Collective Ritual Place	Good accommodation, resources in close proximity	Close to prominent topographical features	Easily visible, public display of rock art, many pictures

Tab. 2 Categories of rock art sites.

assumed that their main task was to provide information, not to offer good conditions for a stay. Their characteristics are, therefore, a low number of figures, but a location next to an outstanding geographical feature like a junction, entrance to a wadi, or a slope. They were probably used for providing information concerning the surroundings to those who passed by, whether for orientation, resources, or about territories of different groups living and roaming this area. The larger campgrounds, on the other hand, should provide good infrastructure that is needed for longer stays of small groups or for providing provisions to larger groups. A large number of figures points similarly to a campground that was in use for a longer time period or was visited on a regular basis. Being close in vicinity to a special geographical feature, on the other hand, does not seem mandatory. Temporary resting places again were harder to identify and show a wide range of possible characteristics. The main indicator is that they do not offer a good base for longer stays, especially in connection to shade and water. The assignment of places to the category of individual or collective ritual places, on the other hand, is challenging; while the statement can be made that they do not notably differ from temporary or more permanent campgrounds, their topographical position seems more important, as there should be a recognizable focus point for the ritualistic behavior.

To illustrate this range of rock art places and their functions, four examples are presented in detail. The first one is the aforementioned site SAL 14. This place not only exhibits all characteristics of good infrastructure, it also holds the highest number of

Fig. 5 Rock art at SAL 14, Wadi Umm Salam (line drawing).

figures of all the locations (422). Due to this and its superior quality of possessing a possible well, it can be assumed that the whole place held a special meaning in the early usage of this area, and that it was potentially used as a gathering point; a claim substantiated through the high number of probable prehistoric and Predynastic rock art motifs executed here, while there were hardly any signs of those stemming from the Dynastic or later periods (Fig. 5). Furthermore, the continued high density of rock art stations around this location, about 21 sites in a range of 800 meters, make it probable that this whole area of Wadi Umm Salam could be regarded as a campground or meeting point for a larger group or a variety of smaller groups.

The next example is site WAS 3 in Wadi Abu Wasil. This site yielded the second highest number of figures (299) and, apart from providing only temporary shade, it had all of the other characteristics of a good campground. This site is situated at the junction of two wadis, with a good view of the entrance to one of them. Moreover, it is one of the sites closest to the fertile Arenosols in this area, with the next well nearly 10 km away and, therefore, at the end of the potential daily range.

Interestingly, it shows a broad chronological range of figures. Next to very dark patinated petroglyphs, there are depictions of horses and camels, probably from the Ptolemaic-

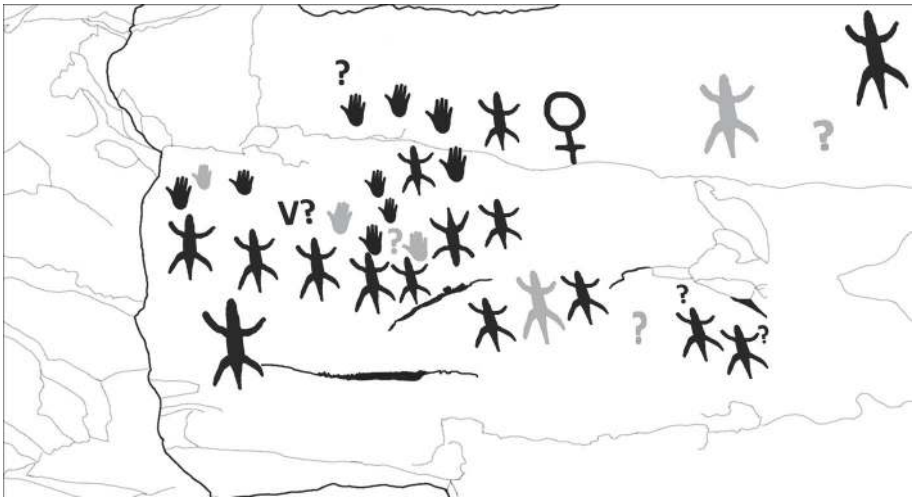

Fig. 6 Rock art of site ATW 6, Wadi Atwani (line drawing).

Roman to the Islamic period, but also modern inscriptions. Taking this chronological range into account, the high number of figures could be interpreted as the outcome of the very long usage of this place as a more or less temporary campground in the vicinity of possible pastures.

Turning now to the marking points, the first example, JEW-2 in Wadi Atwani, shows a 'classic' version. The whole site matches no infrastructural criteria and the lone rock holds only one figure. In this case, however, the placement seems to be the reason for the marking, as the site lies close to a junction in the wadi. Therefore, it seems probable that we could interpret this rock art site as a marking point that provides special information, possibly concerning further orientation in this area or referring to resources and territories for people passing by.

Another site in the Wadi Atwani reveals a very different picture. Site ATW 6 possesses not a single infrastructural characteristic, and is neither close to any interesting topographical points, nor does it have a small number of figures; with 110 figures, it belongs to the middle section in this regard. The importance of this place is that the main component of its figures are placed 15 meters above ground and show a repertoire that is unusual for this area, consisting of lizard or crocodile figures and hand stencils, all with a very dark patina (Fig. 6). This rock art resembles more the petroglyphs of el-Hosh that are dated to the 6th millennium BC and, therefore, to the Epipalaeolithic period. This, and the suggestion that the height of the petroglyphs is due to a severe change in the environmental circumstances of the location, supports the assumption that this site has been completely altered, and that today the site looks quite different from the one that

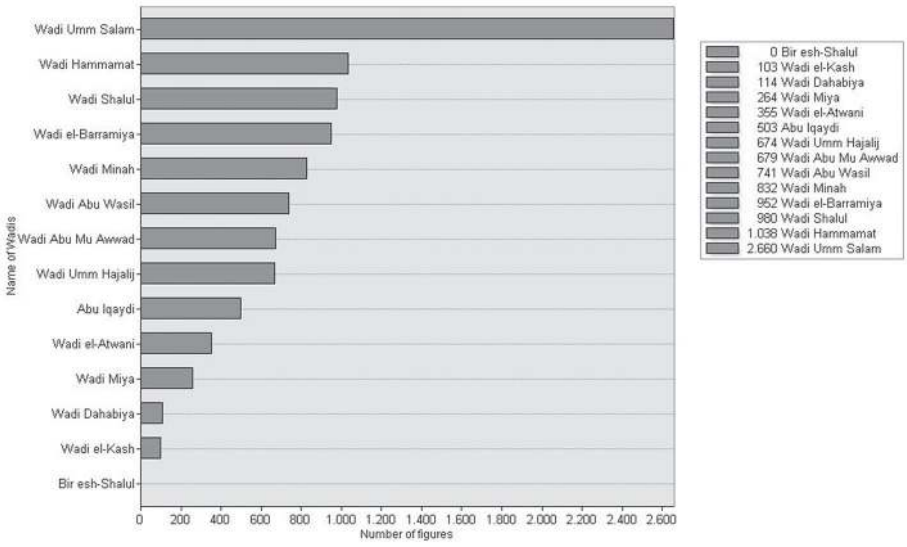

Fig. 7 Number of figures per wadi.

existed when the rock art was executed, making it difficult to decide what its original place category was.

6 Discussion – motifs and figures

After a consideration of the spatial scale of the landscape and locations, the figures themselves should also be regarded. Differences in distribution and density can help to show the different usages and preferences of this area through time and by different groups of people.

As expected, the majority of figures are found in Wadi Umm Salam, which is due to its high number of rock art sites. This characteristic is probably connected to its aforementioned exceptional position as a water source and an intersection (Fig. 7). The larger number of figures in Wadi Hammamat and Wadi Barramiya seems to be equally based on their function as main west-east links between the Nile Valley and the Red Sea. While Wadi Shalul establishes a chronologically late linkage between the well in Bir Minayh and the probable pastures along the plains in the west, Wadi Minayh, in turn, leads to the aforementioned well and was presumably frequently visited from early times onwards.

Apart from the distribution, it is apparent that animal figures were the majority of the petroglyphs recorded in the Central Eastern Desert (Fig. 8). Interestingly, the highest numbers of petroglyphs show animal species that are naturally found in this area

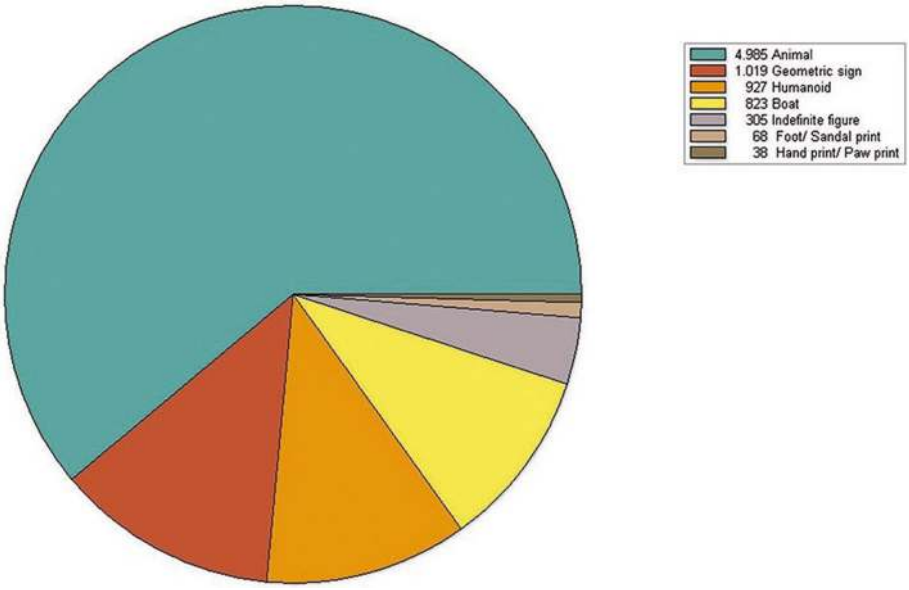

Fig. 8 Number of motifs.

(Fig. 9). These include ibex, ostrich/bustards, and wild asses/donkeys. This may provide evidence that motif choices in rock art might not have been random, without reference to the distinct environment they were executed in, as is sometimes thought. This would also fit with the fact that domestic animals like camels and dogs could also be found in a high number of petroglyphs, which is probably due to of their presence in the area, attending hunters and/or pastoral nomads. Turning now to the distribution and density of the different motifs, it can be stated that while nearly all of the rock art figures, including the boats, humanoids, geometric signs, and animals show a high density in Wadi Umm Salam, some of the animal motifs show a different distribution or different density clusters in other locations (Figs. 10, 11). In some cases, this distinct demarcation seems to be chronologically grounded, but a group specific or spatial centered difference cannot be ruled out.

While the focus on ibex, ostrich/bustard, and wild ass/donkey depictions at Wadi Umm Salam could be explained via the extraordinary meaning of SAL 14 and, therefore, the whole wadi, the density areas of the other animal motifs require a different interpretation. So, the clustering of horses and camels at Bir Minayh and Wadi Shalul seem to reflect a chronologically based difference. As horses and camels are one of the few animals whose introduction to Egypt can be dated to the 17th century BC for the

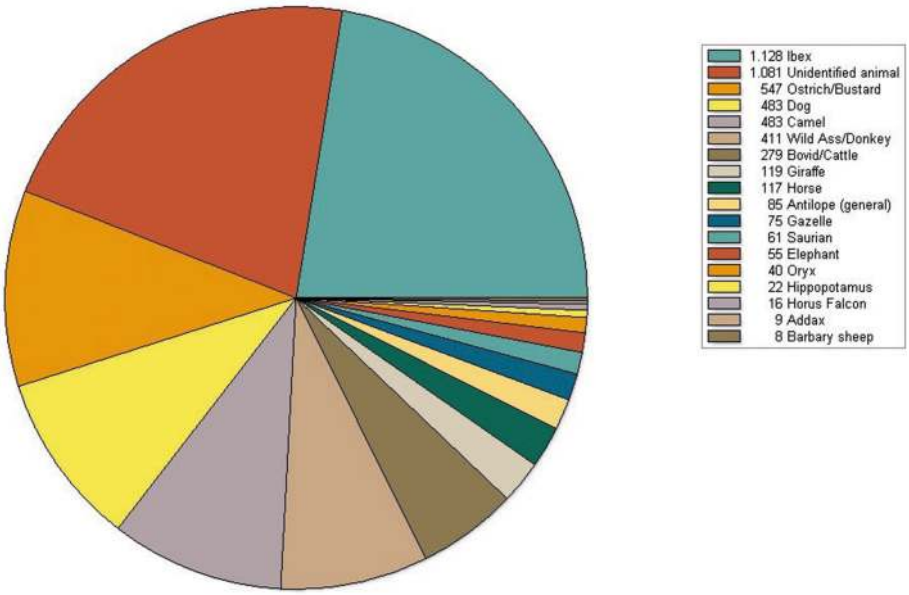

Fig. 9 Amount of animal species.

horse[30] and around the 4th century BC for the camel,[31] these pictures seem to refer to the movements and life paths of nomads roaming this area after the Second Intermediate period.

Chronologically speaking, another extreme can be found in the density mapping of saurians, probable lizard or crocodile depictions. These motifs show density clusters in Wadi Atwani, where all of them, as previously mentioned, are found at heights of 15–20 meters above ground. This, and their low occurrence at other sites in the area, and a strong resemblance to Epipalaeolithic rock art, makes them a potential candidate for a very early dating.

Cattle and elephant representations, on the other hand, could be manifestations of a chronological, but also a cultural demarcation. For the depictions of elephants, the density clusters are in Wadi Hammamat, close to ruins of a Ptolemaic or Roman date and in Wadi Barramiya. Both of these wadis build strong west-east-connections between the Nile Valley and the Red Sea with its harbors. It is proposed that the depictions of elephants concentrated in these two areas are connected to the capture and transport of war elephants from the southern regions through the ports of the Red Sea in the Ptolemaic Era, rather than to the depiction of wild animals from earlier times.

30 Boessneck 1988, 79–81.

31 Budka 2004, 39–42.

Fig. 10 Density analysis of motifs showing different animal species in the Central Eastern Desert: Ibex/Wild Ass/Ostrich, Elephand, Lizard, and Camel/Horse.

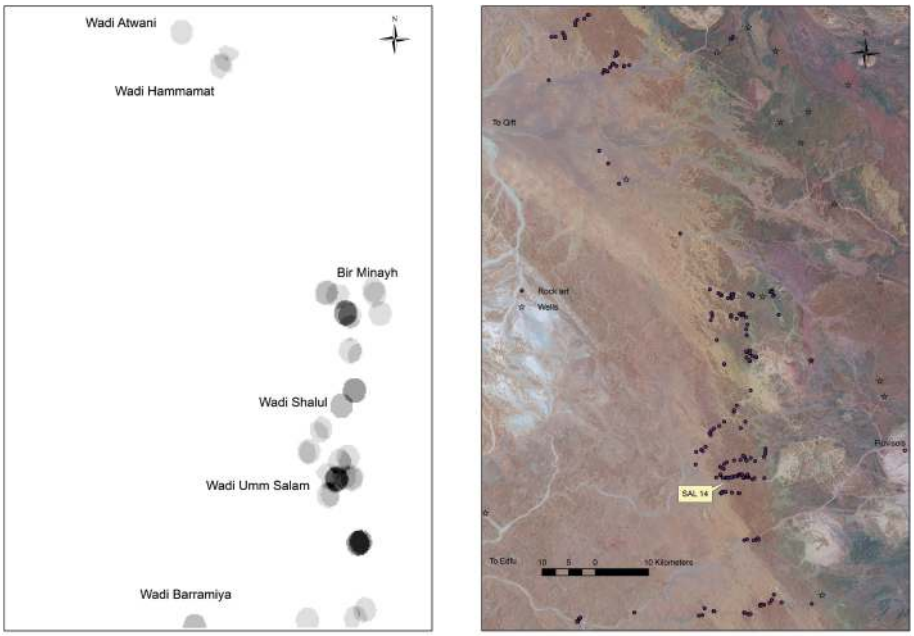

Fig. 11 Density analysis of motifs showing different animal species in the Central Eastern Desert: left = Cattle/Bovid and right = area map.

To explain the distribution and concentration of cattle depictions is more difficult. As they are more or less evenly distributed all over the Central Eastern Desert and show some additional focal points to the one in Wadi Umm Salam. The fact that they are all rather close to the Arenosols should be considered.

Those areas would build the most probable pasture ground for wild bovids roaming from the Nile Valley and for pastoral nomads. Furthermore, as some of the cattle depictions show similarities to those found in Nubia, it could be argued that they were signs used by groups from the south who came to the Central Eastern Desert.

7 Conclusion

Placing to the side the usual discussion about the chronology and meaning of rock art in Egypt, it seems quite fruitful to look at the spatial dimension of the rock art in all its facets. This analysis shows that the petroglyphs of the Central Eastern Desert were executed by different mobile groups in the area that began probably sometime in the Epipalaeolithic period. The analysis of the spatial landscape has shown that the people

producing rock art were probably using this area on a seasonal basis, moving between the water bodies and fertile areas, leaving rock art along their way. The choices and characteristics of rock art sites further reflect a broad range of those activities, such as temporary stays, longer or repeated gatherings of groups, and marking the landscape to share information and communicate with other groups. The differences in distribution and focal points of the motifs, again, show the range of preferences and usages of this area by different groups in time and space, and make it possible to argue that the rock art found here was produced by different groups to mark the places they used with their appropriate signs.

When asking which (archaeological) culture was intimately connected to the rock art, it can be said that in this regard, probably no limitations can be found. Rather, it can be assumed that the rock art was created by a variety of groups who used the Central Eastern Desert, whether in a more permanent or only temporary way. These groups started to mark their world and to communicate their relation to it visually – a practice that has remained in use for millennia.

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Illustration and table credits

ILLUSTRATIONS: **1** Base map: Tri–Decadal Global Landsat Orthorectified Enhanced ETM+ Pan–Sharpened (1999–2003) courtesy of the U.S. Geological Surveys. **2** Base map: Tri–Decadal Global Landsat Orthorectified Enhanced ETM+ Pan–Sharpened (1999–2003) courtesy of the U.S. Geological Surveys. **3** Base map: Tri–Decadal Global Landsat Orthorectified Enhanced ETM+ Pan–Sharpened (1999–2003) courtesy of the U.S. Geological Surveys; Soil Data: Dewitte et al. 2013; Jones et al. 2013; Spaargaren, Schad, and Micheli 2010. **4** Base map: Tri–Decadal Global Landsat Orthorectified Enhanced ETM+ Pan–Sharpened (1999–2003) courtesy of the U.S. Geological Surveys. **5** Drawing: Ute Döhl/R. Döhl, based on Photos no. GP1383, PD0213, MM1037, MM1039 in: Morrow et al. 2010, CD. **6** Drawing: U. Döhl/R. Döhl, based on Photos no. MM0546, GP0834, MM0548, in: Morrow et al. 2010, CD. **7–9** R. Döhl (ArcGIS). **10** Drawing: U. Döhl/R. Döhl, based on Photos no. MM0546, GP0834, MM0548, in: Morrow et al. 2010, CD. **11** Drawing: U. Döhl/R. Döhl, based on Photos no. MM0546, GP0834, MM0548, in: Morrow et al. 2010, CD. **TABLES:** **1** R. Döhl. **2** R. Döhl (partly based on: Lenssen-Erz 2001).

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Sacred Cavescapes of Socotra

Summary

Caves are continually changing landscapes, not in a physical sense, but in a cognitive one. The ways in which the space within caves is experienced is multisided, ranging from feelings of reverence to acute fear. The exploration and marking of caves plays a fundamental role in changing this by changing our perceptions of the physical extent of the space within caves and the meanings that we afford that space. Unfortunately, other than the limited anthropogenic evidence found within the caves, it is difficult to fully grasp how different spaces within caves are being socially, culturally and spiritually appropriated through time. In this paper I will use two caves from the island of Socotra to look at how the markings within them can give us an insight into how these changes were enacted.

Keywords: Socotra; Dahaisi Cave; Hoq Cave; sacred; cavescapes; cultural appropriation; spiritual appropriation

Höhlen sind sich ständig wandelnde Landschaften, nicht im physischen Sinne, aber im kognitiven. Die Art, wie der Raum innerhalb von Höhlen erfahren wird, ist vielschichtig und reicht von Gefühlen der Ehrfurcht bis zu akuter Angst. Das Erforschen und Markieren von Höhlen spielt eine fundamentale Rolle, dies zu ändern, indem sie unsere Wahrnehmung der physischen Ausdehnung des Raumes und seine Bedeutungen verändern. Abgesehen von wenigen in Höhlen gefundenen anthropogenen Belegen, ist es leider schwierig zu erfassen, wie unterschiedliche Räume in Höhlen im Laufe der Zeit sozial, kulturell und spirituell angeeignet wurden. In diesem Artikel werde ich zwei Höhlen auf der Insel Socotra verwenden, um zu untersuchen, wie Markierungen in ihnen uns zeigen können, wie diese Veränderungen stattfanden.

Keywords: Sokotra; Dahaisi Höhle; Hoq Höhle; heilig; *Cavescapes*; kulturelle Aneignung; spirituelle Aneignung

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1 Introduction

Over the centuries the mysterious, otherworldliness of caves coupled with their sublime, visual grandeur has inspired religious awe around the world. Indeed, caves are often associated with a divinity and have played a prominent role within many of the world's major religions and spiritual traditions.[1] In this paper I look at how, by using a phenomenological approach coupled with the topographical and morphological characteristics of caves, we can understand the appropriation of space within caves. In particular, this paper will explore why specific spaces within caves have been socially, culturally, and spiritually appropriated and how we may possibly recognize this. To do this, I will be using two subterranean features from the island of Socotra, the cave Hoq, and the cave Dahaisi, looking at how their physical space relates to the anthropogenic evidence found within them. This will be coupled with archaeological, ethnographic, and historical data to allow for more nuanced aspects of this cave space to be explored.

2 Location

The island of Socotra is situated approximately 135 Nm (nautical miles) northeast of Cape Guardafui, Somalia and 205 Nm south of Ras Fartak, Yemen (Fig. 1). This strategic position at the entrance to the Red Sea forms a nodal point for all shipping travelling between the continents of Africa and Asia, a fact that is reflected in its rich historical record. The island is the largest of an archipelago in the Arabian Sea that includes ʿAbd al-Kūri, Samha, and Darsa. Socotra is approximately 135 km in length, 42 km in width and has a surface area of 3650 sq. km, making it one of the largest of the Arabian islands.[2] The island is characterized by the Hagher, a granite mountain range that stretches across its center in a west south-westerly to east north-easterly ridge and rises up to 1550 m above sea level.[3] Bordering the Hagher is an undulating plateau of limestone that ranges from 300 m to 900 m and covers almost half of the island's surface.[4] The limestone plateau is also characterized by numerous karstic features, which include large natural rock cavities and several extremely large cave systems.[5] The natural rock cavities, or tafoni (sing. tafone), are formed through a process of weathering, which creates cavities in the rock that can range in size from tiny pits to large openings. The larger tafoni have for several centuries been used by pastoral Bedouin as enclosures for their animals and general living quarters.

1 Crane and Fletcher 2015, 147.
2 Edgell 2006, 423.
3 Miller and Morris 2004, 6.
4 Beydoun and Bichan 1970, 414.
5 Geest 2006, 7–8.

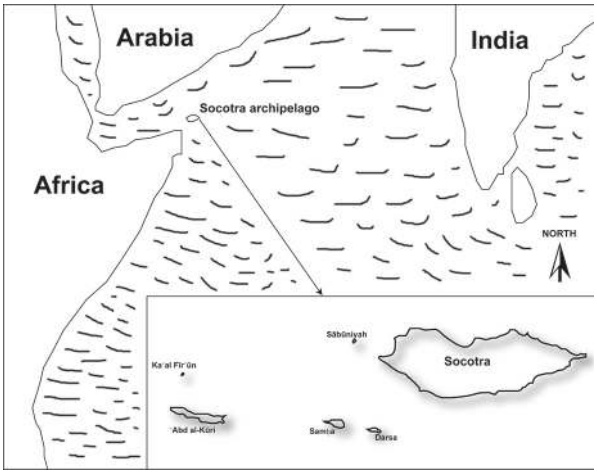

Fig. 1 The location of the Socotra Archipelago.

Situated within the Inter-Tropical Convergence Zone, Socotra is influenced by two distinctly different monsoon seasons, the SW (winter) and NE (summer) monsoon seasons.[6] During the SW monsoon period, from June to September, hot and dry winds scour the island causing the seas to become so rough that the island remains inaccessible to all maritime traffic. During this period, water is particularly scarce, as most available water resources dry out and life becomes extremely hard for the inhabitants.[7] During the NE monsoon season, from October to April, the wet tropical monsoon winds bring high rainfall and cause temperatures to drop. While the seas become relatively calm, during most of this period it is only possible for shipping to safely access the island between March to May, August, and September. The greatest precipitation during this period mainly occurs during October to January, after which rains gradually begin to decrease with the onset of the SW monsoon. Summer rains occur mostly along the northern part of the island, although in April and May they can occur in the south.[8] The average annual rainfall varies greatly between the coast and interior plains, which receive approximately 170 mm, and the mountains that receive approximately 1500 mm. Rainfall in the mountains generally occurs in the form of short convection thunderstorms that result in violent flash floods. The high precipitation in the mountains is also the result of dew, drizzle, and fog that, especially during the SW monsoon, can contribute up to 357–567 mm of moisture.[9] This precipitation is especially important during the dry season as it generates a slow but persistent surface runoff, which is often the only source of water in the Hagher and surrounding limestone plateaus.[10] The apparent regularity of

6 Fleitmann et al. 2004, 27–43.
7 Morris 2002, 16.
8 Mies and Beyhl 1996, 40.
9 Scholte and Geest 2010, 1514.
10 Rossini 2014, 29.

the rainfall as outlined here is not always a true reflection of life on the island, and it is not uncommon for the NE monsoon rains to fail, an event which has, and continues, to bring extreme hardship to the islanders. Indeed, in 1847 we learn that a severe drought caused such a huge loss of life that the island was almost completely depopulated.[11]

3 Historical background

Socotra's rich historical narrative is inextricably linked to both its strategic position at the entrance to the Red Sea, as well as the islands abundant supplies of incense, aloes, and Dragon's Blood (Indian cinnabar). That Socotra supplied the world with these products is well documented by numerous authors.[12] The earliest detailed historical account of the people residing on Socotra was written by an anonymous Greek trader from Egypt in the mid-1st century AD in a book entitled the *Periplus Maris Erythraei*.[13] According to the *Periplus*, Socotra was under the rule of the 'king of the frankincense-bearing land' (*Hadhramaut*), and was being leased to Arabian merchants. Moreover, we learn that these merchants, together with other traders from ancient Greece and India, resided on the island's north coast.[14] During the medieval period there are prolific references to Socotra in the writings of Muslim, Chinese, and European geographers, navigators, and travelers. These accounts tend to be primarily concerned with the procurement of aloes, dragon's blood, and ambergris and the presence of a Christian population. The earliest account concerning Christians is in the 6th century AD, when the Greek Nestorian Christian monk and merchant from Egypt, Cosmas Indicopleustes (fl. 6th century AD), refers to having met Greek Christians from Socotra in Ethiopia.[15] While the exact date for the Christianization of Socotra is uncertain, according to Müller,[16] it took place no earlier than the 4th century AD. The presence of Christians on Socotra attracts a lot of attention in Muslim and European accounts from the 6th to 17th centuries AD.[17] However, it is not until the 15th century that we learn from Portuguese and English sources that due to persecution by the Muslim rulers, the Christian inhabitants or 'true ancient naturals' lived in the mountainous interior.[18] This is particularly interesting in that, according to Ibn al-Mujāwir (d. AD 1292), there were two groups of people on the island, those who dwell on the plains and those who dwell in the mountains.[19] This geographical division is reiterated throughout Socotra's historical narrative and has come

11 Hunter and Sealy 1986, 113.
12 See Jansen van Rensburg 2016, 6–16, for a comprehensive review.
13 Casson 1989, 69.
14 Casson 1989, 169–170.
15 Indicopleustes and McCrindle 1896, 19.
16 Müller 2001, 146–147.
17 See Biedermann 2006 for a comprehensive account.
18 Kammerer 1936, 25–48; Roe and Foster 1967, I, 33–34.
19 Ibn al-Mujāwir and Rex Smith 2008, 264.

to represent two classes of people, namely the indigenous mountain dwellers and the foreign coastal dwellers. Today, the Socotri still differentiate between people according to whether they live in the mountains or on the coast.[20] The interior mountain dwellers were, according to several travelers' accounts, troglodytes, who only ventured down to the coast to trade or during times of extreme drought. Despite being labelled troglodytes, it is and was rare to find the interior population actually living in caves, instead many of the dwellings and enclosures were large walled tafoni openings.[21] This was collaborated during recent surveys undertaken by the author, which found that where caves were being used, the passage into the cave had been walled off. The reason for this is due to local folkloric beliefs, in which caves are believed to be inhabited by spirits. Moreover, there is a very real belief that persists today that a large white snake lives deep within caves, killing livestock and people foolish enough to venture into the caves.[22]

4 Archaeological exploration

Socotra's rich historical narrative has led to a number of archaeological expeditions, particularly over the last decade. Many of these earlier expeditions concentrated their efforts on Socotra's northern coast, locating several Islamic settlements and six undated rock art sites.[23] In addition, Russian expeditions have also discovered evidence for a pre-Islamic settlement dated to the ca. 1st to ca. 4th centuries AD,[24] as well as stone tools believed to be from the Neolithic and Oldowan period.[25] This notable bias in recording sites along the northern half of Socotra was addressed in 2001 when an Australian expedition undertook an archaeological survey of the southern part of the island, discovering a number of unrecorded dwellings and burial sites of undetermined age.[26]

Despite these numerous expeditions, there had been virtually no archaeological explorations of the caves found throughout the island. This situation was radically changed with the investigations of Socotra's cave systems by the Socotra Karst Project, whose first speleological exploration uncovered one of the most important archaeological discoveries in a cave situated on the north side of Socotra. Deep within this cave a wooden tablet with Palmyrene script, incense burners, pots, and numerous Indian and Greek inscriptions dated between the ca. 1st century BC and ca. 6th century AD were found.[27] This corpus of finds made up one of the richest sources of information for the investigation of the ancient seafarers visiting Socotra, and its involvement in the Indian Ocean trade

20 Morris 2002, 223.
21 Bent 1900, 365
22 Naumkin and Porkhomovsky 2000, 151–155.
23 Bent 1900; Shinnie 1960; Doe 1992; Naumkin 1993.
24 Naumkin and Sedov 1993 605.
25 Naumkin and Sedov 1993 537.
26 Weeks et al. 2002 95–125.
27 Strauch 2012.

networks. Due to the various ship motifs, incense burners, and auspicious symbology found within the cave, it is considered to have been a mariner's religious sanctuary.[28] Evidence for the ancient indigenous inhabitants of Socotra, however, was noticeably lacking. This situation changed with the discovery of Dahaisi Cave, where initial findings appeared to show that the ancient interior population had some form of complex administration that may have been tied to their syncretic religious beliefs.[29]

Having outlined the historical and archaeological background, it is possible to delve deeper into the two caves that form the case studies for looking at how and why specific spaces within caves were social, culturally, and spiritually appropriated. To do this is necessary to place the anthropogenic traces of these visitors within the topographical and geomorphological elements that make up these cave landscapes. However, before describing the elements that constitute the subterranean landscape of these two caves, one should remember that these visitors were not able to see the passages, chambers, and speleothems as we do nowadays with our powerful torches. Instead, they would have had to have relied on the flickering dull light emitted from wooden torches, remnants of which have been found in Hoq Cave.[30] The extent and nature of this illumination would have played a significant role in the perception of the cave, transforming every wall, crack, fissure, and speleothem into a phantasmagorical landscape that would have been very different to that experienced by us. Moreover, the extent of the illumination provided by the torches used would have played an important role in the ways in which past people navigated through caves.[31] According to Pastoors and Weniger,[32] the network of movement through caves relates to the amount of illumination provided by a torch, which was calculated at approximately four meters. However, due to the varied topography within a cave, it would still be difficult to determine the exact amount of illuminance essential for controlled movement. Nevertheless, it is clear that passage walls, speleothems, and other natural features are likely to have been used as signposts, guiding people along defined routes to specific parts of the cave. Consequently, when looking at the topographical and geomorphological elements of the Hoq and Dahaisi caves, my focus will be on both the archaeological remains and the illuminated natural landscape.

5 Hoq Cave

Hoq Cave is situated on Socotra's north coast, approximately 33 km west of the closest historical anchorage. The entrance to the cave lies midway up the side of a karst plateau,

28 Dridi 2002, 589.
29 Jansen van Rensburg and de Geest 2015, 417–430.
30 Dridi 2012, 228.
31 See Rouzaud 1997, 257–265.
32 Pastoors and Weniger 2011, 382.

and is clearly visible from the shoreline when arriving from a northeast direction. Access to the cave is possible by walking up a steep path towards a flat plateau situated 50 m below the entrance. Here, according to local informants, the old village of Hoq was located until it was abandoned a few generations ago due to the drying up of fresh water resources inside the cave entrance.[33] While no archaeological work has been done to investigate this village, according to our guides, it had been occupied for several generations. Consequently, it may be that this village was part of an earlier pilgrimage to the cave, although as of yet there is little evidence to support this.

Clambering up 50 m, one reaches the entrance of the cave, although one must still scramble over a large soil deposition at the entrance of the cave in order to enter or see into the cave. The cave is approximately 3.1 km in length and consists of an enormous horizontal main gallery, up to 100 m wide and 30 m high that runs for around 2.5 km in a straight line from the entrance at a very slight angle (Fig. 2). The entrance is only 25 m wide and a hardened pathway leads downwards toward a short stone wall built up against a large column that provides just enough room for a human to comfortably pass. To the right are a number of man-made water basins constructed from broken stalactites and stalagmites. Approximately 200 m from the entrance daylight eventually begins to fade and one finally reaches the *limite d'éclairement*,[34] or the point at which it is necessary to have some form of light. Interestingly, it is at this point that that the local guides refused to go any further, due to their fear of the spirits within the cave. Moreover, within this area there are scatters of contemporary and medieval ceramic vessels dated between the 10th and 15th centuries.[35] Beyond this point, however, there is a distinct absence of any material later than the 6th century AD.

Once entering the darkness of the cave, it is possible to make out an indistinct pathway that appears to follow along the middle of the passage, skirting several speleothems until one reaches a side gallery approximately 500 m from the entrance. The gallery is comprised of a number of sharp, narrow squeezes that makes access to the end of this gallery particularly difficult. In spite of this, at the end of the gallery one can find the first Brahmi inscription, dated to the mid-2nd century AD. Interestingly, the scribe that etched his name here also left his mark much deeper in the cave, where access is much easier. Whatever drove this scribe to crawl into this side gallery to write his name may never be known, but the difficulty in getting to this point and that no other inscriptions were found there would indicate that this was a very personal motivation. Perhaps the need to claim ownership of this gallery or to enact some form of secretive ritual.

Passing this side gallery, the width of the cave narrows to approximately 20 m, after which the main gallery opens up into what has been dubbed 'the pleasure dome'. Within

33 Geest 2012, 236–237.
34 Rouzaud 1997, 259.
35 Dridi 2012, 222.

this area there are gigantic stalagmites, stalactites, and columns that give this gallery an almost cathedral like aura. This ecclesiastical impression is further supported with the presence of two incense burners that were found on top of stalagmites, one near the entrance and one mid-way into the gallery. Both of which have evidence of having been used, presumably for light. The pathway appears to follow a sinuous route through this gallery that once past the first incense burner, curves to the right, passing several large speleothems and the second incense burner, before straightening out into the 'Tub', a large mud-filled sinter basin. The lack of any inscriptions or drawings within this gallery is surprising, although it is possible that this is due to the lack of systematic investigation.

Having passed through this gallery, one is required to cross a mud pool and climb up a steep calcite slope that leads into two galleries dubbed 'the sanctuary', and 'the crystal floor'. Entering into these galleries, it is clear why these names were chosen as, in addition to the array of large stalactites, stalagmites, and columns, both these galleries contain an impressive variety of delicate and beautiful secondary calcite deposits that include fine crusted stalagmites, soda straws, and gypsum needles.[36] Importantly, this was also the area in which a plethora of Indian, South Arabian, Ethiopian, Greek, and Bactrian inscriptions and images dated to between the 1st century BC to the 6th century AD were found spread over the floor, walls, and speleothems. In addition, several incense burners, shells, torches, and a wooden tablet inscribed in Palmyrene were found. Amongst these findings it is also possible to make out the imprints of several bare footprints left behind by the scribes as they made their marks within the cave. Several hundred meters from the entrance to the sanctuary, the cave appears to end at a large calcite wall that is replete with both drawings and inscriptions. However, at the base of this wall is a narrow gap, 50 cm wide and two meters long, which provides access to the final 200 m of the cave. Within this section of the cave are several pottery fragments, the remains of torches and, interestingly, only Indian inscriptions.

What is most striking is that, other than the inscriptions in the side gallery, there is very little indication of the richness of Hoq Cave until one passes the mud-filled pool and climbs up into 'the sanctuary'. Why this particular area was chosen over others, and how it was that such a wide variety of different cultural groups all converged on this specific area deep within Hoq Cave is certainly interesting. Did it have something to do with being able or willing to venture approximately 1.4 km into the cave?

36 Geest 2012, 240.

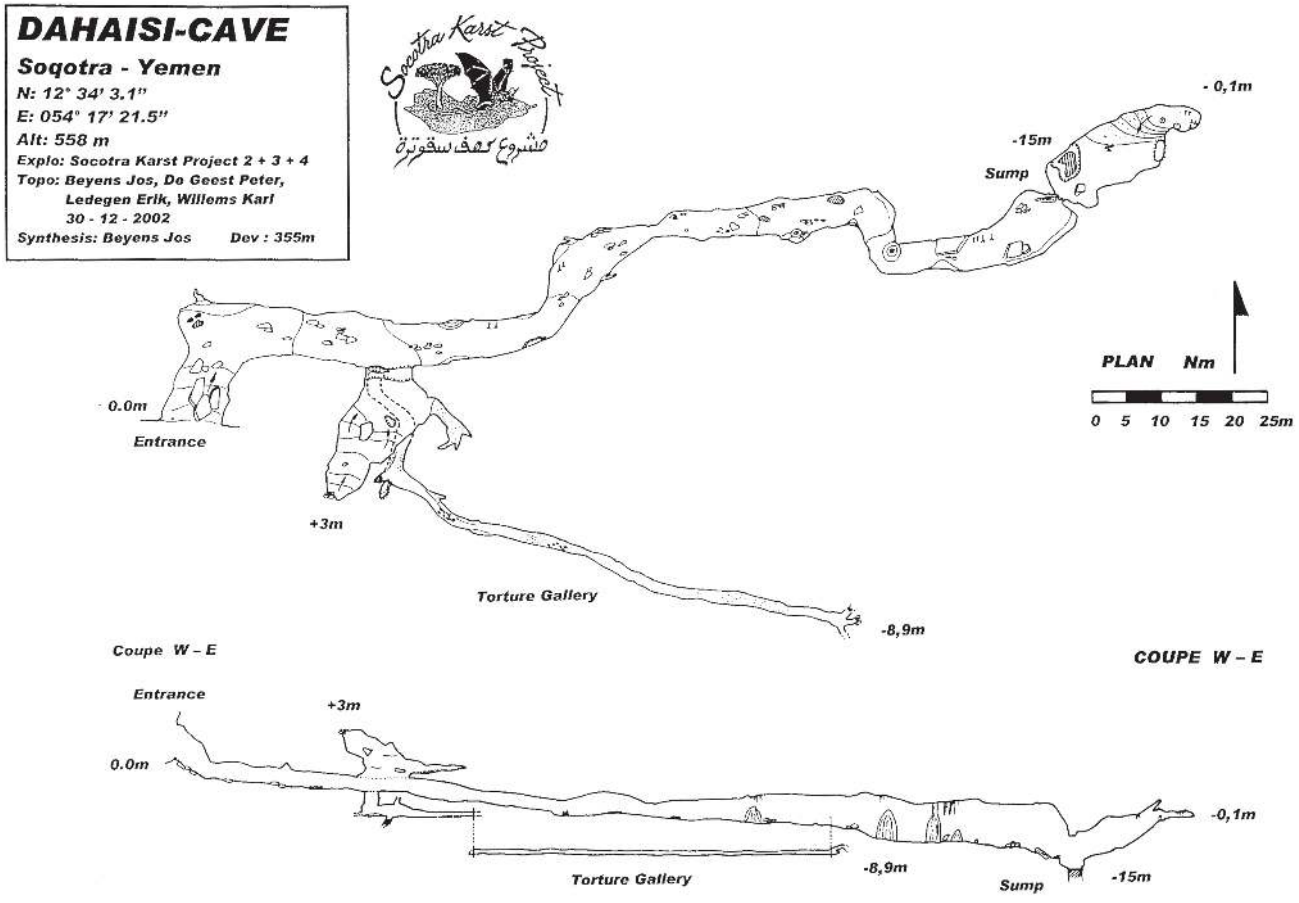

Fig. 2 Plan of Hoq Cave.

6 Dahaisi Cave

Dahaisi Cave is located in the eastern interior of Socotra on the Mōmi Plateau at an altitude of 588 meters above sea level. The cave lies at the base of a limestone outcrop on the northeastern edge of a shallow valley. A non-perennial stream runs along the valley floor in a northeasterly direction, before it enters Dahaisi Cave. The limestone outcrop within the vicinity of the cave is riddled with holes, fissures, and slab-like pools that fill with water after the monsoon rains. These features are the only source of water in this area, although they rarely supply enough water for more than a few months into the dry season.[37]

The entrance to Dahaisi Cave is five meters high and ten meters wide, yet it is only visible when approached from a southerly direction, and then only at a distance of approximately 100 m. Entry into the cave involves clambering down a series of large rocks and relict speleothems that appear to be related to the collapse of what was an earlier, probably larger, entrance. The main passage branches right almost immediately after entering, and one need only travel 25 m before reaching the *limite d'éclairement*. It is at this point that a side passage with a vertical pit branches off to the south. The upper part of this passage forms a small chamber and the lower part a long narrow conduit, which runs east until it terminates in a small boulder-filled chamber. During the wet season this passage dubbed 'the torture gallery' by the cavers who first mapped this cave, drains a small stream (Fig. 3).

The main passage is approximately two meters high and five meters wide and extends down a gentle slope in a southwest-northeast direction. Having travelled approximately 50 m straight along the main passage, it begins to curve slightly to the north. At this point the passage narrows to around two meters in width for a few meters, before opening up again and continuing in a southwest-northeast direction. The first evidence of rock art is encountered on the passage walls after the passage narrows. This rock art is badly worn and it is only possible to make out several geometric patterns and what appears to be an incomplete *cross fourche*. It is possible that some of these marks are *wusum* (traditional markers used to designate ownership).

37 Morris 2002, 33–34.

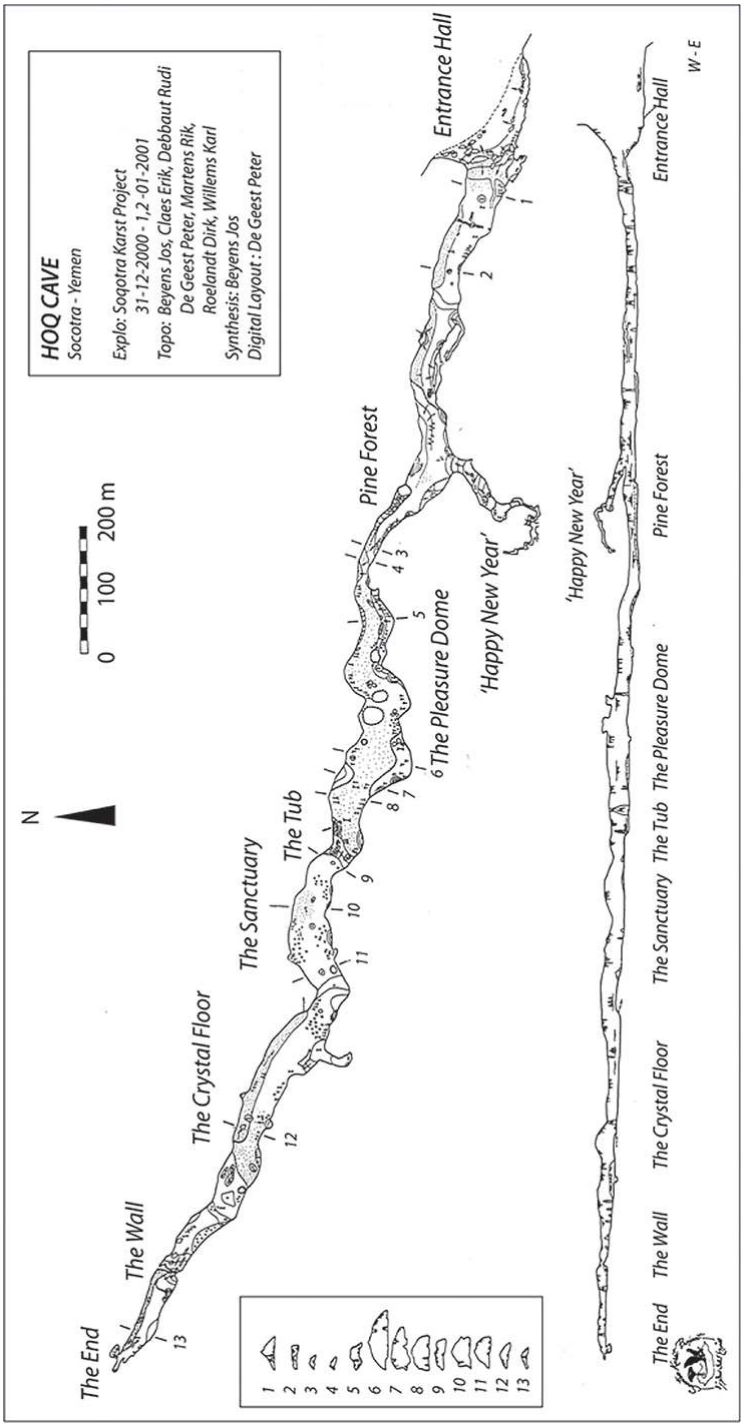

Fig. 3 Plan of Dahaisi Cave.

At this point, the cave gradually begins to increase in height and a worn pathway is visible on the rock floor. Approximately 40 m from the point where the passage narrows, it curves sharply to the south and drops almost half a meter into a small chamber with a shallow pool. The base of a speleothem that grew across the entrance has been chipped away and a chunk of speleothem from elsewhere in the cave has been put at its base, acting as a step down into the chamber. Once in this chamber, it is necessary to turn sharply east and clamber up past two large speleothems. Similarly to the entrance, there are a number of speleothem fragments that have been placed on the floor to act as steps to the gap between the two speleothems. The base of both speleothems have also been chipped away. Having passed through this narrow gap, one steps down across a series of collapsed speleothems, where a faint well-worn pathway is visible on the gravel floor of a large chamber. At the far end of this chamber are two enormous speleothems, one of which has collapsed in a north-easterly direction. It appears as if this is the end of the cave, yet after closer investigation it is possible to find two routes on either side of the collapsed speleothem that lead deeper into the cave. Both of these routes converge at the same place, although the northerly route is more direct. Interesting, the northerly route allows a direct glimpse into the final chamber as one is clambering through, whereas because the southerly route curves to the north, one can only see into the final chamber at the end. Having rounded the speleothem, there is approximately a three meter drop down into the final chamber. This drop is made easier by a ridge formed by the overlapping rock faces and a large chunk of speleothem that lies directly beneath the point at which one clambers down. The ridge and rock face appear to have been worn smooth by countless generations of visitors who clambered down into the chamber using this route.

The end chamber extends for approximately 25 m in a northeasterly direction, rising up towards a narrow blocked passage, where it ends. Directly north of the entrance point is a large water-filled sump that extends in a northeasterly direction under the floor of the cave. The southern half of the cave extends into a small alcove. Unlike the northerly half of the cave, the roof in the south is devoid of speleothems, being completely smooth and rounded with the exception of a large *aven* in the alcove and a smaller *aven* at the entrance to the alcove. The floor of the end chamber is mostly composed of rock, with the exception of the alcove in the south and the uppermost parts in the northeast that are covered in mud. During the wet season, the floor in the final chamber is flooded, making it difficult and dangerous to enter. The rock art is spread over five panels in the south half of the chamber, including the alcove, and appears to surround the water filled sump. The largest panel lies directly above the sump and is replete with a variety of motifs that include geometric patterns (circles and lines); a range of different Greek, Latin, and Patriarchal type cross shapes; and a later Arabic *shahada* inscription. The other panels have very similar geometric patterns and cross shapes, yet they include what appear to be ships and horned therianthropic figures.

The most remarkable aspects of Dahaisi Cave are the concentration of rock art around the water-filled sump and the very noticeable well-worn and modified pathway that snakes through the cave. What drove people to the end chamber? What is the significance of the water-filled sump, and why did they go to such great lengths to modify the pathway into the depths of the cave?

7 Discussion

Having outlined the topographical, morphological, and archaeological elements of Hoq and Dahaisi caves, it is clear that there are many similarities in the ways in which areas within the cave were socially, culturally, and spiritually appropriated. An appropriation that is as much a visible and tangible manifestation of place, as an invisible and extrasensory one.

When entering the perpetual darkness of a spatially confined environment like a cave, ones sensory and emotional experiences are heighten, a state that is eminently suitable for sacred or ritual purposes.[38] The journey within the cave, therefore, becomes a spiritual pilgrimage that with increasing depth and difficulty of access creates an intense emotional feeling, whether awe or fear. Moreover, according to Stone and Bahn,[39] it is the difficulty of access to these images that makes them particularly sacred. In the context of Hoq and Dahaisi, however, it appears neither the remoteness of the location where the drawings were made, nor the difficulties involved in gaining access to these areas played a significant role in the sacredness of the images. In both caves, the main passage has few side galleries and it is possible to walk upright for most of the time with little chance of getting lost, even if the torch being carried would only have illuminated an area of four meters. I would, therefore, argue that the concentration of the images in both caves has as much to do with specific natural features within each cave as it was to do with the depth at which these images were made.

In Hoq Cave, the concentration of inscriptions and auspicious symbols is centered on two galleries, within which we find the richest variety of secondary calcite deposits throughout the cave. While considerable research has been undertaken in the descriptive and typological analysis of the various inscriptions, little attention has been given to the space within which they were found. This is a common problem in the study of many rock art sites, especially those found in caves.[40] Within Hoq Cave, it would appear that the sacredness of the space in which the inscriptions were found is defined by its location and morphological characteristics. As already mentioned, the area within

38 See Bjerk 2012, 48–64; Clottes 2012, 35–47; Bonsall and Tolan-Smith 1997, 218.

39 Stone and Bahn 1993, 111–120.

40 Bradley 2000, 32.

which the inscriptions are found is also an area of the cave in which the secondary calcite deposits are particularly spectacular. This, coupled with the depth at which this phenomena occurs, is likely to have played a significant role in the choice of this place. It is also noteworthy that the majority of inscriptions are engraved onto stalactites, stalagmites, and columns, which would perhaps indicate that they were appropriating these speleothems that formed the sacredness of the space. However, it is not until this location was repeatedly inscribed upon, whether as a form of commemoration, invocation, or appeasement to one or several divinities, that we are able to recognize it as such. While it may be impossible to determine whether a site is sacred or not before it was somehow altered by humans, this evidence does provide us with some indication as to what natural features may have been instrumental in giving a place significance. Thus, it would certainly appear that areas that have rich and particularly decorative calcite deposits are likely to have drawn people to particular places. Whether this was due to the aesthetics of these deposits in this area, or that they simply did not occur elsewhere in such profusion remains an open question.

Furthermore, looking at how this space was used by a multitude of different cultural groups over a period of several hundred years (1st century AD to 6th century BC), during which there would have been several notable socio-economic, religious, and political changes, poses several questions. Why were mariners revisiting the site, and how was it that the memory of this place was being kept alive? These questions may be answered in part by the long tradition of offering appeasement to deities for having granted safe passage in areas of known danger.[41] Direct evidence for this on Socotra is found from as early as the 3rd century AD through to the 19th century.[42] Consequently, it would appear that mariners that had braved the rough seas surrounding Socotra would have sought out a place where they could enact their rituals for safe passage, which in most cases seems to have been to inscribe one's name deep within Hoq Cave.

Moving deep into the interior of Dahaisi Cave, we find that the main concentration of images are found within the final chamber at the very end of the cave, the central feature of which is a water-filled sump. The significance of this is not immediately apparent if we divorce our studies of the cave or the rock art therein from the rich ethnographic and historical sources. These sources provide a very real insight into the location of the rock art and possibly why this cave had been chosen. As previously outlined, the inhabitants on Socotra are dependent on the capricious nature of the monsoon rains for their very survival. The failure of these life-giving rains can and has led to extreme hardship and death, especially for those inhabitants in the interior, who depend on these rains for the survival of themselves and their livestock. Consequently, the presence of a large

41 Rappaport 1971, 63–93.

42 Tibbetts 1981, 229–230; Arrowsmith-Brown 1991, 389; Strauch 2012, 448.

reservoir of water, which would have been available throughout the year, would certainly have attracted attention. However, in the ethnographic record we learn that the inhabitants are fearful of entering caves because of the spirits and/or snakes that inhabit them, yet it is clear that at some point people had entered the cave. Moreover, it would appear that the water-filled sump was the focus of the journey into the cave, and that it was likely to have been considered sacred. A sacredness that can be seen in the profusion of symbols and drawings that were scratched into the panels surrounding the sump.

This appropriation of the water-filled sump appears to have taken place over the course of at least several centuries and has remained an important part of the changing Animistic, Christian, and Muslim belief systems of the indigenous inhabitants. That this water has held such a central role throughout the changing religious beliefs of the inhabitants is not surprising. Water is a central tenant to the Christian and Muslim faiths, and was used by both faiths in rituals related to cleansing or purifying the body. Moreover, as mentioned previously, the inhabitants were at the mercy of the rains of the monsoon, which brought the water that was essential for survival. Thus the water within Dahaisi Cave can be seen as having played a significant long-term role in the lives, and consequently the changing belief systems, of the inhabitants.

Finally, the creation of a pathway within Dahaisi is particularly interesting, and while it could be argued to have been related to a network of movement through the cave,[43] I believe it had another purpose. As mentioned, when entering Dahaisi Cave there is only one relatively easy passage to follow to it terminus, and with a torch it is virtually impossible to get lost. Moreover, the modifications that were made are not completely necessary, as traversing the 30 cm step of speleothem that had been removed, or clambering across a muddy pool would not have constituted any great difficulty. Whilst it certainly would have made access to the cave easier for elderly visitors, I do not believe these modification were made for this specific purpose. Rather, I would argue that the metamorphism of elements within the cave were physical transformations that sought to make a natural place into something more humanly constructed. In other words these modifications were done to transform the natural space of a cave into something akin to a monument centered on the water-filled sump.

8 Conclusion

Within this paper I have used two caves in very different locations and with significantly different topographical and morphological characteristics to demonstrate the importance of looking beyond the immediate and seemingly obvious anthropogenic appro-

43 See Rouzaud 1997, 261; Pastoors and Weniger 2011, 384.

priation of space. Indeed, an awareness of the natural space within the context of the archaeological, ethnographic, and historical record has allowed me to gain a deeper understanding of the social, cultural, and spiritual appropriation of space. Moving our focus away from the anthropogenic markings and modifications within caves can, and has, allowed for more nuanced aspects of cave space to be explored, and has the potential to further our understanding in the correlation between the natural spaces and their later appropriation.

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is a Dahlem Research School POINT fellow at Topoi with the project *The Landscape Within: A Multiscalar Approach to Space and Place from a Subterranean Perspective*. This research examines how rock art and rock art sites were utilized within local and regional cultural landscapes. This research brings together data gathered from archaeological, ethnographic, and historical sources within a multiscalar framework to tackle concepts of space, place, religion, and identity.

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SIGNS IN BUILT SPACES

Tim Karberg

Pictographic Mason Marks from Musawwarat es Sufra and Their Internal Spatial Distribution Patterns

Summary

The mason marks corpus of Musawwarat es Sufra is the largest corpus of such markings within the Nile Valley cultures. The exact function of the markings is difficult to reconstruct due to a lack of written sources about the organization of Meroitic stone masonry and quarrying, but their spatial distribution patterns, as well as comparisons with similar marking systems inside and outside the Meroitic state (especially in Egypt), indicate that they were used not as quarry marks but within the construction process. They might mark the dressing of the blocks at workshops close to the construction site. Some parts of the religious compound of the Great Enclosure of Musawwarat es Sufra show a lack of markings, which could be connected to some additional ideological (maybe magical) connotation.

Keywords: masonry; mason's marks; non-textual marking systems; technology transfer; stone quarrying; archaeology of economies

Das Steinmetzzeichencorpus von Musawwarat es Sufra ist das größte solche Corpus im gesamten Niltal. Die Rekonstruktion ihrer genauen Funktion ist schwer, da wir über die generelle Organisation der Bau- und Steinbruchwirtschaft im meroitischen Staat mangels schriftlicher Quellen kaum Informationen besitzen. Dennoch ist aus räumlichen Verteilungsmustern und Vergleichen mit anderen, ähnlichen Systemen innerhalb und außerhalb der meroitischen Kultur (insbesondere Ägypten)zu schließen, dass sie keine Steinbruchmarken, sondern echte Steinmetzzeichen waren. Vermutlich bezeichnen sie die abschließende Zurichtung der Blöcke. Der Mangel an Steinmetzzeichen in bestimmten Bereichen lässt zudem darauf schließen, dass diese Zeichen auch eine ideologisch-magisch konnotierte Funktionskomponente besaßen.

Keywords: Steinmetzwesen; Steinmetzzeichen; Nicht-textliche Markierungssysteme; Technologietransfer; Steinbruchwesen; Wirtschaftsarchäologie

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1 Introduction

Within the Kushite world, non-textual marking systems are widespread. So called 'pot marks' from different periods,[1] the wide range of still so-called (but in recent literature often differently interpreted) 'property marks'[2] and cattle brandings were already subject to some investigations,[3] but the wide range of stonemason marks from the Meroitic period is hitherto an almost complete desiderate in Meroitic archaeology and architectural history. It was the author's aim to fill some of these research gaps through his PhD thesis.[4] Some of the results of this thesis are presented in this paper (Fig. 1).

Within the valley of Musawwarat es Sufra, several buildings and other archaeological features are found, mainly of the early and middle Meroitic period. The most impressive of them is the so-called Great Enclosure, a vast complex of temples, chapels, and other rooms connected with (partly elevated) corridors and surrounded by several courtyards.[5]

Within the so-called Great Enclosure of Musawwarat es Sufra, the author documented 81 different signs, which form a corpus of 5918 mason marks altogether. This huge number makes the mason marks corpus of the Great Enclosure of Musawwarat es Sufra the largest corpus of this type of marks that has been documented in the Nile Valley so far.[6] Other significant corpora of mason marks from the Meroitic and late Napatan period were documented at Meroe,[7] with altogether 61 mason marks consisting

1 Dunham 1965.

2 Kleinitz 2009.

3 Karberg 2005.

4 The thesis was begun at the Humboldt University of Berlin and finished at Muenster University. The author thanks Angelika Lohwasser, Michael Zach, and Claudia Näser for supervising his thesis; Cornelia Kleinitz, Steffen Wenig, Ulrike Fauerbach, Dieter Eigner, Thomas Scheibner, Alexandra Riedel, Jana Eger, Khidir Abdelkarim Ahmed (†), and Dietrich Raue for many discussions; and Karl-Heinz Priese (†), Geoff Emberling, and the Friedrich Hinkel Archive (German Archaeological Institute Berlin) for granting the author access to unpublished material.

5 Wolf 2001.

6 Most of the mason marks of the Great Enclosure of Musawwarat es Sufra were investigated by the author from the year 2000 on, as part of different archaeological projects of Humboldt University Berlin at Musawwarat es Sufra Karberg 2001.

7 The vast majority of mason marks from Meroe were documented at the Pyramids of the Northern and Southern cemetery, partly by the author himself,

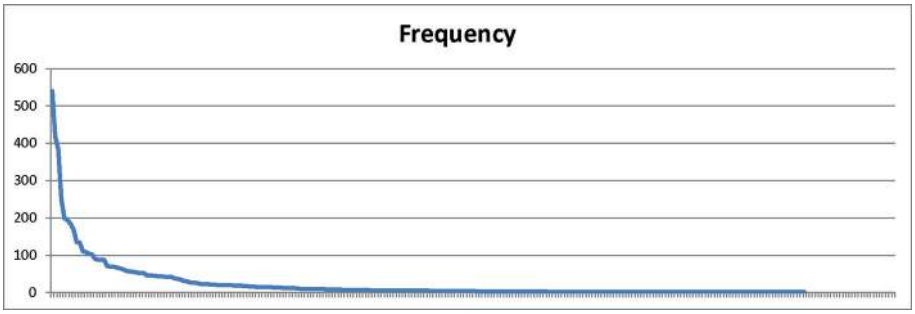

Fig. 1 Examples of Meroitic mason marks from the Great Enclosure of Musawwarat es Sufra.

of 17 different signs, and at el Kurru,[8] with altogether 69 mason marks consisting of 8 different signs. In Egypt, mason marks in general found relative little attention, but at some temples and other buildings they were at least recorded in some detail. Comparable corpora of mason marks of Ptolemaic and Roman Egypt were documented at Elephantine Island,[9] with altogether 389 mason marks consisting of 46 different signs; at the temple of Edfu,[10] with 246 mason marks consisting of 57 different signs; at the temple of Deir el Shelwit, with 65 mason marks consisting of 13 different signs;[11] at Philae,[12] with 103 mason marks consisting of 9 different signs; at the temple of Dendera,[13] with 66 mason marks with 12 different signs; and at Kalabsha,[14] with 345 mason marks consisting of 9 different signs.

In this paper, the main aim is to show some distribution patterns of mason marks within the so called Great Enclosure of Musawwarat es Sufra, and their probable significance for decoding the function of this marking system. For comparisons of the different corpora of mason marks between the Meroitic culture and (Hellenistic and Roman) Egypt, cf. the paper presented by this author at the 12th International Conference for Meroitic Studies.[15]

partly already by Friedrich Hinkel (incorporated into his hitherto unpublished architectural documentation of these pyramids, today part of the Friedrich Hinkel Archive at the German Archaeological Institute Berlin).

8 The mason marks at the mortuary temple Ku 1500 and the pyramid Ku 1 were first observed by Geoff Emberling, who invited the author to document them (Karberg 2015).

9 379 mason marks were documented already by Horst Jaritz 1980; 10 additional marks not published by Jaritz were documented by the author in 2007.

10 The majority of these signs (219) were documented at the Great Pylon and the enclosure wall of the temple by Ulrike Fauerbach (Fauerbach 2009, Abb. 51). 27 additional signs were documented at other parts of the temple by the author in 2007.

11 Golvin 1992.

12 Documented by the author in 2007.

13 Documented by the author in 2007.

14 Documented by the author in 2007.

15 Karberg, Tim. "Some Remarks on Meroitic Mason's Marks and their Intercultural Relations". In: *Proceedings of the 12th International Conference for Meroitic Studies, Prague 5th–7th September 2016.* Ed by P. Onderka (in preparation).

2 Meroitic mason marks in their functional context

Most of the 81 groups of mason marks documented at Musawwarat es Sufra (and the 3 additional groups of mason marks documented within the sign corpora of el Kurru and Meroe, which do not overlap with the mason marks corpus of Musawwarat es Sufra) resemble simple geometric forms; others are derived from characters of different scripts. Only a minority show more complex depictions; for example, different versions of bows, grain strokes, or architectural elements.[16] This great variety of mason marks is represented by a selection of different signs presented in this paper.

Meroitic mason marks do not follow a general graphic concept that would be more or less the same for all categories of markings. Even within single building complexes, like the Great Enclosure of Muswwarat es Sufra, the design of the marks is quite diverse in terms of their general complexity as well as their geometric or pictorial character. They range from very simple geometric marks like single strokes placed at specific spots at the block's surface (cf. Fig. 1 mark no. 1) to more complex pictorial marks like (hieroglyphic?) bird depictions (cf. Fig. 1 mark no. 87).

An important issue is the question of contextualizing the mason marks corpora into the wider range of different non-textual marking systems. In general, Meroitic mason marks appear not to be an isolated pictographic system: the mason marks used at Meroitic buildings, especially at the so called Great Enclosure of Musawwarat es Sufra, seem to relate to other non-textual marking systems. One significant example is the bird-shaped mason mark no. 87 from Musawwarat es Sufra (as shown within Fig. 1). It is one of the most widespread mason marks at the Great Enclosure (with altogether 182 single markings), but was also in use within other (non-textual) marking systems; a Meroitic ceramic sherd from Faras shows the depiction of a rather similar bird-shaped branding on the leg of a cow.[17] This shows that there are at least some connections between mason marks and the (not very widespread) branding of livestock. Therefore, we have to assume a general corpus of pictographic markings that was used within different types of marking systems. Some of them, like the abovementioned bird-shaped sign, could also relate to single characters of textual script systems (like, in this case, the Meroitic hieroglyphic script); nevertheless, there are no direct indications as to whether they can be interpreted as (semi-)textual markings – for example a kind of abbreviation – or if the

16 The differentiation between mason marks and secondary graffiti is sometimes not easy to differentiate. In most cases, only the joint coherent utilization of the criteria engraving technique (which is mostly finer than for graffiti due to the soft sandstone fresh off the quarry), stereotypical layout, position on the block (often upside down, or cut by the blocks edge during later processing of the block), and position on the wall (often at wall parts that were inaccessible immediately after the construction phase, like the inner lining of terrace walls) allows a clear delimitation between mason marks and secondary graffiti.

17 Griffith 1925, 75–76, Plate XXIII 3.

script characters were only arbitrarily used as sign repertoire for completely non-textual markings.

Other Meroitic mason marks, for example, the very common sign no. 38 (Fig. 1), seem to be derived from Mediterranean script characters (either Greek or Latin). Here, also no direct evidence can be stated that the use of the sign within the mason mark system can be interpreted as an abbreviation or within any other (semi-)textual context.

Other mason marks, like sign no. 103 (Fig. 1), can be interpreted as iconographical depictions with no direct relation to script characters. For signs like nos. 89 or 98, it remains unclear whether they should be interpreted as pictorial signs or as derived from (hieroglyphic) characters. Signs no. 1, 21, and 27 (Fig. 1), on the other hand, seem to be just arbitrary geometric signs. Possible structural as well as functional contexts are hard to determine. The geometry of signs no. 1 and 21 is so simple that a derivation from other, similar pictographic signs used in other cultural contexts seems not very useful. Sign no. 27 has no parallels in any script or non-textual marking system in use within Egypt or Nubia – a possible connection with a slightly similar character of the Lihyanitic script in northwestern Arabia seems not very likely due to general cultural-historical reasons.[18]

The fact that some of these marks seem to be pictorial or just geometric, while others are derived from different script systems not related to each other, makes it quite unlikely that they were used as abbreviations or other quasi-textual markings. Most probably, the different signs were chosen for use as a mason mark completely independent from their textual meaning. For that reason, the mason marks can be seen as a purely non-textual marking system, and some thoughts on their meaning can be derived from their internal distribution patterns.

The meaning of mason marks within Meroitic architecture is, until now, not fully understood, as is the case for other regions. For Hellenistic and Roman Upper Egypt, mason marks were often interpreted as quarry marks, for example, the mason marks corpora of Elephantine Island[19] and Deir el Shelwit.[20] It shall not be debated here whether these assumptions are correct for Egypt;[21] but at least for the Meroitic culture, the vast mason marks corpus of Musawwarat es Sufra can provide the necessary data for an investigation of the role of this non-textual marking system.

18 Farès-Drappeau 2005, 56, fig. 10.

19 Farès-Drappeau 2005, 56, fig. 10.

20 Golvin 1992.

21 Some in-depth analysis shows that Jaritz's assumption, several mason marks (for example from Elephantine Island) can be clearly related to specific quarry zones, is rather unreliable.

3 Distribution patterns of mason marks within the Great Enclosure of Musawwarat es Sufra

The analysis of distribution patterns contributes to our understanding of function and meaning of stonemason marks on different levels and from diverse perspectives. First of all, the fact that the general use of mason marks within the Great Enclosure of Musawwarat es Sufra was limited to specific building structures within the architectural complex might be connected to some sort of taboo and, therefore, correlated to ideological aspects of the use (and function) of this marking system. Second, the distribution patterns of specific signs might answer some questions on the construction technology and organization of the building. Within the following section of the paper, first the implications of the distribution patterns of single signs of the corpus, and afterwards the use (and non-use) of mason marks in different parts of the building complex are discussed.

In general, some of the mason marks from the Great Enclosure of Musawwarat es Sufra show quite homogeneous distribution patterns, while others are distributed around rather defined foci. The absolute number of mason marks is also highly differentiated from mark to mark: some categories are documented only via a small number of records, while others occur in very large numbers. Another interesting phenomenon is the fact that – disregarding the overall great number of mason marks within the Great Enclosure – some parts of this architectural complex do not have a significant number of mason marks. These patterns shall be shown via selected examples.

The high differentiation of the absolute number of different mason marks may be exemplified according to mark no. 31 and mark no. 38. Both marks are quite similar regarding their geometric design; both are rather simple geometric signs, both can probably be derived from (Greek or Latin) characters (even if, due to their unsophisticated structure, this cannot be stated for sure). Therefore, the distinct difference in their absolute number cannot be derived from clearly different structural differences between their respective sign types. Hypothetically, this degree of differentiation concerning absolute numbers and distribution patterns could indicate different functions of the more frequent and less frequent, as well as the highly concentrated and more homogeneously distributed marks. However, in such a case, also a clear *structural* differentiation between distinct categories of marks, which is obviously not the case. The frequency graph of the whole mason marks corpus of Musawwarat es Sufra shows a curve-shaped, not step-shaped pattern as would be expected within a functionally differentiated marking system. Also, despite the fact that some marks are more concentrated and others more homogeneous concerning their topographical distribution, the transition between these extremes is fluent and not marked by a distinctive edge, therefore, also not indicating a functional differentiation within the marking system. So, in general (even if the re-

construction of specific function(s) of the Meroitic mason marks is still difficult), the distribution patterns indicate a single-level rather than a multi-level functional attribution.

For example, mark no. 31, shaped like a very small 't' and in most cases depicted on one of the small edges of the block, is seen in only 9 examples within the whole Great Enclosure (cf. Fig. 2). This makes it one of the most infrequent, clearly identifiable mason marks at Musawwarat es Sufra. The structurally similar mark no. 38, shaped like an 'N', is one of the most frequent mason marks of Musawwarat es Sufra, with 602 recorded instances within the Great Enclosure (Fig. 3). This extremely different number of records, therefore, cannot be explained with hypothetical different functions, but, most probably, is connected with a similarly inhomogeneous structure of the segment of the production process in which the mason marks have been used.

Another highly differentiated distribution pattern of several classes of mason marks at Musawwarat es Sufra is their different spatial homogeneity. Mark no. 1 (Fig. 4) shows significant concentrations at the northeastern part of the rooms of the so called 'holy wedding' (Fig. 4: a) and around the passage between the courtyards 120 and 513 (cf. Fig. 4: b). Mark no. 19 shows a slight concentration at the same spot as mark no. 1 in the rooms of the 'holy wedding' (Fig. 5: a), but otherwise its spatial distribution pattern shows only slight inhomogeneities that are explainable by coincidental distribution when taking into consideration the conservation status of different parts of the Great Enclosure. Contrary to that, mark no. 21 shows no clear distribution foci (Fig. 6); a slight concentration west of the central terrace corresponds to the fact that in this area, generally, more mason's marks are preserved than in other parts of the Great Enclosure. The distribution patterns of mark no. 27 are a little different: only slight concentrations can be observed, but both of these occur on the walls of elevated corridors – one at corridor 124 (Fig. 7: a) and the other at corridor 515 (Fig. 7: b). Additionally, all records of this mason mark are located within the direct vicinity of the central terrace. Mark no. 31, as was the case with mark no. 21, shows no clear distribution patterns (Fig. 8).

The very widespread mason mark no. 38, however, shows a clear distribution focus in the rooms west of the central terrace (Fig. 3: a), even when taking into consideration the general large amount of preserved mason marks on these walls of the Great Enclosure. Even more interesting seems to be the concentration at one corner (Fig. 3: b) within the rooms of the so called 'holy wedding'. Mark no. 51 shows (besides some slight concentrations south and west of the central terrace) also a significant concentration in a special part of the rooms of the 'holy wedding', in this case, at their westernmost corner (Fig. 9). A similar distribution pattern is documented with mark no. 59. In the 'holy wedding', this mark is concentrated at the southernmost corner (Fig. 10).

Other, but less clearly delimitated concentration foci of this type of mark are situated at two spots west of the central terrace. Mark no. 79 shows a very distinct distribu-

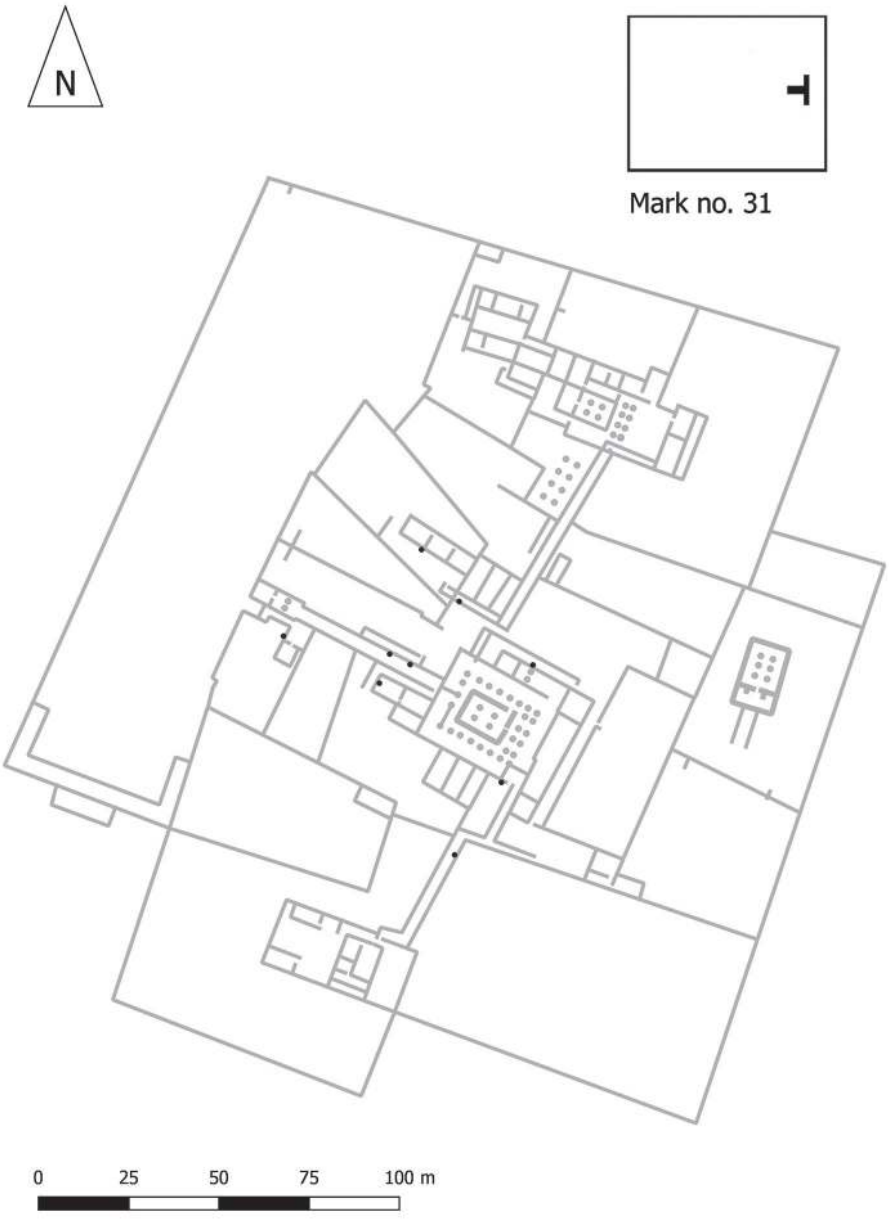

Fig. 2 Spatial distribution patterns of mason mark no. 31 within the Great Enclosure.

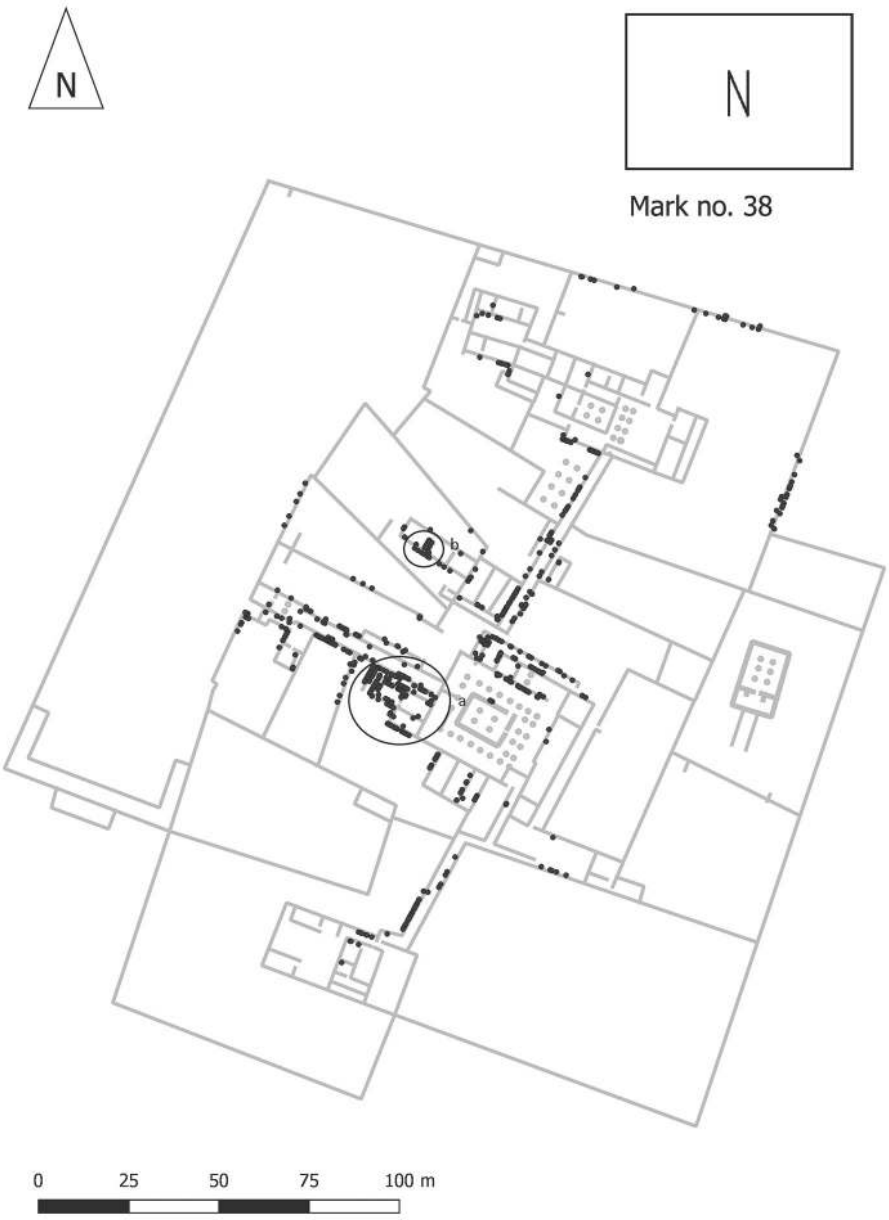

Fig. 3 Spatial distribution patterns of mason mark no. 38 within the Great Enclosure.

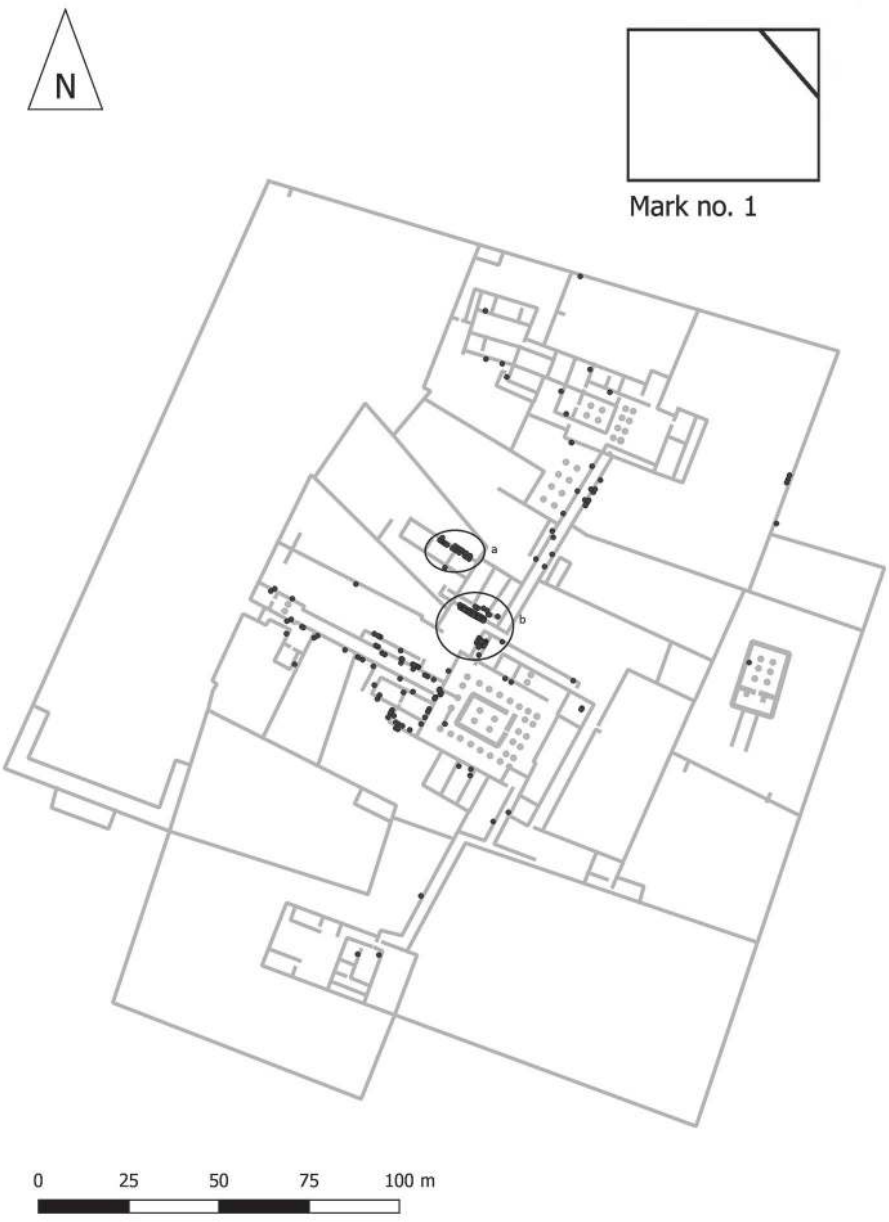

Fig. 4 Spatial distribution patterns of mason mark no. 1 within the Great Enclosure.

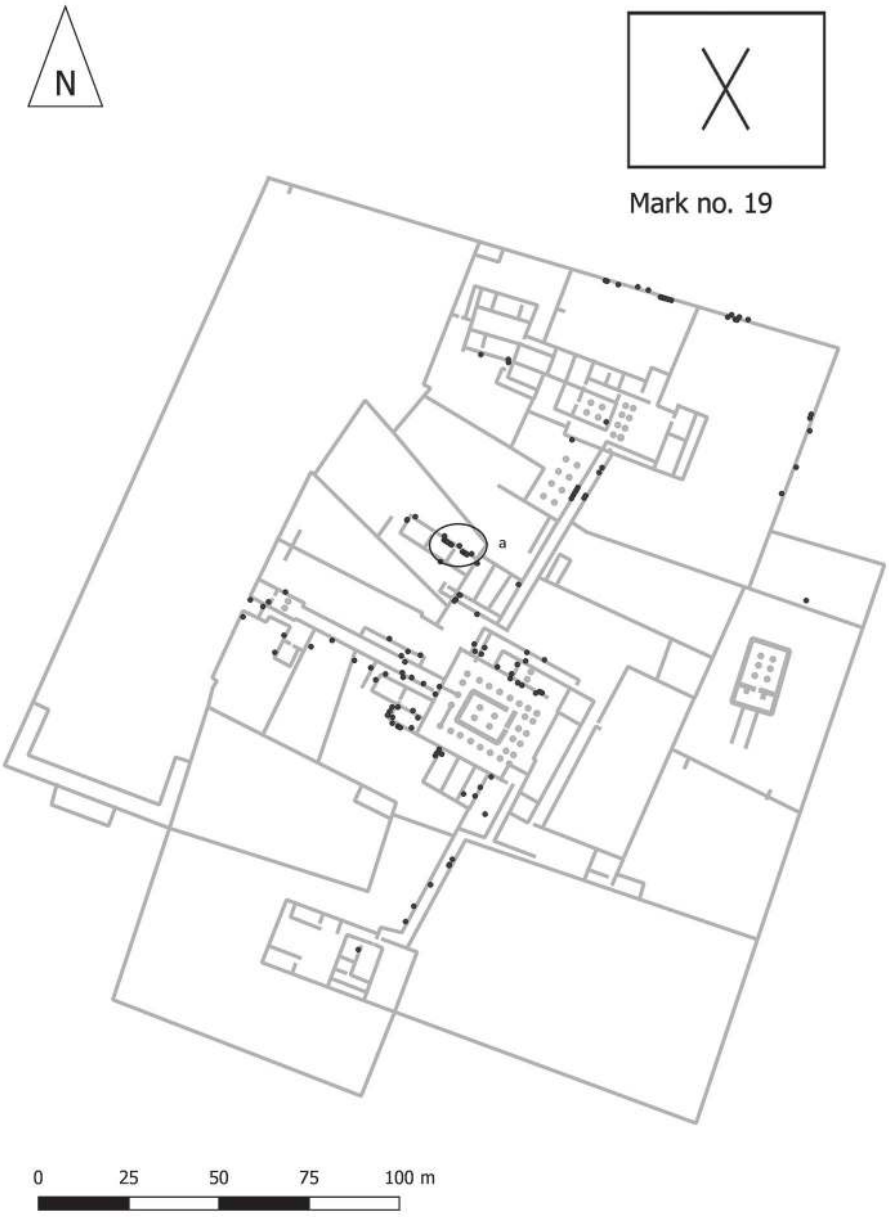

Fig. 5 Spatial distribution patterns of mason mark no. 19 within the Great Enclosure.

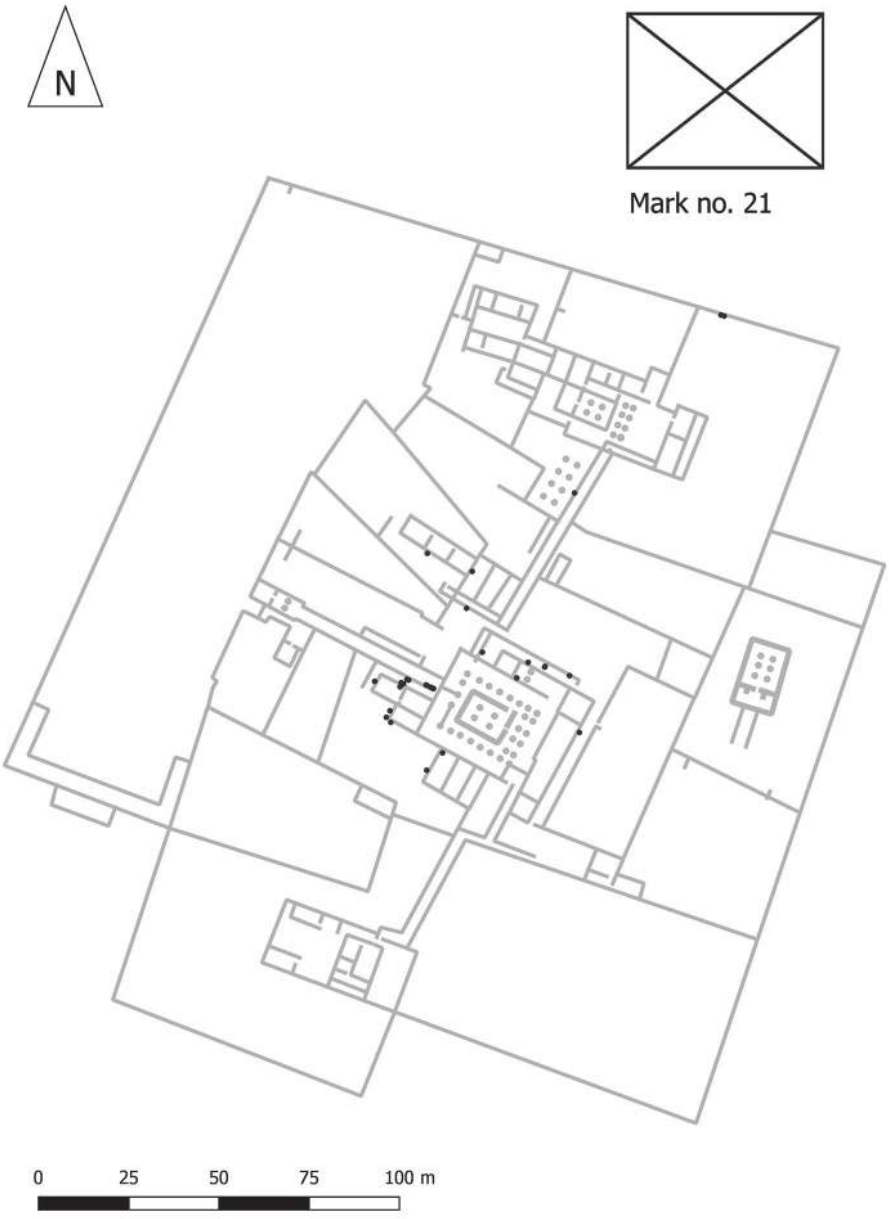

Fig. 6 Spatial distribution patterns of mason mark no. 21 within the Great Enclosure.

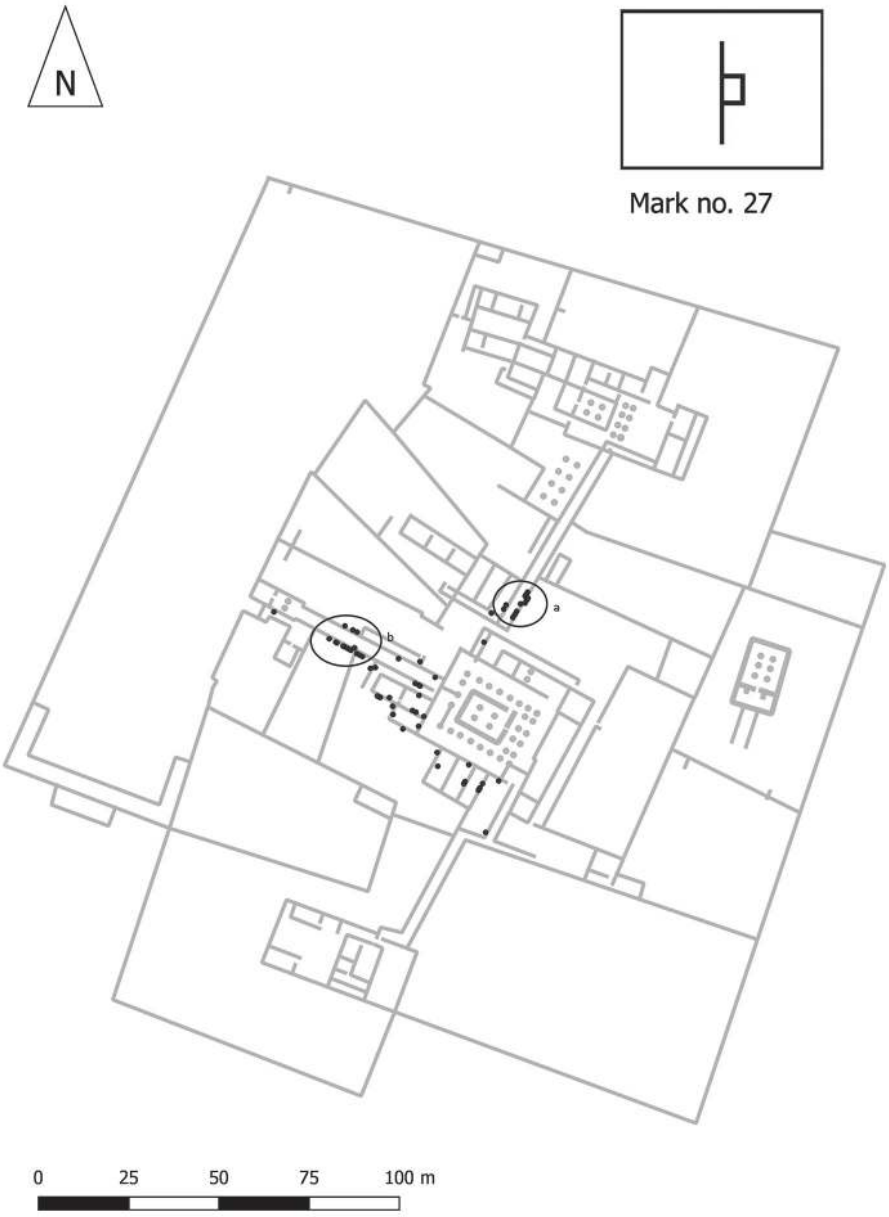

Fig. 7 Spatial distribution patterns of mason mark no. 27 within the Great Enclosure.

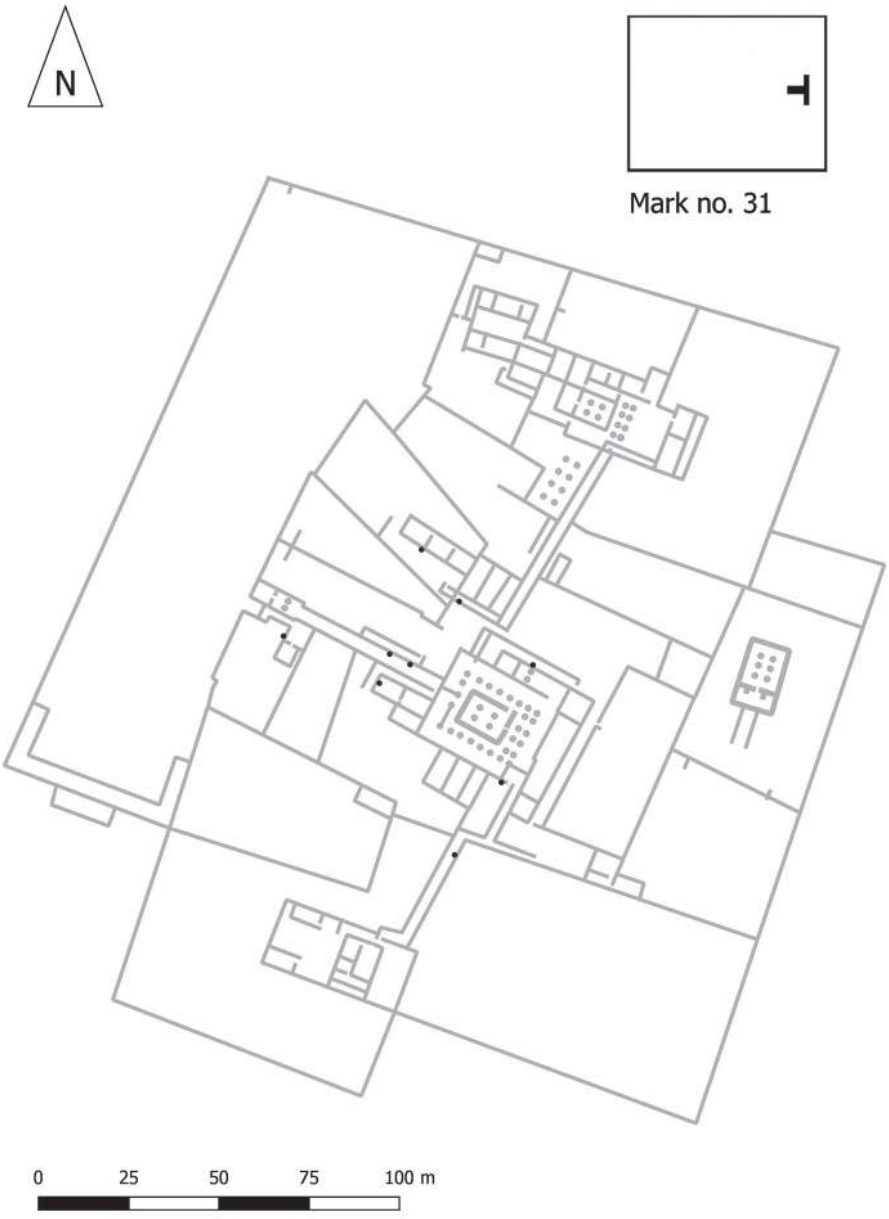

Fig. 8 Spatial distribution patterns of mason mark no. 31 within the Great Enclosure.

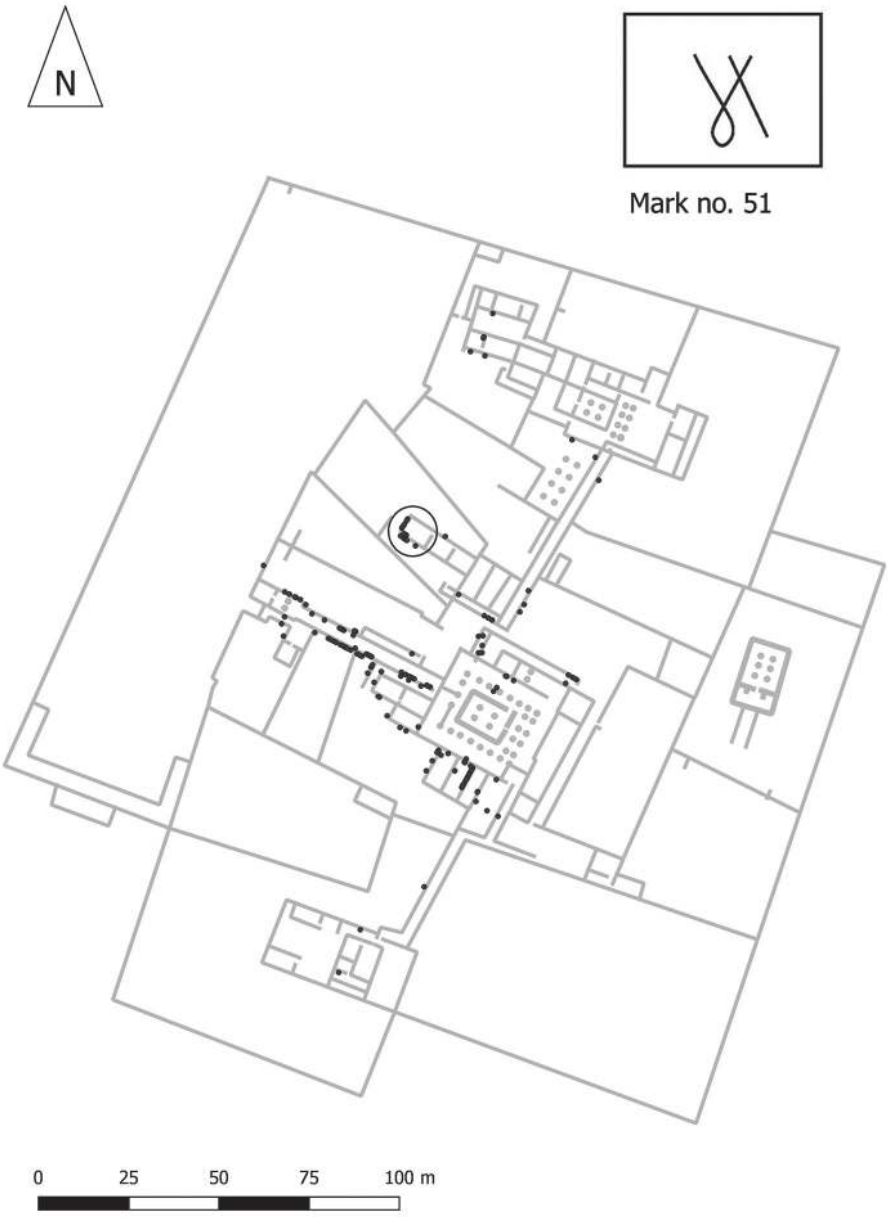

Fig. 9 Spatial distribution patterns of mason mark no. 51 within the Great Enclosure.

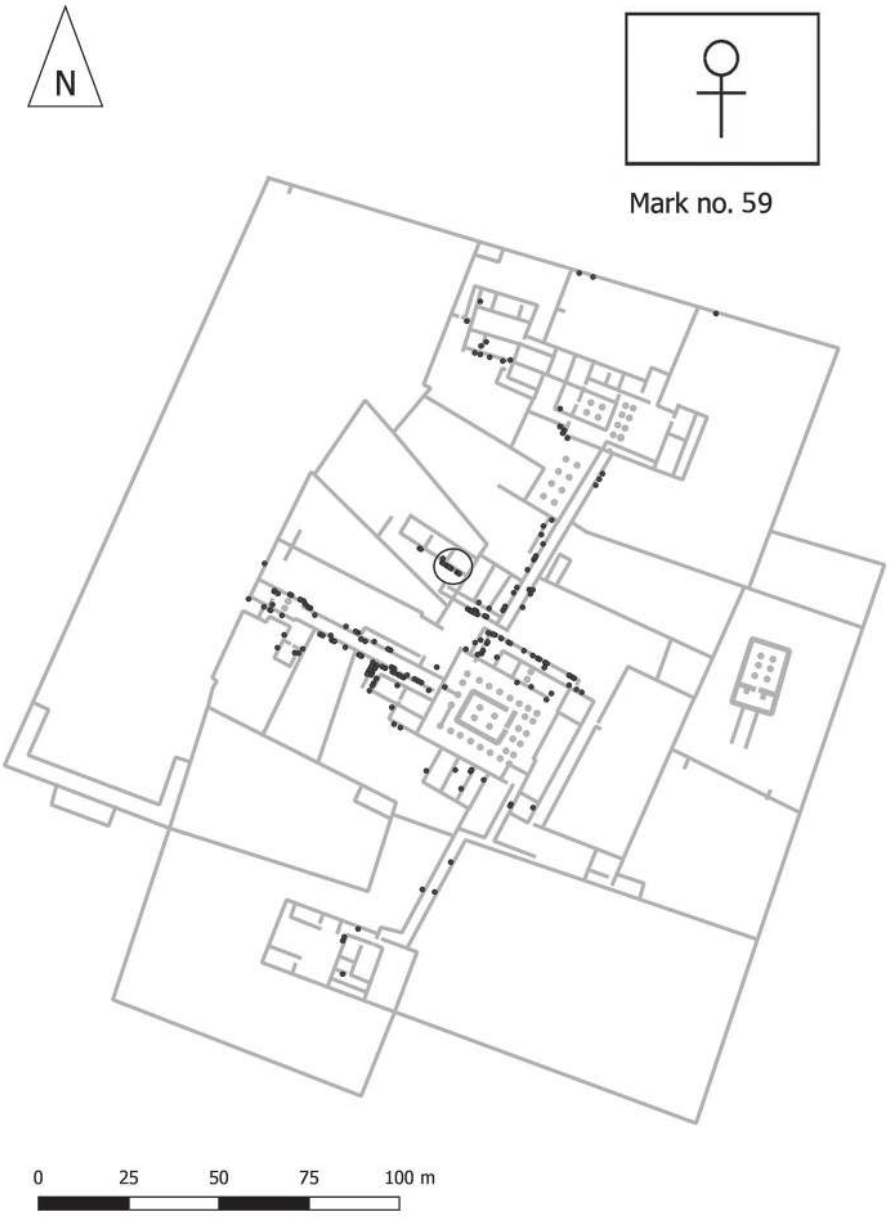

Fig. 10 Spatial distribution patterns of mason mark no. 59 within the Great Enclosure.

tion pattern: the vast majority of the records for this mark are concentrated on the walls of one single room southwest of the central terrace (Fig. 11). A similar, though less distinctive distribution pattern can be observed for mark no. 86 (Fig. 12). The only records for this mark are concentrated on the southern walls of the rooms of the so called 'holy wedding' (but less clearly focused than many other mason marks found at this building complex), and in a corridor stemming from the central terrace to the west (especially its southeastern wall section).

Mark no. 87 (Fig. 13) is distributed a little more homogeneously over the Great Enclosure, but also with noticeable concentration foci on the walls of the room complex immediately southwest of the central terrace and the rooms of the so called 'holy wedding' (in this case at its northeastern corner).

The rather common mason mark no. 98 shows a more homogeneous distribution pattern (Fig. 14), but with a focus on a wall east of the rooms of the so called 'holy wedding', where, interestingly, at the northern part of the wall all records of mason marks belong to this type, without any exception, making it the most homogenous wall structure of the whole Great Enclosure concerning the distribution of mason marks.

A much more homogeneous distribution pattern can be stated for mason mark no. 99 (Fig. 15); but, nevertheless, even this mark distributed over large parts of the walls of the Great Enclosure is recorded within the rooms of the so called 'holy wedding' only in a clearly distinguishable part of the complex, within its southeastern quarter. Mason mark no. 103, again, shows a rather clearly focused distribution pattern, with concentrations in the passage between courtyards 120 and 513 (Fig. 16: a), as well a single room southwest of the central terrace (Fig. 16: b).

Inhomogeneous distribution patterns of mason marks within the Great Enclosure of Musawwarat es Sufra cannot only be defined according to groups of single marks, but also in connection with specific building elements and room structures. Especially at the so called 'central temple', or temple 100, the distribution of mason marks differs significantly from other parts of the Great Enclosure (Fig. 17). Here, only 30 mason's marks are clearly identifiable – which is quite few compared with other walls with similar dimensions and preservation conditions. The walls of this building are so well preserved that erosion as a main reason for non-visible mason's marks (like in many other courtyards, rooms, and corridor walls) can be ruled out. Of course, the walls of the central temple are finished more elaborately than other walls within the Great Enclosure, so it could be assumed that the walls of this temple have been smoothed more carefully than other parts of the building, and thus the mason marks could have disappeared. However, after a closer look, this seems rather unlikely since this would have wiped out all of the marks, not just some of them. Indeed, among the mason marks of the central temple of the Great Enclosure are some examples that are incised quite deeply, making the idea of the careful smoothing of its walls more or less obsolete.

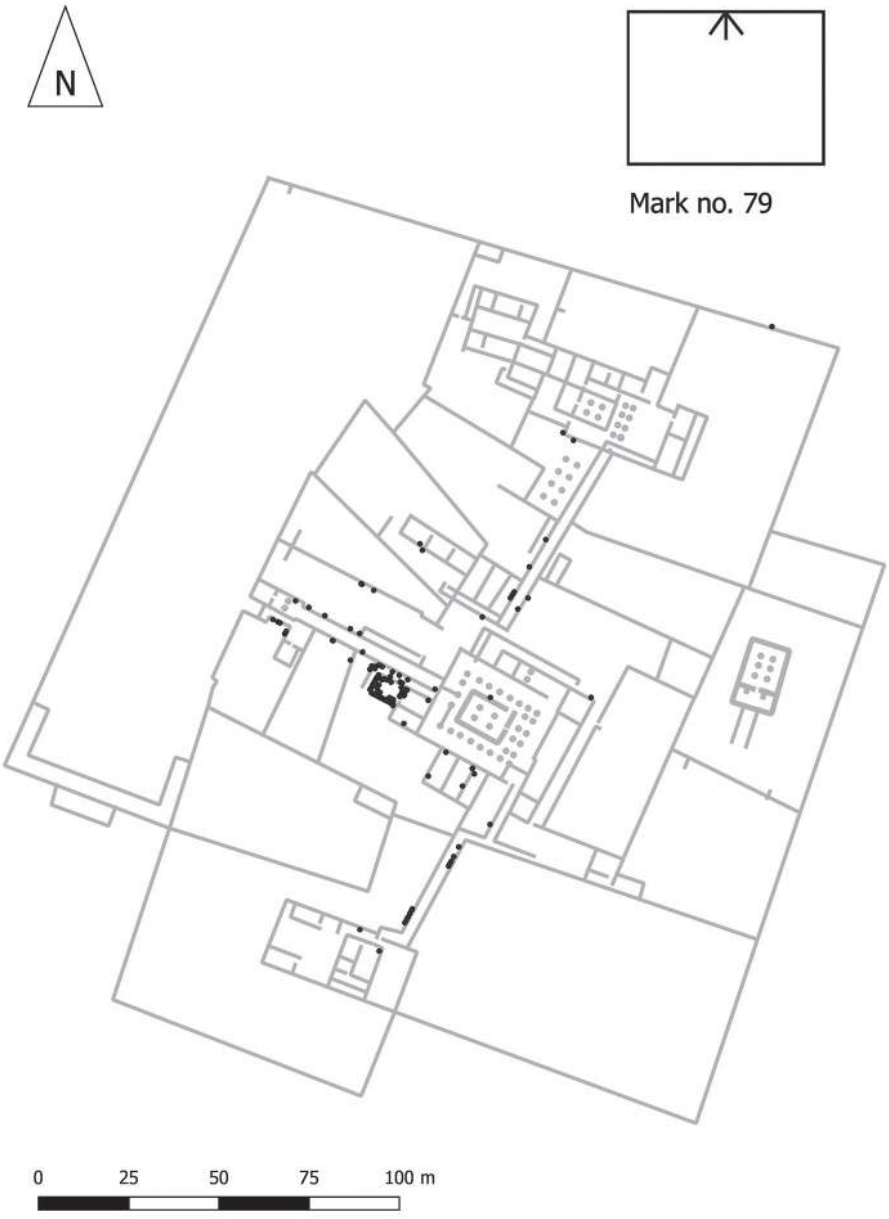

Fig. 11 Spatial distribution patterns of mason mark no. 79 within the Great Enclosure.

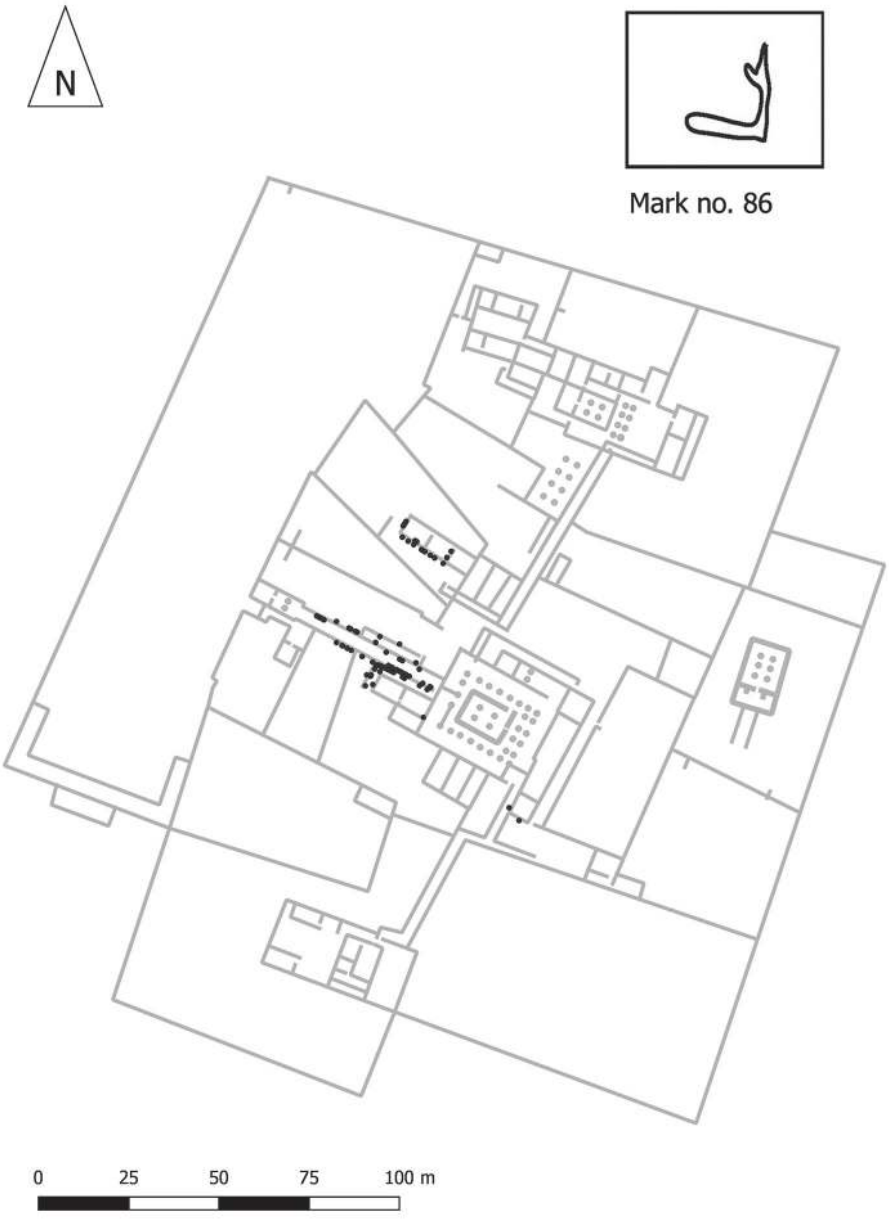

Fig. 12 Spatial distribution patterns of mason mark no. 86 within the Great Enclosure.

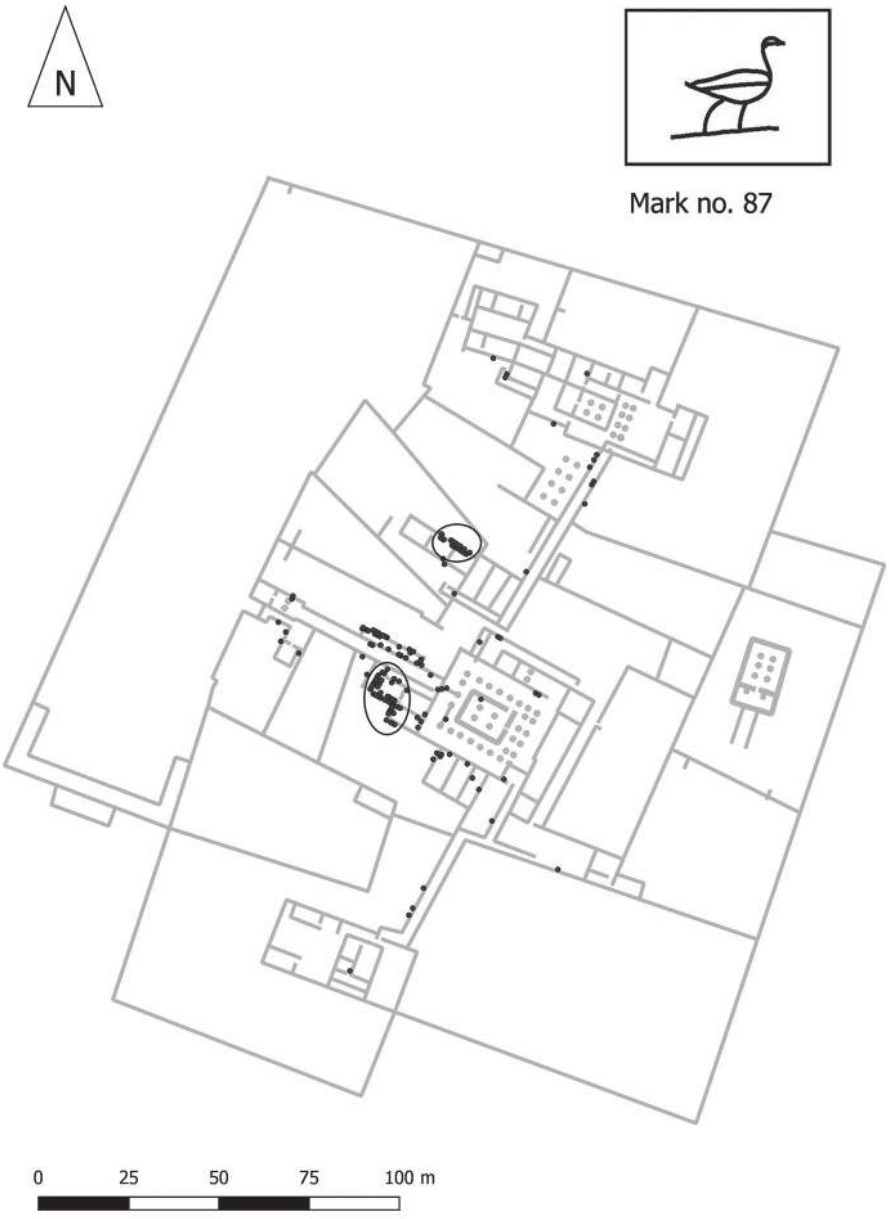

Fig. 13 Spatial distribution patterns of mason mark no. 87 within the Great Enclosure.

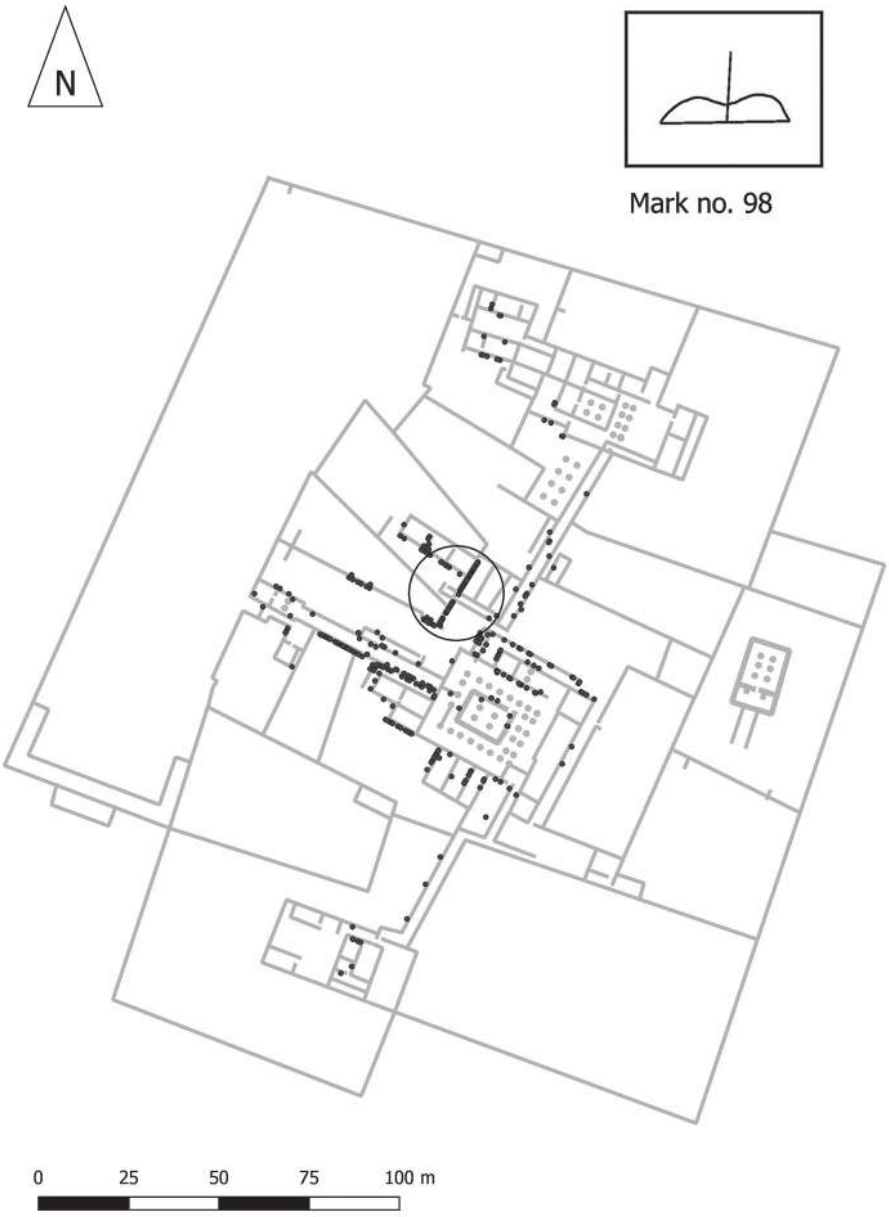

Fig. 14 Spatial distribution patterns of mason mark no. 98 within the Great Enclosure.

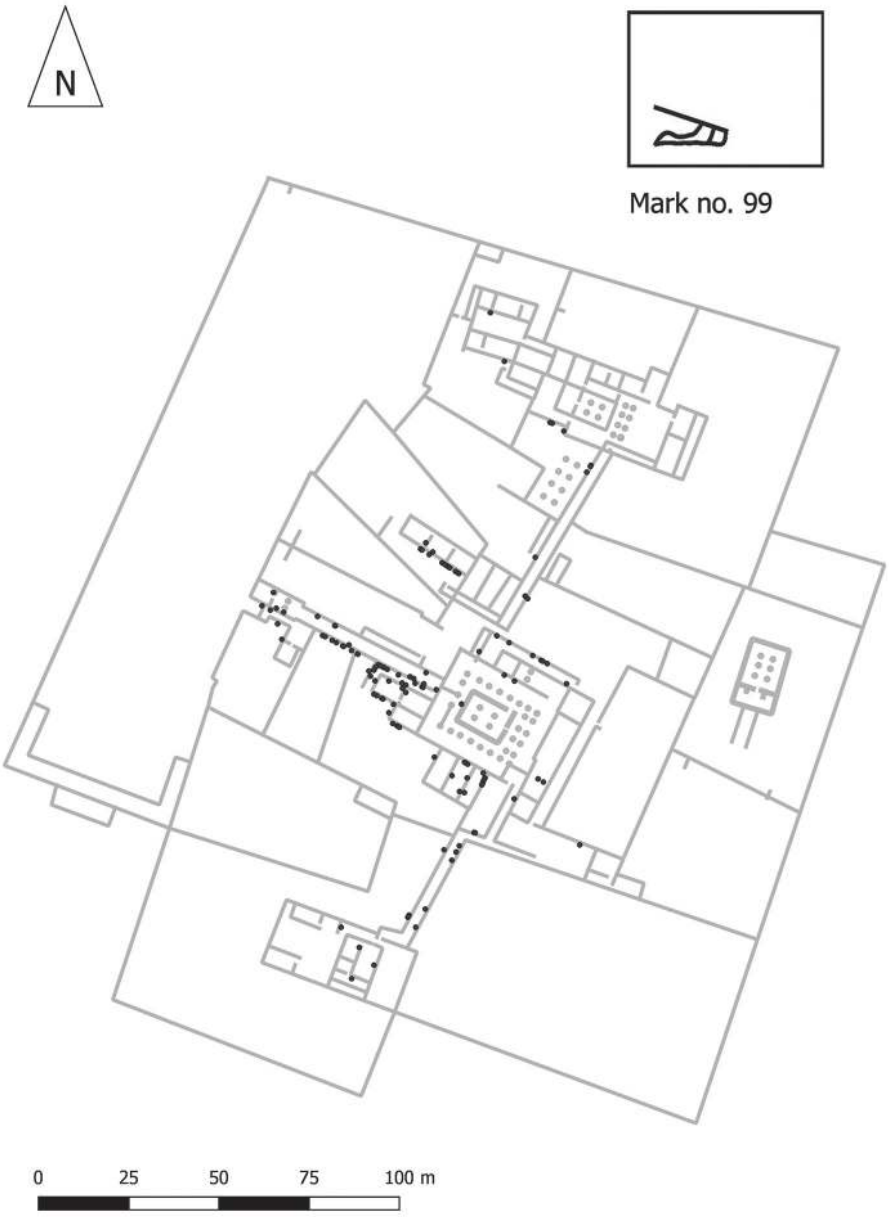

Fig. 15 Spatial distribution patterns of mason mark no. 99 within the Great Enclosure.

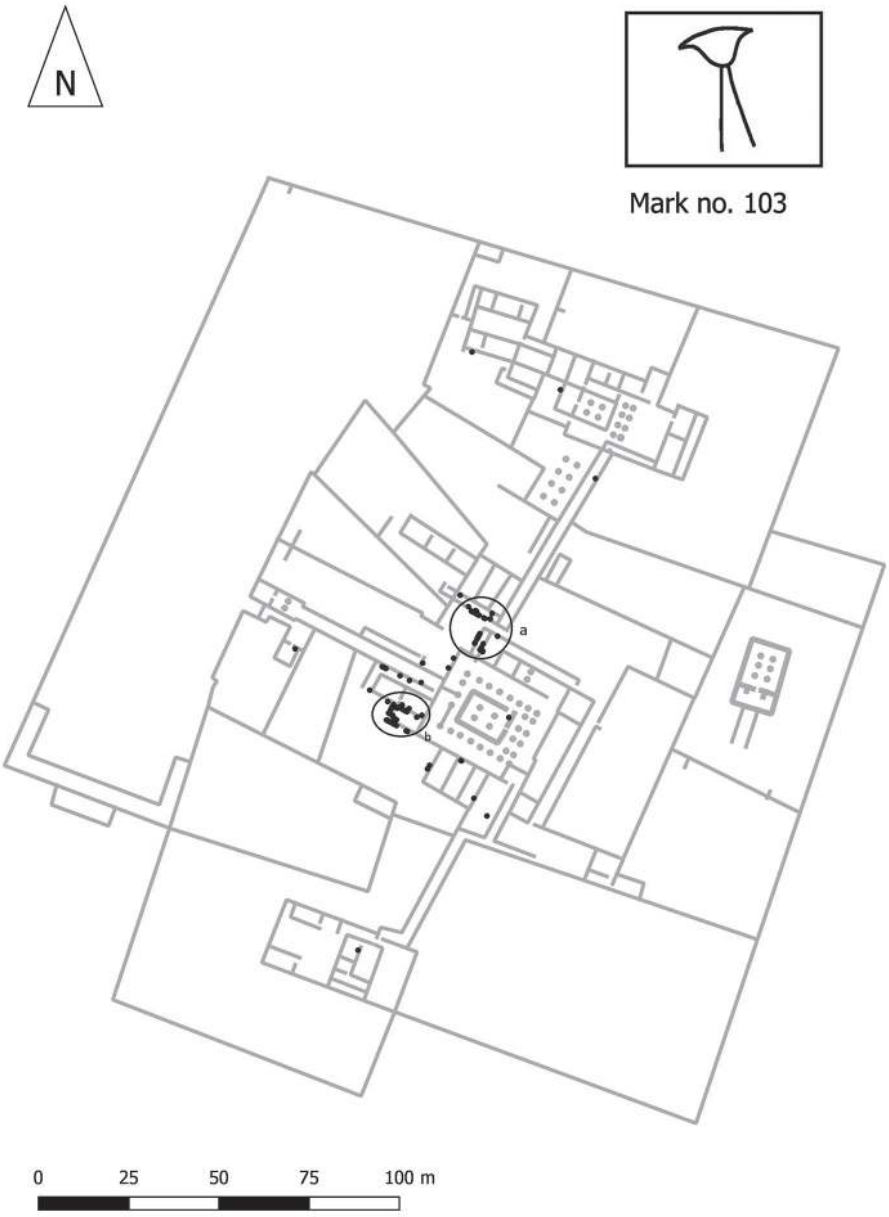

Fig. 16 Spatial distribution patterns of mason mark no. 103 within the Great Enclosure.

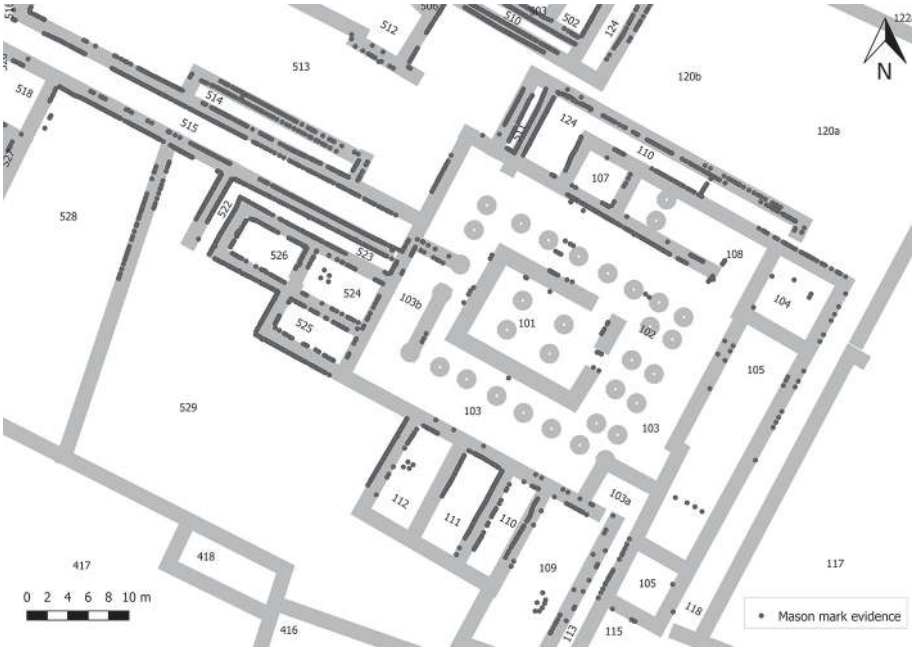

Fig. 17 Spatial distribution patterns of mason marks within central terrace complex of the Great Enclosure.

It seems more probable that the amount of mason marks differed significantly from other parts of the Great Enclosure from the very beginning for some reason. Interestingly, many blocks of the central temple are larger than those used in other walls of the Great Enclosure, and some have special formats (for example for the construction of niches and windows). This might be connected with the fact that only a few blocks were marked with mason's marks – also in other buildings the fact that special and oversized block formats didn't bear mason marks was observed, for example, at the great pylon of the temple of Edfu.[22] Another idea is that the central temple had some religious significance already during its construction. Maybe the mason marks had a kind of magical component; this was already assumed for mason marks from Upper Egypt,[23] as well as other pictographic marking systems.[24] Some amount of superstition among the stonemasons could have caused some inhibition to use this element of folk belief within a context of official religion.

Another interesting component of the distribution patterns of mason marks within the Great Enclosure are the concentration of several examples of different marks on its walls. Some examples of mason marks are concentrated at very few spots within the

22 Fauerbach 2009, 218.
23 Nilsson 2012–2013, 134–138.
24 Kleinitz 2007.

Fig. 18 Spatial distribution patterns of mason marks within rooms of the so called 'holy wedding' and adjacent parts of the Great Enclosure.

Great Enclosure – among them the stroke, no. 1; the duck, no. 87; the bow, no. 98; and the N-shaped mark no. 38. Significant concentrations of the marks no. 1, no. 98, and no. 38 are found on single walls around the room complex 502–504 (Fig. 18), east of the so called 'rooms of the holy wedding'.[25] Concerning the distribution of mason marks, these rooms form a very interesting example: numerous different categories of marks are found here, but in many cases the different types are concentrated clearly on distinct, often very small sections of the walls. This would indicate rather short transport distances, since the walls were obviously erected block layer after block layer, and blocks transported from significant distances would concentrate within these layers, but not necessarily at special, vertically definable wall segments.

The densest concentrations of mark no. 87 are found on the outer southwestern walls of the central terrace (Fig. 19). On the other hand, more examples of all these marks (among many others) are found – in groups and as single marks – on other walls of the Great Enclosure. These four examples of the altogether 81 different mason marks show a similar problem, like the distribution of signs at the central temple: the concentration of signs on different walls are significant, but not so strictly done that they could

25 Eigner 2002.

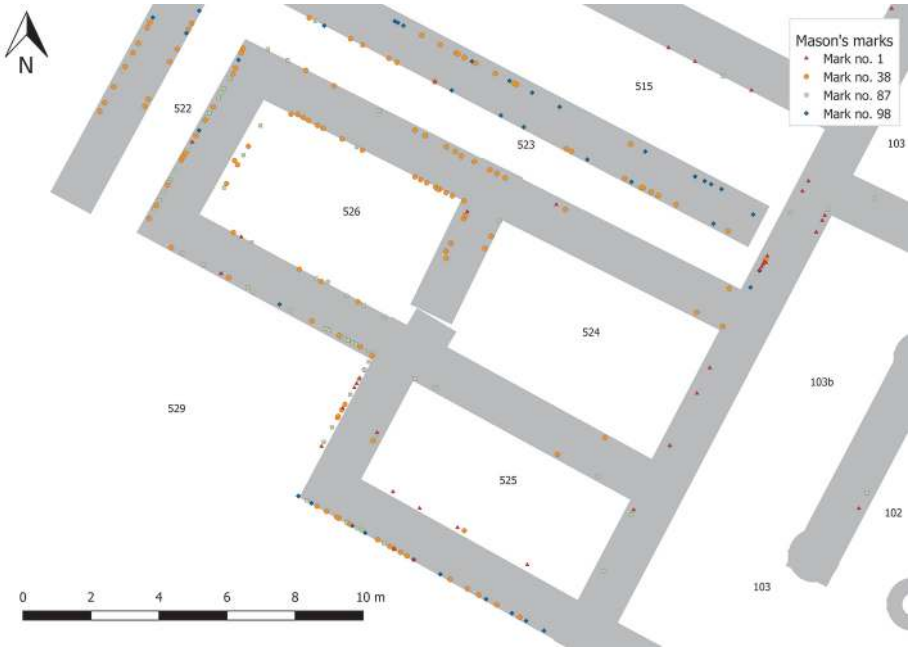

Fig. 19 Spatial distribution patterns of mason marks within the terraced room complex at the southwestern corner of the central terrace of the Great Enclosure.

be explained as setting out marks coding the intended position of the block within the Great Enclosure. The distribution of the marks over large parts of the Great Enclosure, but not exclusively on single walls indicate that their use was closely connected to the construction process, most likely coded working teams. The tracks of the blocks marked with the different marks must in some cases have been rather concise and concentrated (which would indicate short distances), and in other cases more widely distributed (which would indicate middle or longer distances).

4 Conclusions

Trying to decode the function of the Meroitic mason marks using the corpus of the Great Enclosure of Musawwarat es Sufra, the distribution patterns of the signs play a significant role. In general, non-textual marking systems on buildings (mason marks) are interpreted in three different ways: As *quarry marks*, which are not mason marks by the exact meaning of the word, but used by workmen within the stone quarries in order to determine the offspring of the stone blocks. Another conceptual approach is

the interpretation of the marks as *assembly marks* that indicated a specific position within the construction plan a block is intended for by the master builder or architect. Third, an interpretation of the marks as *team marks* is common – in such a case, work gangs or workshops and their masters would have intended to autograph the blocks as their particular work (for economical and/or ideological reasons).

The marks we are discussing often (but not always) are concentrated on different wall parts, so they could not be explained as quarry marks. In this case, by far more homogeneous distribution patterns would be assumed considering the fact that the quarries are found at some distance from the construction site of the Great Enclosure[26] and the blocks were transported over land from the quarry to the construction site (and thus in smaller quantities, perhaps by donkeys or even just human muscle power). As stated above, some of the distribution patterns (especially within the room structure of the so-called 'holy wedding') cannot be explained by larger amounts of blocks transported to the construction site from some distance because then they would have concentrated along block layers (horizontally), but not wall segments (vertically). From a stratigraphic point of view, the archaeological record shows clearly that the different wall segments of this relatively small room structure were not erected one after the other (not even within a very short time interval), but contemporary to each other, so that a chronological explanation for the distinct distribution pattern of mason marks at different (vertically divided) wall segments can be ruled out. The emergence of such a pattern seems only possible in a scenario where stone working (perhaps the dressing of the stone including the smoothed surface where the mason's mark usually is attached) was carried out at several workshops near the construction site, and the finished blocks were transported to the nearest point of the construction site, allowing short transport distances by shifting the workshop used during the construction of one block layer. This would not only have made the transport labor easier, but also would have avoided the risk of damaging the readily dressed but still soft block via unnecessarily long transport routes.

Of course, the organization of labor at the construction site of the Great Enclosure of Musawwarat es Sufra, as well as within the Meroitic stone quarries, is still largely unknown, since (unlike Ptolemaic and Roman Egypt) there are no written sources revealing treaties and other documents recording the production and trade structures. Anyway, at least the topographical setting of the quarries, as well as the traces of the technical aspects of their exploitation, excludes some possible scenarios for the function of the mason marks. The idea that they would be quarry marks would have to explain the occurrence of large sub-corpora of marks, such as mark 98. In such a case, it would be necessary to assume that the quarry was divided into plots of very different sizes, some extremely large and some so small that they were only able to produce a handful

26 Becker 2000.

of work stones. When looking at the remains of the quarries in the valley of Musawwarat es Sufra, it becomes clear quite quickly that the quarries would not have been able to accommodate plots large enough to produce blocks in a number that would explain the occurrence of mark 98 (and other marks occurring in very large numbers) within a timeframe like the one that is established via stratigraphy for the erection of the corresponding walls within the Great Enclosure.

Additionally, the marking of several spolia with mason marks is another indication that the mason marks corpus of Musawwarat es Sufra cannot be interpreted as quarry marks. Even in Ptolemaic and Roman Egypt, where the interpretation of the few mason marks corpora studied in some detail as quarry marks was for a long time not questioned, the observation of spolia marked with (new) mason marks when integrated into a new building caused some inconsistencies. At least within the mason marks corpus of Deir el Shelwit, the fact that spolia show mason marks is explicitly mentioned by their investigator,[27] and the idea that dismantled buildings were juristically treated like quarries was adopted for the mason marks of the temple of Edfu.[28] Anyway, such an organization is indicated nowhere within the large corpus of written documents about quarry exploitation in Hellenistic and Roman Egypt. Additionally, the fact that the mason marks documented on spolia within Deir el Shelwit do not differ from those on the stone blocks that were extracted directly from the quarry, means that the spolia were treated in the same way as quarry-fresh blocks, concerning the mason marks, which makes the quarry mark theory very doubtful.

Additionally, in Musawwarat es Sufra no marks comparable with the mason marks were found within the quarries, making the idea of quarry marks as an explanation for the mason marks of the Great Enclosure rather obsolete.

On the other hand, a role as assembly marks can also be ruled out, since for such a role, the distribution patterns of many marks are too inhomogeneous and not connected with special constructive elements. The interpretation of the mason marks as team marks, marking a working step relatively closely connected with the construction of the walls themselves, seems to explain the distribution patterns best. Here, some segments of the building process, which could have been carried out more closely as well as at some distance to the walls under construction, could be reflected in more or less focused distribution patterns, according to the position of the work gang at the construction site. Also the highly differentiated number of different categories of mason marks could be explained that way (assuming that it was carried out partly by specialized work gangs and partly by teams that usually fulfilled other tasks and were only drafted for these specific duties during peak periods). The fact that only a part of the blocks were marked with mason marks does not fit perfectly with the idea of a billing system (unless

27 Golvin 1992, 80–81.

28 Fauerbach 2009, 214.

it would be assumed that some working teams were organized differently than others, and billed their workload in a different way).

It could, however, also be possible that the marking of blocks by different teams could have had an ideological reason, maybe connected to superstition or folk belief. This is not necessarily to be seen as contrary to a primary function of representing different work gangs; billing processes might have been closely connected to the prestige of different groups of workmen or their leaders. This could integrate the (originally purely functional) marking system into an ideological sphere. Magical and superstitious elements, like those postulated for some later period Egyptian mason marks by Maria Nilsson,[29] could have been seen in connection with such an ideological charge of the mason mark system – it seems possible that working teams tried to 'strengthen' the blocks with the help of their marks. Such a practice could even have been seen as an integral part of the production process within a holistic idea of craftsmanship. On the other hand, the below average distribution of mason's marks within the central temple of the Great Enclosure could somehow be connected to such a magical role of the Meroitic mason marks. As elements of the 'high religion,' these parts of the building might have been subject to some kind of (formal or informal) taboo concerning the exercise of superstition folk practices.

Anyway, the interpretation of mason marks (and other pictographic marking systems), at least partly, in a magical context is still controversial. In any case, the mason marks corpus of the Great Enclosure of Musawwarat es Sufra exemplifies to a great extent that the analysis of the spatial distribution patterns of the single marks can still not completely decode these non-textual marking systems, but indeed delimit interpretations of their possible function(s) rather clearly to a segment of the construction process itself, and exclude formerly popular interpretations of the marks representing quarry marks, at least for the distinct case of the Meroitic mason marks. Further research – for example a combination of spatial analyses of mason marks with petrological studies – has the potential to reveal more details about the labor construction organization within the Meroitic state as well as in neighboring states.

29 Nilsson 2012–2013.

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1–19 Drawing: T. Karberg.

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SIGNS, PLACE, AND ELITES

Lana Radloff

‘Placing’ a Maritime Territory at Hellenistic Miletos

Summary

In the ancient Greek *polis*, the role of maritime communication, trade and transportation routes, and networks meant that seascapes, as well as landscapes, played an essential role in defining civic space. At Miletos, the seascape was visually constituted as a place through the utilization of natural markers and enhanced with manmade structures. In this paper, the term maritime *chora* is used as a tool for understanding the interconnectivity of distinct spaces and the mechanisms used to create and to formalize maritime space within the *polis* and the psyche of its residents. It argues that the integration between terrestrial and maritime spheres at Hellenistic Miletos brought maritime space into the territory of the Milesian *polis* and created a defined maritime ‘place’, the maritime *chora*.

Keywords: Miletos; southeast Aegean Sea; Milesian Islands; *polis*; maritime *chora*; seascape; harbors

In der antiken griechischen *polis* spielten *seascape* (Meereslandschaften) und Landschaft, bedingt durch die Rolle der Seekommunikation, des Handels und des Verkehrs, eine essentielle Rolle bei der Definition des städtischen Raums. In Milet wurde das *seascape* visuell durch den Einsatz natürlicher Markierungen als Ort konstituiert und durch künstliche Strukturen aufgewertet. Hier wird das Konzept der maritimen *chora* zum Verständnis der Interkonnektivität von Räumen und der Mechanismen zur Schaffung und Formalisierung des maritimen Raums innerhalb der *polis* und der Psyche ihrer Bewohner benutzt. Es wird gezeigt, dass die Integration von terrestrischer und Seesphäre im hellenistischen Milet den maritimen Raum in das Territorium der milesischen *polis* brachte und somit einen maritimen „Ort“ definierte, die maritime *chora*.

Keywords: Milet; südöstliches Ägäisches Meer; Milesische Inseln; *polis*; maritime *chora*; *seascape*; Häfen

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1 Introduction

Scholars of Milesian history have long recognized the importance of the city's maritime possessions as an essential component for long distance communication, commerce, and the maintenance of sea power. For a city such as Miletos, these territories ensured access to important trade routes within the larger Aegean and Mediterranean Seas. The east-west Aegean transportation route passed to the south of Samos, Ikaria, the Korsiae islands (Fourni islands) before running through the Cycladic Islands to reach Sounion 1600 stades away.[1] In addition, the north-south sea lane from the eastern Aegean and Mediterranean Sea to the Black Sea followed the islands, not the rough Ionian coast, so the off-shore islands were critical staging posts for long journeys, shelter and safe anchorage from Aegean storms, and access to economic resources, such as fishing and building materials.[2]

Christy Constantakopoulou, includes Leros, Patmos, Lepsia, and Lade, as well as Aegiale on Amorgos and possibly Ikaria, Argiae, Tragia, and Pharmakoussa as Milesian islands in her discussion of mainland *peraiai* ("[land] 'on the other side"').[3] In elucidating Miletos' process of expansion and economic diversification from the Archaic period to the Turkish conquest, Peter Thonemann uses 'maritime hinterland' to describe the city's territorial acquisitions, which include the Milesian islands, Leros, Patmos, Lepsia, and Lade.[4] Building on their work, I assert that the Milesian *polis* ('city-state') incorporated a 'maritime *chora*' ('maritime territory') in the Hellenistic period. Maritime *chora* is a holistic concept that refers to the totality of Miletos' maritime and terrestrial landscapes that includes not only the Milesian islands, but also the coast, hills, and sea and functioned alongside the *asty* ('town') and *chora* ('surrounding countryside') in Milesia, the limestone peninsula with settlement on its northern side.[5] Capitalizing on local geography and topography, the Milesians used defensive architecture and built monuments on the adjacent islands, coast, and hilltops to enclose a roughly 35km x 35km

1 Strab. 14.1.13.

2 Brun 1996, 12. – The islands have limited arable land, but were suitable for agricultural production, particularly tree crops, and pastoral exploitation, as well as maritime trade (Thonemann 2011, 285; Gorman 2001, 48). A decree honoring one Aristomachus, who lived on Leros and made his living from seaborne commerce, testifies to Leros' involvement in the pelagic trade network around Miletos (Manganaro 1963/1964, 2). Brun 1996, 132, interprets this as referring specifically to fisheries. Thonemann 2011, 285, states that Leros, along with Patmos to the northwest, had a superb harbor for major economic and strategic benefits.

3 Constantakopoulou 2007, 228–231. Cf. Greaves 2000b, 44; Greaves 2002, 3–4; Rubinstein 2004, 1082; Gorman 2001, 48; Ehrhardt 1988; Piérart 1985, 276–299. For Ikaria as Milesian, see Herda 2016, 46 with n. 118.

4 Thonemann 2011, 283.

5 I draw on concepts such as 'coastscape' (Pullen and Tartaron 2007, 146), 'islandscape' (Broodbank 2000, 21), 'seascape' (Berg 2010, 22), and 'maritime cultural landscape' (Westerdahl 1992, 5).

area of the intervening seascape, thereby asserting ownership over the maritime landscape and extending the *polis*' territorial control beyond the architectural bounds of the *asty*.[6]

2 The western boundary of the maritime *chora*: defensive architecture and the Milesian Islands

The islands Leros, Patmos, Lepsia, and the Argiae (Fig. 1) marked the western boundary of Miletos' maritime *chora*. Using defensive architecture to exploit their close proximity to one another, the Milesians transformed the islands into a fortified island chain that allowed them to close off and to monitor access into the maritime *chora* from the west and south and to mediate relations with their neighbors. When exactly they came under Milesian control is a matter of debate; although Leros seems to have been a possession already in the Archaic period, Patmos and Lepsia's status as Milesian possessions is only secure for the Hellenistic Period.[7] Epigraphic evidence testifies to the incorporation of Leros, Patmos, and Lepsia by the end of the 4th century BCE when they formed into the single Milesian deme of Leros.[8] A fragmentary Hellenistic dedicatory inscription from Aptera describes the "*polis* and the land and the islands" as belonging to the Milesian state god, Apollo Didymeus.[9] In spite of their physical separation from Milesia, the islands were an essential element of Miletos' territory as a network of defense and communication between city and sea that was integrated into the state religious and political life of the *polis*.

Strabo, citing Anaximenes of Lampsacus, states that Leros was already a Milesian colony in the Archaic period, and Hecataeus recommends that the Milesians use the island as a refuge or fortified camp (*epiteichisma*) in the event that the Persians won the Battle of Lade in 494 BCE.[10] In light of this evidence, the Ionian revolt may have instigated the Milesians to take full control of the island, if it was not already under their control before then.[11] Leros' main settlement was likely located at Aghia Marina on

6 Cf. Pimouguet 1995, 89–109.

7 The only mention of Patmos prior to this is Thuc. 3.33, which does not state who controlled the island at the time (Greaves 2002, 4).

8 Manganaro 1963/1964 2.3–4, 16–18; 3.17; 5.7–8; 6.7–8. Cf. Piérart 1985, 276–283, 292–296.

9 *IG* II^3 16; Robert in *BE* 1960: 312; Robert in *Hellenica* 1: 113–115; Haussoullier 1902. Constantakopoulou 2007, 229, describes this as a "typical phrase for the Hellenistic period."

10 Anaximenes of Lampsacus in Strab. 14.1.6; Hecataeus in Hdt. 5.125. The evidence from Strabo is not taken as definitive for the Archaic period (cf. Bean and Cook 1957, 136–137); however, Herodotus' report demonstrate that Leros was definitely a Milesian possession from the 5th century BCE. – Other evidence for the 5th century BCE derives from the island's mention in Athenian Tribute Lists. Cf. Constantakopoulou 2007, 230, n. 9, 10.

11 Reger 2004, 758. – In 454/3 BCE, Leros was assessed separately as 'Milesians from Leros,' which suggests its defensive role after Lade and that 1/3 of Milesian resources were located on the island. On the anoma-

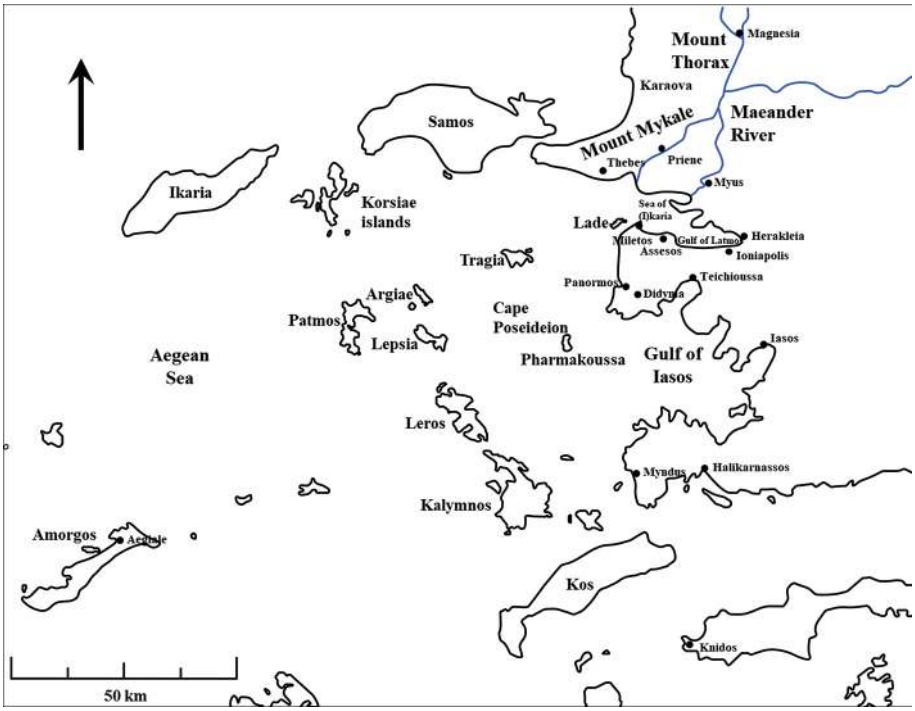

Fig. 1 Map of Milesia Peninsula and its surroundings.

the east coast with a naturally sheltered bay that was well protected from the north winds (Fig. 2).[12] Miletos maintained its control of the island by installing a *phrourion* ('fortress') or fortified settlement at Xerokambos on the southern end of the island in the 4th century BCE and lasted into the late Hellenistic period.[13] Aghia Marina's eastern orientation and Xerokambos' southern orientation provided surveillance over the southern entrance into the Milesian seascape as a vessel sailed north from Kalymnos and the Halikarnassos peninsula, roughly 30 km southeast of Leros. Monitoring the sea may have been particularly important in the absence of control over Kalymnos, which lay less than 2 km from Leros, but belonged to the Hekatomnids in the 4th century BCE and the Koans from the late 3rd century BCE onward.[14]

lous Milesian entries in the first tribute list, cf. Paarman 2014, 121–140 *passim* with table 1, 122–123.

12 Leros was also used as a stop by the Peloponnesian and Sicilian fleet during the Peloponnesian War (Thuc. 8.26). Dunham 1915, 48, n. 3, notes that Leros' east side offers anchorage and protection from the north wind to small coasters. Evidence for habitation dates from the 7th century BCE to Byzantine period (Bean and Cook 1957, 134–135).

13 Greaves 2002, 3; Manganaro 1963/1964, 3; Reger 2004, 758.

14 Gorman 2001, 50; Bean and Cook 1957, 127. Although scholars have debated Kalymnos' status as a Milesian island, there is no conclusive evidence for

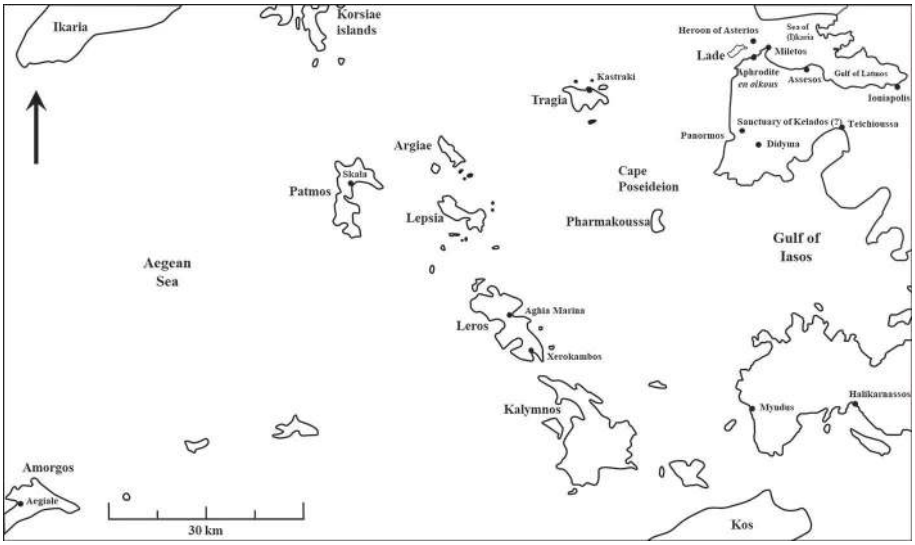

Fig. 2 Map of Milesia and the islands and monuments defining its maritime *chora*.

Control of Patmos, Lepsia, and the Argiae positioned directly north and northwest of Leros further consolidated Miletos' foothold in the Aegean. About 23 km to the west of Leros, Patmos's position within the Aegean Islands gave it excellent interconnective potential, while its hourglass shape gave it sheltered natural harbors on the west and east sides.[15] Like Leros, Patmos' main settlement was oriented toward the Milesian peninsula to the east; archaeological remains of a Hellenistic fort have been found overlooking the main harbor at Skala on the east side of the island, and epigraphic sources indicate that there was also a Milesian *phrourion* that lasted into the late Hellenistic period on Lepsia, an island situated ca. 10 km north of Leros and ca. 15 km east of Patmos (Fig. 2).[16] Moreover, the proximity of the Argiae islands to Patmos (ca. 10 km) and Lepsia (ca. 7 km) suggests that the small cluster of islands, as well as the Hellenistic fortifications located on Arcioi, the largest of the group, were Milesian.[17] Richard Hope Simpson and John Lazenby attribute the Hellenistic fort on Patmos to a Milesian garrison and Patrice Brun associates with Antigonos the 'One-Eyed'.[18] The two propositions need not be mutually exclusive, but rather may be connected with an event in 312 BCE, when Dokimos and Medios were sent by Antigonos the 'One-Eyed' to depose the last satrap, Asandros, and to restore freedom and autonomy to Miletos.[19] The process of outfitting the islands with fortresses may be in response to this event, which brought about the consolidation of Miletos' maritime assets through the incorporation of the islands into a Milesian deme and the increased presence of permanent defensive structures on the islands.

the identity of its inhabitants in the Mycenaean to

Within this network, the islands of Tragia and Pharmakoussa were almost equidistant between the mainland and the defensive island chain of Patmos, Lepsia, Leros, and the Argiae. As a result, both islands served as intermediary points between the Milesian peninsula and the city's possessions further out in the Aegean, guarding ingress and egress into the maritime *chora* and facilitating an early-warning communication system among Miletos and its seaborne territories.[20] Recent archaeological research on Tragia has detected the Hellenistic shipsheds of a Milesian *phrourion* cut into the rocky northern coastline at Kastraki, where protection and surveillance were afforded over the northern entry point into the maritime *chora* and access into the Sea of (I)Karia, the Gulf of Latmos, and the Maeander Valley (Fig. 2).[21] To the southeast, the small island of Pharmakoussa lays ca. 12 km from the mainland coast and the tip of Cape Poseideion, which permitted Miletos to surveil the southern entrance into their territory and access into the Gulf of Iasos. Primary sources corroborate the strategic, defensive, and seafaring roles of both islands. Strabo and Plutarch report that Tragia was used as a shelter for pirates and as the site of a sea battle won by Perikles during the Peloponnesian War.[22] Similarly,

Archaic periods.

15 Thonemann 2011, 287–288; the 40 sq. km island was mountainous, rough, and impassable, so it had limited agricultural potential. The eastern side is the focus of the modern settlement.

16 Patmos: Hope Simpson and Lazenby 1970, 49–50; Brun 1996, 151. Lepsia: Manganaro 1963/1964, 18, 21–22; Ehrhardt 1988, 16–17; Constantakopoulou 2007, 230. Based on surface pottery, Bean and Cook 1957, 136–137, argue that there was a Milesian settlement on Lepsia already in the early Archaic period. Lack of archaeological excavations on Lepsia make conclusions difficult, but the fact that Miletos is dominating the seas from the 7th to 4th century BCE and a Milesian settlement is on neighboring Leros favors Milesian occupation of Lepsia.

17 Pikoulas 1999, 201–212.

18 Hope Simpson and Lazenby 1970, 49–50; Brun 1996, 151.

19 Diod. 19.75.1–4. Diodorus, however, states that Asandros was sent to Karia by Cassander (19.68.4–7). For the restoration of democracy and autonomy to Miletos, see the second preserved eponymic list of Miletos (Kawerau and Rehm 1914, 241–242, 259–260, no. 123.1-4), as well as Herda 2013, 74; Herda in Brückner, Herda, Müllenhoff, et al. 2014b, 72–73; Herda in Brückner, Herda, Müllenhoff, et al. 2014a, 784–786 for discussion. For his role in Miletos' restoration of freedom and democracy, Herda 2013, 68, 73–76; Herda in Brückner, Herda, Müllenhoff, et al. 2014b, 72–73; Herda in Brückner, Herda, Müllenhoff, et al. 2014a, 784, has postulated that a heroon (Heroon 1) was built for Dokimos on Kale Tepe and, following Jones 1992, 91–102, argues that the Lion Harbor was renamed the 'Harbor of Dokimos' in the Hellenistic period, as mentioned in Chariton of Aphrodisias' *Chaireas and Kallirhoë* (3.2.11).

20 Gorman 2001, 50, believes that Tragia and Pharmakoussa were Milesian colonies, based on Miletos' pattern of dominance over its neighboring islands. Pikoulas 1999, 201–212, also asserts that they were Milesian possessions, along with Argiae. – Cf. Greaves 2000b, 44, regarding agreement with Pikoulas about Pharmakoussa. Signal systems are testified in primary sources, such as Thucydides (Thuc. 2.93.4–94.1) regarding Salamis and Megara in the Peloponnesian War. – David Blackman 2010, 382, has also noted an "early-warning system" between Alimnia and Rhodes.

21 Triantafyllidis 2010, 17–19 n. 7. A roof tile stamp belonging to the *phrourion* has been dated before 89/8 BCE (Triantafyllidis 2010, 10, 34–38); for the dating between 188/87 and 90/89 BCE see Herda in Brückner, Herda, Müllenhoff, et al. 2014b, 68, n. 69, fig. 15a–b. Chandler 1775, 178, describes Tragia as "mud-banks and shoals formed by the river."

22 Strab. 14.1.7; Plut. *Per.* 25.3. Cf. Steph. Byz. s.v. Tragia as an island near the Cyclades.

Caesar was held for ransom on Pharmakoussa, a "former Milesian island," by Cilician pirates and freed by a Milesian fleet under the command of Epikrates in 75 BCE.[23] Tragia, situated ca. 18 km southwest of the island of Lade, may have been acquired as an attempt at a defensive measure to prevent Lade's use as a base for attack, because Lade was essential for the protection of Miletos' western harbors from invasions and storms, such as Alexander's siege in 334 BCE.[24]

Because of the proximity of Tragia and Pharmakoussa to the Milesian peninsula and the acquisition of Leros, Patmos, Lespia, and the Argiae, Miletos expanded its economic and defensive interests and inhibited those of other regional powers. Miletos was in conflict with Samos, Priene, and Magnesia over control of Mt. Mykale and the entrance to the Maeander Delta (Fig. 1).[25] Both were sources of pastoralism, game, timber, and arable land for olives and cereals, as well as points of access into the *Heptastadion*, the strait between Samos and Mt. Mykale, and the local markets of the Anatolian hinterland and Maeander Valley.[26] Approximately 35 km from Miletos and 20 km from Tragia, Samos maintained access to Mykale and the Maeander through a *peraia* on the mainland that consisted of the highlands of Mt. Pactyes, Mt. Thorax, and Mt. Mykale and the lowland coastal plain of Karaova, as well as possession of Ikaria and the Korsiai (Fourni) islands.[27] The islands' position on the north side of the east-west transit lane and alternative access to the Black Sea besides the *Heptastadion* ensured connectivity among Samian territories through sea access, so that the *peraia* facilitated control over the *Heptastadion*, and the strait enabled transport to the *peraia*, where there were numerous small anchorages and beach harbors along the low-lying coast of Karaova.[28]

23 Polyaenus 8.23.1; Plut. *Caes.* 1–4; Suet. *Caes*. 4. Steph. Byz. (s.v. Pharmakoussa). Brückner, Herda, Müllenhoff, et al. 2014b, 67.

24 Greaves 2002, 3; cf. Gorman 2001, 50. – Lade is modern Batıköy and has an area of ca. 2.5 sq. km. Cf. Str. 14.1.7; battles at Lade: Hdt. 6.7–18; Thuc. 8.17.3 – base for the Athenian fleet; Arr. *Anab.* 1.18.4–5; Polyb. 16.14–15. In spite of the activity around the island, there are no archaeological remains (Greaves 2002, 3). Constantakopoulou 2007, 119–123, discusses the idea of a 'dangerous' and 'safe' island. A 'dangerous' island was one used as a base for attack, while a 'safe' island is defined by its isolation and the ability of a group to control it and the surrounding sea; nevertheless, an island could be both 'dangerous' for one party and 'safe' for another.

25 Shipley 1987, 32; Thonemann 2011, 282.

26 Shipley 1987, 33–34; Thonemann 2011, 27-31. See also the survey reports by Lohmann 2007; Lohmann, Kalaitzoglou, and Lüdorf 2014.

27 Greaves 2000b, 48. *Heptastadion*: Strab. 14.1.14; cf. Shipley 1987, 31; Lohmann 2002, 196 s.v. heptastadion. – The *Heptastadion* was dangerous because of its fluctuating currents, Samian rivalry with Miletos, and Samian piracy (Shipley 1987, 10–11; Greaves 2000a, 48). For favorable sailing conditions on the south and east sides of Ikaria, see Dunham 1915, 48, n. 1; Shipley 1987, 11–12, n. 32. Ikaria: cf. Strab. 14.1.6 (cf. Anaximenes of Lampsacus *FrGrHist*. 72 F26); Ps.-Skylax 58; Greaves 2002, 4; Reger 2004, 733; Herda 2016, 48, n. 118 for Ikaria as Milesian; cf. Strab. 10.5.13 and Shipley 1987, 19, for Ikaria as a Samian possession; for either Milesian or Samian, see Gorman 2001, 50. Korsiai islands: cf. Shipley 1987, 19; Gorman 2001, 50, for the Korsiai/Fourni islands as Samian; cf. Haussoullier 1902 includes them with Milesian possessions.

28 Shipley 1987, 32.

Miletos' off-shore islands allowed the city to extend its territorial claims beyond the architectural boundaries of the *asty* and the terrestrial limits of the surrounding landscape to the adjacent seascape. Such a process fits well within the ancient seafaring practices of cabotage and pilotage, in which much navigation was carried out in a coastwise fashion hopping from island to island in short distances, rather than long-haul, open sea sailing.[29] By taking advantage of the natural topography of the islands and their proximity to one another and Miletos, the islands created a fortified network whose control was essential as places of attack, refuge, navigation, and economic sustainability. The harbors, anchorages, fortresses, and fortified settlements on the islands facilitated Miletos' seafaring and naval needs, as well as surveillance of the sea, coasts, and islands, patterns of access, and the mediation of territory with its neighbors. Ownership of a maritime *chora* also allowed Miletos to assert authority over the east-west trade route from the eastern Aegean to mainland Greece and more distant islands in the Aegean, such as Amorgos, where a Hellenistic Milesian settlement has been identified on the east coast at Aegiale (Fig. 1 and 2).[30] This suggests that during the Hellenistic period, Miletos used its resources and sea power to build a maritime *chora* that connected to communication networks in its terrestrial *chora* and *asty*, as a means to infiltrate further out into the Aegean.

3 The eastern boundary of the maritime *chora*: the monumentalization of the coast

According to Miletos' foundation myths, the settlement was originally called Anactoria, named after Anax – an Anatolian who was the son of Earth. Anax and his son, Asterios, ruled the city for two generations.[31] Afterward, the city was colonized by Cretans, Miletos and his son, Kelados. Miletos had fled King Minos with Sarpedon and initially settled in a suburb of the city *(Oikous)*. After Miletos died, Kelados was instructed by an oracle to bury his father on a nearby island and to form a new settlement there, naming it after his father.[32] In the early Iron Age, Ionian Greeks from Athens migrated to Miletos, slaughtering the men and forcibly intermarrying with the local Karians.[33] To

29 For recent discussions of sea faring in antiquity, see Morton 2001; Beresford 2013.

30 *IG* XII.7: 395–410; Constantakopoulou 2007, 231; Reger 2004, 734. Aegiale is also mentioned by Stephanus of Byzantium (s.v. Aegiale) as having the alternative toponym of Melania. Ps.-Skylax (58) states that Amorgos was a tripolis.

31 Paus. 1.35.6, 7.2.5. – For Miletos' founders, see Herda 2013, 90–94.

32 Paus. 7.2.5 (Miletos); *Scholium* on Dionysios Periegetes 825 (Kelados). – Strabo (14.1.6), citing Ephorus (*FrGrHist*. 70 F 127), reports that it was Sarpedon who brought colonists and settled Miletos, perhaps at this location. Diodorus (5.79.3) claims that this Sarpedon is the ancestor of Lucian Sarpedon who fought for the Trojans during the Trojan War.

33 Hdt. 1.146.2–3; see Herda 2009.

Pausanias and Herodotus' accounts, Strabo adds that the Ionian hero and son of King Kodros of Athens, Neileos, founded Miletos.[34] At this time, the Ionians brought with them a sacred flame from Athens to light Miletos' hearth in the sanctuary of Apollo Delphinios.[35]

Miletos' historical traditions not only appear in literary sources, but were also built into transitional points within the city's natural environment, which emphasized the topography and geography of Miletos and integrated poliadic space. The following paragraphs take the reader through Miletos' maritime *chora* as a vessel enters Milesian territory from Kos and Kalymnos to the south and sails north following the Ionian coast. Along the route, a sailor encounters religious monuments associated with seafaring deities and Milesian history, an altar at Cape Poseidon and the Sanctuary of Kelados at Panormos, before entering the strait between the Milesian peninsula and Lade, where additional structures lead the vessel to the urban interior: the Sanctuary of Aphrodite *Ourania* on Zeytintepe, the Heroon of Asterios on the offshore islet of Asteria, and the marble harbor lions at the entrance to the Lion Harbor (Fig. 2 and Fig. 3). The strategically placed monuments defined the eastern boundary of Miletos' maritime *chora*, emphasizing connectivity within the diverse topography and geography of the region (rivers, harbors, land, coast, islands, and sea). They highlighted the coasts and hilltops and reflected and reinforced social memory of Miletos' Cretan, Ionian, Anatolian, and maritime roots, and, thereby, functioned as bridges to communication and transportation networks at sea that turned the seascape enclosed between the coast and islands into a maritime canvas showcasing important maritime deities, figures, and events from Miletos' past.[36] As sailors journeyed through Milesian territory, they saw the monuments and used them to navigate along the rough Ionian coast from religious site to religious site, integrating the monuments into the living fabric of the sea.

A large marble altar to Poseidon Enipeus dating to the middle of the 6th century BCE is located on the tip of (Cape) Poseideion, a rocky peninsula that juts to the southwest overlooking the north-south sea lane from the eastern Mediterranean to the Black Sea.[37] Alan Greaves suggests that the altar had both symbolic and practical purposes: to warn sailors away from the dangerous rocks and to guide pilgrims to Panormos, the harbor of Didyma.[38] The altar's reflective white limestone construction made the hazardous

34 Str. 14.1.3. Strabo (14.1.6), citing Ephorus (*FrGrHist*. 70 F 127), also states that Neileos built Miletos; see Herda 1998.

35 Hdt. 1.146.2. Cf. Herda 2011, 79–81, n. 138; Herda 2016, 39–41, n. 104.

36 For a complete discussion of the shoreline as a 'bridge' see Ford 2011.

37 Strab. 14.1.3, 14.1.5, 14.2.1; 14.2.22; Plin. *NH* 5.31; Greaves 2000b, 45–46. The altar (11m x 20m) dates to the 530s BCE (Koenigs, Knigge, and Mallwitz 1980, 65–67; Gerkan 1915, pl.1, 24). See Herda 1998, 11–16; Herda 2009, 91. Cf. Lohmann 2002, 241 s.v. Poseid(e)ion, Posideum.

38 Greaves 2000b, 45–46. Although there are no known shipwrecks near Miletos because of the Maeander River's alluvial fan (Parker 1992, fig. 13), another dangerous navigational point is known a

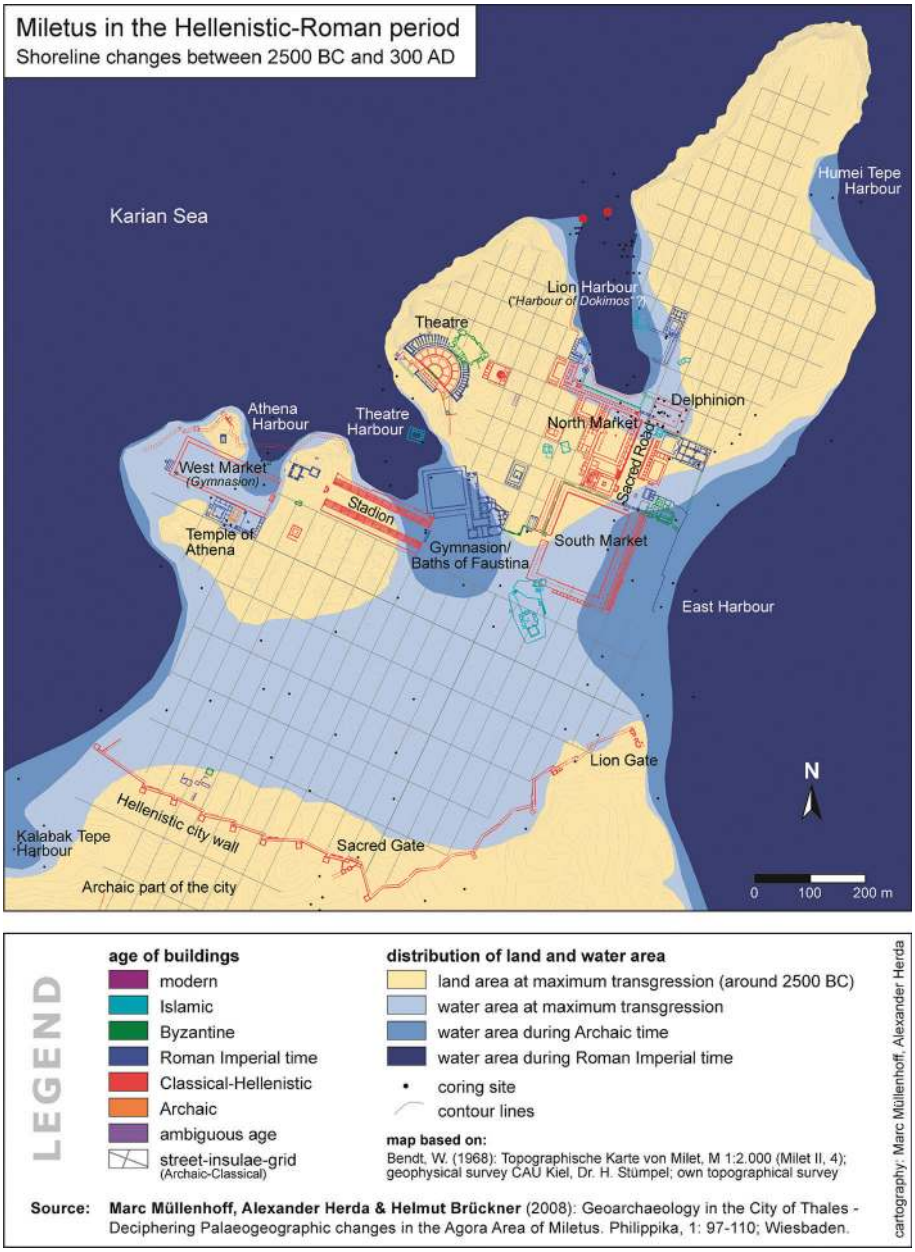

Fig. 3 Paleographic map of Miletos and building phases (positions of marble harbor lions in the Hellenistic period marked with red circles).

promontory visible during daylight and may have functioned as a lighthouse that was administered by Miletos for sailors and fishermen.[39] It linked the Milesians in the city to the coast and islands through its dedication to the sea god, Poseidon, but it was also associated with Milesian history, because it was allegedly founded by Neileos, the Ionian founder hero and descendant of Poseidon, thereby creating cohesiveness between islands, land, and sea and integrating the sailing community in the *polis*.[40]

From Cape Poseideion, a vessel could either continue north to Panormos or travel east toward the Gulf of Iasos, where the Milesian *phrourion* ('fortress') of Teichiose was situated at a narrow access point between Mt. Grion and the coast.[41] Thucydides records that a fleet of 55 ships was beached at the natural beach harbor at Teichiose during the Ionian War.[42] In contrast, the northern route from Cape Poseidon along the west coast allowed views of the Temple of Apollo at Didyma to sailors, before they arrived at Panormos ('always fit for mooring').[43] The harbor's purpose was to transport stone for the construction of the Didyma temple and for pilgrims to make the 6 km journey to the oracle via the Sacred Road (Fig. 4).[44] Near Panormos, a sanctuary was built for the eponymous founder Miletos' son, Kelados ('Clamor'), whose name and ancestry from the immortal river god, Maeandros, suggests that Kelsados was a river god, and has led to the tentative attribution of a nearby river as the personification of the deity.[45] As Alexander Herda suggests, Kelados was venerated as a marker "of [the Milesians'] successful occupation of and subsequent rooting in the new lands of Asia Minor."[46] Within Kelados' sanctuary, there was also a cult statue of Hermes, who may have been honored as protector of roads and travelers.[47] Together, the cult monuments to a river

few kilometers north of Panormos. Amphorae were found at Taş Burun ('Rock Promontory'), indicating that it is the site of a possible shipwreck (Greaves 2000b, 45). Primary sources frequently refer to Cape Poseideion when describing the location of Didyma: Str. 14.1.5; Pompon. *Mela* 1.17; Plin. *NH* 5.31; Stadiasmus Maris Magni *Geographi graeci minors* (Müller 1855, 1.501; cf. Greaves 2000b, 46; Haussoullier 1902, xv–xx).

39 Simon 1986, 8, n. 56.

40 According to Strab. 14.2.1 and Plin.(*NH* 5.31, Cape Poseideion marks the SW corner of Ionia as a border towards Karia. Cf. Pompon. *Mela* 1.17 and Herda 2009, 91.

41 Cf. Ehrhardt 1988 s.v. Teichiussa; Herda 2006, 338-343 regarding the statue of Chares, *archos Teichioses*, who was military commander of Techiosa, the 'High-walled.'

42 Thuc. 8.26–28. Hecataeus in Herodotus (Hdt. 5.25.1) advises Aristagoras to fortify the island of Leros as a retreat in case of a defeat by the Persians.

43 Bostock and Riley 1855, 5.31, n. 3.

44 Didyma as Milesian territory: Hdt. 1.46.2, 157.3; 5.36.3. Panormos: Greaves 2000b, 43–44; Flemming, Czartoryska, and Hunter 1973, 34–37. There is a necropolis of the 7th to 2nd century BCE found during recent rescue excavations (http://www.panormos.de/pp/ etc, visited on 13/06/2019), which suggests that a settlement was also situated here; however, Flemming, Czartoryska, and Hunter 1973, 34–37, identified the remains of a wooden jetty 80 m from the present coastline, which also includes column drums probably abandoned during the construction of the Didyma Temple.

45 Herda 2006, 305–310; Herda 2013, 92.

46 Herda 2013, 92.

47 Herda 2006, 305–310, supposes that there is a 'herm' as a marker for a road crossing, where Hermes is venerated as protector of the procession, as well as roads and travelers, but there is no direct proof for this except the Paean sung for him during the procession.

god and liminal deity may have also marked the transition between sea and land by building a place within the landscape for sailors and pilgrims to make offerings for a safe voyage on their way to and from the Temple of Apollo at Didyma. In addition, the statue of Hermes in Kelados' sanctuary and a portrait statue of Chares, a Milesian *phrourarch* ('fortress commander') at Teichiose, were incorporated into the state calendar through their inclusion as the seventh and fourth stations on the processional route from Miletos to Didyma during the annual festival to Apollo (Fig. 4).[48] Although lying in the extra-urban territory of Miletos, religious activities actively tied Panormos, Didyma, and Teichiose into the *asty* and reiterated *polis* identity and notions of citizenship. Ease of access between maritime *chora*, terrestrial *chora*, and *asty* ensured the participation of the sailing community and Milesian residents in the islands and smaller settlements throughout Milesia within important state events.

Further to the north, the Heroon of Asterios and the archaic sanctuary of Aphrodite *en Oikous* guided ships from Panormos through the strait between the island of Lade and the peninsula to Miletos. On the seaward side, a heroon was built on the small islet of Asteria, honoring the mythical Anatolian founder, Asterios.[49] Directly across from it, Aphrodite's sanctuary overlooked the sea on a low hill at Zeytintepe 2 km southwest of Miletos just outside the city walls, where Cretan Miletos founded the original settlement (*Oikous*).[50] The importance of Aphrodite's sanctuary for seafaring is demonstrated by the materials from archaeological excavation, which include eastern imports.[51] Greaves, who has examined Aphrodite's epithets in Miletos and its colonies, concludes that the goddess' cult provided a common bond between Miletos and her numerous colonies and reinforced its seafaring networks further afield.[52] Situated on both sides of the strait, the monuments facilitated navigation and surveillance of the sea and asserted ownership over the seascape around Miletos. They recalled Miletos' autochthonous and colonial past and its tradition of seafaring, and strengthened social memory of the city's connection with Aphrodite.

48 Cook 1961, 90; Herda 2006, 337–343; Herda 2013, 101. Cf. *Molpoi Decree* ll. 25–32.

49 Paus. 1.35.6. The Heroon of Asterios has not been located in the archaeological record; however, Herda 2013, 91; see also Brückner, Herda, Kerschner, et al. 2017 on estuarine islands) tentatively identifies it with a small 22 m high rocky hill, ca. 2.5 km from Miletos, which is now subsumed within the alluvia of the Maeander River plain.

50 Gans 1991, 137–140; Senff 1992, 105–108; Heinz and Senff 1995, 220–224; Senff and Heinz 1997, 114–118. C.f. Greaves 2000b, 40; Brückner, Herda, Müllenhoff, et al. 2014b, 62. The Sanctuary's attribution to Aphrodite is derived from the *scholium* on Dionysios Periegetes (825) and an Archaic dedicatory inscription to 'Aphrodite in Oikous' (Senff 2003; Herrmann 1995, 282, fig. 82; Herrmann, Günther, and Ehrhardt 2006, 174–176, pl. 28, no. 1279).

51 Cf. Excavation reports in Gans 1991; Heinz and Senff 1995; Senff 1992; Senff and Heinz 1997; Senff 2003.

52 Her epithets include (Greaves 2004): *ourania* ('celestial'), *euploia* ('good sailing'), *pontike* ('of the open sea,' specifically the Black Sea), *nauarchis* ('mistress or guardian of ships'), and *aphrogeneia* ('foam-born').

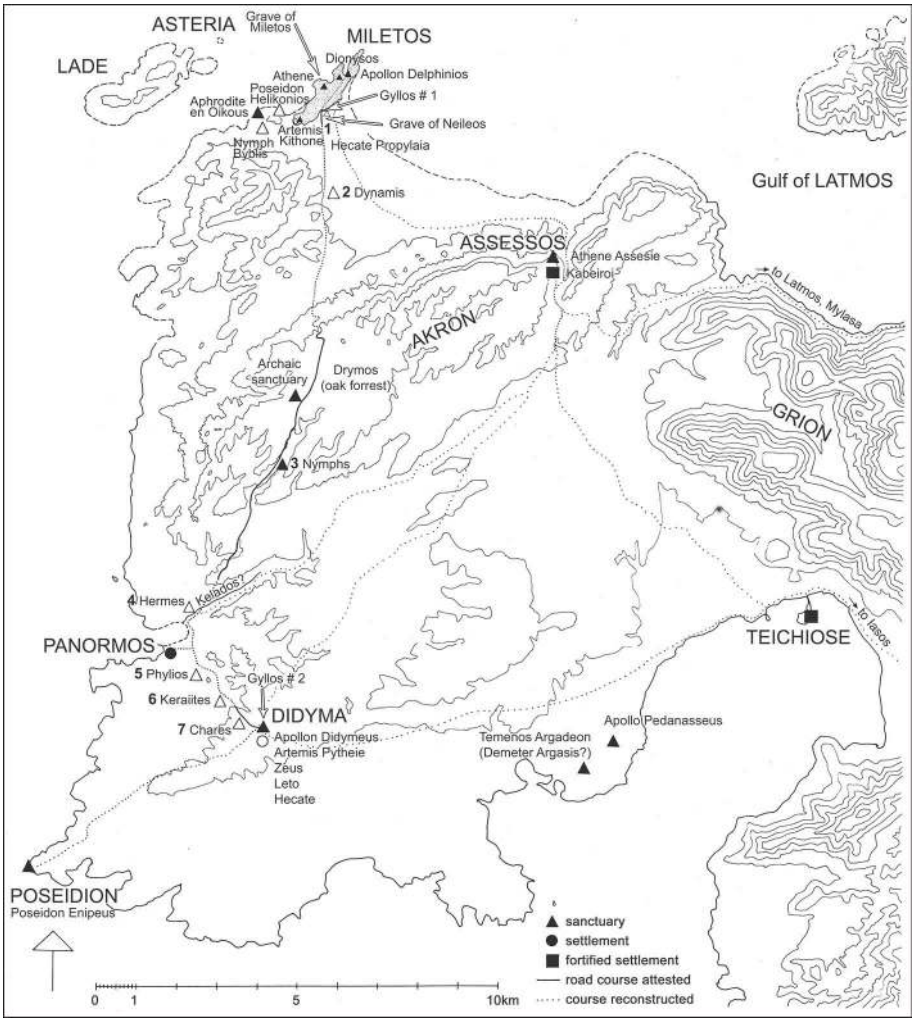

Fig. 4 Map of Milesia and the processional route to Didyma.

As Miletos' urban plan developed in the late 4th century BCE, the Lion Harbor's environs were monumentalized. Two colossal marble lions were added to the moles on either side of its entrance, ornamenting the seascape and marking the transition into the *asty* from the maritime *chora* (Fig. 3).[53] An inscription dedicated by Sophilos, the *epimeletes* or 'inspector' in charge of the harbor, was added to the right shoulder and breast of the

53 For a complete discussion of the configuration of the harbor moles and lions, consult Brückner, Herda, Müllenhoff, et al. 2014b, 51–53, n. 12, 72, 82–84, fig. 22. See Von Graeve 1996 for the dating and description of the harbor lions.

eastern lion in the late 1st century BCE or early 1st century CE.[54] Although late in date, the inscription suggests that the eastern lion served as a boundary marker and protector of the Lion Harbor that "addressed incoming ships."[55] As symbols of Apollo, civic god of Miletos and protector of seafaring, the statues protected the seaward entrance into Miletos, whose iconography was echoed in the urban interior with the Delphinion, the sanctuary of Apollo Delphinios, situated on the southeastern coast of the Lion Harbor.[56] Reorganization of urban territory allowed Miletos to divide its maritime space according to function, so that the Lion Harbor, the *kleistos limen* ('closable harbor') of Miletos, became increasingly devoted to military and symbolic activities, such as the opening of the seafaring season and receiving of foreign diplomatic missions, and the Humei Tepe and East Harbors were allocated to commerce, including an *emporion* and slave market.[57]

From a practical standpoint, the multiplicity and multi-directionality of harbors produced more access and integration between the *asty* and its territories in the (I)Karian Sea, Gulf of Latmos, and Maeander Valley, and facilitated the movement of goods and natural resources between Miletos and inland Anatolia (Fig. 1).[58] For example, Assesos was located near the northeastern coast of Milesia. Although the Temple of Athena Assesia was destroyed by Alyattes in ca. 608 BCE, a wall with three towers and a gate dating to the second half of the 5th century BCE attest to Assesos' ongoing importance as a fortress for protection of the settlement and Miletos' coastal areas.[59] Its persistence may be related to the cult of the Kabeiroi. These protective figures were sent by divine command to free the Milesians and to aid them in avenging the murder of King Laodamas, and have been connected with the Dioskouroi as protectors of navigation and the dangers of the sea.[60] Epigraphic evidence also testifies that Ioniapolis on the south coast of

54 Milet6.1: 9–11, 197, no. 188; Brückner, Herda, Müllenhoff, et al. 2014b, 51–53; Brückner, Herda, Müllenhoff, et al. 2014a, 780–781.

55 Brückner, Herda, Müllenhoff, et al. 2014b, 82; *SEG* I: 425; Rehm, Hermann, and Herrmann 1997, 197; Rehm in Rehm, Hermann, and Herrmann 1997, 10. Line 8 of the inscription states: "I lie here now, a guard for the public harbor" (δαμο̣[σ]ί[ωι κεῖμαι] τῷ̣ιδε̣ [ἔ]φε̣δρος λιμένι). Cf. the Piraeus boundary stones at the harbor: *IG* I^2 887–896; Hill 1932, 254–259; McCredie 1971, 96–98; Garland 1987, 140–141, 225–226. Cf. Baika 2013, 186–187.

56 On the role of the Delphinion and Apollo Delphinios, see Herda 2005; Herda 2011.

57 For the connection between Lions and Apollo at Miletos, see Brückner, Herda, Müllenhoff, et al. 2014b, 51–53. Other examples of lions in association with Apollo include the lion terrace at Delos. For the Lion Harbor as *kleistos limen*, see Brückner, Herda, Müllenhoff, et al. 2014b, 70–72. Strabo (Strab. 14.1.6) states that Miletos had four harbors in his time, one of which could hold a fleet. For the commercial role of Humei Tepe Harbor, see Brückner, Herda, Müllenhoff, et al. 2014b, 91 and Bumke and Tanrıöver 2012. For the East Harbor as the *emporion* and slave market of Miletos, see Brückner, Herda, Müllenhoff, et al. 2014b, 93–4.

58 On Miletos and the Maeander River Valley, see Thonemann 2011.

59 Lohmann 2005, 314–321. The sanctuary is attested through a 6th centry BCE dedication (Herrmann 1995, 288–292; Wachter 1998). Cf. Hdt. 1.19–21 (destruction of the temple by Alyattes); Lohmann 2005, 313–314; Kalaitzoglou 2008.

60 Nikolaos of Damascus *FrGrHist*. 90. – See Fontenrose 1988, 152–154, for a full account and translation of the Kabeiroi origin myth. Fontenrose's analysis is based not only on Nikolaos of Damascus, but also 20 inscriptions (1st-3rd century CE) from

the Latmian Gulf had a harbor and nearby quarries, as well as a *porthmis* ('ferry service') that offered service to Miletos.[61] Although both Assesos and Ioniapolis were linked to greater Milesia through roadways (Fig. 4), sea travel was a more efficient means of travel around the Milesian territories.[62]

Through heroons, temples, and sanctuaries, geographical regions and landmarks were incorporated into Miletos' maritime *chora*. The monuments were dedicated to important seafaring deities such as Poseidon and Aphrodite, and linked to the Milesian past through the city's early colonial history, heroes, and protective gods. They asserted Miletos' ownership over its maritime and terrestrial landscapes, linked topographical features, and enhanced the relationship between Miletos' *asty* and *chora*, while promoting trade and communication networks within Milesia, the (I)Karian Sea, and Maeander Valley. Because of their positions on prominent coastal locations, the buildings were meant to be seen by sailors travelling along the sea route, so they led ships to the settlement and, at the same time, embodied the seascape with Miletos' past that connected the disparate land- and seascapes. In turn, Miletos strengthened its economic, religious, social, and political relationships throughout the Mediterranean.

4 Conclusion

Miletos' maritime *chora* was defined by a chain of fortified islands to the west – Leros, Patmos, Lepsia, and the Argiae – and a series of religious and cultural monuments on the coast to the east. Although the city had already gained possession of several off-shore islands in earlier periods, Miletos' dominance and mechanisms of control became more sophisticated in the Hellenistic period: the city increased defensive architecture on the islands and incorporated the islands into the deme of Leros. These islands were connected to the *asty* through lines-of-sight to preexisting religious and cultural monuments situated on the coast, which functioned as extensions of the urban plan that led to the

Miletos and Didyma, as well as a letter of Caecina Paetus, Roman governor ca. 85 CE, and Hesychios s.v. Kabeiron. The Kabeiroi are sometimes identified with the Kûretes, Korybantes, and Dioskûroi (Strab. 10.3.19–21; Paus. 1.31.1, 8.21.4; cf. Garland 1987, 128; Farnell 1921, 186–187). The cult of the Kabeiroi is also attested at Athens (Arist. *Peace?* 277–79; Apoll. *Argon*. 1.915-8; *IG* II^2: 1006.29; cf. Cole 1984, 43), Samothrace (Hdt. 2.51.2; *IG* 12.8: 216, 227–232), Lemnos, Imbros, and Troy (Str. 10.3.21); Delos (Laidlaw 1933, 160); Thebes (Paus. 4.1.7, 9.26.5–10); and Euboia (Garland 1987, 128). It also spread to Italy, Sicily, and the Black Sea.

61 Ioniapolis and its harbor and nearby quarries: Polyb. 18.44.4; Kawerau and Rehm 1914, 149–150; Didyma2, 40. Ioniapolis is known from the Hellenistic period onwards; cf. Peschlow-Bindokat 1977/1978; Peschlow-Bindokat 1996, 59-60; Peschlow-Bindokat 2005, 910 s.v. Ioniapolis; Lohmann 2002, 201 s.v. Ioniapolis; Herda 2009, 91, n. 366. – Peschlow-Bindokat 1977, 100, argues that Ioniapolis was used as a quarry and harbor already in the Archaic period. Ioniapolis and the *porthmis*: Kawerau and Rehm 1914, 150.99–105; cf. Greaves 2000b, 44.

62 Greaves 2000b, 44.

settlement core. Vessels taking the sea routes passing through Miletos' maritime *chora* utilized the harbors and anchorages on the islands for trade, supplies, and protection from inclement weather, and the religious and cultural monuments along the coast for navigation and maritime ritual. Repetitive acts of sailing strengthened communication and transportation networks between the islands, coast, and city, integrating the maritime landscape into the *polis*.

Such development may be in response to the reoccurring exploitation of islands such as Lade, by opposing parties, conflict between Miletos and its neighbors, Samos, Priene, and Magnesia, and the rise of other regional powers, such as Rhodes, Halikarnassos, and Pergamon. The maritime *chora* was used as a complement to the terrestrial *chora* to ensure the *polis*' economic, social, political, and religious needs, and attests to Miletos' ability to adapt to the changing circumstances of the Hellenistic period and to the city's continued importance and power in the southeast Aegean.[63] It allowed Miletos to strengthen its relationship with the sea and its colonies further out in the Black Sea and Propontis, and Naukratis in North Africa, territories that significantly extended the city's maritime *chora* and foothold in the Aegean.

63 Cf. Bresson 2016, 181–183; *contra* Lytle 2012, 2, 19. – It should be noted that Bresson and Lytle discuss a maritime territory specifically with regard to marine fisheries.

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1–2 L. Radloff. **3** Müllenhoff, Herda, and Brückner in Herda 2013, 85, fig. 18 (with additions by L. Radloff). **4** Herda 2013, 90, fig. 20.

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Post-Actium Place Making: Octavian and the Ambracian Gulf

Summary

Octavian celebrated his victory at the Battle of Actium by founding four naval victory monuments: the campsite memorial, the city of Nicopolis, the Actian neorion, and the Temple of Actian Apollo. Earlier scholars have mostly considered each monument on its own. In this paper, I argue that Octavian created a sacred landscape of naval victory at the entrance to the Ambracian Gulf by considering the relevant topographical, iconographic, archaeological, and literary evidence. He achieved this through the construction of an interconnected complex of sacred trophies linked together by common symbols (e.g. the warship ram). Synchronic in foundation yet diachronic in nature, this landscape relied on visual interconnections, shared symbolism, and the fusion of bi-cultural patterns of commemoration.

Keywords: Octavian; Nicopolis; Actium; landscape; warship ram; trophy; naval battle

Oktavian feierte seinen Sieg in der Schlacht von Actium mit dem Bau von vier Siegesmonumenten: *campsite memorial*; Nikopolis Stadt; Actisches Neorion und der Tempel des Apollo Actius. Frühere Forschung betrachtete meist jedes Monument für sich. Doch hier wird dargelegt, dass Oktavian eine sakrale Landschaft der Seesiege am Eingang des Ambrakischen Golfs errichtete, indem er die relevanten topographischen, ikonographischen, archäologischen und literarischen Evidenzen verwendete. Er erreichte dies durch den Bau eines zusammenhängenden Komplexes heiliger Trophäen, die durch gemeinsame Symbole (z. B. Rammsporne) verbunden waren. Synchron in ihrer Gründung, diachron ihrer Natur nach, beruhte diese Landschaft auf visuellen Verbindungen, geteilter Symbolik und dem Verschmelzen bikultureller Gedenkmuster.

Keywords: Oktavian; Nikopolis; Actium; Landschaft; Rammbock eines Kriegsschiffes; Trophäe; Seeschlacht

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1 Introduction

The memory, collective or individual, of an event – especially one as chaotic as a battle – has always been malleable and can fade. However, the monument or monuments set up to commemorate such an event represent a selective memory made solid and substantive in the landscape. One such structure, on its own, elicits meaningful yet often limited temporal and physical engagement. Multiple commemorative monuments located at important sites throughout a single battle zone's topography knit together both monuments and the surrounding natural features into a landscape. This landscape, now structured by man-made landmarks, becomes a totality of far greater impact than the sum of the individual monuments, thereby, representing a specifically engineered version of past events.

In northwest Greece, Octavian celebrated his victory at the Battle of Actium in 31 BC by founding a complex of four naval victory monuments: the campsite memorial, the city of Nicopolis, the Actian *dekanaia*, and the Temple of Actian Apollo. Earlier scholars have mostly discussed each monument in isolation from the others or focused on only one of them, while treating the others in a cursory fashion. Such approaches neither fully appreciate the inherently sacred nature of these monuments nor considers their transformative effects on the geography of the Ambracian Gulf. In this paper, I argue that Octavian consciously created a sacred landscape of naval victory on this gulf.[1] I determine this based on the literary and iconographic evidence for ancient *tropaia*; the iconographic evidence from preserved ancient warship rams; and the archaeological, iconographic, literary, and topographical evidence of Octavian's four Actian monuments. As we shall see, Octavian achieved his new landscape almost *ex novo* through the construction of an interconnected complex of intrinsically sacred *tropaia* that share symbols in common, such as the warship ram.

1 Reitz-Josse 2016, 276–296, also discusses, as she puts it, "A Landscape of Victory: Nicopolis and the Actian Monuments", but she focuses on, "representations of the landscape and seascape of Actium in the works of Greek epigrammatists and the elegiac poet Propertius […] and the different ways in which this landscape was turned into a physical and literary memorial of a 'Great War'". I discussed a 'Landscape of Naval Victory' around the Ambracian Gulf in my 2011 dissertation, Lorenzo 2011, 42–54, 214–215, 368–381. – Reitz-Josse 2016, 293, n. 43, cites this work incorrectly when she states that I see the campsite memorial as following the tradition of *tropaia*, but ultimately put it into a category by itself. The category I put it in was that of one of the *tropaia* making up "Octavian's Actium Complex: A Landscape of Naval Victory" (Lorenzo 2011, 268, 272).

2 Trophies

Ancient writers applied the word *tropaion/tropaeum* to two distinct types of monuments.[2] The first was a monument set up on the battlefield for a land battle or a nearby seashore for a naval battle immediately after the victory (i.e. battlefield trophies). The second was a more or less permanent war memorial erected either in urban or sanctuary settings, on the battlefield, or near a seashore, often many years after the actual engagement (i.e. commemorative monuments).[3] Like trophies for land battles, the earliest naval trophies consisted of an upright tree-trunk, sometimes with a crosspiece decorated with captured weapons and armor that were fixed in the same way as they used to hang on a soldier's body (Fig. 1).[4] Such a trophy also included a part or parts of a ship, such as oars, and an informative inscription. The commemorative monument type of trophy had many variations, including a column topped by a statue, such as the trophy for Salamis, which was the first for a naval battle.[5]

The literary evidence for naval trophies can be traced from Thucydides in the 5th century down to Pausanias in the 2nd century AD.[6] The dates of the trophies mentioned range from 479 until the early 3rd century BC.[7] This by no means should be interpreted as the only period when trophies may have been erected for naval battles. Iconographic evidence of armed men on warships goes back to the Geometric period (ca. 900–700 BC), providing for at least the possibility that there may have been trophies set up after such early naval engagements.[8] During the 3rd and 2nd centuries, several important battles such as those at Cos (ca. 246 BC) and Chios (201 BC) gave ample opportunity for the victors to erect trophies.[9] However, the Roman and allied defeat of Antiochus III's fleet at the Battle of Myonessus (190 BC) effectively neutered non-Roman naval power in the eastern Mediterranean.[10] The twenty-two naval trophies mentioned in ancient written sources may only be a small portion of a larger *corpus* dating from at least the 8th century until the 2nd century.[11]

2 Woelcke 1911, 127–235; Pritchett 1974, 250, n.16.

3 Woelcke 1911 (143) states that only by recognizing the fact that ancient authors applied the word *tropaion* to two distinct types of monuments (i.e. both battlefield and commemorative monuments), could apparent contradictions in ancient literature about trophies be reconciled (cf. Pritchett 1974, 250).

4 Rabe 2008, 56–59, 172–174, taf. 7; Mark 1993, pl. 21.b.

5 Xen. *An*. 3.2.13; Paus. 1.36.1. See also Rabe 2008, 104–106. This trophy was originally a battlefield trophy that was replaced with a commemorative monument in the 460's BC.

6 Thuc. 1.30.1 (cf. Diod. Sic. 12.30.2–5, 31.2); Paus. 1.36.1 (cf. Pl. *Menex*. 245A; Xen. *An*. 3.2.13; Lycurg. *Leoc.* 73; Plut. *Arist*. 16.5).

7 For the trophies in 479, see Xen. *An*. 3.2.13 and Paus. 1.36.1; for those in the early 3rd century, see Plin. *NH* 6.32.152.

8 For examples of Geometric warships see Morrison and Williams 1968, pl. 1–7; Casson 1974, pl. 30, 62, 64–77.

9 Reger 1994, 33–34.

10 Morrison and Coates 1996, 104–109.

11 Lorenzo 2011, 242–252.

Fig. 1 Silver denarius of Octavian (29–27 BC).

The actions of the Peloponnesians after their victory at the Battle of Syme (411 BC) throw considerable light on the importance of naval trophies.[12] Immediately after this battle, they traveled the 40 kilometers back to Cnidus to await reinforcements. After their reinforcements arrived, they then made an 80-kilometer round trip voyage from Cnidus to Syme and back again. Thucydides gives no reason for this tiresome, post-combat journey, except to erect a trophy.[13] The *trireme* under normal conditions in a calm sea could travel up to two hundred and thirty-six kilometers in a very long day, but these were in no way normal conditions.[14] The Battle of Syme took place in the winter, a season when the Mediterranean often experiences a higher frequency of inclement weather; in fact, the night before the battle had been foggy and rainy.[15] The Athenians still held the island of Syme. The Peloponnesians set up their trophy in enemy territory. The strenuous efforts the Peloponnesians undertook to erect their trophy for Syme underscore the prestige inherent in having the ability to erect this type of monument.

From Sicily to Arabia, naval trophies turned both isolated and populated coastlines into vehicles for the commemoration of naval victories.[16] Acting as repositories of memories, the trophies and their inscriptions especially ensured the mnemonic continuation of events that occurred on the sea, a sometimes volatile and always transitory medium. The trophy, for as long as it endured its harsh coastal environment, gave its shoreline location a special connection to the waters nearby. Each trophy, similar in form, function, and reason for being, created a locus of remembrance. These loci, once encountered, whether by individuals with prior knowledge of the relevant events or not, shaped the viewer's notions of past events and like heirlooms visible in the landscape, offered tangible contact with that same past.

12 Thuc. 8.42.5.

13 Thuc. 8.42.5.

14 Morrison, Coates, and Rankov 2000, 102–104, derive these figures from their analysis of Xen. *An*. 6.4.2. Only the famous non-stop voyage from Piraeus to Mytilene (Thuc. 3.49) of 340 kilometers in one day was longer.

15 Thuc. 8.42.1.

16 Xen. *An*. 3.2.13; Paus. 1.36.1; Plin. *NH* 6.32.152.

The one indisputable measure of success in battle was a trophy. A trophy was lasting evidence; a public proclamation ensuring honor for prowess.[17] There could be no immediate publicizing or commemorating a victory without one. Besides being the one undeniable measure of prowess, trophies were also sacred offerings dedicated to a deity or deities and it was, therefore, sacrilege to destroy one. However, Pritchett's statement that, "in the case of a naval victory, the trophy was [...] consecrated to Poseidon", is not reflected in the sources, epigraphic or literary.[18] For example, according to *IG* II^2 1006, lines 28–29 and 1028, line 27, the Athenians periodically made sacrifices to Zeus Tropaeus before the trophies at Salamis and Marathon, even though Poseidon was the protecting deity of the Battle of Salamis. Thucydides (2.84.14) relates how the Athenians set up a trophy near a *trireme*, but only the warship was dedicated to Poseidon. Pliny (*NH* 6.32.152) records that Numenius, the Seleucid governor of Mesene, dedicated two trophies to Jove and Neptune jointly, one for a naval battle and the other for a cavalry engagement. In fact, none of the ancient sources ever explicitly state that any trophy for a naval battle was dedicated exclusively to Poseidon. Therefore, especially because a trophy for a land battle could be consecrated to Poseidon,[19] trophies for naval battles could be dedicated to almost any deity, but presumably most often to the deity or deities to whom the victory was ascribed.

Pritchett, in his five-part *The Greek State at War,* includes a chapter that discusses both battlefield and commemorative monument types of trophies.[20] At the end of this chapter, he summarizes the most salient points concerning both types of trophies, some of which I have already touched upon in the preceding paragraphs. Trophies are set up 'immediately' or soon after the decisive conflict. They are situated either at the place on the battlefield where the enemy first turned or on a seashore nearby. They are created by the victor who routed his opponents and won possession of the battlefield. They are all dedicated to at least one divinity that the victor believed was most helpful.[21] In the case of trophies set up 'immediately' after battle, they are inviolable and could not be repaired in any way. Trophies set up in remote or enemy territory could not be objects of cult worship. Commemorative monuments of victory were of a permanent nature and were themselves called trophies. All trophies were created to be symbols of the victor's prestige and prowess.

In my opinion, the campsite memorial, the city of Nicopolis, the Actian *dekanaia*, and the Temple of Actian Apollo can all be considered trophies of the commemorative monument type. They were all set up soon after the Battle of Actium.[22] They are all

17 Finley 1956, 132.
18 Pritchett 1974, 275.
19 Paus. 8.10.8.
20 Pritchett 1974, 246–275.
21 Pritchett 1974, 273–275.
22 Zachos 2008a, 39 (campsite memorial); Lange 2009, 96–99 (Nicopolis); Schwander 2001, 112 (Nicopolis); Blackman 1996, 113 (*dekanaia*); Trianti, Lambaki, and Zampiti 2013, 279–282 (Temple of Actian Apollo).

located on or near to the seashore, close to the waters where the battle took place, the same waters Mark Antony and Cleopatra fled from. They were all either created *ex novo* or in the case of the Temple of Actian Apollo, renovated by the victor of that battle, Octavian, who forced his opponents to flee and clearly possessed the battlefield. They were all dedicated to divinities Octavian associated with his victory in both the Actian War and that war's most important and decisive conflict, the Battle of Actium.[23] The temple, the city, and the *dekanaia* were dedicated to Actian Apollo, the campsite memorial to Mars and Neptune, but situated in a grove dedicated to Actian Apollo. The campsite memorial, Nicopolis, and the *dekanaia* all partly consist of captured arms. Octavian may also have dedicated naval spoils in his newly renovated Temple of Actian Apollo, however, currently there is no evidence for this.[24] All four monuments can be seen not only as symbols of prestige with powerful psychological value, but also as instruments of publicity for advertising the prowess of the victor.

3 Actium Complex

The northernmost trophy Octavian set up for the Battle of Actium is his campsite memorial, situated on the same spot on Michalitsi Hill where he had established his headquarters (Fig. 2).[25] The memorial overlooks the Preveza Peninsula and Ambracian Gulf. It also has a good view of the Ionian Sea with the Actian promontory, the Acarnanian Mountains, and Leucas off in the distance (Fig. 3). The central axis of the memorial's Π-shaped altar focuses a visitor's gaze directly upon the city of Nicopolis, the waters where the battle took place; the Acarnanian shores where the Actian *dekanaia* displayed ten of Antonius and Cleopatra's ships; and the newly restored, thanks to Octavian, Temple of Actian Apollo.[26]

A bi-level Pentelic marble relief frieze of one meter high decorated all three sides of the campsite memorial's altar (22 × 6.5 m).[27] Representations of weapons and parts of ships (e.g. *aphlasta*, oars, and, so far, one warship ram) fill the lower, shorter level (Fig. 4). A triumphal procession moves across the upper, taller level in which at least two warship carts trundle along (Fig. 5).[28] Clearly the imagery of the lower level evoked symbols of naval victory, the Battle of Actium, and the sea; the upper evoked Octavian's

23 *Anth. Pal.* 9.553 (6.251) (Nicopolis); Suet. *Aug.* 18.2 (campsite memorial); Cass. Dio 51.1.3 (*dekanaia*); Zachos 2008a, 30–31, 39 (campsite memorial).

24 Strab. 7.7.6 (Nicopolis and *dekanaia*); Suet. *Aug.* 18.2 (campsite memorial); Cass. Dio 51.1.3 (*dekanaia*).

25 Murray 2012, 38–47; Lorenzo 2011, 198–199, 368–375; Lange 2009, 106–123; Zachos 2008a, 57–71; Zachos 2003, 64–92; Murray and Petsas 1989, *passim*.

26 Reitz-Josse 2016, 279–281; Lange 2009, 106–107.

27 Zachos 2003, 82–91. According to Murray 2004, 9, only 1129 pieces of the 21 000 found so far still display their original decoration.

28 Varvaet and Dart 2016, 395 esp. n. 31; Zachos 2007b, 417–430; Zachos 2007a, 311–321.

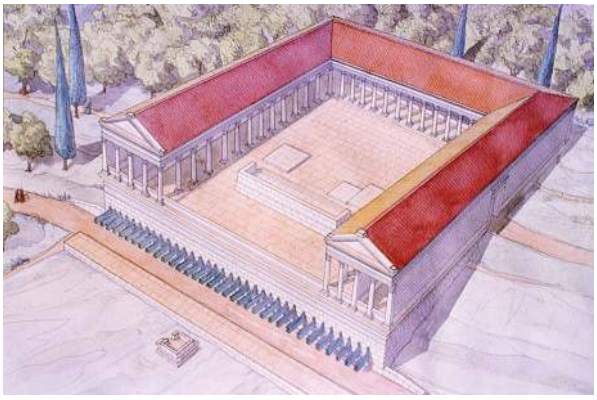

Fig. 2 Reconstruction drawing of the campsite memorial.

Fig. 3 The view from the campsite memorial.

three-day long triple triumph, the second day of which celebrated Actium.[29] Almost directly below the altar, on the façade of the memorial's first retaining wall, Octavian placed both the monument's Latin dedicatory inscription and approximately thirty-six captured rams, see the inscription below. Based on the surviving fragments and Suetonius,[30] the most recent reconstruction of the dedicatory inscription reads:

29 The pieces of the altar are currently being studied and rejoined. Therefore, it is not possible at this moment to determine beyond a doubt which one of Octavian's triumphs the altar's procession depicts. Zachos 2007b, 411–434, suggests that it is either an amalgam of all three or represents the Actian triumph. Lange 2009, 108, n. 67, discusses the problem and admits that the idea of a generic triumph has merit, but does not offer an alternate proposal. I agree with Varvaet and Dart 2016, 395, esp. n. 32, that it depicts the Actian triumph. This assertion is based on the following factors: the overall scheme of the altar to commemorate the victor of Actium (i.e. Octavian); the reliefs original location; the presence of at least two sculpted warship carts; the presence of both other sculpted and real naval paraphernalia close by; the monument's dedicatory inscription, which specifically mentions *vict[oriam]…in · hac · regio[e*; and the tradition of Roman reliefs depicting actual historical events.

30 Suet. *Aug.* 18.2.

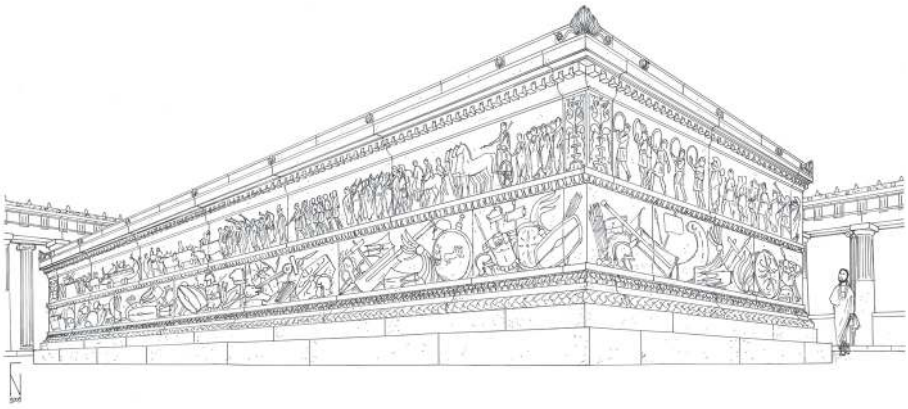

Fig. 4 Reconstruction drawing of the campsite memorial's altar.

> Imp · Caesar · Divi · F · Victor · bello · quod · pro [· r]e[·] p[u]blic[a] · ges[si]t · in · hac · region[e · cons]ul [· quintum · i]mperat[or ·se]ptimum ·pace [·] parta · terra [· marique · Mar]ti Neptuno[que · c]astra [· ex ·] quibu[s · ad ·hostem in]seq[uendum egr]essu[s · est · navalibus · spoli]is [· exorna]ta · c[onsacravit vacat].
>
> Imperator Caesar, son of the Divus Julius, victor in the war which he waged on behalf of the *res publica* in this region, when he was consul for the fifth time and imperator for the seventh, after peace had been secured on land and sea, consecrated to Mars and Neptune the camp from which he set forth to attack the enemy, now ornamented with naval spoils.[31]

Despite the possible pitfalls of using a literary text to restore any part of an inscription, in this case from "*c]astra*" to the end, Octavian's message comes through loud and clear. It is a self-proclaimed message, as Lange terms it, of "victory that ended civil wars [...] but also about freedom and peace according to the official ideology", inscribed on a Roman monument set up over a Greek city with the political setting in Rome as its context.[32] The altar's reliefs, especially the rams on its lower level, combined with the dedicatory inscription's unambiguous message and the façade's approximately thirty-six rams, begin a series of symbols that appear again and again, first in the city's *Proasteion*, then the city itself, and finally in the Sanctuary of Actian Apollo, as will be shown below.

31 This is an updated reconstruction and translation based on personal correspondence with William

Fig. 5 Fragment from the lower register of the marble altar of the campsite memorial, currently located in the Nicopolis Museum.

Octavian's campsite memorial looks down upon the only 'living' naval victory monument ever built, the city of Nicopolis. Both the *cardo maximus* of the city's street system and the centuriation of its immediate *chora* align with the road leading to the memorial and also very closely to the memorial itself (Fig. 6).[33] At the base of Michalitsi Hill in the city's *Proasteion* was the wooded *temenos* dedicated to Actian Apollo in which the monumental structures necessary for the celebration of the *Actia*, the god's sacred games were situated. In founding a victory city dedicated to Actian Apollo, Octavian created one of the largest naval victory monuments in the world, heavily influencing the history and demography of all of northwest Greece.

Octavian consciously emulated both Greek and Roman precedents when he founded Nicopolis in Epirus.[34] Alexander the Great's foundation of Nicopolis *ad Issum* is usually considered to be Octavian's main Greek role model.[35] However, I agree with Frazer when he states, "pseudo-Scymnus apart, there is no record of Alexander having founded it after the battle, and few who read the ancient narratives of his campaign can doubt that Alexandria of Egypt was his first foundation".[36] Another significant Greek model would be Seleucus Nicator, who founded Nicopolis of Syria, east of the Amanus Mountains.[37] On the Roman side, Pompey the Great founded Nicopolis *ad Lycum* (60) for his victory

M. Murray and Murray and Petsas 1989, 76, 86; it takes into account the block with TI · NEP found by Zachos 2003, 76 (cf. Lange 2009, 109–110).

32 Lange 2009, 106–117 (the quote is on 114).

33 Sarris et al. 2013, 531–538, esp. fig. 12 (cf. Teichmann and Zachos 2017, fig. 91); Bowden 2011, 107–112; Tsakoumis 2007, 393–399; Doukellis 1988, 159–166.

34 Strab. 7.7.5–6; Suet. 18.2; Dio 51.1.1–2. – According to Dio (51.18.1; 51.1.1–2) and Strabo (17.1.10), Octavian apparently also founded another Nicopolis near Alexandria for his final victory over Mark Antony and Cleopatra, but this city only exists in the ancient sources (cf. Lange 2009, 96–99; Purcell 1987, 76–77).

35 Ruscu 2006, 253; Gurval 1995, 67–68; J. E. Jones 1990, 106; Purcell 1987, 76.

36 Fraser 1996, 20–24.

37 Grainger 1990, 35–37; A. H. M. Jones 1971, 244.

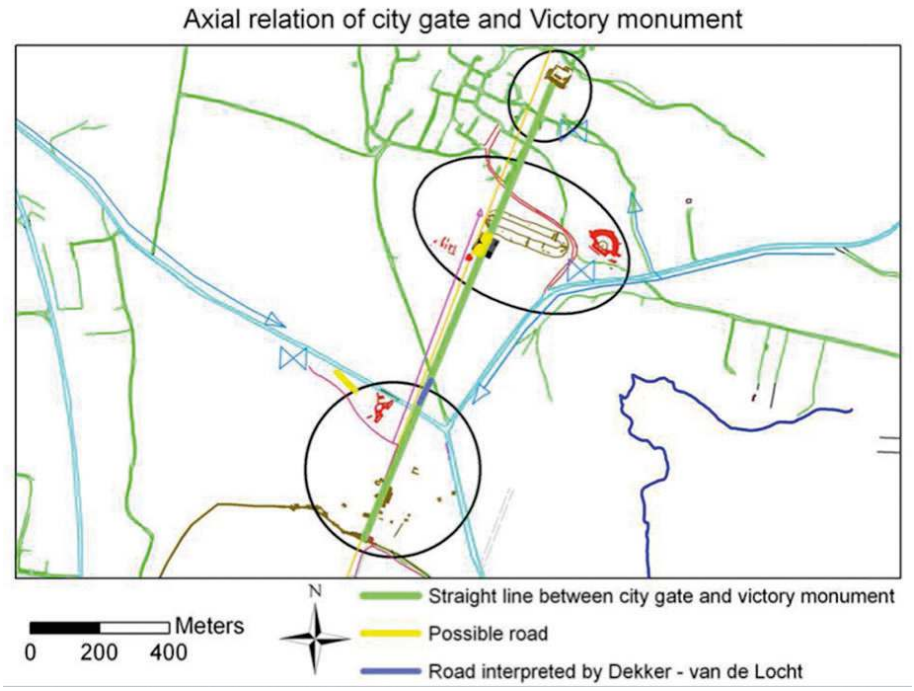

Fig. 6 Map showing alignment of certain extra urban monuments and the grid plan of Nicopolis based on geophysical prospection.

at Dasteira.[38] Several years later, Mark Anthony established the colony of Philippi to celebrate the defeat of Brutus and Cassius.[39] Octavian's foundation of Nicopolis, while different from Mark Antony's founding of Philippi, should be seen in the context of this Hellenistic tradition. However, as Bowden rightly points out, it should also be viewed as one of many "dynamic responses to a complex and ever changing political and social situation", since "triumphalism associated with Actium had to be reconciled with ambivalence towards Octavian's victory".[40]

Nicopolis of Epirus began its life as the center of a territory much larger than any contemporaneous Greek polis. The city itself was immense with 130 ha *intra muros*, an equally spacious habitation *extra muros*, and a vast *chora* of 4000 km^2.[41] The city's *chora* included the territory of Cassope to the north, Amphilocian Argos to the east, Leucas to

38 For information on Pompey's founding see Strab. 12.3.28; App. *Mith.* 105, 115; Cass. Dio 36.50.3, 49.39.3; Oros. 6.4.7; Gurval 1995, 69–70; Greenhalgh 1980, 152–153; A. H. M. Jones 1971, 157, 170–171.

39 For information about Antonius's founding see Strab. 7, frag. 41 (*Frag. Vat.*); Cass. Dio 51.18.1; Lange 2009, 96; Gurval 1995, 69; Purcell 1987, 76.

40 Bowden 2007, 190.

41 Zachos 2008a, 18–27; Ruscu 2006, 248.

the west, and Calydon to the south. This creation of a mega-*chora* cut across existing local affiliations with many sites such as Leucas becoming subordinate to, and dependent on, the new foundation.[42] Some population centers, such as Cassope, were mostly abandoned; partially dismantled, with useful, portable architectural pieces taken; and the majority of each place's population transplanted.[43] However, Nicopolis's foundation heralded not only the transfer of Greek populations and their mundane possessions, but also the redistribution of important sacred items.

Octavian's foundation of Nicopolis was as much a religious undertaking, as it was a material undertaking. The sanctuaries of Nicopolis were enriched with dedications and cult objects taken from religious sites throughout its *chora*.[44] Such redistributions went far beyond the simple seizure of war spoils. The removal of patron divinities demonstrated Octavian's newly won absolute power. It also enacted the symbolic destruction of the affected communities' former lives.[45] Transplanted cult images further undermined original territorial loyalties, while helping to bridge the gap between a synoikized population and its new home. By moving both populations and their ancestral cults, Octavian coupled physical manipulation with ideological manipulation in a sophisticated bid to create a victory city with a preexisting set of cultic aspects. He also enriched his new city's spiritual life by making it the sacred city of Actian Apollo, reviving the *Actia*, and refurbishing the ancient Temple of Actian Apollo, as well as consecrating an open-air *temenos* in the city's Proasteion to the god.

On the peninsula forming the southern mouth of the Ambracian Gulf, sits the temple of Actian Apollo. Thucydides (1.29.3) mentions this temple in the context of Corinth's expedition against Corcyra. Strabo (7.7.6) states that the temple of Actian Apollo is on a hill within its sanctuary. The Corinthian colonists of Anactorium founded this sanctuary sometime after 625, the date they established the colony of Anactorium.[46] Kouroi from 600–550 BC attest to the early worship of Actian Apollo and the importance of his temple.[47] Recent archaeological work conducted at the site of the temple has uncovered evidence for three phases of construction, with the last dating to the early Augustan period (Fig. 7).[48] The Augustan phase reused some of the architectural elements from the earlier ones. The excavators also found two complete colossal marble heads, most likely Apollo and Artemis, and fragments of their bodies, probably from the cult statues (Fig. 8). Actian Apollo, a god of the sea and navigation, was honored with games, the *Actia*, from at least the 4th century onwards.[49] By the end of the 3rd century,

42 Strab. 10.2.2.

43 Katsadima 2007, 87–100; Isager 2007, n. 3; Gravani 2007, 101–122; Schwander 2001, 112; Karatzeni 2001, 163–164; Isager 2001, 17–24; Kirsten 1987, 95–96.

44 Strab. 7.7.6; Paus. 5.23.3, 7.18.8–9, 11–12; *Anth. Pal.* 9.553 (6.251).

45 Alcock 1993, 141.

46 Tzouvara-Souli 2001, 241 n. 96.

47 Zachos 2008b, 14–15.

48 Trianti, Lambaki, and Zampiti 2013, 279–280.

49 Zachos 2008b, 12–13; Pavlogiannis and Albanides 2007, 58–59.

Fig. 7 The remains of the Temple of Actian Apollo in September 2009, from the east.

Fig. 8 The colossal heads near the back wall of the *cella*.

the Acarnanians oversaw the games and the sanctuary, an arrangement that lasted until Octavian founded Nicopolis.[50]

Octavian, however, went far beyond just moving an old set of games across the gulf to a new location near his victory city. For the celebration of the now *isolympic Actia,* a new two-part open-air *temenos* was laid out.[51] The campsite memorial dominated the upper part. A mix of spectacle-architecture, gymnasium, stadium and theater, and sacred grove comprised the lower part.[52] With the construction of this *temenos*, Octavian physically imprinted the celebration of the *Actia* upon the landscape in a monumental manner. Through a combination of large-scale architecture and consecrated woodlands, a sacred geography was established, centered upon, and forever tied to the celebration of

50 Pavlogiannis and Albanides 2007, 59; Habicht 1957, 109.

51 Murray and Petsas 1989, 125–130; Tidman 1950, 123–125.

52 Strab. 7.7.6.

victory in a summer's-long war; a war that saw victories on both land and sea, but which a naval victory finally decided. Even the 4th-century AD orator Claudius Mamertinus recognized the importance of this symbiotic relationship. He comments that the *Actia* had ceased because of the complete disruption of the life of "Nicopolis, quam divus Augustus in monumentum Actiacae victoriae trophaei instar exstruxerat"; the two were inescapably intertwined.[53]

From the campsite memorial on Michalitsi Hill, a visitor could look down upon the elements of the lower part at the south and southeast base of the hill and the competitions and spectacles played out within them. Participants and spectators in the lower part of the *temenos* could look up at the memorial, where bronze rams captured at Actium glinted in the sun and smoke from sacrifices rose into the sky, a potent visual reminder of the part Actian Apollo played in bringing about peace on land and sea. One further element, a decorative carved stone ram, iconographically tied the stadium together with the memorial, primarily because of the latter's bronze rams and secondarily, because of the stone rams carved on its great altar.[54] Also relevant here is Strabo's remark that naval spoils from the battle adorned Nicopolis.[55] The city's naval adornment would then have served as another piece in a repeating series of images of naval victory linking together the memorial, the stadium, and the city of Nicopolis itself.

Images of naval victory were not only limited to public structures. Excavations within the gymnasium revealed the remnants of a monumental tomb building dating to the Augustan period.[56] Amongst fragments from the tomb, excavators uncovered marble architectural pieces carved with waves and a large-scale warship ram. Based on the tomb's intra-gymnasium setting and its adornment with naval victory imagery, it has been interpreted as being the mausoleum/*heroön* of an illustrious citizen of Nicopolis.[57] If this interpretation is correct, such an individual would have had deep connections with the Battle of Actium, the foundation of Nicopolis, and the celebration of the *Actia*. Whoever occupied the tomb, the presence of naval imagery on what was probably a private funerary monument is good evidence for the cooption of such imagery by the new city's wealthy citizens. Such usage was a way of coupling self-glorification with a show of support for the new regime. At the same time, it repeated and reinforced the other instances of rams and other naval symbols found in the memorial, the stadium, and the city of Nicopolis itself, as well as the warships in the Actian *dekanaia*.

53 Grat. *Actio Iuliano* 9.2–9.3, "Nicopolis, the city which the divine Augustus had constructed as a monument like a victory trophy for Actium".

54 Murray 2007, 448, n. 13, fig. 14c. – Papademetriou 1940, figs. 5–6, found one marble ram, now lost, during excavations in the stadium. For information on the one ram found from the altar so far see Zachos 2007b, 411–434; Zachos 2007a, 311–321.

55 Strab. 7.7.6.

56 Zachos 2008a, 48–49.

57 Such an interpretation is plausible (*pace* Zachos). However, I am inclined to reserve judgment until the tomb has been more fully studied and the results from such studies have been published.

The tradition of dedicating ships for naval victories began in the Archaic period with at least one ship, probably a *pentekontor*, set up alongside the sacred way in the Samian Heraion.[58] In the Classical period, Greek victors dedicated three ships in uncovered intra-sanctuary settings and two at isolated, opposing shoreline locations.[59] Hellenistic ship dedications brought the dedicated ship from open-air settings, either sacred or littoral, into purpose-built structures, only two of which survive in the record. Whether we consider the Monument of the Bulls on Delos or the *Neorion* in the Sanctuary of the Great Gods on Samothrace, the rarity of such dedications points to their extravagance, daunting logistics, and the space requirements associated with such a monument.[60] Octavian's dedication of a so-called *dekanaia,* ten whole warships, in a purpose-built structure was the apogee of this tradition.[61]

Strabo (7.7.6) is our only source for what type of structure held Octavian's *dekanaia*. He first uses the word *neoria*, the same term used in the inscriptions from Delos for the Monument of the Bulls. He then uses *neosokoi*, the term for the long rectangular ship sheds constructed along shorelines in which ships were built, repaired, and stored for the winter. Based on such slight information, it seems that Octavian's *dekanaia* may have moved dedicated ships back to the seashore, while possibly ensconcing them within architecture on a scale not seen before in naval victory monuments. If this is the case, then Octavian's *dekanaia* may have been a combination of fully functional (slipping and re-slipping were possible) ship shed and decorative display space.

Octavian's *dekanaia* symbolized both victory and defeat on more than one level. His ability to dedicate not just one but ten serviceable warships, points to the overwhelming completeness of his victory. The setting he chose for his *dekanaia*, the seashore near the hill upon which the Temple of Actian Apollo stood, was also the location of Mark Antony's camp.[62] In doing so, Octavian set up a *tropaion* not only in former enemy territory near the waters where the battle took place, but also within his defeated enemy's former military headquarters. Between this setting and the campsite memorial on Michalitsi Hill, Octavian bracketed a landscape of remembrance – both sea and land – between large-scale displays of captured warship rams. The campsite memorial's rostral display was a particularly Roman type of commemorative display for naval victories; the warships of the *dekanaia* were more in keeping with Greek dedicatory practices.[63]

58 Lorenzo 2011, 65–66, 253–256.

59 Lorenzo 2015, 126–138.

60 For the Monument of the Bulls on Delos see Lorenzo, Kristian, "Early Hellenistic Royal Ideology and the Marine Thiasos of the Monument of the Bulls on Delos," *Classical World* (in preparation). For the *Neorion* on Samothrace, see Lorenzo 2011, 146–150, 260–266; Wescoat 2005, 153–172.

61 Strab. 7.7.6; Cass. Dio 51.1.3. Strabo reports that fire destroyed both the ships and their structure. Propertius (Prop. 4.6.67–68) may also refer to this dedication (cf. Isager 1998, 404).

62 Reitz-Josse 2016, 279–280.

63 The ancient sources preserve only two instances when Greeks dedicated warship rams. For the first, see Hdt. 3.59 (cf. Lorenzo 2011, 266–267) and for the second Paus. 1.40.5 (cf. Lorenzo 2011, 267–269).

4 Iconography

As of 2013, fifteen warship rams and one *proembolon* (a secondary ram) have been discovered.[64] The warship's ram worked on two iconographic levels: first, through its overall shape and, second, the symbols cast on its surface. The distinctive three-pronged, wedge shape of the warship's ram would have been unmistakable during the late 1st century, even from a distance.[65] Three fins made up each side of its head, which delivered the ramming blow. The top fins flared upward, the middle ones were straight, and the bottom ones flared downward.[66] Rising dramatically in an upward curve from the ram's head, the cowl protected the ship's stempost. A bottom plate terminating in a tailpiece covered the underside of the head. All in all, no other ancient artifact, military or otherwise, had a similar configuration. This fact made warship rams instantly recognizable, whether as real bronze weapons or artistic representations thereof.

Evidence of the symbols cast on the surfaces of ancient rams comes from three sources. All fifteen ancient warship rams have symbols cast onto their surfaces.[67] the Athlit ram, the most published about, has four symbols (Fig. 9):[68] 1) a wreathed helmet surmounted by an eight-point star, a symbol of the Dioskouroi, appears on each of its cowls; 2) the head and neck of an eagle, visual shorthand for Zeus's eagle, are also on the cowls; 3) half of Zeus's tri-form thunderbolt is on both sides of its driving center; and 4) a *kerykeion* or herald's staff bound with a fillet can be found on the cowl's nosing (Fig. 10). Murray has persuasively argued that this specific combination of symbols indicates the ram was the public property of the Ptolemaic Kingdom.[69]

Stone rams, both in relief and free-standing, have been found in many locations across the Mediterranean.[70] The fragmentary marble prow-shaped base of the naval monument in Cyrene (ca. 241 BC) still retains most its ram. Half of Zeus's tri-form thunderbolt appears on both sides of its driving center, and a winged, snaky-legged entity holding a shield and a trident – possibly Eurypylus, a legendary first king of Libya and

64 Buccellato and Tusa 2013, 76–77.

65 Ermeti 1981, 54.

66 Due to the lack of an ancient nomenclature for most of the warship ram's different sections, Steffy 1991, 12–13, figs. 2–7, developed a function-based terminology for these sections, such as fins. For useful amendments to this terminology, see Pridemore 1996.

67 Buccellato and Tusa 2013, 78. For an excellent study of the Latin inscriptions on seven of the rams, see Prag 2014, 33–59.

68 Murray 1991, 54–61.

69 Murray 1991, 51–54, 61–66.

70 The bibliography on this topic is quite extensive. Here I only offer a selection: Murray 2012, 47–68; Lorenzo 2011, 152–153, 168–170, 316–332; Ermeti 1981, 60–78; P. W. Lehmann and K. Lehmann 1973, 192–199. Pugliese Carratelli 1996, 636, discusses the 1993 excavation of three consoles, each carved to represent the prow of a ship from the great hall of the *tablinum* in a wealthy Hellenistic house. Prag 2006, 545, n. 35, mentions two new examples from ancient Tyndaris in northeast Sicily: a stone warship ram and a free-standing stone replica of a ship's prow.

Fig. 9 The Athlit Ram on display in the National Maritime Museum in Haifa, Israel.

one of the sons of Poseidon and brother of Triton – decorates both sides of its cowl.[71] Ermeti believes that this combination of symbols, along with the crescent-crowned female heads with animal ears (perhaps Isis/Io) carved on the naval monument's *proembolion*, points to Ptolemaic patronage.[72]

Certain examples of Hellenistic coins include images of rams. A helmet adorns the ram on the warship prow depicted on a coin of Demetrios Poliorcetes after his victory at Cypriote Salamis (ca. 306 BC).[73] Additionally, a round shield-like device decorates the cowl of the ram on a *tetradrachm* of Alexander I Balas at Tyre (ca. 153–145 BC).[74] While not adding greatly to the corpus of symbols on rams, these coins demonstrate the use of such symbols by monarchies both great and small for most of the Hellenistic period. They also show that although rams were basically just utilitarian weapons, the symbols on them held semiotic significance, in both large and small formats.

As the evidence shows, warship rams were decorated, with both the ram itself and the entities or objects cast on its surface charged with meaning. In monuments such as Octavian's campsite memorial, the use of multiple rams bearing symbols important to the defeated, created a repetitive visual record of 'captive' mnemonic signifiers, easily readable and able to convey multiple meanings to different viewers. This type of display also clearly set Octavian within Roman traditions of naval victory commemoration, but went beyond them since the memorial's approximately 36 rams marched down a façade ca. 63 m long by ca. 7.3 m high.[75] The first time naval spoils adorned a Roman victory monument was the Rostra in the Roman Forum (ca. 338 BC). This practice continued

71 Ermeti 1981, 85–93, 128.

72 Ermeti 1981, 93–98. Ridgway 1990, 217, raises a good point when she says that a Ptolemaic connection is in no way assured. Eurypylus is a local king and Isis a general patroness of sailors. Therefore, the symbolism of the prow's sculptural decoration may be Libyan.

73 Kraay and Hirmer 1966, pl. 174, 574.

74 Murray 1991, fig. 4–15.

75 Zachos 2003, 72.

Fig. 10 Close-up of the symbols on the Athlit ram's port side cowl.

with the rostrate columns of C. Duilius (ca. 260 BC), one in the Forum and another near the entrance of the Circus Maximus, of M. Aemilius Paulus (ca. 254 BC) on the Capitoline Hill, and of Octavian himself (ca. 36 BC) in the Forum. Large-scale displays of captured rams projecting outward from smooth surfaces across significant landscapes typified some of the most important Republican period naval victory monuments.[76]

76 Varvaet and Dart 2016, 394–402, presents persuasive arguments that M. Vipsanius Agrippa received a rostrate column in 36, and advances (n. 36) an interesting idea that, "Fulvius Nobilior likewise erected a rostral column on the Capitol, especially as the triumphal chronology indicates that he had held the *summum imperium auspiciumque* on the day of the decisive naval victory"; Lorenzo 2011, 150–152, 269–274, with bibliography; Sehlmeyer 1999, 119–121; Jordan-Ruwe 1995, 64; Pietilä-Castren 1987, 28–34. – For a discussion of the honors Duilius received, as well as his coinage, in great detail and with a great deal of historical context and insightful commentary see Kondratieff 2004, 2–10, 16–32.

Fig. 11 The view from the campsite memorial with the foundations of two square statue bases and the in-situ remains of the memorial's altar in the midground.

5 Conclusion

Octavian's foundation of Nicopolis in commemoration of his and Agrippa's naval victory over Mark Anthony and Cleopatra altered forever the human and natural topographies of northwest Greece. Nicopolis was neither an isolated establishment, nor a fleeting physical presence. It ordered formerly wild land by both centuriation and an urban grid, and dominated that newly tamed land via monumental structures, such as the stadium. The city was the social and political heart of a landscape knit together by repeated symbols of naval victory, a landscape that stretched from the hillside campsite memorial in the north, to the Temple of Actian Apollo on its hill to the south (Fig. 11).

From the memorial on a clear day, visitors both ancient and modern can look down upon the city's *Proasteion*, the city of Nicopolis itself, and off in the distance to both the Actian Peninsula and the mouth of the Ambracian Gulf. The city of Nicopolis, Actian Apollo's sacred city, was bracketed by sacred spaces. The Temple of Actian Apollo and the Actian *dekanaia* in their sacred grove, were in the south; the *Proasteion*'s gymnasium, stadium, and theater in their sacred grove; and the campsite memorial lay to the north. Formerly unpopulated and unproductive land became a landscape cyclically renewed through the celebration of the sacred *Actia*; a landscape filled with naval victory monuments built specifically to commemorate the Actian War and the Battle of Actium, the battle that decided the fate of an empire and gave birth to Octavian's Actium Complex.

Both synchronic and diachronic in nature, this landscape relied on visual interconnections, shared symbolism, and the fusion of bi-cultural patterns of commemoration. Whether a newly created sacred setting (campsite memorial) or a brand-new living place (Nicopolis), these monuments were key centers of the religious activities most closely tied with the solidification of Octavian's Mediterranean-wide supremacy, while producing cumulative effects on the natural environment.

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Rock-Cut Sanctuaries of Demeter and the Cultic Significance of Rocky Outcrops for the Cult of Demeter

Summary

Rocks are associated with Demeter' search for her daughter Persephone, who was abducted by Hades into the underworld. The so-called Mirthless rock is the stone upon which Demeter sat down after her search for her abducted daughter. Demeter is also linked to rocks as a chthonian goddess. Many sanctuaries of Demeter are located on hills with rocky formations, as rocky outcrops were crucial for some rituals of Demeter. Rocks were worshipped as aniconic representations of deities and were integral to cultic rituals in ancient Greece, Asia Minor, and the Near East. This paper discusses the cultic significance of rocks for the cult of Demeter, the features of her rock-cut sanctuaries in Greek East, and how rocky formations were integrated into rituals performed in honor of Demeter.

Keywords: Demeter; Mirthless rock; rock-cut sanctuary; libation; mysteries; Asia Minor

Felsen werden mit Demeters Suche nach ihrer Tochter Persephone in Verbindung gebracht, die von Hades in die Unterwelt entführt wurde. Demeter hatte sich auf der Suche nach ihrer entführten Tochter auf den sogenannten "Freudlosen-Felsen" gesetzt. Demeter ist auch als eine chthonische Göttin mit Felsen verbunden. Viele Demeter-Heiligtümer befinden sich auf Hügeln mit Felsformationen, die für manche ihrer Rituale wichtig waren. Felsen wurden als anikonische Darstellungen von Gottheiten verehrt und waren ein wesentlicher Bestandteil kultischer Rituale im antiken Griechenland, in Kleinasien und im Nahen Osten. Dieser Artikel diskutiert die kultische Bedeutung von Felsen für den Demeter-Kult, ihre Felsenheiligtümer in Ostgriechenland und wie Felsen in die Riten von Demeter integriert worden sind.

Keywords: Demeter; freudloser Felsen; Felsheiligtum; Trankopfer; Mysterien; Kleinasien

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sic venit ad portus, Attica terra, tuos.
hic primum sedit gelido maestissima saxo:
illud Cecropidae nunc quoque triste vocant

Thus she came to thy havens, land of Attica. There for
the first time she sat her down most rueful on a cold stone:
that stone even now the Cecropids call the Sorrowful.

Ov., *Fast.* 4.502–504[1]

1 Demeter and rocky outcrops

The sanctuaries of chthonian deities[2] that located at places with natural rock formations have a long tradition in the Greek world, going back to the Minoan period. Willetts points out that rock-shelters and caves were very important to sanctuaries of fertility deities.[3] Nilsson and Dietrich believe that the tradition of using rock-shelters as sanctuaries is older than the Minoan culture.[4] Dietrich has suggested that caves, as well as rock- shelters, were used during the Neolithic period for living and burials.[5] Nilsson states that stones were considered to be representations of some deities, such as Eros, Charites, Apollo, and Zeus.[6] It seems that the worship of stones as aniconic representations of deities has its roots in the Near East.[7] Rocks were also worshipped in Israel,[8] where the term 'rock' was used as one of the names of God.[9] There is no epigraphic or literary evidence, however, that standing stones or pristine rocks were worshipped as an aniconic representation of Demeter.

Cicero (106–163 BCE) says that people who visited the sanctuary of Demeter at Enna "seemed to be going not to a temple of Ceres, but to Ceres herself".[10] Cicero does not mention that the rocky outcrop was worshipped as an aniconic representation of Demeter. The sanctuary of Demeter in Enna consists of an impressive and massive rock situated on the top of a mountain.[11] Such a massive rock is not attested for other sanctuaries dedicated to Demeter. The massive rocky outcrop has a cave and few rock-cut niches. The surface atop the rocky outcrop is partially carved. According to Cicero and Valerius Maximus (1st century CE), the cult of Demeter was famous at Enna, and the

2 Chthonian deities are associated with the underworld and agricultural fertility. For the chthonian deities, see Scullion 1994; Olympian and Chthonian, *Cl. Ant.* 13, 75–119.
3 Willetts 1977, 116.
4 Nilsson 1971, 56; Dietrich 1974, 77.
5 Dietrich 1974, 79.
6 Nilsson 1967, 201–209.
7 *ThesCRA* III 2005, 317.
8 Nakhai 2001, 90.
9 Psalm 19:15.
10 Cic., *Verr.* 2.4.108.
11 For the sanctuary of Demeter at Enna, see Hinz 1998, 124.

Fig. 1 The Ploutonion at the sanctuary of Demeter and Persephone in Eleusis.

goddess had a temple dedicated to her.[12] A temple of Demeter at Enna has not yet been located. Roman authors such as Cicero, Ovid (1st century CE), and Seneca the Younger (1st century CE) locate the abduction of Proserpina[13] by Pluto to take her into the underworld to Enna.[14] Valerius Flaccus (1st century CE) says that Proserpina danced "beneath the cliffs of Sicily".[15] The cliffs mentioned here may refer to the cliffs of Etna. According to Pseudo-Hyginus (1st century CE), Proserpina was gathering flowers on Mount Etna when she was abducted.[16] Due to the absence of archaeological material at the rock-cut sanctuary of Demeter in Enna, it is not known to what extent the rock was part of rituals performed at this shrine and worshipped as an aniconic representation of Demeter. The rock at Enna was presumably linked to the chthonian nature of Demeter.

Ovid included in *Fasti* (4502–4504) the myth of Hades' abduction of Persephone. After the abduction of Persephone, Demeter began to search for her daughter. She came to Attica and sat down on a pristine rock that was named 'Agelastos petra' (Ἀγέλαστος πέτρα), which means 'the Mirthless rock'. Pseudo-Apollodorus (1st–2nd centuries CE) provides the fullest description of the Mirthless rock in *The Library* 1.5.1; this description occurs in connection with the abduction of Persephone by Hades, also named Plouton,

12 Cic., *Verr.* 2.4.108; Val. Max., *De factis dictisque memorabilibus* 1.1.1.

13 Proserpina is the Latin form of Persephone.

14 Cic., *Verr.* 2.4.49; Ov., *Met.* 5.462–5.486; Ovid (Frazer) 1931, 4.417–4.455; 4.461–4.462; Sen., *Hercules Furens* 658–661.

15 Val. Fl. *Argonautica* 5.344.

16 Ps.-Hyg., *Fab.* 145.

Fig. 2 A votive relief dating to the 4th century BCE from the sanctuary of Demeter and Kore at Eleusis depicts Demeter sitting on rocky outcrops (on the right-hand side) and receiving the worship of her devotees.

and Demeter's arrival at Eleusis. Pseudo-Apollodorus mentions that the Mirthless rock is situated not far from a well named Kallichoron (the well of the fair dances) that is situated in the forecourt next to the Greater Propylaia of the sanctuary of Demeter and Persephone at Eleusis (*The Library* 1.5.1). In its current state, rocky outcrops are not situated in the forecourt of the sanctuary of Demeter and Persephone at Eleusis. As the Ploutonion, a cave sanctuary, is the only cliff located in proximity to the Kallichoron well, the Mirthless rock may refer to the Ploutonion.[17] Hesychius of Alexandria (5th or 6th century CE) also tells us that Demeter was sitting on the Agelastos petra (s.v. Ἀγέλαστος πέτρα). Pausanias (1.43.2) indicates that the story goes that a rock (πέτρα) situated near the prytaneion of Megara was named 'Anaclethris' (Ἀνακληθρίς), which means 'to recall' because Demeter "called her daughter back when she was wandering in search of her".[18] The *Etymologicum Magnum* (11th century CE) identifies the rock Ἀνακληθρίς at Megara with the rock upon which Demeter sat down and called her daughter.[19] Muller states that the account by Pausanias 1.43.2 may refer to a cavity or a cave where Hades abducted Persephone into the underworld.[20] This would mean that the Anaclethris petra was a cave that was considered to be the entrance to the underworld.[21] Muller believes that Pausanias uses the term πέτρα (petra) for an assembly of several rocks.[22] Rubensohn has also suggested that the Mirthless rock is not a single rock, but an assembly of several rocky.[23] According to Rubensohn, the Agelastos petra is identical to the cave that Theseus used for his descent into the underworld.[24] This cave could be the Ploutonion (Fig. 1).[25] Hesychius of Alexandria mentions that the Agelastos petra is located in Attica (s.v. Ἀγέλαστος πέτρα).[26] Therefore, the location of the Mirthless rock remains unknown. It seems to be more likely that the Mirthless rock was located at Eleusis, as the myth of Demeter was centered in Eleusis.

17 For further discussion on the Mirthless rock and the

The most significant account of Persephone's abduction by Hades and Demeter's search for her daughter is the *Homeric Hymn to Demeter*, composed sometime in the 7th or 6th century BCE at Eleusis. However, the *Homeric Hymn to Demeter* does not mention the Mirthless rock. Even if the Mirthless rock was mentioned by Greek and Roman authors more than 500 years after the composition of the *Homeric Hymn to Demeter*, Demeter was already depicted in the 5th and following centuries BCE sitting on a rock. This means that the myth of Demeter and the Mirthless rock was already known during the Classical and Hellenistic periods. A volute krater (430–420 BCE) depicts Demeter sitting on a rock and Persephone performing a libation.[27] According to Clinton, the rock depicted on this volute krater is the Agelastos petra.[28] A votive relief (4th century BCE) from Eleusis depicts Demeter sitting on rocky outcrops (Fig. 2). The so-called tomb of Persephone (4th century BCE) at Aigai depicts the abduction of Persephone by Hades and Demeter sitting on a rock. A clay figurine from the sanctuary of Demeter at Eretria also depicts a woman sitting on a rock.[29] Pausanias (8.42.4) mentions that Demeter had a cave sanctuary located on Mount Elaius. A wooden image of Demeter in this cave depicted the goddess sitting on a rock. The Ara Pacis (9 BCE) shows Ceres sitting on a rock. Demeter is also depicted in Greek art sitting on a rock and Persephone standing next to her mother. Miles states that "the rocks served to tie Demeter's suffering and her search for her daughter".[30] As Demeter was also depicted together with her daughter, the rock is not only linked to the sufferance of Demeter, but also to her chthonian nature. Despite the mythical significance of the Mirthless rock for the cult of Demeter, the pristine rock depicted in Greek art may be a throne. Homer mentions in the *Iliad* 1.498–1.499, 5.753–5.754, and 8.4–8.5 that Zeus sat down on the topmost peak of the many-ridged Olympus. In the account of Homer, the topmost peak of Olympus was referred to as a throne of Zeus. Otto uses the term 'Felsenthron', which means 'rock throne', and states

Ploutonion, see *BCH* 82, 1958, 800–802; Clinton 1992, 14–27.

18 ἔστι δὲ τοῦ πρυτανείου πέτρα πλησίον: Ἀνακληθρίδα τὴν πέτραν ὀνομάζουσιν, ὡς Δημήτηρ, εἴ τῳ πιστά, ὅτε τὴν παῖδα ἐπλανᾶτο ζητοῦσα, καὶ ἐνταῦθα ἀνεκάλεσεν αὐτήν. "Near the Town-hall is a rock. They name it Anaclethris petra, because Demeter (if the story be credible) here too called her daughter back when she was wandering in search of her" (translation by Jones, W. H. S., Omerod, H. A. 1918. *Pausanias: Description of Greece*, Loeb Classical Library (London: William Heinemann Ltd.)).

19 *Etymologicum Magnum* s.v. Ἀνακληθρίς. Muller discusses in detail the significance of the Ἀνακληθρίς mentioned in *Etymologicum Magnum* (Muller 1980, 89–90, fn. 18, 19).

20 Muller 1980, 91.

21 Muller 1980, 91.

22 For details and further discussions on the rock mentioned by Pausanias (1.43.2) see Muller 1980, 89–92.

23 Rubensohn 1899, 47.

24 Rubensohn 1899, 48.

25 Rubensohn 1899, 48.

26 Schmidt 1867.

27 Iris and B. Gerald Cantor Centre for Visual Arts at the Stanford University 70.12.

28 Clinton 1992, 14–15.

29 Metzger 1985, 29, pl. 22, fig. 427.

30 Miles 1998, 20.

that the pristine rocks served as a throne for deities, whereas rock-cut thrones were reserved for human beings.[31] The pristine rock upon which Demeter was represented as sitting upon could be a rock throne, but it could also emphasize the chthonic side of the cult of Demeter.

Many sanctuaries of Demeter are located on rocky ground, but not all shrines have rocky outcrops. Rocky outcrops are attested for the sanctuaries of Demeter at Nymphaion, Apollonia Pontica, Stageira, Thasos, Megara, Corinth, Thera, Naxos, Vetralla, Vaste, Oria, Eloro, Agrigento, Neandria, Miletus, Iasos, Cnidus, Kaunos, Lindos, Hyrtakina, and Kastellos of Vryses Kydonia at Chania (Fig. 3).[32] The most prominent sanctuary of Demeter is located at Eleusis, where the Eleusinian Mysteries[33] were performed in the Telesterion. The seats in the Telesterion are cut into the rocky ground. A rocky outcrop was left in the Eleusinion, a sanctuary of Demeter, Persephone, and Triptolemus in Athens. A sanctuary at Thera, probably dedicated to Demeter, consists of several oikoi built next to a rocky outcrop.[34] The sanctuary of Demeter at Nymphaion (Ukraine) has an oikos located next to a rocky outcrop.[35] The sanctuary of Demeter at Sangri on Naxos has rock-cut pits and channels.[36] The sanctuaries of Demeter at Apollonia Pontica, Kaunos, and Iasos have large rocky outcrops. The sanctuary of Demeter at Miletus has rocky outcrops in the temple. The cave sanctuary of Demeter at Vetralla has a naiskos situated in a cave; this recalls the Ploutonion at Eleusis. The sanctuaries of Demeter at Apollonia Pontica, Neandria, Kaunos, and Iasos date to the 6th century BCE, suggesting that rocky outcrops were considered significant for the cult of Demeter during the Archaic period in different regions. The rocky outcrops, as part of the cult of Demeter in these cities, have their origin more in local customs than in the Eleusinian cult, as the cult of Deme-

31 Otto 2012, 20–22.

32 Nymphaion (Ohlerich 2009, 117, 120s); Apollonia Pontica (Damyanov 2016, 119, fig. 1); Stageira (Sismanidis 1999, 472–474; Sismanidis 2003, 77–81); Thasos (*BCH* 75, 1951, 90–96; Muller 1996, 14); Megara (Muller 1980, 83–87); Corinth (Bookidis and Stroud 1997); Thera (Efstathiou 1998, 806); Naxos (Lambrinoudakis 2002); Vetralla, Vaste (Mastronuzzi 2008, 148–149); Oria (Mastronuzzi 2008, 140); Eloro (Hinz 1998, 111–118); Agrigento (Hinz 1998, 74–75); Neandria (Akarca 1977, 45; Filges and Matern 1996, 44); Miletus (Müller-Wiener 1980, 31–38; Müller-Wiener 1981: 99–105; Schipporeit 2013, 104–121); Iasos (Levi 1967/1968, 569–573; Levi 1969, 119–121; Johannowski 1985, 55–58; Berti and Masturzo 2000, 218–220; Bonifacio 2002, 14–15; Rumscheid 2006, 149; Schipporeit 2013, 81–92); Kaunos (*BCH* Suppl. 38, 2000, 229–240; Bulba and Doyran 2009, 7; Bulba 2010, 649–667); Lindos (Blinkenberg 1931, 55–56; Rumscheid 2006, 153–155); Hyrtakina (Sporn 2002, 301–302); and Kastellos of Vryses Kydonia at Chania (Sporn 2002, 282). It was assumed that the Felsspalttempel, a rock-cut temple, at Ephesus was dedicated to Demeter. Meanwhile, it is believed that the temple was dedicated to another deity, probably to Artemis. For the Felsspalttempel see Soykal-Alanyalı 2005, 319–328.

33 The Eleusinian Mysteries were the most important mysteries of ancient Greece celebrated each year at the sanctuary of Demeter and Persephone in Eleusis. The Eleusinian Mysteries promised a better afterlife for initiates.

34 Efstathiou 1998, 806.

35 Ohlerich 2009, pl. 33, 37.

36 Lambrinoudakis 2002, 387–391; Lambrinoudakis 2008, 93–98.

Fig. 3 Rocky outcrops situated in the sanctuaries of Demeter.

ter began to flourish in different cities independently from Eleusis during the Archaic period.

Rock-cut sanctuaries are not only attested for Demeter but also for other Greek deities. Some sanctuaries dedicated to various Greek deities have rock-cut niches, stairs, and terraces. Niches and stairs are cut into the cliff-faces or into the rocky ground. The sanctuaries of Demeter differ in some respects from the rock-cut sanctuaries of other deities. Several sanctuaries of Demeter are located on the slope of rocky hills; however, niches or stairs cut into the cliff-faces are not typical for the sanctuaries of Demeter. Most rock-cut sanctuaries of Demeter have pits or channels cut into the rocky ground, and pristine rocks are left without any carving.

2 Rocky outcrops at the sanctuaries of Demeter at Neandria, Miletus, Iasos, and Kaunos

Due to the scope of this paper, only the rock-cut sanctuaries of Demeter in western Asia Minor will be discussed: Neandria, Miletus, Iasos, and Kaunos (Fig. 3). Miletus, Iasos, Cnidus, and Kaunos are located in Caria, where natural wondrous places were chosen for the sanctuaries of Demeter.

Işık has suggested that Demeter has her origin in Asia Minor, as the cult of agricultural fertility began in the so-called Fertile Crescent with the cultivation of wheat.[37] Işık

37 Işık 2013, 209.

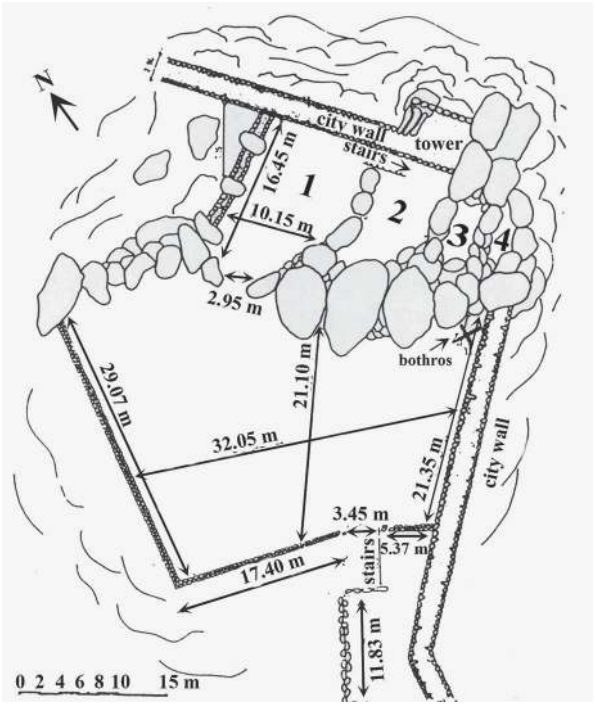

Fig. 4 Plan of the sanctuary of Demeter at Neandria.

believes that people migrated from Asia Minor to mainland Greece sometime during the Bronze Age brought with them some features of the Anatolian earth goddess, including the link of the fertility goddess to rocks.[38] Asia Minor is well-known for rock-cut sanctuaries of the Phrygian goddess Cybele, who was also a goddess of agricultural fertility.[39] Despite the beginning of the cult of agricultural fertility in the Fertile Crescent, the connection of the cult of Demeter with rocks may also have its origins in Greece.

An extra-urban open-air sanctuary of Demeter is located outside the city walls in the southeast of Neandria (Fig. 4). The excavations carried out at the open-air sanctuary in 1993 brought to light a bothros,[40] rock shelters, peribolos walls,[41] and rock-cut stairs.[42] The peribolos wall is 29.07 m wide on the west side of the temenos and 17.40 m on the southwest side. A rock-cut staircase leads to the entrance in the southwest.[43] Buildings are not attested for this shrine, indicating that rituals were performed in the open-air. Epigraphic and literary sources are silent concerning the cult and the rituals of Demeter performed at Neandria. We can partially determine the rituals performed at this site through the archaeological material.

38 Işık 2010, 81–83; Işık 2013, 207–213.

39 Berndt-Ersöz 2006 analyzed a high number of rock-cut sanctuaries of Cybele in Asia Minor.

40 *Bothros* (βόθρος, pl. βόθροι) is a pit dug into the

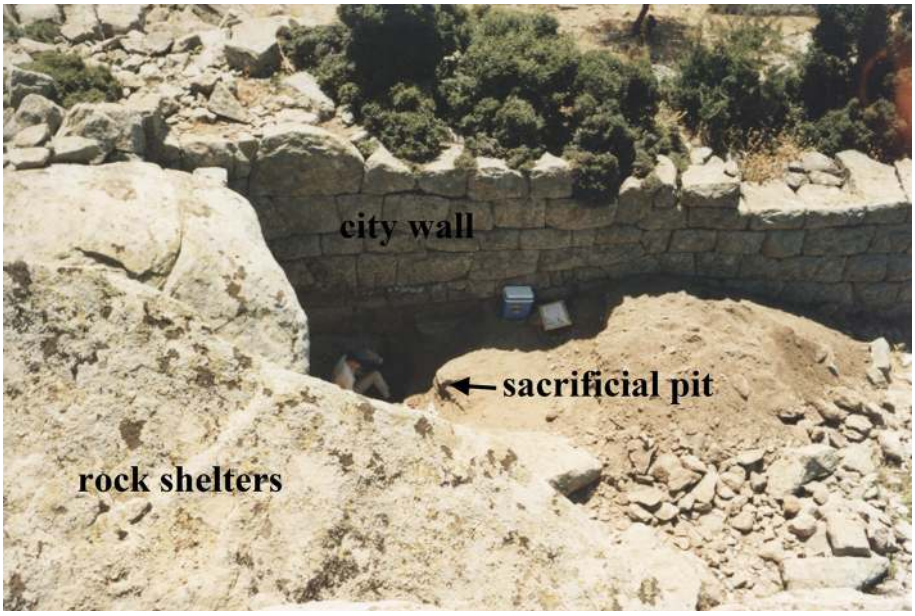

Fig. 5 West corner of the sanctuary of Demeter at Neandria.

The rock shelters are of great interest for this shrine, as the site was selected because of the large rocky outcrops situated in the eastern side of the temenos. The landscape of Neandria is characterized by large rocky outcrops; however, such massive rocks do not always form shelters and are not located next to the city walls. The rocky outcrops are significantly high and large (Fig. 5). The rock shelters form four rooms of different sizes. Room 1 measures 10.15 x 16.45 m and is accessible from the temenos. Room 1 is, therefore, significantly large, making it suitable for the performance of rituals with several worshippers. Room 2 is accessible from room 1. These two rooms were apparently integral to different cultic rituals. Rooms 3 and 4 are significantly smaller than rooms 1 and 2. The excavations did not unearth archaeological material in the rock shelters that can help us to establish their use in cultic contexts. The absence of archaeological material suggests that the rock shelters were not used for animal sacrifices, bloodless offerings, and votive offerings, but for rituals, which were performed without leaving a trace. Pausanias informs us that rocks were integral parts of rituals performed at some sanctuaries of Demeter. Pausanias (8.15.1–8.15.2) mentions that the mysteries were performed in an

ground and used for offerings made to a deity.

41 *Peribolos* (περίβολος) was the surrounding wall of a shrine.

42 Filges and Matern 1996, 43–44.

43 Akarca 1977, 47.

open-air sanctuary of Demeter at Pheneos (Arcadia) that consisted of two rocks. Meanwhile, at Hermione (Argolis) "there are also circuits of large, unworked stones, within which they perform the mystic ritual to Demeter".[44] The rock shelters at Neandria were presumably used for secret rituals. The mysteries of Demeter performed around rocky outcrops and shelters were performed in the open-air. The archaeological material from the open-air sanctuary of Demeter at Neandria dates to the 6th century BCE.[45] This means that the cult of Demeter was already established in the 6th century BCE, and the rock-shelters were crucial for various rituals at Neandria. If the mysteries were already performed at Neandria in the 6th century BCE, they could have been introduced independently from Eleusis, as close connections between the two cities are not known for this period, and the Eleusinian Mysteries did not have a Pan-Hellenic significance during the Archaic period.

A bothros unearthed between the city wall and the rock shelters provides archaeological evidence that gives insight into the rituals that might have been performed at this shrine of Demeter in Neandria. The bothros has six different layers, where votives and remains of burnt offerings were deposited.[46] The deepest layer (layer 6) consists of charcoal and animal bones, indicating that burnt offerings were made here. As the ash layer is only 10 cm thick, we can assume that numerous animals were not sacrificed over time. Clay figurines and clay vessels were deposited in layers 2–5. The clay figurines of hydrophoroi and miniature hydriai dating to the 6th–3rd centuries BCE[47] are among the votives deposited into the bothros. The miniature hydriai make up the vast proportion of the votives (58 %). The figurines of hydrophoroi and miniature hydriai provide evidence for libations performed at this site. The clay figurines of hydrophoroi are especially attested in western Asia Minor for the Carian sanctuaries of Demeter, where a few or several hundred miniature hydriai were unearthed. Libation was an important ritual that was performed on a regular basis from the beginning of the cult of Demeter at Neandria in the 6th century BCE until its end in the 3rd century BCE. Water probably taken from a spring not far from the sanctuary of Demeter at Neandria was used for libation. It is worth noting that several sanctuaries of Demeter with rocky outcrops are situated not far from a spring, river, lake, or shore. Libation was an important feature of the cult of Demeter at these sanctuaries.

The sanctuary of Demeter on Humei Tepe at Miletus is located within the city walls in the north of the city (Fig. 6). Humei Tepe is an elongated and somewhat flat hill. In antiquity, Humei Tepe was a peninsula, and the sanctuary of Demeter was the only shrine situated on this hill. The distance of the sanctuary to the settlement at Miletus allowed the performance of secret rites of Demeter. A prostyle Ionic temple (22.56 x

44 Pausanias 2.34.10.
45 Filges and Matern 1996, 45–70.
46 Filges and Matern 1996, 70–71, fig. 2.
47 Filges and Matern 1996, 50–51.

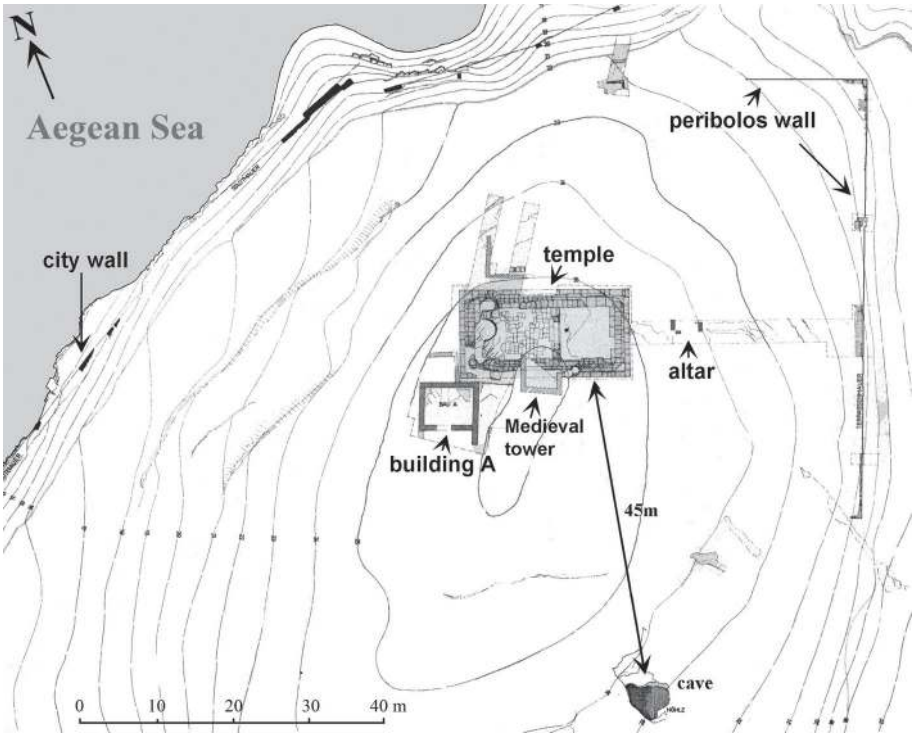

Fig. 6 Plan of the sanctuary of Demeter on Humei Tepe at Miletus.

11.75 m) dating to the second half of the 3rd century BCE is located on a rocky outcrop (Fig. 7).[48] The cella of the temple of Demeter sits atop a rocky outcrop whose surface is carved to the level of the floor. Müller-Wiener states that the whole floor of the cella was not paved and the rocky outcrop was used as a floor.[49] The rocky outcrops, where the cella is located, are the largest in the northern part of the Humei Tepe. It was apparently intended to use the rocky outcrop as the floor of the cella. The rocky outcrop in the cella allowed worshippers and cultic officials to be in touch with the ground. Plutarch mentions that women were "sitting upon the ground" during the Thesmophoria.[50] Many temene of Demeter are not paved as a result of this custom; for example, the temenos of Demeter on Humei Tepe is also not paved.

More than 200 miniature hydriai,[51] clay figurines of hydrophoroi, and draped female figurines were unearthed in pits at the sanctuary of Demeter on the Humei Tepe.[52]

48 Müller-Wiener 1980, 30–38; Müller-Wiener 1981, 103.

49 Müller-Wiener 1980, 32, fn. 16.

50 Plut., *De Is. et Os.* 69.378.

51 Pfrommer 1983, 79–80.

52 Held 1993, 371–373.

Fig. 7 Rocky outcrop as floor of the temple of Demeter on Humei Tepe at Miletus.

The votives were dedicated between the 5th and 3rd centuries BCE.[53] This means that the votives were dedicated before the temple was built. The sanctuary of Demeter on Humei Tepe was an open-air sanctuary for more than 200 years and the votives were dedicated during this period. Such a high number of miniature hydriai are not attested for other sanctuaries of Demeter in western Asia Minor. Libation was presumably performed at this site into pits, onto the earth, onto rocky outcrops, or in a cave situated in the south of the temenos. The rocky outcrops were probably central to libation. The dedication of miniature hydriai ended in the 3rd century BCE. This is also the period during which the Ionic temple was built. The performance of libation was not restricted to open-air sanctuaries. As miniature hydriai were dedicated over a period of ca. 200 years, it seems unlikely that the performance of libation ended abruptly in the 3rd century BCE.

A sanctuary of Demeter is situated on the southern slope of the acropolis of Iasos, which is located on a peninsula.[54] The first construction phase of the sanctuary dates to 510–480 BCE, and it was in use until the 4th century BCE.[55] The precinct measures approximately 22 x 22 m and is surrounded by peribolos walls.[56] The precinct is located on a large rocky ground. This is the only place on the acropolis of Iasos that offers a large rocky ground that was carved (Fig. 9). The smooth surface of the carved rocky ground is unusual for the sanctuaries of Demeter. It is not apparent why the surface of the rocky ground was carved. The sanctuaries of Demeter usually have flat temene with uncarved rocky outcrops and unpaved floor. The impressive rocky outcrops in the south of the temenos were, however, left uncarved (Fig. 10). An oblong cavity atop the rocky outcrop was presumably used for libation, as offerings and votive remains were not found in the cavity. The sanctuary has a temple, several oikoi, and rock-cut pits (Fig. 8). Clay

53 Pfrommer 1983, 80; Held 1993, 373.

54 Levi 1969, 119; Johannowski 1985, 57; Berti and Masturzo 2000, 218; Bonifacio 2002, 14.

55 Levi 1967/1968, 569, fig. 37.

56 Levi 1967/1968, 572; Johannowski 1985, 55; Berti and Masturzo 2000, 218; Schipporeit 2013, 89.

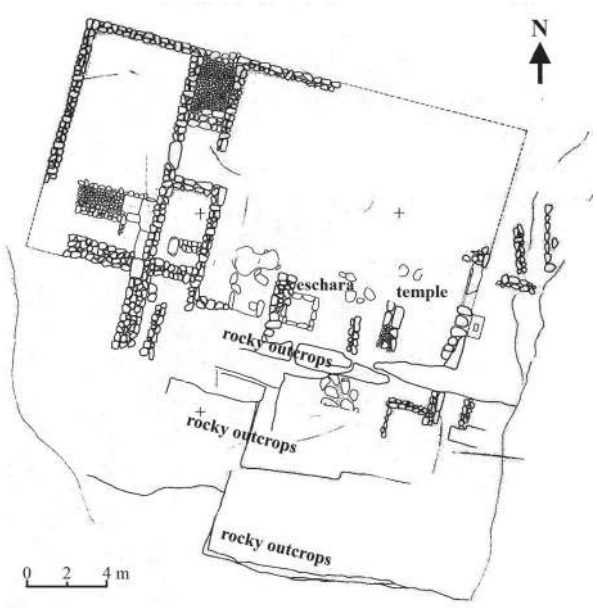

Fig. 8 Plan of the sanctuary of Demeter at Iasos.

figurines of hydrophoroi, draped women, men, lamps, and miniature hydriai dating to the Archaic and Classical periods were deposited into a pit situated in an oikos and in the eschara located in the temple.[57] At this sanctuary too, the figurines of hydrophoroi and the miniature hydriai indicate the performance of libation. Water was fetched from the sea or brought in hydriai for the performance of libation. As rock-cut or stone-lined pits are not attested, libation was presumably performed into the cavities of the rocky outcrops or onto the earth.

The sanctuary of Demeter at Kaunos is located on the slope of the rocky hill Küçük Kale in the south of the city. The agora, the sanctuary of Apollo, the theatre, and other public buildings are situated in the north and northeast of the city. The open-air sanctuary, whose first construction phase dates to the 6th century BCE, measures 32.2 x 31.1 m (Fig. 11).[58] Two staircases (staircases A–B) lead to the temenos that is surrounded by peribolos walls in the southwest and northeast. Impressive, large rocky outcrops are situated in the southeast of the temenos (Figs. 11, 13a). Apart from Neandria, such large rocky outcrops are not attested for other sanctuaries of Demeter in the Greek East.[59] Several channels are carved into the rocky outcrops that lead to the ground (Fig. 13b). Işık points out that open-air sanctuaries consisting of rocky outcrops, rock-cut bowls, and channels

57 Levi 1967/1968, 573–574; Levi 1969, 119; Johannowski 1985, 55; Berti and Masturzo 2000, 219–220; Bonifacio 2002, 15.

58 Bulba 2008, 111; Bulba 2010, 649.

59 The Greek East refers to the western part of Asia Minor and the islands off the western coast.

Fig. 9 Sanctuary of Demeter at Iasos. Vue from north.

are attested for several sanctuaries in Lycia, where they have a long tradition.[60] Rock-cut channels and bowls are also attested for the sanctuary of Demeter at Lindos, where the goddess was worshipped from the 6th century BCE onwards (Fig. 14). Kaunos is a Carian city located not far from Lycia. Rhodes had close political and cultural link to Caria and Lycia, which were part of the Rhodian Peraia. Some features of the sanctuaries of Demeter at Kaunos and Lindos may have their origins in Lycia.

The excavations at the sanctuary of Demeter in Kaunos brought to light clay figurines of hydrophoroi, draped women, men, coins, lamps, kernoi, and animal bones deposited into several pits and cavities of the rocky outcrops.[61] Küçük Kale is situated at the border of a small lake now known as Sülüklü Göl that served as an inner port in antiquity (Fig. 12). The staircase in the southwest of the sanctuary of Demeter leads to the lake and the one in the northeast leads to the city. The staircase in the southwest was probably used to obtain water from the lake, which was used for libation. Libation was performed into the numerous channels carved into the rocky outcrops (Fig. 13). A

60 Işık 1996, 51–64; Işık 2010, 82–109, fig. 20, 25, 36.

61 Varkıvanç 1998; Bulba 2008, 112–113; Bulba and Doyran 2009, 8; Bulba 2010, 650–667.

Fig. 10 Rocky outcrops in the southern part of the sanctuary of Demeter at Iasos.

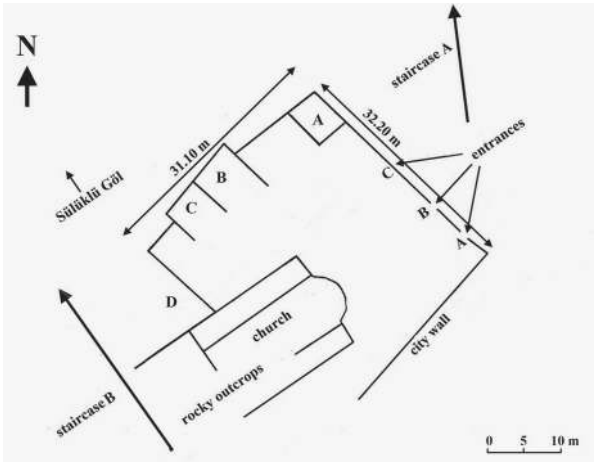

Fig. 11 Plan of the sanctuary of Demeter at Kaunos.

church dating to the 5th century was built on the rocky outcrops at this site. The location of the church is not a coincidence. Many churches were built on Greek sanctuaries, as such sites were considered holy. The temenos of Demeter at Kaunos is large and offers enough space for a small church (see Fig. 11). The location of the church indicates that the rocky outcrops were considered to be the most sacred place within the sanctuary of Demeter at Kaunos. The rocky outcrops were preserved and not carved for the construction of the church. This also emphasizes the high significance of the rocky outcrops for the sanctuary of Demeter at Kaunos.

Fig. 12 The sanctuary of Demeter located on the slope of the hill Küçük Kale at Kaunos.

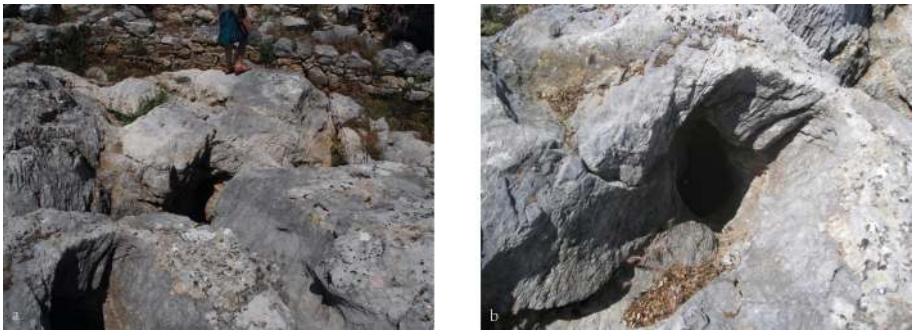

Fig. 13 Rocky outcrops at the sanctuary of Demeter

3 Conclusion

Pristine rocks were not only associated with Demeter's search for her daughter but also with the chthonian elements of her cult. Despite the significance of rocks for the cult of Demeter, rocky outcrops are only attested at a few sanctuaries of Demeter, where rocks were crucial for the rituals that were performed there. The features of the sanctuaries of Demeter were influenced by regional customs, as the cult of Demeter was already established during the Archaic period in different Greek regions, independently from Eleusis. The landscape was also decisive for the features of the sanctuaries of Demeter. Some cities had many places with rocky outcrops and some only a few. Some of the rock-cut sanctuaries consist of rock-cut pits and channels, and some only of pristine rocks. Cavities, rock-cut channels, and pits were used for libation. It seems to be likely that rocky outcrops at the sanctuaries of Demeter in western Asia Minor are closely

Fig. 14 Rock-cut bowls (a) and rock-cut pit at the sanctuary of Demeter located on the acropolis of Lindos.

linked to libation, especially those in Caria. Clay figurines of hydrophoroi and miniature hydriai are mainly attested for the Carian sanctuaries of Demeter. As the cavities in rocky outcrops lead to the earth, the libation performed into the cavities was a kind of offering made to the chthonian cult of Demeter. Libation was performed for various reasons, including agricultural and human fertility.

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1 Photo by A. M. S. Karatas. **2** Archaeological Museum of Eleusis; photo: A. M. S. Karatas. **3** Map edited by A. M. S. Karatas. **4** Akarca 1977, fig. 18; plan edited by A. M. S. Karatas. **5** Courtesy of A. Filges. **6** Müller-Wiener 1980, fig. 2; plan edited by A. M. S. Karatas. **7** Photo: A. M. S. Karatas. **8** Johannowski 1985, fig. 2. **9–10** Photo: A. M. S. Karatas. **11** Drawing: A. M. S. Karatas. **12–14** Photo: A. M. S. Karatas.

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The Traditional Linguistic Thought Manifested in Transversal Cultural Signs: Some Sumerian and Latin References for the Symbolic Meanings of the Riverine Landscape and the Metaphors of the Flood

Summary

A riverine basin with influence in agricultural activities has a transversal impact on the expression of a culture, for its landscape, interacting with human cosmos presents itself as a source of meaning. The way the natural world is reflected in abstract thought would state the basis for linguistic creativity. Our aim is to analyze the way prejudgment, based on common sense, is constructed and maintained in a defined cultural context, far behind the exclusive literary expression. In order to understand how allegorical images and mechanics on crystallization of traditional bias are built, we intend to identify possible traces of ancient traditional linguistic thought in written literature.

Keywords: symbolic language; Sumerian literature; *Georgics*; traditional culture; linguistic thought; ancient agriculture

Ein Flußbecken mit einem Einfluß auf landwirtschaftliche Aktivitäten hat eine transversale Auswirkung auf den kulturellen Ausdruck/den Ausdruck von Kultur, da seine Landschaft, welche mit dem menschlichen Kosmos interagiert, selbst eine Bedeutungsquelle darstellt. Die Art und weise wie die natürliche welt reflektiert wird in den abstrakten Gedanken würde die Basis für linguistische Kreativität bedeuten.

Keywords: symbolische Sprache; Sumerische Literatur; Georgics; traditionelle Kultur; linguistischer Gedanke; antiker Landwirtschaft

This paper is a revised version of a presenatation conducted at the conference "A Look at the Roll of Agricultural Abstract Imagery the Conception of a Transversal and Traditional Linguistic Thought: Some Sumerian and Latin References for the Symbolic Meanings of the Riverine Landscape". The research for this paper was conducted under the fellowship

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The title of this paper may suggest that I am about to make a comparison between two literatures, Sumerian and Roman, but that is far from the real aim of this study. In order to construct a common landscape, I intend to propose a dialogic exercise between the abstract meanings of some traditional images identifiable in two literary languages.

For obvious reasons, the two literatures cannot be compared; nonetheless, I am trying to search for similar forms of a symbol's construction and parallel uses of the same symbolic objects and *topoi*[1] in the literary discourse of different linguistic cultures. In this sense, the main targets of my analysis are related to the visual representation of the agricultural physical dimension.

1 The Sumerian literature and the mechanics of the abstract meaning

Sumerian literature will not be debated here, for this is a theme that remains very distant from obtaining agreement among scholars, at least when analytic attempts based on modern categorization standards of the theory of literature are made.[2] Concerning this matter, one thing is known, Sumerian literature is not well understood or at least not well interpreted.[3] The reasons for the persistent ignorance of researchers are several, but the most relevant among them, and probably the basis for all the other difficulties, is the unknown context. The context of production and writing of each original version of Sumerian texts is ignored. Even the practical function of some texts, which formal appearance tend to suggest them to be hymns or chants, are unknown and only explained through speculative exercises.

The lack of information about the context and functions of the original texts bring difficulties in the moment in providing an interpretative frame for what is expressed in a particular composition, besides what one would call 'objective information'. The majority of the Sumerian literary compositions include some kind of narration, and it is hard to deny its literary background. Sometimes they seem to have something similar to a chorus, which can be seen as poetic music; also, they have, allegoric material and

1 As Oppenheim would call them (op. cit. Ferrara 1995).

2 See Fry 2012. For the analytic processes and criticism on modern literature construction and reception see Tejera 1995, 30–52, 74–102.

3 For perspectives on Sumerian literature I am following the considerations of Van De Mieroop 2016, 3–86; Veldhuis 2004, 30–80; Black 1998; Rubio 2009, 11–76.

metaphors, as one can see in the examples presented in this paper. All these components can be considered literary aspects when merged with the narrative.[4] However, most of the texts were printed in scribal exercises, so, the literary cannon that is available to modern scholars does not correspond to a literary function[5] as one may understand it nowadays, and one still does not know the true origins of those literary creations. Indeed, how can one classify Sumerian literature and compare its data with sources from different cultural contexts?

As it stands, is important to note that, probably, the challenges with understanding Sumerian literature are not so much a result of what philologists ignore about it, but instead, they are generated by what one believes they know about literature in general. This statement is based on the fact that when Sumerian literature is being discussed, the criteria used for the theoretical approach tends to be dependent on cultural stereotypes based on the Graeco-Roman matrix, since so much is ignored about that Mesopotamian culture. Prejudices and tradition tend to deceive philologists in the search for the right questions, especially when one is engaged in a study of different cultural conceptions. Thinking about Gilgamesh's compositions, as an example, it is easy to notice a common and totally generalized prejudice circulating in the media. This text is popularly called 'The Gilgamesh Epic' and, almost everyone who has heard about this text understood that the main character of the story was in an odyssey for eternal life. In other words, there is an attempt to resume the narrative actions by using attributes of the two principal sources for the occidental literature's conceptions: the *Iliad* and *Odyssey*. Just to remember, these texts happen to be written at least a thousand years later than the Akkadian version of Gilgamesh, and its 'historical context' seems to reflect a background that was two thousand years later than that of the king of Uruk.[6] So, can one really say that Gilgamesh is an Epic? To what kind of genre would the scribe who was copying it consider this text to belong? Of course, if one proposes this question, first, one would have to reflect on another one: Did the scribes of ancient Mesopotamia have their own conception of genre?

So, with that in mind, what can be said about the Sumerian conception of literature? In fact, one can say little using modern comprehensions and the data at our disposal today, for the distance in time is too great and the shadow over that culture and language too dark. It is not known if there was even a concept of authorship in Sumerian literature. Usually, it is supposed that there wasn't such a concept, but maybe there was. The absence of proof does not mean that there wasn't an authorship conception, for it is not the absence of facts that confirm a theory, only the existence of data that can support or disprove a theory.

4 See Gonzalo 2014, 9–18.

5 See Kleinerman 2011, 57–94.

6 See George 2003, 3–137.

Despite all this, there are stories; there are narratives about lives and adventures, landscape descriptions, and the use of stylistic resources. Are the mentioned elements not the basis for the great works of the occidental cannon? It is not known in which way these Sumerian textual expressions were submitted for analysis and discussion by their ancient interlocutors regarding styles, originality, and aesthetics. There is, however, definitely, literature in the Sumerian texts, even by modern occidental standards; for if there is a construction of images to generate ideas of meaning as metaphors, there is literature, art, and rhetoric. Of course, the conceptual elements of the modern theory of literature cannot be clearly identified, although it is important to state that literature as an object precedes those concepts. One cannot say for sure that Sumerian literature was an art of joy, something that is the main principle of our concepts of literature, but if one looks to it with the eyes of a consumer and not with the spirit of a philologist, would one not take some pleasure from Dumuzi-Inana texts,[7] or with the adventures of Gilgamesh or with the episodes of the lives of the ancient kings?

Can the Sumerian literature bring valid data when studying the history of social thought? Concerning linguistic information, I believe that it is not possible, due to a great level of artificiality and apparent disconnection with the spoken language. However, the abstract language and its generated images can be a valuable resource towards the understanding of traditional thought. The abstract language is composed by the manifestation of reality as a construction of abstract images. And those images are the basic building blocks for the development and crystallization of traditional thought and for the conceptualization of the surrounding natural world.

When using Sumerian literature as a source, one cannot identify clearly and undoubtedly a metaphor or an allegory, so one always has to trust in one's interpretation. The exegesis of literature is inevitably based in modern prejudices. Even the suggestion and identification of a 'linguistic thought' is an interpretation, based in conceptions of traditional thought. For that reason, I took the option of classifying some of the symbols not by words, using a crystallized lexicon, but by the ideas expressed in the texts. It is important to remember that a word is very suggestive and that it can identify an exact object, but that same object may suggest other ideas of meaning depending on its function, shape, color, texture, or cultural reception. So, the word that identifies the object may identify other ideas too, abstract ideas, and even other objects. Let's think about the adjective 'phallic' and the multiplicity of applications it has in the identification of an object's form. If one tries an inversion on this approach and thinks about all the objects that have such a shape, one will find a never-ending list of objects that can symbolize a 'penis' in popular discourse. In any culture, the word is not the unique significant tool for the identification of the object. However, the context that is given to the object is

7 See Sefati 1998.

crucial to identify it, independently of the syntagma in use. In that sense, one cannot exclusively trust in the reliability of the lexicon for the identification of meaning, but one can try to recreate context through that semantic multiplicity by analyzing the image that serve to ground it.

Also, modern scholars lack cultural context for making an expansion from semantics of Sumerian words, so one has to work with abstract ideas in order to create meaning, instead of using possible synonyms and exact definitions. In fact, that is valid for Latin lexicon too, for one may lose a lot of the potential polysemy that a word could have in its cultural context.[8]

2 The riverine landscape as a source for symbolic universal language

The symbol of the river is deeply rooted in the collective memory, foremost because the river's water gives life in a fundamental and literal sense by materializing the idea of sustenance, irrigation, and fertility. As an abstract image, the river was a constant in the ancient cultures of the Mediterranean, from Egypt to Rome; from Israel[9] to Mesopotamia. Whenever there is a big river, flooding must be expected, which means that the symbol of the river carries in it the meanings of life growing, abundance, and also, scarceness and destruction.

The flooding of the rivers is a recurring theme in literature, stated as a source of fertility for the land in need. The image of the river that transcends its margins could also indicate the destructive potential of flooding, every time it was unpredictable and out of control. So, there is duality in the symbol that considers two inverse conditions of the natural world: 'destruction' and 'growing', 'chaos' and 'peaceful harmony'.

The social value of the river and the construction of its symbol in the social thinking inevitably would be related to a physical image, that is to say, would be related to the landscape where the river is framed. The meaning of that image depends on the context generated by the mood of the river as an agent and through the natural world as a patient. At this point, I must note that in this theoretical analysis, I understand 'natural world' as all the cosmos touching human reality.

In a text published by Hallo and van Dijk (1968) entitled Inana Exaltation (Inanna B), flood and destruction are presented as a landscape's picture. In order to establish the

8 Regarding translations and transliteration of original texts, the following sings are used: X – indicates a fragmentary or unreadable sign; [X] – indicates one sign missing; [] – denotes text missing, but supplied by the editor; ⌈⌉ – contains partially damaged text; […] – indicates more than two signs missing ; {} – contains textual variants; () – contains additions to the translation; ˀ – follows a queried sign.

9 About the river's symbol and metaphor in the bible see Treadway 2013.

potential consequences of the goddess power, it is necessary to create an image that could by itself translate the value of Inana capacities and, having antiquity as referent, only nature can carry such value, and, therefore, only nature can portray and give meaning to such destructive power.

9. ušumgal-gin$_7$ kur-re uš$_{11}$ ba-e-šum$_2$
10. ^{d}iškur-gin$_7$ ki šeg$_x$(KA × LI) gi$_4$-a-za ^{d}ezina$_2$ la-ba-e-ši-ĝal$_2$
11. a-ma-ru kur-bi-ta ed$_3$-de$_3$
12. saĝ-kal an ki-a ^{d}inana-bi-me-en[10]

9. You poised the foreign land like a dragon.
10. When you roar at the earth like Iškur, no vegetation can stand up to you.[11]
11. As a flood descending from (?) the mountains (?),
12. you are their Inana, the powerful one of heaven and earth (…)[12]

Inana can kill as a serpent (ušumgal-gin$_7$), but instead of a limited range of individual affliction, the goddess has the capability to affect a region by spreading her venom over the land, bringing sterility to the fields and making them dead for growing plants. Along these lines, there is a kind of comparative gradation, for Inana multiplies the capabilities that would be recognizable in nature, though the translation of her power comes from a hyperbolic interpretation of a crystalized image: the danger of a serpent. This mechanism of meaning construction from an image of the real world can be seen across the canon of universal literature.

In line 11 it seems to be suggested that the goddess behaves like a flood that comes from above (a-ma-ru + ed$_3$-de$_3$) and as a flood, the power of her push is unstoppable. Following this semantic construction, it is possible to realize that nothing would stand before her. Here, the potential of the image used to construct linguistic meaning is easily identifiable and probably was instantly recognized, for it came about through traditional and common sense-based representations, instead of being a highly literary and aesthetic metaphor; although, it is a metaphor indeed.

This mechanism is identically used in the following text, Išme-Dagan (S), which is a dedication on a statue:

13. zig$_3$-ga-ni u$_{18}$-lu a-ma-ru tum$_9$ sumur-ba du-a
14. a$_2$-na ba$_9$-ra$_2$-a-ba ĝa$_2$-ĝa$_2$-ĝa$_2$-da-na su$_3$-ud-bi-še$_3$ ĝir$_2$-ĝir$_2$-re

10 Hallo and Dijk 1968; CDLI 000623 (Inana B) composite; ETCSL c.4.07.2.

11 See Hallo and Dijk 1968 trans.

12 The abbreviations follow the standard system used in Assyriological studies (e.g. CAD, CDLI, and PSD) except for certain abbreviations that have no standardized definition in those publications.

15. piriĝ ḫuš edin-na-gin$_7$ usu nam-šul-ba du-a[13]

13. His rising is a south wind (storm), a flood, a wind blowing in its fury,
14. Who by moving his swinging arms runs away into the distance,
15. Who like a terrifying lion of the open country moves with might and vigor.

Again, there is an idea of power that can only be measured by a suggestive comparison with a natural phenomena. The accurate evaluation of nature's capacity to cause harm is brought by a previous observation of a catastrophe or by understanding how such a happening could affect human life. Someone in contact with nature can measure spontaneously how destructive such an event may be. The fragility of a life dependent on tilling and herding is revealed by a phenomenon like this, for an uncontrolled flood would destroy pasturelands, crops, and canals and bring starvation.[14]

Returning to the 'Exaltation of Inana', in latter lines (Inana B, ll.43-46) the river is shown as an allegory for death instead of life, as it should figurate in a harmonious world. A semantic value is created by the river that caries blood or literally death (uš$_2$),[15] which may serve here as a negative substitute for the 'water of life':

43. kur saĝ ki-za ba-e-de$_3$-gid$_2$-de$_3$-en ^{d}ezina$_2$ niĝ$_2$-gig-bi
44. abul-la-ba izi mu-ni-in-ri-ri
45. id$_2$-ba uš$_2$ ma-ra-an-de$_2$ uĝ$_3$-bi {ma-ra-na$_8$-na$_8$} {(2 mss. have instead:) ba-ra-na$_8$-na$_8$}

43. {Once you have extended your province over the hills} {(2 mss. have instead:) If you frown at the mountains}, vegetation there is ruined.[16]
44. You have reduced to ashes its grand entrance.[17]
45. Blood is poured into their rivers because of you, and their people {must drink it} {(2 mss. have instead:) could not drink}.

Again, there is the idea of Inana possessing a power capable of ruining fields, and killing plants, which inevitably would mean death by starvation. That meaning is brought by the image of vegetation becoming in some way 'out of the norm' (^{d}ezina$_2$ niĝ$_2$-gig-bi). Additionally, the death of the landscape is expanded through human death, by the blood (uš$_2$) on the river (id$_2$-ba). In fact, the intensity of this metaphor can be identified in the inversion of value: life for death. To the scene is brought the opposite extreme of

13 Frayne 1990, 36–38; ETCSL c.2.5.4.19.
14 Cf. Comp.T: Udam Ki Amus ('It Touches The Earth Like A Storm', Cohen 1988, ll. 14–24, 123–137.
15 See *Damu*, CAD, vol. 3, 75–80.
16 See trans. Hallo and Younger 2003, 519.
17 See trans. Hallo and Younger 2003, 519.

value. The destruction is so endemic that a symbol that should be the representation of life, is the manifestation of dead. Line 45 has different versions, which could point to different lexical results, ma-ra-na_8-na_8 or ba-ra-na_8-na_8, as suggested by the ETCLS comp.t; although, in what concern the image there created, the value remains the same.

By the act of Inana, death fell upon those people. Considering this, it is important not to focus on the textual ambiguity: they have no water to drink or they have to drink the blood of their own people. The value is in the destruction reflected in the river. If the river is blood, nothing will live, for the new river is the result of death and is no longer the source for life in those lands. On the other hand, it could represent the river carrying the blood of the people it should feed, although this is a more complex interpretation, which I will not follow here.

Hallo (1968) comments on this text saying: "a mountain (probably Ebih) is the unfortunate target of Inanna's wrath. Of the several, somewhat obscure allusions employed here, one (I. 45) is particularly suggestive. Large-scale slaughter involves the problem of disposing of the bodies of the slain, and even in our own days a river is sometimes considered the handiest receptacle for this purpose, with dire results for the health of the survivors. The same idea is expressed elsewhere, more especially in the Sumerian myth of lnana and Sukkaletuda."[18]

As a contrast to the effect of Inana's turmoil on the river's water and consequently on the farmers' lives, one could remember Vergil's verses that note the luck of a farmer that lives far away from the battlefield.

> *O fortunatos nimium, sua si bona norint,*
> *agricolas! quibus ipsa procul discordibus armis*
> *fundit humo facilem uictum iustissima tellus.*[19]

> O farmers! If they knew how much luck they have,
> being far removed from the quarrels of war,
> where earth just pour sustenance easily.

Of course, I cannot point to a direct connection between the two texts, but it is possible to identify in both the relation between conflict/nature and its influence on human life. In this particular case, the lucky farmers are praised for their life during peacetime, far away from the troubles of war, and maybe distant from that river of blood just mentioned before (see below).[20]

18 See Hallo and Dijk 1968, 52, commentary for the image of water converted into blood.

19 Verg. *G.* 2.458–2.460.

20 See below.

One cannot look on this passage without its context, for Vergil knew quite well the destruction a war, in his case a civil war, could bring and how it could affect the land and its dependents. So, definitely the author has an exact episode in mind. One can say so, for the historical events that give context to these verses are known,[21] although, one lacks such a clear and well-documented context for the Sumerian texts. Nonetheless, when thinking about these examples it is not necessary to look at the event specifically, but rather to consider the bigger picture regarding the overall effect on the wider community. For in both cases, it is not the cause that makes us understand the meaning of the result, it is the result itself that gives meaning to the causation. It is by knowing the result of Inana's power that one would realize how crushing her might could be, for crops may die and farmlands may be destroyed, in the same way they would suffer every time a destructive flood comes. That image gives meaning to the symbol. In the same way, the war that burns the fields and crushes the crops under the boots of the warriors is catastrophic for it has destructive results. The image means death was brought to the land and destruction materialized in the fields in both cases.

In Roman literature the idea of a flood can be found as a rigid metaphor. Columella presents an example by using 'the flood' as a metaphor of 'volume quantity':

> *(…) nec parens eloquentiae deus ille Maeonius*[22] *uastissimis fluminibus facundiae suae posteritatis studia restinxerat.*[23]
>
> (…) neither the father of eloquence, the divine Maeonian, with the mighty floods of his (eloquence), had extinguish[ed] the zeal of succeeding generations.

Here the flood comes as an image of power and shock. As rhetoric can change ideas, so floods can turn landscapes upside down. (cf. Inana Exaltation, ll.43–46)

Returning to the previous *Georgics* verses (2.458–460), the freedom of the farmers from war may come after a warlike past (cf. Verg. *G.* 1.489–492); so, maybe their predecessors saw the rivers of blood or death just like that water course (id_2) brought by the goddess Inana. Blood is literally the water of life when considered as a body composition. When out of the body, however, blood is the symbol of death. While the river of Inana brings the idea of a consummated death or death by thirst (depending on the interpretation of the text), within the metaphor of Vergil, the blood did represent a previous death, but also future life for the farmers that subsequently will occupy the land.

21 One must remember that Vergil lived through two civil wars and described them in his texts.

22 Homer (c. VIII–VII a.C.).

23 *Columella*, *Rust*. 1.pr.30.8–1.pr.31.1. – For an example of flood expressing quantity in Sumerian literature see Cohen 1988, 195–199, ll.33– 38.

ergo inter sese paribus concurrere telis
Romanas acies iterum uidere Philippi;
nec fuit indignum superis bis sanguine nostro
Emathiam et latos Haemi pinguescere campos.[24]

Therefore, Philippi saw the clash between the equal weapons
Of the Roman lines, for the second time,
it was not found shameful by the gods that once again our blood
would enrich the wide-spread Emathia and the fields of Haemus.

In these lines, blood brought life to the fields of Macedonia after that place had seen death. So, an image of destruction may, indeed, be a pronouncement of future prosperity. In the 'Exaltation of Inana' one is informed about the possible acts on foreign lands and how they can correspond to a result in the present time by the image constructed in the text. On the other hand, the author of *Georgics* is marking a past, in opposition to a present: the past is the destruction and only after chaos could life come. The farmer represents a time of peace that at the same time serves as a memory of the chaos of war; the same war that brought fertility to the present. In the Sumerian text (Inana B, ll.43–46), the Inana's river of death kills life, be it past or present, for there is no temporality within the semantics of abstract thought. Additionally, the actions of the Roman army have the same effect on reality and, therefore, on the semantic value as an image. Only when the conflicts ends can nature reclaim its spoils and return to its harmony:

scilicet et tempus ueniet, cum finibus illis
agricola incuruo terram molitus aratro
exesa inueniet scabra robigine pila,
aut grauibus rastris galeas pulsabit inanis
grandiaque effossis mirabitur ossa sepulcris.[25]

[…] time naturally shall come that, in those fields,
the farmer toiling the soil with a curved-plow
will unearth corroded javelins and rusted scabrous
or clank with a heavy hoe on empty helmets
and wonder at the huge bones found in uncovered graves.

The work on the landscape is a revived memory of a war that may have been brought to the fields. Vergil himself suggests an image of a land where nothing that was supposed

24 Verg. *G.* 1.489–1.492.

25 Verg. *G.* 1.493–1.497.

to grow grows. The vivid image of abundance is also the recollection of the dangers of fields' destruction, for the present farmers are happy, but in the past there was death, and, consequently, sadness. In the river of death (or blood) of Inana (Inana B ll.43–46) there is a potential happening through the capacity of the goddess. So, the image is about what can happen; how bad a situation can be, which is explained through a very well-known and emotionally driven interpretation of the destruction of the fields. In Vergil's example, one has the actual result and the future of it. Are the 'Exaltation of Inana' and the *Georgics* in any sense connectable? No, those texts are in no way connected, although regarding abstract imagery, there can be established a dialogue between both imaged semantics, for the processes of the construction of meanings is similar. So, what can be said about the differences of imagery construction in different cultures?

One could think about the following lines, as a way of answer to that question:

quippe ubi fas uersum atque nefas: tot bella per orbem,
tam multae scelerum facies, non ullus aratro
dignus honos, squalent abductis arua colonis,
et curuae rigidum falces conflantur in ensem.[26]

Indeed, here justice and sin have changed places, so many wars around the world,
so many shapes of evil, and none respect for the plough,
fields are roughed by bereft of farmers
and the curved scythes are fused in[to] hard swords.

Having in mind the scenario constructed here, how strange would such an image sound[27] to a Sumerian farmer or to any farmer? Would such an idea be familiar to him if he had gone through war and turmoil?

In some ways, one can more easily identify the supra mentioned primary images in Sumerian literature than in Roman literature because there is not so much artificiality in Sumerian literary expression as there is in the writings of authors such as Vergil or Lucrecio;[28] and simple symbols are far easier to identify with safety, for they are interpreted by common sense.

26 Verg. *G.* 1.505–1.508.
27 Verg. *G.* 1.505–1.508.
28 See Catto 1981.

3 Conclusion

The traditional differentiation and 'geometrical division' between ancient cultures and their social systems, by putting them into different boxes with just a few lines interconnecting them, may have been originated through the wrong ideological approaches and ideas based on prejudices. What I intent to point out is that ancient cultures were often analyzed and defined by a categorization made of presumptions that simply were not accurate. Some of the ideas that compounded theories on the ancient world were just that, 'theories'. Nonetheless, they were accepted as factual and promoted as truths. For that reason, for almost a century, studies on the history of the ancient world were based on some archaic concepts that basically created the modern definitions and approaches to the history of the ancient Mediterranean. The great error of such analytic method still practiced nowadays, was the creation of boundaries between what is normally called the 'ancient classical world' and the 'ancient near east'. So, one must be aware of the generalized distinctions between ancient cultures and be armed with some criticism of a given definition of a culture, for without the tools to do such precise measurement, one cannot base the study of history on unreliable theoretical approaches.

Nonetheless, such attitudes toward the history of ancient societies are changing and slowly people are abandoning the 'idea of boxes' normally constructed upon geography, language, and religion. More and more it begins to be understood that although those cultural elements seem completely distinct when viewed by a modern and decontextualized eye, they were not so unrelated in the past. The definition of a culture, as it stands right now, is not correct, so how can modern scholars establish distinctive barriers, when it is not known what the real societies under comparison were? In fact, it is really hard to say when a particular element of culture begins, and in which way it was independent from other supposed 'out of borders' elements.

Moris and Maning have quite curious commentaries about the scholarship of Mediterranean sites, saying that every science field tends to approach civilizations in different ways and use distinct methods.[29] As a matter of fact, there should exist distinct approaches and methods for the material data on fields such as Egyptology, Assyriology, or classical philology, for they are of a different nature. Nonetheless, how disconnected do they have to be in order to justify the use of a different language by the researchers within each field, as Moris and Maning noted in their book? It is as if Egypt was on Mars, Roman on Neptune, and Sumeria somewhere on a Saturn Moon. As Moris and Maning pointed out, that may be the main reason why these studies are so disconnected: these sciences indeed spoke different languages, so they cannot understand each other. They

29 Manning and Morris 2005.

behave, as they tend to believe that ancient societies used to behave, without great interconnections, merging, and sharing. That attitude creates the idea that each time similar elements between two cultures are found, there is an artificial importation or syncretism or merging, without considering that sometimes a shared element can be developed in an independent or parallel way. These common factors may have different origins, and not be a result of a common evolution or invasive contact between civilizations. Cultures don't have to merge or to be absorbed in order to share a common element. In fact, to consider 'cultural absorptions' may be the wrong way of looking into the mechanisms of cultural mutations, even more so if one is talking about a span of centuries or millennia.

I only presented few examples and they mean very little in a corpus as big as Latin and Sumerian texts, but I want to promote and extend the debate about the way our cultural assumptions are expressed in abstract thinking, independently of the linguistic context or literary conceptions.

Due to the fact that one can find so many *topoi* in Roman literature, it is hard to distinguish them from simple symbols, which would have come from abstract images. However, in fact, the basis for those *topoi* formations is the simple symbol; so it's not possible to dissociate those literary references from the traditional thinking. Sumerian culture, whatever this word supposes, and Roman culture cannot be compared in any sense. So, in what way could one say that Roman and Sumerian culture are connected? Well, they are not, except for one fact: they are human cultures that depend on farming and herding and on the benevolence of nature, and that is the basis for the rules and conceptions of Sumerian and Roman life experiences.

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SIGNS, PLACE, AND TIME

Sanja Savkic

The Appropriation of Space and Time through the Built Environment: The Case of the Las Pinturas Group at San Bartolo, Guatemala

Summary

The Maya from the ancient city of San Bartolo, Guatemala built a dynamic environment where primordial and present times were interwoven, fusing politics and cosmogenesis. To stay in touch with ancestors and configure the past, as well as to establish connections between past and present by means of architecture, they superposed new building programs on top of previous ones. This was possible because of a particular conception of time and its inextricable relation with space as the place of its manifestation. The coexistence of different temporalities was made possible in this way through different visual manifestations, whose production, use and reception were predominantly ritual in character. In this essay, three (of eight) architectural phases of the Las Pinturas Group will be examined.

Keywords: San Bartolo; Las Pinturas Group; Maya space; Maya time; appropriation of space and time

Die Maya aus der antiken Stadt San Bartolo, Guatemala, erstellten eine dynamische Umgebung, in der die Verbindung von Ur- und Gegenwartszeit Politik und Kosmogenese miteinander verschmolzen. Um mit den Vorfahren in Kontakt zu bleiben sowie die Vergangenheit zu gestalten, wurde mittels neuer Gebäude auf alten Strukturen die Vergangenheit mit der Gegenwart verknüpft. Möglich wurde dies durch eine besondere Vorstellung von Zeit und ihrer untrennbaren Beziehung zum Raum als Ort ihrer Manifestation. Auf diese Weise wurde die Koexistenz verschiedener Zeitlichkeiten durch unterschiedliche visuelle Manifestationen ermöglicht, deren Produktion, Nutzung und Rezeption überwiegend rituellen Charakter hatten. In diesem Essay werden drei (von acht) Architekturphasen der Las Pinturas Gruppe untersucht.

Keywords: San Bartolo; Las Pinturas-Gruppe; Raum und Zeit der Maya; Raum- und Zeitaneignung; Aneignung von Raum und Zeit

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This paper aims to provide insights into the possible reasons and meanings of the practice of constructing buildings and larger architectural complexes by superposing new building programs on top of previous ones of the so-called Las Pinturas (Spanish for 'the Paintings') Group, and their effects on cultural and social aspects at San Bartolo, the site located in modern day Guatemala (Figs. 1 and 2).

Since the ancient Maya thought of space and time as inseparable, the questions I ask should be addressed in terms of 'time *embedded in* space,' and not only in terms of 'continuities and discontinuities in space *through* time.' The ancient Maya perceived time as both cyclical and linear. In such an understanding, forward movement may be interwoven with cyclical repetitions that bring distinct cycles and personages together.[1] Yet, "it is the repetitive pattern of events that counts and not their exact duplication".[2]

The so-called Pyramid of the Paintings from San Bartolo has eight 'layers'; i.e eight substructure-complexes arranged vertically (Fig. 3), where each one presents its own layout horizontally in space. The intention here is to examine how the Preclassic Maya from this ancient city interacted with their past through materialized forms as a means of making contact with ancestors and shaping the past – formulating the connections between past and present – and how these articulated with ancient Maya beliefs, myths, rituals, and power.

The guiding premise of this paper has to do with the notion of time and its commemoration and manifestation in different media, the production, use, and reception of which are predominantly ritual in character. According to Alonso R. Zamora Corona,[3] the temporal complexity of the Maya rites enables different temporalities to coexist:

– in hieroglyphic texts, this time complexity is expressed through its literary structure and discursive resources, which link characters (humans and gods) and events of the past with the present ones, and even with projections into the future, in order to make a rhetorical point about the nature of the main historical event (which is always, again, the one happening in the present);[4]

– in two-dimensional media (mural paintings, stucco panels, etc.) it is reflected by a juxtaposition of the same character at different ages, or by rulers shown together with their ancestors;[5]

1 O'Neil 2012, 13.
2 Farriss 1987, 575.
3 Zamora Corona 2015, 50.
4 E.g., the hieroglyphic text on the Monument 6 of Tortuguero, Mexico (Stuart 2011).
5 E.g., the West Wall paintings inside the Sub-1A edifice at San Bartolo, Guatemala, especially the right portion of the mural.

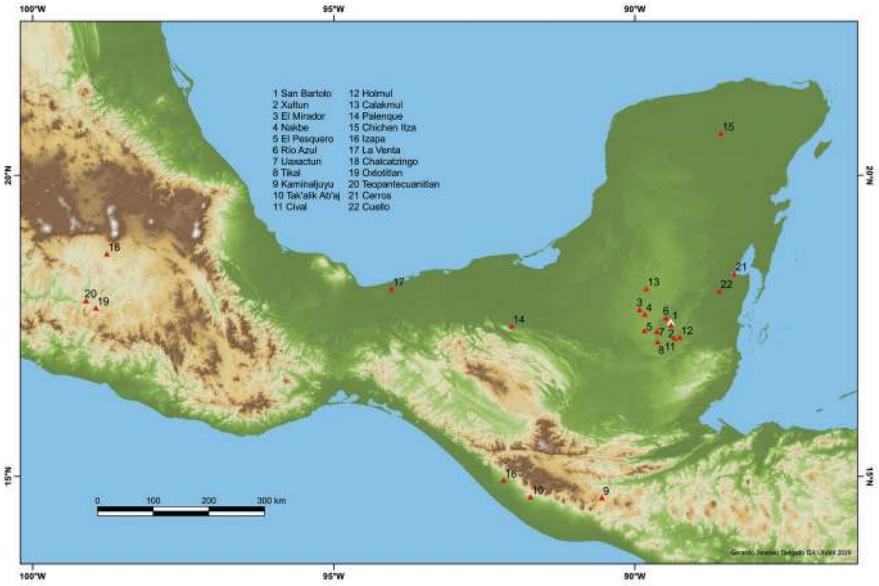

Fig. 1 Map of the Maya area (some archaeological sites mainly of the central Peten region are highlighted, while San Bartolo is starred).

– in architecture, given its three-dimensional nature, the same phenomenon manifests itself in the form of superpositions[6] (also known as architectural phases).[7]

Hence, there is a common denominator that regulates this building practice and the production of many other objects, including hieroglyphic texts: the commemoration of time (its cycles and its passing). What is important is to draw an analogy between similar events from the past that happened in similar calendrical endings and the present ones. Thus, time would have the key role, always linked to space as its place of manifestation.

What follows is a brief description of the case study area, and an analysis of the ways in which the Las Pinturas Group's space and time were visually manifested and enacted in three of its eight architectural phases (Fig. 4), as well as of the modes in which they may have inspired movement, perception, and interaction of heterogeneous actors (elite and non-elite).

6 It is an omnipresent building practice in Mesoamerica, although there are examples of edifices completed in one single constructive effort.

7 For the overlapping of events, characters, and other features in the ritualization of ethnic conflicts among the Maya since the so-called Colonial period, see Reifler Bricker 1989, especially chapter 10.

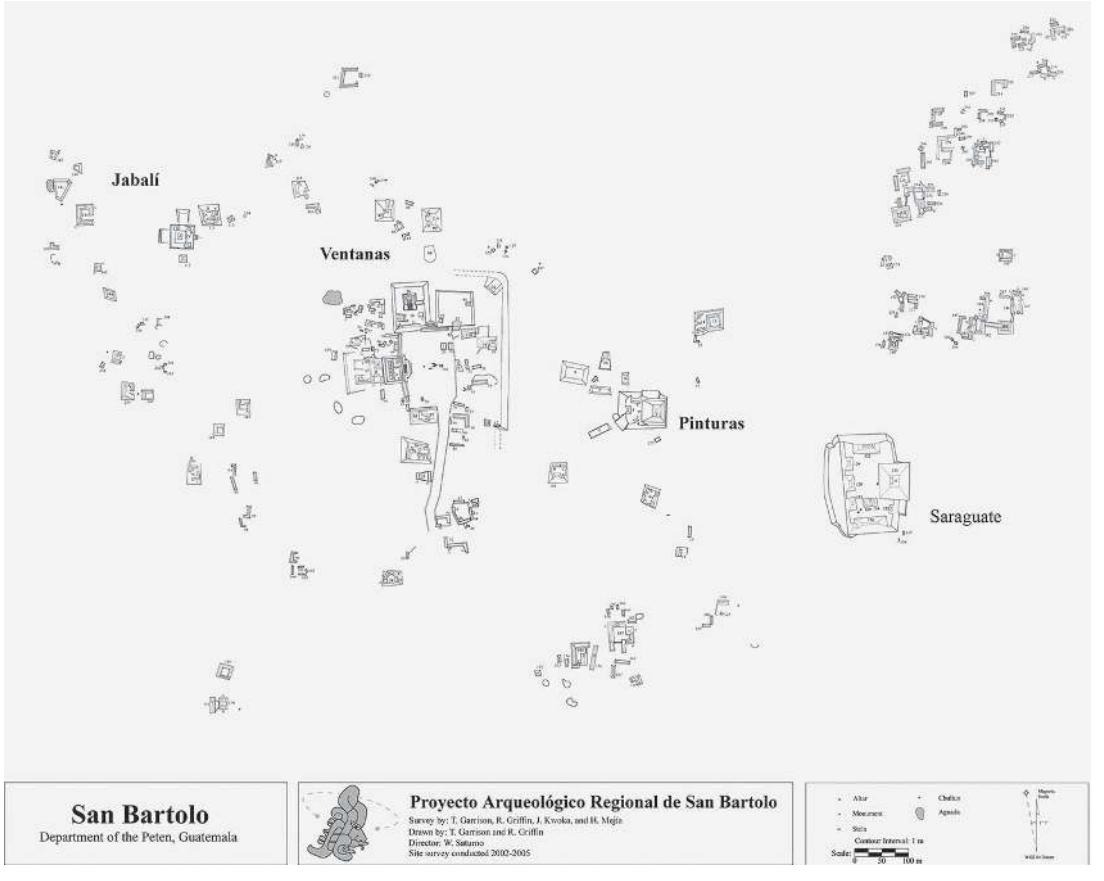

Fig. 2 San Bartolo site plan.

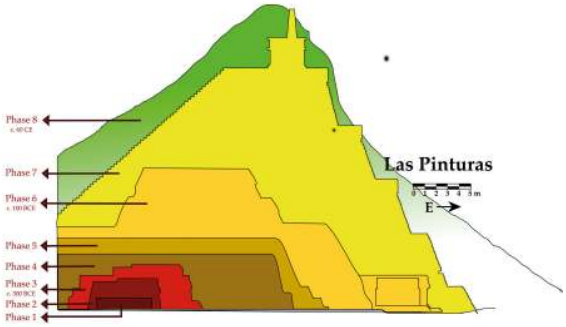

Fig. 3 Transversal cut of Las Pinturas Group at San Bartolo, showing eight architectural phases.

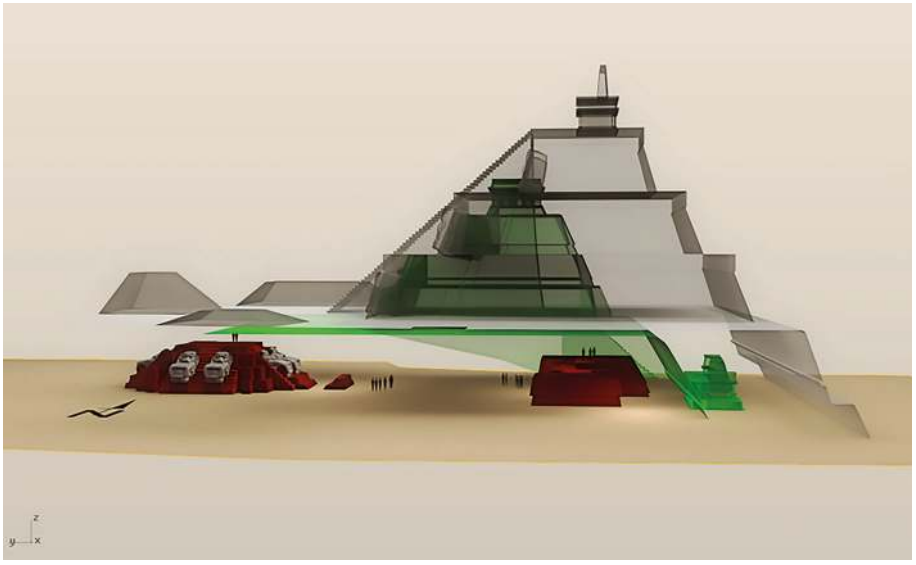

Fig. 4 The 3rd, the 6th, and the 7th architectural phases of Las Pinturas Group at San Bartolo, Guatemala.

1 Las Pinturas Group

The Las Pinturas Group at San Bartolo derives its name from the discovery of the mural paintings inside the Sub-1A edifice (Fig. 5), in the building's sixth architectural phase (ca. 100 BCE). It is the longest visual discourse known so far for the Late Preclassic period (ca. 400 BCE–250 AD) in the Maya area. Even more surprising was the discovery of pictorial and written evidence from the third architectural phase, suggesting a tradition that began before the year 300 BCE, much earlier than scholars of the Maya used to believe.

At present, material evidence is most abundant for the third, sixth, and seventh phases, the focus of this paper (Fig. 4). Additionally, it is possible to see the Las Pinturas' seventh architectural phase (ca. 1 AD), as well as remains of the eighth. This last phase was probably left unfinished and suffered severe damage due to its exposure to the elements.

2 The third architectural phase of Las Pinturas

This phase is a rather small architectural group consisting of three structures: a radial pyramid to the west, a ballcourt attached to the pyramid, and a long platform to the east (Fig. 6). There is evidence that structures made of perishable materials once stood on top of the structure. This particular architectural layout of buildings is known as an E-Group. At present it is recognized as one of the oldest patterns of public architecture in the Maya area and a focal element in the development of many sites as urban centers.

Most interpretations associate these structures to calendrical events, to the scheduling of agricultural activities, and to political rituals. These have to do with religious and cosmological concepts and the solar cycle, although there have been some attempts to explore their mythological and ritual implications. Following Oswaldo Chinchilla Mazariegos and Oswaldo Gómez,[8] these complexes represented mythical places related to the birth of the sun. In this hypothesis, the buildings and spaces that shaped them recreated places of mythical geography and the rites performed there reiterated primordial events present in mythical narratives about the origin of the sun.

The one common factor in all interpretations of this architectural complex type is its link to the solar cycle. Even with slight differences, E-Groups are built along an east-west axis, where elongated platforms located on the east side of the complex mark the annual variation of the solar course (Fig. 7). According to Anthony Aveni and his colleagues, the accuracy of these observations is less relevant than its symbolic aspects:

8 Chinchilla Mazariegos and Gómez 2010, 1194.

Fig. 5 Sub-1A edifice (the 6th architectural phase, ca. 100 BCE) of Las Pinturas Group at San Bartolo, showing the mural paintings in its interior space.

"rather than to follow the [course of] the sun accurately, E-Groups most probably served the purpose of verifying that the sun was located in its proper place at the proper time."[9]

In the mythical narration of the *Popol Wuj*,[10] the primordial sacrifice of the hero twins Junajpu and Xb'alamke occurred in Xib'alb'a (i.e., the Underworld), to where the lords of the place had summoned them; after many events, they eventually fall into a burning pit, transforming into the sun and the moon. Time began when these celestial bodies were set in motion. This narration (like many others) emphasizes one crucial fact: that the sun rose in the east. In terms of the E-Group's architectural plan, the 'observer' should stand on or before the radial pyramid in the west and watch the sunrise in the east, where the elongated platform stood, its top marked with three different spaces/structures indicating solstices and equinoxes.

9 Aveni, Dowd, and Vining 2003, 174.

10 The *Popol Wuj* is a narrative of the K'iche' people who live in the Guatemalan highlands. It encompasses a range of subjects that includes cosmology, mythology, ancestry, and history. Originally it was preserved through oral tradition, until it was written down in early Colonial times in the K'iche' language, using the Latin alphabet. The survival of the *Popol Wuj* is credited to the Dominican Friar Francisco Ximénez who made a copy of the original text in Spanish in the 18th century. The name "Popol Wuj" translates as "Book of the Community," "Book of Counsel," or more literally as "Book of the People."

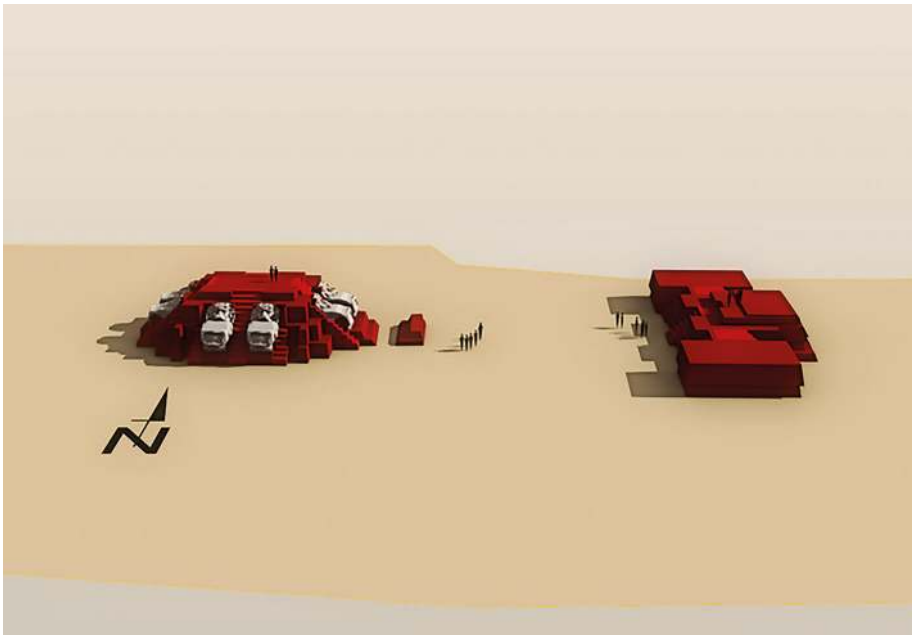

Fig. 6 The 3rd architectural phase (ca. 300 BCE) of Las Pinturas Group at San Bartolo.

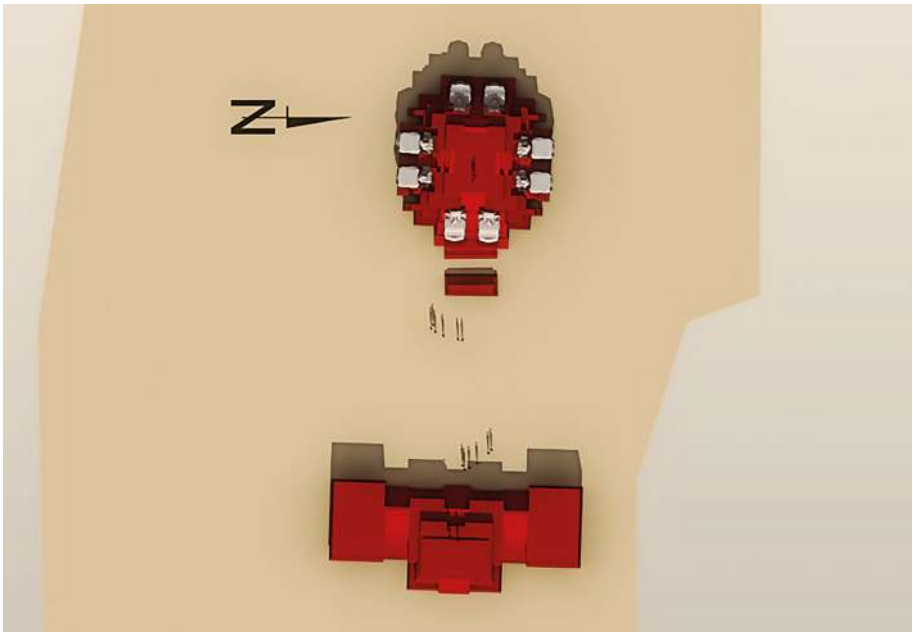

Fig. 7 The 3rd architectural phase (ca. 300 BCE) of Las Pinturas Group at San Bartolo, indicating the solstices and equinoxes.

Thus, both those who commissioned and those who executed the construction of this architectural complex at San Bartolo were aware of its symbolism: they knew that the E-Group represented the mythical landscape of the place where the sun was born,[11] something emphasized by attaching the ballcourt to the pyramid. It is well known that ballcourts have strong connections with the Underworld, the place of origin of all life. It is worth noting that in Mayan languages, the same word stands for the 'sun,' 'day,' and 'cycle' (*k'in* in Yukatek Maya).

3 The sixth architectural phase of Las Pinturas

It can be seen that in the sixth phase was built along the same east-west axis, but the general design is entirely different. It consists of four structures: the platform called Yaxche; the temple-pyramid named Ixim above it; and two buildings at ground level, labeled Sub-1A and Sub-1B (Figs. 8 and 9).

This arrangement forms two spaces or plazas separated by the platform Yaxche: one above marked by Ixim that faces west and the other at its back and on ground level that faces east (taking the larger structure as a reference). At the same time, Yaxche binds these two spaces together, as the back side of Sub-1A is attached to it and also by means of a staircase in its northeast part, which enabled the passage between these two plazas. The specific layout of the structures signals how they should be understood, perceived, and used. This visual configuration implies meanings at a deeper level having to do with ancient Maya beliefs, myths, social, and other aspects, as I have already suggested in a more detailed publication.[12]

We can recognize the strong intention to separate upper and lower spaces, mediated by the platform. This tripartite relation can be interpreted as three levels: low, middle, and top – Sub-1A and Sub-1B, Yaxchel, and Ixim. This space layout parallels the structure of the Maya universe, believed to have three levels stacked vertically. Other important ideas could be associated with this architectural setting, as described below.

It is most probable that the persons using places had to follow a specific (culturally defined) pathway: they set out from the plaza formed by Sub-1A and 1B, climbed the stairs to the top, completing a ritual circuit before (or inside) the Ixim temple. Here, the lower plaza can be understood as the Underworld, the Yaxche platform as the terrestrial level, and the upper plaza as the celestial realm. A parallel can be drawn with the apparent movement of the sun coming out from the Underworld and rising in the east, then ascending to its Zenith, and moving back to the Underworld in the west. Thus, we can speak of a space-time order, where the 'itinerary of the sun' (defining the orientation of the plazas) goes hand in hand with the movement of people. Moreover, these

11 Chinchilla Mazariegos and Gómez 2010, 1197. 12 Savkic 2016.

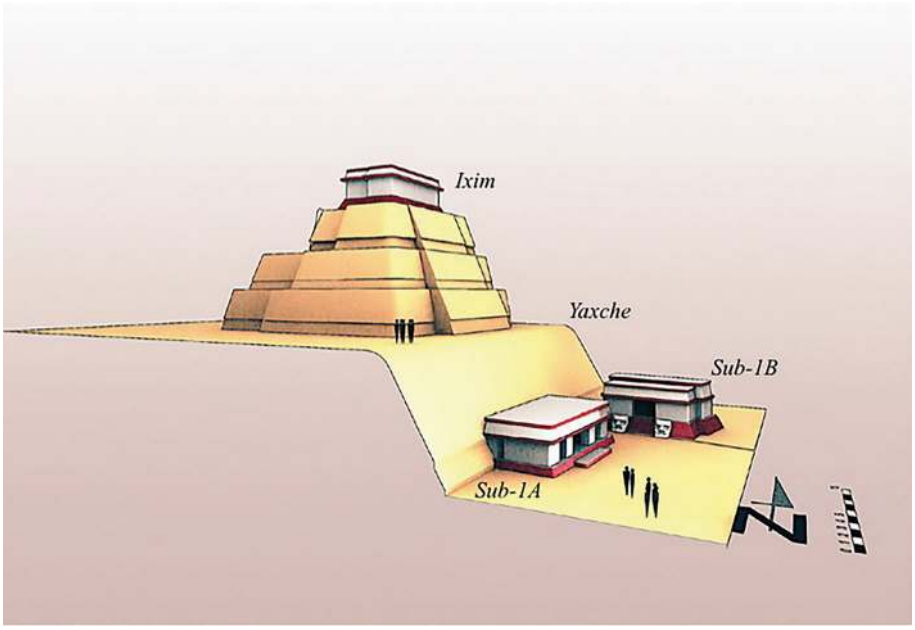

Fig. 8 The 6th architectural phase (ca. 100 BCE) of Las Pinturas Group at San Bartolo (view from the southeast).

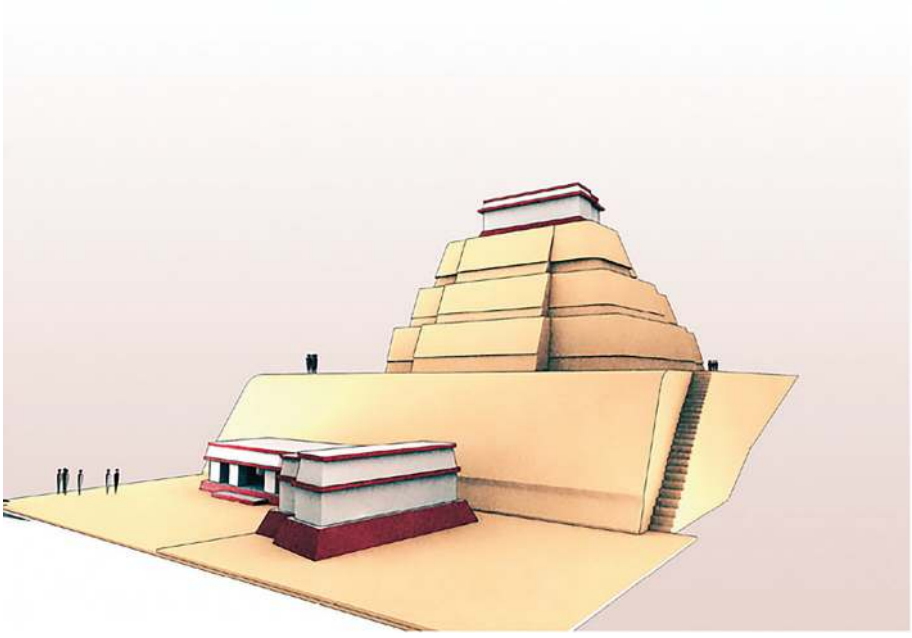

Fig. 9 The 6th architectural phase (ca. 100 BCE) of Las Pinturas Group at San Bartolo (view from the northeast).

processions follow a precise order imposed by the built environment and were probably accompanied with recitations of stories associated with a primordial circuit that mentally formed a territory. Gérard Toffin describes it as follows:

> In many cultures the notion of journey in terms of ritual pathway, with stops, reactivates an original itinerary and forms a territory. […] The periodic recitation of the legends of settling […] is an important element of the socio-religious life. […] It brings to memory the route the ancestors followed when they founded settlements and many episodes related to it, where the memory of the whole clan still depends on the current social organization. Recitation […] operates as a return to the sources, a return to the era of foundations.[13]

The processional paths in the Las Pinturas Group at San Bartolo are physical manifestations of the conceptual links between the buildings, whose locations and forms may have guided ritual participants to move across them. Consequently, processions between and among these buildings could have activated connections across generations. These connections were intrinsic to the buildings (and other objects), but people would have also activated the links among them through their sight, movement, and memory. These connections were most likely supplemented by oral narrations and staged dramas. Moreover, these processional routes across the built environment integrated ascending to and coming down from pyramids, as well as entering and exiting the buildings. Likewise, there would have been those that would have only been able to witness the ritual ceremonies, while differently empowered actor groups interacted with the environment in different ways.[14] They may have enacted dialogues and participated in the commemoration of the cyclical nature of time, but these rituals also integrated people, both as witnesses and as agents, who were guided by the objects' visual and physical forms, materiality, and orientation, in order to weave together their 'stories.'[15]

It is an interactive process of appropriating a physical setting, where the self or the social are expressed in spatial form, and this in turn has a transformative effect on people. I adopt Feldman's and Stall's definition of appropriation of space: "individuals' and groups' creation, choice, possession, modification, enhancement of, care for, and/or simply intentional use of space to make it one's own,"[16] and add to it the dimension of time as conceived by the ancient Maya. In the context of San Bartolo's Las Pinturas Group (as at many other Maya sites), what comes to the fore is the kinetic nature of the viewing and experiencing of visual manifestations in carefully designed places.

13 Toffin 2003, 680–681, translation by S. Savkic.

14 It is plausible to think that the large non-elite portion of people solely observed those rituals, while minority elite faction had access to the temples and actually performed the ritual circuit.

15 O'Neil 2012, 149.

16 Feldman and Stall 2004, 184.

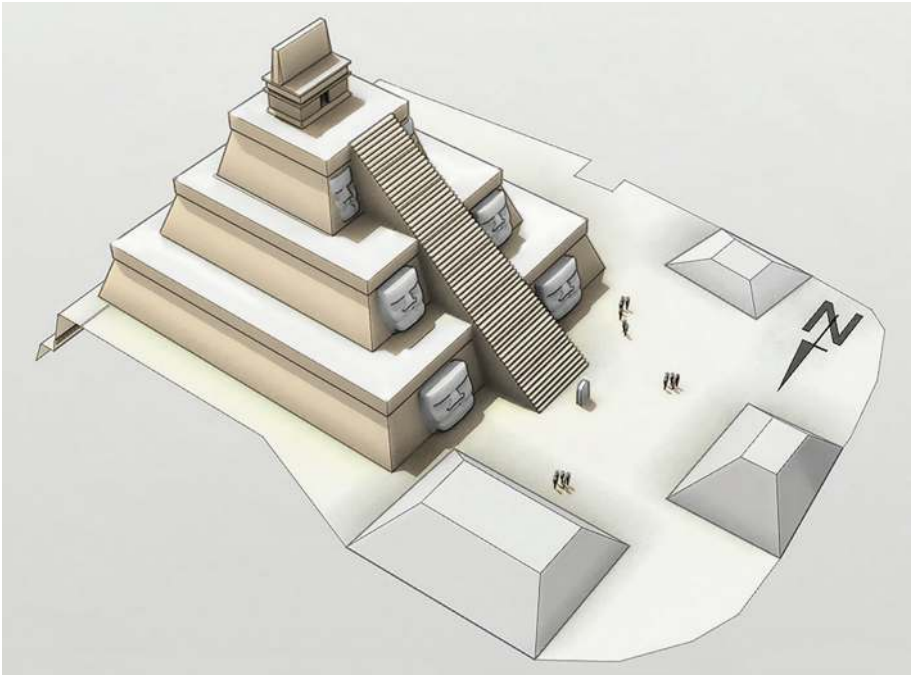

Fig. 10 The 7th architectural phase (ca. 1 AD) of Las Pinturas Group at San Bartolo.

4 The seventh architectural phase of Las Pinturas

This phase is formed by structures placed at the four cardinal directions on top of the rectangular platform leveled to build this plaza, which takes advantage of a natural slope to the east, thus forming a closed plaza (Fig. 10). The edifice located to the east is called Structure 1 or Pyramid of the Paintings. It is a building in the form of a stepped pyramid that faces west and is the highest one within this architectural group (ca. 27 m); the Stela 5 was located at the center of the base of its stairway.

By invoking the fundamental cosmological and aesthetic trope of four directions and the center, the architectural setting of this phase of Las Pinturas and the positioning of Stela 5 contributed to the structuring and definition of sacred space in relation to human actors. Despite it being fragmented, in this stela we can see a male human figure carrying a ceremonial staff in his arms. This stela can be understood as the *axis mundi* in this particular built environment, a concept emphasized by the image of the person, most probably a ruler.

As attested in the built environment and in different visual manifestations associated with buildings, the religious role of Late Preclassic rulers was more than an ephemeral concern: their acts of divine communication or communication across gen-

erations were recorded and memorized in monuments in the sacred centers of sites.[17] This setting provided a dramatic cosmological context for political display, which functioned within the sacred landscape as part of a greater narrative tradition that inserted rulers in myth-history. They also participated within a mode of monumental sculpture that defined them as actors, contextualized within the built environment and perpetually revitalized through ritual performance.[18]

5 Concluding remarks

What the third, sixth, and seventh architectural phases of the Las Pinturas Group at San Bartolo have in common, despite their different layouts,[19] is the creation of sacred geography. The built environment is conceived as a cosmogram and as a path that the ancestors followed at the time of the original foundation of settlements. It is also related to the notion of the cyclical nature of time, where one of the most prominent figures is the sun, whose origins and apparent daily and seasonal trajectories were traced through this complex built environment, which was conceived as a setting for human interaction and activities, and related both to the mundane and to the ritual worlds. Each generation of the ruling elite appropriated the space in its own way, and created places where ancestors and their descendants could coexist. Thus, it was a dynamic environment where primordial and present times were interwoven, fusing politics and cosmogenesis.

Intents were devised, given form, and embedded into the built environment by the ruling elite. The design of the edifices, together with different visual manifestations that accompanied them (murals, reliefs, etc.), and the layout of the architectural complexes had to conceptually support the agenda of the ruler. Within such an environment, according to Julia Guernsey, the presence of rulers and their ritual actions became part of a divinely approved protocol.[20] Through these performances, Late Pre-classic rulers reenacted the deeds of the gods and of prominent ancestors and invoked key passages from the Creation story, providing a cosmic character to their actions and words. Their performances became paradigmatic and actively structured social order, instead of solely reflecting it.

17 Guernsey 2006, 117.

18 Guernsey 2006, 129.

19 It is important to reiterate that these three architectural phases have been excavated so far, and it will be possible to know the specificities and possible implications of the layouts of other phases only when sufficient evidence is obtained through further archaeological excavations of the complete Las Pinturas Group.

20 Guernsey 2006, 120.

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1 Map by G. J. Delgado, Mapoteca of the Instituto de Investigaciones Antropológicas, Universidad Nacional Autónoma de México. **2** Drawing by T. Garrison and R. Griffin in 2005 (based on the work done between 2002 and 2005), Proyecto Arqueológico Regional San Bartolo. **3–10** Image: M. Stefani.

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Eugen S. Teodor, Dan Ştefan

Trajan's Road: A Timeless Sign of the Romanian Plain

Summary

In the early 3rd century AD the Roman frontier was pushed eastward towards the Lower Olt River. It is known as *Limes Transalutanus* and is closing the gap between the Danube and the southern Carpathians. When crossing open fields it was boldly marked by a large palisade, and was an obvious obstacle and landscape configurator for people living on either side. 'Chilia-Militari Culture' had developed on the both sides of the Roman boundary. Expediently defined as a rural world using Roman implements (pottery, weapons, etc.), it was certainly rooted in the local culture, being a (rural) Roman provincial culture. Even more interesting is the 'magic' of this boundary. Although deserted by the Roman troops, it 'locked' down the western Muntenia in the fourth century, as the Gothic tribes never crossed it.

Keywords: *Limes*; landscape archaeology; acculturation; symbolic barrier; cartography; structured cadastre; toponymy

Im frühen 3. Jahrhundert n. Chr. wurde die römische Grenze östlich des Unteren Olt verlegt. Bekannt als *Limes Transalutanus* schloss diese Grenze die Lücke zwischen Donau und den südlichen Karpaten. Beim Verlauf über offenes Gelände war sie mit einer Palisade markiert – ein deutliches Hindernis und eine Landschaftsgestaltung für Menschen auf beiden Seiten der Grenze. Hier entwickelte sich die ‚Chilia-Militari-Kultur'. Bezeichnet als eine ländliche Welt, die römische Geräte (Keramik, Waffen usw.) übernommen hatte, war sie in der lokalen Kultur verwurzelt und bildete eine (ländliche) römische Provinzialkultur. Noch interessanter ist die ‚Magie' dieser Grenze. Obwohl von den römischen Truppen verlassen, wurde durch sie das westliche Muntenia im 4. Jahrhundert ‚gesperrt', da die gotischen Stämme sie nie überquerten.

Keywords: Limes; Landschaftsarchäologie; Akkulturation; symbolische Grenze; Kartografie; strukturiertes Kataster; Toponymie

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1 General facts

The war waged by Romans against the Dacian Kingdom between AD 101 and 106 is unusual when looking at the military history of the previous century. It was not only carefully planned, in order to provide a critical number of well-trained troops, but involved unprecedented tactics. Instead of using full sized combat units (a legion, a pair of them, or many, flanked by auxiliaries),[1] there are indications that vexillations and auxiliary units had been preferred,[2] which were smaller but more mobile and better adapted to the difficult terrain. In order to attack the Dacians' main centers of command, the Roman Army had to cross the Southern Carpathians, a 400 km long mountain range, with only few passes available, narrow and high, crossing thick woods and quick rivers.

Approximately four Roman Army columns headed to the heart of the Dacian Kingdom, *Sarmizegetusa Regia*, located in the southwestern Transylvania, and another four converged on southeastern Transylvania, were the Dacian allies of the King Decebal were located.[3] The initial positions of the Roman troops were developed along a wide front, having Viminacium in the west and Dinogetia in the east, points located 530 km away from each other and at more than 800 km along the Danube.

The route known as *Limes Transalutanus* leaves the Danube just a few kilometers downstream from the mouth of Olt River (*Alutus*in antiquity), heading past Bran Pass and reaching the Bârsa Depression, where now the city of Braşov (Kronstadt) stands (Fig. 1)

Interestingly, all routes followed by the Roman columns on the eastern front had the same target, revealing a surprisingly good geographical knowledge. The length of the road along the *Limes Transalutanus*, is about 230 km up to the Bran Pass and another almost 90 km to the upper Olt River bend, at the fort Comalău.[4] Breţcu (*Angustia*) Fort – the most eastern Roman possession in Dacia – is located another 45 km further, locking the Oituz Pass, the connection to southern Moldavia.

1 Keppie 2008, 381.

2 Petolescu 2010, 192–206, for legions in Dacia; Keppie 2008, 387–388, for vexillations; Matei-Popescu and Ţentea 2006, esp. 140 for the dispatching of auxiliary troops. The main argument is that between the marching camps there are none larger than 7.4 hectares (Teodor 2015, 129, note 8; see also Teodor, Peţan, and Berzovan 2013, 26; Micle, Hegyi, and Floca 2016, 725, 729, 735, 736). To be compared with huge double-legionary camps (Keppie 2008, 390, fig. 5)

3 Strobel 1984, 53-55, 186–190; Bogdan-Cătăniciu 1997, 38-39, for actions departed from Moesia Inferior; Petolescu 2001, 700, 702, 704, 712, esp. for actions on the western front. See also Opreanu 2006, esp. 116–117; Teodor 2014, 126–134.

4 G. G. Tocilescu 1900, 123, gave the distance between the Danube and its northern end in Transylvania, as being 235 km. Obviously too small, the figure is yet retaken in almost all the literature dedicated to the *Limes Transalutanus*, but trimmed to the fort *Cumidava*, near Râşnov. In fact, from the Danube to Râşnov there are around 270 km.

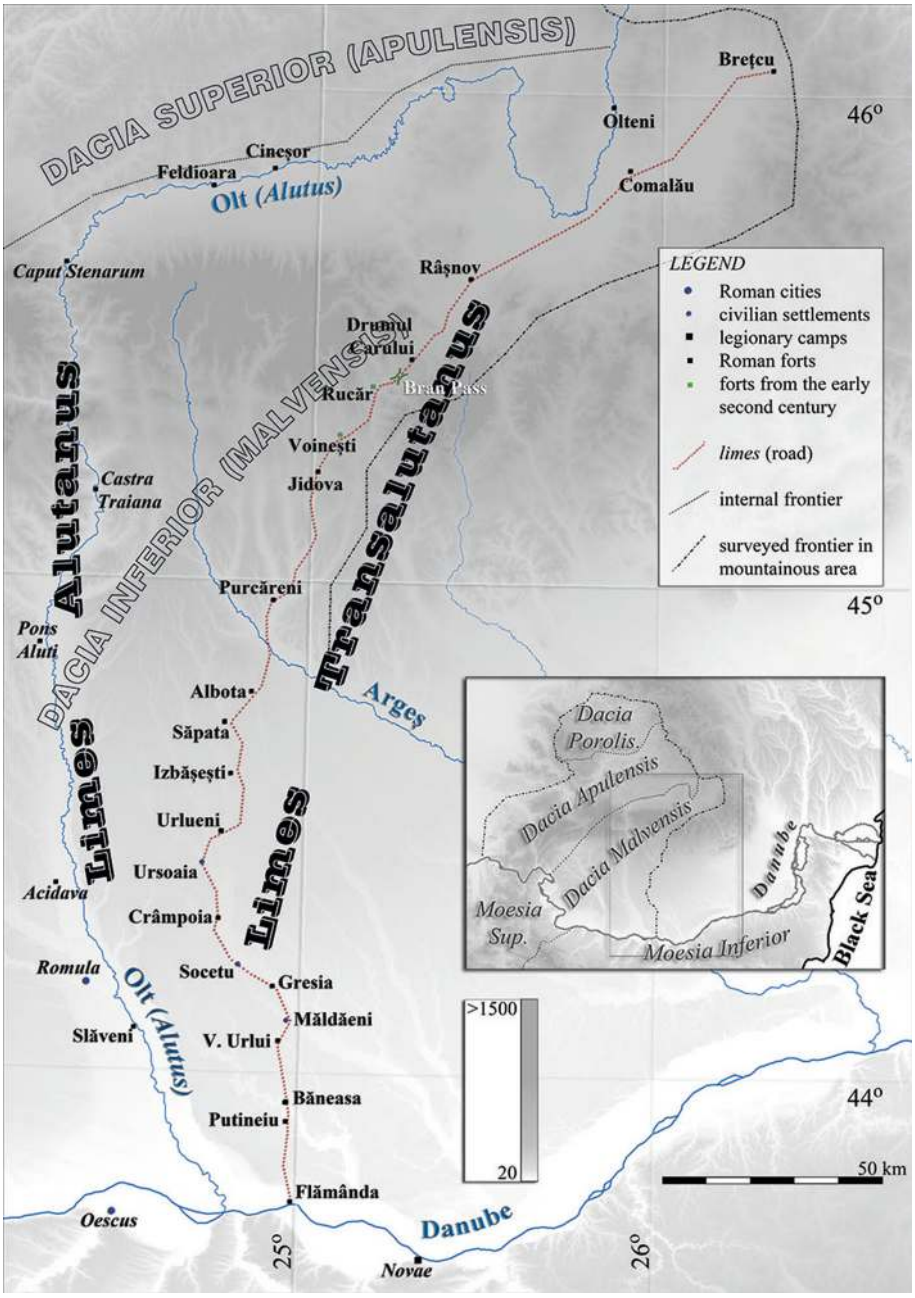

Fig. 1 *Limes Alutanus* and *Limes Transalutanus*.

The early route via Bran Pass, used by Roman troops sent by the emperor Trajan, is documented in only a few places, mainly in the mountain areas of Rucăr or Voineşti,[5] however, its southern sector in the plain is rather uncertain. Nevertheless, the camp from Flămânda (as it is known in the archaeological literature) on the Danube's bank is far too large (7 ha)[6] if compared with the forts from the third century, the largest, Băneasa, having only (almost) two hectares. There is no evidence that such a route pre-existed the Roman invasion, with no relevant Dacian site being known along it.

In the decade after the conquest, all the area related to this route was part of *Moesia Inferior*. When Trajan died in AD 117, a Sarmatian revolt broke out both west and east of the newly conquered land, having as its final outcome the Roman drawback from all territories outside the Carpathian Mountains and east of the lower Olt River, known today as southern Moldavia and the entire Muntenia. The Olt River made the new Roman border (*Limes Alutanus*) for almost its entire length, except its upper part, left outside the Empire. The Dacian Province was reorganized, first in two, and soon thereafter in three parts, in order to make administration more efficient. The line of the Olt River became then the frontier of *Dacia Inferior*, later known as *Malvensis*.[7] There was still a problem: this road was much longer than the route used in the war, the difference being around 100 km, or four marching days for the heavy carts of logistics. In a province with a disrupted population, with no colonization in its eastern parts, and a cold and harsh environment, the military supply appears difficult. This is probably why, at some point the Romans decided to send the troops back, beyond the Olt River, and to reuse the old route, known today as the *Limes Transalutanus*. About the precise chronology of the event, there is a lot of talk in the Romanian literature, but the most likely timing is at the threshold of the second and third centuries.[8] The new *status quo* was (hardly) preserved for only half a century, the Roman defense was swept out by a *Carpi* invasion in AD 245–247, and the surviving troops retreated back to the Olt line.

2 Trajan's Road

The Roman frontier from the first half of the third century is known in modern cartography as Trajan's Road, as one can see in one of the oldest detailed maps, known as the

5 Bogdan-Cătăniciu 1974 for Rucăr; M. I. Bădescu 1981 for Voineşti. Ongoing excavations for the latter are being led by Florian Matei Popescu.

6 Unfortunately, Flămânda Fort was dismantled in the 1970's before proper research was conducted.

7 The word makes more sense in Romanian than in Latin. 'Mal' (Rom.) means 'ripa' (Lat.), a (protecting) high bank. The origin of the word is Dacian. See Petolescu 2010, 166–167, or Gudea 1997, 8–9, for the administrative changes after Trajan, disregarding the map from Gudea 1997, 9, fig. 4, which is wrong.

8 Petolescu 2010, 185–186, resuming the main proposals.

Szathmári Map (1864).[9] It has been known from mediaeval documents in its original spelling of 'Troian' as early as 1512–1513.[10] The common name 'troian' is documented from all Romanian speaking environments, until northern Moldavia.[11] The radical 'tro-' instead of 'tra-', although perfectly compatible with the Romanian phonology, is well documented for Antiquity, mainly in the Balkans,[12] having a regional phonetic issue.

Odd or not, the average Romanian language speaker does not make the connection between 'Traian' and 'troian'. 'Traian' is a relatively recent acquisition as a personal name, due to the school education; 'troian' is a common name, defining a wave-like shape of a field, extended to snow furrows, the only meaning acknowledged in urban areas. The toponym *Drumul lui Traian* is known in any village between the Danube and Vedea rivers (a 55 km long segment of the former frontier), mainly by the elderly, as traces of the former embankment marking the border are still visible. Going further north along the Vedea and Cotmeana streams, the former boundary of the Empire was conceived as a *ripa*, protected by a 20 m high and steep terrace; no obvious remnants of one could be found along those 40 km, the name of the Trajan's Road being apparently lost. The Roman frontier is again crossing the flat plain east of the village Urlueni, where the border obstacle appears again. It is exactly the place where the toponym 'Dealul Troianului' (Trojan's Hill) occurs again, near a dry valley preserving another legendary name, Valea Leru.[13]

The reason why the Roman monument is considered by the villagers a road is that it was actually used like a road.[14] Preserved in the late 19th century like a rampart, measuring in various places up to 2 m in height,[15] in a country in which modern engineering was very young, it was perfect for the transportation of heavy loads. This public use was turned into an academic statement by Carl Schuchhardt in 1885, although the very young German archaeologist did at most an ethnographic inquiry.[16] The authority of

9 'Drumu lui Traianu' (Rom. for Trajan's Road) on Szathmári Map (http://charta1864.gis-it.ro/essay.html, visited on 24/06/2019). The last is a Romanian version of the Second Austrian Survey, on which one can read 'Drumu Traianului' (meaning the same in the dative form, instead of the genitive; see http://mapire.eu/en/map/secondsurvey/, visited on 13/06/2019).

10 Ştefănescu and Diaconescu 1972, document 105, giving 'amândouă Troianele' (both embankments known by folks as 'troian', i.e. *Limes Transalutanus*, and the one known as 'Brazda lui Novac de Sud'), the boundary landmark being the place where they cross each other.

11 Croitoru 2007, 57–103.

12 Petolescu 1994.

13 The name Ler is preserved only in winter carols in a hieratic collocation, 'Leru-i Ler' (The Ler is Ler), but the identity of the character is not clear (Teodor 2015, 71, note 3).

14 Similarly, on Antonine Wall some sections are used as roads, having mythical names (Historic Scotland 2007, 13).

15 Teodor 2015, 219 (Pamfil Polonic's notes).

16 Schuchhardt 1885, 210, 228–229, telling the story of the 'brick road', which one can still hear today, in Putineiu Village. What Schuchhardt's translator did not know is yet essential: for the villagers from southern Romania, 'brick' does not have the usual meaning as for anybody else, but instead means 'burned adobe'.

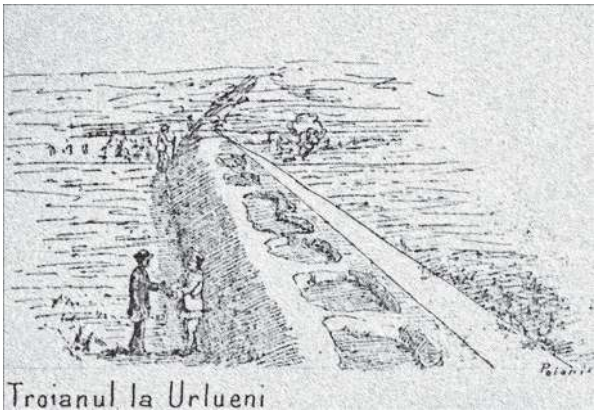

Fig. 2 *Limes Alutanus* and *Limes Transalutanus*.

the name made his opinion very popular (if not fashionable), even today,[17] although in the meantime several excavations were made and published.[18] Of course, a road cannot be in its original state for a very simple reason: a road does not burn. This monument, labelled as 'Trajan's Road', was intensely burned here and there, for hundreds of meters, and lightly burned for most of the rest.

Very recent diggings proved that the construction was actually a large palisade[19] made from thick logs, entrenched over one meter into the ground, enforced with soil gathered from around, covered in clay plaster, and finally consumed by fire. Only now we can understand the sketch made by Pamfil Polonic for the embankment located near Urlueni in the late 19th Century (Fig. 2), although the geometry looks a bit too enthusiastic.

3 Recent research on the *Limes Transalutanus*

This Roman frontier from the early third century was considered doubtful by scholars, and on good grounds. Classifying the linear works, Joélle Napoli wrote that *Transalutanus* is *une place un peu particulière*, because a *vallum* without a *fossa* is difficult to understand.[20] She was puzzled by the contradictions between the archaeological drawings

17 See Croitoru 2004, 73, note 310 for literature. We would like to stress here some recent oral interventions of the same type from high profile historians like Zsolt Visy (at the 23rd Limes Congress, Ingolstadt, Sept. 2015) and Ioan Piso (Fifth Limes Forum, Bucharest, Dec. 2016).

18 Bogdan-Cătăniciu 1977, 340 and figs. 6, 7; Bogdan-Cătăniciu 1986, fig. 6; Bogdan-Cătăniciu 1997, 86–89.

19 Diggings from May and June 2016 have not been published yet in detail; however, the Third Interim report of the research project is available (http://www.limes-transalutanus.ro/rapoarte/raport_etapa3.html (visited on 13/06/2019), see the third section).

20 Napoli 1997, 10–12

and the conclusions reached by the Romanian archaeologist, asking even if the term 'wall' was proper, for the building delineating the border, as long as the foundation of it is above the bottom of the furrow.[21] The absence of the civilian settlements is also a handicap for understanding a third century *limes*.[22]

Such problems were recently fixed in our research project dealing with this frontier from the Danube up to the Argeş River. The embankment still profiling in the plain proved to be a large palisade, which needed a foundation – a trench filled with vertical logs – but not a ditch, falling into the second type of the linear works from Napoli's classification, as well as the boundaries set in Taunus made under Hadrian; those accomplished in Upper Germany and Raetia under Antoninus; and those from Vettaravie and Odenwald, with uncertain chronology, but (later?) second century.[23]

Important advances were made on *vici* – civilian settlements grown in the shadow of the forts. Systematic field surveys made in six different locations (Putineiu, Băneasa, Valea Urlui, Crâmpoia, Urlueni, and Săpata) proved that each Roman garrison was paired with an extra-mural settlement, sometimes larger such as the fort (as Valea Urlui), sometimes smaller (such as Băneasa). More than that, three other settlements of the third century have been discovered. These were located on the frontier line, and apparently do not connect with any of the known Roman forts, namely Măldăeni (near Roşiorii de Vede), Socetu, and Ursoaia.

The most striking issue related with the forts and settlements from the former Roman boundary is the surprisingly high presence of the so-called Chilia-Militari pottery, ranging from 20 % to almost 40 % of all Roman sherds. Formerly ascribed to the local (*Getae*)[24] population from southern Romania that developed on both sides of the Roman frontier from the mid-second century to the early fourth century,[25] it was never connected with the Roman military environment. It is quite obvious that this local population did not fight against the Romans in the wars from the beginning of the second century; they were not hunted down and not cast out of their own lands. Instead they descended from the hills to the lower plain and developed friendly relationships with the conqueror. They lived in traditional, rural settlements and made pottery on which prehistoric features can be recognized, like the grey color of the wheel made pottery,

21 Napoli 1997, 10–12, for the typology of the linear works, 39–41 and 322–334, for commentaries to (mainly) Bogdan-Cătăniciu 1977 and Bogdan-Cătăniciu 1986.

22 Napoli 1997, 333, note 30, sending to Tudor 1974, 245. The same could be read in his last important account (Tudor 1978, 256–257). We should add here a much longer work (Bogdan-Cătăniciu 1997, in Romanian), a full length book about this *limes*, containing one sentence about the settlements (page 145), and this after 25 years of research in the area.

23 Napoli 1997, 10, 48–51; Sommer 2015, 16–22.

24 In Romanian literature this population is largely assimilated with Dacians, mainly for their later (and final) history.

25 Teodor, A. Bădescu, and Haită 2015, 90–93, with subsequent literature.

but quickly adopted the Roman sandy fabric and Roman shapes. Their massive presence on the frontier line proves they cooperated in supplying, surveying, and defending the border area, shedding a new light on the Romanization process.

Two years ago one could find information about one watchtower and a pair of possible turrets for the whole length of this frontier.[26] We found out at least another 6 large towers, located relatively far behind the palisade (40 to 100 m), mostly on the southern segment, and many points with likely turrets made exactly near the palisade, mostly on the northern segment.[27]

In the mountainous part of *Limes Transalutanus* only short recognition surveys have been made, in order to find previously recorded 'walls'[28] northwest of the city Câmpulung. What we found there are most likely segments of a Roman road, judging by the morphology and the position into the landscape.[29]

4 A long lasting symbol

A palisade not having a protective ditch and battlements and walkways are not 'defensive' constructions but symbolic obstacles, making a nonverbal statement against trespassing. It is obvious that the barbarians realized this, at least in this case. When the Roman troops were defeated, sometime between 245 and 257, and forced to draw back some several kilometers behind the Olt River line, the victorious *Carpi* burnt down the palisade all the way from the Danube to the Vedea River, approximately 55 km that was supplemented by a few kilometers north of Urlueni. They were not demolishing a military relevant feature, but the very symbol of the Roman domination. Paradoxically, exactly where it was badly burned, it stands, through time, better and stronger; material proof of the Roman history, acknowledged as 'The Trajan's Road.'

It is not that clear what happened with the local, non-military population living in 'Chilia-Militari' settlements in the war raged by *Carpi*. Were they punished for serving the Romans? The archaeologist who knew this local culture best, Gheorghe Becher, said he was not able to find any disruption around the middle of the third century.[30] True or not, it is certain that their settlements developed and were apparently not disturbed for at least another half of a century. In addition, although not being in close vicinity to

26 Bogdan-Cătăniciu 1977, 343–344; Bogdan-Cătăniciu 1997, 83 and fig. 62.

27 See Teodor 2018, for a stage of research from 2016.

28 The Romanian word is 'val,' coming from the Latin *vallum*, as well as the English 'wall,' being an academic synonym for Rom. 'troian.' We do not have other translation than 'walls' or *valla.*

29 Teodor, Dumitrescu, and Chivoci 2016.

30 Bichir 1984, 93. See also the French abstract (107–111).

a Roman presence, their material culture continued the process of assimilating Roman culture.[31]

This local culture of Roman influence is, however, abruptly terminated in the early fourth century by the expansion of the eastern culture Chernyakhov, the archaeological expression of the Goths from the written history. 'Goth' is yet only a label for a large confederation containing German (*Bastarni*, *Hasdingi*, *Taifali*) and non-German tribes (Thracian, Sarmatian, Alanic) split in two large branches: the eastern, led by Amali family, were called *Greutungi* and later known as *Ostrogothi*, and the western, led by the Balthi clan, known also as *Tervingi* and later *Visigothi*. The date of their settlement at the Lower Danube is not that clear. What we clearly understand are their raids against the Empire, which began in 238, but their actions were firstly launched from far, or at least this is what archaeology suggests. The extension of their Baltic culture, named Wielbark, began in the early second century, but lasted to the end of the third.[32] The so-called western Goths, actually *Heruli* located first at the Azov Sea, who are later documented as *Tervingi*, no earlier than 290, settled later west of Dnistre (Rom. Nistru). They became Romans allies at the latest in 297, when they joined the (unlucky) expedition of Gallienus against the Persians.[33] This is the first time when they could come closer to the Danube without fear for their settlements.

One of the most striking issues connected with the settlement of the western Goths at the Lower Danube is the fact that they did not cross the former Roman frontier, *Limes Transalutanus*. The most western known settlement is located at Râncăciov, 12 m east of Piteşti City, and the most westerner cemetery – Olteni, located 28 km east of the Roman fort from Gresia.[34] Who could force the Goths to stay away from the *former* Roman frontier? Nobody, but a treaty could. There is no historical evidence for this, but some circumstantial facts. The bridge from Sucidava-Celei was accomplished in 328, the same year in which a treaty was signed with the Goths. We don't know the terms of the document, but one can guess that the barbarians got subventions and Constantine gained

31 Teodor, A. Bădescu, and Haită 2015, esp. the map from figure 18, for the distribution of the Chilia-Militari archaeological sites and the conclusions (pages 125–128). The paper deals mainly with a settlement from the late third Century, 40 km east of the former frontier, immediately north of Alexandria City.

32 Wolfram 1990, 37–43. Similarly, the formation of the Chernyakhov culture was dated by Ščukin, Michel, and Oleg 2006, 38, between 220 and the early fourth Century.

33 Wolfram 1990, 57.

34 Mapping after Petrescu 2002. One exception is still known from literature: the cemetery from Drăgăşani-Olt (Trohani and Zorzoliu 1983), located west of *Transalutanus,* and ascribed (wrongly) to the Chernyakhov culture. In it 13 inhumation graves were discovered, on a construction site, observed by an amateur archaeologist (Traian Zorzoliu) and rationalized later by an esteemed specialist in La Tène Age (George Trohani). There are facts which could drive the interpretation to a Sarmatian population, as the cranial deformation, two single blade swords (unusual in Cernyakhov cemeteries!), horse bits, and bronze mirror, as well as the beads and the handmade pottery from the grave 11 (which also contains a pair of fibulae!), but more likely this is a group pushed westward by the Huns, after 380.

some control on the northern bank of the Danube. The deal seems to have included that the Goths made a commitment to defend Roman interests in *Barbaricum*. The result was that king Geberic defeated the Vandals and Sarmatians in 334, somewhere between Mureş (*Maris*) and Tisza (*Tisia*),[35] which is, more or less, the former province *Dacia Porolissensis*, located 300–400 km west of the fringes of the Gothic land, east of the Oriental Carpathians. Geberic acted then like a commander of *foederati* troops defending Roman land. The same thing could have happened in 291 when a coalition of *Tervingi* and *Taifali* defeated *Vandali* and *Gepidi* somewhere in the Northern Carpathians.[36]

The outcome is that the palisade of the *Limes Transalutanus*, as burned as it was, has continued to pursue its assignment across the large plain, delineating Roman land from barbarian land, for more than a century after the retreat. Unfortunately, the Romanian archaeology, although so committed to Roman archaeology, as well as for researching Chernyakhov civilization, has done little to understand the Post-Roman Dacia.

The Hunnic storm acknowledged no frontier, older or newer, along the Danube. On the northern side of the Stara Planina Mountains almost all cities were sacked and burned to the ground, as well as the rural villas. The cities were rebuilt, but the core of the provincial agriculture was not.[37] Although remaining a strategical pillar of the Early Byzantine defensive in Late Antiquity, the province *Moesia Secunda* ceased to be a viable one because it failed to feed itself. As for the left bank of the Danube, the situation is even worse, and archaeologists have not been able to find a single settlement to cross the dark age of the Hunnic domination; apparently the whole population was doomed.[38] The recovery was hard and slow. Sixth century settlements are rather few and were gathered in clusters mainly around modern Bucharest and north of Alexandria city (Fig. 3). This new archaeological picture is known as the Ipoteşti-Cândeşti culture,[39] with (at least) two names. The western area, Ipoteşti, is defined by its pottery, mostly wheel made, brownish-red, and sandy, of an obvious (kitchenware) Roman tradition, although the contemporary imports from the Danube's line are sparse. The eastern area, Cândeşti, stretching to the central parts of Muntenia, is best defined by the fact that the pottery fabrication included crushed shards in the paste, but differences are many and include mostly handmade pottery and tall shapes with no equivalent in Central and Eastern Europe. This last feature is inherited from the *Carpi* culture because this Moldavian sort of Dacians not only raided the Danube land, but also settled it in the third century, down to the outskirts of the modern cities of Ploieşti and Bucureşti.[40]

35 Wolfram 1990, 75–76.

36 Wolfram 1990, 71.

37 Poultern 2007, 82, 95, 96.

38 See yet some exceptions for the mid five Century living contexts, which are not full size rural settlements, rather isolated households (Teodor 2004, 108–110).

39 Teodor 2004, 109–110.

40 Bichir 1984, esp. 123, with the map I/2. He was not including the settlement from Cățelu Nou (east of Bucharest) between *Carpi* ones, which in fact it is, in our opinion.

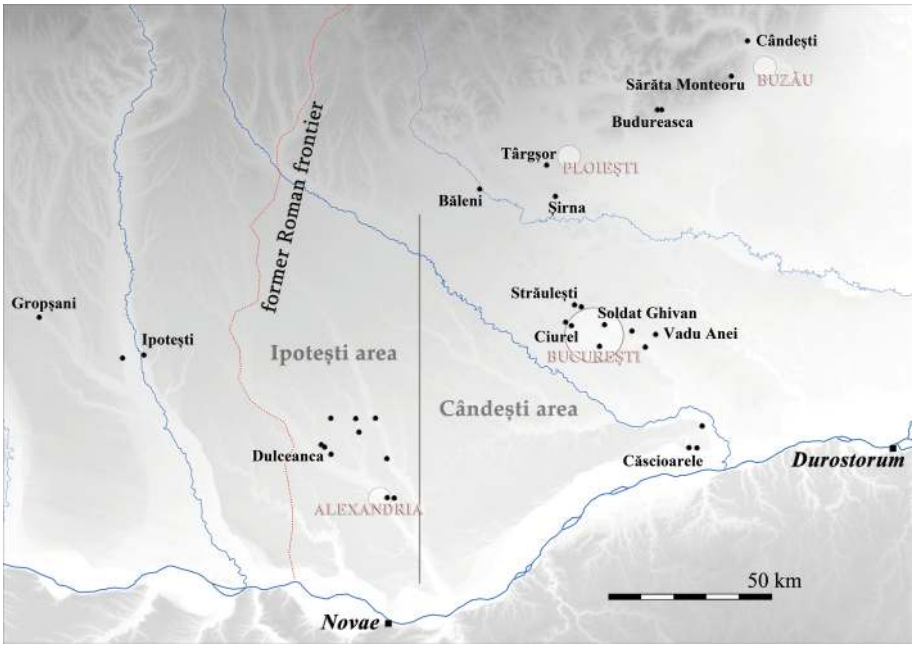

Fig. 3 Archaeological sites of the sixth century in southern Romania. Only the major sites are named. Modern cities in transparent circles.

The outcome is that after a 'blind' century, for which almost no relevant archaeological data is available, one can find that in the sixth century the Romanian plain was split again by a (new) line, segregating a post-Roman culture in the west, with a barbarian culture eastwards, although with some Roman influences. That implies that the population was not completely swept away by the Hunnic wave, but survived in about the same area, perpetuating its own traditions in ways that were too discreet for current archaeological research to recognize.

5 Modern assessments

As we already have seen, The Trajan's Road was mentioned as a landmark delineating property as early as the 16th century. Medieval estates, stretching dozens or hundreds of square kilometers, did not use fences or trespassing warnings, but instead used bold items of the landscape such as the rivers, peaks, roads driving on watersheds; isolated trees, like old oaks; fountains; ruins; or large piers. In a flat landscape, like the Romanian Plain, any striking landmark was helpful. In the late 17th century, one of the richest nobles, Constantin Cantacuzino, writing about the history of Walachia ("Istoria Țării

Rumâneşti"), described the deeds of the mighty Romans (speking about Trajan):

> Wherever he had to go, stone roads and terrible ditches they made, […], and we can see them still, today, giving the name of 'troian.'[41]

Unfortunately, Cantacuzino was not as specific as one could ask for. Speaking about 'stone roads,' he might have referred to the main Roman route in southern Romania on the western bank of Olt River. The scholar is also the first that made a relatively detailed map of Walachia, published in at least three early editions between 1700 and 1718.[42] All of them represent a large road running west of the Olt River, from the mouth near the old bridge near Celei-Sucivada up to Râmnicu Vâlcea City, at the entrance to the Olt River gate – a narrow and long passage through the Southern Carpathians. On the Italian version of the map, one can read: *STRADA LA STRICATA DA TRAIANO IMPERATOR*.

The stone road near Olt is never called 'troian,'[43] a name reserved for large embankments, as would be Brazda lui Novac, crossing the plain from west to east, or *Limes Transalutanus*, stretching in the landscape from south to north. Its first depiction on a map could be in 1703, on Guillame Delisle's Map of Hungary,[44] he identified it as *Reste d'un Chemin Romain*. The first map, in the modern sense of the word that shows it closer to its real geography is the Specht map. Accomplished by the Austrian military topographers during the occupation from 1790–1791, it was labelled *Trajanische Landwehr*, or an earthwork, which in fact it is. Later on, during the Crimean War (1853–1856), the same army made a much better map, on which one can read, in Romanian, *Drumul Traianului*, which is 'Trajan's Road.' Obviously, the Austrian topographers did not rely exclusively on their intuition (sometimes for the best), collecting local toponymy and opening a door to the Romanian modern tradition about *Limes Transalutanus*.[45]

The Romanian tradition was rather confused. One can read in *The Great Geographical Dictionary of Romania*, which is a first-hand knowledge source from the late 19th century, both stories: one written by Grigore Tocilescu, which was the best archaeologist of the time, where the *Troian* was a *vallum* (*val de pământ* in original), and another, pretending to rely on the same Tocilescu, for which it is just a road.[46] The confusion was possible

41 Translation after Croitoru 2007, 72.

42 First published in Padova, by Ioannis Komnios in 1700; published also by A.M. Del Chiaro in Venice in 1718, along with a book named *Istoria delle modern rivoluzioni della Valachia* (Giurescu 1943). Another one was made in Wien, a copy by hand, in 1707 (*Mappam hanc geographicam Principatus Valachiae in XVII themata divisae ab exemplari graeco*).

43 Except a hill southwest of the city of Râmnicu Vâlcea, from which the Roman road was in sight, but the exact reason of the name is unknown (Lahovari, Brătianu, and G. Tocilescu 1902, "Troianul sau Traianul").

44 Măndescu 2016, esp. 203 with the Figure 2.

45 Mihăescu 1943 for Specht Map; Bartok-Elekes et al. 2014 for Szathmári Map; http://mapire.eu/en/ for (visited on 13/06/2019) the Third Austrian Survey.

46 Lahovari, Brătianu, and G. Tocilescu 1902, 644–645, s.v. *Troianul, val de pământ*, for *troian* as a *vallum*; Lahovari, Brătianu, and G. Tocilescu 1902, 589, s.v.

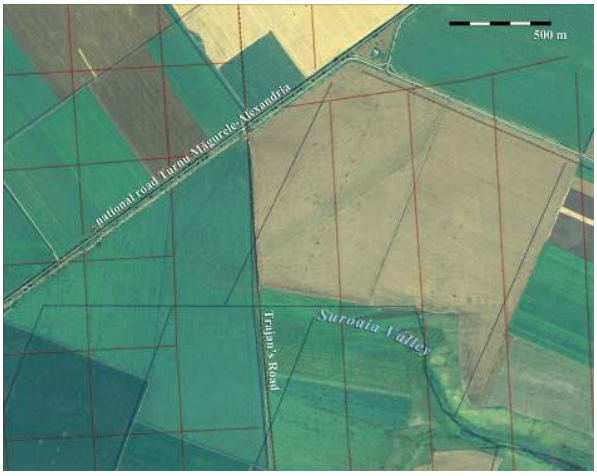

Fig. 4 Cadastral layout of the land where Trajan's Road is crossing Suroaia Valley. Red lines: limits following the map *Directorul Plan de Tragere* no. 3636, issued in 1945. Blue dotted lines follow the military map of the 1980s; background – military orthophotos 2012.

Fig. 5 Cadastral layout of the landscape around Totița Valley (south of the fort Putineiu). Limits following the map *Directorul Plan de Tragere* no. 3637, issued 1930.

because actually it was still in use as a road in the late 19th century before modern ones were built, and it was used as landmark of the real-estates boundaries.[47]

Looking at several cadastral depictions from the 20th century, one can see that not only did Trojan's Road create the boundaries, but it really structured the landscape, aligning the properties with the direction of the Roman monument (Fig. 4). No property was crossing over the embankment, although its morphological fingerprint was much diminished. Furthermore, other roads appeared in the area in much later periods than the *Limes Transalutanus*, but they did not change the property configuration of the land (Fig. 5). These new roads just crossed the lands and properties. That was possible in a conservative society, as the Romanian one was up to the Second World War. On

Teleorman (județul), for *troian* as a road. See also G. G. Tocilescu 1900, 121–122 with fig. 64, giving a restitution with battlements and walkways.

47 Lahovari, Brătianu, and G. Tocilescu 1902, 586–587, s.v. *Teleorman (județ)*, section drumuri vechi.

the contrary, the communist ideal was to wipe out all things that might recall the old society. From that day the Trajan's Road is ploughed, when not used as a mud road for heavy tractors and trucks.

6 Conclusions

The Trajan's Road was a communication line connecting the Danube to the Carpathian Mountains, made by Romans in the days of the wars against Decebalus' Kingdom. One century later the line was adjusted to fit the needs of a defended frontier of the Empire. Although deserted after only half a century, Trajan's Road marked, in the flat plain, the limit of the Roman lands and was for a long time respected even by the mighty Goths. An archaeological analysis made for the material culture of the sixth century showed that the limit of the Romanized territories in southern Romania stretched out nearly across the same landmarks.

The Middle Ages turned history into legend, ascribing to the Emperor Trajan the ruins of the Roman buildings though most of them were a century younger. The oral tradition put all the impressive changes in the landscape on imaginary characters, like the giant Novak or the timeless *Jidovi* (biblical Jews), when not the feared Tatars or the mysterious Ler.[48] This Trajan is not just a Roman Emperor; he is one of the giants from the Romanian awareness.

The research project we have conducted in the past couple of years aims to preserve the topography of the linear monument because preserving the monument itself is a matter of public policy, of political determination in preserving – or not – the national identity. It is what the recently created *Limes National Commission* is expecting to do, or at least try to, in the coming years.

48 Teodor 2015, 54 (note 12), 101, 144, 216 (note 11).

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