MODELLING ARCHAEOLOGICAL LANDSCAPES

BRIDGING PAST AND PRESENT IN TWO MEDITERRANEAN ISLANDS

Diamantis Panagiotopoulos
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Preface

The present volume presents the results of the project "Modelling Archaeological Landscapes. Bridging Past and Present in Two Mediterranean Islands", organized by the University of Heidelberg and the University of Catania in 2018 and funded by DAAD (Deutscher Akademischer Austauschdienst/German Academic Exchange Foundation). The project's main goal was to bring several stakeholders together and engage them into a dialogue about current and future strategies for a sustainable cultural management of archaeological sites and their natural environment. The papers and discussions revolved around the great potential of landscapes as a tool for promoting cultural heritage both at a scientific and at a social level. The importance of landscape lies, indeed, not only in its purely scientific significance as an analytical category but primarily in its capacity to provide a juncture between past and present as well as between archaeology and society.

The point of departure for this initiative has been the long cooperation and shared interests between the *Institut für Klassische Archäologie* of the University of Heidelberg, and the *Centro di Archeologia Cretese* of the University of Catania, both engaged in two long-term projects in southern Crete. The Heidelberg Institute of Classical Archaeology has been conducting an interdisciplinary field project in Koumasa since 2012 under the direction of Diamantis Panagiotopoulos, whereas the *Missione* of the *Centro di Archeologia Cretese* in Phaistos has been working under the direction of Pietro Militello on the site since 2013 within the wider project *Il Palazzo e la Città,* directed by Filippo Carinci. In the past years, both missions used their best efforts to fulfil the core of their scientific commitment, i.e. excavation, study, and publication. As directors of these missions, we have, however, realized that this devoted work is not enough to ensure a sustainable future for our archaeological projects. For achieving this goal, it is imperative to develop new strategies for making our sites—as well as our scientific work relating to them—appealing to a broader audience. In Koumasa, first innovative strategies have been initiated to unfold the potential of the 'archaeological landscape' as an interface between science and society, whereas in Phaistos a special emphasis was given on an efficient communication of the results of our investigations to the public. A multidisciplinary approach to communication and management has

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Fig. 1 Moments at the end of conferences at Kapetaniana (Thalori Hotel) and Scicli (circolo V. Brancati)

Fig. 2 Excursion to the roman tombs in Matala (Crete)

Fig. 3 Excursion to the rock-cut dwellings of Chiafura (Scicli, Sicily)

also been fostered by the *Dipartimento di Scienze Umanistiche* of Catania, which set up a PhD course in Cultural Heritage (*Scienze per il patrimonio e la produzione culturale*). Therefore, the present project was also an attempt to strengthen relationships and synergies between the two institutions and make them more efficient.

The means to reach this goal was the organization of two workshops in Crete and Sicily, two similar Mediterranean regions, the heritage sites of which present similar problems and challenges. The circle of participant included not only specialists and representatives from different national and local institutions but also PhD students of archaeology from Greece, Germany and Italy. The choice of two marginal sites without an academic background as venues of the workshops, the village of Kapetaniana, in southern Crete, with its splendid location in the iconic landscape of the Asterousia mountains, and the breathtaking baroque town of Scicli, in southern Sicily, was intended for stressing the social and economic role of cultural heritage for local development and for enabling a more active participation of local communities in our initiative. We thought that two international meetings on this subject would enhance not only our work but also the work of our colleagues who are active in similar areas and facing similar problems. The first workshop at Kapetaniana was entitled "Archaeological Landscapes: towards a Multisensorial Perception of Space and Time". It was dedicated to the exploration of new ways of promoting and perceiving past and present landscapes as an inseparable whole. The second workshop at Scicli, on "Archaeological Landscape and Minor Cultural Heritage. Reconstructing the Past as a Living Entity" focused on strategies of enhancement of the rich patrimony of small, scattered, and sometimes humble monuments on Sicily such as rock cut tombs or dwellings.

Since topics and discussions between the two meetings unavoidably overlapped, we decided to merge selected papers of both workshops into a single publication. The collective volume was foreseen to appear in 2020. However, due to the pandemic crisis, the publication of the proceedings took longer time than originally envisaged. Moreover, the closure of libraries hindered some speakers to deliver their contributions. We certainly regret this delay, yet we are happy that despite these difficulties, the present articles provide a fairly good impression of the themes and the lively discussion of both meetings.

Thanks are due to many people and institutions for their support: the archaeological services in Crete and Sicily (*Ephoreia Archaeoteton Herakleiou* and *Soprintendenza BBCCAA di Ragusa* with its former director, Calogero Rizzuto); the *Parco Archeologico di Camarina e Cava d'Ispica* with its former director Giovanni Di Stefano); Markos and Popi Skordalakis in Kapetaniana for their hospitality; and Franco Causarano and the *Associazione Vitaliano Brancati* in Scicli for providing a venue for the Sicilian workshop and for its warm welcome to the guests. We are also indebted to the organizing staff of the workshops, Marianna Figuera and Paola Santospagnuolo, as well as to Andreas Neumann for the photographs of the Kapetaniana workshop. Finally, we owe sincere thanks to Michele Mitrovich for Eng-

lish language polishing and to *FORUM ANTIKE – Freundeskreis zur Förderung der Klassischen Archäologie und des Antikenmuseums der Universität Heidelberg* for the financial support that ensured the completion of the present volume.

Diamantis Panagiotopoulos and Pietro M. Militello

Part I:
Documenting and Reconstructing Archaeological Landscapes

Modelling Archaeological Landscapes

Bridging Past and Present in Two Mediterranean Islands

Diamantis Panagiotopoulos & Pietro M. Militello

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A living past for the present: Changing perspectives

The importance of the past for shaping the fabric of contemporary societies has been recognized since the Renaissance (and perhaps even earlier) and has been widely used in the process of Nation Building in the Western World of the 19th and 20th century (Dietler 1994; Bassi and Cané 2014; Galaty 2018). Until a few decades ago, however, the real or imaginary past, as mirrored in the material or immaterial cultural evidence, was used in a top-down process (from the political or cultural elites) of ideological construction especially by authoritarian regimes (Manacorda 1985; Hamilakis 2002, 2007). Today, a different, quite opposite, idea has come to the foreground, as demonstrated by the many EU Horizon Calls or Cost Actions. It recognizes the importance of cultural heritage in shaping a wider, supranational identity, creating a feeling of belonging and social inclusiveness, and also improving collective well-being through a bottom-up process. This new current is no more a question of a direct link between people and their "ancestors" but refers to the awareness of the complex and rich history of humankind, shaped by different cultures and societies, where both important and ordinary people can be considered as agents of transformation. The attention is no more focused on few important moments (such as the Classical Age) and monuments (monumental temples) but on a historical continuum that arrives in the contemporary world from the depth of time encompassing all aspects of ancient societies. This kind of history materializes itself in monumental and simple tombs, huge temples and minor sanctuaries, palaces and small dwellings, precious objects and humble artefacts. The process of reconstructing the past is no more conceived as the interpretation of few scholars

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but as the result of an interplay among different actors (Joyce 2002), including local communities, other stakeholders, and even immigrants.

This process has been especially apparent in the field of archaeology, in which monuments and objects exert an effective influence on people's imagination. As a consequence, one of the most important challenges of the 21st century is the development of strategies for the management of our cultural heritage with the aim to provide new solutions for the preservation, development, processing, and presentation of ancient relics. After a long period during which classical archaeologists confined themselves to tackling exclusively scientific problems, the discipline has tried in the last years to open itself to society and the wider public. By engaging itself in issues at the very heart of current debates, Classical Archaeology strives now to clearly demonstrate its role as a discipline with pronounced social relevance.

Landscape as a tool to access the past

In this broadening of the concepts of 'past' and 'cultural (also archaeological) heritage', the notion of landscape can be both a powerful tool and a unifying concept, providing a backdrop against which we can fix material traces scattered along a long span of time from the distant past till our days. (Cultural) landscape has today a special meaning, not to be confused with other apparently similar concepts, such as 'environment', 'habitat' (the natural space in which the man must interact), or 'territory' (the area controlled and exploited by a human group) (Jackson 1984; Heiland 2019; Kühne 2019). According to the definition stated by the European Convention in Florence in 2000, landscape is "an area or territory which is perceived by local communities or by visitors and whose appearance and character arises from the action of natural and/or cultural factors" (European Landscape Convention, Florence, 2000). Two elements are crucial in this definition: first, the dynamic and historical nature of landscape, interpreted as a palimpsest of the secular stratification of human activity, continuously evolving and transforming itself over time, and second, its strong connection with cultural heritage.

At the same time, however, one of the main tasks for archaeologists has become the reconstruction of the physical and psychological relationship between man and habitat (settlement, resources, structures) in a given past. This **Archaeology of the Landscape** explores both the physical and psychological dimension of the man/environment relationship. As Żebrowska correctly reminds us in the present volume, "archaeological landscapes explore the relations between past social aspects and the environment, while archaeological -scapes remain predominantly social constructs". From this perspective, landscapes, islandscapes, seascapes, landscapes of memory, and landscapes of power can be also considered as part of the archaeology of cognition.

Since the 1980es (and even earlier), Landscape Archaeology has experienced a dynamic growth which around the turn of the millennium exercised a strong impact on archaeology in general and started transforming it (Fleming 2006; Ashmore and Blackmore 2008; Johnson 2012; Kluiving and Guttmann-Bond 2012; Carson 2022). For quite a long time, archaeologists tended to focus exclusively on the material remains of archaeological sites, neglecting their natural environment as well as the manifold ways in which the latter determined the cultural trajectory of ancient communities. The impressive development of landscape archaeology, its novel methods of digital documentation of spatial data and—last but not least—the concerns of a society that rapidly transforms itself fostered a major shift of the archaeological interest from 'site' to 'landscape', opening totally new possibilities for the dynamic—scientific and social—engagement of archaeologists in regions with rich cultural and natural heritage.

We call such regions '**archaeological landscapes**', i.e., regions that, through the combination of an unspoiled nature with a rich history of visible monuments, offer the possibility of a new perception of nature and culture. In contrast to frozen archaeological sites, which present themselves to visitors behind a fence as fossilized monuments, 'archaeological landscapes' are intended to be areas of a living experience of the past, in which the geography, geology, fauna and flora, monuments, people and their traditional practices can be opened up as an inseparable whole. The concept of the 'archaeological landscape' has to be exploited as a more diverse alternative to the rigid concept of the museum, which presents the past in sterile showcases, in which the exhibits are usually torn from their original context of use. The contribution, which archaeologists can make towards the shaping and the sustainable development of an archaeological landscape, is to provide a narrative (Praetzelis 1998; Pluciennik 1999) and to enable an enhanced experience for the visitors. The latter can take the form of story-telling, physical experience and—in the diametrically opposite aspect—of virtual reality and reconstructions, both indoors and outdoors. To tell a story means to provide the reader, or the audience, with a rich interpretation of the past that is based not only on the mere description of the monument.

If digital reproductions and virtual immersion can be a powerful tool of communication for engaging with cultural heritage (see e.g. Averett, Gordon, and Counts 2016), as many conference participants pointed out, a different—and by no mean less effective approach towards a better understanding of past lives—is the physical experience of the landscape, as it presents itself to us today. This 'archaeology of senses' (Hamilakis 2015) linked with the archaeology of landscapes was one of the main challenges of our project. Walking through the mountains of the Asterousia, feeling the wind, perceiving the smell of shrubs and trees, experiencing the time and effort necessary to reach a peak sanctuary, understanding the possibilities to control the sea can allow a deeper contact with the past. It also helps us to define more accurately the meaning of some widely used terms, for example the notion of "wild" which did not remain the same through the centuries, due to the changing effects of human activity and climate changes.

In its two-fold significance as culturally formed space and analytical category, the concept of the 'archaeological landscape' provides a juncture between past and present as well as between archeology and society. Therefore 'archaeological landscapes' are of crucial importance not only for archaeology but also for society. This is especially true in Italy and Greece, where the overwhelming number of excavated architectural relics of the past (cities, settlements, temples, theaters, villas, etc.) makes the design and implementation of innovative concepts imperative. Beyond the self-evident necessity to preserve ancient remains and to protect them from decay, we have to exploit their potential as starting point of a region's sustainable economic development. Such concepts represent the only sensible alternative to current, worrying plans for the market-oriented development of peripheral regions which do not take into account the fragility of their natural and cultural heritage and will therefore have irreversible consequences for the physiognomy of untouched landscapes. All these different nuances of the concept of landscape have been dealt with in the two aforementioned workshops.

The first workshop "Archaeological Landscapes: towards a Multisensory Perception of Space and Time"

The first workshop took place between 8 and 10 June 2018 in the picturesque and isolated village of Kapetaniana in the mountainous region of Asterousia in southern Crete. Focusing mainly—but not exclusively—on the cultural heritage of the island, the workshop explored novel ways for the perception and management of archaeological landscapes and especially the importance of the latter for the sustainable development of peripheral Mediterranean regions. It worked therefore at a mesoscale level, between single sites and wider regions. The workshop's basic aim was to provide a platform for discussing strategies of experiencing the past and present of heritage landscapes as a sensible whole. The papers and the lively discussions stressed how such strategies should involve all senses and ensure a more intense and comprehensive link between man, environment, and history. Archaeological landscapes, as defined above, provide the decisive connecting link between (a) past and present and (b) environment and history. This can foster the creation of an infrastructure which will offer visitors the possibility of experiencing unspoiled landscapes by employing all senses and/or will embed them as active or passive participants in the local way of living. The novel strategy of a balanced development of local cultural resources can enhance traditional practices and thus provide the local population with a promising economic perspective which will be in harmony with the specific character of the region's environment and history.

Several papers demonstrated the multifarious ways of reconstructing the diachrony and significance(s) of archaeological sites and landscapes by employing traditional and cutting-

edge methodology.[1] **T. Brogan** tried to bridge the gap between the scattered evidence provided by the Mirabello region and its complex history, arranging the archaeological evidence into different landscape 'spheres': Settlements, crafts, burials, rituals, or underwater space. The author discussed all these landscape elements in relation to the *chaîne opératoire* of different crafts, in an attempt to reconstruct a more compelling narrative of the Mirabello's Protopalatial scape as an entity. In her paper on "Asterousia. The holy mountain", Th. Vrentzou presented the rich history of the Asterousia mountain range which was determined by the tension between its peripheral position and its role as a bridge between the island's hinterland and the sea. E. Margaritis discussed the fresh and impressively rich insights that bioarchaeological data can offer for the study of domestic and ritual activities in Minoan sites ("Food preparation and deposition in the domestic and ritual landscape of Minoan Bronze Age"). K. Athanasaki demonstrated the significance of a 'qualitative database' as an effective means for a comprehensive mapping of cultural data (including geomorphology, archaeological information, toponyms, etc.) bridging the past with the present ("Developing a deep-mapping approach for the study of the Cretan cultural landscape"). Further contributions tackled the problem of contemporary roles of the past. Taking the ongoing excavation at Minoan Koumasa as a case-study, **D. Panagiotopoulos** explored the potential of the diachrony of archaeological sites and their wider environment not only as an object of scientific enquiry but also as an incentive for the sustainable development of marginal Mediterranean regions. In a similar vein, V. Savvatianou and N. Athanasopoulou ("Re-placing memory in memory places. A 'topological' perspective on the Early Bronze Age archaeological sites of southern Crete") explored the *genius loci* of Early Minoan cemeteries and its potential for their modern revival as heritage sites. How inextricably linked to each other past and present of a place may be was demonstrated in **E. Solomon's** contribution, in which she analysed the modalities of negotiation, representation, and consumption of heritage at a local level as well as its implications for collective memory in the Cretan town of Archanes. In her thorough approach, she included not only the Minoan ruins but also the landscape and 'traditional' architecture and discussed them through the interpretative key of a dynamic relationship between objects and society in the creation of self-representation. As a positive example of sustainable development, Archanes has used the opportunities provided by national and EU funds to restore traditional houses (*archontikà*), recreating and authenticating an "Archaniote tradition" which makes modern Archanes very different from 'anonymous' large towns in Crete. More important still, this process took place with the active participation of local people who adopted a different way of engaging with and appreciating the more remote (Minoan) and more recent (architectural) past. **V. Sythiakaki**, **K. Galanaki**, **K. Vakaloglou**, **A. Genitsaridi**, **A. Bitsavas**, and **G. Petrakis** illustrated the

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1 The authors of the published contributions are indicated in bold letters.

construction of an innovative way of communicating archaeology in the Mesara area. The new Museum of Mesara (AMMe) is conceived not as a traditional container of artifacts but as a gate to the archaeological sites throughout the valley of Mesara, whereas the Network of Cultural Routes of Mesara will provide a set of thematic routes through the environmental and cultural heritage of the region. In this way, landscape, services (AMMe and infrastructures), and archaeological remains will create an interwoven system of appealing destinations with positive effects on the development of the area. **E. Kountouri**, **K. Mpenissi**, and **K. Psaroudakis** presented data and insights relating to the preparation of the nomination file for the inscription of the Minoan Palaces in the UNESCO World Heritage list. The main objective of this collective work, which required the active involvement of many stakeholders, is to demonstrate why Minoan palaces are worth to be included in the list. The significance of public archaeology was emphasized in N. Galanidou's paper on "The Neolithic Archaeology of Crete in the public sphere" in which she presented the challenge of making a cultural period with scanty archaeological remains accessible and—more important still—understandable to a broader audience. N. Papadimitriou focused on a non-Cretan territory, the Laurion area, as an example of neglected heritage which due to its multileveled cultural significance deserves a better attention by archaeologists and other stakeholders ("Neglected heritage. A diachronic approach to environment, economy and culture in the Laurion area, Attica"). St. Chlouveraki underlined the significance of conservation for a modern management of archaeological sites and showed why conservation work must not be just a post-excavation procedure but the determining parameter for the planning of a systematic archaeological excavation ("A systematic approach towards the conservation and management of archaeological sites"). Finally, Ch. Fasoulas explained the strategies of a modern geographical approach to the Cretan landscape discussing the Hellenic UNESCO Global Geoparks and their contribution as an incentive for the regional sustainable development ("The contribution of Geoparks in the regional sustainable development: the case of Hellenic UNESCO Global Geoparks").

The second workshop: "Archaeological Landscape and minor cultural Heritage. Reconstructing the Past as a living entity"

The second workshop took place in Scicli (Sicily) between 10 and 12 October 2018 and focused on the scientific, social and economic role of 'minor' archaeological sites as well as on innovative strategies for the preservation and presentation of non-monumental architecture. The goal was to make innovative mediation concepts possible even in a small financial, organizational, and spatial framework (microscale). By the notion of 'minor sites', we indicate the huge quantity of isolated monuments scattered among the countryside. They are mainly represented by 'architectural' traces (not only huts and houses but also rock cut

tombs and dwellings, dolmens and caves) sometimes impressively affecting today's landscape and creating a widespread network of evidence, increased from year to year by (often rescue) excavations. Such non-monumental, small sites represent a large part of Mediterranean cultural heritage but are often cut off from touristic routes, concentrating on major archaeological complexes, often located in larger towns or areas with well-developed touristic facilities. From this perspective, some of the 'minor' sites cannot be considered minor at all but owe their handicapped condition to the peripheral location with respect to the main cities and main communication routes, such as Taormina, Syracuse, Agrigento, Selinunte, and Piazza Armerina in Sicily, or the Minoan palaces in Crete.

Minor sites possess however a huge scientific, social, and even economic potential. From a scientific point of view, they can be a source of rich archaeological knowledge, reflecting past material practices, land use, and symbolic expressions of power. Architecture may provide a huge material for narration—relating to its symbolic value and the complexity of its components—that has been until now neglected by archaeologists. From planning to building, from stone quarrying to wood-cutting and construction, from the social status of its owners to the long lasting life, architecture gives food for story-telling. From a social point of view, such monuments, which have been known for centuries and have entered the collective imagination as part of communal identity, bear the potential of becoming a driving force for the development of local economies.

Following these premises, the workshop provided an arena of discussion for the following topics: a) how to collect—from a scientific point of view—most of the knowledge 'minor' sites can provide, mainly through a proper analysis and survey; b) how to develop strategies for an efficient communication, based on a holistic narrative and a deep, multisensorial, real or virtual experience of these monuments; and finally c) how to enhance the social and economic value of 'minor' sites, ensuring a sustainable development.

As to the first topic, the landscape approach has been considered the main interpretative key by many authors. In her analysis of the Margi River Valley, **L. Maniscalco** correctly underlined how "[t]he landscape not only exists as a physical entity . . . but also exists as a creation in our minds", even if she uses a more objective approach in the reconstruction of the habitat of the Margi area from Prehistory to the Byzantine times, including botanical analysis and pollen diagrams. A visual perception analysis is proposed by **K. Żebrowska** for the reconstruction of the visual structure (the vision-scape) of the Early Bronze Age necropolis of Calicantone. In doing so, she puts together the hard facts of the tombs' location and decoration and the emotive perception of space, experienced through movement and vision. The reconstruction and perception of archaeological landscapes was also the main topic in a few, not published, articles by S. Todaro, O. Palio, and M. Turco (Etna area) and E. Giannitrapani (Sicani area), whereas historical considerations about the role of architecture were proposed by L. Hitchcock for the prehistoric Mediterranean, and Tsakanika for the medieval and modern periods in Greece. Finally, V. Kyriakidis illustrated the wide potential of

everyday objects to acquire historical significance thus becoming part of cultural heritage through an analysis of the development of bathroom devices in pre- and post II world-war Greece, and to be more specific, the introduction of the "bidet" in the bourgeois houses that was employed as a display of modernization.

Digital technology received special attention revealing itself as an effective tool for enhancing 'minor' sites, providing virtual reconstruction or immersive experiences. A. M. Sammito, F. Buscemi, M. Di Vincenzo, and N. Di Carlo presented a virtual reconstruction of the Early Bronze Age landscape of Calicantone, centered on the narrative burial rites. **M. Figuera** illustrated the advantages of the laser scanning in the survey of rock cut monuments and the dissemination of knowledge, discussing Calaforno, nearby Giarratana.

The second topic, which dealt with the development of strategies for an efficient communication, received an even larger attention, and widened the participation to both architects and archaeologists. O. Palio proposed the elaboration of a narrative intentionally created for prehistory, whereas **S. Calvagna** illustrated the experience of a workshop of architecture aimed at the revitalization of the archaeological site of Santa Venera al Pozzo. As in Zebrowska's article, the immersion within the landscape is also in this case a fundamental step of research, yet now not for recovering the ancient perception of space but for shaping a new one, a landscape common, based upon the use of pieces of land as orchards within the archaeological area. Architects gave other important contributions to the workshop's topic that could not be included in the present volume. In an introducing lecture in Catania, **R. Valenti** discussed the problem of how to make archaeological remains in urban areas visible before reburying them, bringing as an example the case of Piazza Duomo in Syracuse. Furthermore, M. Vanore analyzed the different, and in some cases opposite, perception of space in archaeology and architecture. **R. Brancato**, **V. Guarnera**, **T. Messina**, and **P. Santospagnuolo** focused on the recent popularity of 'cultural routes' in several European and Mediterranean countries by taking the *Antica Trasversale Sicula* and the *Magna Via Francigena* as two Sicilian case-studies. In their thorough analysis, they highlighted the potential of a bottom-up approach for the modelling of ancient/historical tracks, discussed the tension between historical facts and current interests and finally demontsrated how the collective effort of creating new narratives can be decisive for the strengthening of the island's identity.

As to the third topic, two papers were devoted to aspects of management and sustainable development. The theoretical framework was set by **I. Rizzo**. Possessing both economic and cultural values, cultural heritage can produce benefits in education, identity, cohesion, and collective well-being that cannot be provided through the market. However, this implies that economic analyses of costs (for the preservation and enhancement) and benefits are difficult to evaluate. Many questions arise: What is worth of being preserved? Is it better to rebury ancient ruins? How much should we reconstruct? What should be the role of private and public intervention? Why can we not accept the idea of selling anony-

mous artefacts, belonging to mass-production, in order to increase incomes for the preservation of more important monuments? Finally, F. Niccolucci presented his experience from the Maremma Park in Tuscany as a model for a unifying approach to cultural heritage, natural landscape, and economic activity. Until a few decades ago, Maremma was a peripheral, underdeveloped area due to presence of marshes and an economy based on breeding bovines. Yet in recent years, starting from these weaknesses, the institution of a park in Maremma tries to foster touristic presence and transform local economy.

Conclusions

Due to the wide-ranging meaning of cultural heritage that encompasses such broad subjects as research, preservation and conservation, management, and planning, and involves many actors and competencies, the entire project was an experiment with a certain risk, given the different backgrounds and interests of the participants. Experienced archaeologists as well as younger researchers, members of the archaeological services, experts in cultural management, architects, economists, and finally representatives of private societies working with the cultural heritage had the opportunity to come together, discuss with each other, share their experience and gain new insights into much debated issues and persisting problems. We were overwhelmed by the energetic participation of all colleagues and PhD students as well as by the lively and in some cases passionate discussions revolving around the manifold significance of cultural heritage. What we have learned is that all stakeholders have an urgent need to discuss all these important issues of modern cultural management relating to archaeological sites, including matters of preservation and presentation but also of the sustainable development of local communities. Therefore, we do hope to continue this dialogue in the future.

The importance of such an approach is also evident for our discipline, Classical Archaeology, which in many European countries quite often tends towards an academic elitism, avoiding a direct contact with a broader audience and the engagement with topics which are very relevant to modern society. While in recent years innovative strategies for an effective and sustainable cultural management of excavation sites have been employed in the context of numerous field projects, their significance in academic teaching still remains rather low. Not only individual courses but also entire study programmes in most (classical) archaeological institutes are still dominated by the traditional genre-related fields which convey a very rigid understanding of the discipline, as the closing paper of this volume by **S. Kyewksi** and **M. Rempe** underlines. Due to this methodological and thematic stagnation, the gap between the traditional subject matter on the one hand and new challenges and growing demands of a rapidly developing society on the other is widening. One of the main goals of the planned project was therefore to demonstrate the crucial importance of

modern cultural management to the participating PhD students—and now to all those who may read this volume—and to give them an insight into specific strategies for an effective management of archaeological landscapes.

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Ancient Landscapes in Eastern Crete: the (Re)making of the Isthmus of Ierapetra in MM II

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Abstract The material record from the Protopalatial period on the Isthmus of Ierapetra provides a unique challenge for archaeologists. On the one hand, this phase marks the earliest appearance of palace or state level political organization; on the other, various site formation processes have made it difficult to recover meaningful contexts. This paper tries to show how an approach through landscape and an archaeology of the senses can help us bridge this divide. My goal is a layered reconstruction drawing first on surveys and new excavations before looking at material studies targeting the Protopalatial economy and social organization. I conclude by moving from what we have found to what we can infer about the missing parts (what students of landscape archaeology sometimes describe as the space between). My goal is not to champion the use of landscape over our discipline's traditional preference for sites, buildings, and artifacts but instead to harness all the available data for large-scale questions.

Introduction

Two publications provide the basis for the current image of the Protopalatial landscape along the Ierapetra isthmus and adjoining coastal plains (see Fig. 1 for a map of the sites mentioned in the text).[1] In the first, Carl Knappett traced patterns in material culture, primarily the production and exchange of pottery, and he suggested that the isthmus formed the eastern periphery of a loosely organized Malia state c. 1800 B.C. In the second, Vance Watrous employed data collected through systematic surveys of the northern half of the isthmus to detect nascent signs of hierarchy in the distribution and size of Middle Minoan IB–II (MM IB–II) settlements. For this area, he recorded a three-fold increase in the number

1 Knappett 1999, 625, fig. 6; Watrous and Schultz 2012a, 41–50, maps 21–4.

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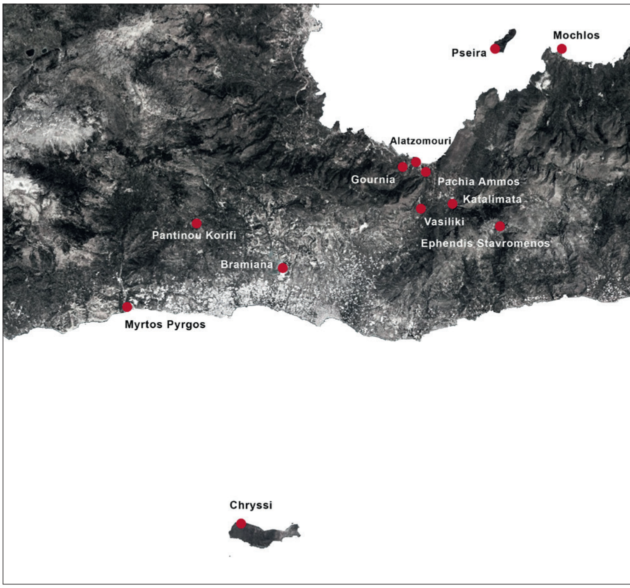

Fig. 1 Isthmus of Ierapetra with sites mentioned in the text. Courtesy of Google Maps (M. Eaby) [Gournia, Sphoungaras, Alatzomouri-Pefka, Pacheia Ammos, Pseira, Mochlos, Vasiliki, Katalimata, Bramiana, Chryssi, Myrtos Pyrgos, Ephendis Stavromenos in Thryphti, and Pantinou Korifi below Stavromenos Anatoli].

of habitations, including the appearance of nine new village-sized sites during this period.[2] While certainly of considerable interest to archaeologists, the results of these studies have largely failed to draw the general public's attention to this period of Crete's first states (or what some regard as Europe's first civilization). There are many reasons for this disconnect, including the poor visibility of the remains, but some fault also stems from the limited efforts of heritage professionals to prioritize this responsibility. This workshop has tackled the problem head on, exploring the use of ancient landscapes as pathways for improving our understanding, and aiding in the long-term preservation, of Crete's cultural resources. I want to thank the organizers for inviting me to participate with this small contribution.

The importance and limited visibility of the Protopalatial period led me to select it as the focus of this paper. First, it represents the earliest appearance of palace or state-level political organization in the Aegean and, by extension, Europe. For those raised to believe in the European sense of "classical debts," this is perhaps puzzling.[3] On Crete, Protopalatial sites and in particular those with possible palaces have represented a sort of holy grail for archaeologists seeking to uncover the mystery of Minoan civilization and its origins.[4] Such questions were in fact at the heart of two recent projects affiliated with the American School of Classical Studies: the campaigns by Watrous at Gournia in 2010–2014 and another

2 Watrous and Schultz 2012a, 41–43.
3 Hanink 2017.
4 Compare Branigan 1970; Renfrew 1972; and Cherry 1986 with Schoep 2006, 2012; Schoep and Tomkins 2012; also Whitelaw 2001, 2004, 2012, 2017, 2018.

by Jeffrey Soles and Costis Davaras at Mochlos from 2004–2010.[5] The second reason for choosing the period was to highlight the problem of site formation processes on the archaeological record, and by extension, our ability to reconstruct the island's ancient landscape in any particular period.

For most of Crete, the Neopalatial material record (i.e. the Second Palace period) is much better preserved than that of the preceding Protopalatial period. For example, on the isthmus of Ierapetra parts of more than 90 Late Minoan I (LM I) houses have been exposed by excavations at Gournia, Pseira, and Mochlos in comparison to fewer than five MM II houses at the same sites.[6] The explanation is a simple matter of taphonomy, whereby the houses of the later period largely reused the building materials of the earlier dwellings, obliterating them in the process.[7] Fortunately for archaeologists, ancient ceramics are proving much hardier and are providing a more balanced record of MM II and LM I activity across eastern Crete. In this particular case, archaeologists have made extensive use of MM II Mirabello Ware, which was produced in the area of Gournia and Priniatikos Pyrgos, to build a strong case for the presence of a dynamic Protopalatial economy in the area.[8] In spite of these gains, the recent excavations at Papadiokampos, Mochlos, Pseira, Gournia, and Priniatikos Pyrgos have struggled to recover additional primary architectural contexts displaying this activity.[9]

This fragmented and somewhat frustrating pattern in the material record represents a significant challenge for anyone trying to illustrate the earliest states on Crete, particularly for the general public. In this paper, I try to show how an approach through landscape and an archaeology of the senses can help us bridge this divide. My goal is a layered reconstruction, drawing first on surveys and new excavations before looking at material studies that target the Protopalatial economy and its political and social organization. The conclusions focus on what we can infer about the missing parts (what some proponents of landscape archaeology describe as the space between) through an examination of the *chaîne opératoire* of the material record. My goal is not so much to champion the use of landscape over the discipline's traditional preference for sites, buildings, and artifacts but instead to harness all the available data for investigating large-scale questions.

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5 Watrous et al. 2015; Brogan and Koh 2011; Doudalis 2019.

6 For Gournia, see Buell and McEnroe 2017; for Pseira, see McEnroe 2001, 63–78; for Mochlos, see Soles 2001; Brogan and Barnard 2011, figs. 17.1 and 17.4.

7 An excellent example is provided by the MM II mansion or palace at Gournia; infra n. 20.

8 For Mirabello Ware from Gournia, see Betancourt and Silverman 1991, figs. 4–7; Haggis 2012, 147–52. For records of its presence on surveys and excavations outside the immediate environs of Priniatikos Pyrgos and Gournia, see Poursat and Knappett 2005, 24–26; Sofianou and Brogan 2012; Whitelaw 2015; and Doudalis 2019.

9 For Papadiokampos, see Sofianou and Brogan 2012; for Mochlos, see Brogan and Koh 2011; Doudalis 2019; for Pseira, see Betancourt 2005, 290–91; for Gournia, see Watrous et al. 2015.

Landscape theory

There is no shortage of theoretical approaches to the ancient landscape. My work here draws heavily on regional survey data that allows us to trace changes in settlement patterns from the Final Neolithic (FN) to MM II, and it certainly benefits from the fact that the isthmus of Ierapetra is one of the most thoroughly surveyed landscapes in the entire Aegean. Moreover, the four projects are now fully published.[10] So far, advanced GIS modeling has not been applied, but this will change with Christine Spencer's reexamination of the survey data as part of her ongoing UCL dissertation.[11]

Gary Lock observed a pair of trends in recent GIS investigations that he called "Landscape Then" (landscape patterning as predictive modelling of the ancient world) versus "Landscape Now" (recording the present condition for cultural resource management).[12] Although this paper does not use GIS, it is aimed squarely at resource management in the present. The rich landscape perspectives offered by human ecologists (e.g., Rackham and Moody's groundbreaking *Making of the Cretan Landscape*) and phenomenology also play an important role.[13] While this paper does not attempt an explicit view of the Mirabello as sensed from walking through it, I do take advantage of the perspective when taking visitors to sites in the region (e.g., giving tours of inland sites in the afternoon when aromatic plants are most potent).

The (re)making of the MM II landscape on the Isthmus

I begin with a quick review of the physical remains from the Protopalatial period from the northern Ierapetra isthmus as they were known in 2008. These finds included the MM II House Aa and House Tombs 1 and 2 at Gournia, the jar burials at Sphoungaras and Pacheia Ammos, the unpublished MM I–II house at Vasiliki, pottery studies by Stelios Andreou, and the surveys at Vrokastro and Kavousi, which provided evidence for population growth.[14] There were tantalizing hints of an emerging elite at Gournia, but the details were still difficult to grasp and very much up for debate.[15]

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10 For Pseira, see Betancourt et al. 2004, 2005; for Kavousi, see Haggis 2005; for Gournia, see Watrous and Shultz 2012a and 2012b; for Vrokastro, see Hayden 2004; 2005.

11 Pers. comm. C. Spencer.

12 Lock 2003, 164.

13 Rackham and Moody 1997; Dabney 2016; Vavouranakis 2006.

14 For Gournia, see Soles 1978, 1992; for Sphoungaras, see Hall 1912; for Pacheia Ammos, see Seager 1916; Andreou 1978, 55–119; for Vrokastro, see Hayden 2004, 81–104; for Kavousi, see Haggis 2005, 69–74.

15 E.g., Soles 1992; Watrous 1994.

Survey

The publication of the Gournia Survey in 2012 provided the crucial missing piece of regional data and it incorporated the previous results from the Vrokastro, Kavousi, and Pseira Surveys.[16] In MM IB–II (Fig. 2), Watrous noted that the region witnessed a three-fold increase in the number of settlements (from 28 to 76) and in particular, village-sized settlements (from 4–13).[17] The density of settlements and the diverse new environments exploited indicate a sharp intensification of land use. Moreover, the settlements group into four clusters, perhaps reflecting extended kinship groups, with the cluster around Gournia containing four village-sized settlements representing the most complex group with signs of increasing social hierarchy and inequality.[18] This is in fact the densest period of settlement recorded on the isthmus in any phase of antiquity; and little by little recent excavations have started filling in more details of this landscape.

The landscape of settlements: new excavations at Gournia, Mochlos, Bramiana, and Katalimata

From 2010 to 2015, Watrous' excavation targeted the Prepalatial and Protopalatial settlements at Gournia, which had been identified by the survey as the largest site in the most complex settlement cluster in the region.[19] One of Watrous' most important discoveries was the foundation and plan of a Protopalatial mansion or palace underneath the later Neopalatial palace. Matthew Buell and John McEnroe identified a white metalimestone which was used exclusively in the Protopalatial period for this monumental structure (Fig. 3).[20] Part of an impressive MM II house was also recorded in the Gournia artisans' quarter, and sections of MM II streets were distinguished from later streets by their blue paving stones.[21] Excavations at Mochlos from 2004 to 2010 uncovered considerable deposits of MM II pottery and parts of three rooms of Protopalatial House 1 which held important metal finds (bronze axes and a silver vessel). The pottery was the subject of a dissertation by Giorgos Doudalis.[22] Elsewhere in the foothills northwest of Ierapetra, rescue excavations by Vili Apostolakou at Bramiana recovered a small but significant deposit of MM II and early Neopalatial pottery that appears to come from a hamlet destroyed during the construction of the Bramiana res-

16 Watrous and Schultz 2012a.
17 Watrous and Schultz 2012a, 41.
18 Watrous and Schultz 2012a, 41–42.
19 Supra n. 18; Watrous et al. 2015, 408–13.
20 Buell and McEnroe 2017, 209–13.
21 Watrous et al. 2015, 409–15; Buell and McEnroe 2017, 208–14.
22 Brogan and Koh 2011; Doudalis 2019.

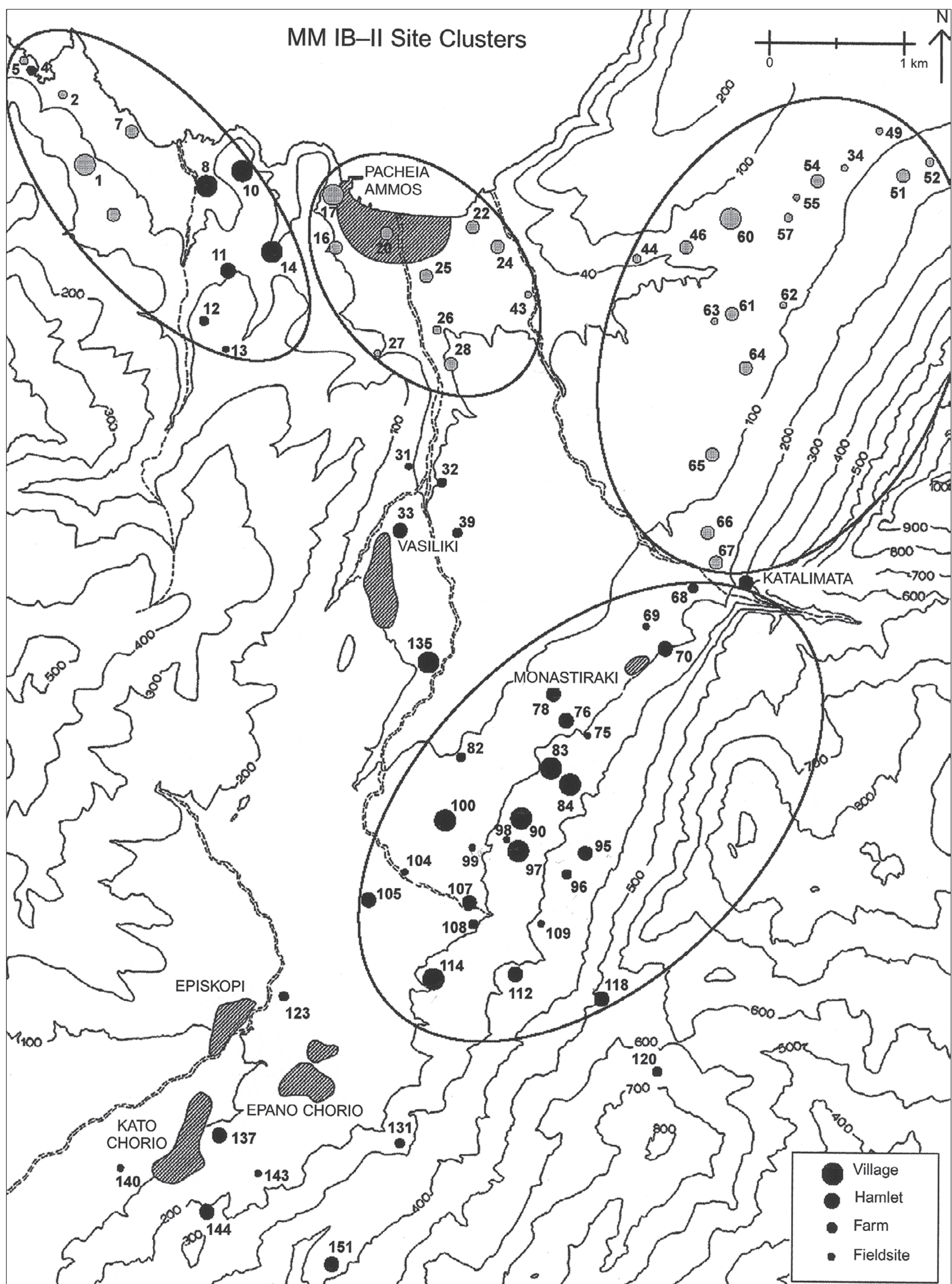

Fig. 2 Map of the MM IB–II distribution of sites in the northern half of the Isthmus (after Watrous and Schultz 2012, map 21).

Fig. 3 Plan of the LM I Gournia palace highlighting the location of MM II walls (after Buell and McEnroe 2017).

ervoir.[23] Although the site itself was not located, the pottery from Bramiana (and Mochlos for that matter) reveals important links to sites like Gournia.[24] Finally, in 2008 Krzysztof Nowicki published the MM II pottery from dwellings built on remote ledges inside the Cha Gorge (Fig. 4), the location of which suggested that the widespread MM IIB destructions at sites across the region were associated with a period of instability that forced inhabitants to seek refuge on the inaccessible cliffs (something that appears to accompany other periods of stress in the region in FN, LM IB, and LM IIIC).[25]

Fig. 4 View of Cha Gorge marking ledges with MM IIB houses (after Nowicki 2008, pl. 1B).

The landscape of craft: Alatzomouri-Pefka and Chryssi

Another recent rescue excavation by Apostolakou exposed a series of nine rock-cut basins in the pine trees next to Richard Seager's Villa in Pacheia Ammos at Alatzomouri-Pefka (Fig. 5).[26] Several hundred restorable vessels (Figs. 6–7) were recovered in a well cut into the

23 Apostolakou et al. 2019; Apostolakou et al. 2020.
24 Apostolakou et al. 2016; Apostolakou et al. 2019; Apostolakou et al. 2021.
25 Nowicki 2008, 45–51.
26 Betancourt et al. 2012; Brogan et al. 2012; Apostolakou et al. 2016; Apostolakou et al. 2020.

floor of the largest basin. Together, these MM IIB finds allow us to identify the site as a dye-works installation which formed part of an impressive local textile industry that was probably organized by groups based at Gournia.[27] The site's function, which likely involved the particularly pungent smells of purple dyes, is one reason for its location on the hills away from other habitations. Additional excavations by Apostolakou on the island of Chryssi in 2008 and 2009 and Chrysa Sofianou from 2016–2018 recovered parts of multiple purple shell middens (Fig. 8) produced by groups who began exploiting the island's unique marine

Fig. 5 View of the MM IIB rock-cut basins at Alatzomouri-Pefka (Chr. Papanikolopoulos).

Fig. 6 MM IIB Cookpot PAI 380 from Alatzomouri-Pefka (Chr. Papanikolopoulos).

Fig. 7 MM IIB Cistern or well cut into a rockcut basin from Alatzomouri-Pefka (K. Chalikias).

Fig. 8 MM II purple shell remains at Site 1 on Chryssi Island (T. Brogan).

27 Betancourt et al. 2012.

resources in MM IIB.[28] Study of the Chryssi pottery has revealed significant amounts of Mirabello Ware, including cooking pots, transport jars, and consumption vessels, perhaps left behind by groups visiting the island temporarily in the Protopalatial period.[29] Together, these finds from Chryssi and Pefka present some of the earliest and best evidence for purple and textile production in the entire eastern Mediterranean, as well as for East Crete's significant role in what would remain an important industry for millennia.[30]

The underwater seascape

Evidence for Protopalatial sea traffic and trade was recently discovered by Elpida Hatzidaki during her excavation of a Middle Minoan II shipwreck at a depth of 45 m, nearly 400 m east of the island of Pseira (Fig. 9).[31] The pottery on board the ship included large numbers of MM II transport vessels, many of which come from the Gournia area as well as other sites

Fig. 9 MM II jar recovered from the Protopalatial shipwreck at Pseira (E. Hadjidaki).

28 Apostolakou et al. 2012, 2016; Brogan et al. 2019.
29 Study of the MM II pottery from House A.2 at Chryssi is being undertaken by Chrysa Sofianou, Philip Betancourt, and the author of this paper.
30 Supra n. 26.
31 Hadjidaki and Betancourt 2005–2006; Hadjidaki-Marder 2021.

on the north coast of Crete between Malia and Petras.[32] No traces of the boat itself were preserved, but the unique nature of the cargo makes a convincing case.

The landscape of burial

According to Borja Legarra Herrero, there was a sharp decline in the number of cemeteries in use on the isthmus in MM II, with activity limited to Pseira, Gournia/Sphoungaras, Pacheia Ammos, and Kalo Chorio Tomb A.[33] The most interesting case for this paper is Gournia/Sphoungaras where a two-part cemetery emerges in MM I, with wealthier burials in House Tombs I and II at Gournia and poorer pithos burials at Sphoungaras.[34] A similar pattern of pithos burials also appears at Pacheia Ammos in the same period, but further study and publication is needed to clarify the situation in MM I–II.[35] The decline in the number of cemeteries is noteworthy because it appears in striking contrast to the increase in the number of MM IB–II sites recorded across the plain by the Gournia Survey Project.[36]

The landscape of ritual

Finally, two significant peak sanctuaries were recorded in the last 15 years: one by Watrous at Ephendis Stavromenos in Thriphti, with commanding views of Gournia, Mochlos, and both the north and south coasts, the other by Sofianou and Yannis Papadatos at Pantinou Korifi below Stavromenos Anatoli.[37] According to the excavators, the latter is dated MM II and was replaced in the Neopalatial period by another peak sanctuary nearby. Watrous dated the Thriphti example to the Neopalatial period, linking its appearance to the construction of a Gournia palace in MM III. With the recent discovery of a monumental structure at Gournia in MM II, it may be worth revisiting this site to see if there are any traces of MM II material.[38]

Together the finds from all these sites provide small platforms for viewing the Protopalatial landscape of the isthmus and its associated coastal plains. While none is particularly

32 Hadjidaki and Betancourt 2005–2006, 84–5; Betancourt 2021.
33 Legarra Herrero 2014, 110–11.
34 Hall 1912, 55–60 (described as MM I in the volume but now better understood as MM IB–II); Soles 1992; Legarra Herrero 2014, 107–34.
35 Seager 1916, pl. XI (again described as MM I in the volume but now better understood as MM IB–II).
36 Watrous and Schultz 2012a, 41–42.
37 For Ephendis Stavromenos, see Watrous and Schultz 2012b, 56–57; for Pantinou Korifi, pers. comm. Chrysa Sofianou and Yiannis Papadatos.
38 Buell and McEnroe 2017.

impressive (and some are actually or nearly impossible to visit), together the excavated contexts offer much more than simple dots on a survey distribution map.

Material studies which infer the use of the landscape

In this section I want to show how material studies targeting the production of food, pottery, and textiles from many of these sites can help us construct a much more compelling narrative of Protopalatial life and death in this part of Crete. Paying particular attention to the selection and management of natural resources, this same research also incorporates the physical landscape into the emerging regional narrative.

Foodways

Environmental data from excavations provides the starting point. Recent excavations at Gournia recovered extensive remains of grapes, suggesting that viticulture in the surrounding hillsides and terraces between the town and harbor was significant in all periods.[39] The finds also suggest that many of the MM II amphoras produced at the site and found on the Pseira shipwreck (Fig. 9) were destined for the export of wine.[40] Extensive faunal but limited botanical remains were recovered in the MM II dye workshop at Alatzomouri-Pefka. Study of the animal remains by Dimitra Mylona suggests that shepherds were raising flocks of sheep and goat in a mixed meat and wool strategy.[41] The cookpots from contemporary MM II sites across the isthmus of Ierapetra (Fig. 6) suggest that food was being fried in distinctive sets of cooking dishes and trays or stewed in tripod cookpots. Recent experimental studies by Morrison (Fig. 10) have demonstrated how these shapes could have been used to cook a variety of foods and then potentially store the meals for one or two days with the use of lids.[42] Recent excavations have not recovered extensive evidence for cereal production, but I would like to draw attention to Sabine Beckman's research on Minoan settlements in the hills west of Hagios Nikolaos.[43] She observed an extensive system of farmsteads with field walls, paths, and associated agricultural tools. Preliminarily, she dated much of this to the Protopalatial period, though some may belong to the Neopalatial. Even more importantly, she has conducted experiments on the effort and land needed to raise enough barley

39 Watrous et al. 2015, 45–51; Watrous 2012, 538–39.
40 For the amphoras, jugs, and jars that are found at sites across eastern Crete, see Boyd Hawes et al. 1908, 38–39, pl. VI; Betancourt and Silverman 1991; Betancourt 2021.
41 Mylona 2020.
42 Morrison et al. 2015.
43 Beckmann 2012.

Fig. 10 An experiment by Dr. J. Morrison to understand the manufacture, use, and performance of Minoan cooking vessels (T. Brogan).

to feed a family of four and then convert the grains into hardtack bread.[44] More of this type of work is needed and likely would be greatly appreciated by the general public.

Pottery manufacture

Macroscopic and microscopic fabric analysis indicates that pottery was produced at sites in the region from the Final Neolithic and exported widely across the isthmus from EM II.[45] If anything, this traffic increased during the Protopalatial period. Finds from the recent excavations at Gournia, including potters' wheels, bats, pits for clay, and kilns of various dates indicate that some or much of this pottery was being manufactured in the artisan's quarter on the north side of the town from EM III/MM IA.[46] To locate the source of both the clay and the characteristic black and white temper, Eleni Nodarou and A. Georgatos conducted

44 Beckmann 2014.
45 Whitelaw 2015; Brogan et al. 2018; Brogan 2021.
46 Watrous et al. 2015, 409–23.

a geological sampling project (Fig. 11).[47] The results, which included firing experimental briquettes, suggest that the clay comes from the area just north of Vasiliki and the granodioritic temper from outcrops near Gournia. All of this has given us a much more dynamic picture of both material selection and the actual locus of pottery production, providing a nice compliment to the much wider distribution of these products all over central and eastern Crete in MM II. In this period the potters were producing a wide range of shapes, including the amphora, as transport containers for liquids produced by other craftsmen at Gournia (e.g., wine, oil, and perfumes). These Mirabello pots have very distinctive decorative patterns that would have made them instantly recognizable in MM II.[48] The pottery was circulated by boats like that of the Pseira shipwreck or overland on donkeys as Whitelaw has suggested already from EM IIB.[49] This was not an empty landscape.

Fig. 11 View of Georgotas collecting clay samples in the isthmus region (E. Nodarou).

47 Georgatos 2013; and Nodarou (who supervised the MA thesis on the subject by Georgatos), forthcoming.

48 Supra n. 8.

49 Hadjidaki and Betancourt 2005–2006; Whitelaw 2015, 45; Betancourt 2021.

Textile manufacture

The discovery of the purple workshop on Chryssi and the dyeworks at Pefka offers a unique perspective on another major element of the Minoan economy: textile production.[50] Shepherds were raising flocks of animals in summer pastures in the mountains and winter pastures in the lower plains, and even on islands like Chryssi, Koufonisi, and Pseira.[51] At the same time families were collecting purple shells to make color, with some intensification of the process at sites like Chryssi where groups were probably staying only temporarily to collect shells and produce color for more specialized workshops like that excavated at Pefka.[52] Wool was delivered and cleaned before being sent to the dye workshop where hundreds of cookpots, jugs, and basins aided in the preparation of colors which were then used in the large rock-cut basins found on the site.[53] The absence of spindle whorls and loom weights at Pefka suggest that spinning and weaving took place elsewhere, probably back at Gournia, and provide a hint of the organizational complexity of the work.[54] Cutler's functional analysis of the MM II weights from Alatzomouri-Pefka (Fig. 12) and MM II Pseira

Fig. 12 View of the Teloneion or Custom's House in Pacheia Ammos, Crete (T. Brogan).

50 Supra n. 29.
51 For an ethnographic study of recent practices in the area, see Chalikias 2013, 45–47.
52 Supra n. 27–8.
53 Supra n. 28.
54 Ongoing studies by Sofianou, Betancourt, and the author of the paper.

suggests that there was a focus on producing textiles with very fine thread and that more than one variety of textile could have been produced: both relatively dense, balanced textiles, and more open and/or weft-faced textiles.[55] The presence of the monumental building at Gournia suggests that groups there may have been managing the specialized workshop at Pefka and at least part of the textile economy, along the lines of the finds from Building D of Quartier Mu at Malia.[56] Again this one industry provides a useful link for sites recorded in the landscape and a plausible narrative for the "spaces between" which were obviously used for flocks and sourcing the plant and animal dyes.

Conclusions

All this evidence helps us begin reconstructing the Protopalatial landscape of the isthmus of Ierapetra with people and tangible stories. What is surprising is just how little of any single context is preserved. The MM II palace at Gournia is covered over; direct evidence for pottery, wine, and oil manufacture from this period is no longer visible; nothing remains on the sea floor from the Pseira shipwreck, and the site of Katalimata is perched on a nearly unreachable cliff. The story of MM II purple production on Chryssi relies on the remains of crushed shells, while not a trace of the MM II dwelling at Bramiana was recovered (it was bulldozed to create the reservoir). The one exception is the dyeworks installation at Alatzomouri-Pefka where nine rock-cut basins are preserved; however, the peripheral buildings were knocked down in antiquity and their contents packed into a nearby well.

While the new museum in Hagios Nikolaos will highlight a sample of the Protopalatial artifacts from all these sites, the poor preservation of the contexts remains a significant hurdle to more dynamic narratives and actual autopsy. For this reason, I suggest that the subject might be better suited to a small museum with posters and video emphasizing an archaeological synthesis of the region or landscape along the lines of what Efi and Yiannis Sakellarakis have done for the sites of Archanes and Zominthos.[57] A great location for such a display is available in the village of Pacheia Ammos, which would otherwise never be suitable for a museum, but is located conveniently close to the sites of Gournia and Alatzomouri-Pefka. The village already has a suitable venue, the local Teloneion or Customs House (Fig. 12), which was recently restored for events organized by the local community. My proposal calls for displaying a series of posters targeting one or more phases of local settlement history on the isthmus.

55 Cutler et al. 2021.
56 Supra n. 20; Cutler et al. 2013.
57 For Archanes, see https://www.archaiologia.gr/blog/issue/the-museum-of-archanes-2/. A similar museum has now been constructed in the village of Anogeia for the site of Minoan Zominthos.

For this paper I have tried to show how much can be done with the Protopalatial narrative, even when no single site is well preserved. I also hope to have shown how several features of the landscape (the coasts, foothills, gorges, and upland) can be highlighted and integrated (Fig. 1). The result would not only offer a unique synthesis of what is otherwise a fragmentary and elusive period, but also one which comes together nicely when viewed on a larger scale. The optics would also, I believe, generate more interest in the efforts necessary to preserve even partial glimpses into the past, which in this case also happens to capture Crete's first state-level society.

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The Margi River Valley

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Abstract The impact that geographical and topographical conditions have had on settlement choice has always been a matter of discussion, especially for the way that different environmental situations have influenced the structure of settlements, their economy, and their network of contacts. The concept of landscape and its very definition are not simple or unequivocal, and the term is open to a wide range of possible meanings. Italian law gives a good definition of landscape: "The term landscape applies to a homogeneous territory, whose characteristics are derived from nature, from human history, and their reciprocal relations".[1] A legal definition has been necessary in order to produce a series of laws and regulations, so that the territory is adequately known, safeguarded, and managed according to the values inherent in the different contexts that affect it.[2] Landscape not only exists as a physical entity—as a stone that can become a wall, soil that can become a vase, or vegetation that can become food—but also it exists as a creation in our minds. This is especially important in antiquity, when the physical world was, sometime, imbued with a spiritual meaning and a spring, a river, or a forest could assume a particular significance.

It is not simple to understand the human perception of the Margi river valley in antiquity, though its physical landscape is very definite. The valley is the southwestern appendix of the plain of Catania and, by way of the Margi-Maroglio river system, it connects the two coasts of southeastern Sicily: the Ionian coast to the east and that of the Sicilian Channel to the south with a watershed at Caltagirone (Fig. 1). The valley is bordered on its western flank by the southeastern foothills of the Erei mountains, large calcareous outcrops, and, on its eastern flank, by the high plateau of the Hyblaean mountains with an altitude between 500 and 650 m above sea level. Much of the Hyblei was created by the subduction of the

1 "Per paesaggio si intende una parte omogenea di territorio i cui caratteri derivano dalla natura, dalla storia umana o dalle reciproche interrelazioni" (art. 131, comma 1 del Codice dei Beni Culturali D.Lgs. 42/2004).

2 The Landscape Plan (*Piano Paesistico*) for the territory of the Provincia di Catania was adopted in 2018, see https://www2.regione.sicilia.it/beniculturali/dirbenicult/bca/ptpr/pianopaesistico.html (checked on February 16th, 2022).

Laura Maniscalco:
The Margi River Valley.
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Bridging Past and Present in Two Mediterranean Islands. Heidelberg: Propylaeum 2023, 39–52.
https://doi.org/10.11588/propylaeum.1212.c16826

Fig. 1 Sites in the Valley dei Margi (from Privitera and Spigo 2005)

African tectonic plate, as it goes under the Euro-Asian tectonic plate: the Margi valley, in fact, lies directly along the subduction and suture line between these two massive geological structures which are covered partially by sediments of the solfifera series (Fig. 2). The Margi river and the other rivers in the area, the Pietrarossa on the Erei side and the Catalfaro on the Hyblei side, are all tributaries of the Gornalunga and therefore, of the Simeto, Sicily's largest river, which flows across the delta-like plain of Catania to the island's eastern shore. The transformations wrought by sea-level changes and the modification of the coastline documented in the plain of Catania have had an impact also on the Margi river system with consequences for accessibility from the valley to the coastal area.[3]

Today, the main agricultural feature of the Margi valley's landscape is arable crops that cover more than two-thirds of the area, interspersed with citrus orchards and olive groves (Fig. 3). Agricultural activity here has a low degree of diversity: the arable land is cultivated mainly for hard wheat in rotation with forage and legumes, such as vetch and field beans. Specialized agriculture consists essentially of tree crops (orange and olive groves and some rare chestnut trees), vegetable crops (almost exclusively artichokes in rotation with arable crops), and it is equal to about 40% of the total agricultural production in the valley. The areas with the greatest vegetation are the mountains: Castello di Serravalle, Rocca S. Agrippina, and the volcanic reliefs of Rocchicella, Poggio Cavoni, and Contrada Urticchi. These areas include shrub vegetation that mostly represents stages of degradation of woodland.[4]

3 Monaco et al. 2004, 185, fig. 5.
4 La Fico-Guzzo and Maniscalco 2013.

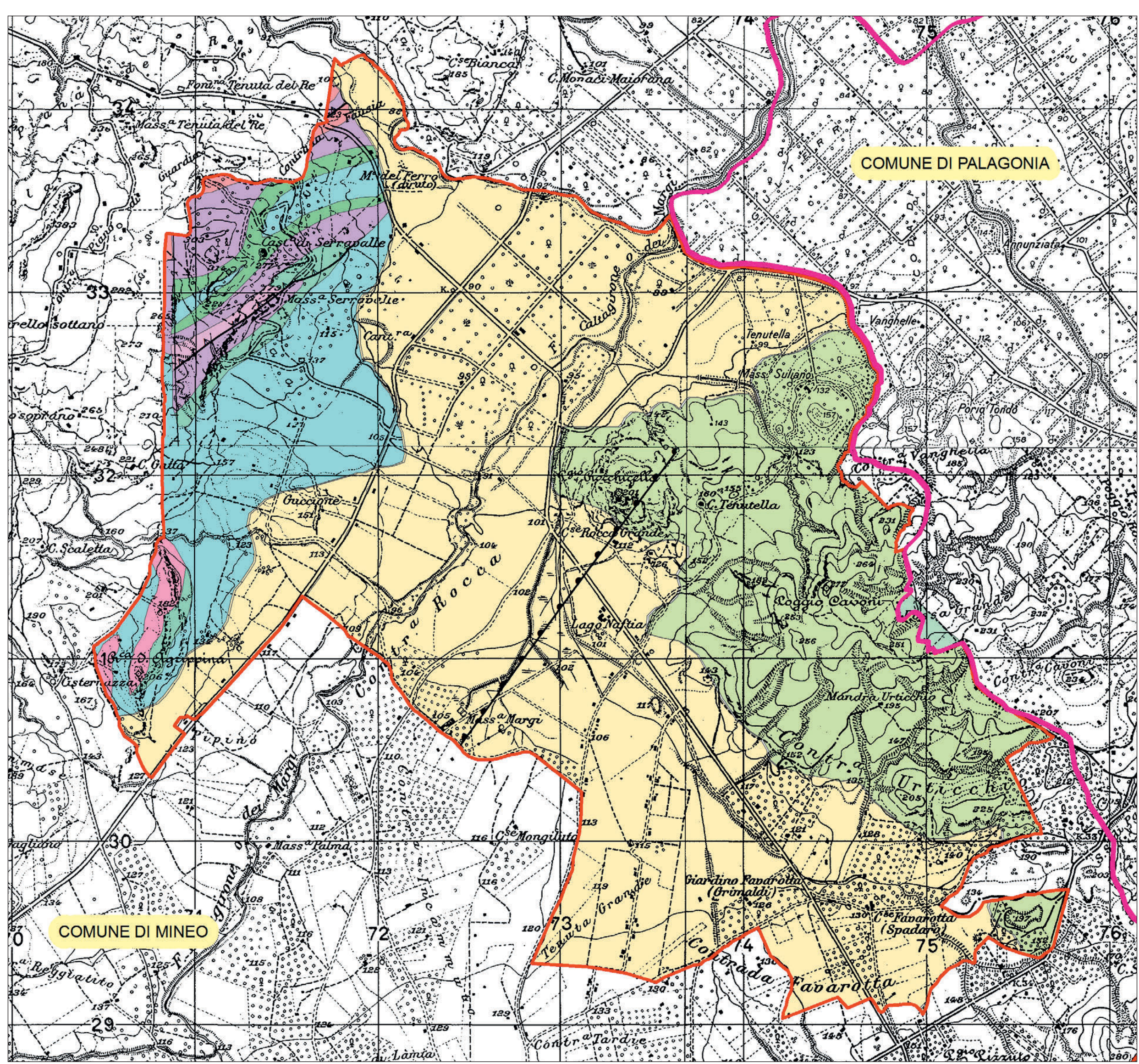

Fig. 2 Central Valley dei Margi: geology (adapted from La Fico – Guzzo and Maniscalco 2013)

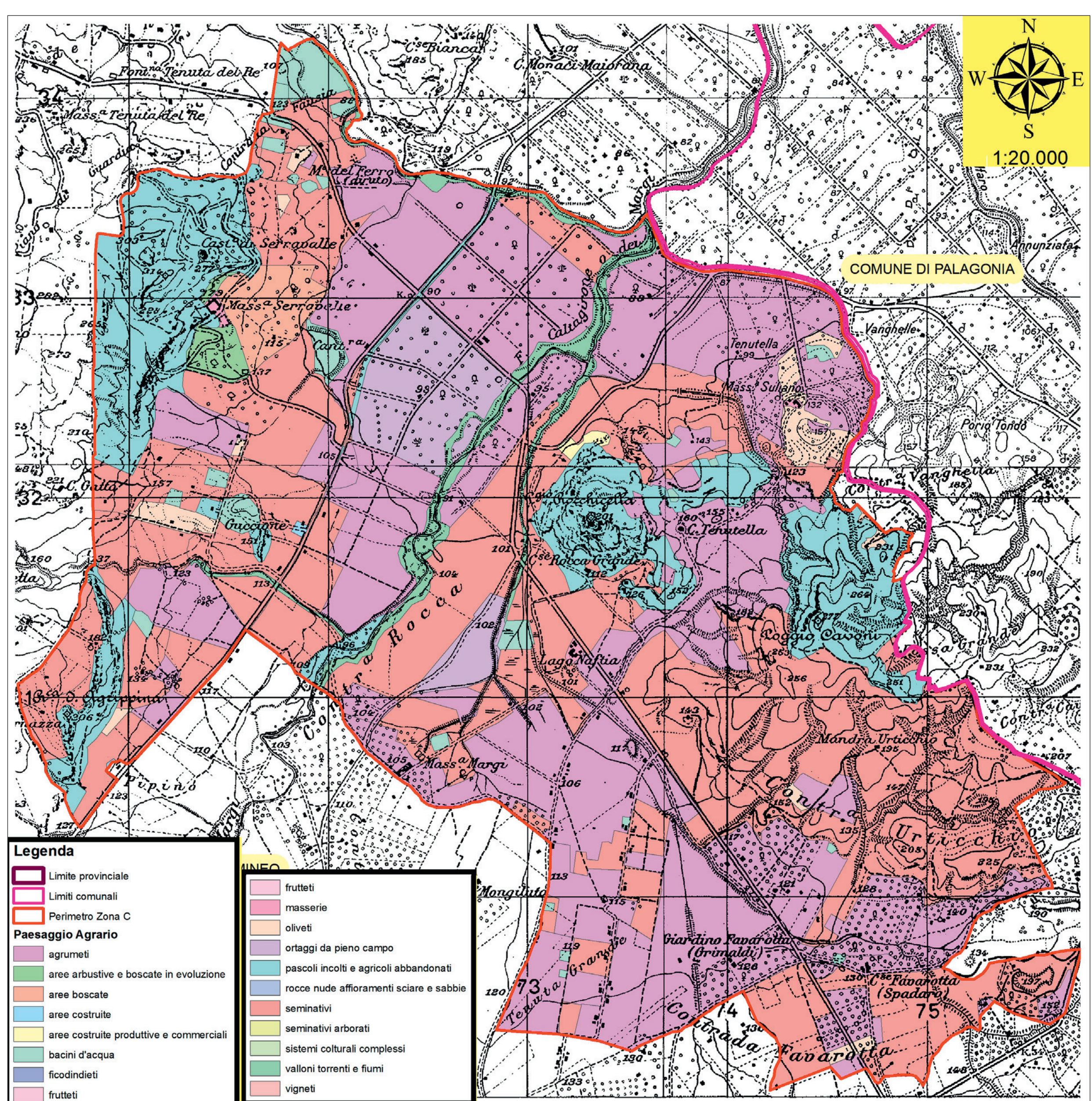

Fig. 3 Central Valley dei Margi: agricoltural landscape (adapted from La Fico – Guzzo and Maniscalco 2013)

Settlements

The Margi valley's landscape in antiquity was probably quite different from its current state, but the importance of the valley as a route since ancient times is reflected in the area's numerous settlements and the way in which they took advantage of the valley's many resources for agriculture, animal breeding, and hunting. A rapid review of the valley's earliest occupants leads us to a place that would become a focal point in the area's geography: the large grotto at Rocchicella, where the earliest traces of occupation date back to the Epipaleolithic Age.[5] Here and at Perriere Sottano, a rocky ridge that rises from the plain of Catania, as well as at Sant'Ippolito at the opposite end of the valley, and at several sites along the Gornalunga river and the Torrente Monaci, the Neolithic age is also well-documented.[6]

During the Early Copper Age, settlements began to spread to the Hyblaean highlands, probably as a result of a large-scale pastoral activity and the search for new grazing areas and new raw materials, like basalt, which could be obtained in easy-to-use quantities from open-air quarries typical of the Hyblaean highlands.[7]

During the Early Bronze Age, numerous groups of rock-cut tombs appear on the slopes of the Erei and Hyblei, evidence for a dense network of small settlements and an index to extensive population development across the territory linked to an intensification of agricultural and pastoral activities. At Monte Catalfaro and Camuti, in the territory of Mineo, circular huts with a wooden structure in oak were attested.[8] Today the rock-cut tomb remains a permanent feature of this landscape, as it was the most common burial structure for almost a millennium, even if the tomb plan itself underwent several changes over the centuries (Fig. 4).

Ancient literary sources indicate that the Margi Valley and its surrounding hills were considered to be lands of the Sikels, the indigenous people of south-eastern Sicily.[9] During the Archaic Period, urbanized centers developed on these sites which had been already inhabited for some time: the Montagna di Ramacca, Piano Casazzi, Coste Finocchio, and Monte Balchino on the Erei side of the valley, and Favarella-Piano Bellia, Terravecchia di Grammichele, Monte Catalfaro, Menainon, and Palikè on the Hyblaean side (Fig. 1).[10] Most of these centers would continue to be inhabited until the first century BCE. Judging by the infrastructure that is known to us or was presumably built during the Archaic period—roads, bridges, water channels, or fortifications—the only remains that still have an

5 Maniscalco 2008, 37.
6 Maniscalco 2008, 66; Messina 1979; Maniscalco 2000, fig. 1; Agodi, Procelli and Sapuppo 2000; Crispino 2014.
7 McConnell 2003.
8 Maniscalco 2012, 747; Castiglioni 2008, 380.
9 Holloway 1990.
10 Procelli 1989; Holloway 1990; Privitera and Spigo 2005; Maniscalco 2005.

Fig. 4 Rocca S. Agrippina, Mineo.

Fig. 5 Castellito, Ramacca.

impact on the valley landscape are the fortifications, some of which are still very visible in the countryside. In some cases, they were created less out of military necessity but rather as an affirmation of self-identity.[11]

From an archaeological point of view, the Punic wars and the entry of Sicily into the Roman sphere are perceptible in the strong drop in the number of settlements from the third through the first centuries BCE. During Late Roman times the settlements increased in number, and this is closely linked to the agricultural exploitation of the plain with a consequent depopulation of hilltop centers.[12] The development of large estates in the Margi valley is documented in the presence of settlements such as Favarotta, the site of a villa that probably incorporated a portion of what had been the territory of the ancient sanctuary of the Palici, as well as Castellito (Fig. 5), the site of a villa strongly connected with agricultural activity.[13] In the imperial era, Rome's interest in the plain is clearly visible in the *via Capitoniana,* a major highway that passed though the Margi valley on the way from Catina (Catania) to Agrigentum (Fig. 6).

In the Margi valley, at least two important roads have been identified: the road coming from the Ionian coast and running across the southern slopes of Mount Etna, and one that connected central Sicily with the southeastern part of the island.[14] These were pathways that were in use for many centuries, with settlements from various periods situated along their routes. They were also succeeded by historical roads (*trazzere*) and, in some cases, even by modern highways (Fig. 8). These two basic roads met at the narrowest point in the valley, precisely in the area, where there was the principal cult site, Rocchicella di Mineo or ancient Palikè (Fig. 7). The continuity of occupation at this site is largely due to its crucial

11 Procelli 1988–89; Brancato and Caliò 2019; Maniscalco 2020.
12 Bonacini 2007, 95.
13 Cirelli, Grasso and Maniscalco 2016; Albanese and Procelli 1988–89.
14 Bonacini 2007, 101 with previous bibliography.

Fig. 6 Late Roman roads (from Uggeri 1997–98)

Fig. 7 Valley dei Margi at Rocchicella (G. Barbagiovanni)

geographic position. Even following its abandonment as a cult-site by the second century CE, some of the monumental buildings of the former sanctuary were remodeled for agricultural purposes. In the sixth century CE, a small settlement was created, perhaps in relation to the military *Annona*, and later the area once again became the site of a settlement during the eighth and ninth centuries CE.[15]

15 Maniscalco 2008, 129–36; Arcifa 2016.

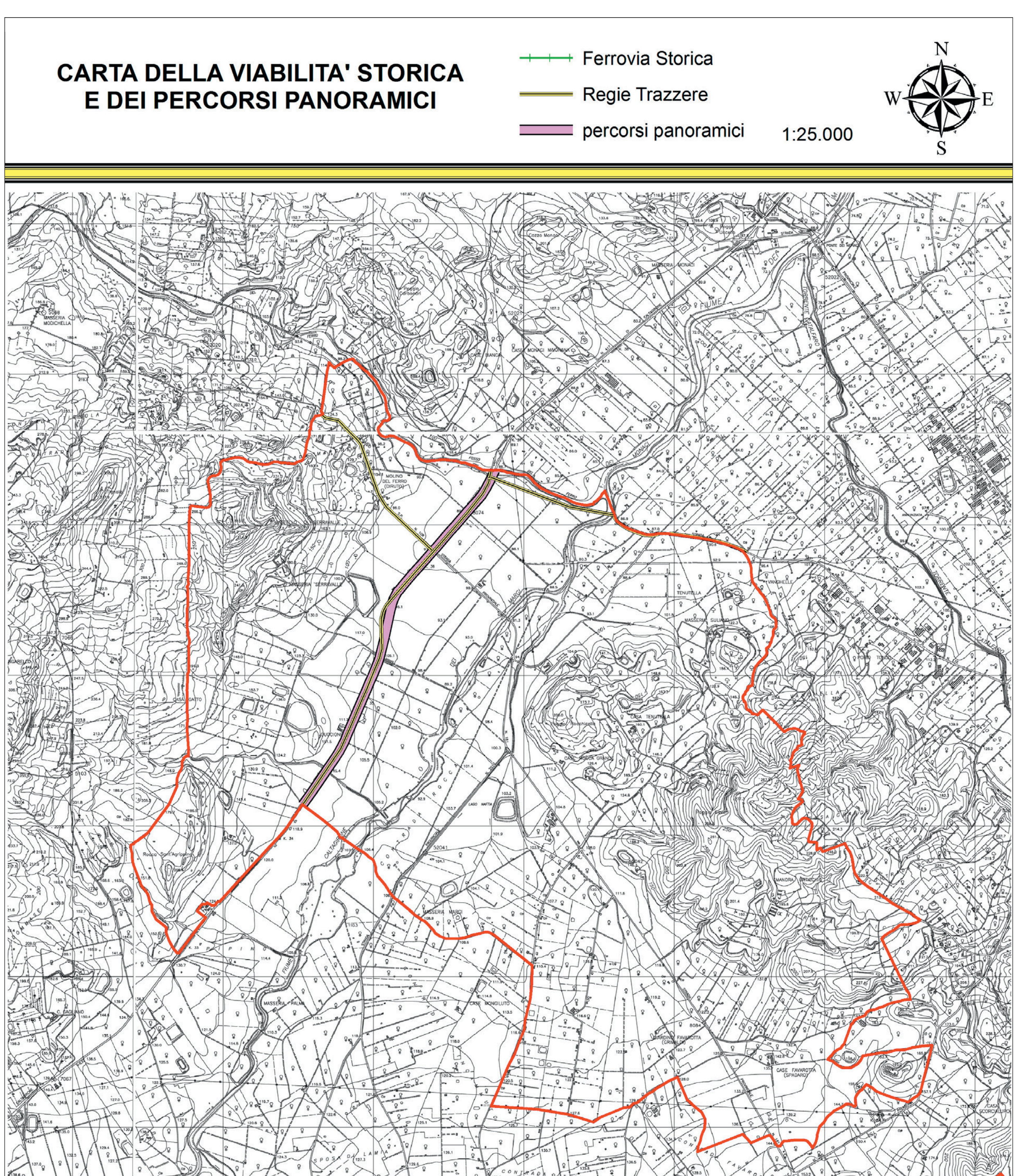

Fig. 8 Central Valley dei Margi: trazzere and modern roads (adapted from La Fico – Guzzo and Maniscalco 2013)

Botanical Analysis

The analysis by Castiglioni of botanical samples from Rocchicella, S. Febronia, M. Catalfaro, Piano Casazzi, Monte S. Mauro, and Pietrarossa gives us some information about the environment of the Margi river valley in antiquity[16]. As Castiglioni points out, we may infer certain aspects of the spontaneous and cultivated vegetation across time from botanical samples recovered from these sites, but we must be careful not to assume that the plants represented come solely from the immediate area—there may be wood and/or other botanical materials used for specific technological purposes that were brought from elsewhere, along with other imported objects. This is not the case for olive trees, and to a lesser extent, evergreen oaks and holm oaks that are attested with a certain consistency since the Neolithic period. These species certainly would have been useful for practical applications at this location, but their simple presence would indicate their significance in the Margi valley over a long period of time. The dominance of the olive tree can refer to actual selection for its great versatility, but it can also suggest the tree's greater availability: in fact, the olive tree in formations like Mediterranean *maquis* scrubland (also called *garrigue*) is the plant that reaches the largest size and therefore provides the largest pieces of wood, suitable both for carpentry and fuel. The exploitation of forest resources from the region of Mount Etna can be deduced in the fifth century BCE from the presence of fir timber in the construction of Stoà B at Rocchicella, and even earlier in the Early Bronze Age, from birch resin that was used as a glue in the repair of a pottery fragment from Santa Febronia.[17]

Since the Neolithic Age, the cultivation of different varieties of cereals and legumes is documented in the valley. Among these cereals, the cultivation of spelt (*farro*) seems to be preferred, probably for its genetic resistance to disease and environmental adversity.[18] The legendary fertility of Sicilian fields is reported in many ancient sources. In particular, the *campi Leontinoi*, where according to Diodorus Siculus (V, 2) barley grew spontaneously, were rated by Pliny the Elder (N.H. XVIII, 95) as having, along with Baetica in the Iberian peninsula and Egypt, one of the highest wheat yields in the Roman Empire. This was also the result of the cereal monoculture imposed on Sicily by Rome since the end of the third century BCE. The late Roman granary at Pietrarossa, a structure with several large rectangular sections on the north slope of the Algar mountains (Fig. 9), which dates to the fourth and fifth centuries CE, gives us a rare glimpse of cereal production and storage during this period. In a granary found there, *triticum dicoccum* dominates other cereals. It is possible that different species were planted in separate fields around the structure as part of an exten-

16 Castiglioni 2008.
17 Castiglioni 2008, 380; Mentesana 2015; De Benedetto and Fiorentino 2015.
18 Castiglioni 2008, 371.

Fig. 9 Pietrarossa, Mineo, granary

sive cultivation of large lots that did not require particular treatment.[19] In Sicily, according to Roman agricultural policy, barley was cultivated mainly for domestic consumption—following typical habits of the Greek world—while wheat was destined for export, especially towards the capital city of Rome. Along with cereals and legumes, grape cultivation is also present, and the production of wine is attested already in the fifth century BCE at Rocchicella by the grapes that were found ready for pressing close to a tub in Stoa B.[20]

At Rocchicella, a series of channels dated to the Archaic age, cut in the bedrock and running out to the plain below, point to the importance that water management must have had in the valley (Fig. 10). The fact that this management seems to have been under the control of the main sanctuary in this area is not surprising and seems also to suggest the role of the Sanctuary of the Divine Palikoi in the management of land and agricultural production.[21]

19 Castiglioni 2008, 383.
20 Castiglioni 2008, 376; Randazzo 2008, 196.
21 La Fico-Guzzo, Maniscalco and Mc Connell 2015.

Fig. 10 Rocchicella: water channel

Conclusion

The picture we can draw of the Margi river valley from the first millennium BCE onwards, is that of a landscape characterized by woods, pastures, and land with mixed crops, interspersed with olive trees and vines. Data from the pollen diagrams of the two sites closest to the Margi Valley—the Biviere di Gela and the Lago di Pergusa—also allow us to reconstruct an environment characterized by forests, scrub, and grasslands.[22] Earlier, around 2300 BCE, the climate throughout the Mediterranean became drier; however, the area of the "Biviere di Gela", closest to the Margi valley, even during the period of aridification continues to maintain the environmental characteristics of a humid climate with evergreen oaks, juniper, and ash, and a habitat similar to that documented by botanical analysis for Rocchicella and its neighboring sites.

The future of the Margi valley is not very promising (Fig. 11), even if a certain mitigation of the effects of the current tendency toward aridification and soil erosion is possible through careful planning and wise use of residual resources.[23] The study of the landscape in

22 Noti et al 2012.
23 Drago 2005.

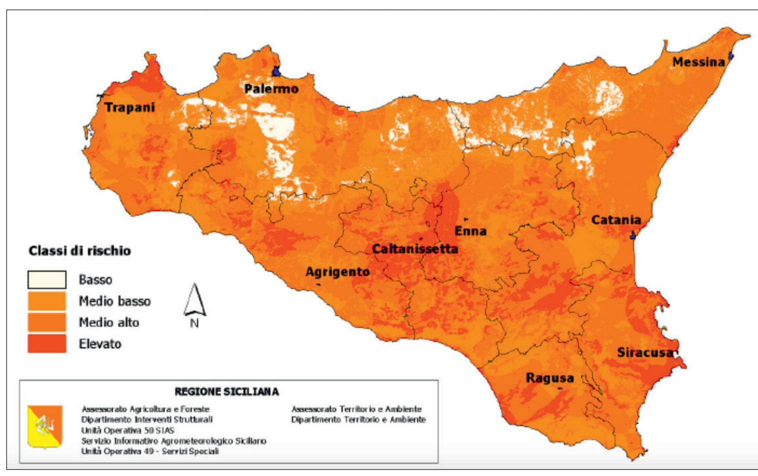

Fig. 11 Sicily: map of climate vulnerability (from Drago 2005)

antiquity, now more than ever, is a fundamental contribution to understanding one of the most formidable challenges that we face in the near future: climate change.

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Sicilian Landscape and A-structural Architecture from Survey to Virtual Reconstruction: the Case of Calaforno Hypogeum

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Abstract The present paper is focused on a unique a-structural complex of the hypogeum of Calaforno and the surrounding landscape. The recent "rediscovery" of this hypogeum, thanks to many excavations and survey activities led by the University of Catania and the Superintendence BB.CC.AA. of Ragusa, allows a new reading of the monument and of its surrounding landscape. Starting from the prehistoric and protohistoric periods, a central idea utilized in the planning of the land use is evident at this site, which led us to read the hypogeism phenomenon as a peculiar marker of this area. The new studies of the hypogeum allow a rereading of its long history and its several usage phases, particularly in the light of its relationship with the neighboring landscape, features which underwent continuous transformation over the centuries. The characteristics of this type of architecture and the necessity of a more efficient communication in archaeology have led to the choice of a new approach of survey and analysis of this monument. The documentation and communication goals have been stressed in order to obtain a product by the laser scanning documentation able to read chronological articulations of the architecture; to document the actual condition and the possible degradation of the monument; to identify special architectural features and traces which are difficult to observe with the traditional survey activities; to make the monument visible also remotely; etc. The goal has been not only to obtain new and more accurate scientific results, but also to enable the site, labelled until today as "minor", to make an impact on the study of the landscape in a more meaningful and exhaustive way.

1 Introduction

One of the topics further analyzed in the "Modelling Archaeological Landscapes Workshops" has been the relationship between the archaeological landscape and the so-called "minor" cultural heritage, trying to focus on this kind of archaeological evidence from different perspectives. The role which such "minor" places played in ancient times, probably

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being endowed with greater importance than they are today and, in some cases, serving as expression of an economic or political power, or both, has been taken into account in addition to their current scientific, social and economic role. To understand the real value of a "minor" archaeological site is essential in order to read it as a component of the entire archaeological landscape. In general, apart from the physical sphere and role of landscape in human subsistence and experience, the notion of landscape involves various social and symbolic elements.[1] It was argued that "the relationship between a society and its environment is a product of both human consciousness and material reality. The study of social and cultural landscapes considers the way people engage with their surroundings in terms of their own individual experience".[2] The social archaeology of landscape considers therefore the landscape as a product of human interaction with the environment.[3]

In light of these statements, the "minor" sites are tightly connected with the landscape in terms of mutual interaction with the environment. They are part of the so-called "not outstanding" cultural landscapes and can be considered expressions and symbols of the "land use", maybe much more than the major archaeological sites. Less known places are usually scattered mainly in the inner areas as rural landscapes or inlands; such locations are not necessarily a downside but rather a real advantage for preserving traces of common roots and differences of identities.[4]

These types of evidence are also closely related to the concept of the diffused heritage and its perception.[5] The true challenge is represented by areas with a high density of cultural heritage and a rich stratification both on an urban and extra-urban level. Such complex realities should be evaluated based on a balance between the monumental sites, great attractors of considerable impact, and several minor realities. In the last ten years, the attention to the notion of diffused cultural heritage has grown considerably but the difficulty to guarantee its conservation and to propose its sustainable usage have become apparent too. In fact, even the major and more attractive sites have to face a considerable managerial complexity, just as the smaller sites and monuments which have further problems of their own, e.g. challenges associated with the absence of an appropriate connective network.

A possible solution could be the creation of "diffused museums" in which "minor" sites can be transformed from simple points of scientific interest scattered in the landscape to centres of education and tourist attraction. Following this course of action, it is possible to create a system based on shared cultural values and dissemination of information on a supralocal scale. Another important aspect is the active participation of local communities, which can play a significant role in encouraging independent management and creation of

1 Knapp 2013, 37.
2 Knapp 1999, 106.
3 Ashmore 2004, 259.
4 Salerno 2017, 513.
5 Giberti 2012, 161.

networks in order to promote social cohesion and integration, regeneration of abandoned areas, and creation of new jobs, thus generating shared understanding and a new sense of community.[6] Local identity is not a simply a passive projection but a dynamic negotiation: it is mediated by important processes, such as tourism and the archaeological apparatus. Local identities are therefore public and performative; they are linked to the habitus of daily lives and are mediated by archaeology and global processes related to tourism.[7]

Moreover, a fruitful implementation of digital technologies for enhancing the knowledge of the land and the significance of the land itself[8] fits well within the debate about the so-called "not outstanding" cultural landscapes. This digital aspect has been emphasized in one communication of the European Commission entitled "Towards an integrated approach to Cultural Heritage for Europe", especially in the paragraph that discusses opportunities to make cultural heritage widely available in the digital era. This report highlights the value of digital tools: digitisation of heritage contributes to the European Agenda for Culture, by improving public access to different forms of cultural and linguistic expressions. Digitising cultural heritage, making it accessible online, and supporting its economic exploitation are also activities at the heart of the Digital Agenda for Europe. Digitisation multiplies opportunities to access heritage and engage audiences; while digital tools such as 3D scanning can facilitate the preservation and restoration of physical cultural assets."[9] The use of technology also involves aspects related to the documentation and communication, such as the obtainment of effective digital tools which assist in the creation of a narrative and stimulate active participation of the public.[10]

2 The archaeological landscape of Giarratana

The dichotomy between what is considered today "minor" and what was or was not "minor" in the past is evident in the case of Giarratana landscape.[11] It seems to be emblematic for its geographically peripheral position, far from the main communication routes of South-Eastern Sicily, but from the archaeological point of view the area represents a meeting point

6 Salerno 2017, 513–14.
7 Hamilakis 2006, 159.
8 Salerno 2017, 511.
9 European Commission: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels 22. 7. 2014.
10 Volpe and De Felice 2014, 405.
11 See K.A.S.A. (Koiné Archeologica, Sapiente Antichità) developed between 2006 and 2008 by the University of Catania, University of Malta, and Officina di Studi Medievali di Palermo. In the Hyblaean area, 100 minor sites have been counted as characterized by visibility but today are no longer accessible.

in the road network, both in ancient and medieval times. The most recent historical events have transformed this centrality into marginality: the peculiarity of an area that remains physically central but functionally marginal is a typical element for Sicilian inland that has no outlets to the sea.

The abundant archaeological evidence attests to the high interest in this area, especially in the Prehistoric period, when it was characterized by the high concentration of hypogeal structures, rock-cut tombs, and other complex structures. A brief overview of the prehistoric landscape allows us to highlight the most interesting sites of that period (Fig. 1). The

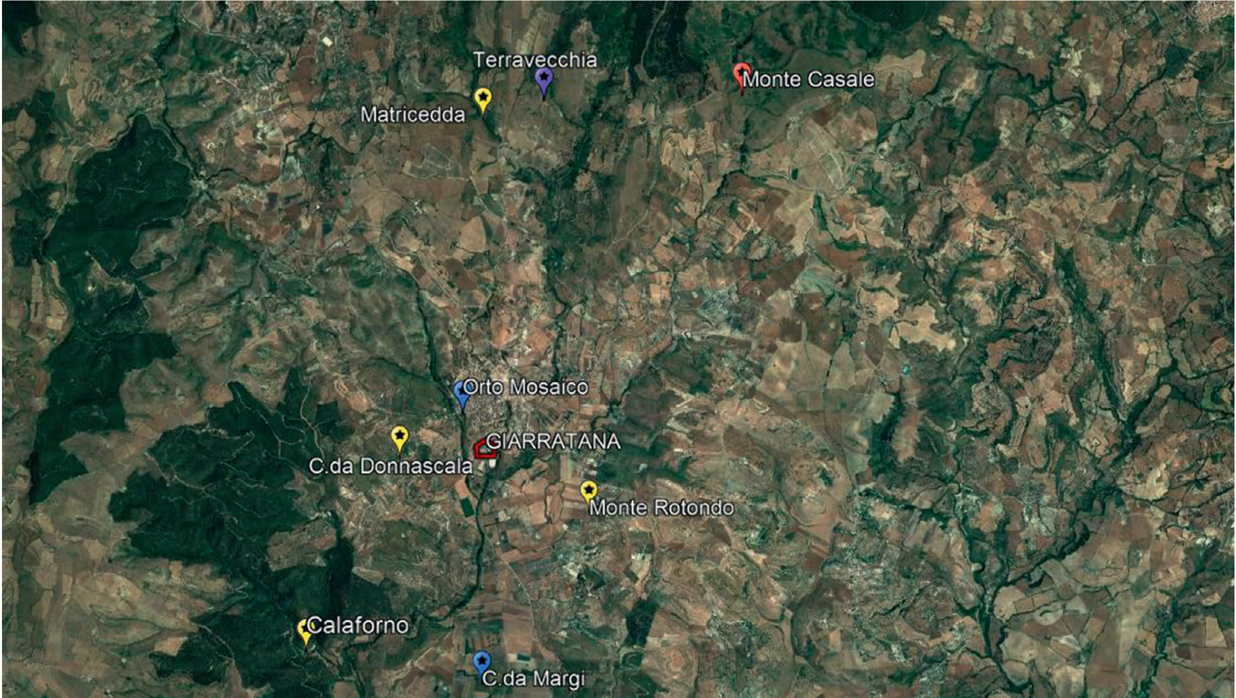

Fig. 1 The landscape of Giarratana: main archaeological evidences (Google Earth).

first site of importance is Calaforno, characterized by the presence of a Neolithic settlement and a grave tomb belonging to the *Stentinello* facies;[12] a multicellular hypogeum with a long history starting in the Copper Age; traces of a settlement dating to the *Malpasso* facies; and tombs belonging to the Late Bronze Age and the *Pantalica-Cassibile* facies.[13] Other sites that are characterized by the presence of hypogeic structures are: Donnacarmina,[14] Matricedda,

12 Cafici 1930–31; Guzzardi 1978.
13 Guzzardi 1978, 1980.
14 Dell'Agli 1886.

with a multicellular hypogeum on two floors dated to the Middle Bronze Age,[15] and Monte Rotondo, with a complex cave[16] and cemeteries dated to the *Castelluccio* facies. Two other significant areas are located in C. da Donnascala, where a rock-cut cemetery[17] and a repository of bronze objects[18] dated to *Finocchito* facies (Iron Age) have been identified, and in Monte Casale, with the presence of huts dated to the *Castelluccio* facies.[19]

The area of Giarratana preserved its central role also in the following periods. This continuity is proved in C. da Donnascala with the presence of a Greco-Roman funerary area[20] and in Monte Casale with the remains that span a period from Prehistory to the Greek times (a necropolis with chamber and shaft graves[21] and a settlement identified as the ancient *Casmene*[22]). A Roman villa decorated with mosaics of the Late Imperial period has been identified in the site called Orto Mosaico;[23] while in C. da Margi the site of Cozzo Anticaglie (or Cozzo dell'Anticaglia) was occupied from the Roman to the Medieval period by dwellings[24] and a cemetery.[25] All this archaeological evidence attest to the continuous occupation of the area from Prehistory to the Medieval period and later, until the late Renaissance period.[26]

A common thread in this landscape is the presence of the so-called "a-structural" architecture. This term is usually used to identify the architecture "in negative," a specific kind of technique utilized for building inside of the bedrock by removing it, both under and above ground. The term does not have a negative connotation and it is not a synonymous with "non-monumental" or "less important." On the contrary, the rock-cut architecture is characteristic of several time periods and locations, especially those linked with certain geological features. Historically, it has been adopted to construct various kinds of structures with different functions, both for domestic and funerary purposes. This type of architecture is closely connected with the geomorphology of the area: the Hyblean Plateau is a geological platform consisting of carbonate formations, and the area of Ragusa is characterized by the so-called gorges, locally known as *Cave.*

15 Militello 2014.
16 Bruno 2003; Guzzardi 2004, 2008a; Militello 2014.
17 Dell'Agli 1886; Orsi 1898a; 1898b; 1900.
18 Orsi 1900; Bernabò Brea 1964–65; Bietti Sestieri 1980–81; Crispino 2014.
19 Orsi 1928.
20 Guzzardi 1980; Bejor 1986.
21 Orsi 1912.
22 Orsi 1933; Pace 1935; Di Vita 1956; 1961a; 1961b; Rizza 1957; Voza 1973, 1976–77, 1999, 139–43.
23 Di Stefano 1993–94; 1997; 1997–98; 2001; 2005; 2014b; Di Stefano and Ventura 2011.
24 Solarino 1885; Dell'Agli 1886; Pace 1919; 1926, 130–133; Bejor 1986; Di Stefano 1993–94; 2014a; Di Stefano and Ventura 2011.
25 Dell'Agli 1886; Pace 1919.
26 The Late Renaissance settlement of Giarratana, called Terravecchia, was destroyed and abandoned after the earthquake of 1693. Starting from 2004, it has been excavated by a team of the French University J. Verne, see Militello and Marino 2001; Di Stefano and Fiorilla 2014.

In the landscape of Giarratana the "a-structural" architecture has a more specific intended use: the hypogeum architecture seems to be a sort of central idea in the "land use." Starting from the prehistoric and protohistoric periods, the hypogeism phenomenon seems to be a peculiar marker of this area. Furthermore, the presence in this rather small area of a great number of these structures (Calaforno, Donnacarmina, Matricedda, and Monte Rotondo) is even more unique, when compared with other Sicilian sites, where such a remarkable concentration of this kind of architecture is completely absent.

3 The hypogeum of Calaforno: researches and architectural features

The hypogeum of Calaforno is located in the south-eastern Sicily, in the province of Ragusa, on the boundary between the cities of Giarratana and Monterosso (c. da Manna), current within the Forest Park of Calaforno, an equipped area useful for the preservation of the landscape as well as its flora and fauna. This area was already known from the archaeological point of view at the end of the 1800s, thanks to the survey of Ippolito Cafici,[27] and was included among the *"meraviglie"* of Giarratana by Antonino Dell'Agli.[28] In the 1970s, Lorenzo Guzzardi[29] started a systematic land survey of the area, identifying two cemeteries and the monumental hypogeum (Fig. 2). The discovery was followed by several publications. Notwithstanding the peculiar characteristics that may make it one of the most important prehistoric monuments of Sicily,[30] the hypogeum has been considered a "minor" site until 2013, when analytical research of this site has began. This trend was caused by the lack of documentation about the entire landscape and a low level of scientific interest that cannot be justified, considering the peculiarity of Calaforno hypogeum. Added to this, is the exclusion of the site from the main tourist itineraries, which also has contributed to the lack of valorisation policies. Hence, it is legitimate to speak of a "rediscovery" of the hypogeum, which occurred in the last years, thanks to the work led by the University of Catania under the supervision of Prof. Pietro Militello and the Superintendence BB.CC.AA. of Ragusa. Many excavations and survey activities have been carried out in order to allow a new reading of the monument and its surrounding landscape: the University of Catania worked inside the hypogeum from 2013 to 2018, while the Superintendence has led since 2016 excavations outside, near the main entrance of the monument. This renewed interest in the hypogaeum has been brought about not only through a series of investigations, but also in the light of a reinterpretation of the entire landscape, particularly after the discovery in 2014

27 Cafici 1878; 1926; 1930–31; Pace 2010.
28 Dell'Agli 1886.
29 Guzzardi 1975; 1978; 1980; 1984; 1996; 2004.
30 See Bernabò Brea 1976–77; Pelagatti 1976–77; Di Stefano 1984; Tusa 1992.

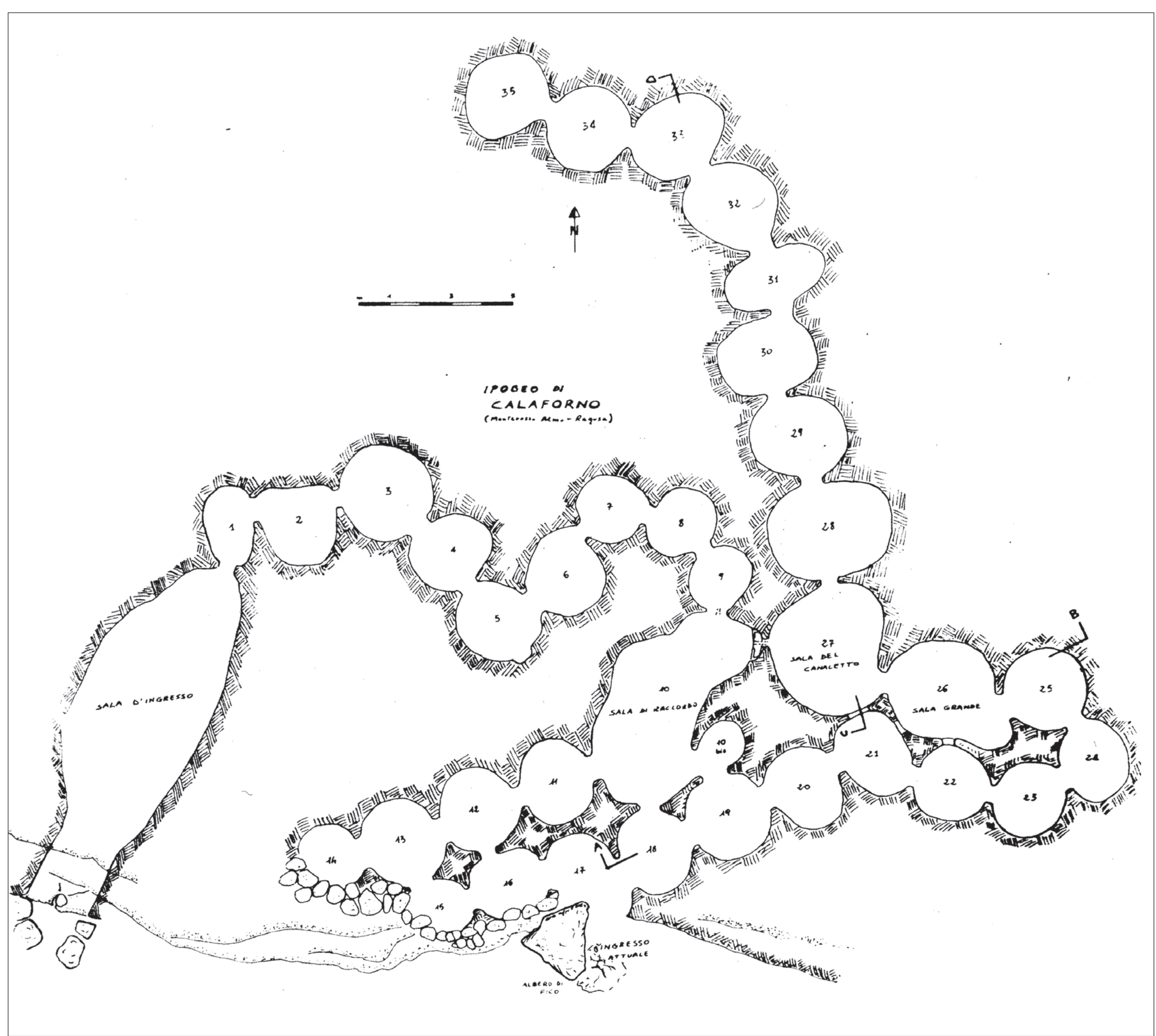

Fig. 2 Calaforno Hypogeum: the first plan (Guzzardi 1980).

of the two-story hypogeum in c. da Matricedda.[31] The new investigation[32] has been undertaken in order to reconstruct the chronology of the construction through the architectural analysis of the monument and the phases of its use, aiming at a clarification of its functional

31 The hypogeum, unknown in scientific literature, has been discovered by Prof. Militello, thanks to a report from a local inhabitant.

32 Exavations in 2013 involved the rooms nos 17, 26, and 19, and in 2017 the main entrance, rooms nos 1, 13, 24, 30, 34, and 35.

aspects. The final report of the investigation results is forthcoming.[33] In this context, it suffices to refer to the information related to the survey activity.

Calaforno is a perfect example of an "a-structural" complex: the hypogeum consists of 36 rooms forming an irregular serpentine route c. 100 m long. Originally, the entrance was a natural cave (c. 12 × 4 m) that might have been used for the extraction of flint. The wide vestibule was provided with a monumental entrance built out of large blocks and a complex dromos structure, now being excavated by the Superintendence.[34] After a period of time, this original access was hidden by a stone collapse, therefore, a second entrance was opened later on SE. The rooms, 35 in total, were built into the limestone rock. They have concave floors and walls slightly curved towards the ceiling, which is perfectly flat (Fig. 3).

Fig. 3 Calaforno Hypogeum, room ceiling and wall shape (photo by the author).

Their dimensions are variable, with a diameter ranging from 1.5 to 3 m, and a height between 1.6 and 1.8 m, except for three connecting rooms (nos 10, 27, and 26) that are wider and slightly higher.

From the architectural point of view, there are two different planimetric sections with different design concepts that suggest the realization of the entire complex over a rather

33 See Militello and Di Stefano 2015; Militello, Sammito and Scerra 2018; Militello forthcoming.
34 See Militello, Sammito, and Scerra 2018.

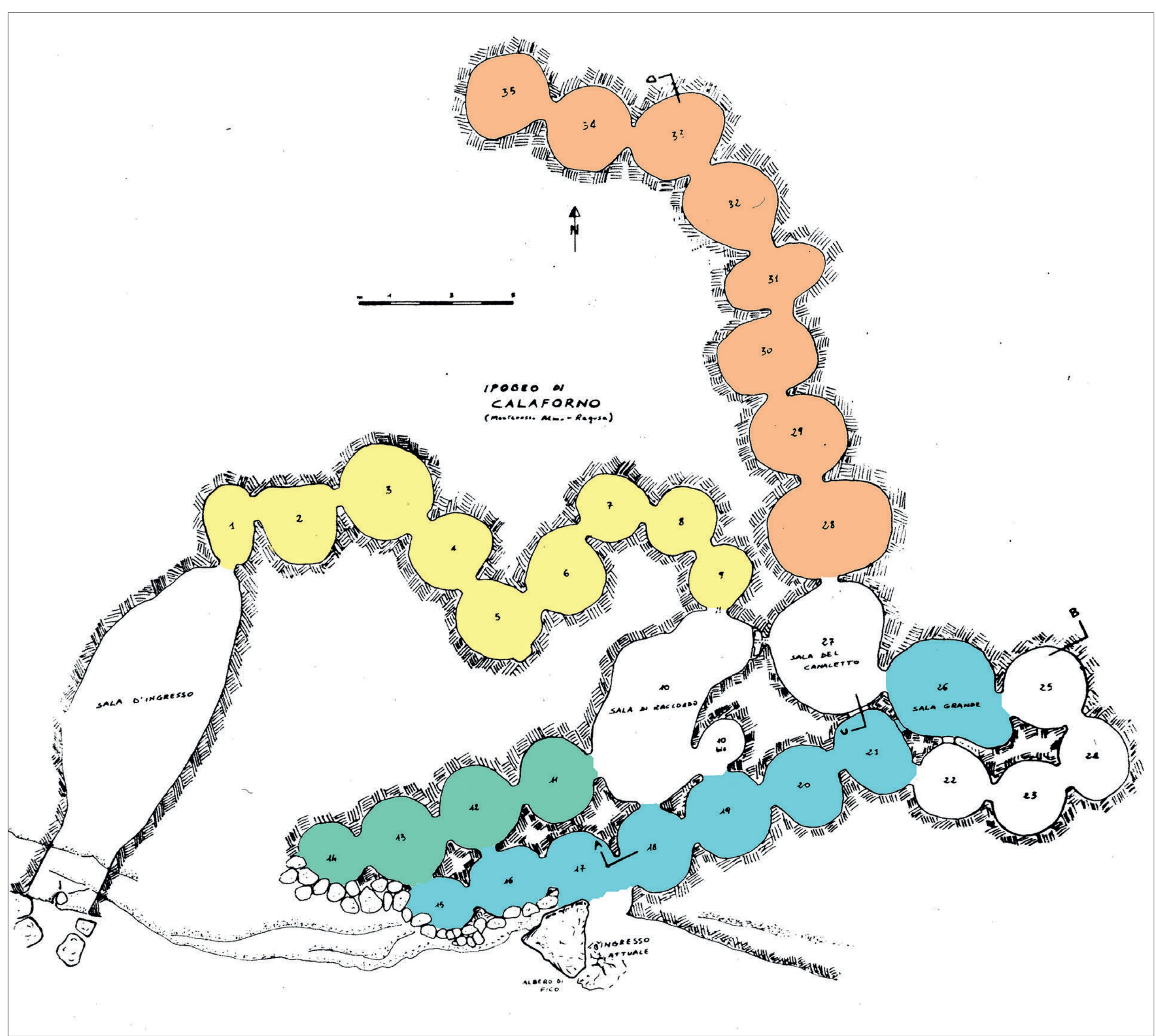

Fig. 4 Calaforno Hypogeum, the different architectural sections: rooms nos 1–9 in yellow; nos 11–14 in green; nos 15–26 in light blue; nos 21–31 in orange (Guzzardi 1980, modified by the author).

long period of time (Fig. 4). The first section was the earliest to be excavated as the nearest to the main entrance (ca. 2700 BCE). It consists of smaller and low rooms (nos 1–9), organized in a serpentine shape. They lead to the first large connecting room (no. 10). The second section includes larger and higher rooms (nos 11–31), connected by rooms arranged in a ring shape (nos 22–5). The construction of the second section implies a more advanced technological level, retaining a main alignment and avoiding interference between different groups. Therefore, is is likely that it resembles a later addition (ca. 2500–2200 BCE).

From the technological point of view, the construction of these rooms was also facilitated by the geomorphologic features, such as the sub-horizontal layers with an alternation of calcarenites and marl, the soft sandy layers which are easily removable. The rooms were dug into these soft layers, while the harder rock layer was utilized to form their flat ceiling. There are different passages between the rooms: some of these reach the ceiling and others are smaller and had to be closed by door slabs (some of them still remain in the rooms), yet it is difficult to reconstruct their original shape. In fact, some of them were clearly reworked or enlarged at a later time. There are also two small windows (between the rooms nos 10, 19; and nos 26, 27) and some pseudo-niches, possibly also added in later periods (Fig. 5).

Fig. 5 Calaforno Hypogeum, architectural features: passages, door slab, windows and niches (photo by the author).

The function and chronology of the hypogeum will be discussed in the forthcoming final publication.[35] To provide a brief summary, its chronology begins from the Late Copper Age (*Malpasso* facies, c. 2700 BCE), when it was constructed, to c. 1000 AD, when it was abandoned due to an earthquake. In this long period, it acquired multiple uses which alternated

35 Militello forthcoming. See also: Militello and Di Stefano 2015; Militello, Sammito and Scerra 2018.

with periods of abandonment. During the Early Bronze Age (*Castelluccio* and *Thapsos* facies), it was used as a burial area. Between the Iron Age (*Pantalica South* facies) and the beginning of the Greek colonization, the hypogeum likely served a ritual function, while during the Greek period it was perhaps no longer accessible. However, recent excavations identified a sanctuarial area in front of the main entrance. From the Late Roman-Early Christian Period, it was partially reactivated as a cemetery. Finally, during the Medieval Period, some of the rooms were used for food storage or as a refuge for animals.

The hypogeum of Calaforno has such unique architectural features that no suitable comparanda can be found in other regions of Sicily, i.e. outside the landscape of Giarratana itself, where the hypogeism is deeply rooted, as it is demonstrated first of all by the hypogeum of Matricedda.[36] Other Sicilian "a-structural" monuments, yet with different functions, are the mines of Monte Tabuto,[37] the polylobate structure of c. da Margione,[38] and some smaller hypogea, such as Torre Mazzarronello,[39] and Malpasso.[40] Analogies can be found only with other hypogeic structures in the Mediterranean, such as the *domus de janas* in Sardinia, the graves of Xjemxia, or the hypogeum of Hal Saflieni in Malta.[41]

4 The technological approach: survey problems in "a-structural" architecture

The technological approach to this archaeological context applies both on the territorial scale and the scale of the monument itself. The creation of a topographical aid with some georeferenced points on the ground, fixed by means of the GPS, was the first step. These were used as reference points for all the survey activities conducted through total station, drone, and laser scanner.

The investigation of the area surrounding the hypogeum was carried out by means of a drone flyover, which allowed us to obtain a larger orthophoto of the area and an image of the hypogeum's immediate surroundings, as well as a Digital Elevation Model (DEM) of the entire area (Fig. 6)[42]. In regards to the monument, the technological approach is focused on solving the problems associated with its architectonical features. In general, a survey of a site with the rock-cut or "a-structural" architecture presents several challenges that do not

36 Militello 2014; Figuera, Gianchino and Żebrowska 2014.
37 Orsi 1898c.
38 Bruno 2002.
39 Guzzardi 1984, 1996.
40 Bernabò Brea 1958, 80–81; Albanese 1988–89; Tusa 1992, 250–52.
41 Evans 1971; Guzzardi 1980; Procelli 1981; Bernabò Brea 1976–77; Giannitrapani 1997; Cazzella 2000; Guzzardi 2008a; 2008b.
42 This work was carried out by Prof. G. De Guidi, Department of Biological, Geological and Enviromental Science, University of Catania.

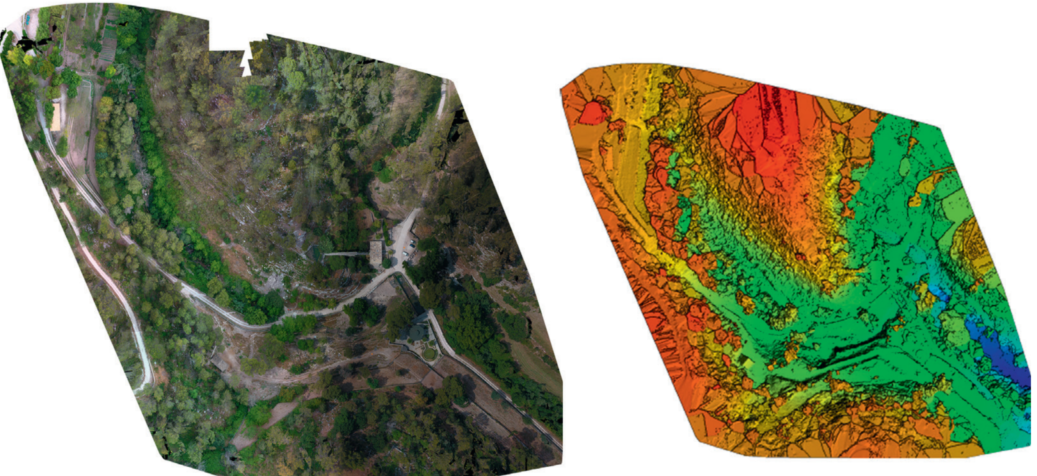

Fig. 6 Orthophoto and DEM of the hypogeum area (University of Catania).

permit a standard approach due to the lack of relevant points of discontinuity and, consequently, difficulties in identification of the section planes to be choosen, which are essential for understanding the monument. Moreover, there are usually practical problems, caused by the narrowness of spaces and the lack of light. The hypogeum of Calaforno has all these features and architectonical peculiarities. The difficulties are linked mainly to the small size of the rooms, their serpentine route, the lack of light, and the presence of rising water in some of the rooms.

5 Laser scanning: scientific purposes

In the case of Calaforno, a 3D surveying with laser scanning was carried out, providing a solution to the aforementioned problems and allowing us to collect a lot of useful archaeological information. The laser scanner is not impeded by the absence of natural light and can be used even in narrow spaces (Fig. 7). The basic aim of the laser scanning of the hypogeum was to obtain a new complete survey of the monument and to verify previously acquired data. It is a fundamental method for resolving a series of scientific problems and provides an effective way to: (1) check the accuracy of the old survey data (Guzzardi 1980); (2) identify chronological articulations in order to verify the presence or absence of continuity in the excavated area;[43] (3) check the alignment of room clusters; (4) document the

43 The long occupation of the site involved various changes from the architectural standpoint, which complicated even more the reading of the monument.

Fig. 7 The laser scanner activity into the hypogeum (photo by the author).

actual state of preservation of the complex in detail, by monitoring the ongoing changes; (5) identify special architectural elements, often missed by traditional surveys; (6) discern traces of working that have been ignored until now. Lastly, the laser scanning provides an opportunity to create a virtual tour of the monument, featuring an immersive visualization. The great potential of this technology is especially evident in a case such as this, due to the challenging aspects of the hypogeum's accessibility.

6 Laser scanning: technical advantages, processing, and post-processing

The laser scanning work was performed by the Garro Technical Office[44] in two processing sessions which took place in 2017 and 2018. The use of this simple and fast documentation technique allows us to obtain a 3D model of the monument, a detailed and accurate reproduction without optical distortions, one which is searchable and editable. The laser strikes

44 I would like to thank Antonio and Salvatore Garro for the collaboration in the fieldwork, which was conducted under hard conditions, and the post-processing stages.

objects in several points, located very close to each other, recording each specific position in space as well as various additional data, such as the reflectivity and the colour provided by the integrated camera. As a result, it guarantees high accuracy and security of data collection and storage as well as completeness of the gathered information.

The laser scanner used in the hypogeum belongs to the last generation, Leica P30, and has specific features which are particularly useful in an archaeological context. Thanks to its technical characteristics, field operations are made easier: its small size facilitates movement in narrow spaces; the integrated, small, and lightweight batteries make manuvering and positioning easy and guarantee a documentation process without interruptions; finally, its Wi-Fi capabilitiy allows remote control of the scanning process, thus improving its mobility. The scanner's capacity to function without the use of targets significantly aided field operations, especially in the context of small rooms, narrow passages, frequent changes of direction, and the total lack of natural light. Furthermore, the integrated camera with high resolution and colour rendering enables obtainment of high-quality images, accurate colours, and thus a point cloud with a realistic visualization.

All these features are essential in such a complex context, which requires survey procedures with a multipoint station. The atypical nature of the monument demands a complex and lengthy traditional survey process and management of a large number of measurements and other data.

The speed, accuracy, and quality of the results exceeded our expectations, notwithstanding the fact that the processing was not free from practical problems. The first challenge was posed by the physically restricted spaces. A further obstacle was the lack of illumination, which was solved by the use of spotlights. However, the main and unforeseen problem was caused by the presence of rising water in a group of rooms, which did not allow us to properly scan two of them, due to the reflectivity of the water surface.

The post-processing was conducted by utilizing the software Leica Cyclone 9.2. Already in this phase, numerous valuable observations were made, relating to the connection between the monument and the surrounding landscape, which enabled a better understanding of the morphology of the rock, its relation to the slopes, various geo-lithological characteristics, etc. The laser scanning has also allowed to join the survey of the hypogaeum to the survey of the surrounding terrain through the ground georeferenced points of the topographical survey.

For obtaining a complete survey of the hypogeum, it was necessary to perform several scanning sessions, one for each room. As a result, many point clouds were created, which resembled data sets useful for extraction of a wealth of information. The first step of the post-processing has been the unification of the point clouds, both external and interior, in order to acquire a complete model.

The 3D view made possible to obtain a general section, providing us with some interesting data, such as the true inclination of the floor of the hypogeum compared to the ground

axis (Fig. 8). Furter, it provided many technical outputs, such as a 3D view of the hypogeum with the roofs of the rooms in transparency, and a view with natural and original colours, based on the reflectivity of the materials detected by the instrument (Fig. 9).[45]

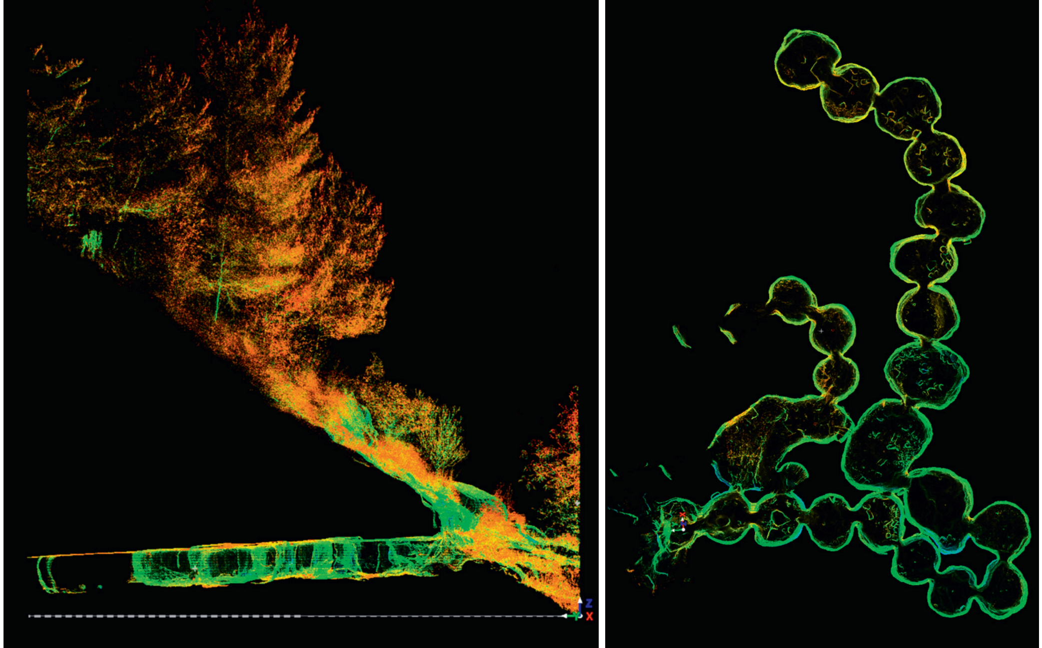

Fig. 8 3D view: general section of the hypogeum compared to the horizontal axis of the ground (post-processing by Garro).

Fig. 9 3D view of the hypogeum based on the reflectivity of the materials detected by the instrument (post-processing by Garro).

Finally, this documentation method enabled us to acquire detailed plans and sections of the rooms with the preferred point section; to obtain information about the colours, shapes, and dimensions of all the elements inside the rooms at the time of the survey; and to highlight details or perform direct measurements (Figs. 10, 11). In the post-processing phase, we produced outputs in macro and micro scales and were able to choose the preferred view and visualization as well as to add further information, graphical elements, and hypothetical reconstructions, etc.

45 Each material responds in a different way to the laser, so the output is characterized by different colouring of the points detected, which makes immediately distinguishable the different types of materials.

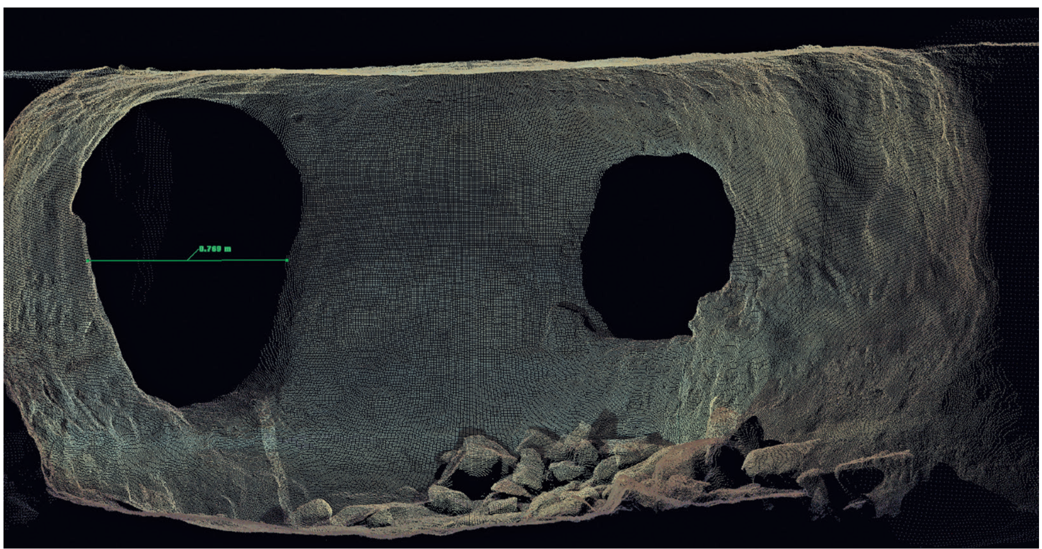

Fig. 10 3D view of the hypogeum and possibility to perform direct measurements (post-processing by Garro).

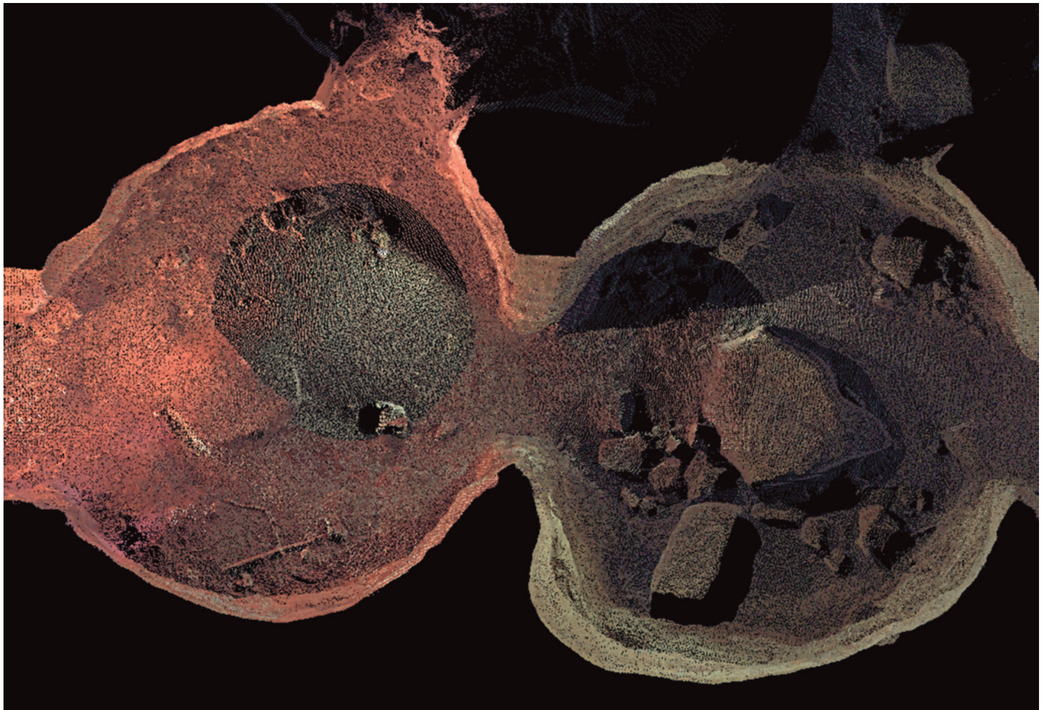

Fig. 11 Rooms nos 18–19 with all the elements present inside the rooms at the time of the survey (post-processing by Garro).

7 Conclusions

The digital solutions utilized in the hypogeum of Calaforno have helped us to achieve both the documentation and communication goals. The laser scanning has been conducted in order to obtain results that record the monument's chronological and architectural variability, to identify special architectural features and traces, and to document the present state of preservation of the hypogeum. All these aims have been achieved following the highest standards of scientific quality. Several valuable scientific results have been obtained. The primary purpose was a review and inspection of the old survey. After its comparison with the results of the new survey retrieved by laser scanning, a number of errors have been revealed. A few of them were associated with the dimensions of individual rooms, while almost all were related to the orientation of the room cluster. The alignment of some rooms has been confirmed, particularly of those forming a part of the second main section of the hypogeum, where the largest and highest rooms are located. These seem perfectly organized in three axial groups (rooms nos 11–14, nos 15–26, and nos 21–31), providing further confirmation to the hypothesis of different construction phases of the monument (Fig. 12).

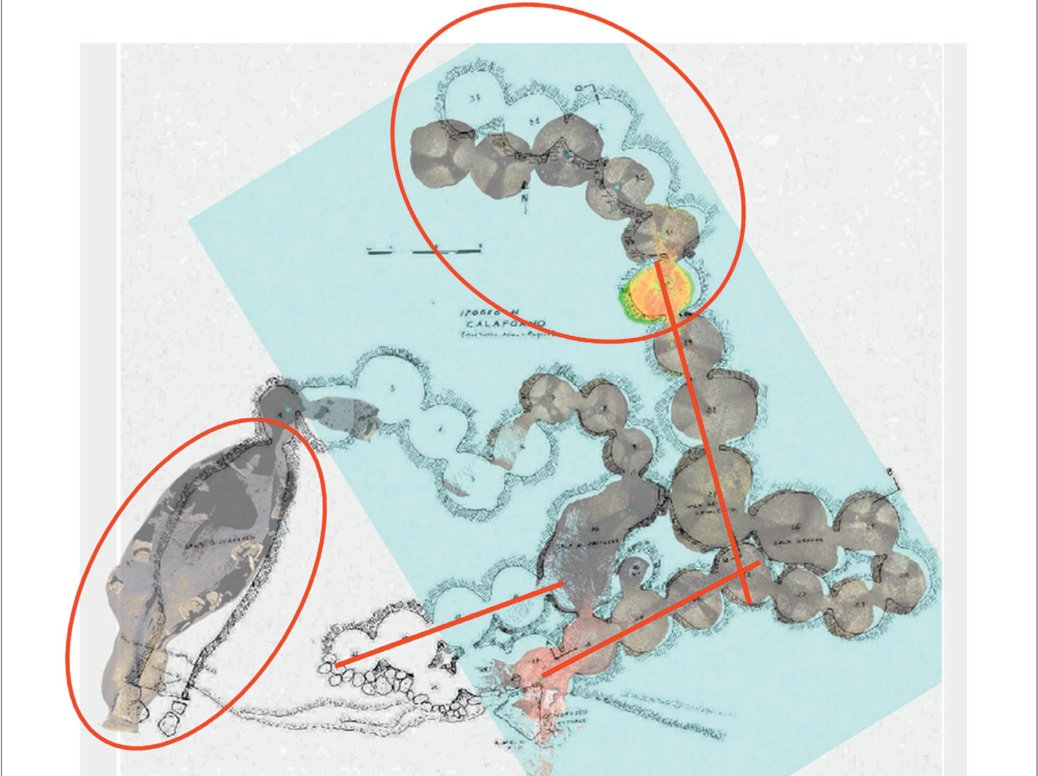

Fig. 12 The overlap of the old (in light blue) and the new survey: dimensional errors and three axial groups (rooms nos 11–4; nos 15–26; nos 21–31) (elaboration by the author).

Another useful outcome was the identification of many traces of working, undetected until now, especially on the ceiling and walls, which were left by the tools during the carving out of the rock for the rooms' construction (Fig. 13). For all the aforementioned reasons,

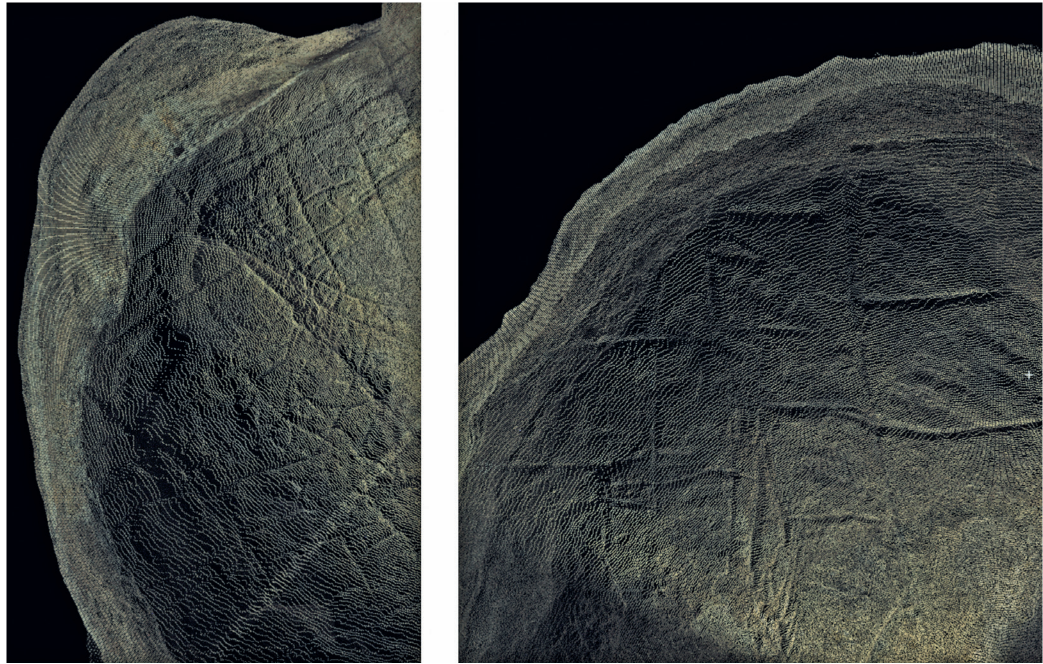

Fig. 13 The traces of work in the ceiling of rooms (post-processing by Garro).

it has been confirmed that laser scanning is an ideal solution to the problems inherent in archaeological surveys of a-structural complexes. Besides having an apparent scientific significance, the digital technologies utilized by the project also possess informative and communicative value. The communication aspect is of extraordinary importance for establishing a proper relationship between archaeology and society, and for safeguarding the cultural and landscape heritage.[46] Our goals have been not only to obtain updated and more accurate results, but also to open new opportunities for the site, which has been labelled as "minor" until this day, and to promote a deeper and more comprehensive approach to the landscape.

From this perspective, communication plays a key role. Thanks to the laser scanner technology, it was possible to create a digital tour that allows people to visit the monument virtually. The virtual navigation through the hypogeum with an immersive visualization

46 Volpe and De Felice 2014, 402.

technology makes the monument remotely visible in two different modalities: one that follows the actual sequence of the rooms and the other that offers a choice of individual rooms to be visited in order to obtain more targeted information. The potential of this technology is especially evident when applied to a monument with a limited physical accessibility, such as the hypogeum.

Another digital product of the project is a video produced with the help of a drone, which provides a valuable experience of immersion into the landscape surrounding the hypogeum. In this particular case, there has been a decline in communication with and education of the wider public and local communities, which led to the long-standing labelling of one of the most important sites in the Sicilian Prehistory as "minor" until now. After the first excavation of the site in 2013, this virtuose monument has become visible to the local communities living on this land. Within a short period of time, they realized with proud the significance of their own archaeological heritage and in 2014 they even organized a permanent exhibition in Giarratana entitled: "Giarratana ed il suo territorio. Storie dal passato".[47] The exhibition's aim is to engage the local communities and promote learning and the proud acknowledgment of their history and heritage by interacting with the exhibited archaeological finds found in the Giarratana landscape.[48]

In the case of Calaforno, which has been considered a "minor cultural landscape", the added value of the digital technology is evident; it made the new reading of the monument and its surrounding landscape possible. The digital technologies have proved themselves to be indispensable tools both for the acquisition of knowledge and for the dissemination of information on multiple levels, from the local to a supralocal scale.[49]

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47 Organizers: Superintendence BB.CC.AA. of Ragusa, Municipality of Giarratana in collaboration with the University of Catania.

48 Panvini 2014, 3.

49 Salerno 2017, 511.

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The Early Bronze Age Funerary Landscape of Calicantone (Sicily): Internal Planning and Visual Features

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Abstract Archaeological research carried out at the Early Bronze Age (c. 2200–1450 BCE) rock-cut chamber tomb necropolis at Calicantone, in southeastern Sicily, unveiled an extraordinary plurality of grave forms and categories of external tomb decoration within a single prehistoric cemetery, as well as the presence of rock-cut infrastructure that facilitated access to the individual tomb clusters. Each sepulchral group presented a different level of elaboration with respect to the tombs' facades and forecourts, while the appearance of small artificial cavities recurred in several sectors of the funerary area. The repeated combination of certain chosen elements within the multileveled cemetery of Calicantone implies that this necropolis was a well-organized complex, characterized by 1) careful planning of its internal infrastructure and 2) a well-ordered system of differentiating tombs. The latter is articulated through a) their location and b) a set of external architectonic features that serve to enhance or diminish the visibility of particular elements and sections of the funerary area.

Introduction

The site of Calicantone is situated in the province of Ragusa, on the western side of the Cava Ispica gorge, c. 8 km north of the city of Ispica in the Hyblaean Mountains of southeastern Sicily (Fig. 1).[1] The Early Bronze Age (hereafter EBA; c. 2200–1450 BCE) site consists of 1) a settlement area located on a plateau c. 370 m above sea level (hereafter a.s.l.); 2) a sprawling necropolis spread over several rocky terraces located below the plateau and also

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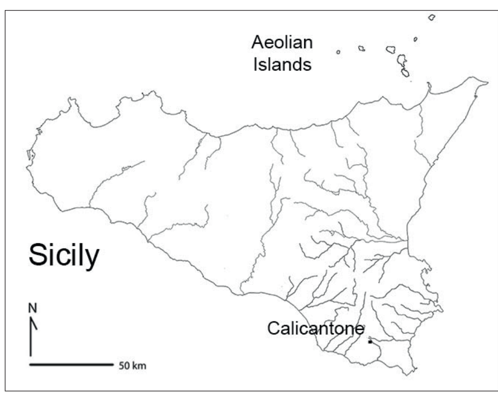

Fig. 1 Sicily: location of the site of Calicantone.

along the edge of the gorge's wall, occupying an area of at least 20,000 m² (c. 100 × 200 m); and 3) an isolated bi-apsidal hut discovered in 2012 between the settlement and funerary zones (Fig. 2).[2] Traces of the prehistoric village (lt: *villaggio-officina*) and its necropolis had been already identified in the 1970s by a local archaeologist, who recognized approximately 80 rock-cut tombs in the area.[3] The necropolis is, in fact, composed of several tomb clusters dispersed along the calcareous cliffs of Cava Ispica and also Piccolo Lavinaro, a smaller gorge located on the northern side of the promontory. Four consecutive archaeological campaigns carried out between 2012 and 2015 resulted in the cataloging of 93 rock-cut chamber tombs

Fig. 2 Plan of the site (courtesy of the Calicantone archaeological mission).

2 Occhipinti 2013; Militello and Sammito 2014, 2015, 2016, (forthcoming a, forthcoming b); Militello 2015, (forthcoming); Messina 2016; Messina et al. (forthcoming); Militello et al. 2018a, 2018b.

3 Picone 1975.

in total, of which 37 have been excavated.[4] The structures located along the steep southern and northern walls of Piccolo Lavinaro (c. 40 tombs) are currently inaccessible. The main part of the sepulchral area lies southeast of the bi-apsidal hut, in a rocky hollow created by curved terraced ledges, and can be easily reached (Fig. 3). Here, the tombs are clustered

Fig. 3 Detail of the necropolis at Calicantone (by the author).

in smaller groups spread over 14 rocky ridges, each one comprising two to eleven funerary units.[5] This article aims to reconstruct the visual structure, or "vision-scape,"[6] of the prehistoric funerary landscape of Calicantone. After summarizing the preliminary results of the aforementioned archaeological research, the spatial and visual features of the various components of the necropolis are discussed. Special consideration will be given to the external architectural decoration of the tombs' facades and courtyards in the central part of the pre-

4 This research was conducted by Prof. Pietro Maria Militello, from the University of Catania, and Dr Anna Maria Sammito, from the Superintendence of Cultural and Archaeological Heritage of Ragusa. Twenty-four tombs were examined in 2012 and 2013, three in 2014, and ten in 2015.

5 Occhipinti 2013.

6 Not to be mistaken with "visualscape", a generic term predominantly used within the GIS environment to refer to the visual structure of the landscape. In that context, it is defined as "the spatial representation of any visual property generated by, or associated with, a spatial configuration" (Llobera 2003, 30).

historic cemetery, and its role and meaning in the construction of this funerary landscape, as well as the way in which the internal infrastructure acts to tie the entire area together.

Approaching the funerary landscape of Calicantone

The notion of "landscape" is complex, capable of realizing a wide range of distinct concepts and possible meanings simultaneously.[7] With regard to archaeology, "the source of variation, of course, is the theoretical stance of the archaeologist."[8] In this paper, landscape is interpreted as the external expression of the geographic environment as shaped through the interaction between natural forces and human activity; it is embedded in the natural space but shaped in a cultural context.[9] Human agency is thus a prerequisite for the appropriation of the natural landscape into the cultural landscape, a process that is influenced, guided, and even curtailed by the preexisting characteristics of the natural landscape. Archaeological landscapes explore the relationships between past social aspects and the environment, while archaeological -scapes remain predominantly social constructs.[10] Funerary landscapes are a particular type of archaeological landscape; investigation of them can reveal the potential ways in which past peoples experienced the spatial components of the funerary realm, thus providing a means through which the phenomenological relationship between the death of an individual and the collective memory of the burial within the community involved in the rite of passage can be examined.[11]

Phenomenology is a relatively new methodological approach in landscape studies.[12] A phenomenological perspective privileges knowledge acquired through the perceptual experience of an individual.[13] Such "participant observation" or embodiment requires the observer to be fully immersed into the surrounding landscape.[14] The key premise of this approach is that landscapes have a certain agency over people. Upon entering an area or visual field, the observer is affected by their perception of its qualities through their body and all of their senses.[15] Immersion in a landscape elicits a multi-sensory and synesthetic experience; for this reason, landscapes can be simultaneously treated as vision-, touch-, sound-, smell-, and taste-scapes.

7 See e.g. Tilley 1994, 22–34; Anschuetz et al. 2001; David and Thomas 2008, 27; Fennell 2010, esp. 1–4.
8 Ashmore 2004, 255.
9 Bernat and Kałamucka 2008, 21.
10 Daróczi 2012, 199.
11 Daróczi 2012, 202 and fig. 1.
12 Thomas 2006, 54; Johnson 2012.
13 See e.g. Tilley 1994; 2004b, 1–31; 2005; 2008.
14 Tilley 2004a.
15 On the use of senses in archaeological research on landscape, see e.g. Day 2013.

Nevertheless, vision remains the primary descriptive tool used by archaeologists to decipher the material structures associated with cultural landscapes.[16] Within the very term "landscape" there is a semantic connection to the sense of vision, which emphasizes its visual aspect.[17] Particular visual elements or features of the landscape—perhaps an aesthetically pleasing panorama that comprises prominent landmarks, common natural forms or both, or conversely the lack of any view or the limitation thereof, or then again the play of sunlight and shade, or the open or enclosed nature of the terrain, etc.—can have a strong influence on human emotions.[18]

In order to understand how the external appearance of the rock-cut tombs structured the funerary landscape at Calicantone, the landscape was first explored using movement, vision, and the other senses. A thorough examination of the tombs was then carried out with reference to their settings, topographic features, and relations with other funerary structures at the site. Finally, these new findings have been placed in the wider archaeological context of the region.[19]

Geographical setting of the necropolis

The necropolis of Calicantone was carved at the edge of Cava Ispica, in the Hyblaean region, an area defined by its unique landform—flat calcareous uplands riven by deep gorges. From a morphological point of view, the Hyblaean Mountains (It: Monti Iblei) form a plateau cut by numerous river valleys, locally denominated as *cave,* running radially from the center towards the coast. The elevation of the plateau does not exceed 1,000 m a.s.l. *Cave* are long, sinuous, deep, and narrow formations bounded by steep rugged slopes; these were generated through erosion and the chemical corrosion of the plateau's main calcareous component, i.e. limestone. Cava Ispica extends for c. 13 km along a north-western/south-eastern axis, between the cities of Modica and Ispica. The gorge varies from 50 to 65 m in depth and 100 to 150 m in width; the landform on both sides does not exceed 300–370 m a.s.l. The gorge is best known for its archaeological heritage, which spans from the prehistoric to the medie-

16 Llobera 2006, 132; Frieman and Gillings 2007, 8. For a critique of visualism, see e.g. Thomas 2008.

17 According to the Collins English Dictionary, the suffix "-scape" indicates a scene or a view, especially a pictorial representation (e.g. a seascape).

18 As exemplified by Alberti's (2018) emotional landscapes approach, where she attempted to reconstruct the sensations provoked by the changing scenery of prehistoric funerary landscapes in Knossos, Crete, by using her vision and her ability to move around the built environment for viewing it from multiple directions.

19 This approach is derived from the method proposed by Llobera (2007, 53) to reconstruct visual landscapes.

val periods and consists of diverse rock-cut structures carved along the walls of the gorge, which served residential, funerary, and ritual purposes.[20]

Archaeological remains

Very few of the funerary structures at the site yielded archaeological material. The bulk of the tombs were found empty—rather unsurprising, given that their accessibility and marked visibility, due to their exposed exteriors, would have attracted looters. Ceramic finds, such as the small-sized vases typical of the Castelluccio culture (e.g. carinated cups, conical cups, hourglass beakers, and one-handled jars with a roughly biconical body), demonstrate that the necropolis dates back to the middle and final stages of the EBA.[21] Seven of the 21 tombs excavated in 2012 and 2013 contained osteological remains that, in total, represented at least 40 individuals; each tomb held between 4 and 13 deceased. Atomic absorption spectroscopy analyses conducted on multiple samples collected during the excavations revealed that the community's diet was based mainly on red meat and was poor in plant-based foods, cereals, and fish.[22] Only 22% of the skeletal remains preserved in situ belonged to infants.

The architecture of tombs

Most rock-cut tombs at the necropolis consist of a chamber, a single antechamber, and, less frequently, a round or oval courtyard cut into the rock immediately before the tomb's entrance. Chamber plans are mostly circular or semicircular (66%), although some have irregular forms (elliptical: 12%; rectangular: 6%).[23] The majority of tombs have domed ceilings (59%); the remainder have flat (33%) or irregularly shaped (7%) ceilings.[24] As for internal furnishings, only 8% of the examined structures were equipped with stone benches (two tombs), carved wall niches (two tombs), or an additional pit sunk into the floor (one tomb). The size of the tombs at Calicantone ranges from 1 to 2 m in length, from 1 to 2 m in width, and from 0.40 to 1 m in height. The entrance shape can be characterized as rectangular-square (87%) or oval (13%).[25] Most of the tombs are fitted with a frontal space—a concave courtyard—for the execution of funerary rites.

20 See e.g. Moltisanti 1950; Di Stefano and Belgiorno 1983; Di Stefano 1997; Rizzone et al. 2004; Rizzone and Sammito 2004, 2010; Picone 2006; Sammito 2014, 2015.
21 Militello and Sammito 2014, 107; Buscemi and Figuera 2019, 470.
22 Sirugo 2015.
23 Occhipinti 2013, 97–98.
24 Occhipinti 2013, 98.
25 Occhipinti 2013, 104.

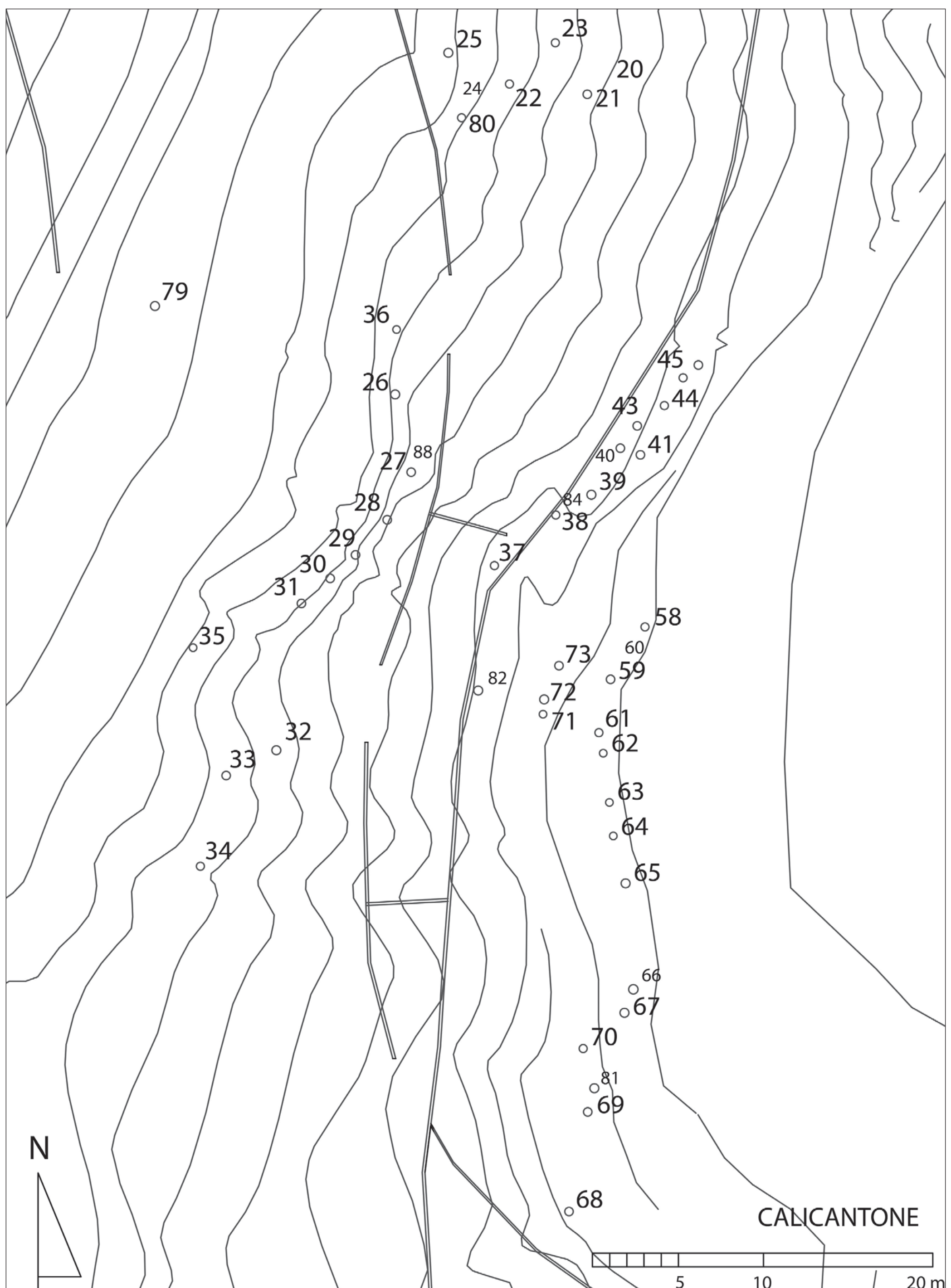

Fig. 4 Plan of the necropolis: distribution of tombs (by the author). In smaller font—niches.

A number of smaller rock-cut cavities accompanying the funerary structures were also identified within the necropolis (Fig. 4). Almost all sepulchral groups were equipped with at least one niche. In particular, the tomb cluster that consisted of two tombs with decorated facades (T. 69 and T. 70) was separated from the others by a cavity (T. 81), which was adjacent to the structure with a well-preserved triple-framed entrance (T. 69). Yet, the shape and finishing of these hollows do not match those of tombs in an inchoate stage of construction (It. *tomba incoativa*—an unfinished tomb, a work in progress). These niches could have been used for a votive purpose, e.g. for the storing of ritual vases, plants, or other perishable materials. The deposit found in the aforementioned cavity (T. 81) consisted exclusively of microlithic flint blades. The presence of votive cavities in the bigger sepulchral groups would imply that these were regarded as independent units within the necropolis, and that they may have been reserved for a select group of people or used over different/limited periods of time.

The lack of well-dated contexts makes it impossible to reconstruct the phases of use for individual tombs and tomb complexes, or establish which groups were used simultaneously.

Visual features of the tombs

The decorated facades and elaborated courtyards of rock-cut tomb cemeteries are the most prominent features of EBA funerary landscapes in Sicily, and an important manifestation of the monumentalization of death.[26] Thirteen out of the 78 tombs located in the main part of the funerary area are distinguished by the incorporation of monumental architectural elements that were cut into their facades and/or courtyards. The repertoire of these decorative features comprises pillars (as observed in T. 73; Fig. 5), false pilasters (T. 31 and T. 26; Fig. 6), and triple frames (T. 32, T. 69, T. 70; Fig. 7) hewn in the rock around the openings. The space in front of the entrance to certain tombs (T. 12, T. 18, T. 37, T. 43, T. 44, T. 45; Fig. 8) is visually marked by carefully polished rock. The dimensions of the facades, which expand horizontally, are variable (1.5 to over 3 m in width; c. 0.5 to almost 1.5 m in height).[27] Decorated facades required more effort in terms of labor expenditure, as opposed to smaller modest units whose execution involved less manual work.

The necropolis also includes a few monumental complexes comprised of several tombs with a shared courtyard. *Tomba del Principe* ("The Prince's Tomb", i.e. T. 73) and the two adjacent funerary structures (T. 71 and T. 72) are situated on the same terrace and share what would normally be considered a large forecourt (Fig. 9). Similar examples of such multi-tomb complexes with a common courtyard are known from other EBA necropolises

26 Crispino and Cultraro 2015, 211; Giannitrapani 2018, 376.
27 Occhipinti 2013.

Fig. 5 Tomb T. 73 with pillared courtyard (courtesy of the Calicantone archaeological mission).

Fig. 6 Tomb T. 31 with false pilasters (courtesy of the Calicantone archaeological mission).

Fig. 7 Tomb T. 69 with triple frame cut around the entrance (courtesy of the Calicantone archaeological mission).

Fig. 8 Tomb T. 37 with polished facade (courtesy of the Calicantone archaeological mission).

in the area, e.g. in Cava Gesira or Cava Ternulla,[28] and elsewhere, e.g. in Cava Baratta near Augusta.[29] The entrance area of T. 73 is also the only known example of a pillared courtyard in the vicinity of Cava Ispica. Similarly elaborated facades can be found elsewhere, e.g. among the famous tombs of Castelluccio.[30] As for the other types of monumental decoration, false-pilasters are known from the northern part of Cava Ispica, from Baravitalla.[31] In various other cemeteries along the gorge, the tomb entrance may be delineated by a rock-hewn frame, e.g. at the Early to Middle Bronze Age (the MBA extends from c. 1450 to 1250 BCE) necropolis of Scalepiane, situated on the same side of the gorge, c. 2 km south of Calicantone.[32]

Fig. 9 Plan of *Tomba del Principe* tomb complex (courtesy of F. Buscemi). From the left: T. 71, T. 72, and T. 73.

28 Belluardo and Ciavorella 1999, 26; Rizzone and Sammito 1999, 53.
29 Lanteri 1994, 12.
30 Orsi 1892.
31 Di Stefano and Belgiorno 1983, 34–38.
32 Rizzone and Sammito 2002, 140.

Elements of internal infrastructure

The external appearance of the tombs is not the only component of what appears to be a careful planning process. In some groups, traces of rock-cut steps were identified; these are still visible in the rocky slopes.[33] Taking into account the effects of erosion at the site, it cannot be excluded that further infrastructure of this type, e.g. enabling access to particular tombs, may have existed within the boundaries of this prehistoric cemetery. Exceptional is the case of an isolated tomb (T. 12), equipped with a rock-cut corridor and a series of steps facilitating access to its courtyard. In addition, peculiar rock-cut canals were discerned in front of the two tombs within the above-mentioned complex of *Tomba del Principe* (T. 71 and T. 72). Given the degree of erosion and water accumulation in the tombs, there was a clear impetus for the construction of a drainage system at the site.

Discussion

The main part of the cemetery is easily accessible and internally well-connected through a system of stairs and paths running along the terraced slope. A number of smaller tombs with undecorated facades were carved in less "attractive" or less "inviting" locations—along the lowest edges of the main sepulchral area and in a few hard-to-reach spots.

The funerary monuments that were intentionally made to stand out, i.e. those enhanced with decorative facades (T. 26, T. 31, T. 32, T. 37, T. 43, T. 44, T. 45, T. 73), are concentrated in the central area of the main part of the necropolis and spread over three different levels. It seems that particular types of architectural decoration were confined to specific zones within the funerary area: triple-framed entrances occur only in the southernmost clusters (T. 32, T. 69, T. 70); plain facades are restricted to the northeastern group (T. 37, T. 43–45); pilasters appear exclusively on the highest central terrace (T. 26, T. 31), and the pillared court also lies on the central terrace (T. 73). Carved on the same level/terrace at some distance from the pillared court is the tomb complex consisting of two tombs with triple-framed entrances (T. 69 and T. 70) and a niche (T. 81). Thus, many complexes contained one or more visual focal points, most of which were located in the center of the hollow. This section of the necropolis has the strongest visual impact on the observer. The visual focal point was built up in the center of the hollow, around the axis passing through the facades or courtyards of tombs T. 26, T. 37, and T. 73, and was emphasized by the presence of different types of external monumental decoration (from top to bottom: false pilasters, smoothed blank-framed facades sunk into the wall, and the pillared courtyards).

33 Militello and Sammito (forthcoming a).

The cemetery extends over a curved hollow whose terraces form an amphitheatrical setting; however, the orientation of the tombs' entrances and the difference in height between the respective terraces, due to the uneven surface of the slope, makes it impossible for the observer to view all the clusters simultaneously. For instance, a participant in a ceremony carried out in front of the decorated tomb complex T. 69–70 would only be able to see the facades of the above plus the rocky slope in the background (Fig. 10). The multi-terraced

Fig. 10 The view of the southern tomb complex containing, from the left: T. 69 with the adjacent cavity (T. 81) and T. 70 (by the author).

character of the terrain means that the necropolis naturally divides into smaller segments, each with its own visual focal point; therefore, different observation points located at various heights on the terraced slopes offer distinct views of the necropolis and the individual funerary structures. It would also be physically impossible for an observer to gaze over the entire necropolis while moving around it.[34] The visual field of the human eye broadens with

34 The visual range is limited to the maximum human visual field, which depends on the structure of the eye and the position of the head (Paliou 2011, 254 and 256, fig. 6 with references).

Fig. 11 Central part of the Calicantone necropolis seen from the south (courtesy of S. Balistri).

Fig. 12 The panoramic view from Calicantone towards the coast (by the author).

increasing distance from the object under observation with a concomitant loss of detail so that, in this case, the elements of the rock-cut architecture would eventually be no longer discernible.[35] At Calicantone, the central part of the necropolis is almost completely visible from a distance, e.g. from the southern end of the intermediate terrace (Fig. 11). Particular elements will fill in the spectator's range of vision (which is an elliptical cone), while smaller details will be distinguishable only when the viewer is close enough to observe them.

Recent research has shown that the village and the necropolis were not intervisible, whereas the bi-apsidal hut was visible from both of these vantage points;[36] there are reasons to assume that this structure may have been an important symbolic landmark—a reference point in the landscape—or that it may have served to demarcate the world of the dead from the world of the living.[37] Both the village and the necropolis offer a similar panoramic view of the landscape, encompassing the gorge, a fragment of the valley, a vast portion of the tableland stretching away on both sides, and—further towards the horizon—the sinuous outlines of Cava Ispica and the sea (Fig. 12).

Concluding remarks

The multileveled EBA sepulchral area of Calicantone consists of the preexisting natural landform and a cultural overlay carved into it by the inhabitants of the prehistoric village. The slope at the edge of the Cava Ispica gorge, characterized by an amphitheatrical setting unfolding across multiple terraced levels and rocky ridges, was appropriated to fulfill the function of a necropolis. The structure of this funerary landscape was thus shaped by two intertwined elements: the natural substrate with its inherent characteristics, and the superimposed architectural layer with its visual features.

In terms of internal planning, the complex was organized around multiple levels of the rocky hollow and equipped with the necessary infrastructure to facilitate movement around the cemetery. Among the amenities was a network of paths and rock-cut steps, which possibly connected consecutive terraces and granted access to individual tombs/groups of tombs.

The introduction of facades and courtyards embellished with different types of monumental decorative elements that were purposefully divided into clusters shaped the visual structure of the local funerary scape. Triple frames and false pilasters carved around the tombs' openings, smoothed facades, and the unique pillared forecourt intensified the visual

35 Concerning the angle of elevation and thresholds of vision, see Letesson and Vansteenhuyse 2006, 93–94 with references.
36 In the case of the necropolis, the hut was visible from its uppermost level at least.
37 Buscemi and Figuera 2019, 477–78, fig. 13.

impact of the tombs on the landscape. Although these visual focal points were dispersed across the necropolis, the disposition of tombs with additional architectural details along a vertical axis in the central part of the hollow indicates centralization; the deliberate accumulation of eye-catching elements on the structures enhanced the visibility of this sector.

The existence of visually differentiated tombs within different clusters of the necropolis might have reflected the social organization of the community. Militello and Sammito estimate that the village comprised around 1120 individuals across a span of c. 300 years, which amounts to 112 people per generation; they inhabited 14 huts, each accommodating 8 individuals (grouped as families, clans, or other?). Thus, the number of tomb clusters would match the number of social groups that formed the prehistoric community of Calicantone.[38]

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38 Militello and Sammito, forthcoming a.

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Part II: Interpreting Archaeological Landscapes

Archaeological Landscapes as *Landscape Commons*

A Learning Experience: The Landscape Project for the Enhancement of an Archaeological Site between Etna and the Sea

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Abstract The landscape design is a tool that addresses both questions of spatial planning posed by public authorities and of improvement of the inhabitant's quality of life. This is shown on the experimental field of an educational experience focused on the revitalization of an archaeological site on the slopes of Etna in Sicily. Approaching the landscape project as a sensitive experience, the design simulation is centered on the search for the elements—evoked by the European Landscape Convention—that constitute the identity of the place. The analysis of these elements has the potential to enhance the relationship of the local people with their territory and improve their life conditions. From this perspective and on the basis of this approach, landscapes and their resources can become local and global common goods that can be passed on to future generations. The present paper presents the results of a workshop's experience at the University of Catania in 2017 as well as the theoretical framework that fed them.

Landscape and design. Definitions and theoretical framework

Landscape design concerns the relationships between man and the environment. It can address these relationships by physically intervening on their material and geographical dimension or by changing their perception by the inhabitants. This means that landscape design does not necessarily imply the creation of new signs on the territory but can be limited to defining the policies and economic dynamics that govern its transformations. On the other hand, there are disciplines, such as economics, geography, or ecology, that are interested in the landscape as an object of scientific study, without attempting, in most cases, a

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space transformation project. The latter can only be realized in the case of disciplines dealing with space, such as architecture or urban design. However, it is correct to speak also of a project: even pure knowledge in the landscape is in itself a project, because it is able to activate processes of recognition and care of local identities or *inventive conservation.*[1] A project about the landscape, in fact, cannot be reduced to a simple spatial determination but must always use the knowledge (ecological, social, cultural, artistic, etc.) deriving from various disciplinary fields in order to promote awareness by the inhabitants and orienting the physical-spatial transformations. The contents of the scientific disciplines dealing with the landscape thus flows into the notion of landscape as a project.

Working on the relationship between man and his territory, the landscape design *stages* the identity characters, with the aim of modifying and improving the social representations that the inhabitants build of that place. The landscape design, therefore, in line with the principles established by the European Landscape Convention (Florence, 2000), collects the aspirations of the inhabitants in relation to their living environment and makes them the driving force behind the actions that will condition the future of the places. The landscape design should be understood, in other words, as an intention to arrange the space that takes charge of the material and immaterial becoming of a territory to improve its habitability.[2]

This approach is rooted in the theoretical debate on the notion of landscape, focused on the double dialectic articulation between subject (observer, inhabitant) and object (environment, territory) on the one hand, and between tangible and intangible elements on the other.[3] The landscape is linked both to the intangible dimension of representation and to reality beyond representation.[4] As a result, the landscape is, on the one hand, a set of signs to be deciphered: the visible tells a story, a reality that has to be interpreted and is itself an integral part of the observed landscape. On the other hand, however, the landscape cannot be reduced to a simple representation. It has a physical dimension, linked to the way man organizes the natural spaces to live in the world. This "realist" position belongs mainly to architects, landscape and urban planners, and not, for example, to art historians or philologists.[5] It therefore belongs to all those who have a relationship with the landscape that is directed towards the intervention and the project. On the other hand, the growing interest in the influence of the materiality of space on its perception and, consequently, on its

1 Donadieu 1994, 51–80.
2 Donadieu 2006, 85.
3 A fertile discussion was animated by the team gathered around Bernard Lassus and Augustin Berque in the 1990s. The founding concepts are collected in the book—conceived as a glossary—entitled *La Mouvance: du jardin au territoire, cinquante mots pour le paysage* (Berque et al. 1999).
4 Alain Roger has developed the concept of *artialization* as a cultural process that allows the landscape to be created from the "land" through an artistic representation (Roger 1987).
5 Besse 2008, 95.

representation, has brought scientific reflection on landscape into the field of phenomenology. A forerunner of this posture was Augustin Berque, who introduced the concept of *médiance*[6] as a *sense of the human milieu*—whereas the word sense refers to the meanings and sensations of the living body but also to the objective material tendencies of the environment in question.[7] We can therefore speak of a *phenomenology of landscape,* in which the word landscape indicates "the relationship that human beings have with space; a relationship that is both corporeal and existential".[8]

The landscape is, therefore, more than a visible representation of reality, belonging to the realm of feeling; it is "participation in" and "extension of" a state of mind (*Stimmung*).[9] In this approach, inspired by the phenomenological philosophy of Husserl, Heidegger, and Merleau-Ponty, landscape is understood as a complex sensory experience that concerns the existential dimension of the relationship between man and the world and not only visual representation. Everyone who perceives the landscape through its culture and nature establishes a *meaningful relationship* with the environment. The landscape can therefore be also understood as a procedural reality, a product of the interaction between the culture and the *affordances of* the place.[10]

Landscape commons: between resources, heritage, and human rights

This frame of reference, in which the idea of landscape is closely linked to the ways in which man perceives, interprets, and therefore inhabits the world, shows the importance of the effect of landscapes on the quality of life of the inhabitants and their significance as a matter of collective interest. The role of the landscape as a resource for individual and social well-being has been clearly affirmed by the *European Landscape Convention of Florence* (2000), which considers the landscape that covers the entire visible territory—and not only the portions affected by historical-artistic heritage or views of particular beauty—as an important contribution to the public interest, in cultural, ecological, environmental and social terms.[11] Landscapes conceived as resources (physical or intangible) invested by a system of historical, cultural, and identity values of places—i.e. values that are not linked to the uses or usefulness of the resource—thus become *commons.* As Pierre Donadieu pointed out: "Applying the notion of commons to landscape implies mobilizing both meanings: the resource (material and perceived) and the value (as recognized in the judgement that accompanies

6 Berque et al. 1999, 74.
7 Berque 1999, 58; 2006, 42.
8 Dastour 2011.
9 Besse 2008, 98.
10 Menatti 2014, 253.
11 *European Landscape Convention,* Florence 20.10.2000, Preamble.

perception)".[12] When non-utilitarian values are discovered by communities, landscapes are no longer resources to be exploited by someone, but become a necessity of communal interest:[13] stakeholders are involved not only for protecting their interests of use but also and above all for promoting their values.

Today, landscapes are the object of enquiry by different disciplines because they respond to general human, social and psychological, as well as political needs, insofar they can be considered not only as commons, but also as places for the construction of *communing*.[14] In this regard, Jean Marc Besse notes that the sensitive experience of the landscape is part of the commons "as an expression of human history in the diversity of its aspects".[15] Talking about the landscape in terms of common good, however, does not only mean looking back in time but also cultivating a vision of the future, by caring for the community in the temporal perspective of its growth. This is what Salvatore Settis observes, comparing the common good to the *publica utilitas,* the general interest, which was still very much alive in the consciousness of all of us a few decades ago, promoting a system of civic values that for centuries each generation handed down to the next.[16] Therefore, the idea of the landscape as a common good brings with it a perspective of perpetuation of common values. Landscape as a common good means thus, according to the definition given by Pierre Donadieu, "a resource that is perceptible and accessible to all in the governance of its transmission with multiple actors".[17] More generally, "any perceptible material space that is judged (and sometimes claimed) with moral values, as well as aesthetic (beautiful/ugly) or multisensory, from a collective and not just individual perspective"[18] is a landscape common.

Finally, it should also be remembered that it is legitimate to claim the landscape as a human right, not only in situations of conflict but also in daily life: there is a fundamental right to the landscape considered as the right to a healthy and culturally rich environment, to an ecologically complex entity, where all living beings can live together in harmony, and finally to a framework that can welcome and guide the pursuit of individual and collective aspirations and to make human rights effective.[19] This right was affirmed by the 2012 UNESCO Florence *Declaration on Landscape,* which states that "the landscape is a common good and the right to the landscape is a human necessity".[20]

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12 Donadieu 2014, 24.
13 Gerber and Hess 2017, 708–32.
14 Besse 2018, 5.
15 Besse 2018, 8.
16 Settis 2013.
17 Donadieu 2014, 28.
18 Donadieu 2014, 25.
19 Menatti 2017, 680.
20 *Florence Declaration on Landscape,* Final Declaration of the UNESCO International Meeting on the International Protection of Landscapes, Florence, 2012.

The right to landscape in Italy is enshrined in the 1948 Constitution, the first in the world in which the protection of the historical-artistic heritage and landscape is one of the fundamental principles of the State (art. 9). This statement of the Constitution, inspired by a vision of cultural and patrimonial landscape, must be read today in combination with another fundamental right, that to health (art. 32).[21] Together, they can represent a more complete interpretation of the right to landscape to be claimed today, which can also include environmental and ecological issues.[22]

From this perspective, the challenge of a landscape project is the co-production of landscapes as qualified living environments desired by inhabitants and economic actors, with or without the participation of public authorities. A landscape project is always oriented to the conscious management of the territories, according to different scales of space and time, as well as to the ability to trigger or reactivate historical, cultural, ecological, and functional relations within a specific geographical range. In other words, it tends to make environmental resources accessible and exploitable and to promote the attribution (or rediscovery) of values shared by a community, i.e. to produce landscape commons. In fact, the inhabitants, as active agents in the co-production of landscapes, produce interpretations of landscapes that can also be in conflict with each other and yet do not allow, on their own, the birth of a common good. It is the awareness of a responsibility to share that initiates the emergence of the common among the actors of the becoming of local landscapes.[23] The creation of common goods is a matter of social awareness and legitimacy and a landscape project can be a tool to trigger such processes of creation. This gives rise to a notion that integrates the *government of the territory and the transmission of a heritage.*

Landscape and archaeology project

From this perspective, in which a landscape project is considered a tool capable of articulating the past and future of a territory or site,[24] an important feature of the landscape emerges. It is its temporal depth. Historical landscapes are containers of memory for the populations and can be read as palimpsests, precious documents that testify to the reader (inhabitant, specialist, or visitor) the transformations, tumultuous or peaceful, that took place in the short and long term.[25]

Local identity is deeply marked by such transformations, which do not always leave clearly visible traces. The acceleration of communication and the diminishing of distances

21 Settis 2013.
22 Menatti 2017, 669.
23 Donadieu 2018, 121–29.
24 Donadieu 2012, 241.
25 Matteini 2008, 85.

caused by technological progress have led to a growing separation of time and space, as prophetically stated by Giddens.[26] The consequence is a sort of loss of places, a disconnection from them of the settled communities, a deterritorialization determined by the increasing virtualization that affects their lives.[27] Therefore, the acknowledgment of the traces of historical landscapes in order to piece together them into a readable narrative through a landscape project is a challenge that allows us to give places their identity back, defending them against the homologating tendencies of globalization, marginalization, and loss of values.

Archaeological sites benefit particularly from this approach. It has been seen that the museification of those elements of a territory that possess patrimonial importance is not sufficient to re-establish the kind of relations with the communities which are indispensable for the re-signification of the same assets in contemporary contexts of use. As noted above, an action of social appropriation is necessary so that these assets can be understood, in a shared way, as common goods. For this purpose, it is useful to start from their sensorial rediscovery, by reactivating their relationships both with the environmental context that fosters them and with the other components that determine the distinctive features of the landscape as a whole. Considering the archaeological heritage not only in itself, as a set of goods, but also inserted in its landscape context, it is possible to reinforce the attribution of non-utilitarian values and reveal its status as a common good. In doing so, archaeological heritage can be rediscovered as a culture and identity resource for the territory. The relational approach to the project of landscape valorization of the archaeological heritage favors the reconstruction of a historical narration of the territory that does not limit itself to a linear and diachronic retracing of the events but tends to a systemic and complex interpretative reading. Through the landscape approach to archaeological territories, it is possible to take into consideration not only the visible features and the archaeological potential, but also the *archaeological intangible,* i.e. those connections that bind a *memory good* to its users, to the ways of use, and especially to the culture and the society that generated it.[28] Moreover, the landscape helps to put together "fragments" of heritage even from very distant eras, enhancing latent links and spatial and temporal relations.

Archaeological landscapes have therefore an apparent relevance to the question of landscape commons: being a specific expression of past historical eras, they can become territorial centers of accumulation of values and sense for the reactivation of processes of appropriation and local development, through a project that combines the diffusion of heritage with the quest for the well-being of local communities.

26 Giddens 1994, 28 and 110.
27 Levy 1998, 18.
28 Martelliano 2014, 173–74.

The case study. The unbuilt spaces between Etna and the sea and the archaeological site of *Santa Venera al Pozzo*

The archaeological site of Santa Venera al Pozzo in Aci Catena, that we want to illustrate here in its essential lines, was the focus of the "learning experience" for the students participating to a workshop in Catania Santa Venera. It is part of a territory dominated by the presence of Etna, the highest active volcano in Europe. Located on its eastern side and overlooking the sea, the archaeological site is the most representative example of a system of ancient settlements between the mountain and the sea. The seaward region that welcomes it has urban settlements alternating with enclaves of agricultural land, partly abandoned, and crossed by a network of historic paths that connect ancient rural villages, dotted with churches, whose bell towers soar in the landscapes overlooking the sea. Even today, the presence of water in various forms (including sulphurous springs) marks the region through vegetation, crops, and the signs of man's work; it also explains why this area has been inhabited since prehistoric times.[29]

Although it is a site of minor importance compared to other more significant sites in eastern Sicily, it possesses some features that make it a site of certain interest in several respects. Archaeological excavations have brought to light finds from the Greek and especially Roman times, including numerous kilns for the production of pottery, new parts of the building of a wellness center (spa) and even traces of a palace with mosaics.[30] The monumental presence of the spa building has stimulated numerous artistic representations that show how the *ambiance* does not seem to have changed today. The site has been protected from the threats of urban expansion thanks to its geomorphological configuration. It is physically isolated: archaeological remains seem to nestle in the heart of the agricultural landscape of terraced citrus groves, around which only few or no traces of urbanization are visible, despite the galloping urban growth of neighboring towns close to its borders (Fig. 1). While these conditions can be considered an asset, they also reflect a lack of ties with the surrounding area as well as with the inhabitants and visitor flows. Preservation policies, through the imposition of restrictions and the establishment of parks,[31] have not been helpful in breaking this isolation and could not trigger processes of social appropriation of places. The archaeological site is very little frequented by the inhabitants of the surrounding municipalities and, despite its historical and cultural importance, is not indicated in the

29 Bella 1999.
30 Branciforti 2006.
31 Recently the new Archaeological and Landscape Park of Catania and the Aci Valley has been established (2019). It brings together numerous archaeological sites under a single management and protection structure which, at least nominally, aims at an integrated management of archaeology and landscape.

Fig. 1 View of the roman baths and the church of Santa Venera al Pozzo surrounded by the agricultural landscape

tourist circuits. It is not accessible by public transport and not properly equipped for receiving visitors. These are the main problems in the valorization of this case of public heritage.

The 2017 workshop. Methodology and results

Organized as part of a course dedicated mainly to the construction and technological aspects of architecture and conceived as an immersive and intensive experience, the workshop *Architecture, Archaeology, Agriculture. Landscape as a project tool,* held in Catania in 2017[32], was conceived as an initiation for architecture students to the landscape project. For this purpose, the archaeological site of Santa Venera al Pozzo was chosen as a testing ground. The "initiation" consisted, on the one hand, in providing students with the means to compile a common vocabulary among the different fields of interest involved in the landscape

32 Catania, March 31st–April 7th. The workshop was organized with the support of the Department of Civil Engineering and Architecture of the University of Catania. Special thanks are addressed to Pierre Donadieu, for taking part in the activities and guiding the students with generosity and commitment.

project: agriculture, ecology, archaeology, planning, architecture, etc.; on the other hand, in the direct field experimentation of the objectives and aspects of a landscape design as well as of the transdisciplinary complexity that enriches it. Mastering the *crossing of scales* (to use an expression of landscape architect Michel Corajoud),[33] immersing oneself in the dynamics of the agricultural world, and coordinating the different disciplinary contributions into a global vision of the project, are some among the main skills that was important to trained during the workshop.

The landscape has been approached as a sensorial experience. The site survey allowed us to search for the perceptible elements—evoked by the *European Landscape Convention*—that are able to fabricate the identity and singularity of the place (Fig. 2). These same elements and the emotions they evoke among the inhabitants are the basis of the collective perception of the landscape. They contribute to the construction of a *shared subjectivity* from

Fig. 2 The site survey with the guidance of the park director

which one can understand the *general interest* to which the community aspires. The role of the project, therefore, has been to transform the shared recognition of these elements into *federative concepts* for the re-appropriation and reorganization of the site at multiple spatial

33 Corajoud 2000.

and temporal scales. The project has been designed as an open tool: in a diachronic perspective, if a process of involvement of local communities begins, it is possible to conceive the work done during the workshop as the first stage of a development towards a generation of landscape commons.

The sequence of the design simulation traced the phases of a real landscape project. First of all it was necessary to identify the characters of the landscape in different categories (visual/sensitive, territorial, environmental, social, patrimonial). Through a sensorial immersion (*careful walks*) at the site, and trying to forget scientific knowledge, the students attempted to appropriate (symbolically) the places in search of a more personal knowledge; then they associated this sensitive approach with the study of physical elements and technical documentation for defining the entire geographical, territorial, environmental, and patrimonial framework in question (Fig. 3); finally they confronted the stakeholders of the site

Fig. 3 A moment of classroom work in the workshop

(farmers, archaeologists, public authorities, etc.) both for integrating their point of view in the analysis and project perspectives and for presenting to them, at the end, the project proposals (Fig. 4). In the following steps, the cognitive framework has been considered in its becoming, in an attempt to understand in which direction the site is transforming itself today. The aim was to identify the important issues and formulate precise questions to which the project should give answers.

Fig. 4 Presentation of workshop outcomes to stakeholders

The strategic vision that was subsequently elaborated starts from this framework of sensorial, technical-spatial, and sociological knowledge thas has been interpreted dynamically. It has not been limited to realistic hypotheses, which would risk directing the project towards short-sighted choices; the prediction of the future of the site has also been subjected to utopic assumptions that are considered important, because they are carriers of changes and able to go beyond the limits of the dominant thought, favoring innovation (Fig. 5).

Fig. 5 Workshop output: landscape design/storytelling through the federating theme of countryside

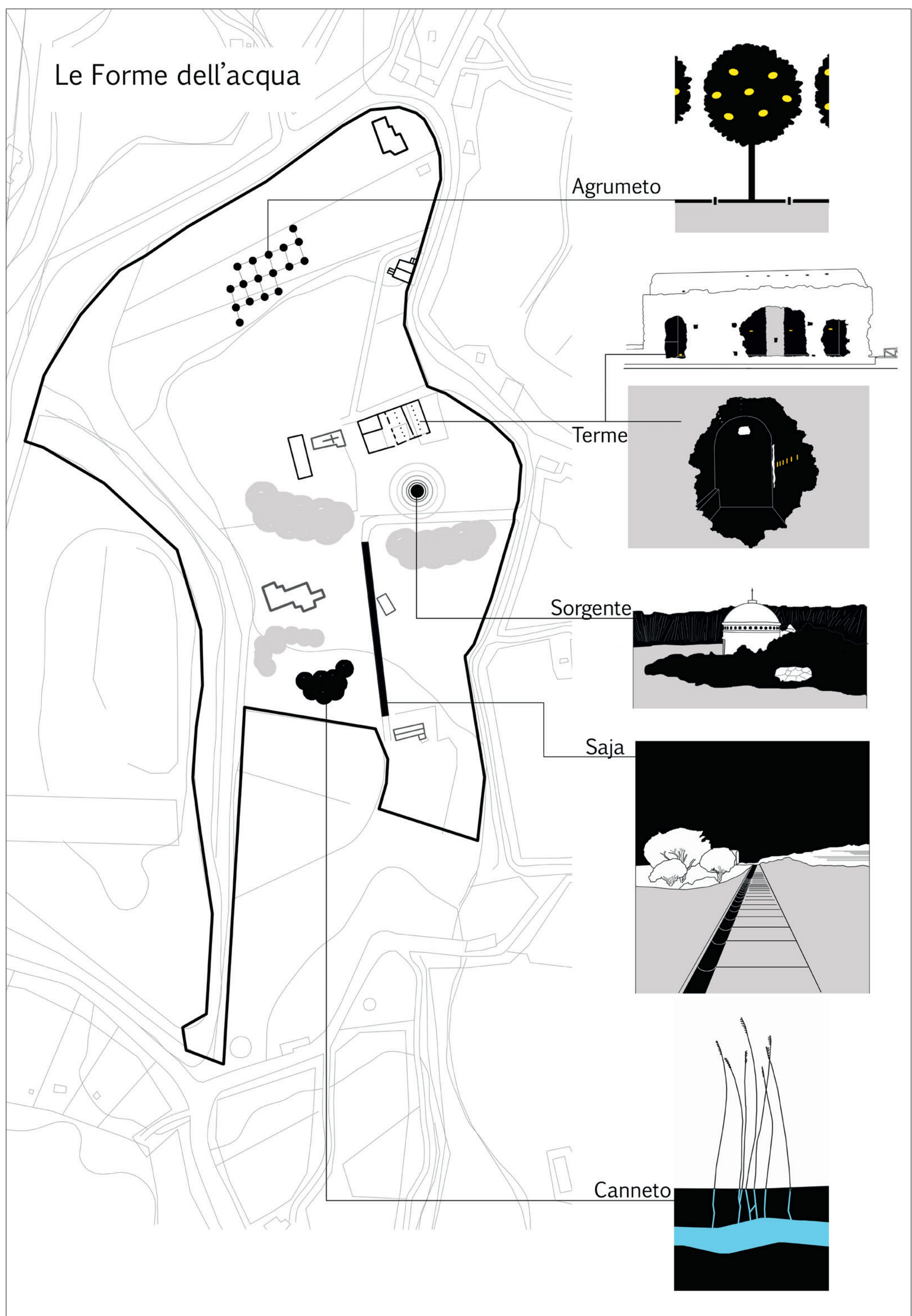

Fig. 6 Workshop output: landscape design/storytelling through the federating theme of water

The project was intended as a narrative describing the destiny of the site. Imagined in continuity with the previous phases, it was not conceived as an isolated gesture that gives new forms to the territory, but rather as an instrument for the recovery of places, their re-organization, and the discovery of the collective pleasure of living in a place, as already mentioned. We tried to bring out the functional program already contained in the site, trying to rediscover the *common sense* of the landscape. In this way, the transformations induced by the project, whether they are in continuity or disrupture with the existing situation, are more likely to meet the interests of all the actors (the general interest), achieving the project's primary goal of helping to inhabit better the places. The students, accompanied by the teachers, have developed different project solutions, centered on three federative themes: *time, countryside, water* (Fig. 6). Through the intertwining of these three points of view, it was possible to highlight those elements that constitute the landscape's identity: its historical depth, agroecosystemic dimension, and singularity. Each of these themes has been developed as a story and elaborated by means of texts, images, drawings, and models. Each day of work ended with a group presentation, during which the students were asked to refocus their ideas on specific questions.

The future archaeological park thus emerged from the workshop by superimposing the different stories (the paths of the countryside, the paths of water, and the paths of time) for arriving at the *staging* of the different points of view over the landscapes. The definition of a political-economic framework made it possible to bring all the projects together, envisaging that the archaeological site could be managed by an agricultural cooperative that would take care of production and at the same time open the archaeological site to visitors (Fig. 7).

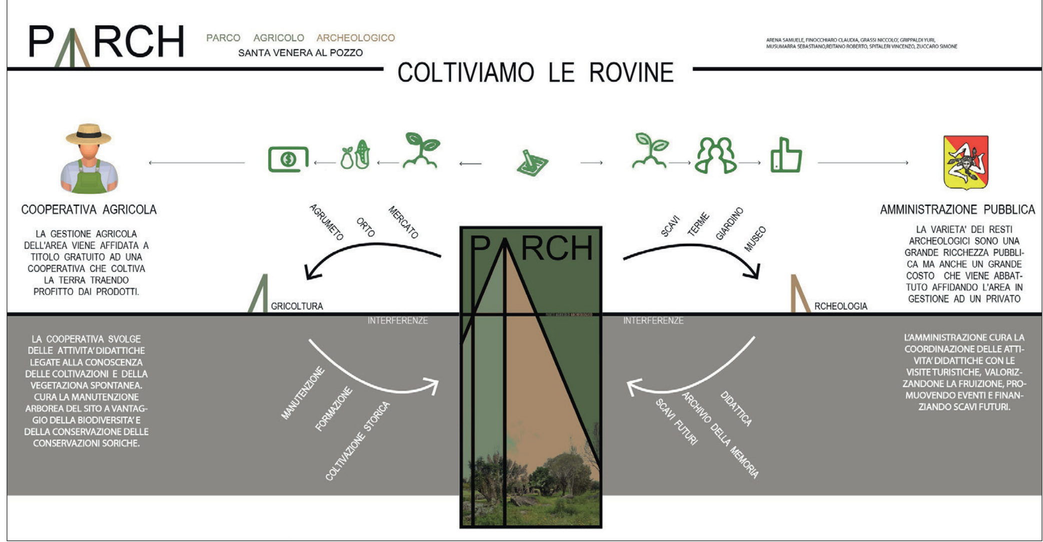

Fig. 7 Workshop output: the definition of a political-economic framework for the project

Conclusions and perspectives

This workshop showed a possible path of production of a landscape common. According to the collective proposal that came out as a result of the workshop, the archaeological site should be rented to a farmers' cooperative that would take the responsibility of making it sustainable with methods that are compatible with the presence of visitors. Beyond that, the site should become alive and accessible again to those who wish to visit it. The singular features of the place (water, orchards, ruins) should be highlighted on the basis of an arrangement of the spaces that aspires to *put them on stage,* with the introduction of new elements, if necessary, that help to better understand the overall narrative of this landscape.

All the actors in this project appear to be winners: public authorities manage and make the local heritage accessible at no additional cost; the agricultural cooperative achieves its economic viability through a multifunctional approach to agriculture. Farmers aim to produce agricultural goods and services for the community (educational workshops, events, meetings, etc.); for their part, the inhabitants benefit from an accessible place, the landscapes of which is finally revealed, a place where the charm of the past is added to the presence of ecosystem services (biodiversity for example) from the agroecosystem in which this heritage is embedded.

The workshop also showed that landscape can synergistically combine awareness of heritage value (in this case the memory of the site) and agriculture, thus triggering good practices to inhabit better the territory (Fig. 7). Agriculture, understood in a multifunctional way, can become the protagonist of the fruition of an archaeological heritage, allowing its revitalization, solving the problems of its management, and opening to the public, in a perspective of a multiple actors' stewardship of the territory.

We can also note that the result of the workshop is a piece of a possible wider path, that of the conception of an archaeological and agricultural park project. Framed in a territorial context, the park can be seen as a principle of reorganization of unbuilt spaces between the mountain and the sea, a first step to combine agricultural and natural ecological continuity between sea and mountain.

The ideas that emerged from the workshop were submitted to the evaluation of local stakeholders at the end of its activities. One limitation of this experience, however, was the involvement of local actors and inhabitants: the participation of politicians, representatives from public institutions, and local farmers in the workshop activities and the final presentation was rather weak. Hence, this procedure must be improved. Finally, it would be desirable to enhance coordination between the actors involved in protecting the site (public and research institutions, for example CNR, INGV, and University). Currently, projects and planning actions are being carried out in isolation from each other, without being able to foster a dialogue that could be vital for the advancement of knowledge and for the active and creative protection of the site.

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Minoan Heritage and the Negotiation of Tradition

Aspects of an Archaeological Ethnography at Archanes, Crete

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Abstract In the Cretan village of Archanes, two material dimensions of the local past meet and operate together: one is represented by the houses restored between the 1990s and early 2000s, the other by the little-known and little-visited archaeological remains discovered in the area dating to the Minoan period. The first is associated with the economic prosperity brought on by agriculture in the first decades of the 20th century, a time that local people remember vividly. The second is associated with the historical importance of the village in specific fields since the Bronze Age. Each of these "material worlds" explains the other, and both inform the present. As for the "biography" of the most delicate of all Archaniote "objects," i.e. its rural landscape, the survival of significant elements of material culture dating from both periods has the power to "objectify" local agricultural history and aesthetic ideals; consequently, these aspects are encapsulated in a very comprehensive notion of tradition.

By examining the processes of negotiation of Archaniote heritage, in this paper I attempt to show how the very materiality of this personal and collective heritage that is now preserved has stimulated a broader re-working of the Archaniote identity by bringing the idealized conceptions of ancient history into the domain of people's everyday lives. The antiquities, the unquestionable sacred, national, but usually distant and abstracted heritage, have here discursively transcended the state-controlled space of excavated land plots and entered that of social interaction through their correlation to a "lived" past.

Esther Solomon:
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What was Archanes thirty years ago? An introverted little village, ugly and unknown to most people. Its archaeological treasures had not yet been discovered nor did the village have the useful infrastructure that makes life so much easier for us today. Although as a child I often played amidst the ancient stones, I never paid attention to the all-so-important discoveries that the archaeologist's pickaxe had brought to light, discoveries so important that they earned Archanes the epithet of "Versailles of Knossos."
Now that I am old enough to view things differently, I can see that our little town is much more beautiful and comfortable [than in the past], at least externally. Whenever I go to Heraklion, I can make out that, regardless of the years gone by, this city still ranks first in Greece as far as bad taste is concerned. And I can declare, with neither fear nor passion, that Archanes is today "the Paris" of Heraklion County!
A librarian introducing a photographic album
on the Cretan town of Archanes[1]

The meanings that people give to things . . . are part and parcel of the same process by means of which they give meaning to their lives. Our cultural identity is simultaneously embodied in persons and objectified in our things.[2]

Archanes is a large village or, as it is also often referred to, a "little town" in the hinterland of Crete. It is situated along the edge of a lush valley, 15 kilometres south of the city of Heraklion on the north coast; the place is little less than 10 kilometres from Knossos, the most famous Minoan archaeological site in Crete and one of the most popular tourist destinations in Greece (Fig. 1, Fig. 2).

Agriculture is the main economic activity of the nearly 4,000 inhabitants of Archanes (Fig. 3a and b). Since the early years of the 20th century, Archaniotes have been involved in

1 The album was created by Archaniote folklorist, teacher and writer Irene Tahataki (1995). The presentation took place in the historic building of the old Primary School of Archanes on November 22, 2003.
I am deeply indebted to Professors Pietro Militello and Diamantis Panagiotopoulos for inviting me to the workshop "Modelling Archaeological Landscapes. Bridging Past and Present in two Mediterranean Islands," held in Sicily in October 2018. The inspiring environment of the workshop and the organizers' holistic approach to the study, interpretation, and management of archaeological sites worked as a long-sought incentive to return to Crete and my Archaniote informants and implement the workshop's encouragement for a socially meaningful archaeological practice. The paper is dedicated to Kathleen Hart and the memory of Bob Chatel, who followed my Archaniote (and other) adventures for a long time.

2 Tilley 2001, 260.

Fig. 1 The town of Archanes. (Photo by the author)

the production and trade of local grapes and wines (Fig. 4a and b), obtained from the cultivation of the vast lands left free by the Turks when Crete became autonomous in 1900. These vineyards yielded abundant harvests and provided exceptional economic affluence. It was during that time that the Archaniotes started building their imposing mansions, or *archondika,* many of which are still standing today (Fig. 5).

Unlike the rest of the island, where modern buildings have replaced traditional architecture to meet the needs of residents and tourists, in Archanes many old *archondika* have been not only preserved but also restored (Fig. 6, Fig. 7). This operation was made possible thanks to the considerable funds allocated by the European Union in the context of its cultural politics in the 1990s and early 2000s. Local authorities made a significant effort to carry out an extensive conservation project aimed at both the restoration of local houses and the renovation of public spaces. While it is true that the ensuing changes have altered the original aspect of the village, it is undeniable that they have also highlighted some selected features of its traditional architecture. Not accidentally, the rediscovery of the past in Archanes has come at a critical moment for the future of agriculture in the area.

Owing to these efforts, today Archanes stands apart from all other villages and towns in Crete. In nearby Heraklion as in the rest of the island, it has gained a reputation as a "lively, clean, traditional and beautiful village,"[3] a place "where a vision became reality."[4] What is

3 See Archanes 1 (webliography).
4 Giannari 2008, 6 March.

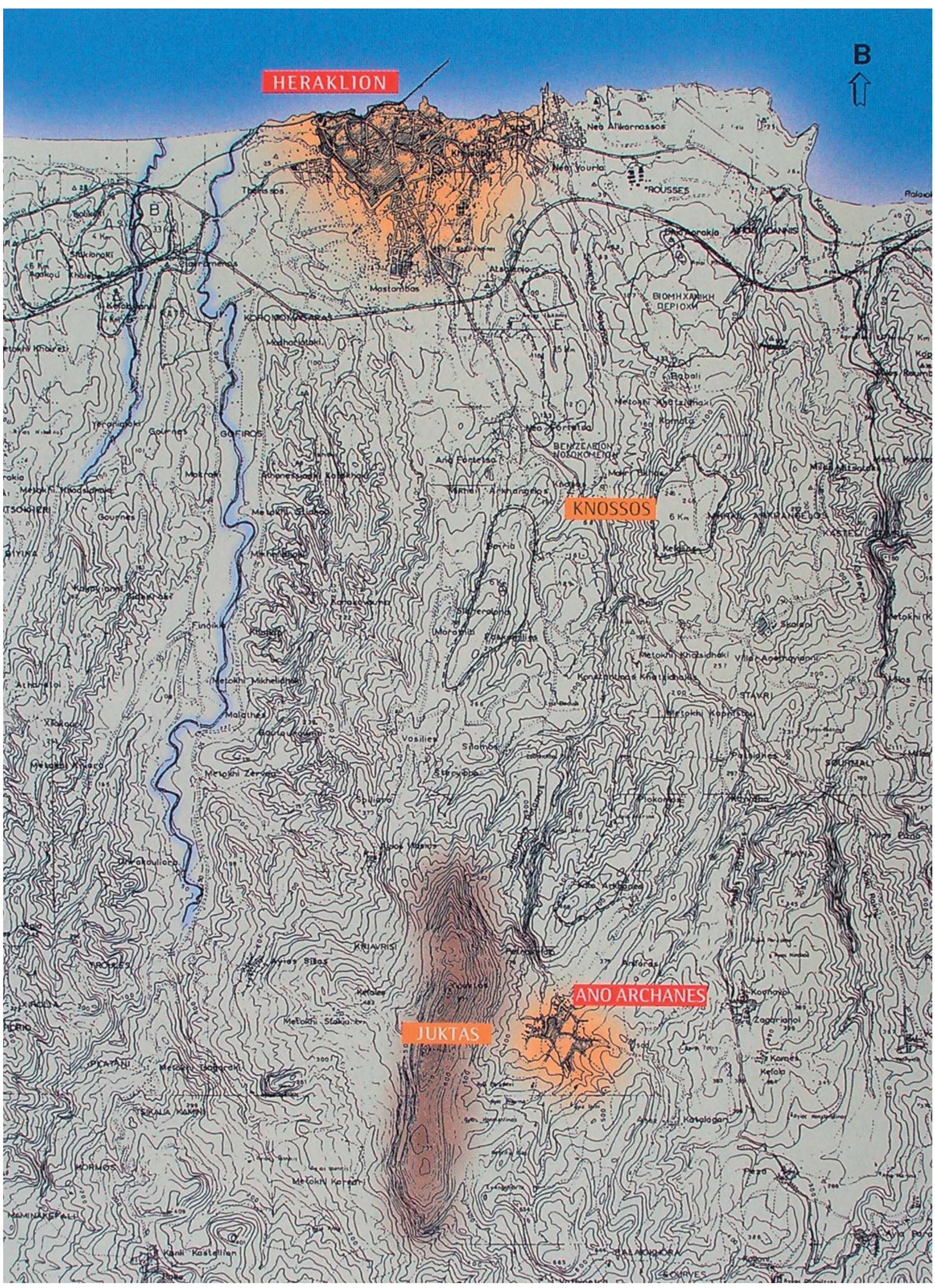

Fig. 2 Map showing part of the Heraklion District. Heraklion, Knossos, Archanes and Mt Juktas are highlighted. (Source: Tzombanaki 2002, 28)

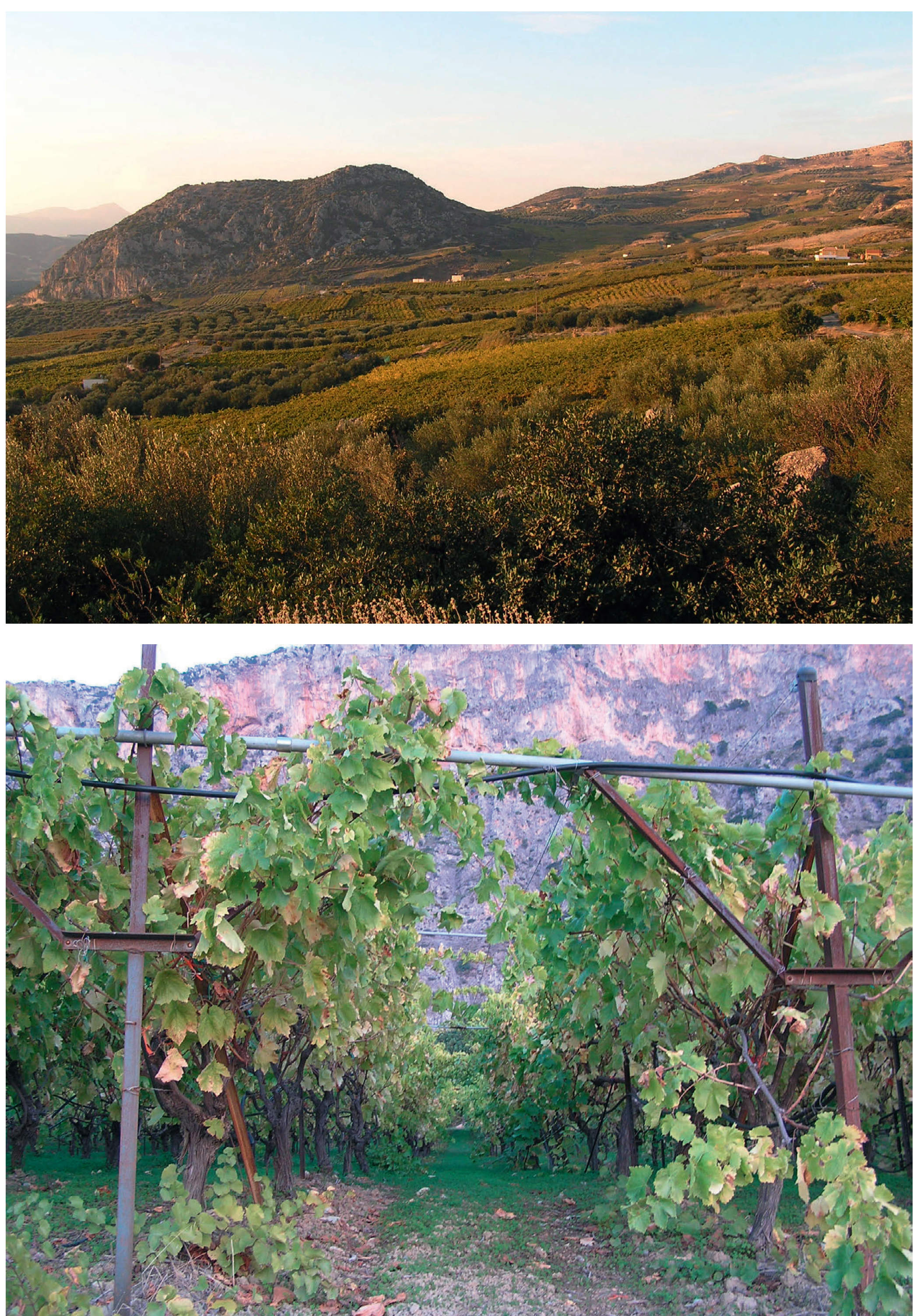

Fig. 3 Agricultural land around the village. (Photos by the author)

Fig. 4 Cultivated vines and collected harvest. (Photos by the author)

Fig. 5 A typical Archaniote mansion (*archondiko*). (Photo by the author)

Fig. 6 Restored local house. (Photo by the author)

Fig. 7 Restored local house. (Photo by the author)

more, it has won national and international awards for its developmental policies,[5] thus making a name for itself well beyond the boundaries of Crete: among the Greeks living elsewhere, in academic circles, and even among foreign visitors.[6]

The restoration of "traditional Archanes" and the ongoing process of cultural revival in the village accompanied the discovery and promotion of several archaeological remains in the area. A significant number of Minoan sites have been unearthed in and around the settlement, e.g. the center of Minoan Archanes, located underneath the modern village; the cemetery on the nearby Fourni Hill; and the sanctuaries of Mt. Juktas and Anemospilia, known since the 1960s, yet rarely visited. In the early 2000s, these and other ancient sites have received extensive coverage in local and national media as "substantial evidence of the timeless significance of the settlement."[7]

This study drew inspiration from the three main typologies of material culture found in Archanes, as delineated above: the old—now restored—traditional houses, the rural landscape, and the newly discovered Minoan antiquities. What is at play in the makeup of these categories are some fundamental notions of tradition, which actively shape and are being shaped by a distinct sense of Archaniote identity. The cultural qualities attached to these entities raise issues regarding the definition of an "Archaniote heritage"—i.e. its negotiation, representation, and consumption at a local level, as well as its implications for collective memory.

The discussion draws upon a vast literature on the management of tradition, intended as a form of representation of a group's local knowledge over a period of time, and its social and political implications for community heritage.[8] It builds on the idea that objects do not simply reflect social realities—as the dominant Western tradition would have them do—but actively contribute to shaping human actions and agency.[9] Coherent with this approach, local material culture is here regarded as an active producer of meanings, affecting and in turn being affected by social relations. Secondly, this study emphasizes the malleable and ambivalent features of tradition, especially against the background of the process of modernization in Greece. To this scope, it will look at the sensorial and affective aspects of tradition and will consider how the concept relates to notions of authenticity, place making, belongingness, and will. All the factors above have a great impact on not only the study

5 Archanes was awarded second place in the European competition "Integrated and Sustainable Development of Exceptional Quality" (2000), and first place in the contest "Local Growth with Respect for the Natural and Human Environment" (2002).
6 Sweet 2017, 17 May.
7 [Former] Municipality of Archanes. 2005.
8 E.g., Cowan 1988; Thomas 1992; Giddens 1994; Macdonald 1997; Sutton 1998.
9 Miller and Tilley 1996; Gell 1998; Tilley 2001; Buchli 2002; Henare et al. 2007.

of heritage and material culture but also the practices of architectural conservation, urban planning, community development, as well as the tourist industry.[10]

In what ways is the negotiation of the Archaniote tradition related to the Minoan finds and other expressions of local material culture? What are the contents, social meanings, and uses of this now highly appreciated, ancient, Cretan heritage, and what role does it play in people's thoughts and actions? Revisiting the ethnographic fieldwork that I carried out in Archanes between 2001 and 2007, I shall attempt to explore the importance of community participation in local heritage management as well as the role of Archaniote antiquities and landscape in a series of locally specific social processes.[11]

Life in the village

Hills of variable height surround Archanes, whose territory is covered, as far as the eye can see, by vineyards and a smaller number of olive groves. Towards the slopes of Mount Juktas, the abundant vegetation gives way to cultivated fields (Fig. 8a). The imposing shape of the mountain casts a shadow over the village, and it seems that life here has always run in visual, economic, and symbolic relation to this feature of the natural landscape.

Compared to other Cretan mountains, Mt. Juktas is not particularly high (811 m). The upper part of the range is distinctive for its rocky ledges, while the massif is dotted on all sides with caves sculpted by the force of the wind; this feature is prominent on the western side of the hill (Fig. 8b), remote and wild, housing rare flora, and wild birds.

The mountain is visible from both Knossos and the north coast of Crete, and to the boats entering the port of modern Heraklion. As a geographical landmark, it appears in almost all engravings made by Europeans traveling to Crete from 1415 onwards.[12] When seen from

10 See, e.g., Silverman 2015; Gnecco and Ayala 2016; Amoruso 2017; Mergos and Patsavos 2017.

11 The ethnographic research was conducted for the purpose of my doctoral thesis, entitled "'Multiple Historicities' on the Island of Crete: The Significance of Minoan Archaeological Heritage in Everyday Life" (2007). The aim of my research was to investigate the manifold ways in which people from different groups perceive, narrate, and relate to the prehistoric past of the island of Crete (see also Solomon 2006, 2008). Archanes, with its (until recently considered to be) minor archaeological heritage, presented an interesting case study: the size and popularity of the village around the archaeological site and the emphasis placed on forms of local heritage other than the antiquities, set it apart from the other villages nearby, mostly tiny and neglected, and of course, Knossos, the most famous archaeological site in the area. Staying in Archanes enabled me to carry out an in-depth participant observation of the ways an "emergent" archaeological heritage has come to be integrated into the everyday life and practices of local people, the related imaginings of history and identity and, not least, the construction—literally and metaphorically (cf. Appadurai 1995)—of this Cretan locality in the present.

12 Tzombanaki 2002, 20–23, 41–42.

Fig. 8 Mt Juktas as seen from Knossos and its rocky western side. (Photo by the author)

a distance, its pointed peaks are reminiscent of a male head in repose—which explains the denomination of "anthropomorphic" often accompanying its name (*Juktas, to anthropomorpho vouno*). This feature is perhaps the reason for the widespread belief that Zeus was buried here. Since the Renaissance, the association between Mt. Juktas and the god has been so strong that many erudite personalities have travelled here searching for Zeus's "grave;"[13] the fact that some Archaniotes still remember this legend does, in truth, lend some vague credibility to it.

On top of the mountain, the Orthodox church of the Transfiguration of Christ (*Afendis Christos*) stands a short distance away from a Minoan "peak sanctuary."[14] On August 6, the day of the church festival, thousands of people spend the night on the mountain, including many expatriated Archaniotes who regularly return to the village for this special occasion. Demonstration of respect to Christian faith and this church in particular is commonly taken to be the reason for the unusual westward orientation of most houses in the village.[15] Many local *mantinades*—popular verses improvised by Cretans on different occasion—poetically mix the transfiguration of Christ with the legend of the annual birth and death of the ancient father of the gods, Zeus.

The houses of Archanes are laid out amphitheatrically very close to each other, appearing to embrace a rather steep hill at the centre of the village (Fig. 9). Most public functions are performed on the relatively flat stretch of land between this hill and Mt. Juktas. Public buildings, tavernas, and coffee-houses attracting visitors and local youngsters are located on the main square; (Fig. 10) the square is stone-paved, like many of its back streets, and has pleasant displays of plants and trees (Fig. 11).

13 Christinidis and Bounakis 1997, 15–19.
14 Karetsou 1981.
15 Doundoulaki-Oustamanolaki 1996, 39.

Fig. 9 A view of the central hillside of Archanes.

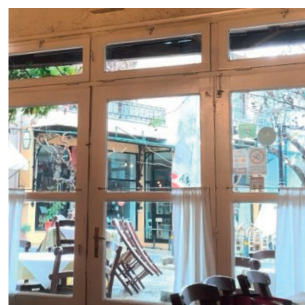

Fig. 10 Tavernas on the main square. (Photo by the author)

Fig. 11 Archanes “upgraded”. A backstreet. (Photo by the author)

Fig. 12 Distribution of 54 *archondika* and important public buildings in Archanes. The importance of the "Nice Road" that crosses the village is obvious with several wealthy residences on both sides. (Source: Tzombanaki 2002, 128)

It is no coincidence that many of the most impressive *archondika* are located on the "nice road" (*o kalos o dromos*) (Fig. 12), the central road that crosses the local market and hosts the majority of local shops and coffee-houses (*kafenia,* Fig. 13): a lavish display of wealth and good taste by some prominent Archaniote families.

Fig. 13 Coffee-house at the local market. (Photo by the author)

All neighbourhoods are rural in terms of their inhabitants' basic professional activity; no distinction exists between rich and poor areas. Except for the "nice road," all quarters have always had a mixed population, with one or more *archondika* standing next to more modest residences.

History and economy

The history of Archanes is directly connected to that of the adjacent urban centers. In Minoan and Roman times, Knossos was the major agricultural, commercial, and administrative point of reference for Archaniotes. Knossos also served as a communication link between Archanes and the other chief places along the north coast of Crete, the Aegean islands, and beyond. In more recent times, the role of Knossos was taken over by the Arabic-Byzantine city of *Chandax,* called *Candia* in the Venetian period, *Megalo Kastro* ("Great Castle") in Ottoman times, and eventually *Heraklion.*

In the second half of the 19th century, the enactment of a major legal reform granting basic rights to non-Muslim Ottoman subjects sparked the gradual development of a Christian, Greek-speaking bourgeoisie. This group, composed of merchants and intellectuals, was later to become the local elite. This fact has left Archanes with important memories of

the several anti-Ottoman revolts that took place nearby. During the Cretan Revolution of 1897, the most ferocious battles against the Turks were fought in the neighbouring hills, and Archanes was the first village in Crete to be freed from Ottoman control.

Of great discursive significance for the local population is also the crucial role played by Archaniote partisans in World War II, particularly in the Battle of Crete in 1941. Local partisans joined forces with members of the British anti-Nazi resistance, for example by taking part in the kidnapping of the Nazi governor of Crete, General Heinrich Kreipe, in 1944. The operation was headed by Patrick Leigh Fermor, then leader of the British resistance in Crete and the Cretan partisans.[16]

Continuity between this patriotic military past and the peaceful progress of the post-war period is often highlighted in local discussions and village presentations (Fig. 14).[17] This is how two local intellectuals describe the recent history of Archanes and the character of their fellow villagers:

> … in a very original as much as absurd way, Archanes combines the fierceness and roughness of a battlefield with the gentleness and the tenderness of a wealth-producing area.[18]

These lines emphasize the foundational elements on which local collective memory hinges: on the one hand, the local participation in numerous revolts and heroic acts of resistance; on the other hand, the ability of Archaniotes to produce fine agricultural products and transform their village into a wealthy society enjoying the goods of peaceful economic development. The way Archaniotes represent themselves offers an alternative to the stereotypical and often exoticized representations of Crete as the place par excellence of masculine gallantry, fierce ruggedness, illegality, and patronage.[19]

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16 Leigh Fermor 2014.

17 Interestingly, the nexus between the Cretan patriotic action and the revival of the Minoan past can be traced back to 1930, when Crete celebrated the centennial of the independence of the Greek State in Heraklion, in front of a memorial resembling parts of the palace of Knossos as it was reconstructed by Arthur Evans. Spyridon Marinatos, the archaeologist who would, several years later, excavate the site of Vathypetro outside Archanes, observed how this small memorial building “institutionalized the Minoan style in modern architecture” (Newspaper *Elefthera Skepsis* 11/5/1930, as cited in Vlachopoulos 2014, 349). As a member of the organizational committee, Marinatos invited all Cretans “who could feel the inner patriotic feelings of the Greek nation” to take part in the celebrations. In his description of the ceremonial activities led by “old Cretan fighters wearing their traditional dresses, pleasing folkloric dances” and of “a short trip to a place of historic importance,” the place he refers to happens to be Archanes itself (Vlachopoulos 2014, 379 n. 32). This memorial (*heroon*) still exists at the edge of Eleftherias Square in Heraklion, despite local efforts to demolish it to construct a new building.

18 Christinidis and Bounakis 1997, 113 and 13; my translation.

19 Kalantzis 2019.

Fig. 14 Mrs Irini Tahataki, local teacher, folklorist and writer talking in 2022 about her book *The legendary kidnapping of General Kreipe* (publ. 2006). (Photo by the author)

Nowadays, viticulture is undergoing a gradual decline, although here the phenomenon is less evident than elsewhere in Greece.[20] Local farming has long been dependent on subsidies from the European Union,[21] while the vineyards yielding the prestigious *rosaki* grapes, proudly mentioned in tourist leaflets, folk poems, *mantinades,* and historical and archaeological accounts, have shrunk considerably. The painstaking cultivation of vines has been gradually replaced by that of olive trees, an activity which is simpler, less risky, and less time-consuming. Despite the unfavourable EU guidelines regulating the practice of small-scale agriculture and despite the abandonment of old methods of cultivation in fa-

20 Statistics are especially revealing in this regard. In 2013, the Panhellenic Union of Agricultural Associations (PASEGES) published the following numbers: the farming population decreased from 16.97% in 2000 (722,450 people) to 12.56% in 2010 (555,130 people) (Rousianou 2015, 54). According to Psaltopoulos et al. (2006, 445), who evaluated the impact of the CAP (Common Agricultural Policy) measures implemented in Archanes during the 1990s, employment rates in the primary sector and manufacture declined, respectively, from 57% in 1991 to 41% in 2001 and from 12% to 9%. By contrast, employment rates in the service sector increased from 31% to 50%.

21 Although most subsidies were meant to improve agricultural productivity via farm investment plans and integrate young farmers, a few measures were also taken for the diversification of local economy, especially agrotourism, through the establishment of small local firms (Psaltopoulos et al. 2006).

vour of new ones, farming remains the basic economic activity for most Archaniotes.[22] This aspect, coupled with the local landscape, has acquired great symbolic significance after the completion of the conservation program.

Archaniotes emphasize the fact that the feverish agricultural activity accountable for the economic prosperity of the past decades has not changed the mentality and sensitivity of local people: their interest in local, national, and international issues has remained the same. As a local grocer told me "Archanes was *very rich* and *very communist*"—proof that people never failed to express solidarity towards their fellow villagers, including in times of increased prosperity. Indeed, until the early 1990s, the communist party was so popular in the village that Archanes was humorously called "Little Moscow." This anecdote is often cited in collective representations as further evidence that the accumulation of wealth in Archanes did not translate into selfishness and indifference towards community life.

The village now serves as a model of administrative efficiency for many other small rural places in Greece, particularly those with an important cultural heritage. The "Archaniote miracle" has enjoyed extensive coverage in the Cretan media, on the web, in tourist guides and, needless to say, in all cultural and scientific events held locally. Already in 2002, *Radio Crete*[23] had announced that the vision of local authorities for the year 2020 was to ensure Archanes the title of "cultural capital of Crete"—thus ascribing the village a symbolic position of primacy in international representations.[24]

Before we proceed to analyze the local debate on Archaniote heritage, I shall present a brief overview of the highly valued material culture of the village and its landscapes.

22 According to the official employment data provided by the Local Council Office in 2002, 70% of the economically active population were farmers. The Archaniote farmland covers a total area of 17,000 m^2 and counts 1,130 agricultural enterprises; in 2002, 80% of these were owned by people exclusively employed in agriculture. See Psaltopoulos et al. 2006; also Ratsika 2012.

23 10-5-2002, *Radio Crete,* program led by journalist Kostas Bogdanidis.

24 At the presentation of the photographic album in 2003 (see supra n. 2), writer Eleni Saatsaki-Plagiotaki described Archanes as follows: "Archanes, which was awarded the second European prize for its architecture, its nobility, its beauty, its history, and its dazzling presence on the European scene, will be eternally remembered also for the love of its people: they have ardently worked for its archaeological treasures, as well as the inexhaustible wealth of its folklore" (22/11/2003, Local Newspaper *Patris* [see Archanes 2, webliography]). The writer's words clearly illustrate the rhetoric of civic pride that underpins local discourses; in this frame, ancient and popular/folkloric lore, scholarly action, and cultural heritage are the hallmarks of a unified tradition that has brought Archanes to the level of an admirable Cretan place in line with "European" standards.

The material heritage of Archanes I: Minoan remains

> *Archanes has been renowned for the grapes grown in the region and for its wine. Now it is also renowned for its antiquities. The palatial building (most of which is still hidden under the village houses), if and when it is unearthed some day in the future, will be compared only to Knossos for its vigorous construction and to Phaistos for its refined lines . . . We know today the most significant prehistoric cemetery of the Aegean Sea in Fourni, a nearby hill . . . an actual lexicon of funeral architecture and rituals, with no parallel in the prehistory of the Aegean Sea.*[25]

An alabaster spoon bearing an inscription in Linear A, now in the Heraklion Museum, was the first Minoan object to be discovered in Archanes. It was the year 1909, when Stefanos Xanthoudides, a leading member of the Herakliote Educational Society, published on the find; in his report, Xanthoudides stressed the vital need for further excavations in the village,[26] which was then expanding as a result of rapid economic development.

Yet, the very restricted budget of the Greek Archaeological Service would not allow any further research until the 1920s, when the major excavator of Knossos, Sir Arthur Evans, took an interest in the place—a circumstance that sparked the illicit trade of locally found Minoan artefacts.[27] Evans himself bought a golden Minoan ring and some seals that are now on display at the Ashmolean Museum in Oxford.[28] He brought to light a few remains of the so-called Turkish Quarter of Archanes (*Tourkogitonia*), where the Minoan palatial center was to be unearthed several decades later by archaeologists Yannis and Efi Sakellarakis. Although Evans worked in Archanes for only very brief periods and his finds were rather modest and sporadic, he clearly left a mark on the village and its people. His interpretation of the Archaniote remains as the summer residence of King Minos[29]—echoing, as in Knossos, a Victorian mentality[30] according to which royal families used to spend the summer in a different palace—has never been forgotten.

In 1949, Spyridon Marinatos, General Curator of Antiquities and Professor of Archaeology, conducted the first systematic excavations at Vathypetro, four kilometres south of the village.[31] Amid an intensively cultivated land—today a strongly aestheticized landscape (Fig. 15)—he discovered the remains of what he called a "Minoan villa." The image of this

25 Sakellarakis 2003, 84–85, my translation.
26 Sakellarakis and Sakellaraki 2002, 22.
27 Sakellarakis 2008.
28 Sakellarakis 1999, 82.
29 Evans 1928, 64.
30 See Papadopoulos 2005.
31 Marinatos 1951.

Fig. 15 The remains of a Minoan farmhouse. Vathypetro (Archanes). (Source: Sakellarakis and Sakellaraki 2002, 16)

villa, together with its olive press and wine press, has accompanied all symbolic references to Cretan agricultural traditions ever since.

Systematic excavations inside and outside the village only began in 1964 with the Sakellarakis couple. Besides the palatial building, they brought to light rich tombs and burial offerings from the cemetery on nearby Fourni Hill, as well as the remains of the Minoan temple of Anemospilia on Mt. Juktas—which, upsettingly at the time, they associated with ritual human sacrifices and the "drama of death" (Fig. 16).[32]

Within the framework of the conservation project and its cultural politics, in 1993 several Archaniote antiquities found a suitable exhibition space in a small local museum con-

32 Sakellarakis and Sakellarakis 1981. It is worth mentioning that, already in 1956, an excavation conducted by Dutch archaeologists in collaboration with Marinatos had brought to light some remains possibly related to the "palatial building" that would be discovered one decade later; this excavation was totally forgotten until 2015, when Bart Wagemakers (2015) discovered, assembled, and published the relevant documentation.

Fig. 16 Graphic reconstruction of the earthquake that destroyed the temple according to its excavator. (Source: Sakellarakis and Sakellaraki 2002, 147)

Fig. 17 An old school of Archanes, now housing the local archaeological collection. (Photo by the author)

verted from a restored school building (Fig. 17). This fact illustrates the tendency of today's Archaniotes to view their ancient and recent past through a unified representational perspective.

During my fieldwork, the excavated remains of the "Minoan palatial building" at Tourkogitonia became accessible to the public. Although the absence of open spaces around the excavated site minimizes the visual impact on the visitor, the narrative built around the remains relies on the very idea that the area, and particularly the precincts of the palace, have been inhabited for a long time. Even today, the site is surrounded by modern houses (Fig. 18). Certain elements, e.g. stone benches and walls built in the early 20th century and vegetal decorations made with flowers and herbs from Mt. Juktas, contribute to the creation of a new but characteristic landscape based on the idea of "Archaniote style." Once

Fig. 18 The remains of the "palatial building" at Tourkogitonia, Archanes. (Photo by the author)

again, this style incorporates references not only to the Minoan era but also other historical periods important to local memory. For example, the floor of a modern local house that had to be demolished for the purposes of the excavation was intentionally left in place as a testimony of the age-long residential character of the quarter.

It is also interesting to note that the rather tentative denomination of "palatial building" for the archaeological structure at Tourkogitonia was gradually substituted by the term "palace." The popularity of the term has been such, especially in the aftermath of the conservation program, that nowadays there is virtually no mention of the site outside academic circles without reference to "The Palace of Archanes." The same description appears in most guidebooks, local history books, the official website of the Ministry of Culture, and other sources.[33]

The categorical reproduction of sound characterizations of the Archaniote excavation and its finds came to the fore in 2000, with the discovery of two rooms within the complex

33 Ministry of Culture, Greece, 2012.

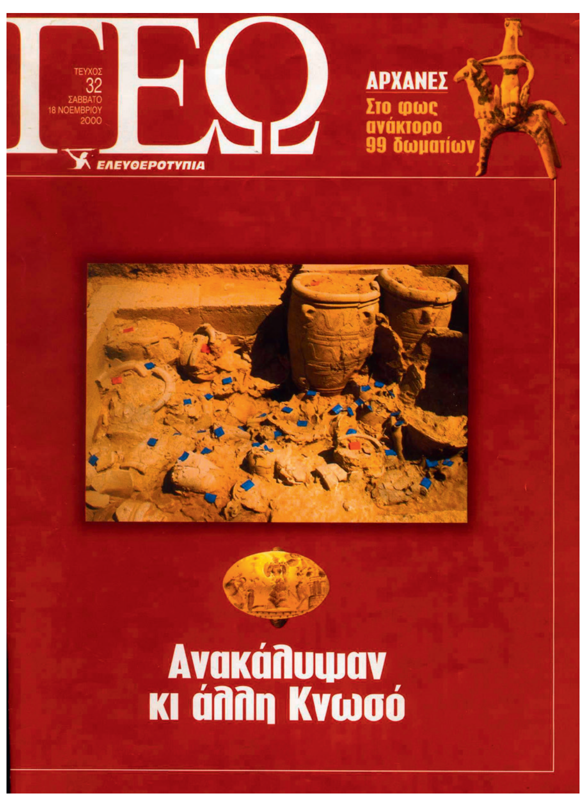

Fig. 19 "Another Knossos has been discovered". Newspaper "Eleftherotypia", Geo magazine (vol. 32, 18/11/2000).

of Tourkogitonia. On November 18, 2000, the national newspaper *Eleftherotypia* announced on the cover of its magazine *Geo* that "another Knossos [had] been discovered" at Archanes and that "a palace with 99 rooms [had] come to light" (Fig. 19).[34] This finding was presented as a "major, recent and shattering discovery of another Minoan palace."[35]

Due to the great publicity that archaeological Archanes has received since the early 1990s, the cemetery at Fourni and the building at Tourkogitonia are today taken as tangible proof of the royal status of their Minoan users. Local archaeological finds have been portrayed as being of (at least) equal importance to the antiquities in Knossos, bringing Evans's old theory about King Minos's summer residence back into the forefront of local discussions.

34 Georgoudis 2000. This number is obtained from a calculation based on the number of rooms on the hypothesized three floors of the palace.
35 Georgoudis 2000.

The material heritage of Archanes II: architecture

The restored Archaniote houses, the *archondika,* combine the Balkan rural elements typical of Ottoman architecture with Venetian reminiscences, mainly "borrowed" from the nearby city of Heraklion. Pronounced neoclassical elements are present too, in line with the dominant architectural style found in Athens and most Greek urban centers (Fig. 20). Since the independence of the Greek State in 1829, the neoclassical style has indeed been regarded as a major expression of national identity, with specific references to classical antiquity and the "enlightened" West.[36]

The belated emergence of neoclassicism in Archanes not only implied the projection of "Greekness" on a local scale and the symbolic beginning of a new era for the village, but also made manifest the social prestige and taste of its wealthy residents.[37] The exterior of most houses display elements of monumental architecture, e.g. columns, big blocks of stone, symmetrical organization of spaces, and stone frames around gates, doors, and windows (Fig. 21, Fig. 22). In some cases, the arched frames and the colors of the walls recall the Venetian style directly (Fig. 23, Fig. 24, Fig. 25).

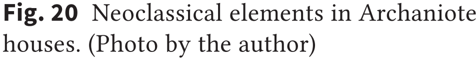

Fig. 20 Neoclassical elements in Archaniote houses. (Photo by the author)

Fig. 21 Arched stone frames and other monumental elements in local houses. (Photo by the author)

36 Biris and Kardamitsi-Adami 2001.
37 Tzombanaki 2002.

Fig. 22 Arched stone frames and other monumental elements in local houses. (Photo by the author)

Fig. 23 Columns and colors reminding the Venetian architectural legacy in Crete. (Photo by the author)

Fig. 24 Columns and colors reminding the Venetian architectural legacy in Crete. (Photo by the author)

Fig. 25 Columns and colors reminding the Venetian architectural legacy in Crete. (Photo by the author)

The bipartite structure of the *archondika* is a material expression of the double character of Archaniote society, rural and urban at the same time. The interior is divided into two complementary sections: while one is deputed to farming and other rural activities, the other, usually located on the upper floor, consists of rooms decorated in a bourgeois fin-de-siècle style. The internal yard, which shields private life from prying eyes, is still an important element of Archaniote domestic architecture; it is also an arena of competition for Archaniote women in terms of decoration, cleanliness, and display of plants, flowers, and colors (Fig. 26).

However, the existing legal protective clauses could not prevent the morphological changes the village underwent after World War II. Many new structures were built, especially in the 1970s and 1980s (Fig. 27). The high cost of maintenance and repairs of old houses—some of which of considerable size—was too high for many to afford. On the one hand, many houses were left abandoned or to decay after their owners moved out of the village; on the other hand, those who kept living in their old properties found some simple and relatively inexpensive maintenance solutions, although this came at the cost of significantly altering the houses' original aspect.

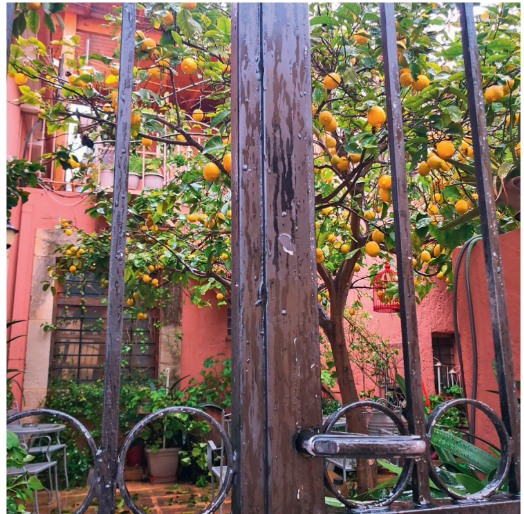

Fig. 26 Private yard in a restored house. (Photo by the author)

Fig. 27 Structures built in the 1970s and 1970s. (Source: Acts Archanes 1992: 185)

The authentication of Archaniote heritage

I have so little to say about Sakellarakis,
The one who first started this project:

If you throw a stone anywhere
"Don't!" you hear from everybody,
"You'll ruin King Minos's city!"
Improvised mantinada by an Archaniote resident; my translation

After that [i.e. the restoration of local buildings] *we removed the aluminium from the houses of the village, we added wood and ceramic tiles on the roofs and we* ***painted them in Minoan colors.***
Interview with S. Arnaoutakis, the Mayor of Archanes, emphasis added[38]

In 1992, when Archanes obtained funding from the European Union, the local authorities asked the Polytechnic School of Athens for permission to undertake the first phase of a house restoration program, to be carried out in conformity with specific aesthetic and social principles.[39] The preservation of traditional architecture was justified as an attempt to save Archaniote houses as local expressions of historical memory and prove "the cultural continuity of the Greek nation" on a local level. Architect Anastasia Benetaki emphasized the national significance of the project with these words:

> *It is necessary to protect traditional settlements, to preserve and make the most of our architectural inheritance ... in order to preserve our historical memory as a people. The cultural continuity* [...] *of our nation is a substantial element of its existence* [...]
>
> *Because of their authenticity, these [settlements] are a token of civilization; their multiple expressions are at* ***the basis of our historical legacy and national identity.***[40]

Whereas for the Greek State the preservation of the perceived authenticity of local architecture was meant as a demonstration of the nation's cultural continuity from antiquity to modern times—an emphasis on continuity being an essential aspect of Greek politics on the past[41]—the support offered by the European Union had a rather different meaning. Since the early 1990s, the EU has encouraged local development by financing activities and

38 See Archanes 3, webliography.
39 Archanes Acts 1992.
40 Benetaki 1992, 13; my translation, emphasis added.
41 See, e.g., Herzfeld 1982; Just 1989.

projects in support of local traditions and cultural expressions, among which also the preservation of material heritage.[42] This policy is consistent with the EU's flagship notion of a European cultural identity based on the transnational synthesis of localized cultural expressions. Archanes has pioneered this vision and was able to reinvent itself over time as a special community, traditional and European at the same time.

The Archaniote project differed from other initiatives of architectural conservation in Greece (for example, the case of the Anafiotika quarter under the Athenian Acropolis[43] or the conservation program at the Old Town of Rethymnno in Crete, regarding private houses dating to the Venetian and Ottoman periods[44]) in that it relied on local consent. Rather than a state-run program of aesthetic control over new material forms, it had the contours of a local council initiative. Archaniotes were given the possibility of restoring their old houses without bearing the entire cost of the operation, which was to be partly financed through European funds. This approach is quite different from what happened in the modern settlement of Knossos, where people contested the powerful presence of the Archaeological Service and the anything-but-straightforward application of archaeological laws, which they perceived as having a great impact on their life choices.[45]

The nucleus of Archanes, where most *archondika* are located, was declared a protected area of historical and archaeological importance well before the 1990s. Thus, to many the conservation project seemed a convenient opportunity to renovate buildings that *had* to be preserved in any case, and could neither be demolished nor significantly altered (e.g. expanded). As an old Archaniote told me:

> *As long as you couldn't pull down a house, and you didn't want it to collapse, the only solution was to restore it. (Αφού δεν μπορούσες να το χαλάσεις, η μόνη λύση για να μην πέσει ήταν να το αναπλάσεις). Well, since there was the program, we took advantage of it! (και*

42 Deltsou 2003, 216; Aspraki 2007; Mergos and Patsavos 2017.

43 The Anafiotika settlement at the foot of the Acropolis, built in the nineteenth century in the shadow of the "Holy Rock" by workers from the Cyclades, was treated just like and considered "accumulated rubbish of unsightly dwellings" (Vikelas in Caftanzoglou 2001: 122) and thus it had to be cleared away. Caftanzoglou (2001) studied this unauthorized settlement as a "matter out of place" (cf. Mary Douglas 1966) and explored the change of heritage values over time, with the settlement now considered a nostalgic retreat by Athenians and tourists alike.

44 In the mid-1980s, in the context of the then socialist government's efforts to preserve the architectural heritage of the old town of Rethymno, history was variously interpreted in order to justify the conflicting choices, beliefs, and lifestyles that informed the different perceptions of the Venetian and Ottoman past of Crete. In his ethnographic study on the social impact of the historic preservation of local private houses, Michael Herzfeld (1991) has shown how the cultural politics of Greek nationalism and the rhetoric of state bureaucracy responded to the socio-economic interests and expectations of Greek people, all of which raised issues of practical and symbolic ownership over the significant cultural assets in the town.

45 See Solomon 2006, 175–77; 2007, 205–45; cf. Stroulia and Back-Sutton 2010; Solomon 2021, 24–27.

> *μια που ήρθε το πρόγραμμα, να το εκμεταλλευτούμε!). Had we pulled houses down, made a third floor, etc. then, of course, there would have been reactions against it. But we couldn't, so we accepted it.*

The project focused on not only houses (traditional and modern) but also communal spaces. The aim was to integrate the surrounding natural environment—a crucial agent in the history and economy of Archanes—into the *builtscape*. Attempts were made to harmonize "monumental time" and "social time,"[46] official policies and people's expectations, and monumental and living heritage.

Significant emphasis was placed on neoclassical architectural elements, especially on stone (Fig. 28). In all restored buildings, the limestone blocks at the four corners and other elaborated stone components, e.g. arches, columns, pillars, cornices, windows, and door frames (*pelekia*), were uncovered beneath multiple layers of plaster (Fig. 29, Fig. 30). Such a profusion of cream-colored stone was made to stand out in contrast to the rich colors of the plaster, which were chosen for their supposed adherence to tradition.

Fig. 28 The program of the village's aesthetic upgrading: highlighting the use of stone. (Source: Acts Archanes 1992: 193)

The project also involved the removal of the constructions added to the houses after World War II, which specialists dismissed as aesthetically unpleasant and ill-suited to the idea of Archaniote tradition, bearing the risk of "falsifying" or "spoiling" the aspect of the whole village (Fig. 31 a and b).[47] The study also established which colors the owners would need to use to paint their properties; these colors were often perceived and promoted as "Minoan" (Fig. 32).[48]

46 Herzfeld 1991.
47 Syrmakezis 1992, 40.
48 See supra n. 37. On the significance of the so-called "Knossian red color" in cultural representations of Crete, see Solomon (forthcoming).

Fig. 29 Door frame in stone. (Photo by the author)

Fig. 30 Architectural elements in stone. (Photo by the author)

Fig. 31 Changing the aspect of modern constructions in order to comply with the notion of traditional architecture. (Source: Acts Archanes 1992: 172)

Fig. 32 The Archaniote Center for the Elderly ("KAPI"), a modern construction painted in "Minoan red". (Photo by the author)

The institutionalization of tradition carried out through the restoration project also required stakeholders to take decisions concerning the (re)use of some restored houses. These decisions added new phases to the "biographies"[49] of old Archaniote private residences. Today a few of these host public institutions, e.g. the folklore museum, opened in 2002; a meeting place for Archaniote youngsters; and a municipal exhibition space, housed in the renovated *archondiko* of the Lidakis family. The most prestigious public buildings of Archanes, i.e. the former town hall, the old primary school, and the old main school buildings, have been re-adapted to accommodate new functions and spaces, among which are the archaeological museum, the Cretan annex of the Greek Open University, and the center for environmental education (Fig. 33). In this way, the notion of Archaniote tradition was associated with the presence of these institutions, which until the 1990s were foreign to the life of the village.

Fig. 33 The historic building of the Primary School of Archanes now housing the Cretan annex of the Greek Open University. (Photo by the author)

The decision to preserve all pre-war architectural elements to the detriment of post-war additions implies that the period between 1950 and 1990, despite marking the end of the economic stagnation and poverty brought on by the war, has been deliberately excluded (perhaps for being considered unworthy of inclusion?) from what is called "Archaniote tradition." All the elements dating from this period had to be either erased or, when this was not possible, covered and replaced with newly made structures resembling the traditional ones—what D. Brown calls "genuine fakes" (Fig. 34).[50] Even certain communal spaces that

49 See Kopytoff 1986.
50 Brown 1996.

Fig. 34 Performing tradition on modern buildings. (Source: Acts Archanes 1992: 186)

never existed yet comply with people's idea of the past are now deemed as "authentically" traditional. This process has occurred in several other places in Greece, especially where local communities debate how to represent their heritage.[51]

This process of "authentication" of Archaniote culture involved co-operation between different types of authority. People *with* authority, people *in* authority, and people *speaking about* the authority of tradition[52] negotiated, contested or decided the interpretation, use and management of local heritage. The people in authority—that is, Mayor Stavros Arnaoutakis and the local council—were engaged in efforts to ensure the allocation of funds and the commission of scientific studies for the preservation of local architecture. Local intellectuals exercised their well-regarded authority in the same direction, as this followed from their occupation with folklore, that is, the domain of tradition par excellence, consolidating or reifying its meaning and aesthetic expressions.[53] (Fig. 35) Scholars working in situ, such as the archaeologist Sakellarakis—a person *with* authority, though not always uncontested—played a special and generally acknowledged role in the philosophy of the project (Fig. 36). They often demonstrated a certain sensitivity towards local cultural memory by advocating maintenance of heritage from other historical periods besides the Minoan, and by including the Archaniote landscape into their surveys. "*He* [Sakellarakis]

51 See e.g. Kenna 2003.
52 Fees 1996, 123.
53 Cf. Cowan 1988.

Fig. 35 Daedalus and Icarus in a "minoanized" scene. Embroidery made by the local teacher, folklorist and writer Irini Tahataki who donated a series of similar works to the local primary school "in order to remind local children of their heritage". (Source Tahataki 2019: 31).

Fig. 36 Commemorating Y. Sakellarakis at the courtyard of the local museum. (Photo by the author)

pushed in Europe for the renovations"—affirmed an old Archaniote woman—"he is the one who made Archanes what it is now."

Such actions, however, were not always accepted without objections. Vagelis Horafakis, an Archaniote housepainter who received only a basic education,[54] recalls the initial periods of the restoration campaign as difficult. At that time, many people refused to see "what was good for the place:"

> *It is always the educated people, the intellectuals, who will struggle against power and thus set things right. And I am not talking about the mayor, the authorities, but the locals. Sup-*

54 All informants are referred to by fictional names, with the exception of the mayor of Archanes and the renowned archaeologists and researchers.

> *pose Sakellarakis had not been there to talk and grumble and quarrel and say 'don't use cement to build'—do you have any idea what would be left of Archanes by now? Nothing. It would have been turned exactly into a new Timbaki or Moires, these awful copies of Heraklion. Do you have any idea of what we went through when the decision about the houses was taken? People were arguing in the kafenia (coffeehouses). Ask anybody: they will tell you. But it was only a minority that reacted against it and they were finally convinced. Sakellarakis told them: "This is a holy mountain* [Mt. Juktas]*; it is not proper to put antennas on it." But there were people who claimed that they should be allowed to watch more TV channels; can you see what I mean? I think that there should be more sensitivity around these issues. People don't realize that if we don't take up any action, we'll all end up being identical to anyone else due to globalization.*

Vagelis is willing to support the initiative as long as archaeologists and local authorities protect the historical character of Archanes as "objectified"[55] in its material and natural heritage. For him, the modernity of Heraklion, now replicated in many small towns in the region, clashes with the significance of his place; it should be avoided as an example of the negative effects of cultural homogeneity brought on by globalization. The preservation of material heritage is an ethical issue, a tangible step towards the safeguarding of local identity. Unlike other places in Greece, where identity is mainly affirmed through a top-down approach to antiquities preservation as imposed by state archaeological authorities, in Archanes the affirmation of local identity involves the preservation of inhabited spaces and landscapes. These even include "non-modernized" aspects of Mt. Juktas, a place imbued with great sacredness due to sustained religious practice over time.

In a paper given in 2001, Yannis Sakellarakis encouraged the Archaniotes sitting in the audience to remain dedicated to agriculture, "as local people have always done [there] since Minoan times," and to prevent Archanes from becoming "a suburb of Heraklion."[56] This seemingly odd encouragement to agriculturists in practicing their "age long tradition"—inextricably linked to the "threatening" expansion of Heraklion towards Archanes—reveals the weight that scholarly authority retains in all matters concerning not only the past and its national significance but also the present and future of the village. Profound knowledge of local history, which implies recognizing agriculture as the main factor responsible for the prosperity, cultural progress, and wealth of Archaniotes, is claimed by local authorities, cultural institutions, tourist operators, and scholars alike. In reality, these practices are gradually becoming more symbolic in reference to local identity with gradually less practical grounds rather than a promising occupation in the future.

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55 Tilley 1999, 2001.

56 The paper was given at a conference on the history of Archanes in the 20th century (12–13 May 2001), held at the local Primary School (see Sakellarakis 2008).

Performing and experiencing tradition

Streets in Archanes have always been stone-paved: our place has been civilized and productive from the very beginning.
Lela Papadaki, farmer.

Can anyone say that he doesn't want tourism? It's as if he says that he doesn't want any people to come here. Can anybody say that? No one can. Besides, people always used to travel, to go places. Since ancient times, Greeks and Minoans have moved from place to place. The point is what kind of tourism you want.
Vagelis Horafakis, housepainter

As one can imagine, Archanes has gradually entered the domain of cultural tourism and ecotourism.[57] Until 2002, the village had only one place offering accommodation—a hotel housed in an old *archondiko* "restored with rustic elegance," as its advertisement claims. Today, there are more than ten hotels (Fig. 37, Fig. 38). Their purpose is to offer holidays inspired by the meaning of local tradition; thus, they promote scenic views of Mt. Juktas and the rural landscape and boast of "traditional communal spaces" as well as other local attractions. Nonetheless, almost all accommodations offer modern facilities, e.g. a swimming pool in what used to be the courtyard of an old house (Fig. 39). They even serve organic food based on recipes from the old Cretan culinary tradition, often through references to the Minoan production of oil and wine as well as the use of aromatic herbs. This trend reflects a growing interest from the tourist industry in the sensory aspects of an enduring Cretan heritage (Fig. 40).[58]

The EU "subsidies to tradition," especially those provided within the LEADER programs, emphasized the special character and quality of Archaniote products and supported "alternative" or simply more sustainable activities beyond the imperatives of mass-tourism.[59] In this way, many local traditions were not only promoted and authenticated but also re-constructed, re-enacted, and eventually re-used by the local population as a means of self-representation.

57 Archanes-Asterousia Municipality 2014.
58 Solomon 2008, 459.
59 The LEADER EU programs, implemented between 1991 and 2005, were aimed at an integrated and sustainable development of rural areas. They focused on a plurality of economic activities related to the environment, the local cultural heritage, and the connection between local traditions and modern technologies. Such programs managed to engage the members of local communities, who were called to actively participate in the funded investments (Ray 2000). For an ethnographic study of a LEADER project in Greece (*Wine Roads of Northern Greece*), see Aspraki 2007.

Fig. 37 Negotiating tradition at the interior of a local hotel.

Fig. 38 "Traditional houses" at Troullos, the central quarter of the village.

Fig. 39 Archaniote architecture as décor. Experiencing modern facilities at a local small hotel.

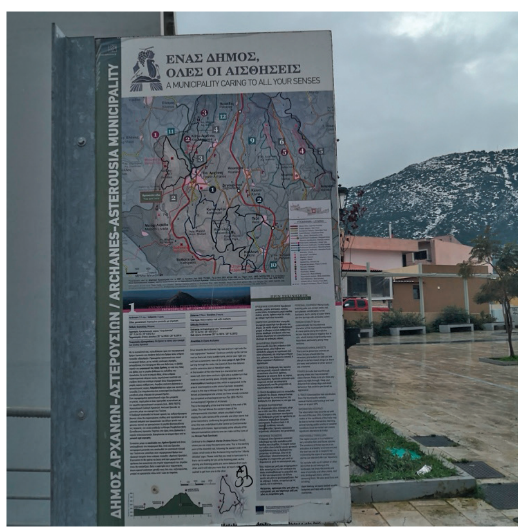

Fig. 40 "A municipality caring to all your senses". Multi-sensory approach to tourism at the region of Archanes and Asterousia. (Photo by the author)

In contrast to most other places on the island, where tourist advertising focuses on the antiquities and the seaside, in Archanes visitors are encouraged to experience "a place with history" which is not exclusively confined to archaeological ruins but embraces Cretan culture as a whole. "Are you looking for the real feel of an authentic Cretan village? Then Archanes is just the place to be!"[60]—announces a tourist website. As a matter of fact, Archanes is now regarded as the place par excellence to live a truly "Cretan" experience, whereby "Cretan" means "authentically" and/or "traditionally" Cretan.

With these premises, even the living spaces of Archaniotes can serve as a traditional décor—a welcome and pleasant frame to the Minoan palatial building. During our conversation, a young German tourist pointed out that the humble Minoan archaeological site excavated at Tourkogitonia is even

> *... more interesting ... than Knossos, where the crowds and what you see in front of the entrance* [the tourist shops] *make it look like a circus. In Archanes, the houses of modern people all around, which are also nice,* ***make the archaeological site look more authentic***. [Emphasis added]

A similar anecdote concerns a small, decorated square built around a tiny church as part of the overarching conservation program: a primary school group from Heraklion was on its way to the museum of Archanes when their teacher suddenly stopped in front of the square and asked the children to observe it. As she expressed, she wanted the children to "absorb"

60 See Archanes 4, webliography.

the image of the picturesque church in the middle of the nice small square, "an image characteristic of the beauty of Cretan villages that now we rarely encounter."

Within the much broader phenomenon concerning the negotiation of local traditions, which occurred over the last decades in Crete and beyond,[61] a new definition of tradition took shape in Archanes. This notion is reflected not only at a material level, in the aesthetics of houses, public spaces, and ancient sites, but also in people's judgements on the content, style, and "authenticity" of their heritage. The active engagement with these subjects generates new cultural practices, such as many promising forms of cultural tourism that have the potential to reshape—as we will see—people's living and working spaces as well as the dynamics of collective self-representation involving the recent and ancient past of the village.

A "modelled" heritage landscape: new social relations in operation

Historical consciousness and other forms of social knowledge are created and then replicated in time and space through commensal ethics and exchange … In this type of exchange, history, knowledge, feeling, and the senses become embedded in the material culture and its components: specific artefacts, places and performances.[62]

The conservation has considerably changed the attitude of local people towards the meaning of old architecture. Traditional domestic spaces used to be looked upon as old-fashioned dwellings and often left abandoned. Nowadays, these same properties, mostly owned and inhabited by Archaniotes who chose to take advantage of the program's favourable terms, stand as the symbol of a remarkable local past; they are largely incorporated into the notion of a collective history worth not only remembering but also re-experiencing.

Lela Papadaki, a local farmer in her sixties, asserted:

Today Archaniotes tend to include all old stones in their houses, and even the new buildings follow the old style: stone-built walls, yards, enclosures; the least people do is using stone as a coating material … We personally refurbished our two small houses (metohakia) in the countryside: they are now without plaster so that the old stones (pelekia) can be seen.

Stone offers a metaphor for the materiality of an important past, both individual and collective.[63] The preservation and valorization of stone has the function of "memorializing" the

61 See, e.g., Kalantzis 2019.
62 Seremetakis 1996, 99–100.
63 Cf. Tilley 2004.

past of the village and reminding everyone, particularly Archaniotes, of the importance of their own heritage (Fig. 41). As Casey observes, commemoration is something "thoroughly communal;"[64] the preserved dwellings, although privately owned, are bearers of the social memory and collective history of the village. It is not surprising, therefore, that the *body metaphor*[65] is here used to illustrate the special significance of old Archaniote houses. Such a trope is so powerful in Archanes that all stone constructions become bodies proud of their creators—as some Archaniote folklorists put it.[66] Like human beings, they grow "wise" because of the countless stories they "hear" from and about people's lives and deaths, even though for many years the old stones and their stories have languished beneath layers of plaster.

Fig. 41 A private house recently restored. Note the modern use of stone. (Photo by the author)

Fig. 42 The "rediscovery "of a traditional material: stone works as part of the conservation program. (Source: Former Municipality of Archanes)

The re-appreciation of stone at a local level had two collateral consequences: the revival of the almost forgotten professions of stonecutter and stone builder (Fig. 42), and an increasing demand for handmade objects. As often happens with old objects discarded from everyday use (e.g. antique furniture),[67] their re-appearance in contemporary contexts "under a

64 Casey 1987, 217.
65 Tilley 1999, 45.
66 Doundoulaki 1996, 17–18.
67 See Mavrayianni 1999.

layer of dust accumulated with time"[68] is imbued with strong and sometimes new meanings (Fig. 43, Fig. 44).

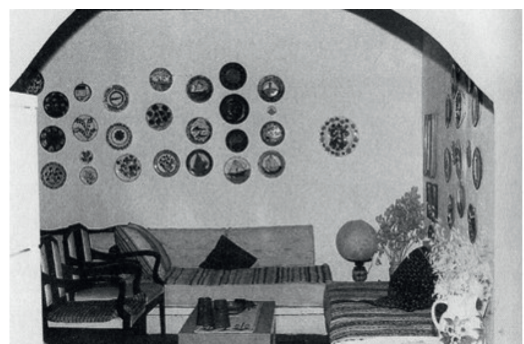

Fig. 43 An old house wine-press transformed into a living room. (Source: Doundoulaki-Oustamanolaki 1996, 54)

Fig. 44 Stone furniture at the court of an Archaniote house. (Source: Doundoulaki-Oustamanolaki 1996, 55)

My discussions with Archaniotes revealed that their stories about the architectural heritage and the revived traditions of the village are often linked to local *archaeological* heritage. Most stories are intertwined with personal, family, and community reminiscences: the actions of some respectful citizens, the work of local cultural institutions, the cultural activity of the local school in the past and present, the donations to the local council, the visits of some significant politicians, and even the illicit trade of antiquities by some villager peers. What is more, narrations often revolve around kinship relations—happy or unhappy marriages, significant or poor dowries, family prestige and personal values, judgements and statements. It appears that these tales rely on a complex network of social relationship involving different actors, in which the individual and the collective are inextricably linked.

For example, the memories of Mrs. Gemenaki, a woman born around 1920, validate the current fame of Archanes as a place of great antiquity and archaeological importance. For her, the past of the village is linked to the reputation of her family's restaurant, where Sir Arthur Evans used to eat back in the 1920s. The antiquities she remembers belonged in Minoan times to "the Palace of Archanes," which now attracts the attention of visitors and great scholars alike. In her narration, Mrs. Gemenaki connects different periods of Archanes—the Minoan age, the 1920s, and the present—in much the same way she assembles the different parts of the ancient building at Tourkogitonia, whose image is located, literally and metaphorically, at the intersection of official history and family memories:

68 See supra n. 65.

> *Evans was a very frequent visitor in Archanes. In those times, there were neither restaurants nor tavernas in the area. "Miriofito" was the only one and it was renowned all over Greece; even more, it was renowned abroad.*
>
> *... Evans was here before 1925, but it was that year when we got to know him. I was a little child at that time; I had not even started school, that's for sure. He was a frequent visitor ... we assume now that he knew that there were a lot of antiquities in Archanes. He most certainly knew that ...* [...]
>
> *Once my mom told me—I was a little child then: "Marika, let's go to Tourkogitonia to see the antiquities found there."*
>
> *And we went there and we saw ... well, a house and its walls were torn apart. Of course, now there are modern houses built on that site, built by some ladies, their maiden name is* [...]*; well, they built the houses on top of the ancient site. At that time, it was not forbidden to build on those sites like it is today, and those women did. And I told Mr. Yannis* [Sakellarakis] *all about that and he told me "You are the first one to have seen those antiquities." It was like a big house, as big as a threshing court, or a wine press; sure this is how it was. And it seems that it was covered afterwards and the [modern] house was built on top of it. But I do remember. And it is still underneath the house ...*

Another old, illiterate Archaniote woman recalls her only visit to the archaeological site of Vathypetro (see above Fig. 15) with a group of foreigners which occurred some years before. In her description, archaeological information is mixed with her knowledge of the therapeutic qualities of oil and wine and their sacred meaning in Christian faith. The woman confirms that this sort of old wisdom derives from ancient times through references to the herbs growing on Mt. Juktas. The discovery of carbonized herbs in the palatial building excavations has recently led to the assumption that the collection, use, and perhaps export of herbs was a common practice in Minoan times. As mentioned above, the interpretation of Minoan remains includes the "landscaping" of the site with modern clay vases containing local herbs. My informant bemoans the indifference of contemporary people towards these herbs, which, since the days of Vathypetro, were used by traditional doctors in Archanes. She affirms that she became pregnant with her son thanks to the herbs of Mt. Juktas, which she took upon advice of an Archaniote midwife (*palaini mami*). Ascribing the mountain's flora, the properties of "scientific medicines," she goes on to say that "even scientists in Athens and a doctor working at Ippokration [a hospital in Athens] recognize that, as long as Juktas exists, we shouldn't take any other medicines for certain illnesses" (*και η επιστήμη σήμερα το αναγνωρίζει να μην παίρνουμε φάρμακα αφού υπάρχει ο Γιούχτας*). The woman reinforces her personal attitude towards illness through a selection of pieces of specific historical information, received in one way or another from people with different degrees of authority: doctors, archaeologists, wise old midwives, and even the foreign tourists who visited the site of Vathypetro with her to learn about Minoan oil and wine.

Ideas about the archaeological past have become, in some cases, an integral part of the everyday life of Archaniotes. For instance, the bulk of memories of Mrs. Papadaki, a farmer, revolve around a few specific objects, which she wants to show me: an old clay jug for the transport of wine, an ancient lamp used before the arrival of electricity, and the upper floor of her neoclassical house. A world of embodied historical knowledge emerges in her narration: the material culture of "traditional Archanes," much like that of her childhood and family past, is uncompromisingly related to Minoan objects. The clay jars we see at Knossos "were made and still are made by the potters of Thrapsano," she says;[69] the metal lamp she has kept as a memory of pre-electricity times is "similar to those that replaced the clay lamps used since Minoan times." Even some specific localities that she associates with her family past are linked to the Archaniote traditions and official knowledge about the Minoan period:

> *Right here, where the school is built, there used to be a stone-pit (petrokopio) and they had carved basins where to put the grapes, press them, and collect the must. Back then in Minoan times they also had vineyards and produced wine here. And we all know that there were storehouses in Minoan palaces.* [...]
>
> *My father used to have three wine presses here ... and there were barrels all around the place and he used jugs to get the wine, like the one I showed you. And whatever was left of the wine, he used it to make raki in six large jars, earthen jars, just like the ones you see at* [the palace of] *Knossos.*

Mrs. Papadaki's narration shows how ideas about the archaeological past have become, in some instances, integral to everyday life in Archanes. Her observations exemplify the transformation of collective rhetoric—similar to the rhetoric of Greek nationalism about the ancient past—into a personal narrative built upon reminiscences of embodied experiences and aspects of local history. The very materiality of this personal and collective heritage has stimulated a more pervasive revitalization of the Archaniote identity. As a result, idealized conceptions of ancient history have entered the domain of people's everyday lives. Antiquities—which are of unquestionable national and sacred value, yet usually perceived as distant and abstract—here have discursively transcended the state-controlled space of

69 Thrapsano is a village located 32 km south of Heraklion; it is famous for its pottery, especially the large clay jars (*pitharia*) used until the 1950s in Crete as storage vessels. In the last decades, the art of jar-making has been revived in Thrapsano, as jars are now used for decoration purposes and seem indispensable in most representations of traditional Cretan households (see Fig. 30 and Fig. 44). As a consequence, potters have now returned to Thrapsano, and there they have founded their professional associations. Some cultural activities organized annually celebrate the similarities between the Thrapsaniote *pitharia* and the famous Minoan jars.

excavated land plots to enter in the form of regular performances[70] the realm of social interactions, due to the strong ties they keep with the "lived" past of the village.

We can see how, in the narrative of my informants, the uncovered *pelekia* in restored houses, i.e. the blocks of stone worked by the honoured Archaniote masters (Fig. 45), are linked to the fine masonry of the Minoan "palatial building" at Tourkogitonia (Fig. 46). In

Fig. 45 Uncovered *pelekia* (stone frames) in a restored house opposite the Archaeological Museum of Archanes highlight the importance of the local conservation program. (Photo by the author)

Fig. 46 Masonry from the Minoan palatial building of Archanes, often connected to the use of stone in modern local houses. (Photo by the author)

much the same way, the fine handicrafts created by Archaniote women in the 20th century are linked to the ancient objects discovered at Fourni (Fig. 47a and b); the famed grapes still grown by Archaniote farmers, to the Minoan wine press unearthed at Vathypetro; the therapeutic qualities of Mt. Juktas herbs, to the carbonized herbs discovered in the Minoan palatial building; the festival at the church of the Transfiguration of Christ on Mt. Juktas, to the activities of the ancient pilgrims who, in Minoan times, used to reach the mountain sanctuary on the backs of donkeys to practice their religious rituals.

These associations may not differ much from those found in several other places that have embraced cultural tourism, nor from the well-established nationalistic narrative of Greek folklorists, who have long stressed the ancient pedigree of many local customs. Yet, it is worth noticing how these conceptualizations of heritage can generate new discourses

70 Cf. Haldrup and Bærenholdt 2015.

Fig. 47 A local lady presenting family heirlooms at her place as examples of collective Archaniote heritage. (Photos by the author)

and statements about the meaning of local identity. These are materialized not only as communal spaces under the jurisdiction of individuals with political or scientific authority, but also in the domain of private life, as people's personal choices.

This phenomenon explains why, twelve years after the first implementation of the program, many have continued to restore their houses in the old style without any subsidy or financial aid from the municipality, the state, or the European Union. Domestic spaces and items that do not serve current needs, such as wine presses, are kept in the interior of the houses as tangible memories of both personal and collective history. When old rooms are transformed into extra bedrooms, attractive living rooms, or other domestic spaces, the once displaced stone objects belonging to these spaces, e.g. pieces of furniture, water basins, vessels, and hand mills for the grinding of wheat, are being re-incorporated into new forms (see above Fig. 43 and 44, also Fig. 48a and b). Many of these objects, until recently considered to be on par with folklore museum pieces, have new phases added to their "biographies,"[71] as they are re-appropriated as family heirlooms. Moreover, what is held to be the "traditional aesthetic," imitating—with or without success—the old architectural style, has been adopted in most local shops and even in the more recent "neo-traditional" residences that Archaniotes have built for their children. Thus, people's houses in Archanes have been restored together with their family past(s). Metaphors of kinship, thoroughly implicated in the transmission of property from one generation to the next, have found a practical and

71 See supra n. 48.

Fig. 48 Cretan clay jars decorating a public space and a modern hotel bar. (Photos by the author)

symbolic expression here through the inclusion of inherited objects in local people's lives as well as the interest Archaniotes show in bequeathing them, both literally and metaphorically, to future generations.

Finally, the Archaniote rural landscape is being gradually (but still slowly) turned into a spectacle, a tradition-bound "visual pleasure," whose ancestry appears to trace back to Minoan times (Fig. 49a and b). This operation entails much more than methods of agricultural economy and people's hard work, since it evokes aesthetic values and even social virtues.[72] Moreover, as long as landscape views are linked to enjoyment through multiple senses, not only sight but also smell and taste, they seem to be an appropriate setting for visitors and Archaniotes as well to experience tradition (Fig. 50a and b). This conclusion is confirmed by Raphael Samuel, who writes that the ruling passions of each period—in this case the aesthetic enjoyment of historical landscapes—are deeply impressed on "traditional forms," especially those presented as timeless and unaltered.[73]

It is in this spirit that Mrs. Fanouraki, an Archaniote retired teacher, bought a house in the countryside, just next to the archaeological site of Vathypetro. In the tiny settlement nearby, with fewer than 20 houses, Mrs. Fanouraki and her husband enjoy the silence, peacefulness, and beauty of an "ancient landscape" of hillsides and endless cultivated fields. As the couple affirms, the view from the house "of four provinces of the county is quintessentially Cretan, and Archaniote in particular."

72 See Hirsch and O'Hanlon 1995; Bender 2002; cf. Solomon 2006 on the social significance of the landscape of Knossos.
73 Samuel 1994, x.

Fig. 49 The Archaniote landscape as a (personal) spectacle. (Photos by the author)

Fig. 50 Experiencing authenticity, Cretan hospitality and local dishes at an Archaniote tavern. (Photos by the author)

The hamlet of Vathypetro, near Archanes, was once a very poor locality, and the two families who used to live there eventually moved to the main village in the early 1960s. With the decision of the Fanourakis and a few other people to buy and restore the handful of houses in Vathypetro, the hamlet has returned to life. In 2002, a local cultural association was founded. During the festival of the local church's saint in the same year, many Archaniotes went to Vathypetro to celebrate the event, make their good wishes to the new residents, and attend the speech of local folklorists—all this under the light of a small electrical generator, since the settlement was abandoned before the introduction of electricity.

Being aware of the meaning and value of old Cretan handicrafts, the couple decorated their new house in Cretan style: "We have made all decoration look Cretan," (*κάναμε όλη*

τη διακόμηση κρητικιά)—they point out. Besides choosing only stone and wood as building materials, they brought several old objects inherited from their parents, some of which Mrs. Fanouraki had planned to donate to the local folklore museum—except that at the last moment she decided to keep them to furnish the new country house.

The nearby antiquities of Vathypetro are perceived as a fundamental starting point in the history of the area. The Archaniote couple considers them as the beginning of a long evolution which includes, among other things, the impressive visual patchwork of vineyards and olive groves that surround the site. The heart of the place beats in its landscape, its source of wealth since ancient times. Today, it is being offered as a pleasure to those who can appreciate its ceaseless cultural value.

The rural-urban character of the Archaniote economy and social organization facilitated the accommodation of a new cultural idiom, for which the reproduction of specific aspects of the past to the detriment of others comes to be regarded as a matter of personal and/or collective choice, deeply affecting people's lifestyle.[74] All actors involved contribute to the shaping of this new cultural reality: the local authorities, first and foremost the mayor, by "rooting" the (European-funded) future of the village in its past; the people from other places, who settle in this "appealing place;" the citizens of Heraklion and the cultural tourists, whom the recent tradition-focused enterprises target; the scientists who take part in local heritage projects and conferences; and, undoubtedly, also the European Union, the supporter of many local initiatives. By emphasizing some aspects of this new cultural reality while underplaying some others, all of them contribute, in different ways, to the consolidation of new cultural forms and representations; in other words, they shape and often are shaped themselves by what Parmentier calls "signs *of* history which are also signs *in* history"[75] in a quickly shifting present.

Counter-discourses on the meaning of tradition

Local narratives on tradition and its relation to the conservation program are not unanimously accepted. Although most Archaniotes acknowledge the efforts of scientists and local authorities towards the preservation of local heritage, some point out that what we think of and reproduce as "traditional" did not necessarily exist in the past that we want to revive. As an Archaniote painter told me while complaining about the colors of restored houses, in Archanes "lots of things look 'traditionalish' rather than traditional."

Yannis Ventourakis, a young merchant and the owner of a shop in the heart of the village, restored his paternal house in the Archaniote spirit, in compliance with a set of colors, ma-

74 See Giddens 1994.
75 Parmentier 1987.

terials, and decorative elements that recall the old style of local architecture. Nevertheless, he believes that the use that has been made of European funds for the purposes of material conservation was, especially in public spaces, "superficial" (*vitrina,* that is, a "display window"); in practice, the result "disorientates" the villagers:

> *What tradition? Can you see anything traditional?* [. . .]
>
> *All this is but a façade. Archanes was a rich rural area and now some people intend to ruin it. So much money is being spent just to show off, just for renovations and tavernas and the like but in appearance only. And when all of this is over, there will be no money, not even to restore the stones that have already started to break.*

Ventourakis questions the local interpretation of tradition, as he believes there is more to it than the colors of houses and the stone-paved squares. The problem to face, he argues, is not so much that of house renovation but the decline of viticulture, which for him constitutes "the real tradition of the village." He contends that the funds allocated by the European Union should be used to support Archaniote farmers rather than "to beautify houses." In reality, the support of the EU has had the effect of valorising and simultaneously undermining the Archaniote traditions. On the one hand, it subsidized old architecture, traditional activities, and "historical aesthetics" while on the other hand, through its Common Agricultural Policies, it reduced the support to small-scale farming in the Mediterranean as a part of a new international agricultural market strategy.

In the eyes of the people who look at the conservation program through the lens of their own economic situation, what is being promoted as local "cultural upgrading" brings benefits only to those who "exploit tradition." Maria Xanthaki, an Archaniote woman in her late sixties, always very sensitive about and actively engaged in the subject of community welfare, claims that the so-called "upgrading of Archanes" should have been accompanied by the improvement of local economic conditions. She declares to be against a potential turn of the village towards tourism, and rhetorically asks whether "by making Archanes an 'extended tavern,' the place will recover [from the economic crisis]" (*Όμως, με το να γίνει μία ταβέρνα η Αρχάνα θα ορθοποδήσει;*)

Therefore, practical economic factors are related to and implicated in, the cultural revival of Archanes. This does not mean, however, that the rationale for the conservation program is to be found in the decline of agricultural activities. Yet, taking pride in the famous rosaki grape (although it is no longer cultivated) or expressing fondness for the "timeless" Archaniote landscape and its agricultural practices, which supposedly remained almost unaltered since Minoan times (whereas now these methods are declining and the surrounding landscape is spotted with modern constructions), is perhaps a phenomenon which follows the same rationale as the (re)discovery of the past and its value. Presenting a society as tradition-bound is a discursive attitude; thereby, common practices are turned into sym-

bolic entities and lose their secured habitual character. In confronting their society and its past, people "substantivize" it[76] and "need to obtain information . . . about the nature of what was supposedly . . . their own."[77] In other words, as they enter the logic of a "post-traditional" society,[78] there is a transition from "practices and ideas which are simply done or thought, or simply take place, [to] those set up as definite entities to be reflected upon and manipulated by the people."[79] Within this logic, tradition gradually becomes a matter of conscious choice, personal and collective, often dependent upon the replications of meaning found by people in past material forms.

The common point in most criticism of the village's "upgrading" is neither the rejection of tradition as irrelevant to modern people's lives, nor the contestation of the actual value of architectural restoration; people rather contest the lack of support to what is considered the "real" traditions of Archanes, that is, its high-quality agricultural production and the moral values of its people.

As Mrs. Xanthaki asserted:

> *Our people have been here since ancient times. Minoans were peaceful; they loved their homeland, and they were progressive. What about us? We have the means to progress and we have to do it the same way as our ancestors. But what do we do? We deviate and act like people do in America* [. . .] *The American way of life has been established here. Have our customs and traditions been maintained? Archanes is now unrecognisable!* [. . .] *In our neighbourhood people used to come out of their houses and sit together with other people and talk about their work in the fields, about their problems that they could share with each other; they used to help each other. Nowadays we are more and more alienated.* [. . .] *We don't respect or love each other anymore, as we used to do in the past.*

Among all symbolic references to local heritage, the Minoan past of Archanes seems to stand as a binding force, for it encapsulates the idea of Archaniote progress, open-mindedness, hospitality, and love for the homeland; it also seems to resonate with people's sense of morality and many of their customs. This suggests that, in a period of increasing individualism—marked by alienation and indifference to local values—ideas about a mythicized past may function, at least for some residents, as an important, specifically local, model-inspiring action for a better future. Remarkably, these ideas are known and retrieved exclusively through material remains.

76 Thomas 1992.
77 Thomas 1992, 72.
78 Giddens 1994; cf. Dovey 1985.
79 Thomas 1992, 64.

Conclusions

We are simultaneously bearers and makers of history, with discursive representations of pastness as one element in th[e] generation and reproduction of social life.[80]

Persons make things and things make persons.[81]

In Archanes, two material dimensions of the local past meet and operate together: one is represented by the restored houses, the other by the archaeological discoveries. The first is associated with the economic prosperity brought on by agriculture in the first decades of the 20th century, a time that local people remember vividly. The second is associated with the historical importance of the village in specific fields since the Bronze Age. Each of these "material worlds" explains the other, and both inform the present. As for the "biography" of the most delicate of all Archaniote "objects," i.e. its rural landscape, the survival of significant elements of material culture dating from both periods has the power to "objectify" local agricultural history and aesthetic ideals; consequently, these aspects are encapsulated in a very comprehensive notion of tradition.

By examining the processes of negotiation of Archaniote heritage, I have attempted to show that the meanings attributed to the material culture(s) of the Minoan era on one side, and of the period prior to World War II on the other, are interrelated and interdependent. I have also highlighted how the little-known and little-visited archaeological remains discovered in the area have gained social significance due to their correlation—social, symbolic, and aesthetic—to the extensive program of conservation of architecture and public spaces undertaken between the 1990s and early 2000s. It has also been argued that the program has led to the monumentalization (though not to the "museification") of local environments through the restoration of private properties and "authentically traditional" living spaces. This occurrence has changed not only the image of Archanes but also its significance in the eyes of all those who have a bond with this place, especially the neighbouring Herakliotes, other Cretans, and, to a lesser extent, an increasing number of visitors.

The narratives of Archaniotes relating to tradition and the perceived relevance of the Minoan past in the life of the village are largely based on a convergence of individual and social memories. These two dimensions of memory are mutually mediated: in Archanes, the remembrance of one's family past tends to be seen through the lens of what is considered a collective history with specific material manifestations. As long as ownership is not affected by the measures for material conservation (at least, no more than it was before the

80 Tonkin 1992, 97.
81 Tilley 2004, 217.

beginning of the project), the "idiom of the family"—the logic of descent associated with the inheritance of material property as Margaret Kenna and many researchers have noticed in the Greek society[82]—found in Archanes a symbolic ground for development. Within this framework, material culture has played an active role. The memories many of my informants retain of their childhood, their families, their social and patriotic acts, and other personal experiences are now mediated through the appropriation of the village's widely publicized heritage; the latter goes as far as to include, next to the admired works of the villagers' fathers and grandfathers, the material legacy of Minoan Archaniotes—a remarkable and tangible sign of the influence of this ancient civilization on the village.

What makes the "Archaniote case" special in the Greek context is not merely the unusual approach of local people towards the ancient material heritage—overall quite a positive one, since their property rights have been hardly affected by the new measures—but also the ideological implications of conservation. By casting ideas on antiquity into the logic of a "post-traditional" society, whereby the approach to tradition becomes a matter of personal and collective choice, the conservation program was able to reshape the nationalistic discourse on the past at a local level. Moreover, unlike other places in Greece, where the evocation of antiquity is often linked to ideas about the cultural and historical superiority of the country as the "cradle of national and Western ideals," in Archanes this rhetoric partakes of a socially experienced time and space, in which the appeal to the ancient past serves the cultural, economic, and social interests of today's village.

In fact, Archanes represents an interesting example of a broader phenomenon, that of the cultural emergence of localities on the global scene.[83] The Archaniote conceptualization of the past as materialized in heritage assets should be understood as a part of a global system of practices and beliefs promoting (and producing) cultural differences on a small spatial scale. In the last decade, such differences are also used in order to emphasize the neglect Archaniotes feel after the administrative change brought with the "Kallikratis" division in 2011. Despite the acknowledged historic and cultural importance of Archanes, the seat of the newly founded "Municipality of Archanes/Asterousia" is no longer located in Archanes but in the "indifferent" and "culturally insignificant" little town of Peza in Central Crete. Perhaps more successfully than any other place on the island, Archanes has been able to appropriate a global order of things and modulate a specifically local response to it. It is also important to keep in mind that the debate on Archaniote heritage, founded as it is upon the concepts and values of "Europeanness," transcends national boundaries. The European awards, the EU's commitment to financing and promoting local material culture and activities, the arrival of European tourists interested in all things Archaniote, e.g. cultural expressions, landscapes, and agricultural products, all contribute to shaping a different re-

82 Kenna 1976; Just 1998, 337.
83 See Appadurai 1995.

lationship of this locale to Europe at large. Local knowledge produces reliably local subjects and neighbourhoods "within which such subjects can be recognized and are organized," as Appadurai argues.[84] Here, this knowledge places local identity in new discursive contexts: as long as the village has something special to offer in the cultural palimpsest of European localities, it keeps *producing* Archanes as a distinct locality on a regional, national and international scale.

Finally, although tradition is usually thought of as being in opposition to modernity—and this was certainly the case in Greece, where old-style and "backward" material forms have been largely contrasted to the idea of a fanciful, much desired European-style progress[85]—the example of Archanes shows that in practice these two notions can also complement each other. This relationship of complementarity does not merely lay upon rhetorical and usually abstract claims of generational continuities between past and present communities, but also upon the very materiality of living forms of heritage. In local, regional, and tourist discourses, the nexus between past and present projects an image of the village as the "most authentic" and at the same time "most European" place on the island. The "introverted and ugly village of 30 years ago" is being transformed into an "appealing village to visit and to live in," showing exactly how material culture, as embedded within specific social and economic dynamics, has the power to affect the way people act and think for and about themselves.

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84 Appadurai 1997, 181.
85 See Tsoukalas 1998.

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Part III:
Intervening on Archaeological Landscapes

Is the Past Sustainable? An Economic Perspective

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Abstract This chapter tries to shed some light on the challenges and opportunities related to the sustainable conservation of 'minor' cultural heritage, which has mainly local relevance, with some reference to archaeological sites, which have not received great attention in the economic literature. The chapter highlights the role of cultural heritage for society's wellbeing and addresses some economic issues arising in the cultural heritage field, such as the motivation of government intervention, the attention for the heritage public decision-making process, the complexity of valuation, the interaction of public and private actors, and the implication of new technologies. The final aim is to contribute to promote an interdisciplinary dialogue, which is necessary to address the complex issues related to the multifaceted nature of heritage.

1 Introduction

Cultural heritage is increasingly recognised in political debates and official reports of international and national agencies as an important factor for sustainable social and economic development. Such an impact, however, cannot be taken for granted, since it strongly depends on the stance of cultural heritage policies as well as on the type of cultural heritage involved.

Everywhere, public sector intervention is widespread in the cultural heritage field, with cultural policies having changed in the last twenty years both in terms of the perception of what is heritage and of their role in broader policies.[1] Relevant differences do exist in the size and characteristics of public intervention across countries as well as in the role of

1 Mignosa 2016.

Ilde Rizzo:
Is the Past Sustainable? An Economic Perspective.
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the private sector.[2] There is not a unique solution suitable in any circumstance to ensure that cultural heritage is valorised and managed in the interest of society. On the contrary, 'country-specific', if not 'site-specific' solutions are called for.

From an economic perspective, a crucial issue is that the production of heritage goods and services, or in other words, heritage conservation,[3] as any other goods and services in the economy, produces benefits but has an opportunity cost, since it implies the use of resources that could be employed for other aims. Economists are not entitled to define what 'heritage' is but can highlight the implications of individual and/or collective choices for society's wellbeing,[4] the central question being how to make unlimited wants and scarce resources compatible. The multifaceted nature of heritage and its cultural, aesthetic, symbolic, spiritual, historical, and economic features, however, calls for tackling heritage issues with a multidisciplinary perspective. The awareness of considering economic issues together with traditional concerns of conservation and research is taking place[5] and is a challenge for cultural economists too (Rizzo 2018).

The features of heritage affect the range of benefits and costs deriving from its conservation, with different actors involved, giving rise to different economic implications. Thus, a distinction has to be drawn between heritage of different quality—for instance, worldwide known heritage vs. regional or local heritage—and location—for instance, whether heritage is part of the urban environment or it is located outside cities; or whether heritage is a single historical building or part of a historic district.

Building on the author's previous research, this paper tries to shed some light on the challenges and opportunities related to the sustainable conservation of 'minor' cultural heritage which has mainly local relevance with some reference to the peculiarities of archaeological sites which have not received great attention in the economic literature.[6] It addresses some major issues arising in cultural heritage policies such as the complexity of

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2 Compendium—Cultural policies and trends in Europe (http://www.culturalpolicies.net/web/index.php) provides an overview of how cultural policy issues are addressed in different EU countries and offers comparative statistical data.

3 Conservation is a wide concept which "encompasses all aspects of protecting a site or remains so as to retain its cultural significance. It includes maintenance and may, depending on the importance of the cultural artefact and related circumstances, involve, preservation, restoration, reconstruction or adaptation or any combination of these" (World Bank 1994, 2).

4 In very general terms, the discipline of economics studies how individuals, separately or collectively, decide about limited resources in order to satisfy their utility (what to produce and how) and about their distribution (for whom).

5 Cultural heritage reports and documents increasingly quote economics (e.g. Getty Conservation Institute 2003). The debate is widespread in the archaeological community, see Koriech and Sterling 2013.

6 In the meta-analysis on the application of the contingent valuation method to the cultural field (Noonan 2003) only 3 out of 65 studies refer to archaeological sites: Templo Mayor, Cholula, and Cacaxtla (Mexico); Stonehenge (United Kingdom), and Campi Flegrei in Naples (Italy). In Eftec's (2005) survey, 33 valuation studies using different methodologies, only 5 of

valuation, the interaction of public and private actors, and the implication of new technologies. The final aim is to contribute to fostering of an interdisciplinary dialogue, which is as necessary as it is difficult in the cultural heritage field.

2 Economic and cultural values

2.1 Cultural heritage constitutes the endowment of a community (at national, regional, or local level). In very simple terms, heritage can be analysed as a capital asset with at least two different dimensions. On the one hand, there is a physical dimension, implying the allocation of resources to prevent deterioration; on the other hand, heritage offers a flow of services to be consumed (Peacock 1997) and to be used for production purposes,[7] not necessarily related to the use but only to its existence, in the present as well as in the future.

Several economic arguments about the significance of cultural heritage to society imply 'market failure'[8] and provide a rationale for government intervention. The positive impact on local development, with tourism being considered a major driver, the transmission to future generations, the improvement of education, the enhancement of the sense of community and identity, and the promotion of national prestige, are just some examples of the benefits which cannot be provided through the market and call for public action to avoid their under-provision. There are also equity reasons requiring government intervention to increase heritage accessibility, foster social inclusion, and reduce social and economic barriers. While the existence of market failure in the heritage field is widely agreed upon, the level of public support for cultural heritage is controversial and a matter of an ongoing debate, not to mention that government intervention is also subject to failure and does not necessarily ensure efficiency (Frey 2020; Towse 2019).[9]

To design better-targeted heritage policies, however, it is crucial to value the contribution of heritage assets to societal well-being. Valuation is a complex issue because of the peculiar features of heritage, which is different from other goods, as it is well described by

them refer to ruins or sites of archaeological interest, which are very diverse: the three above mentioned sites and, in addition, aboriginal rock paintings in Manitoba (Canada) and Machu Pichu Citadel and the Inca trail (Perù).

7 For instance, the artefacts of an archaeological site may provide consumption experiences for visitors and, in addition, may also stimulate various forms of creativity (art works, books, etc.), thus generating further capital formation.

8 It is widely acknowledged that cultural activities are socially relevant, that market fails because of externalities, public goods, information problems, and the role of heritage in generating option, bequest, and existence benefits, and it needs to be corrected according with individuals' preferences (Towse 2019).

9 See below, Section 3.

the notion of 'cultural capital', that is "an asset that embodies, stores or gives rise to cultural value independently of whatever economic value it may possess" (Throsby 2011, 143).

The coexistence of both economic value and cultural value raises challenging issues in terms of valuation. In fact, a fundamental distinction can be drawn between these values. The economic value, whether arising in real or contingent markets, is conventionally assumed to be made up of use and non-use values and is measurable in financial terms. The cultural value according to Throsby's[10] definition is multi-dimensional, consisting from a multiple set of attributes (aesthetic, spiritual, social, historical, symbolic, as well as authenticity, integrity, uniqueness, and so on) and lacks an agreed unit of account.

A widely used approach to measure the economic effects of cultural heritage activities, such as impact studies, while being favoured by 'art people', is questioned by economists because these studies tend to overstate the economic effects, disregard opportunity costs, and are likely to generate a misallocation of resources (Seaman 2020). These studies, in fact, have a high risk of advocacy in favour of heritage activities with the highest short-term economic impact, mainly measured by tourists' expenditure.[11] Also, these usually overlook the negative 'side' effects exerted by tourism pressure on heritage sites and on local communities (Bonet 2013) and disregard cultural and non-use values, which are embedded in heritage activities.

In this respect, several economic valuation studies of cultural assets estimate total economic value, including not only use values but also intangible non-use values which are not captured in private market transactions. Willingness to pay is usually taken as a measure of the economic value. A close analysis of economic valuation methodologies and of their application to cultural heritage is outside the scope of this paper.[12] On the grounds of extensive reviews of valuation studies, it is interesting, however, that, overall, positive values are attributed to the conservation or restoration of heritage assets (Eftec 2005). Moreover, looking at the drivers of value, Wright and Eppink (2016) find that value estimates (mainly of built heritage) are lower when conservation implies only passive site protection while are higher for adaptive re-use. Furthermore, some studies suggest that willingness to pay for archaeological sites is rather similar in value to historical sites but is significantly higher in value than heritage and museum goods (Noonan 2003).

Looking at specific archaeological sites, some results are worth noting. Kinghorn and Willis (2008)[13] find that visitors of Vindolanda assign priority to excavating and researching the site, keeping the artefacts in the site museum (rather than displaying them elsewhere),

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10 Throsby 2013.
11 These studies use traditional indicators of economic growth such as national income, consumption expenditures, and employment.
12 An extensive review of revealed versus stated preference methods is provided by Willis (2014).
13 The study was carried out on Hadrian's Wall (inscribed in the WHL in 1987), during summer 2006, using a Choice Experiment technique and 149 visitors to the site were interviewed.

increasing the amount of reconstructions and, finally, to introducing audio guides. Riganti et al. (2004),[14] using Paestum as a case study, find that visitors prefer the improvement of accessibility and educational and pedagogical programs with no interest towards the transformation of the site in an entertaining place.

The differences in methodology, scope of the analyses, and type of heritage do not allow for sound generalisations. Overall, however, the empirical findings seem to suggest that people attribute a significantly positive monetary value to the conservation of cultural assets,[15] that values are higher for users (visitors or residents) than for non-users, and that educational experiences are appreciated by the public and affect the monetary value of heritage sites.

2.2 A major shortcoming of the above standard economic valuation, however, refers to the inadequacy of the willingness-to-pay approach to grasp the overall dimensions of cultural value. In fact, it considers cultural value only as a determinant of economic value, rather than value in itself, i.e. motives behind use and non-use values. It is assumed implicitly or explicitly that economic value encompasses the cultural value and that all its elements can ultimately be rendered in monetary terms, disregarding the peculiarities of its multidimensional features.

Wright and Eppink (2016) suggest that the economic value only partially captures cultural value: a meta-analysis of 48 evaluation studies (mainly referring to built heritage) indicates that there are facets of heritage value that are not captured very well by willingness to pay, such as, for instance, the relevance of sites to local, regional, or national identity.[16]

Indeed, the soundness of economic analysis would benefit taking the multidisciplinary challenge of cultural value valuation. The issue is not new among heritage professionals. Since the Burra Charter, the problem of cultural significance has been put forward, calling for the adoption of values-based management for archaeological heritage, the involvement of various stakeholders, and the local community participation (Williams 2018).

Evidences from sociology, psychology, geography, and cultural studies suggest that heritage is place-bound, it greatly contributes to the identification of people with specific places, and is closely involved in local place images and identities (Ashworth 2013). Historic built

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14 The study was carried on the archaeological area of Paestum and its museum (inscribed in the WHL in 1998), in July 2002, using Conjoint Analysis technique and 732 visitors were interviewed (96% of the sample was made by tourists and 76.5% of the respondents was living outside the Campania Region).

15 There is some evidence that EU citizens appreciate cultural heritage: more than 80% think that cultural heritage is important for them and are proud of the heritage of their country (Eurostat 2017).

16 For works of arts, Throsby and Zednik (2014) find some evidence for the hypothesis that the cultural value component, while related to economic value, is not subsumed by it.

heritage also contributes to reinforcing the 'sense of place', thus, providing a social context, in which people can interact and become acquainted with each other, and also enhances the formation of 'social capital' (Bradley et al. 2009). The assessment of cultural value, however, is still in its infancy and objective methods are needed to make it operational and incorporated systematically in decision-making not just in intuitive terms. The lack of information and data regarding the various components of cultural value, however, requires collaborations between economists and experts from different disciplines, so that elements of cultural value can be explicitly integrated into the analysis. Throsby (2013) suggests three different approaches to evaluating the components of cultural value of heritage: objective description,[17] direct rating,[18] and indirect rating.[19] Whose judgements have to be involved is a somewhat open question: on one hand, the role of heritage professionals is stressed and, on the other hand, a more 'democratic' approach relying on individual preferences is proposed.[20] This is not a trivial issue, as the analysis of the public decision-making process suggests,[21] and the development of rigorous comprehensive methods for non-monetary cultural value assessment appears a line of research to be explored to provide useful support to heritage decision-making.

3 Actors and modes of heritage conservation

3.1 Cultural heritage policies imply the negotiation among several actors: policymakers, public officials/experts, providers of heritage services, and the general public who finances cultural heritage activities (Holler and Mazza 2013), leaving room for conflicting demands of conservation and large scope for interest groups. Public intervention relies on different combinations of policy tools (regulation, direct and indirect expenditure), depending on the

17 Some aspects, which are relevant for the cultural significance of a cultural asset (e.g. the date of construction, the building's physical condition, the architect or builder and his/her reputation, the usage of the building for cultural purposes, an anthropological, ethnographic, historical, or other type of narrative connected to the building, the location of the building, etc.) can be expressed in objective terms and thus, enable the implementation of a rating system.

18 The assessment can be expressed in qualitative or quantitative terms. A simple scale for a qualitative rating might assign a low, medium, or high level to each attribute of cultural value to be measured. When different attributes are assessed by these means, various methods can be used to aggregate them to yield an overall rating.

19 It can be employed to investigate attitudes to heritage of non- experts, such as members of the general public: qualitative attitudinal data are gathered and then converted under given assumptions into numerical scales.

20 The need of involving all the relevant stakeholders to capture the cultural value of archaeological sites is stressed by Klamer (2014). On the public archaeology approach see Moshenska (2017) and Oliver et al. (2022).

21 See below, Section 3.

prevailing economic and institutional setting[22] and the stance adopted by government affects the role played by the private sector.

Cultural heritage policy decisions occur in a complex system of principal–agent relationships[23] with the related information asymmetries. In general, these information problems characterize the public sector decision-making and policy implementation, but they are even more relevant for cultural heritage because of the specificity of the knowledge and expertise required to evaluate heritage matters. Indeed, heritage is a rather elusive concept, changing constantly through time, with a widespread phenomenon being the enlargement of its scope both at international[24] (Frey and Steiner 2013) and national level (Benhamou 1996).[25]

The formal recognition of what is heritage and what deserves protection is in the responsibility of experts, usually operating on behalf of heritage authorities. There is no objective way of identifying what priority has to be established in setting the agenda for public intervention. The decision of *what* to conserve and *how* is usually affected by the presence of specialized interests in heritage protection. The type of expert (archaeologist, art historian, architect, etc.) involved, who usually aims at maximizing reputation among the peers, is important in determining the size and the composition of the stock of cultural heritage, as well as the type of conservation that can take place, the uses which are allowed and the related services and economic effects (Peacock and Rizzo 2008). The expertise also affects the choices regarding the balance between the conservation of the past versus the promotion of contemporary heritage, the biases in favour of the past versus the future relying on the assumption that future generations' preferences are similar to present ones.

3.2 Officially declaring something as cultural heritage implies the aim to protect it and usually may limit the potential uses, though assigning heritage significance may increase its value (Kea 2017). Such a decision, on the one hand, reflects the experts' judgement, without necessarily taking into account its opportunity costs, and, on the other hand, generates costs/benefits for specific groups. The approach to conservation is not 'objective' and the

22 For a comparative overview of the different institutional arrangements for archaeological heritage, see Kreutzer 2006.

23 In this type of relationship, which is very common in public decision-making processes, the *principal* delegates power to the agent to act on his/her behalf and information is asymmetrically distributed in favour of the *agent*. Incentives have to be designed to induce the *agent* to act according to the *principal's* preferences.

24 The enlargement through time of the World Heritage List by UNESCO is a clear example: from 45 properties (34 cultural, 8 natural, 3 mixed) in 1979 to 1121 properties (869 cultural, 213 natural, 39 mixed) in 2019.

25 In Western countries even more recent buildings and new 'entries'. (e.g. historic parks, gardens, battlefields as well as shops and industrial heritage) are formally recognized as cultural heritage.

discretion is likely to be greater in the decisions regarding 'minor' heritage, which are less subject to the public scrutiny. The strength of such impact, that is the balance of benefits and costs deriving from conservation decisions, depends on the role assigned to experts in the decision-making process and on the set of incentives they face.

The examples of discretional choices are several, regarding both monetary and non-monetary public actions. For instance, in presence of the stratification of many historical periods and styles, there are different options of intervention, with different impact on the related costs and benefits.[26] In another perspective, conflicting experts' views arise from the differences in the agenda of archaeologists and conservation professionals: "archaeologists need research results for publication and academic validation; conservation of the sites they dig has been (and sometimes still is) secondary to them" (Demas and Neville 2013, 338). Thus, an argument can be made that the conservation of archaeological sites is best ensured when they are not excavated (Kea 2017).

Another controversial issue among heritage professionals is to what extent the intervention on archaeological sites should be carried out through reconstruction affecting their authenticity, whatever it means, with implications also for the overall number of benefits generated to visitors and local communities in terms of site information and interpretation.

Furthermore, the issue arises of what to do with the artefacts of no rare artistic value produced by excavated sites, which are very often transferred to repositories where nobody can see them and with no perceivable benefits for society. Giardina and Rizzo (1994) raise the provocative argument that these artefacts, which are often identical, none of which with specific features (for instance, pottery used in everyday life in ancient times) might be more conveniently sold, the revenue being used for the conservation of the site, which might be threatened because of budgetary stringency. Legal rules usually prevent the sale of artefacts in public ownership but this tight regulation cannot be always justified on normative grounds. It is worth noting, however, that reducing regulation does not necessarily ensure that sales would take place. If the archaeological site activity is financed out of public funds, the manager would not have incentives to engage in such a risky commercial activity,[27] though beneficial for the site. Two results stem from this 'conservationist' stance: the opportunity cost of the items in repositories is overlooked and the items remain unseen.

26 Montemagno (2002), using Syracuse as a case study, provides evidence that the scholastic and academic training of regulators, namely the widespread cultural education from archaeological schools, tend to undervalue medieval relics, when compared to the relics of classical antiquity and, therefore, biases the allocation of resources for conservation and impinges upon tourism potentiality outlines.

27 It is worth noting that similar issues arise in preventing de-accessioning in museums. Ginsburgh and Mairesse (2013) suggest that selling might be helpful in preventing looting and reducing illegal trade.

3.3 Indeed, the extension of the lists of artefacts belonging to cultural heritage as well as the conservation decisions which limit the potential uses of heritage and overlook the related opportunity costs,[28] on the one hand, require increasing resources and, on the other hand, are likely to discourage private investments in the field. Consequently, the demand for conservation increases and, since there are financial constraints that limit the extension of public intervention, the objective of conserving heritage may not be fulfilled and sustainability issues arise, their extent crucially depending on the size of the benefits that cultural heritage is able to produce. To make cultural heritage conservation sustainable, the challenge is to enlarge as much as possible private support and participation in their various forms and to diversify the sources of revenue.

The extent of private and non-profit actors' involvement differs across countries and it is crucially affected by government policies as well as by the prevailing social attitudes. Indeed, when the cost opportunity of funds is high, the 'legitimacy' of cultural heritage organizations needs to be enhanced, favouring community involvement, meeting the demands of new social and economic categories, and promoting a deeper attention toward social responsibilities, from environmental to multicultural issues.

In Western countries, trusts and foundations have an important role for cultural heritage and, in some cases, private action can be more longsighted than public intervention or even a substitute for it.[29] Public-private partnerships can be effective means of heritage policies to handle projects, which require coordination, high competences, and integration between partners of different nature (Dubini et al. 2012). The relevant differences across countries in the extent of private financial support only partially can be explained by fiscal incentives (e.g. tax expenditures), shared social norms and intrinsic motivations being relevant drivers too. Stimulating volunteers' participation is also important, not just to get an economic advantage, but as a means of involving citizens and increasing their sense of belonging to the heritage institution.

Indeed, private and non-profit support is affected by the accountability and responsiveness of heritage organizations toward the public (Santagata 2014). Institutions 'matter': autonomous, motivated, and committed cultural heritage organizations are more attractive

28 For a description of the direct and indirect costs, which regulation imposes on society, see Peacock and Rizzo (2008).

29 For instance, in the Netherlands, the intervention of a foundation prevented the destruction of windmills and only after the Dutch government took action for their preservation (Mignosa 2016). In Britain, associations range from specialized entities, for example conserving artefacts illustrating the history of fishing or the conservation of old steam trains, to those with more general aims responsible for major segments of heritage provision. The most important example of the latter is the National Trust, with about 3,000,000 members, which is the largest single private landowner in Britain (Peacock and Rizzo 2008).

for fostering community support and participation[30]. Moreover, devolution also increases the accountability of public action and allows for a better control of the decision-making process (Rizzo 2004).[31]

The production and distribution of information can play a crucial role to shape institutions, enhance political participation, and, therefore, reduce the authority-driven approach, and provide incentives for 'demand oriented' policies. For instance, simple digital tools such as websites, digital public consultation, or virtual meetings may be useful to favour higher transparency and improve accountability, making thus available a wide range of information to stakeholders and favouring their inclusion in the decision-making process.

3.4 Furthermore, at a general level, Information and Communication Technology (ICT) in its various forms (from a 'traditional' technology, such as websites and digitization, to mobile applications and virtual worlds) can have relevant effects on the sustainability of heritage activities.

Technology, in fact, has effects on content, presentation, and interpretation of cultural heritage with the likely consequence that individuals' knowledge increases, (on site or online) users' understanding and engagement improve, and their involvement in demanding and supporting heritage might be enhanced. Moreover, ICT also allows for co-creation and active contribution to social storytelling, which may stimulate the community involvement and favour social cohesion, since not only professionals from heritage institutions but also the wider audience participate actively in generating living heritage.[32] This beneficial impact on audience enlargement and engagement, however, cannot be taken for granted. For instance, the 'elitist' approach of experts might lead to highly specialized digital cultural content, with poor educational effects and scarce attention to the involvement of the public. To what extent heritage organizations are willing to exploit the potentialities offered by digital technologies to be innovative and responsive toward the public, varies across countries and depends on the incentives and constraints that society and funding bodies impose on them (Rizzo 2016).

ICT may also reduce the scope for the public financing of heritage (Giardina et. al. 2016). New opportunities for the voluntary provision of cultural goods arise through crowd-funding because transaction costs are eliminated. ICT also offers opportunities for producing joint products with divisible private benefits (e.g. DVD, e-books, web services with selective

30 Heritage organizations operating in arms' length systems (as in UK) are more accountable toward their stakeholders than 'state-driven bureaucratic' systems (such as the Italian one) (van der Ploeg 2006).

31 An extensive literature on fiscal federalism suggests that devolution is an institutional arrangement which better responds to the differences in local preferences, improving citizens' information and increasing their confidence in public policy (Oates 2008).

32 Examples are offered by de los Rios Perez et al. 2016.

access) generating economic incentives to private provision and also impacts on the relations with founders, enlarging the possibilities for advertising and making sponsorships more attractive.

Last but not least, the 'globalization' of culture favoured by technological advancements (Peacock 2006) may have positive impact on the sustainability of heritage sites conservation because of the direct financial contribution deriving from tourists spending on the budgets of heritage organizations. Without entering the wide debate on the 'shadows and lights' of tourism (Bonet 2013), which is outside the scope and the limited space of this paper, it is worth noting here that these beneficial effects cannot be taken for granted and may have distributional implications. On the one hand, the evolution of cultural tourism towards the search for wider cultural and 'creative' experiences (Richards 2018) is likely to favour sustainability, especially for 'minor' heritage sites. In fact, it may contribute to fostering the art and crafts production, creating new products, helping communities in appreciating their own culture, with a positive impact on the authenticity of a place, and promoting less visited rural areas.[33] To meet such a changing demand, however, a comprehensive and coordinated supply of tangible and intangible cultural resources is required (OECD 2018), involving all public and private stakeholders—cultural institutions, heritage owners, local communities, cultural operators, and creative producers—for contributing to the distinctive identity of the place. On the other hand, however, because of the occurrence of the 'digital divide' across regions and institutions, 'minor' heritage institutions, especially in low-income areas, being less visible on the Internet, may suffer a competitive disadvantage in attracting visitors and may be dominated by less culturally relevant ones (Paolini et. al. 2013). Such a challenge impacts not only on the heritage organization but also on local social and economic development. Policy measures to promote innovative network projects to be undertaken by 'minor' heritage institutions could be useful to enhance these 'invisible' cultural resources (Rizzo 2016).

4 Concluding remarks

Few tentative concluding remarks are in order. Cultural heritage is a dynamic and variegated concept with great beneficial potentialities for society's well-being, which crucially depend, however, on the design of policies. In such respect, economic research has to meet the new challenges deriving from the cultural heritage 'glocal' features. Sound and socially relevant heritage policy 'recipes' have to rely on a multidisciplinary approach and the de-

33 In a different perspective, Ross et al (2017) outline that archaeological sites that have lost their materiality have 'creative' tourism potential if they still retain the 'essence of place' and their historical meaning.

velopment of rigorous comprehensive methods for the economic and cultural values assessment would provide useful support to heritage decision-making.

The sustainability of heritage conservation requires to overcome the asymmetrical information problems characterising public decision-making, to promote demand-oriented policies, and to encourage private support and participation in their various forms. To this aim, the accountability and responsiveness of heritage organizations toward the public are crucial factors to develop individuals' interest, understanding, and engagement, and to strengthen their sense of belonging. With such a perspective, heritage policies can also benefit from the opportunities offered by new technologies, having in mind, however, the implications for 'minor' heritage organizations.

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Modelling Peripheral Archaeological Landscapes

Challenges and Perspectives of a South Cretan Case Study

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Abstract Hardly any other topic has developed in recent years such a 'penetrating power' within the humanities and social sciences, but also such a strong impact on society, as the concept of Cultural Heritage, which is suitable to connect concepts of the past, the present, and the future. As one of the most important manifestations of this field, archaeological sites/landscapes have acquired an impressively increasing scientific and societal significance and present themselves as a demanding challenge that can only be tackled with novel research methodologies and management strategies. Their abundance in Greece, Italy, and other Mediterranean countries is a mixed blessing: On the one hand, ancient heritage sites are threatened, due to the lack of sufficient financial means, and, on the other, they possess a huge potential for ensuring a sustainable development, especially for peripheral regions. The present article discusses some of these current issues around the archaeological exploration and modelling of archaeological sites/landscapes both at a theoretical level and on the basis of a south Cretan case study.

Archaeology: moving from a discipline of the past to a discipline of cultural heritage

One of the most stunning current developments in archaeology is its gradual transformation from a discipline of antiquity to a discipline of cultural heritage.[1] This new field of action is much broader and more dynamic than the static notion of the 'past', since it encompasses also the present, thus providing innumerable opportunities for archaeologists to act beyond the 'ivory tower' of academia by meeting current challenges at the juncture of science, politics, economy, and, above all, society. Archaeology's new role in the midst

1 For the notion of Cultural Heritage and its growing importance in the last decades see Smith 2007; Fairclough et al. 2008; Latini and Matteini 2017; Campelo et al. 2019.

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of current developments in all these fields is nurtured by its inherent, yet to a great extent still unexplored capacity of being relevant for the present. This is a decisive advantage in our modern society, in which our discipline and related scientific fields are under constant pressure to legitimise their *raison d'être.* The new focus brings not only advantages but also requires a radical reappraisal of the traditional archaeological methods and objectives. The latter can no longer be confined either to the destructive process of excavating or passive practice of studying and publishing ancient material remains but have to acquire a more active and creative role as an 'applied discipline'.[2]

The best 'seismograph' for recording the rises and falls of this transformative process with its difficulties and opportunities is the engagement of archaeologists with archaeological sites and/or landscapes beyond the excavation context. Countless examples of these are scattered all over Greece, Italy, and other Mediterranean countries, however, their fate differs dramatically according to varying scientific, national, or local priorities. In the archaeology of the 21st century, which is inevitably part of our modern open society and consequently has to define itself as an open academic discipline, archaeological sites/landscapes represent the most demanding challenge. If we leave aside major sites which have been developed to serve as touristic destinations, the majority of the rest—especially minor and/or peripheral ones—are not only neglected but actually at risk due to a constellation of structural problems and conflicting interests. Their protection and conservation have been understandably the highest priority of state archaeologists (and of the current archaeological legislation) not only because of the natural process of deterioration but also due to the severe effects of modern development in both urban and rural environments. Yet, the realisation of even this self-evident goal is impeded by numerous—mostly but not exclusively financial—problems. An exceedingly high number of archaeological monuments and sites either deteriorate after excavation, are menaced by building speculations, or destroyed by looters. Their protection requires massive investment. The limited financial capacities of governing institutions cannot ensure the economic feasibility or sustainability of management models related to issues of conservation and reactivation. In these unfortunate circumstances, archaeologists are forced to operate in a prohibiting rather than creative manner, striving mainly to safeguard and preserve cultural heritage, with only limited capacities of taking the additional step of modelling and integrating it into modern society. In fact, the same also applies to major archaeological sites that regularly attract thousands of visitors every year. Due to financial constraints, their management does not extend beyond the most necessary protection and conservation measures. Despite these difficulties, state archaeologists in Greece and Italy have succeeded in recent years to realise major conservation programs and master plans for improving the accessibility and visibility of

2 Erickson 1992; Downum and Price 1999.

heritage sites in the course of European programs which clearly demonstrate the potential of the 'creative approach' (Fig. 1).[3] Yet, these project initiatives remain exceptions rather than the rule. At the same time, archaeologists from the academic field who conduct field

Fig. 1 The archaeological park of Selinunte (photo by the author).

projects in Greece and Italy have a pronounced focus on purely scientific approaches that confine them to the narrow limits of the archaeological sites they excavate, with no relevance to and impact on the region and local population. This unfavourable situation becomes even more critical due to a major current threat for Mediterranean cultural heritage which is linked with the activity of the private sector. Especially in periods of financial crises, local and foreign entrepreneurs seize the opportunity to design and realize ambitious projects in the course of which cultural and physical heritage is irreparably damaged. This economic exploitation of some of the Mediterranean's most ecologically fragile areas has brought only rarely—if ever—the promised positive effects on the sustainable development of a region and was unable to foster the improvement of the life standards of

3 Among several examples for an exemplary management and modelling of archaeological sites/parks, I would like to highlight Messene and Nikopolis (Greece) as well as Selinunte and Agrigent (Italy).

the local population. All aforementioned stakeholders (state, local authorities, the Archaeological Service, academic institutions, entrepreneurs, and the local population) constitute a social conglomeration which is characterized by diverging or even conflicting interests. Given this unfavourable situation, the following questions arise as urgent challenges:

a. Is it possible to develop sustainable management models for protecting, preserving, and promoting cultural heritage without running any risk of commercialization?[4]
b. Can archaeology as an academic field contribute to this dialogue by practicing the turn to an 'applied discipline' and thus acquire a relevance and significance for our society through the sensible implementation of theoretical concepts for practical modern concerns?[5]
c. And finally, is it possible that citizens/local communities participate in this dialogue as active agents, being able to determine the fate of *their* heritage sites and—more important still—to implement them as basis of a sustainable economic development?[6]

Through a balanced combination of archaeological theory and practice as well as the commitment to a participatory principle that will embrace all stakeholders, archaeological sites/landscapes can be not only modelled by implementing innovative ideas but also contribute to the sustainable development of peripheral Mediterranean regions. The scientific and social potential of such an approach is explained briefly below, with reference to the concept of archaeological *entopias* and to an on-going archaeological project in south central Crete as a case study.

From archaeological *heterotopias* to archaeological *entopias*

For the 'modern lives' of archaeological remains, their inherent historic significance is not enough. Monuments and sites must be energetically 'modelled', in an ideal case in the course of creative interdisciplinary projects that involve the participation of archaeologists, historians, ethnologists, architects, and geographers.[7] This process of conscious 'placemaking'[8] refers to both a symbolic and a practical level, i.e.: a) to the transformation of the mon-

4 See Timothy 2011; Bendix 2018; Pacelli and Sica 2021.
5 Erickson 1992.
6 Arnstein 1969; Stroulia and Buck Sutton 2010; Mergos and Patsavos 2017. For rural archaeological sites/landscapes, the active participation of local communities presupposes a certain level of appreciation and engagement with indigenous knowledge. For the increasing significance of indigenous knowledge, see Nakashima 2010; Raina 2019.
7 De Cesari and Dimova 2019.
8 Schneekloth and Shibley 1995; Mosler 2019.

ument/site/landscape into a place of living memory, belonging, and collective identity at a local or national level, and b) to the modelling of a place as a heritage site for financial purposes (tourism or urban regeneration). The key element for a successful placemaking is the notion of solidarity, the crucial factor which can bridge social distances among the involved groups and individuals. Therefore, one of the most pressing desiderata of the modern concept of cultural heritage is 'commoning',[9] i.e. the creation of a framework which will enable the management of shared resources on the basis of participatory principles.[10]

In the search of a clearly definable goal of a heritagisation plan[11] for archaeological sites/landscapes, one has to start with their actual state, in other words, the way in which they present themselves today to the visitors and/or local communities. From the perspective of both groups, the majority of archaeological sites are perceived as *heterotopias,* namely, according to M. Foucault's definition of this term, different places set aside from actual place, a disruption of space, a counter-space.[12] Within the fence, an archaeological site is a 'landscape of ruins', a fossilized space of a distant past that is void of any activity, except being the object of visual perception. One of the greatest challenges of modern archaeology must be therefore the question of how to reactivate these sites by transforming them to *entopias,* i.e., to places 'within', the distinct, authentic places which are simultaneously ideal, existing, and functional.[13] Heritage sites shaped as archaeological *entopias* can function not only as living places of shared memory but also as basis for a sustainable development of their areas and local populations. This idea can be implemented for both urban and rural sites, yet, with different tools and objectives. In the case of archaeological sites in rural regions, on which this paper focuses, the main challenge is to move from the narrowness of the fenced archaeological site to the (archaeological/cultural) landscape in which the first is embedded. For quite a long time, archaeologists tended to focus exclusively on the material remains of archaeological sites, neglecting their natural environment as well as the various ways in which the latter determined the cultural trajectory of ancient communities. Only in recent years, the impressive development of landscape archaeology, novel methods of digital documentation of spatial data, and—last but not least—the concerns of a society which rapidly transforms itself shifted the archaeological interest from 'site' to 'landscape', thus creating totally new possibilities for the dynamic—scientific and social—engagement of archaeologists in regions with rich cultural and natural heritage.[14] Therefore, the great potential of

9 Bollier and Helfrich 2015; Bollier 2016, 2; further Calvagna in this volume.
10 See Laaksonen 2010; Bishop 2016; Roued-Cunliffe and Copeland 2017.
11 Brosius and Polit 2012.
12 Foucault 1986.
13 Doxiadis 1966; 1975.
14 Gosden and Head 1994. Concepts and strategies developed for the revitalisation of urban cultural heritage can provide fruitful stimuli also for rural landscapes, see Labadi and Logan 2016; Williams 2016; Wolfrum 2018.

archaeological landscapes lies not only in their purely scientific significance as an analytical category but primarily in their capacity to provide a juncture between past and present as well as between archaeology and society. What we need are landscape-oriented strategies for contrasting isolation and integrating archaeological landscapes harmoniously into the life and economic and social activities of the local population. In every effort to realise these ideas, the main objective should be to generate from spatial coexistence a 'cohabitation', creating an interface between past and present.[15] The challenges which arise during the process of implementation of the *entopia* concept are discussed in the last part of the paper which takes the on-going archaeological project at Minoan Koumasa (south central Crete), directed by the author, as a case study.

Minoan Koumasa and the reconstruction of an archaeological landscape

Since Stephanos Xanthoudides' excavations between 1904 and 1906 and the subsequent publication of their results in 1924,[16] Koumasa occupies a very prominent position in Minoan archaeology. Located strategically on the foothills of Eastern Asterousia and overlooking a large part of the Mesara plain (Fig. 2–3), Koumasa was predestined to play an important role as a regional centre during the dynamic social processes that transformed Early Bronze Age Crete to a palatial society. This importance was reflected in the impressive finds from the old excavations in the cemetery which included hundreds of clay and stone vases, seals, amulets, jewellery, and ritual objects. More than one hundred years after the first excavations at Koumasa, a new research program commenced in 2012 under the auspices of the Archaeological Society at Athens and the cooperation of the Heidelberg Institute of Classical Archaeology and Byzantine Archaeology and the Heraklion Ephorate of Antiquities. The interdisciplinary project initially pursued the simple aim to thoroughly explore the nearby settlement and relate the new results with those from Xanthoudides' excavation.[17] The potential of this envisaged correlation appeared to be very promising, since the systematic excavation of a south Cretan settlement related to a cemetery has been a long-standing desideratum in Minoan Archaeology. The comprehensive exploration and study of one of the major regional centres of south-central Crete aspired to demonstrate

15 One of the most promising novel ideas is that rural archaeological sites can be transformed into spaces that combine not only a temporal but also a biological diversity, see Wilson 1988. The conception of inventive forms corresponding to new or ancient functions and uses of the territory could include cultivation within archaeological sites as one of the most important forms of their stewardship, see Donadieu 2014. Biodiversity embedded in a landscape masterplan as a design tool would create links between past, present, and future as well as between culture, ecology, and economy.

16 Xanthoudides 1924.

17 Panagiotopoulos 2012; 2015b.

Fig. 2 Minoan Koumasa and the Mesara plain (photo: Andreas Neumann).

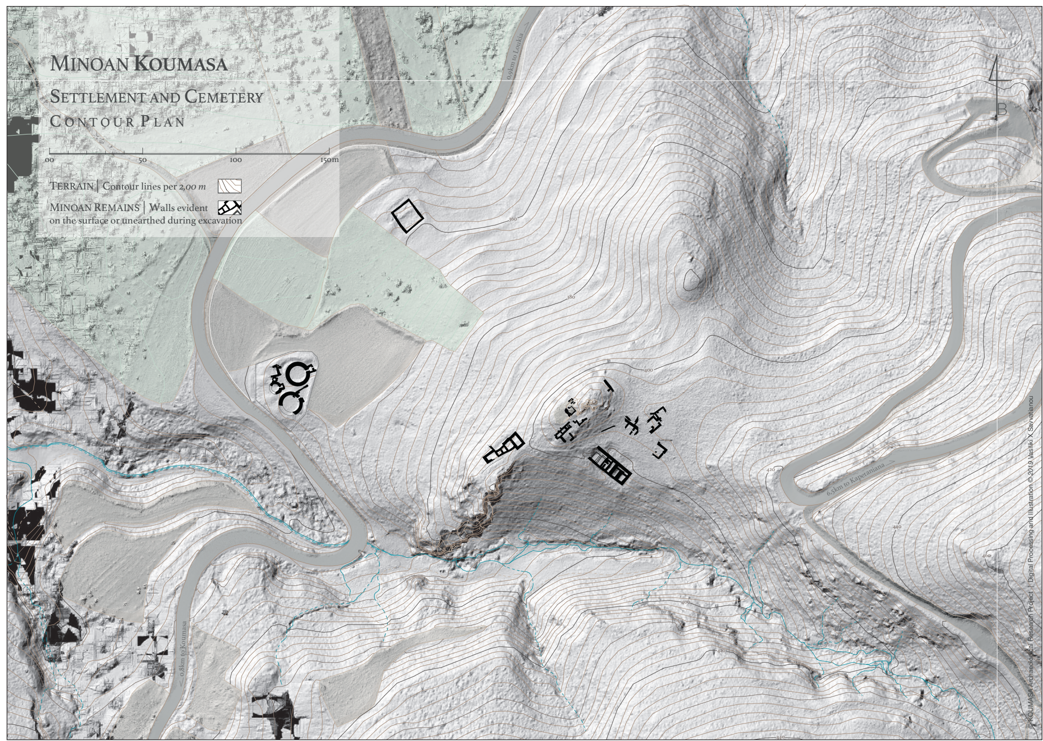

Fig. 3 Plan of the archaeological site of Minoan Koumasa.

how refreshing and important a view from the periphery can be in our attempt to understand the cultural trajectories of Cretan regions in the Bronze Age.[18]

Yet, from the very first year of the new project, nothing went according to the original plan. Nonetheless, the reasons for this deviation from the initial concept were thoroughly positive. Our intention to systematically excavate the settlement and to provide only a new digital plan of the already-excavated cemetery had to be adapted to a new challenge: during the first campaign in 2012, we realized that the cemetery was not fully excavated (Fig. 4).[19] Its systematic exploration started in the following year (2013) and was completed

Fig. 4 Koumasa: plan of the Minoan cemetery.

only in 2018, i.e. after several years of systematic work during which we discovered one more burial structure (a small ossuary), several pockets of unexcavated debris, both within and around the tombs, and numerous undisturbed contexts with hundreds of precious finds and thousands of burnt bones from secondary burials *in situ.*[20] The new spectacular finds confirmed the regional significance of Koumasa in the Prepalatial and Protopalatial period (3rd and early 2nd millennium BCE) and offered novel insights into the Minoan burial rituals which are currently the object of systematic analysis. The excavation at the adjacent settlement (Fig. 5), which after these surprising discoveries had to proceed at a slower pace, already produced significant results which pose to our team new challenges of interpre-

18 See Haggis 2002, 122: "If indeed the region represents the critical scale at which organisational and cultural systems operate […], and the effective scale at which those systems might be observable in the archaeological record […], then we might begin defining socio-economic or political complexity not in terms of centres, but in terms of their surrounding areas".

19 Panagiotopoulos 2012.

20 Panagiotopoulos 2013; 2014; 2015a; 2016; 2017a; 2017b; 2018.

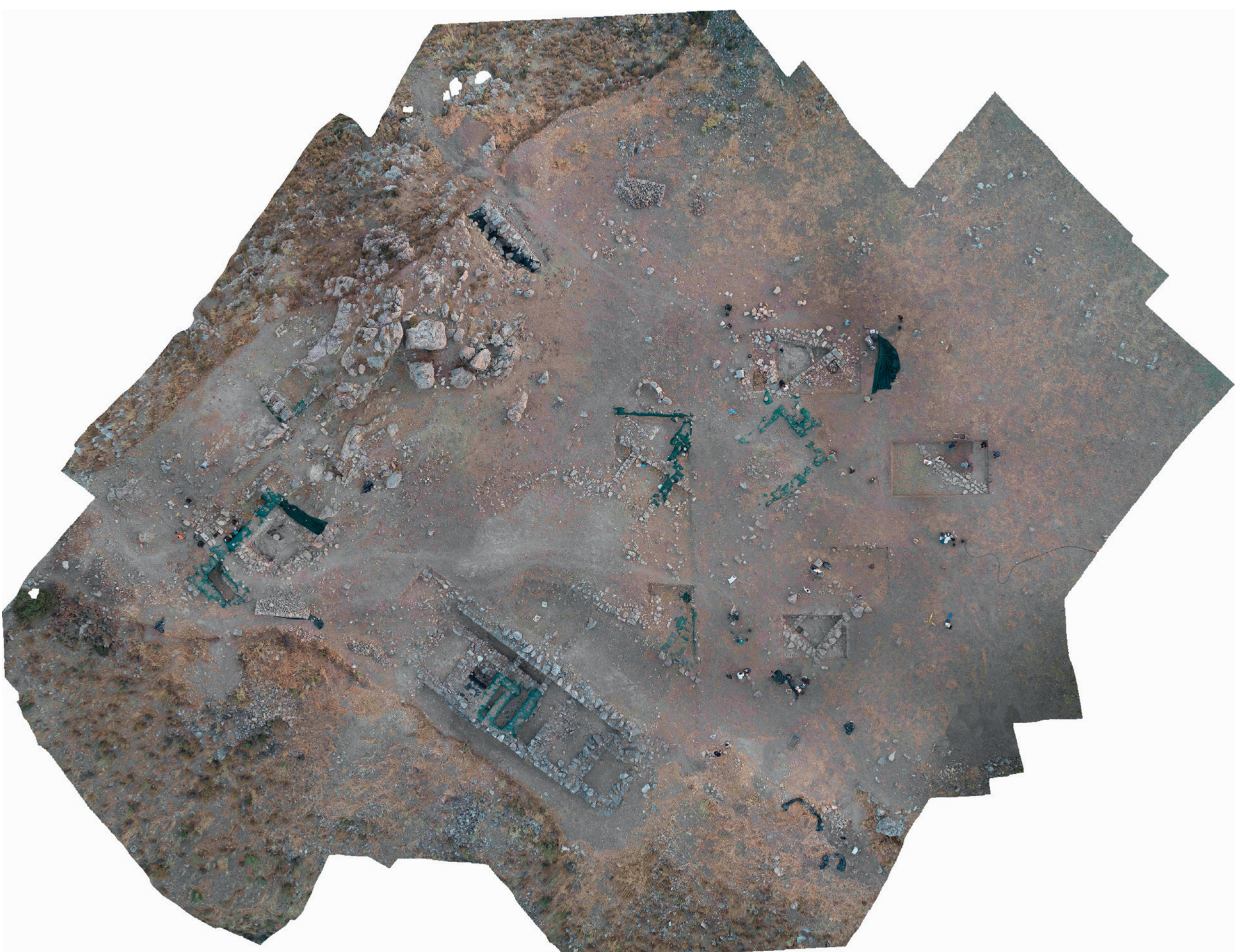

Fig. 5 Koumasa: Orthophoto of the Minoan settlement.

tation.[21] The uncovered buildings show traces of a violent destruction which was followed by the abandonment of the settlement. The most encouraging fact that resulted from the limited excavation in the previous years is the certainty that the settlement at Koumasa has thick archaeological deposits which in combination with an evident destruction horizon and the extremely favourable taphonomical parameters, ensure an impressive wealth of archaeological data that awaits to be explored systematically by implementing cutting-edge documentation methods. The excavation in all trenches confirmed the destruction and abandonment of the settlement in the Late Minoan I period (c. 1650–1450 BCE) and thus in a period considerably later than the abandonment of the nearby cemetery, the use of which

21 Panagiotopoulos 2012; 2013; 2014; 2015a; 2018; 2019.

ended in the Middle Minoan IB/II A period. The rich floor deposits in several excavation trenches leave no doubt that the end and abandonment of the settlement was a dramatic event. Furthermore, trial pits produced clear evidence for earlier occupation phases that must be dated in the Protopalatial period, to which also the last phase of the cemetery can be dated. The settlement's plan cannot be studied in detail yet, since only small parts of it have been explored so far. However, the common orientation of most walls provides clear evidence either for a massive building or for several buildings within a planned and well-organized settlement.

During the same period, however, the magnetic power of the Asterousia region and its people started impacting the archaeological team in a way in which we did not expect and were certainly not prepared for. The longer we mingled, lived, and worked with our local friends, the more we shared their most urgent concerns and let them shape our objectives. During this process, it became apparent to us that the traditional way of engaging with an archaeological site and the standard archaeological methods, priorities, and goals would have been extremely one-sided, if not naïve, for a scientific team working in the 21st century in a marginal Mediterranean landscape that was affected by a severe economic crisis. Only through a drastic reconsideration of the project's overall concept, we could respond to the challenges of this region, cope with current problems, and finally, exploit the scientific and social potential of archaeological research in an unspoiled landscape. The broadening of our scientific interests both in terms of time (diachrony) and space (landscape) has been thus inevitable. The rethinking of our methods and goals concerned two levels of action: a scientific and a social one.

At the scientific level, one imperative amendment has been the broadening of our interests from the site to landscape and from its history in Minoan times to its diachronic trajectory. Koumasa is a border locality, situated at the junction of two regions that—at least from a modern perspective—are diametrically opposed to each other: on the one hand, the fertile and during most of its history densely populated Mesara plain and, on the other hand, the barren and deserted Eastern Asterousia mountains (Fig. 6). Moreover, the wider landscape of Koumasa encompasses mountains, valleys, and the coastal line, thus providing the opportunity of a much more diversified and comprehensive approach to the interaction between man and natural environment in the Cretan Bronze Age. Koumasa has therefore an obvious hermeneutical potential for the dynamic patterns of human activity in a Mediterranean landscape from a diachronic perspective.

Looking at Koumasa from such a diachronic perspective, there is a crucial question which comes up almost inevitably for every visitor of the site who sees the ruins of a thriving Bronze Age centre lying next to modern Koumasa, one of Crete's most isolated villages (Fig. 7). How can we explain this dramatic contrast between now and then, in other words, a divide that represents one of the most common experiences in field archaeology? The same question of shifting centralities becomes even more accentuated when we turn our atten-

Fig. 6 The Mesara plain and the Asterousia mountain range (photo by the autor).

Fig. 7 Koumasa: Minoan site (in the background) and modern settlement (photo: Andreas Neumann).

tion to Koumasa's wider landscape. Since the Mesara plain has been studied extensively in the past decades,[22] a significant part of our project will focus on the geomorphology and history of the considerably less known area of the Asterousia mountains (Fig. 8), a marginal and heterogeneous landscape situated between an economically important fertile zone and a highly frequented antique maritime route along the south coast of the island. This deserted

Fig. 8 Asterousia mountain range (photo by the author).

region has experienced an extremely varied history, either being isolated, as it is today, or densely populated, as it was the case in several periods in antiquity, thus oscillating over the centuries back and forth from an isolated periphery to a culturally thriving landscape and from insignificance to prominence. This oscillating movement between centre and periphery determined the region's cultural trajectory in the last two millennia. After its last period of isolation in Late Antiquity, Asterousia, due to its marginal geographical position and mountainous character, became again 'central' in the Early Byzantine Period (4th to 8th century) as one of the first and most prominent centres of early monasticism.[23] Several centuries later, one of the most prominent scholars of the 14th century, Joseph Philagres, a commentator on Aristotle and copyist, was forced to leave Candia, which was under the fierce rule of the Venetians and the Latin Church. He sought refuge in Asterousia, where in

22 See mainly Watrous et al. 2004.
23 Voulgarakis 2017.

the middle of the Cretan nowhere, in the Monastery of Trees Ierarches (Three Hierarchs) at Lousoudi, he established one of the first scriptoria in the Aegean, where he apparently not only copied ancient manuscripts but studied and taught ancient literature, philosophy, and astronomy.[24] Soon after his death, the area faded again into cultural insignificance until the beginning of the 15th century, when the small Byzantine church of another monastery in the vicinity was decorated with wall paintings of the highest artistic quality by artists from Constantinople who had recently arrived on the island. Since the 17th century—and after the abandonment of the monastery—this church, dedicated to Panagia (Holy Mother), was embedded into the village of Kapetaniana, the most important settlement in a very thinly populated region. After three centuries of undisputed regional importance, Kapetaniana experienced a steady decline in the second half of the 20th century and was gradually abandoned by its younger inhabitants. Yet, after the recent construction of an agrotouristic resort, in the very middle of the village, by renovating some deserted houses and by trying to couple Cretan traditions with modern European norms, the village became suddenly a thriving place again as a favourite hideaway and meeting point for demanding guests both from Crete and beyond. The wider Asterousia region provides thus an elucidating case study for this tension between space and history: places and landscapes may have their own distinctive and intrinsic qualities that determine much of their 'geographic field of possibilities', yet their cultural trajectories are shaped by a complex interplay of tangible or intangible processes that are beyond these qualities. What also becomes apparent is the ambivalence of centrality: the non-central character of Asterousia, its remoteness from political and administrative centres of power, was the determining precondition for processes of centrality that turned the region from a deserted province into a focus or hub of religious, artistic, or leisure activities. In the course of this historical development, the landscape was both central and non-central at the same time, thus confirming one of archaeology's unwritten laws, namely that everything is a matter of perspective. The unbroken flows generated by asymmetries at the micro-, meso- and macro-level make clear that what we need is more methodological reflexivity that will facilitate a multiscalar approach. Only so can we grasp what N. Purcell so aptly formulated as the "paroxysm of factors" which are always at stake in a Mediterranean context.[25]

Moving from the scientific to the social level of action, we soon understood that it would be unfair and futile to focus exclusively on the significance of Koumasa in Minoan times or the impressive diachrony of the Asterousia region and demand from the local communities to preserve their cultural heritage at all costs, while these people were confronted with a severe financial crisis, worrying year after year whether they will be forced again, after some months of exhaustive work, to sell their olive oil at a shamefully low price or how to cope

24 Papazoglou 2008; Steiris 2015.
25 Purcell 2003, 13, 23.

with the increasing expenses of grazing their flocks. The question that has inevitably arisen for us was whether it is possible for archaeologists to play a more active role not only by recording processes of becoming central and/or non-central but also by acting as agents who could generate them.

Given that an archaeological project is a long-term endeavour, I think that it has the potential—or better say, the obligation—to change the fate of an isolated region. What we have to do is to find a way to bridge our scientific interests with the concerns of the local people and pursue our common objectives together. This grand challenge of archaeology for the 21st century has been very aptly formulated by T. Spek who stressed that our main concern should be "how the knowledge of the past and the care for cultural heritage can be integrated into an innovative strategy for landscape stewardship" and also "how local experiential knowledge and scientific expertise can be amalgamated and translated into a participatory planning process".[26] The realisation of such a plan should incorporate all crucial aspects of the diachronic history of a region into one entity, one archaeological/cultural landscape encompassing geology, geography, fauna, and flora but also the material remains from the past and finally the way(s) of life of the local population, traditional techniques, rituals, and habits that are authentic and, as such, part of the long history of this region. The success of any effort towards the direction of a holistic management concept of the Asterousia landscape undoubtedly requires a fit conjuncture which in this specific case is now approaching through the combination of three factors:

a. Crete's Framework for Spatial Planning and Sustainable Development which was ratified in 2017, prescribing a zoning system for specific activities in each area,[27]
b. the ambitious plans of the Heraklion Ephorate of Antiquities to create a network of archaeological sites of the Mesara and Asterousia region using the new Archaeological Museum of the Mesara at Gortyn as a gate to this network,[28] and
c. the inscription of the Asterousia Mountain Range on the UNESCO's World Network of Biosphere Reserves in 2020.[29]

Our project aspires to be prepared for meeting these upcoming challenges by working on a master plan for the sustainable development of the wider Koumasa region that includes past and present and is based on the notion of *entopia* as a conceptual framework for studying and shaping a spatial entity based on the principles of identity, relevance, and uniqueness.[30]

26 Spek 2017, 148 and passim.
27 https://ypen.gov.gr/wp-content/uploads/2020/11/3827.2010-ΦΕΚ-Α30.pdf (accessed on 5 July 2022).
28 See Sythiakaki et al. in this volume.
29 https://en.unesco.org/biosphere/eu-na/asterousia-mountain-range (accessed on 5 July 2022).
30 © *Minoan Entopia,* see Panagiotopoulos and Savvatianou, forthcoming.

In close cooperation with colleagues from other archaeological projects and disciplines as well as with the local population and the local authorities, we want to preserve, study, and promote this unique landscape as an environment shaped by man and nature. We understand the archaeological landscape not as a conserved archaeological site which is fenced off and strictly protected and thus presents an exhibited dead landscape but as a vivid space in which past and present can coexist according to a well-thought-out plan. The concept of the museum in which the material traces of the past are presented out of context in a sterile space is outdated. The museum of the 21st century is the landscape. Therefore, we envisage replacing the experience of the vitrine with the experience of a passage, a passage through space and time in an unspoiled region, in which one can see and understand the traces of the man-environment interaction and, therefore, better comprehend the dynamics of cultural change. We want the visitors to be able to perceive ancient and modern realities of a landscape as a homogeneous whole by activating all their senses. This concept of the multisensory perception of an archaeological landscape provides in my view a much better and sincere way for reviving the past than re-enactment which is based on a fake experience. In the case of an archaeological landscape, all sensual stimuli a visitor should receive from the past (by seeing and touching) and from the present (by hearing, eating, smelling) will be real, linking past and present to each other as fitting parts of a diachronic whole. The realisation of a multisensory perception of a landscape will also give us the possibility to include the local population and their authentic practices as an integral part of the landscape by offering them the possibility of a sustainable economic development which will be in accordance with the special character and fragility of this region.

For all these reasons, our excavation sets an aim that at first glance might seem quite paradoxical, namely to be a field project that should not be completed but continued in the next decades, thus becoming an integral part of the cyclic movement of this marginal landscape. On the basis of this concept, we wish to present Koumasa not as a fossilized archaeological site but as a vivid co-laboratory of archaeological research, in which the local population and the visitors will be able to witness what is actually the core of the archaeological process, namely our efforts to transform the find into an exhibit by employing all scientific methods at our disposal. With our work, we aspire to activate the power of the place and to contribute to a collective attempt to make Asterousia a region of both a unique aesthetic experience and a prominent focus of modern scientific research.

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“In the Midst of Mountains”

Messara: a Passage through Space, Myth, and Time

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Anna Genitsaridi, Alexandros Bitsavas & Georgios Petrakis

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Abstract The necessity to communicate the rich cultural heritage of the Messara valley and its impact on the formation of the Cretan civilization through a holistic approach led to the creation of two interrelated projects: the establishment of the Archaeological Museum of Messara (AMMe) by the Greek Ministry of Culture and Sports, and the project of the Region of Crete, in coordination with the Ephorate of Antiquities of Iraklion. The purpose of these projects is to establish a network of cultural routes that will unite the places of archaeological interest and various remote monuments of the region with the new Museum as a starting point. The concept of both these interlaced implementations is presented below.

A. The concept of the new Archaeological Museum of Messara (AMMe)

“In the midst of mountains,” between Psiloritis and the imposing wall of the Asterousia Mountains, protected from the freezing northern winter wind and the hot southern summer wind, irrigated by the waters of the holy river Lethaios and freshened by the breeze of the Libyan sea, the valley of Messara always represented for the Cretans a sort of a promised land.

The fertility of the land favored human habitation very early. During the Neolithic period the first organized settlements appeared on the low hills in proximity to the river banks, which controlled the access to the plain from the sea and the northern coast. From these early settlements emerged the Minoan administrative centers of Phaistos and Hagia Triada as well as the Doric acropolis of Gortyn, which was destined to become the most powerful Roman city of the Southeastern Mediterranean. The trade of Messara with Egypt,

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Africa, Cyprus, and the coasts of Anatolia contributed to the affluence of its population and favored the development of the harbor cities of Kommos, Lebena, Lasaia, and Matalon (today Matala).

Lying in the midst of the two sacred mountain peaks, Ida, where Zeus was nourished, and Kofinas, Messara was the birthplace of myths. On its fertile grounds prevailed the worship of the Minoan bull, a symbol of power and wealth. Here, the bull became Zeus who met with Europa under the evergreen plane tree. Here, Europa gave birth to Minos, founder of Knossos, and Rhadamanthys, founder of Phaistos; and it is here, where she later married Asterion, who gave his name to the range of Asterousia. Finally here, the son of Rhadamanthys, Gortys, founded the city that was named after him.

This is the land where Apostle Paul ministered, the land where the relic of his companion, Apostle Titus, founder of the Cretan Church, was praised for centuries, the land linked with the sacrifice of the Ten Martyrs. This is also the land that sheltered the eremites, the land of the holy mountains and gorges, the land where the worship of new Martyrs first appeared during the Middle Ages. This was the cradle of the Christian cult in Crete.

The necessity to communicate the rich cultural heritage of this unique region and its impact on the formation of the Cretan civilization through a holistic approach is met by two interrelated projects: the establishment of the Archaeological Museum of Messara (AMMe) by the Greek Ministry of Culture and Sports, and the project of the Region of Crete, in coordination with the Ephorate of Antiquities of Iraklion. The purpose of these projects is to establish a network of cultural routes that will unite the places of archaeological interest and various remote monuments of the region with the new Museum as a starting point.

The construction of the new Museum, financed by the National Strategic Reference Framework (NSRF) Program 2003–2013, covers an area of 2,900 m² on the western edge of the archaeological site of Gortyn, a huge future archaeological park, where during the last century impressive relics of the ancient city were unearthed (Fig. 1). It was designed as an

Fig. 1 General view of the new Archeological Museum of Messara (© EphAHer)

independent and fully organized Museum, which, aside of the exhibition halls, is equipped with a conference hall, a temporary exhibition hall, an inner courtyard fit for cultural activities, a café and a souvenir shop, as well as with spacious access points. The Ephorate of Antiquities of Herakleion was responsible for providing equipment and furnishing the conservation laboratory and the Museum storage rooms according to modern standards, as well as for the design of the Museum's permanent exhibition (Figs 2 and 3), which is financed by the undergoing NSRF Program 2014–2020.

The foundation of a new museum exclusively for the antiquities of Messara was a constant demand of the locals and the excavators of the area for decades. The necessity of the Museum was perhaps not evident, given that the most famous artifacts were already exhibited in the Archeological Museum of Herakleion (AMH), which, in fact, has been recently renovated. However, a series of reasons called for its creation:

i) The necessity of a synthesis. The "metropolitan" Museum of Herakleion, due to its huge amount of exhibits from all around the island and its thematic organization up to the Roman period, can offer only scattered aspects of the specific area's cultural life through time. From this point of view, the AMMe fulfills a different purpose: the necessity of a synthesis, which permits the visitor to ascertain the unique cultural character of the area in its entirety and through time, from the Prehistory up to the early Middle Ages. Synthesis and interpretation have been much championed by the archeological research of the last few decades, which provided new evidence for the topography and history of the area, thus enriching and often altering older interpretations, as well as new findings which are kept in storage rooms, unknown to the public.

ii) The Museum as a junction for the interconnection of the archaeological sites. Messara is a region of tourist attraction. Due to its mild climate and the numerous coastal settlements, the tourist season in Messara extends until the end of autumn. Nevertheless, the tourism is not of industrial character as it is the case in Knossos and the AMH. Most of the travelers have a particular interest in the region: they evaluate the history, the monumental heritage, the folk tradition, and the beauty of its mountains and coasts. Many of them are highly educated and seek alternative forms of tourism focused on religion, agriculture, trekking, or even local cuisine. The area is also a destination specifically for Greek tourists because of its famous monuments and monasteries. Finally, local organizations and schools express an intense interest in the area's history and cultural heritage. All these types of visitors constitute target groups for the new Museum.

The area of Messara has a series of organized archaeological sites located along the highway that connects Herakleion to Moires and Tympaki: Gortyn, Hagia Triada, Phaistos and Matala. In the near future, the Minoan port of Kommos and the site of Koumasa will probably be added to this list.

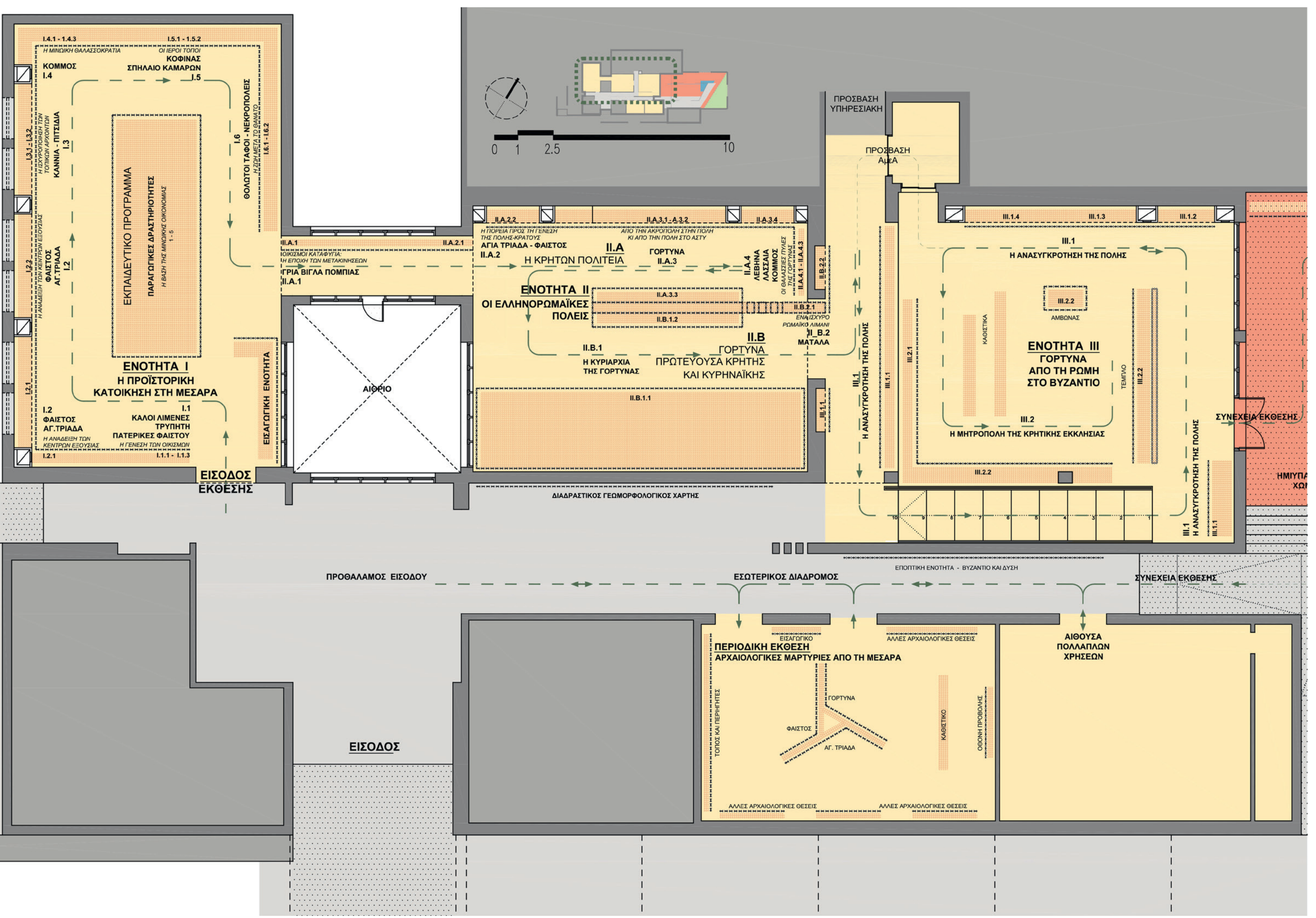


Fig. 2 Plan of the AMMe (© EphAHer)

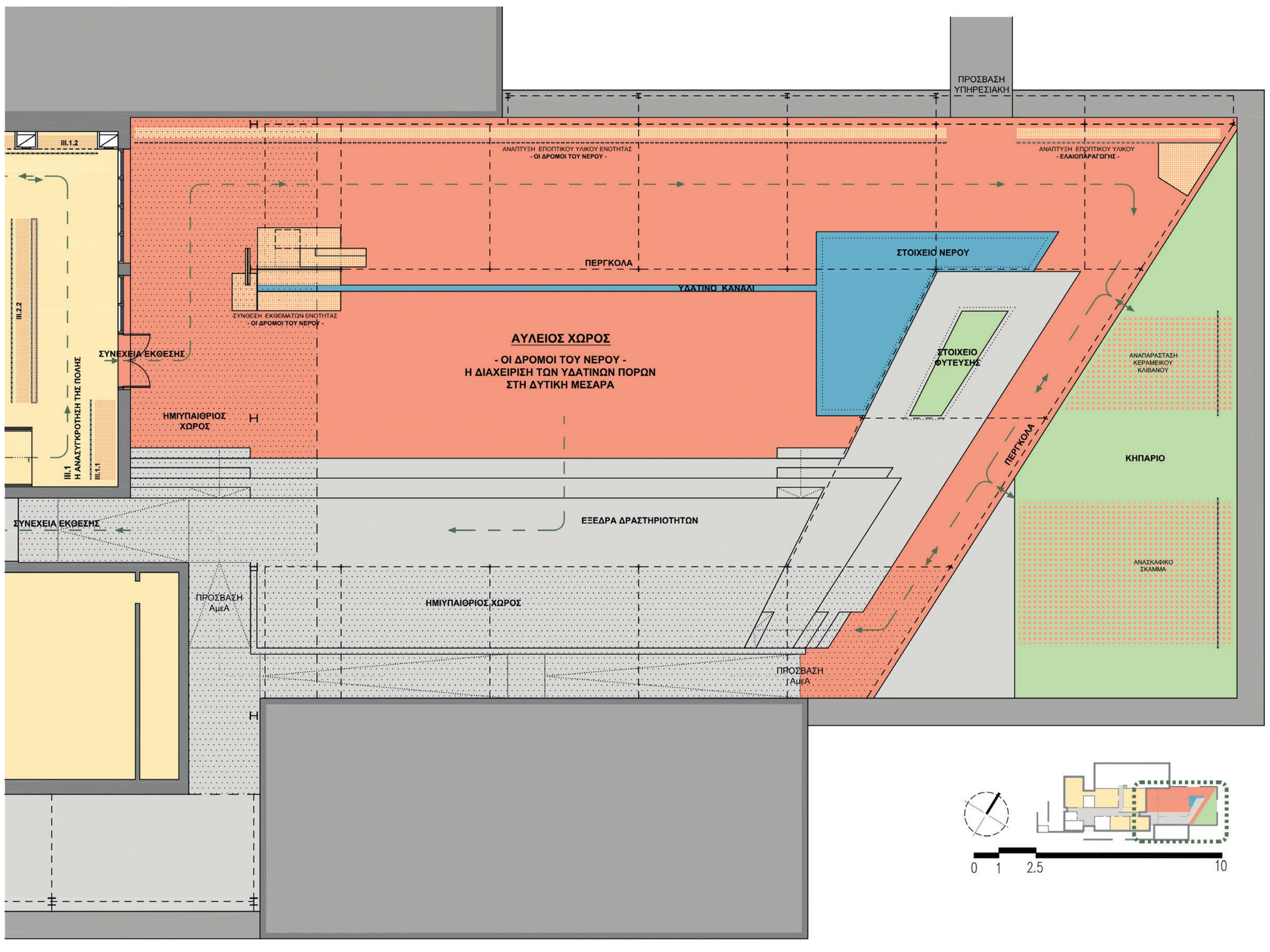


Fig. 3 Plan of the inner courtyard (© EphAHer)

As mentioned above, the new Museum is located at the western edge of the area once occupied by the ancient city of Gortyn. Within these boundaries lies also the organized archeological site which includes the ruins of the Roman Odeion, the famous Great Code, and the church of St. Titus, as well as areas still under excavation by the Italian School of Archeology (SAIA) and the Ephorate of Antiquities of Herakleion, such as the acropolis, the Grand Theater, the so called Praetorium, the complex of the shrine of Apollo Pythios, the thermal complex, and the five-aisled episcopal basilica of Mitropolis. The rest of the ancient site is a vast area of ruins, which attracts all-season visitors, mostly independent travelers exploring Crete and its glorious past. The architect George Petrakis, on behalf of the Region of Crete, and the Ephorate of Antiquities of Herakleion worked together on the project of marking the walking paths around the unearthed monuments of Gortyn with signs, information points, and digital guidance, as part of the broader network of cultural routes designed for the Messara valley. Our long-term intention is to turn Gortyn into a large archeological park through a series of actions and interventions.

According to the plan, the new Museum will serve as the junction of the interconnected archaeological sites throughout the Messara valley. This will be obtained in three different ways:

a. **Through direct information**: The visitor will be able to better understand each archaeological site within its topographical and historical context, to admire its most important artifacts and receive written or digital information for their origin, meaning, and importance.
b. **Through direct interconnection**: In the near future, the visitor of the Museum will be able to take a guided walk to the archaeological park of Gortyn on a specially marked pathway.
c. **Through digital guidance**. The museum will be the starting point of the network of cultural routes. A large interactive digital map at the end of the Museum tour will help the visitors to plan their cultural journey.

iii) The imperative necessity of awareness and education. Messara continues to be primarily an agricultural and livestock husbandry area. Its particular geomorphology, which contributed to its cultural development in the past, became nowadays a cause of insularity and malpractice. In this context, illicit search and trade of antiquities in an area so rich in ancient treasures, has become a true menace. Moreover, the increasing arbitrary building activity in modern settlements established on the ruins of ancient cities, such as Lebena (Lentas), Lasaia and Matala, precipitated by the touristic demand, had a catastrophic impact on the antiquities.

The AMMe aims therefore to play a fundamental role in the effort of the Archaeological Service to protect the cultural heritage. The new museum will thus venture to:

- educate the locals about the necessity of protecting the cultural heritage of their homeland by demonstrating its positive impact on the cultural and financial development of the area;
- get the local people in touch with the cultural heritage of their homeland and promote a better understanding of it not only through the exhibition of artifacts but also through activities, lectures, cultural events, and temporary exhibitions; and finally,
- create a wide variety of constantly updated educational programs specifically tailored to children and youth.

According to the aforementioned targets, the concept of the exhibition is entitled "In the Midst of the Mountains. Human Presence in the Valley of Messara from Prehistory to Christianity", aiming to underline the catalytic impact of the landscape, namely its unique geomorphology reflected in the name *Messara* itself (meaning "in the midst of the mountains"), on the development of the human material and non-material culture through time. The landscape is also presented as an essential parameter in the process of compilation of the myths and the rise of the writing systems, which will be the subjects of two parallel narrations accompanying the exhibition.

For the realization of the general concept, the architectural design was based on two main axes:

- the topographic organization of the exhibition, which focuses on the settlements and their relations and interactions from the very early households to the mighty cities of historical times, and
- the integration of the landscape into the exhibition halls, aiming to overcome the visual barrier of the external walls and help the visitor to become part of the correlation between the exhibits and their place of origin.

This will be achieved as follows:

- with the projection of alternating images of the landscape under different day-light and season conditions on appropriate surfaces above or behind the showcase windows, in order to establish a visual correlation between the exhibits and their place of origin (Fig. 4);
- with graphic design of architectural elements or the natural environment of the findings (Fig. 4);
- by taking advantage of the natural light illuminating the building to create a false impression of the original outdoor environment or a three-dimensional effect (Fig. 5);
- through the outdoor exhibition on the subject of water resources management, taking place in the inner courtyard of the museum, under the title "The Water Routes" (Fig. 3).

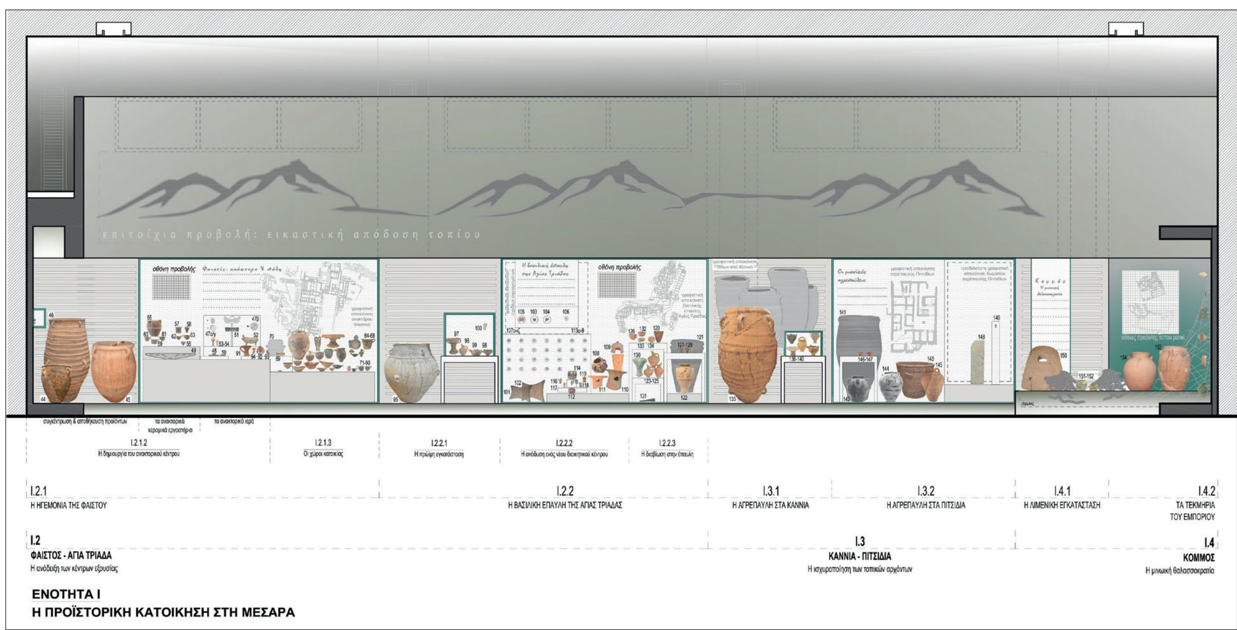


Fig. 4 Western wall of the Exhibition Hall I (© EphAHer)

III.1.3.1. Τα σύμβολα της εξουσίας
III.1.3.2. Τα αντικείμενα πολυτελούς διαβίωσης
Πρόσοψη ανασύνθεσης τέμπλου του Αγίου Τίτου
(Ημιδιαφανής επιφάνεια με γραφική απόδοση)
III.2.2.2. Το προσκύνημα του Αποστόλου Τίτου
III.1.3
Η καθημερινή ζωή της ανώτερης κοινωνικής τάξης
III.2.2
Από την επισκοπή στη μητρόπολη
III.1
Η ΑΝΑΣΥΓΚΡΟΤΗΣΗ ΤΗΣ ΠΟΛΗΣ
III.2
Η ΜΗΤΡΟΠΟΛΗ ΤΗΣ ΚΡΗΤΙΚΗΣ ΕΚΚΛΗΣΙΑΣ
ΕΝΟΤΗΤΑ III
ΓΟΡΤΥΝΑ. ΑΠΟ ΤΗ ΡΩΜΗ ΣΤΟ ΒΥΖΑΝΤΙΟ

Fig. 5 Eastern window of the Exhibition Hall III (© EphAHer)

The tripartite division of the exhibition halls (Fig. 2), which was preexisting since the original construction of the building, led to the distribution of the exhibits in three sections as follows:

Hall I: The prehistoric settlements of Messara (Fig. 6)
Through the presentation of the sites (early settlements, administrative centers, countryside villas, harbors, places of cult, and cemeteries) various manifestations and aspects of the Minoan civilization throughout the Messara valley are presented.

Corridor between Halls I and II (Fig. 7, left)
The narration of the conceptual transition from Prehistory to History, takes place in the corridor that connects **Hall I**, dedicated to the Minoan Civilization, and **Hall II**, where the emergence of the Greek city-state is presented. The objects from the refugee settlement Gria-Vigla near Pombia and the Bronze-Age phase of Hagia Triada mark the end of the Minoan/Creto-Mycenaean period and the beginning of a new era, helping the visitor to better anticipate the historical, administrative, and cultural gap that coincides with the invasion of the Doric tribes, the transition from the centralized administrative system of the Minoans to the independent Greek polis as well as the transformation which led from the idea of local civilizations (Cycladic, Minoan, and Mycenaean) to the broad perception of the ancient Greek culture.

Hall II: The Graeco-Roman cities (Fig. 7)
The northern half of **Hall II** is occupied by the Section of "The Cretan Politeia", in which the formation of the Greek city and the emergence of the powerful city-states of Messara (Phaistos and Gortyn) are presented.

The section "Gortys, Capital of Crete and Cyrenaica", which occupies the southern half of **Hall II**, aims to present through juxtaposition the evolution from the independent Greek city-states to the new Roman model of concentrated administration, which formed the perception of universality that also predominated in the following period of the Byzantine Empire.

Gallery between Halls II and III (Fig. 8, left)
The continuity from the Roman to the Byzantine era is underlined by the continuous flow of the exhibition dedicated to Gortyn from **Hall II**, in which the Roman period is presented, to **Hall III**, covering the Byzantine period. The **internal gallery**, which overlooks the lower **Hall III** and the descending staircase reinforces visual continuity. The material from the recent excavation of the small sanctuary of Apollo Pythios serves as evidence for the impact of the demolition of the Roman city by the earthquake of 365 AD and its subsequent reconstruction according to an altered urban concept. In fact, the existence of the gallery gave

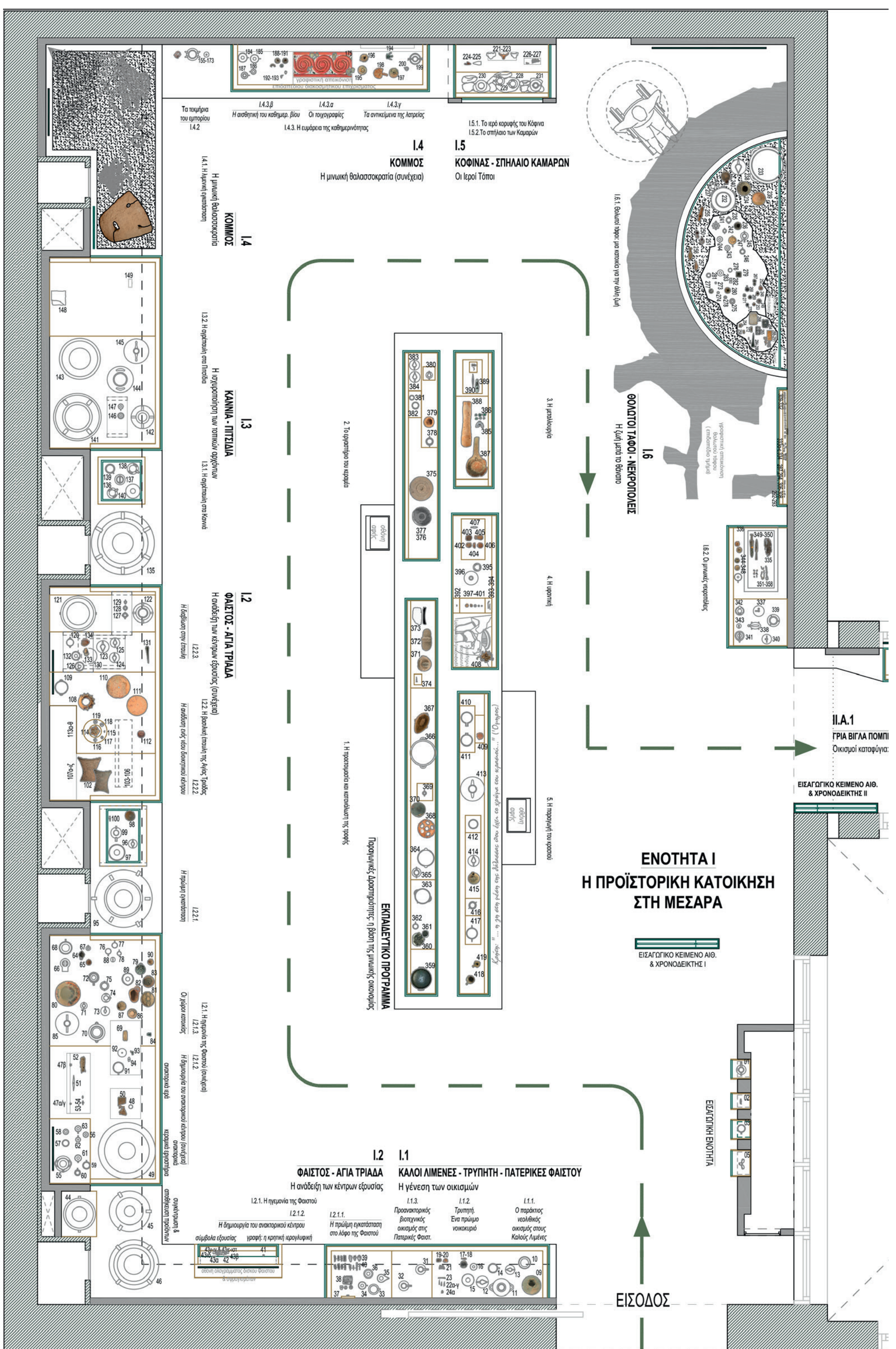


Fig. 6 Plan of the Exhibition Hall I (© EphAHer)

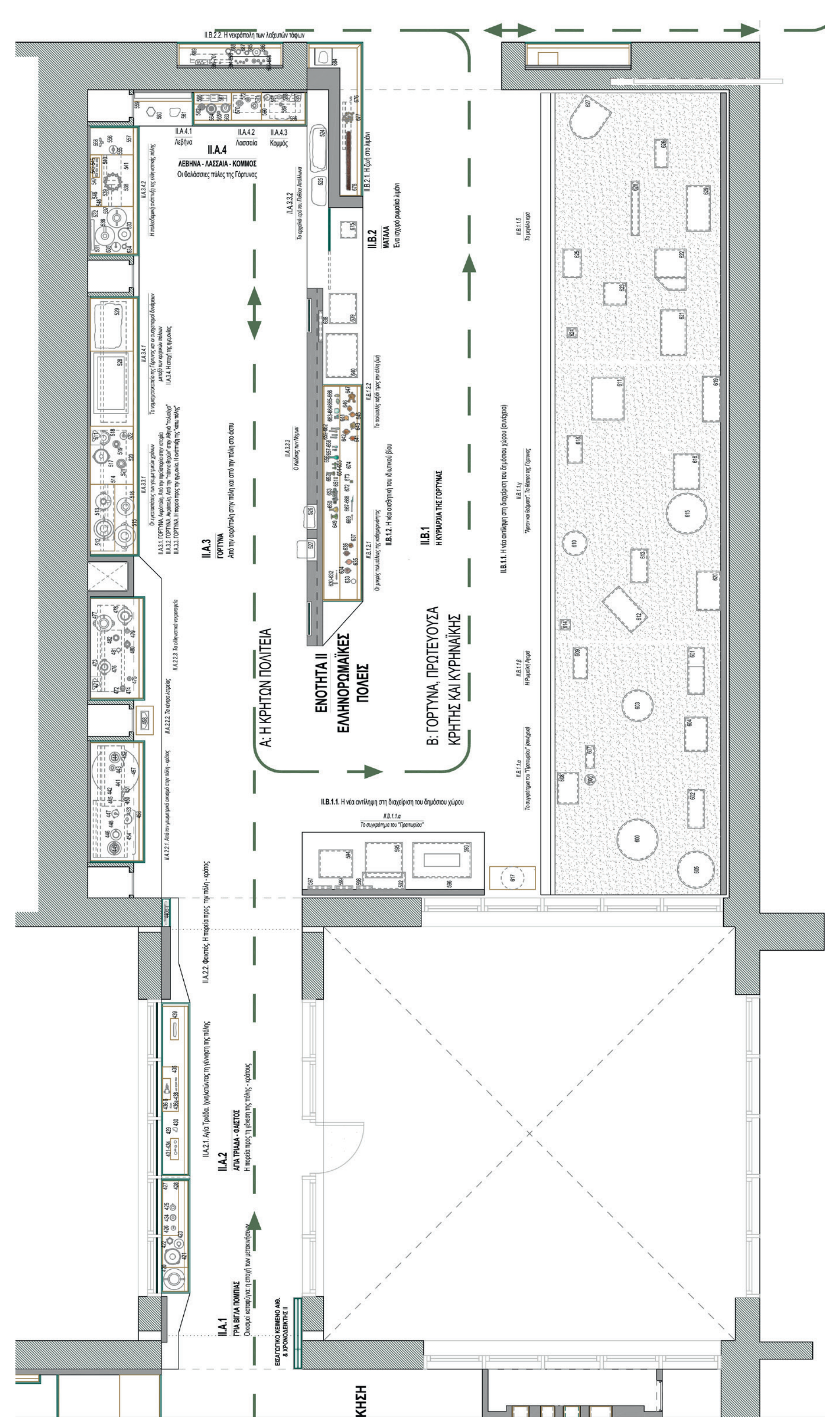


Fig. 7 Plan of the Exhibition Hall II (© EphAHer)

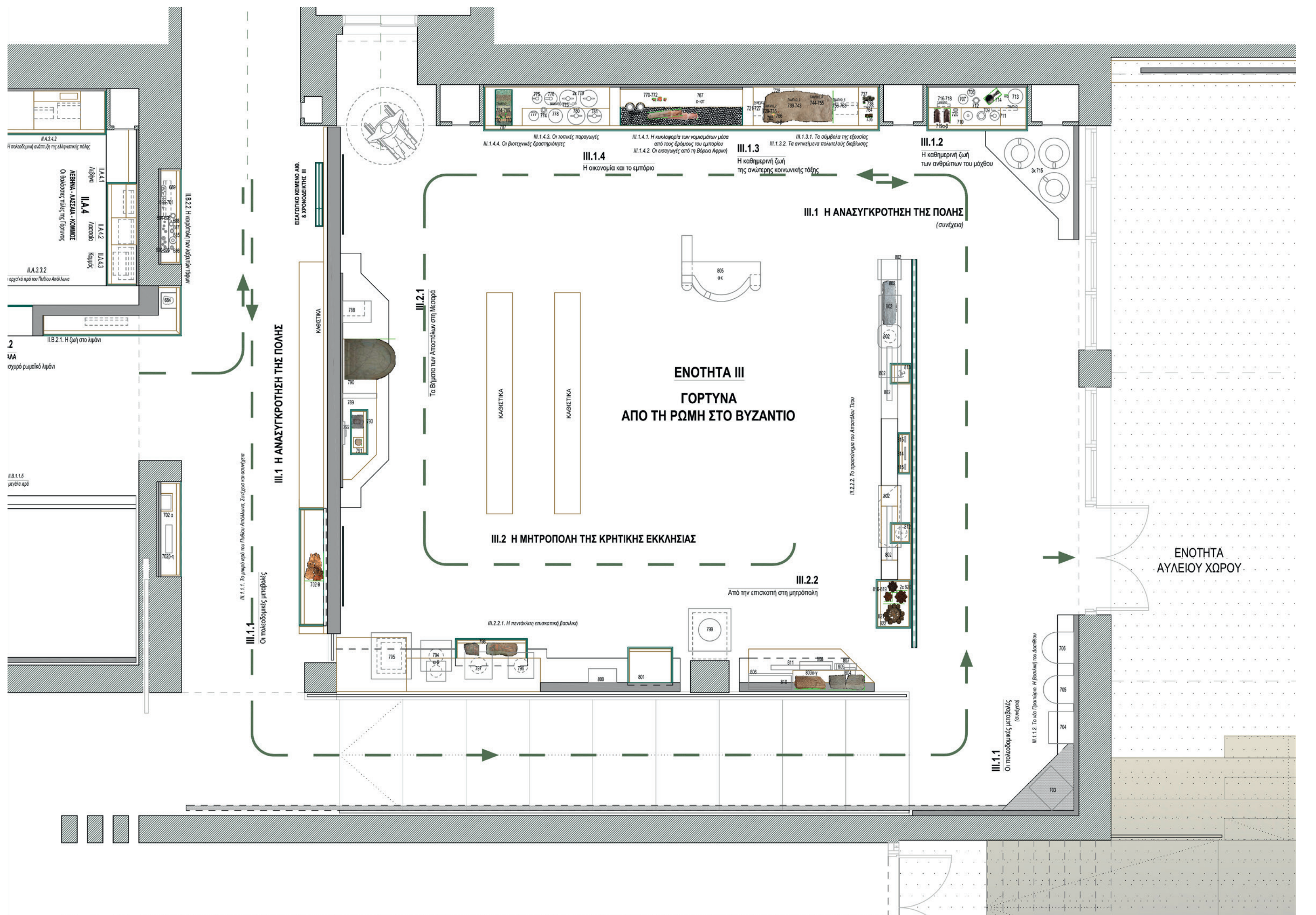


Fig. 8 Plan of the Exhibition Hall III (© EphAHer)

us the opportunity to focus on the continuity, presenting the early Christian period as an extension of the Roman period, and at the same time discontinuity (urban reorganization, change of administration, and decisive change in worship). Thus, the disadvantage of splitting the exhibition of Gortyn into two sequential halls has been turned into an advantage.

Hall III: Gortyn. From Rome to Byzantium (Fig. 8)

The urban transformation of Gortyn after the earthquake of 365 AD, such as the reuse of large public buildings and the spatial changes imposed by the erection of new large buildings meant for the Christian cult and by the administrative reorganization of the Byzantine Empire, is presented in **Hall III**, next to the exhibits that testify the inextricable connection of Messara and its capital Gortyn with the acts of the Apostles Paul and Titus. These led to the establishment of Gortyn as a metropolitan center of Christian worship on the island and a pilgrimage site honoring the memory of the Apostle Titus. For the first time, material from the five-aisled metropolitan basilica that served as the archbishopric seat is exhibited along with the scattered architectural sculptures and objects of worship from the basilica of Saint Titus, which are brought together after many centuries to form a unified narrative.

Thus, the tripartite spatial division of the Museum's exhibition space, rather than having an effect of fragmentation, is utilized for the benefit of the narration, so that the visitor can capture the major socio-economic and political changes that determined the emergence, existence, change, or disappearance of the residential centers of Messara, during Prehistoric, Historic, Roman, and Christian times, through a single route. The visitor can thus perceive the evolution from the three pillars of Minoan power in the region (Phaistos, Hagia Triada, and Kommos) to the dual power structure of Phaistos-Gortyn of historical times, and ultimately to the domination of Gortyn in the Roman and Christian period.

IV. Inner Courtyard: "The Water Routes" (Fig. 3)

The visitor's tour ends in the inner semi-roofed courtyard which will be used both for exhibition and education activities. In the roofed section a small group of objects related to the water management in antiquity will be exhibited (aqueducts, fountains, wells, bathing facilities, drainage, and related cult facilities), which, due to their size and use, require an open space. With the help of information materials, we intent to underline that the exploitation of water resources was a crucial factor in the choice of the location of the settlements, in the process of human development as well as the ensuing prosperity and cultural evolution of the Messara region.

Following the thought of creating a Museum focused on children and the local community, the inner courtyard of the Museum was also designed to accommodate a variety of educational activities and outdoor cultural events with the construction of a stepped platform, which allows the visitors to view the special events with comfort or simply to get some rest.

The multi-purpose Conference Room (Fig. 2)

The visitor's tour of the museum will continue through the corridor leading back to the museum's foyer. Along the corridor, the visitor will be able to reach the multi-purpose Conference Room, meant to host lectures, small conferences, and video-projections. There, the visitor can seat comfortably and watch a slide-show, such as the current slide presentation entitled "Byzantium and the West", focused on the most important Byzantine and Venetian monuments in the Messara region.

The Temporary-Exhibition Room (Fig. 2)

The room designed to host the museum's temporary exhibitions is situated at the end of the corridor that links it with the foyer. According to the plan, a permanent photographic exhibition under the title "Archaeological Evidence from the Messara" was realized, based on the abundant testimonies and drawings of the travelers who visited the area since the 15th century, and the rich photographic archive of the excavators. In addition to the existing photographic exhibition, the room can host other temporary exhibitions in the future.

Interactive video-wall—Access point of the Network of Cultural Routes

The end of the long corridor coinciding with the end of the visitor's tour through the exhibition was chosen to host a large interactive multi-touch video-wall with a digital map of the network of archaeological sites, which will allow visitors to recall the afore given information and act as the starting point for the designed network of cultural routes.

Educational programs

The educational mission acts as a core of the entire exhibition, aiming to establish a close contact between the visitor and the exhibits, enabling the first to get a comprehensive understanding of both the tangible and intangible cultural heritage.

The first example of this principle are the two parallel exhibitions dedicated to myth and to the history of writing systems. Color differentiation of the labels, special markings on the floor, and narration supported by additional information will provide the means for implementing two educational programs focusing on a form of interactive gaming applications for mobile phones and tablets designed in a treasure hunt format.

The long board in the middle of the first hall will host an educational program under the title "Productive Activities—The Base of the Minoan Economy", combining groups of objects from different prehistoric settlements with interactive applications. The visitor will have the opportunity to explore various methods related to the main production activities of the region (food production, pottery, metallurgy, weaving, and wine production) which constituted the basis for the development of the Minoan economy, and in their nearly unaltered forms, still play the same fundamental role today.

Educational activities focused on water management and its use in human labor processes (oil production and pottery) will be hosted in the inner courtyard along with "The Water Routes" exhibition. In the same area, young visitors will have the opportunity to get acquainted with the excavation procedures in a replica of an excavation pit, an activity which is combined with the permanent photographic exhibition on the history of the excavations in Messara, housed in the temporary exhibition room, and the educational activities and projections hosted in the multi-purpose hall.

V. S., K. G., K. V., A. G., A. B.

B. The Network of Cultural Routes of Messara (NCRM)

The Network of Cultural Routes of Messara (NCRM) has been the result of a cooperation between the Region of Crete and the Ephorate of Antiquities of Herakleion. It encompasses the needs to promote and protect the archaeological sites of the wider Messara region by implementing the basic principles of sustainable development which represent a strategic choice for the Region of Crete.

The NCRM planning meets variable goals:

- it helps to highlight the long history of the area by promoting the vestiges of the past;
- it plays an educational role for visitors and residents;
- it contributes to a balanced development process for the region.

What is the NCRM

The NCRM is a set of thematic routes organized around the environmental and cultural heritage of the Messara region (Fig. 9, left). It is a rural tourism infrastructure that highlights the special features of the region along which tourism industry can be developed. In this sense, it serves as an important element of outdoor recreation, physical exercise activities, and environmental awareness as well as education.

Character of the NCRM

The design of the NCRM within the framework of the Study of the Interconnection of the Archaeological Sites of Messara utilizes an organic set of comprehensive and consistent principles and actions. For example:

- it sets clear objectives and serves an official regional strategy;
- it designs organizational and administrative structures and mechanisms;
- it specifies financial tools as well as means and ways of their implementation;

Fig. 9 Example of the general information board for the main booth (© G. Petrakis/Region of Crete)

Fig. 10 Main information booth (3D graphic representation) (© G. Petrakis/Region of Crete)

- it highlights mechanisms for raising citizen awareness, which is a necessary condition for a successful operation of the network.
- From the onset, the NCRM was approached by the Study Group as a system that is aimed at achieving the following objectives:
- to provide experience, enjoyment, and knowledge of the region and its landscape to the visitor;
- to promote and preserve the ecosystem by means of informing and educating the visitors;
- to communicate the timeless local cultural values and contemporary cultural events; and
- to form a single cultural-ecological space which will achieve a proper balance between the built spaces and the natural environment.

Phases of realization of the study

Phase A of the study focuses on the analysis and evaluation of the current state of affairs. In this phase, the present state was evaluated and the possibilities of intervention were identified. In practical terms, in this phase, the financial resources were procured and evaluated in relation to the needs and objectives of the project and the prospects of the region. In **Phase B**, the route network was chosen based on the preceding evaluation. The final **Phase C** consisted of a number of interventions and actions. This was the final stage during which specific projects and interventions were proposed which were deemed necessary for the development of the Thematic Route Network. In addition, an operational plan was presented which included construction work as well as various actions, initiatives and financial tools.

Planning Stages

The previous phases were analyzed in a six-stage process, which ensured a methodology for objective selection and sustainability of the network of routes.

Stage 1: Determination of qualitative route selection criteria.
Stage 2: Determination of the nature of the tourist product based on the qualitative criteria of all areas of the region for the final selection of the routes, along with the unquantifiable value of each site.
Stage 3: Rating of the selected areas on a consistent scoring scale.
Stage 4: Determination and description of final proposed routes.
Stage 5: Consideration of capabilities of route hosting in the selected regions and the potential impact of the route creation on these areas.
Stage 6: Discernment of prerequisites for operation of individual Infrastructures.

Specific aims of the operational design of the network

The operational design of the network includes the following basic aims:

- developing a network of routes which are easily recognizable and at the same time adapted to the particular environment of the area in a way that meets the requirements of the modern visitor;
- creating security conditions through the provision of services and facilitating help in case of an emergency;
- creating an educational network that will meet the needs of environmental education of the visitors;
- activating local community along the routes through the development of business initiatives;
- exploiting advantages of each locale and existing touristic and cultural infrastructure and resources;
- establishing the Messara in the tourist market as a destination for alternative thematic forms of tourist activities;
- extending the tourist season of the wider region.

Actions & Interfering

It is clear that the above objectives are also modules for the implementation of the proposed interventions and their achievement is directly dependent on:

- the degree of implementation of the necessary projects and the careful planning and strict implementation of the institutional arrangements;
- close monitoring of the developments and changes;
- the degree of acceptance by visitors and residents of the area.

The final proposed interconnection plan for the Archaeological sites of the Messara includes four general actions and corresponding sub-projects that can be implemented gradually:

1st Action: Creation of a "Network of Cultural Routes for the Interconnection of the Archaeological Sites of the Messara".
2nd Action: Protection and promotion of archaeological sites and monuments.
3rd Action: Creation of the thematic environmental paths or routes.
4th Action: Creation and/or facilitation of access to points of interest, observation points with scenic views, and rest points.

Construction and implementation of the infrastructure of Phase A

In order to achieve the above objectives, the following actions and interventions were proposed:

1. Delimitation—route marking and information via signs.

To inform the visitors about the routes and guide them through their tour in the conventional way, three levels of information signs are used:

- information booths (Fig. 9–10) which provide general information about the network (general map, general information, and main sites of interest);
- information signs (Fig. 11–12) for orientation and directions for each of the routes (map of the route, general information, and main sites of interest);
- road signs;
- information boards (Fig. 13–14) in each specific site.

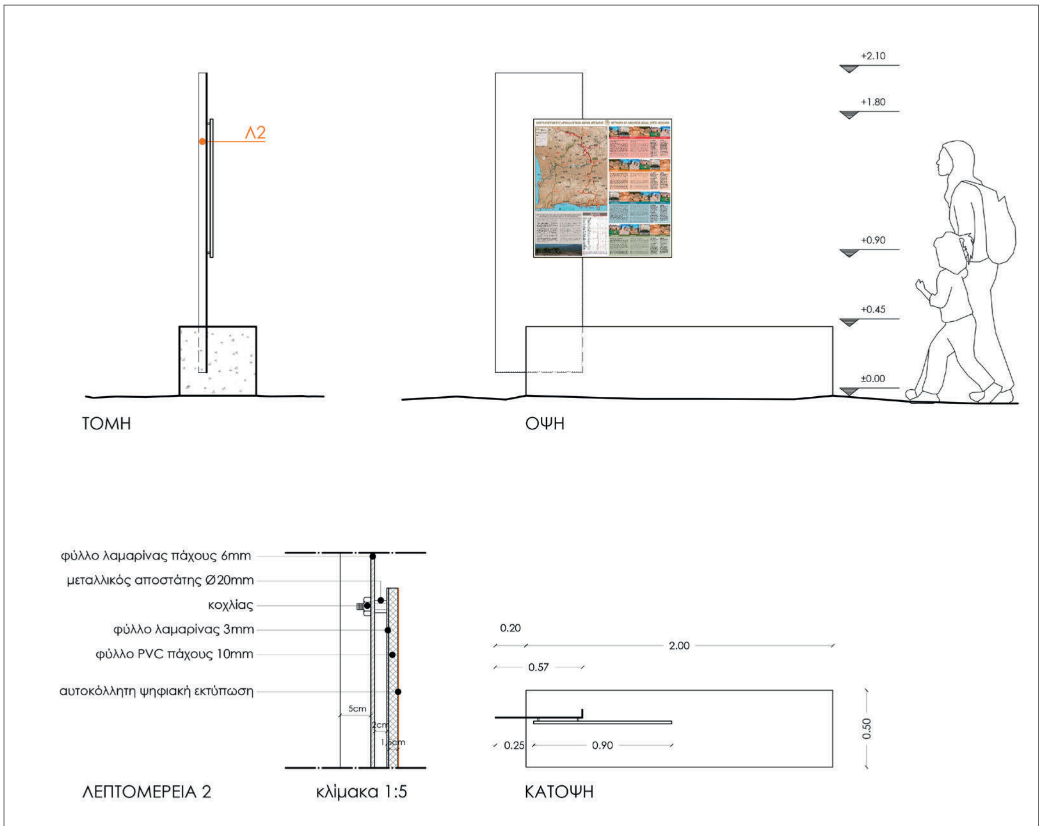


Fig. 11 Design of the route information sign (© G. Petrakis/Region of Crete)

Fig. 12 Example of the general information board for the route sign (© G. Petrakis/Region of Crete)

2. **Individual information (printed and electronic)**.

Within the framework of the Network's promotion, an integrated action of print and digital promotion of the NCRM will be carried out using conventional forms and cutting-edge digital technologies including:

- printed information which includes a tourist guide of the routes, maps, and a photo album;
- digital promotion via a web-page;
- guided digital tour via a mobile application;

  Besides the website, digital information will be based on the implementation of a digital tour of the Messara monuments and will interconnect each point of interest with the

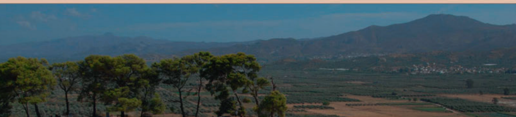
Fig. 13 Information sign for a specific monument (3D graphic representation) (© G. Petrakis/Region of Crete)

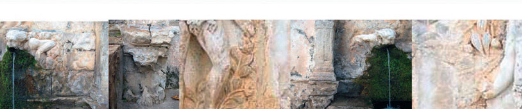
relevant thematic section of the new museum. The application will initially consist of a web service that will be accessible via an internet portal as well as via mobile applications for smartphones that will be available in the appropriate app-stores (e.g. iTunes and Google Play). With the use of beacon technology and in combination with QR codes, digital display content will be provided for the monuments of the wider areas along the routes. At the same time, the location of the user will be displayed on the map via GPS/Location Identification. The user will be able to navigate the map and select the route that he/she will follow to see the sights. The content could include photos, text, narration, video, and 3D reconstructions, depending on the nature and type of each particular monument or exhibit.

- educational application.

  In cooperation with the Ephorate of Antiquities of Herakleion, the creation of a Digital Educational Application is proposed which will be designed in the form of a game that will bring the new museum closer to children and young visitors who are particularly familiar with the current technologies and social media.

G. P.





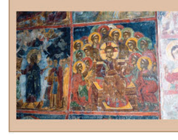


Fig. 14 Example of the information board for a specific monument (© G. Petrakis/Region of Crete)

The Minoan Palatial Centers as a Future Nomination to the World Heritage List: Challenges and Perspectives

Elena Kountouri, Constantina Benissi & Kyriakos Psaroudakis

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Abstract The Minoan palatial centers constitute a unique group of monuments with renowned importance for the world cultural heritage. They are complex structures of a monumental character, reflecting the evolution of the Minoan civilization which was the first one to achieve such advanced level of social organization on the European continent. In the framework of the nomination for inclusion into the UNESCO's World Heritage List, Greek authorities have selected six palatial centers: Knossos, Phaistos, Malia, Zakros, Kydonia, and Zominthos representing all the different phases of the Minoan civilization and geographical regions all over the island of Crete.

In this paper, we concisely refer to the preparation of this nomination, a difficult and multifaceted task, which requires an in-depth knowledge of the procedures, principles and methodology established in the context of the UNESCO's World Heritage Convention, as well as systematic cooperation among all competent authorities and other stakeholders.

We consider that the nomination of these emblematic monuments fully complies with the current considerations for the establishment of a representative, balanced and credible World Heritage List. Furthermore, the preparation of this nomination will indisputably benefit the monuments themselves, since a series of relevant challenges will be recognized and addressed, and a comprehensive framework for the monuments' management will be designed, ensuring the preservation, enhancement, and communication of their value to the public worldwide.

The Minoan palatial centers stand out as a characteristic group of monuments of the prehistoric period with a particular importance for the archaeology of Greece and the cultural heritage of the Mediterranean and Europe in general. Therefore, we consider that the Mi-

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noan palaces merit to be inscribed in the UNESCO World Heritage List (hereafter WH List) and that their inclusion will further enrich this eminent UNESCO initiative.

The Minoan palatial centers are distinguished, in all their diversity, for their unique monumental architecture and complex internal organization.[1] They constituted the administrative, economic and religious centers of broad geographical regions and housed a wide array of activities. They do not only contain the residences of the rulers and the priesthood, but were homes to a multitude of people: artisans (metalworkers, potters, weavers, etc.), merchants, and scribes. Various communal events and contests were also held in and around these impressive building complexes.[2]

The proposed nomination, which encompasses the palatial centers of Knossos, Phaistos, Malia, Zakros, Kydonia, and Zominthos, reflects both the geographical and chronological breadth of these monuments, which, as a whole, effectively represent the full range of geographical areas from the eastern to the western end of Crete, and time span from the Proto- to the Neopalatial period (c. 1950–1450 BCE).

The Palatial Centers[3]

The palace of Knossos, the most important center of the Minoan civilisation, is located in the Regional Unit of Heraklion and covers an area of approximately 20,000 m². The palace was founded c. 1950 BCE (Protopalatial period) and, following many destructions, was rebuilt on the same site and flourished during the Neopalatial period (1750–1450 BCE).[4] In the Postpalatial period (1450–1200 BCE), it was the only Minoan palace in the central and eastern part of Crete that was still partly inhabited. It even preserved its administrative character, as the discovery of an archive of Linear B documents indicates.

The palace of Phaistos, one of the largest palaces in Crete, is also located in the Regional Unit of Heraklion. It was built at the western end of the Mesara plain and during the Bronze Age was the center of political authority in the south coast of Crete. The first palace was built in the Protopalatial period (1900 BCE), covered an area of approximately 8000 m² and

1 The word “palace” on Minoan Crete is, as so many other terms, a matter of convention, partly owed to Evans’ legacy, who was the first to refer to “palaces” in this context. In the frame of the nomination, we retain the aforementioned term, since it is still largely used in the international bibliography. However, some scholars propose alternative terms, such as “court-centered building,” see Vavouranakis 2013, 223; Driessen et al. 2002.

2 See Gadogan 1976; Hägg and Marinatos 1987.

3 UNESCO, “Minoan Palatial Centres”, https://whc.unesco.org/en/tentativelists/5860/.

4 See Evans 1921–1935. We note that for the purpose of this article we refer to the basic bibliography about Knossos and the other palatial centers. Needless to mention the existence of an extensive literature about these monuments, that reflects, among others, the more recent outcomes of the research.

extended over the three terraces of the hill. It was destroyed by an earthquake c. 1750 BCE. On the ruins of the Old Palace was constructed the New Palace, which survived until the end of the Neopalatial period (1450 BCE), when it was destroyed and never rebuilt.[5]

The palace of Malia is located on the north coast of Crete, in the Regional Unit of Heraklion. It is the third largest Minoan palace and was, according to tradition, the seat of Sarpedon, the youngest brother of Minos. The palace was originally built c. 2000–1900 BCE. It was destroyed at the end of the Protopalatial period (1750 BCE) and rebuilt c. 1650 BCE on the same spot, following the basic layout of the old building. In Late Minoan IB, around 1450 BCE, the palace was totally destroyed, at the same time as the other palatial centers. A brief period of re-occupation is testified in the 14th to 13th centuries BCE.[6] The palace of Malia covers an area of approximately 7500 m^2 and its layout is similar to that of the palace of Knossos.

Zakros is located at the southeast end of the Regional Unit of Lasithi, in a natural bay. The palace of Zakros, as it is preserved today, was founded in the Neopalatial period (c. 1600 BCE). Like all the palaces known to date, it consists of four wings set around a rectangular central court. The palace and the town were suddenly destroyed around 1450 BCE, at the same time as most of the settlements of Crete, marking the end of the Neopalatial period.[7]

The Minoan palace of Kydonia is located in the modern city of Chania in northwest Crete. The low Kastelli hill, rising above the natural harbour and the plain of Chania, was selected during the Prepalatial period (c. 3500–2000 BCE) as the most convenient site for the establishment of the first organized Minoan settlement in the Chania area.[8] The large number of tablets inscribed in Linear A and B,[9] and of seals which have come to light, testify for the existence of a centralized authority and bureaucratic organization during the Neopalatial (c. 1750–1450 BCE) and the Postpalatial/Mycenaean era (1450–1200 BCE).

The archaeological site of Zominthos lies on the northern slope of mount Idi (Psiloritis), at an altitude of 1187 m. The excavations revealed a huge building of the Minoan era surrounded by a not well preserved settlement as well as a cemetery. This building was founded around 1900 BCE and was in use over an extended period of time, with a period of the biggest growth and expansion occurring between 1700 and 1550 BCE. The excavations have revealed a large archaeological site that has been systematically excavated over the last years.[10]

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5 See Levi 1976.
6 See van Effentere 1980.
7 See Platon 1974; Platon 2004; Platon 2011.
8 See Hallager and Hallager 2000.
9 Hallager et al. 1992.
10 See excavation reports in *Praktika,* from 2004 onwards; Sakellarakis and Panagiotopoulos 2006.

Preparing the nomination file

The preparation of the nomination file is a complex and multi-level procedure which is labor-intensive and requires an integrated approach. The Directorate of Prehistoric and Classical Antiquities, which coordinates the compilation of the nomination file, works in close cooperation with the central (Directorates of Restoration and Conservation) and regional (Ephorates of Antiquities) services and local authorities, as well as with scientific organizations and universities in order to include updated protection, enhancement planning, and, last but not least, the most recent research outcomes and documentation concerning the monuments. Before discussing the individual features of this nomination, it would be helpful to summarize the overall context, the steps, and the requirements of the entire process.

The UNESCO Convention on the Protection of the World Cultural and Natural Heritage (Paris, 1972, hereafter the WH Convention)[11] provides for the inclusion of natural, cultural, or mixed (both cultural and natural) monuments and sites in the WH List, provided that their outstanding universal value can be demonstrated and substantially documented. The decision for the inclusion of a proposed site in the WH List is made and formally announced during the annual session of the World Heritage Committee, which is composed of 21 experts representing the member-states of the Convention. The role of the Advisory Bodies to the Committee, especially of the International Council on Monuments and Sites (ICOMOS)[12] and the International Union for Conservation of Nature (IUCN),[13] which evaluate cultural and natural properties respectively, is particularly crucial for the evaluation procedure.

The nominated properties should meet the following strict and predefined criteria and conditions based on a thoroughly documented assessment provided by the nominating member-state:[14]

a. Justification of Outstanding Universal Value (OUV). The Committee considers a property as having OUV, if it meets one or more of the ten criteria set in the Operational Guidelines of the WH Convention.
b. A property must meet the conditions of authenticity and integrity. The former depends on the degree of preservation of the cultural value of the property, whereas the latter is related to the measure of its wholeness and intactness.

11 UNESCO, “The World Heritage Convention”, https://whc.unesco.org/en/convention/.
12 ICOMOS, “Introducing ICOMOS”, https://www.icomos.org/en/about-icomos/mission-and-vision/mission-and-vision.
13 IUCN, “World Heritage”, https://www.iucn.org/theme/world-heritage.
14 For the requirements for inscription in the WH List see the Operational Guidelines for the Implementation of the World Heritage Convention: https://whc.unesco.org/en/guidelines/.

c. A comparative analysis of the property in relation to similar properties, whether or not on the World Heritage List, both at the national and international level, must be provided. The comparative analysis shall therefore explain the importance of the nominated property in its national and world-wide context.
d. Precise information about the boundaries and the buffer zone (if any) of the nominated property needs to be supplied. The buffer zone is an area surrounding the nominated property or any other area vital for its protection, which has complementary legal and/or customary protection. It should be noted that the buffer zone does not necessarily coincides with the Zones of Protection A and B, which are designated according to the Greek legislation.
e. An essential element for every nomination file is the existence of an appropriate management plan as well as guarantees for its effective implementation. The management plan constitutes an integrated system for the protection, use, and promotion of the site, which involves multiple actors; it recognizes the different levels of responsibility (central, decentralized, and local) and the degree of involvement of the various stakeholders. It also investigates possible resources for the implementation of the plan, both human and financial. All factors that may have an impact on the property, positive or negative, must be assessed and included in the management plan, accompanied by risk preparedness plans for the protection of the property in case of an emergency.

The role of local communities in assessing, preserving, and communicating the values of the World Heritage properties must be emphasized, since they contribute significantly not only to the successful outcome of the nomination but also, and more importantly, to the sustainable development of the property. Recent policy and conceptual developments in the WH Convention set the stage for new approaches that engage local communities during all steps for selecting and promoting a property for inscription in the World Heritage List.

The case of the Minoan palatial centers' nomination

The Minoan palatial centers are currently inscribed in the Tentative List of Greece, an inventory of the properties that each state-party considers suitable for inscription in the WH List and intends to nominate in the future. Nominations to the WH List are not considered by the World Heritage Committee, unless the nominated property has already been included on the State Party's Tentative List.[15] When it comes to the Minoan palaces, the national Tentative List in 2003 included only the palace of Knossos. However, during its revision

15 UNESCO, "Tentative Lists", https://whc.unesco.org/en/tentativelists/.

in 2014,[16] it was decided to extend the nomination in order to also include Malia, Phaistos, Zakros, and Kydonia. Meanwhile, due to the progress of the excavation at Zominthos, which yielded impressive finds that testify for the existence of another significant palatial center with special features, it has been decided for this new site to be also included.

The main characteristics of the Minoan palatial centers' nomination, as presented in the submitted Tentative List, aim to highlight the unique Minoan civilization. In the framework of the preparation of the nomination file, these characteristics will be further elaborated and the OUV of the property will be documented in greater depth. In the current Tentative List the Minoan palatial centers are associated, on a preliminary basis, with the following three of the six cultural criteria of the Convention:[17]

Criterion (ii): The Minoan palaces bear witness to a very early form of complex urban society and application of complex economic systems, which arose in Crete during the Middle and Late Bronze Age. They constitute an important archaeological testimony to the organization of towns and cities, and to the development of the monumental architecture, technology, and high level of art attained by the Minoan civilization.

Criterion (iii): The Minoan palaces are the most characteristic and impressive testimonies of the Minoan civilization, that flourished during the Bronze Age (1950–1450 BCE). These complex monuments, constructed to serve the various needs and functions of the Minoan cities, constitute the most important archaeological evidence for the understanding of the Minoan civilization, its social organization and its high level of intellectual and artistic development (frescoes, vase-painting, etc.). This complex socio-economic system led to the creation of two protohistoric writing systems, the "Cretan Hieroglyphic" script and Linear A, which played an important part in the context of the Aegean civilizations, in both the Middle and the Late Bronze Age. It was from Linear A that Linear B was consequently developed for recording the earliest known, Mycenaean, form of the Greek language.[18]

Criterion (vi): The myths connected to the Minoan palaces (the Minotaur and the Labyrinth, Daedalus and Icarus, Theseus and Ariadne, etc.) exercised a great influence on my-

16 In addition to the Minoan Palatial Centers, the current Tentative List includes 13 more properties: the archaeological site of Nikopolis (Cultural), the ancient Greek Theaters (Cultural), the national park of Samaria Gorge (Natural), the national Park of Dadia-Lefkimi-Souflion (Natural), the area of the Prespes Lake (Megali and Mikri Prespa) that includes Byzantine and post-Byzantine monuments (Mixed), the broader region of Mount Olympos (Natural), the ancient Lavrion (Cultural), the Petrified Forest of Lesvos (Natural), the late Medieval Bastioned Fortification in Greece (Cultural), the Fortress of Spinaloga (Cultural), the archaeological site of ancient Messene (Cultural), the ancient towers of the Aegean Sea (Cultural), and the Zagorochoria-North Pindos National Park (Mixed).

17 UNESCO, WHC, "The Criteria for selection", http://whc.unesco.org/en/criteria

18 For the latest research approaches to the phenomenon of the Minoan palaces, see Driessen et al. 2002.

thology and arts throughout the ancient world,[19] and remain a source of inspiration for world art, music and literature today.[20]

However, given the unique character of the Minoan civilization and the preeminent achievements which have been reached at the spiritual, social, technical, and artistic levels, the OUV of the nomination can be further justified using more criteria, such as (i) and (iv).

In terms of assessing the integrity of the Minoan Palatial Centers, it is essential to determine whether the placement of the monuments within their wider environment (natural, rural, etc.) can secure the preservation of the properties' qualities that define their particular character against the negative effects of development. This means that the integrity as a measure of the wholeness and intactness does not concern only the monument itself but refers to the maintenance of its spatial unity as well.

The degree of authenticity and integrity of the palatial centers allows the reconstruction of their form and function, elements attesting their OUV. These monuments are subject to a special protection framework (designations and protection zones), while they are also under the constant care and monitoring of the relevant Services of the General Directorate of Antiquities and Cultural Heritage, in order to mitigate any risks.

Although the early reconstruction work on the palace of Knossos, before the Second World War, involved the addition of modern materials and insufficiently documented modifications, it does largely conform to the original form of the palatial monument at the peak of its development. It is important to point out that the problematic points of the old reconstructions have been identified and recorded, and the matter of dealing with the older mistaken restorations is handled by a special Committee for the "Conservation, Consolidation and Promotion of the Palace and Archaeological Site of Knossos." Conservation and promotion work is being carried out on the peripheral monuments of Knossos (Royal Villa, House of the High Priest, and Royal Tomb), with co-funding by the EU through the National Strategic Reference Framework program. Furthermore, a study on the unification of the peripheral monuments with the core of the palace is in preparation.[21]

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19 Minos is first mentioned in Homer's Iliad as merely being the man from whom Zeus "established [a] line" (Hom. Il. 13.440–516) of Cretan Kings. In the Odyssey, Odysseus simply meets the father (Minos) of Ariadne, who was "[spirited] [...] off from Crete to Athens" (Hom. Od. 11.365–70). During the Augustan era (63 BCE–14 CE), Virgil talks of Minos, but also of the Minotaur, the labyrinth and Theseus (Verg. Aen. 6.1–40). In Thucydides' History of the Peloponnesian War, Minos is described as "the first person [...] as having established a navy" (Thuc. 1.4) who colonized the Cycladic islands and, after instigating a trade network, would enable the Cretans to join the Trojan War (Thuc. 1.8). For the influence of Minoan mythology on contemporary art, see Ziolkowski 2008.

20 UNESCO, "The List", "Minoan Palatial Centers Knossos, Phaistos, Malia, Kydonia", https://whc.unesco.org/en/tentativelists/5860/.

21 See Minos and Kavoulaki 2010, 108–20.

Following the main principles set on the Nara Document on Authenticity,[22] the features that demonstrate the authentic character of a property are not solely restricted to the plan, structural material, or technical excellence but also include the surrounding environment as well as the spiritual and aesthetic substance of the monument. In this context, another aspect to be taken into account is the fact that Evans' reconstructions have contributed significantly to the recognition of the Minoan civilization worldwide and that they reflect the general restoration strategy and methodology implemented during that period. Therefore, they constitute part of the site's history.

As for Zakros, the mild stabilizations of the building remnants secure the authenticity of the archaeological site. The good preservation of the surroundings of the Minoan settlement is also noteworthy. Palace and settlement are embedded in a natural landscape which is not intensively occupied by modern buildings and remains almost intact since the Minoan era. The same is also applicable for the palatial centers of Phaistos and Malia. In Kydonia, the architectural remains of the Minoan palatial center, the research of which is ongoing, are preserved in their original form without rebuilding or additions. Finally in Zominthos, the architectural elements of the palatial center are preserved in an excellent state, thus permitting their detailed and documented restoration.

The Nomination: Challenges and Perspectives

The nomination of the Minoan Palatial Centers is, in our opinion, a candidacy with a large potential. This is owed both to the renowned and important monuments it contains as well as to the fact of its relation to an important culture of antiquity, which is not yet represented in the List.

Such nominations are particularly encouraged and promoted within the framework of the Convention and in the current point of evolution of the World Heritage List, some 50 years after the first inscriptions. Nowadays,[23] the List includes 1121 properties, 869 cultural, 213 natural, and 39 mixed,[24] the latter combining cultural and natural values. Therefore, over the last couple of years, there is a deep concern about the increasing number of the inscribed properties on the one hand, and the overall composition of the list on the other.[25]

22 Icomos, "The Nara Document on Authenticity (1994)", https://www.icomos.org/charters/nara-e.pdf.

23 After the last inscriptions in the 43rd World Heritage Committee (Baku, 2019).

24 http://whc.unesco.org/en/list/.

25 A global study carried out by ICOMOS from 1987 to 1993 revealed that Europe, historic towns and religious monuments, Christianity, historical periods, and 'elitist' architecture (in relation to vernacular) were all over-represented on the World Heritage List; whereas, all living cultures, and especially "traditional cultures," were underrepresented. See https://whc.unesco.org/en/globalstrategy/.

Within this context, a discussion has begun within the framework of the Convention in order to create a more balanced, representative, and credible List and to ensure that the member states are provided with respective directions concerning their new nominations.

The nomination of the Minoan Palatial Centers fully reflects this spirit. In particular, the inscription of the Minoan palaces will definitely enrich the List, since the nominated property is related to a unique and worldwide-known civilization, inextricably linked with the cultural origins of Europe at large. The historical and scientific importance of the archaeological sites that are included in the nomination is further highlighted by the systematic work of many scientific institutions, among which are archaeological schools from several countries, which span over decades.

However, the nomination of the Minoan Palatial Centers, which enhances their prestige and visibility, also constitutes a great challenge from a managerial point of view, since it comprises six archaeological sites. Therefore, apart from assessing and addressing the particular difficulties and needs of each separate case, all sites must be handled as a single and unified nomination with common requirements and joint actions.

Issues concerning the management of the sites and of their immediate surroundings must be identified and treated as effectively as possible or at least preparatory measures should be taken with the aim of resolving them in due time. Besides, an essential part of the nomination dossier is the compilation of an integrated Management Plan, which relates to every aspect of the monuments, including function, aesthetics, activities in the immediate environment, tourist services, access, etc.[26]

For this reason, the whole framework of compiling a nomination file for the WH List, according to our experience so far, constitutes a unique opportunity to assess the current situation and to implement strategic planning for the future of the monuments within their broader natural, social, and economic environment. In other terms, it constitutes an opportunity to rethink the future of the monuments and reconsider our own mission, i.e. the planning and actions needed in order for the monuments to be preserved intact and passed down to the future generations.

Another important opportunity that the creation of the nomination file offers is the collaboration of all interested parties on the basis of a common plan and objective. In the case of the Minoan palaces nomination, we can identify a wide range of stakeholders who could contribute to the compilation and realization of a sustainable Management Plan: public authorities such as the Ministries of Tourism and Environment, the local authorities, uni-

26 According to the "Operational Guidelines for the Implementation of the World Heritage Convention," every site inscribed on the World Heritage List must have a management plan explaining how the outstanding universal value of the site can be preserved. Management plans are the central planning instrument for the protection, use, conservation, and successful development of World Heritage sites.

versities, foreign archaeological schools, trade and professional associations, business and cultural industries, non-governmental organizations, citizens' associations, etc.

The preparation of the file comes in a period, in which there is a broad consensus for its promotion among the stakeholders as well as actual support from the local authorities. The planning, therefore, of complete and long-term actions on this occasion, in combination with the possibilities opened within the framework of co-financed programs by the EU, makes us especially optimistic as for the outcome of the Minoan Palatial Centers nomination.

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Creating Identity: Hidden Cultural Heritage, Ancient Landscapes, and Cultural Routes in Sicily

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Abstract In recent years, the phenomenon of "cultural routes" has increasingly spread all over European and Mediterranean countries. Different actors in Sicily have followed the trend, introducing these cultural products and adopting a bottom-up approach to the management of "minor cultural heritage." An analysis of the narratives underlying these routes allows the identification of the cultural features involved in the creation of the island's identity. To achieve this goal, the present paper will focus on two case studies, the Antica Trasversale Sicula and the Magna Via Francigena, and scrutinize the narratives used in the communication strategies at these sites (press, websites, and social media). Scholars have not yet considered the implications of this phenomenon for local historical narratives, nor have they assessed its significance in terms of economic gains and cultural identity formation. What historical documents and archaeological data have been used and how? When have these been misunderstood or deliberately modified? In the light of the scientific literature attesting the existence of ancient tracks, it is interesting to assess to what extent the proposed narratives match the historical-topographical evidence and investigate the connection between these experiences and the creation of new local identities.

1 Introduction

Sicily displays a wide spectrum of natural environments (jagged and sandy seacoasts, narrow river valleys, alluvial plains, rocky highlands, etc.) where hidden cultural heritage is widespread. Despite the recent upsurge of interest in diachronic landscape research, the Sicilian hinterland has not been extensively studied in the panorama of Mediterranean Archaeology. Moreover, most archaeological sites scattered across the Sicilian landscape tend to be overlooked by stakeholders involved in cultural heritage management. However, some

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Fig. 1 Ramacca, eastern Sicily, part of the beaten track of the *trazzera* n° 344 (R. Brancato).

of these so-called "minor sites,"[1] which today appear marginal and inaccessible, were, at some point in history, central places[2] along the networks of routes that partially survive in the form of *trazzere* (Fig. 1), i.e., rural paths.[3] Despite their importance for the history of the island and economic potential as tourist destinations, these "minor" cultural heritage assets have not yet been fully exploited; their preservation for future generations is threatened by

1 With this term, we refer to the large number of cultural sites that have so far received little scientific and public attention.

2 Christaller (1933) defined a "central place" as a place endowed with a relative surplus of meaning due to its primacy in provisioning goods and services for the surrounding market area. For a contemporary reassessment of the centrality theory, see Mahr 2008; for application models of centrality in archaeology, see Nakoinz 2012; for a definition of landscape as "work in progress," see Ingold 2010. Contemporary landscapes may be seen as the result of centrality-shifting phenomena occurring cyclically throughout history.

3 The Sicilian *trazzere*—sheep tracks similar to the *tratturi* of peninsular Italy—are pathways linking inland summer pastures to winter pastures in the valleys and coastal areas; for an overview on the "trazzere," see Tesoriere 1994; Dufour 1995; Uggeri 2004; cf. Santagati 2006, 11–17. For the first description of the *trazzere* as relicts of ancient routes, see Orsi 1907, 741–78, and 750, n. 1; for the first attempt of reconstructing Roman routes starting from the network of *trazzere,* see Uggeri 2004; for ancient route paths and the modern Grand Tour tradition in southeastern Sicily, see Buscemi 2008. For more details on the topic of route persistence, see Van Lanen et al. 2016.

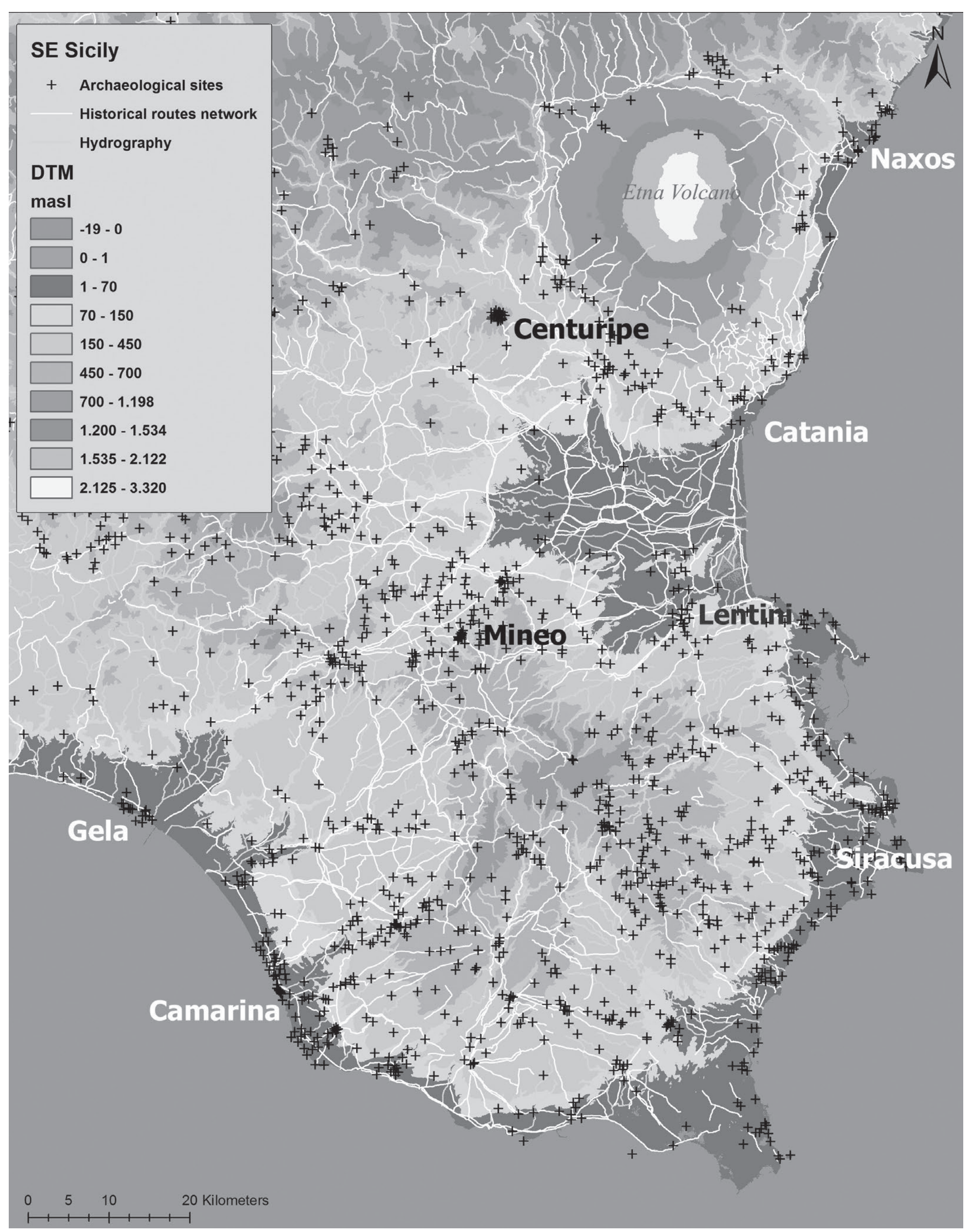

Fig. 2 Southeastern Sicily, historical routes network and archaeological sites (R. Brancato).

a general lack of interest—an attitude that both scholars and local institutions show. The multilayered archaeological landscape of the island, which is comprised of settlements, *necropoleis,* route networks, and material deposits from the prehistoric to the medieval period, is yet to be embedded in the heritage management system.[4]

Route networks constitute the backbone of past and present cultural landscapes.[5] A road is not only a physical connection between distant and often scattered inland settlements, but also a chain link in wider economic and cultural networks.[6] The routes of Sicily, the largest island of the Mediterranean, encompass several local traditions in ancient and modern landscapes, overcoming geomorphological limits and cultural borders (Fig. 2). Research into ancient communication networks is a useful tool not only for reconstruction of the economic, social, and political history, but also for promotion of tourism in marginalized areas.

In accordance with EU policies aimed at encouraging the creation of new relationships between communities and landscapes, in the last decade, several cultural routes have been established in Sicily.[7] These are structured around various types of experiences at a re-

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4 Geographers define a cultural landscape as "a concrete and characteristic product of the interplay between a given human community, embodying certain cultural preferences and potentials, and a particular set of natural circumstances" (Fowler 1999, 56). The term "cultural" thus denotes the presence of tangible and intangible cultural values in a given landscape (Mitchell et al. 2011; Donadieu 2012). For example, cultural landscapes may reflect specific techniques of sustainable land-use that take into account the affordances and limitations of the natural environment, as well as peculiar spiritual beliefs attached to the landscape itself. For a reevaluation of the terminology of landscape for the purpose of cultural heritage management, see Szmelter 2013.

5 Routes should not be thought of as straightforward, simple connections between individual settlements; they rather should be conceived as links between settlements on a variety of scales (e.g., local, regional, supra-regional) and between settlement areas and the surrounding natural environments. As such, they are the product of and are influenced by both cultural and geographical dynamics. Research on route networks is therefore essential in order to fully understand the complex interactions between builtscapes and natural landscapes (Van Lanen et al. 2016, 1037–39); see also Ingold and Lee Vergunst 2008.

6 For the relationship between settlement patterns and ancient route paths research, see Hitchner 2012.

7 On cultural routes, see Majdoub 2009, 4–6; European Institute of Cultural Routes 2019. In this regard, the ICOMOS Charter on Cultural Routes (October 2008) specifies: "Any route of communication, be it land, water, or some other type, which is physically delimited and is also characterized by having its own specific dynamic and historic functionality, which must fulfill the following conditions: it must arise from and reflect interactive movements of people as well as multi-dimensional, continuous, and reciprocal exchanges of goods, ideas, knowledge and values between peoples, countries, regions or continents over significant periods of time. It must have thereby promoted a cross-fertilization of the affected cultures in space and time, as reflected both in their tangible and intangible heritage." The existing literature on cultural routes mostly focuses on the historical, geographical, and phenomenological aspects thereof (Candy 2004; Alonso Otero 2010; Griselin and Salvador 2010; Berti 2012; Serenelli 2013; Idone 2013), or on the specific factors influencing the spatial configuration of

gional, local, and sub-local level, and accommodate interests as wide as archaeology, history, art, gastronomy, religion, and natural landscape. Despite their heterogeneity, these newly established cultural routes all rely on a common strategy: the promotion of the cultural aspects of local entities and experiences. The proposed activities, in line with current policies, focus on the enhancement of cultural heritage as an agent for the development of local communities. In particular, the Sicilian itineraries seem to conform to the numerous other European initiatives promoting the creation of transnational cultural routes. As emphasized in the Document of the European Year of Cultural Heritage (2018),[8] tracing cultural routes across nations to link historical sites is the best way to implement and promote new relational networks based on a common understanding of cultural heritage. In a broader sense, as outlined in the Joint Communication on Culture in Europe's external relations,[9] re-tracing historical routes may help in surmounting the typical limits of local management of cultural sites, while contributing to the development of durable and sustainable networks across cultural operators and heritage sites within the European Union. As cultural heritage plays an important role in fostering a shared sense of history and identity, the establishment of historical routes, which is usually supported by local institutions, consists of measures directly affecting material and intangible forms of heritage.[10] The ubiquitous aim of such projects is the creation, through a sustainable approach, of a network of cultural sites designed to preserve, promote, and enhance the "hidden" cultural heritage dispersed across the natural landscape, transforming it into growth assets. This requires the involvement of several actors and stakeholders;[11] archaeologists, architects, landscape designers, and economists should be called upon to design new management solutions that take adequate account of sustainability and innovation to ensure the survival of cultural routes. This category launches the model of a new type of cultural heritage: indeed, a cultural route also illustrates the contemporary design of heritage values for participant local communities as a resource for sustainable social and economic development. In this context,

the land (Lombardeiro Folgueira 2011); for research focusing to cultural and social issues, see Torres Feijó 2011; specifically concerning the "Camino de Santiago de Compostela," see Nageleisen 2014; for "Via Francigena," see Bettini et al. 2011.

8 Cf. Cultural Routes 2018.

9 Joint Communication 2016, 1–2.

10 For a definition of tangible and intangible cultural heritage, with references to the resolutions introduced and adopted by international organizations such as UNESCO and ICOMOS, see Ahmad 2006.

11 Serenelli et al. (2017): ancient route paths represent an interesting topic for applying a 'landscape approach' to regional planning, and they are interesting mainly for their ability to activate processes of local development based on the enhancement of local peculiarity and vocations. It is furthermore a fertile ground for building a dialogue among various stakeholders-administrators, people involved in the marketing and productive sectors, inhabitants, tourists, pilgrims, and occasional visitors.

the concept of cultural route is innovative, complex, and multidimensional: it represents a qualitative contribution to the notion of heritage and its preservation.[12]

R. B.

2 The phenomenon of cultural paths in Sicily

A preliminary attempt to offer a general overview of cultural routes in Sicily has been made through an analysis carried out on the internet (websites, repositories, social media, etc.) between September-December 2018. The data collected provided a broad and articulated view of the creation and management of Sicilian cultural routes.[13] Our findings suggest that out of 74 items the key drivers in this regard are the actions promoted by private companies (40%) (i.e., tour operators and travel agents), cultural associations (30%), public institutions (26%) (cultural heritage authorities/Soprintendenze, municipalities, districts, and regional institutions), and research institutes (4%). Common goals are the promotion of a new relationship between local identities and cultural landscapes and the development of tourism in the inland. In this scope, the creation of routes across different Sicilian districts has been encouraged.

In the sample examined, the main components of the community involved in the management and enhancement of cultural heritage are represented, i.e., cultural associations, private companies, research institutes, and public institutions (Fig. 3). Considering the tourist potential of the region, it is understandable that a large percentage of routes are planned and offered by tour operators. However, the number of initiatives promoted by cultural associations and public bodies is also remarkable (Fig. 3). As for international projects financed by European funds, western Sicily is part of the cultural route *La Rotta dei Fenici*—a Mediterranean network that incorporates the trajectories of ancient Phoenician routes. This project provides opportunities for cooperation among numerous research institutes and for the implementation of a common plan for cultural and economic development, something that is generally negotiated at a local level.[14]

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12 Majdoub 2009, 5; see also Majdoub 2010.

13 The applied data collection methodology and first results were presented in a preliminary report at the conference *Oltre la convenzione. Pensare, studiare, costruire il paesaggio vent'anni dopo* organized by the Società di Studi Geografici (Florence, 2020), cf. Brancato et al. 2021.

14 In 2003, the cultural route *La Rotta dei Fenici* (The Phoenicians' Route) was accepted by the Cultural Route of the Council of Europe as a pilot project for the enhancement of European cultural tourism and thus included in its institutional program. In 2004, the International Association Phoenicians' Route was established as the management authority of the itinerary. This led to the establishment, in 2011, of the International Phoenicians' Route, which is today the *réseau porteur* of the itinerary. The international confederation is composed of in-

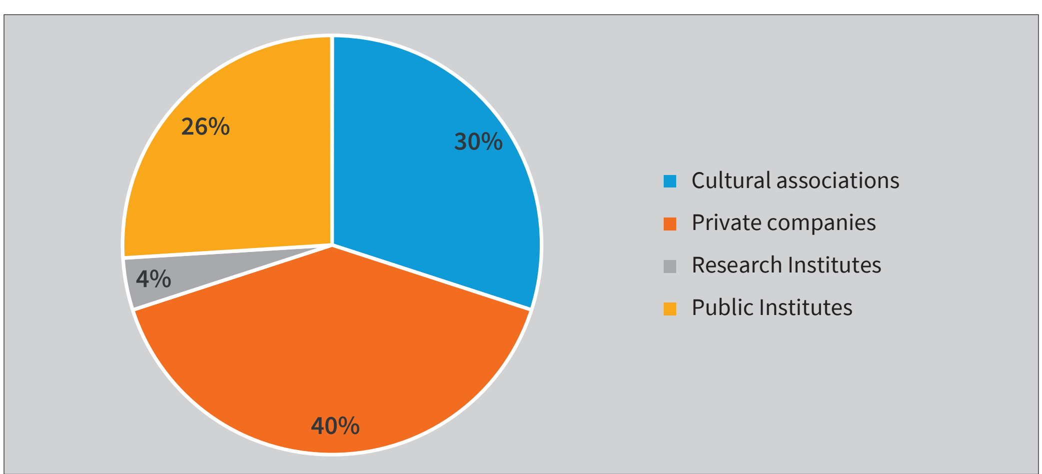

Fig. 3 Graph of percentage of organizers of cultural route in Sicily (2010–2020) (R. Brancato).

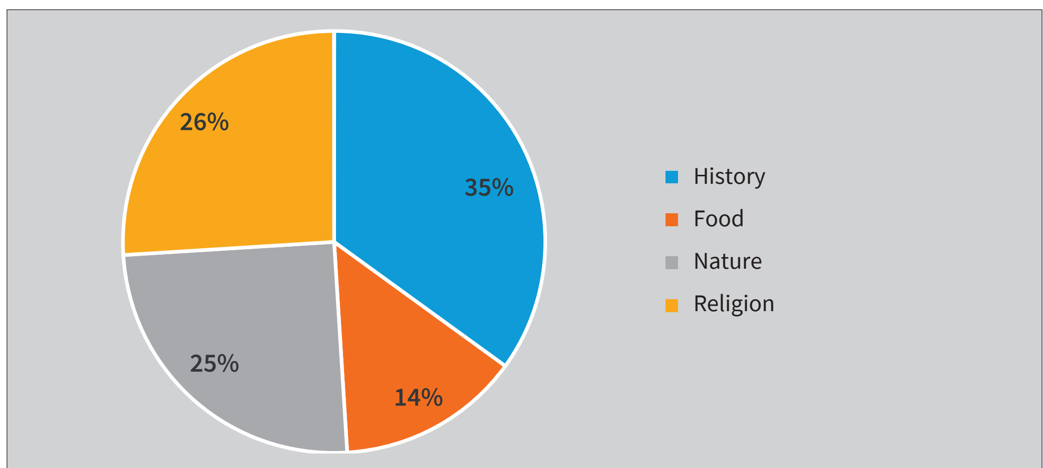

Fig. 4 Graph of percentage of themes of cultural routes in Sicily (2010–2020) (R. Brancato).

The preliminary data also give us clues about the topics commonly addressed in the narratives accompanying the promotion of cultural routes (Fig. 4). In online descriptions, the following features are intentionally rehearsed: the historical interest of the route (35%); the links between cities and ancient settlements across remote rural areas where significant

stitutional and territorial authorities from the partner countries, as well as private operators in different sectors. Since 2016, the itinerary is the focus of the World Tourism Organization, which established a specific Core Working Group. The Phoenicians' Route encompasses many Mediterranean countries located in Europe, North Africa, and the Middle East, thus contributing to strengthening their historical connections. For this reason, it has been designated as the Itinerary of Intercultural Dialogue.

monuments are located; the religious value of the journey and the spiritual dimension of the destinations, which are often sanctuaries or monasteries (26%); the natural interest of routes passing through fascinating and unspoilt natural scenery, mostly untouched by tourist flow (25%); and, finally, the variety and richness of local dishes and wines (14%), whose peculiarities are vaunted by the local communities. Needless to say, most of these aspects are closely interconnected; for example, the spiritual and the historical go hand in hand, since the rediscovery of religious paths is based on hagiographic sources and Christian monuments from the medieval and/or modern times. The same applies to natural attractions and historical monuments, which are often presented as being linked via hiking trails.

V. G.

3 The *Antica Trasversale Sicula*

3.1 The route

The cultural route named *Antica Trasversale Sicula* extends for almost 650 km inland, spanning—as its name suggests—the entire island diagonally; it is divided into 37 stages, one for each day of the journey (Fig. 5). Starting from Mozia and ending in Kamarina, the path stretches from the western to the southern coast of Sicily. The *Antica Trasversale Sicula* runs

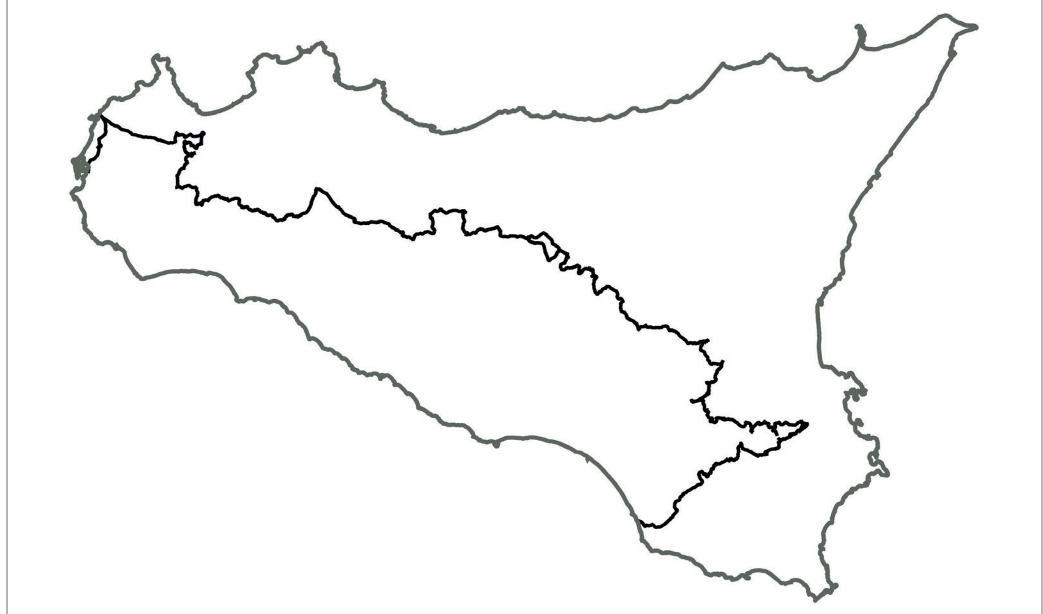

Fig. 5 Sicily, Antica Trasversale Sicula trail (P. Santospagnuolo).

across nearly all the provinces of the island, touching 55 municipalities and communities, 6 archaeological parks, 47 sites of historical and archaeological interest, as well as several nature reserves and museums. The trail, winding through country paths (some of ancient origin, some more recent), *trazzere,* and abandoned rail lines, leads to some of the main Sicilian archaeological sites, such as Segesta, Morgantina, Pantalica, and Kamarina; smaller and lesser-known sites are included too. The website Geoportale Sicilia[15] informs us that the creators of the initiative and founders of the Antica Trasversale Sicula Association are G. Melfi and G. Decaro, who studied the route together with the archaeologists G. Labisi and S. Gheys. Agreements were concluded with local municipalities and associations keeping in mind the common benefits in terms of socio-economic development of minor heritage and the rediscovery of Sicilian history, traditions, and food through the provision of reception facilities and events, according to the formula of "slow tourism."[16]

In 2017, the organizers and a few other participants undertook the first systematic exploration of the route. The enterprise was supported by the *Dipartimento Turismo Sport e Spettacolo* (Department for Sports Tourism and Entertainment) of the Sicily Region, which had also coordinated the advertising of the event on the web. Thanks to the collaboration with the LabGIS Office of the *Osservatorio Turistico Regionale* (Regional Tourist Observatory), the photos and geolocations recorded during the journey were processed on different cartographic platforms and made publicly accessible on a web application.[17] Moreover, the website Geoportale Sicilia made it possible to follow the excursion stage-by-stage by providing daily updates, photos, logistical details, and historical-archaeological information.[18]

The success of this first venture, although undertaken on a small scale, raised the attention of official bodies: in 2018, the route was included, as *Primo Cammino Internazionale dell'Antica Trasversale Sicula,* among the events of the European Year of Cultural Heritage promoted by the MiBAC (Ministry of Cultural Heritage and Activity)[19] and nominated for the Landscape Award of the Council of Europe, as well as for the *Premio Nazionale del Paesaggio* (National Landscape Award) of the UNESCO Club.[20] A large group of hikers joined the formalized *Primo Cammino Internazionale dell'Antica Trasversale Sicula,* which took place from October 7th to November 18th, 2018; among the participants, some walked the en-

15 Geoportale Sicilia 2017.

16 Among the main supporters and collaborators, there are Club Sicilia Patrimonio UNESCO, Legambiente, WWF, UNPLI (National Union Pro Loco of Italy), A.S.Te.S. Sicily (Sustainable Territorial Development Association), Assocamping (National Association of Open-air Tourist Accommodation Companies), and CAI Sicilia (Club Alpino Italiano).

17 LabGIS 2019.

18 These last were provided by the cooperation with the Laboratory of Ancient Topography of the University of Palermo, whose guide helped the organizers define the route.

19 MiBAC 2018.

20 Premio Paesaggio 2020.

tire route, others only a few stages. The salient moments of the "itinerant event" were made available in real-time on social media pages through daily reports accompanied by photos and comments.[21] Ad hoc signs were set up to mark the trails, and the data collected the year before were updated and published online through the Google service *My Maps.*[22] During the almost forty days of the *Primo Cammino Internazionale,* walkers enjoyed different activities, such as visits to archaeological sites, museums, and artisan workshops, conferences, and tastings of traditional food and wine. These occasions proved to be an opportunity for walkers to come into contact with the local authorities and associations, and for local people to become acquainted with the cultural route.

The second event, called *Secondo Cammino Internazionale,* took place from October 4th to November 16th, 2019, with the renewed support of the *Assessorato Regionale del Turismo* (Regional Tourism Council). Besides the support of a greater number of sponsors, new developments in this second edition were the participation in the project *Sicily En Plein Air*[23] and in the expo BTE-*Borsa del Turismo Extraalberghiero* (Non-hotel Sector Tourist Board).[24] The great relevance given to environmental ethics was shown in both symbolic gestures, such as the adoption of historical trees by the participating municipalities,[25] and practical actions, such as the planting of new trees in archaeological parks in the frame of the "Green Link" project[26] and the use of electric vehicles. In addition to daily updates on social media and radio stations,[27] each stage of the journey was documented in real time through the web application of the *Osservatorio Sicilia.*[28] Videomakers accompanied the walkers to record material for a dedicated documentary.

The activities of the Antica Trasversale Sicula Association are nonetheless not limited to the annual journey from Mozia to Kamarina; throughout the year, several collateral

21 Trasversale Sicula 2020.

22 Google MyMaps 2020. Besides the exact route and its division into stages, the map also displays the main sites located on or near the trail. These have been thematically grouped into "museums," "areas with facilities," "luoghi del gusto" (literally "places of taste", i.e., venues to taste traditional food), and "archaeological sites." As for museums and archaeological sites, a link to the official website and information about opening hours and ticket prices are provided.

23 Project supported by *Assocamping Sicilia* and *Assoturismo Confesecenti* (Assocamping 2020).

24 According to the official social media page of the Antica Trasversale Sicula Association, all accommodation facilities will be "advertised at the next BTE in Bagheria" (Trasversale Sicula 2020, post of the 1st October 2019).

25 Each "monumental" tree was identified by means of a signal as "keeper of local traditions", and its presence indicated on the online map.

26 The project is supported by LIFE Climate Change Adaptation and envisages the "restore [of] desertified area with an innovative tree growing method across the Mediterranean border to increase resilience" (The Green Link 2017). Palm trees were planted as a symbol of the goddess Athena, protector of Kamarina.

27 Specifically, on a radio that reports on trekking and cultural routes (Radio Francigena 2020).

28 LabGIS 2019.

events linked to the *Cammino* take place. An example is the initiative "Weekends Trasversali," which combines trekking with cultural initiatives and is aimed at those who wish to walk only a few stages of the *Antica Trasversale Sicula.* Besides sharing regular updates on social media to keep alive the followers' interest, the Association regularly takes part in events thematically related to the *Antica Trasversale Sicula* (such as conferences and book presentations); it also extends its support to the activities of other associations, galvanized by common goals and interests.

3.2 Historical data and the construction of a narrative

Numerous sites along the *Antica Trasversale Sicula* bear the traces of prehistoric frequentation; these are embedded in road networks that, in a number of instances, are still in use today.[29] During and after the Greek colonization, the newcomers took advantage of some of the existing roads to venture into the Sicilian hinterland; at the same time, they established new routes to link colonies, sub-colonies, and indigenous settlements.[30] Although the Greeks were the first to organize an interregional road system, it was only with the unification of Sicily under Roman rule that the island was fitted with solid road infrastructure, mostly coinciding with pre-existing routes. In Imperial times, the routes connecting the centers of production with the main harbors were the first to be associated with the *cursus publicus* and thus to be equipped with rest stops (*stationes*).[31] In the Middle Ages, a lack of maintenance caused the dilapidation of the great Roman roads, and the subsequent creation of an alternative road system made up of narrow and hardly accessible trails developed after the new settlement patterns (cave and hill dwellings) following the Arab conquest in the

29 For the identification of the various ancient tracks partly mapped out in the stages of the *Antica Trasversale Sicula,* reference was made to Uggeri (2004).

30 The stage between Segesta and Salemi seems to retrace a path mentioned by Diodorus (XXIII, 21). The account of the war between Syracuse and Himera at the end of the fifth century BCE proves the existence of an internal route between Termini and Catania. At the time of the Syracusan penetration into the Hyblaean territory (seventh century BCE), marked by the foundation of Acrae, Kasmene, and Kamarina, new routes were created. Because of its prominent role, Syracuse was the terminus of two roads, today, part of the *Antica Trasversale Sicula:* the so-called *Via Elorina,* and the *Via Selinuntina;* cf. Uggeri 2004, 14–19.

31 The *Antica Trasversale Sicula* overlaps and intersects some of these Roman roads. In particular, the first four stages, from Mozia to Terme Segestane, follow more or less faithfully the Roman *Via Valeria,* which linked Marsala (Lilybaeum) to Messina, on the northern coast. The section of road between Corleone and Prizzi mostly retraces the Roman road connecting the northern coast (Palermo) to the southern coast (Agrigento). Although its path is mentioned several times in ancient itineraries, we deduce its name, *Via Aurelia,* from a milestone. This road retained its importance also under the Arabs and the Normans, which is the reason why it was renamed *Magna Via Francigena.*

eight century AD.[32] Many of these Roman and medieval routes would be later incorporated into the system of the *regie trazzere*—unpaved tracks used for transhumance.[33]

In the attachment available on the website of the European Year of Cultural Heritage, the *Primo Cammino Internazionele dell'Antica Trasversale Sicula* is presented as "an important element of European cultural heritage," and "one of the oldest historical routes in Sicily and the Old Continent."[34] This statement echoes a quote by B. Pace, in which he claims to have recognized a fragment of a *trasversale sicula* between Kamarina, Comiso, and Licodia, in the southern corner of Sicily.[35] According to him, two roads departed from the crossroad in Licodia: one towards Catania, the other towards Palermo; the latter must have been the "real" *trasversale.* As a further proof of the antiquity of the route, the webpage Geoportale Sicilia reports G. Uggeri's[36] statement that "in ancient Sicily there was not a single *trasversale,* but a series of *rotte trasversali*" connecting the main Sicilian cities with indigenous centers and sanctuaries. In the same webpage, the creators of the *Antica Trasversale Sicula* emphasize how the presence of this *trasversale* favored not only the trade of main Sicilian agricultural products (i.e., wheat, oil, wine, honey, etc.) but also, broadly speaking, the contacts between "Greeks, Sicels, Sicani, Elymians, and Carthaginians." Such a reference to the ethnic diversification of ancient Sicily presents the *Antica Trasversale Sicula* as a symbol of tolerance and peaceful coexistence between different cultural groups, thus reaffirming Sicily as a land of age-old hospitality. Interculturality is, after all, one of the most peculiar features of cultural routes. The *Antica Trasversale Sicula* is inspired by, and aligned to, the European-wide phenomenon of revival of historical cultural routes in a contemporary perspective. Placing itself as a *Cammino Internazionale* ("international trail"), it welcomes foreign participants and leads them on the tracks of the many populations who followed one another on the island, thus offering them the possibility of traveling both in space and time. In this way, the *Antica Trasversale Sicula* is presented as a means par excellence to reach the roots of the Sicilian identity.

Specific choices of narratives communicate the historical identity of the route, as it is presented and advertised to the public. Descriptions in both the webpages and social media emphasize the role of certain historical phases to the detriment of others; for example, ref-

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32 The work of Idrisi (12th century) reveals the existence of these new paths but also bears witness to the continuous use of some sections of the imperial road system (such as the *Via Valeria,* the *Via Aurelia-Magna Via Francigena,* and the internal road between Termini and Catania); see Amari 1880–81, 31–135. Some of the sites touched by the *Antica Trasversale Sicula* were connected to the new settlements, such as Calatafimi, Salemi, the Arab-Norman castle of Calathamet (near the Terme Segestane), Castronovo and the nearby Casale San Pietro, Calascibetta, and Pantalica.

33 For the meaning of *trazzere,* see n. 3.

34 PDF downloadable from the webpage MiBAC 2018.

35 Pace 1958, 464. See the article published online by Labisi (2019).

36 Geoportale Sicilia 2017. See also Uggeri 2004, 19.

erences to the indigenous population of Sicily (Elymians, Sicels, and Sicani) are significantly more abundant than those made to the Greeks, Arabs, and Normans. The Roman period remains rather in the shadow, despite its significant impact on the Sicilian landscape. The will to turn the spotlights on "minor" local realities, highlighted by the choice of focusing on the history of the Elymians, the Sicels, and the Sicani, also manifests in the attention devoted to the festivities, products, and gastronomic traditions of the lesser-known towns of the Sicilian hinterland. The association also seeks to establish a direct link with the indigenous peoples of Sicily, in particular the Sicels, through a series of dedicated events organized throughout the year.[37] Within this narrative strategy, references to local expressions of religious devotion, too, are a useful tool to emphasize the founding principles of the cultural route: the *Antica Trasversale Sicula* is akin to a "pilgrimage through the sanctuaries of proto-historic and Greek Sicily," as a passage from a 2017 travel diary puts it.[38] In this regard, a prominent role is entrusted to the cult of Demeter and Kore, which were chosen as the protective deities of the journey for their "divinity symbolic of Indigenous and Greek cultures." The predilection for this mythological story, so closely connected to the cycle of the seasons and agricultural production, further reaffirms the wish to celebrate and care for the land and its products. Ancient religiosity thus serves the purpose of establishing a more direct contact with nature and connecting with the most ancestral, genuine, and hidden core of Sicily.

P. S.

4 The *Magna Via Francigena*

4.1 The route

The *Magna Via Francigena* (Great Francigena Way) traverses the island from north to south, linking two of the major port cities in the region: Palermo and Agrigento (Fig. 6). It is part of a network of four walks,[39] *Le vie Francigene di Sicilia,* which in the past five years has been the focus of increasing interest.

The project of revival and enhancement of the *Magna Via Francigena* started in 2009 upon the initiative of Davide Comunale, a Sicilian researcher at the University of Rome Tor Vergata, whose interests include the study of ancient roads in medieval times through doc-

37 For example, one of the "Weekend Trasversali" entitled "From the Temple of Sicels to the Castle of Ducezio" (Palagonia–Mineo), follows in the Sicels' footsteps among those locations considered to be their sanctuaries and places of power.

38 Geoportale Sicilia 2017.

39 Cammini Francigeni.

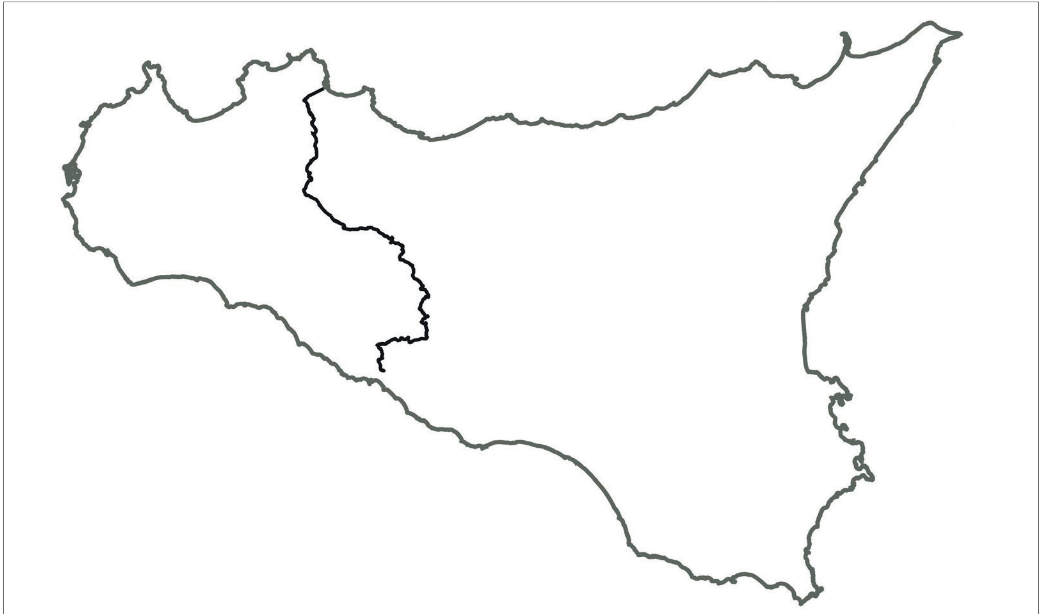

Fig. 6 Sicily, Via Francigena trail (P. Santospagnuolo).

uments and archaeological data.[40] In 2010, Comunale funded an association of volunteers known as "Amici dei Cammini Francigeni di Sicilia," with the aim of valorising this Sicilian heritage and promoting the exchange of good practice, in particular concerning the Itineraries called *Vie Francigene di Sicilia* and pilgrimage, thus encouraging social development through better presentation of the cultural, anthropological, and traditional heritage as well as of museums and landscape[41]. To this end, a series of actions needs to be undertaken: supporting, together with local authorities, the creation of infrastructure and services for the pilgrims; taking measures to improve the public awareness as well as coordination and enhancement of these itineraries; and promoting trekking tourism as a sustainable option for the development of the territory.[42]

In 2013, thanks to the partnership with other cognate associations, such as ItiMed (*Itinerari Mediterranei*), and the creation of a network involving public authorities, universities,[43] and local stakeholders[44], the project of the *Magna Via Francigena* started for the first time. In a few years, it spawned many cultural initiatives at different levels; among these are the conference *Le Vie e i Cammini di Sicilia: icercar e associazionismo in … cammino,* held at

40 Comunale 2017a.
41 Cammini Francigeni 2015, Art. 3.
42 Cammini Francigeni 2015, Art. 4.
43 Trinacria news 2014.
44 Trinacria news 2014, Interview to Antonella Italia.

Piazza Armerina in 2014 and involving some of the major Italian experts on medieval mobility; the celebration which took place in May 2016 on the occasion of the VIII National Day of the *Cammini Francigeni;* several conferences and trekking, across the region;[45] the publication of two guidebooks, one to the *Magna Via Francigena* (2017),[46] the other to an itinerary called "Palermo–Messina throughout the mountains;"[47] an event-walk supporting people affected by fibromyalgia and medical research in 2019.

According to a press release on the website of *Cammini Francigeni di Sicilia,* in 2018, more than 1700 "pilgrims"—almost twice as many as in 2017—walked the two main trails, the *Via Palermo-Messina per le montagne* and the *Magna Via Francigena.*[48] The participants had the chance to visit small inland villages otherwise excluded from the mainstream touristic itineraries.

The *Magna Via Francigena* begins at the Cathedral of Palermo and ends at the Duomo of Agrigento, bisecting the island from north to south. The route is roughly 160 km long and is divided into nine legs of about 25 km each; it passes through the towns of Palermo-Monreale-Santa Cristina di Gela (1), Corleone (2), Prizzi (3), Castronovo (4), Cammarata (5), Sutera (6), Racalmuto (7), Joppolo Jancaxio (8), and Agrigento (9). The itinerary follows the tracks of the *regie trazzere*[49]—which, by the end of the 19th century, had been catalogued in the royal land registry. All walking paths are signposted with arrows and the red symbol of a pilgrim underlined by a red and white line. In 2016, upon the initiative of Giovanni Guarneri, an amateur cyclist who came to know about *Magna Via Francigena* project through social media, a parallel bike trail was established. The cycling route is 150 km long and is divided into five legs; for the most part it runs parallel to the walking route, with a few slight deviations due to the ground conditions.[50]

Today, the project is endorsed by 19 municipalities,[51] and directly involves all members of the local communities, as well as private and public institutions. The project's creators, Davide Comunale, Irene Marraffa, and Giovanni Guarneri, encouraged local institutions (e.g., churches, schools, and municipalities) to provide accommodation to the pilgrims upon payment of a symbolic sum understood as a donation, in line with the model of Santiago de Compostela. They also launched a pilot project to prompt local families who owns spare rooms or empty houses to rent them out for a maximum price of 20 euros per night.[52]

45 Catania Giovani 2016.
46 Comunale 2017b.
47 Comunale 2018.
48 Cammini Francigeni 2019.
49 See note 3.
50 e-Lios s.r.l. 2020b.
51 e-Lios s.r.l. 2020d.
52 Geo & Geo 2017.

Strategic choices such as those delineated above not only help generate new sources of income for local families and towns, but also foster the expansion of the Italian hosting model known as *Albergo Diffuso* (Dispersed Hostels).[53] This hosting paradigm, focusing on the restoration and reuse of old houses in place of creation of new structures, provides a more sustainable and eco-friendly alternative to more traditional hosting solutions in the tourism sector. Moreover, according to a medieval custom, anyone who approaches the *Via Francigena* can ask for a *credenziale,* a document attesting its owner's status of "pilgrim," to be stamped by the authorities of the places visited along the journey. The collection of stamps entitles one to the *testimonium,* an official certification personally signed by the bishop of Agrigento, attesting that he or she—much like an ancient pilgrim—has reached the Duomo of Agrigento after covering a minimum of 100 km on foot or 150 km by bike.[54]

4.2 Historical data and the construction of a narrative

According to historical data, the road linking Palermo and Agrigento had a military purpose from its very inception to the times of the Norman monarchy, when it was cited under the name of "via exercitus."[55] Indeed, it was first traveled from South to North by Theron in the fifth century BCE to reach Himera and fight against the Carthaginians, and in reverse during the Roman conquest of the island.[56] Known as *Via Aurelia* in Roman times, it was most likely commissioned during the First Punic War between 252 and 248 BCE by the consul Aurelius Cotta, as attested by the only *miliarum*[57] ever found in Sicily.[58] The *miliarum,* unearthed near Corleone and kept in the local museum, is the only historical evidence that explicitly refers to this ancient route[59].

Thus, it is necessary to inspect the reliability of an ancient itinerary called *Via Francigena* in regard to the origin of its name and whether it should be traced back to the famous European pilgrimage route leading from Canterbury to Rome and thence to Jerusalem. If so, should we assume that this, too, was a pilgrimage route in ancient times?

In order to reconstruct the ancient tracks, in addition to archaeological data, scholars took into consideration occupation and distribution patterns, local toponyms and, where

53 Dall'Ara 2010.
54 e-Lios 2020b.
55 Amari 1933, 345.
56 Uggeri 2004, 98.
57 Di Vita 1955, 11–20.
58 Uggeri 2007, 230.
59 Arlotta 2005, 870, n. 125.

available, written sources.[60] Research suggests that the route was in use for centuries,[61] thus fitting Braudel's model of the *longue durée.*[62]

In particular, analysis of the archaeological and written documentation dating between the 11th and the 13th centuries CE allowed scholars to identify the traces of an ancient path referred to as "Via Francigena." The sources point to the existence, between Palermo and Agrigento, of at least three *hospitales,*[63] structures for the reception of pilgrims similar to those identified along the Palermo–Messina way.[64] The first is the *Hospitalis Sanctae Agnes,* which a Norman document dating to 1182[65] locates "on the way leading from Corleone to Palermo."[66] On the basis of the ancient association between S. Agnes and S. Agata,[67] it was proposed to locate the *hospitalis* in the area of a Late Roman (fifth–sixth centuries C.E.) settlement with a necropolis in Contrada Sant'Agata,[68] south of S. Cristina di Gela (Palermo); the site was investigated by the Archaeological Service of Palermo.[69] The second is the 13th century *Hospitium Flace*[70] in the territory of Prizzi (Palermo), in Contrada Filaga; this is possibly the site of an earlier Byzantine watch-tower, as the toponym "Filaga" suggests (*φύλαξ*—"guardian"; *φυλάκιον*—"guard post").[71] The third building, dating to the 12th century, was located in the premises of Castronovo (Palermo) and was under control of the Teutonic Order Church of Maria dei Miracoli.[72] A further evidence is the expression "τὴν ὁδὸν τὴν μεγάλη τὴν φραγκικὸν τοῦ Καστρονόβου," reported in a document in Greek of the year 1096[73] that describes the boundaries of a parcel of land given by the king to the diocese of Messina.

60 Uggeri 1986, 2004; Arlotta 2005.
61 Uggeri 2004, 97–104; Patitucci and Uggeri 2007.
62 Braudel 1982, 162.
63 All the structures identified are in the province of Palermo. In accordance with the model of the *longue durée,* it has been noted that several medieval stopovers coincide with Roman ones, especially those described in the *Itinerarium Antonini.* The archaeological evidence confirms this fact (Uggeri 2004, 97–104). The *Iinerarium Antonini* mentions four *stationes* along the Palermo–Agrigento route: *Pirama, Petrina, Comitiana,* and *Pitiniana,* falling respectively just within the territories of Sant'Agata, Prizzi, Castronovo, and also Aragona. This suggests that a fourth *hospitalis,* on which no documentation survives, might have existed near Aragona (Agrigento).
64 Arlotta 2005, 837–55.
65 Cusa 1868, 179–97.
66 Translation by the author.
67 Morin 1910.
68 Arlotta 2005, 872–73, n. 131.
69 Greco 1985–1987; Greco and Mammina 1993–1994.
70 Collura 1961, 305, Uggeri 2004, 103.
71 Uggeri 2004, 103.
72 Mongitore 1734.
73 Cusa 1868, 289–291; the same text reached us in Latin, since it was copied together with other Greek documents at the behest of the Empress Costance in April 1189, see Költzer 1983, 194–97, n. 53.

Should we succeed in mapping out the northern section of the *Via Francigena* with some degree of certainty, it will be reasonable to assume that the same route continued from south of Castronovo to Agrigento. This conjecture, which takes into account the aforementioned theory of *longue durée,* may be proven through an investigation of the archaeological evidence of earlier periods[74] and of the *regie trazzere.*

As for what concerns the name "Magna Via Francigena," the latter appears in four documents[75] of the Norman chancellery dealing with the demarcation of estate boundaries (*periorismos*) in the context of notarial deeds. By this name, the documents refer to different routes running across the island.[76] The route from Palermo to Agrigento is mentioned in the 11th century Greek text cited above as "τὴν ὁδὸν τὴν μεγάλη τὴν φραγκικὸν τοῦ Καστρονόβου."[77] The term "φραγκικὸν" ("francigeno") unquestionably reminds us of the *Via Francigena,* which, from the end of the 9th century onwards, connected the transalpine regions to Sicily. According to Arlotta, the term was transferred to the denomination of the Sicilian route through a linguistic phenomenon known as "synonymic irradiation:"[78] since the *Via Francigena* was the most important European pilgrimage route in the Middle Ages,[79] the borrowing of its name must have highlighted the special role that the Palermo–Agrigento route had at the time. The fact that the Sicilian route was divided into several stages seems to endorse this hypothesis. However, other scholars disagree with this explanation and read the term "francigeno" as a mere reference to the origin of Norman people in France.[80] More straightforwardly, a document of the year 1182 provides the Arabic name of the road, *tariq al-'askar,* which in Latin translates as *Via exercitus.*[81] Hence, we may assume that during the Norman kingdom the road leading from Palermo to Agrigento was still used for military purposes, most likely for penetration inland during the conquest of the island.

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74 See n. 64, concerning the *Itinerarium Antonini;* Uggeri 2004, 106–16; Comunale 2017a, 78.

75 The first one is a Greek document of 1089, which has come down to us through a Latin copy dating back to 1189, a will by Empress Constance, citing the *viam ad aliam Francigenam* as a border in the context of a land donation in the estate of Messina; see Költzer 1983, 194–97, n. 53. The second one, already mentioned, is the Greek document dating back to 1096; see n. 74. The third document, dating back to the period 1105–1130 and referring to a *uiam francigenam uiam Fabariam,* is a donation of a land plot in the estate of Vizzini from Achinus de Bizino to Ambrosius, abbot of the monastery of Lipari-Patti (ME); see White 1984, 389, n. 6, cf. Sidoti and Magistri 2006, 224. In the last one, which dates back to 1267, a *via francigena* close to Mazzara del Vallo is mentioned; see Santagati and Santagati 2016, 108.

76 These documents led to the reconstruction of the itineraries promoted by the Association "Amici dei Cammini Francigeni di Sicilia," see Cammini Francigeni.

77 Cusa 1868.

78 Arlotta 2005, 817.

79 Cfr. Arlotta 2005, n. 2 with references.

80 Uggeri 2004, 103; Santagati and Santagati 2017, 102. The MVF website offers the same explanation regarding the origin of the name, see e-Lios: http://www.magnaviafrancigena.it/faq/.

81 Amari 1933 2, 345–46.

Quite apart from the name issue,[82] what scholars agree on is that the *Magna Via Francigena Catronovi,* after passing Corleone, must have merged into a road leading to the city of Messina.[83] If we take the road to be a pilgrimage route, it makes sense to assume that Messina was the last stopover: thanks to the special favors that the Norman Kings granted the Sicilian monastic relationship with the Holy Land[84], it was from its harbor that the pilgrims would leave the island to reach Jerusalem and other pilgrimage destinations such as Rome and Santiago.

Even operating under the assumption that the *Magna Via Francigena* was a pilgrimage route comparable to other existing *Vie Francigene*—which remains a hypothesis—neither the historical sources nor the narrative that Comunale[85] proposes is able to explain what kind of religious devotion inspired medieval pilgrims to travel the route from Palermo to the Duomo of Agrigento.

What is clear is that we need to justify the choice of enhancing these cultural routes both historically and ideologically by creating a semantic connection with Norman Sicily. This venture, which may be taken as a symbol of a well-integrated society at a cultural level, has recently been a subject of great interest. Consider, for instance, the creation of the UNESCO Arabic-Norman Itinerary in Palermo in 2015, and, more generally, the wider interest in the famous European pilgrimage routes, such as the *Via Francigena* and the Compostela trail. Cultural routes are clearly a burning issue in the broader panorama of European cultural policies which deserves greater attention.

T. M.

5 Final remarks

The analysis of cultural routes enabled us to reflect on the implementation of a bottom-up approach to the management of cultural heritage in Sicily. The study provided a useful picture of the current engagement of local communities with the scholarly research on the history and archaeology of the island. Our critical investigation of the storytelling around two selected case studies clearly reveals numerous discrepancies between the extant archaeological evidence and the narrative attached to Sicilian cultural routes. These

82 This is not the place to discuss the issue, for which further philological studies would be needed.
83 Uggeri 2004; Arlotta 2005, 866, n. 115 with references.
84 White 1984, 109, 327–31, 352–55.
85 It is worth noting that the MVF website refers to Messina as the main arrival point for pilgrims, see Cammini Francigeni.

underlying narratives, resulting from the combination of historical and archaeological data and local traditions, need to employ an integrated approach in studying these cultural products.

While acknowledging the great cultural value of the *Antica Trasversale Sicula,* which has spurred interest in the lesser-known heritage of the Sicilian interior, we recognize that its narrative risks presenting a misleading image of the ancient route network. Indeed, the available archaeological and historical data do allow us to posit its existence as an uninterrupted road in the past.[86] What clearly emerges from examining in detail the stages of the *Antica Trasversale Sicula* is that the path is made up of segments of ancient roads, differing from each other in layout and chronology—among which some were created *ex novo,* some had been in continuous use for centuries. Therefore, rather than the rediscovery of a unitary, ancient path, the *Antica Trasversale Sicula* should be considered as a contemporary cultural product and contextualized as a contribution to the broader European-wide phenomenon of requalification of cultural routes.

Unlike the *Antica Trasversale Sicula,* the path of the *Magna Via Francigena* seems to follow the tracks of a documented ancient route—the Roman *Via Aurelia* connecting Palermo to Agrigento. The proposed cultural route is based on the results of a research project focusing on medieval route networks; attempts to create a thematically homogeneous product starting from this material have resulted in a well-balanced selection of historical and archaeological data. Yet, it is interesting to observe that, despite the topographical persistence of the Roman road, local actors chose to emphasize the importance of the *Magna Via Francigena* only in the context of medieval Christian pilgrimages, neglecting the previous periods.

Among the numerous cultural routes attested in Sicily, both the *Magna Via Francigena* and the *Antica Trasversale Sicula* have strong narratives and show all the features listed by CIIC_ICOMOS as characterizing Cultural Routes, i.e., context, content, and cross-cultural significance.[87] The comprehensive set of actions promoted by the organizers with the help of numerous local actors (cultural authorities, associations, companies, etc.) is clearly aimed at fostering a new relationship between the local communities and their cultural heritage. It constitutes an interesting case study of bottom-up management of cultural routes hinging on the values of historical landscape preservation as well as community engagement.[88] The networks of *trazzere* seem to be a geographically diffuse sustainable asset of cultural heritage, an important territorial resource for which a *mise en développement/tourisme* of rural areas can be envisaged. Indeed, this landscape feature (i.e., the routes network) is the ex-

86 Uggeri himself, in fact, as reported on the website Osservatorio Turistico, speaks of “a set of transversal routes” (Geoportale Sicilia 2017); see also Uggeri 2004, 19.
87 ICOMOS CIIC 2009.
88 Work paper for promotion of transnational culture 2016.

pression of a shared historical process which still shapes identity values and cultural heritage of small villages of Sicily just as in other European, Mediterranean, and Middle Eastern regions.[89] Due to the territorial diversity of the island, the creation of cultural routes could become the glue in a renewed territorial cohesion, confirming its role at the local level.[90] Seen in this way, these cultural routes may represent a starting point for settling disputes and recomposing fragmentations as part of a territorial system of sustainable local development and internationalization.[91] The historical routes of Sicily, particularly the system of Greek, Roman, and Medieval roads, are a valuable resource not only because of their cultural and spiritual value, but also as an economic resource when they are included in a strategy to maximize the profitability of a sustainable territorial design. Being sustainable and inclusive, they may become the basis for a diffused developmental model and be better integrated into processes of territorial inclusion.[92] Over the past 30 years, the growing numbers of scientific contributions, and the booming success of Europe's cultural itineraries (pilgrimages and Roman routes) provide evidence of the increased capacity-building potential of these new projects[93] for sustainable local development.[94] The creation of historical routes is a complex action, as it connects physical and intangible cultural heritage—hence the importance in Sicily of strengthening the link between knowledge (historical documentation and academic research) and scientific dissemination, and also of enhancing social cultural itineraries in relation to the major and secondary destinations in the European and Mediterranean network.

Finally, as recently highlighted by G. Volpe, it is necessary to stress the relevance of the bottom-up approach to the management of the cultural heritage in Italy.[95] Indeed, as the Sicilian case has clearly underlined, in order to make the cultural heritage a living entity and a shared opportunity for local communities, it is necessary to valorize the large number of small foundations, associations, companies, cooperatives, and individuals involved in the management of cultural heritage management. The numerous cultural routes planned in Sicily by bottom-up initiatives are signs of the strong relationship existing between local communities, historic roads, and cultural landscapes. Choosing the road as an icon of identity clearly indicates the shared will to create a common island identity which overcomes

89 Dallari 2018, 54–56.
90 Dematteis and Rivolin 2004.
91 Becattini 1987; Dematteis 2003; Dallari 2007.
92 Several trails also developed along the most famous Roman monument of the UK, i.e., the Hadrian's Wall, in the Pennines (htpps://www.national.trail.co.uk/hadrian-wall-path) and in Wales and on the Welsh Borders (htpps://www.national.trail.co.uk/offa-dyke-path): for an analysis of the Hadrian's Wall path National Trail as an inclusive monument, see Hingley 2012, 301–25.
93 Azzari and Dallari 2019.
94 Swyngedouw 2004; Baldersheim and Rose 2010; Reed and Bruyneel 2010.
95 Volpe 2019, 107–30.

inequalities in centralized cultural heritage management and enhances the cultural and natural small scattered sites that characterize the inland.

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Modelling the Absences through Survey: the Case Study of Syracuse

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Abstract Reading and disseminating information drawn out of (more or less readable) signs from complex places contribute to the "protection" of memory, meant as the contrasting process of any deleting action caused by the evolutionary processes of conformity of the urban system. According to this approach, the implementation is fundamentally important of the correct instruments. In particular, when the elements become extremely rarefied, "absent" so to say, the representation carried out with the most innovative technologies is suitable for several objectives, as it combines the need for accurate knowledge with the need for communication, enhancement and remote interaction. The aim of the present research is to master the remote interaction of the archaeological monuments of Syracuse which are actually "absent" either because their state of ruins doesn't allow their perception or because they are "hidden", not really visible. In this context, their interpretation has been carried out with a methodology which considers survey the co-developed instrument of analysis able to support the research. The modeling of the archaeological survey data offers the chance for dissemination and protection of cultural heritage.

Introduction: the representation of absences

Within the context of the experimentations carried out in the Laboratory of Representation of the University of Catania, directed by Giacinto Taibi and Rita Valenti, attention has been focused on the interpretation of the complexity of the archaeological site system. In particular, the research has considered the elements whose consistency is not necessarily tangible and are thus perceived as "absences".

It can be easily understood that the transformation of reality due to the succession of historical events determine a mutation of the urban landscape not always immediately recognizable.

> "Places tell sedimentary stories which testify the original meanings and vicissitudes which transformed themselves in the course of time. Digging is like accessing to the unconscious part of the place [...] Revealing its forgotten past; its archaeological strata

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> emerge from a mythical depth, exposing the historical roots of its own existence. Use always persists in some aspects of things [...] Ruins are like an *objet trouvé,* acquiring aesthetic cultural values beyond their original intention. The cultural characteristic which has patrimonial value is its antiquity which time, rarity and sedimentation make stronger" (Pinto 2008, 4).

The above words express, shortly, the meaning of stratified places which explicitly (through the integration into what is new) or introspectively (without any clear visual or tangible perception) provide the clues of memory. Places where the problems connected with the methodology of representation, due to the need of dealing with complex and intricate patterns, give the chance to reason about survey and quality of survey restitution with modern technologies.

The representation of the historical conformity process, through the reconstruction of the evolutionary dynamism of the signs left on the place and of the "absent" signs kept in the archives of memory, becomes the complete visualization of all the (visible and invisible) historical events (Fig. 1).

Fig. 1 Left: Syracuse historical photos of the Temple of Apollo e di Pancali Square. Top right: The archaeological site of Neapolis of Syracuse. Bottom right: Syracuse. Duomo Square, black lines of melted lead of the archaeological site buried underground.

Specifically, the perception of tangible reality without the support of memory gives back only some partial knowledge of reality. Memory and matter, actually, are closely intertwined in a relationship where past memories represent the basis of the collective memory of the evolving community.

According to this approach, visible information and absent stratifications are composed into a unity, developing a digital system properly structured in order to contain both.

In particular, the existing matter, a real "stone archive", appears a useful tangible historical document where it is possible to conduct researches regarding the past. Memory, on its turn, kept in an intangible way, acquires new materiality whose consistency is exclusively virtual.

In both cases, virtual modeling techniques give interesting results for the study, protection, conservation and dissemination of Cultural Heritage.

Safeguard and sustainable development are the two terms of the question and the study goes into this direction, embracing the motto "representing the city which represents us" in order to protect the perceptible identity not always visible.

The semantic interpretation of stratifications where architecture and archaeology are closely intertwined provides a kind of dialogue between matter and memory where present reality, with all its mutations due to the events occurred in the course of time, expresses what remains of the historical original reality which can be considered as a "virtual reality" to rediscover. Redesigning what is visible opens a window on what is invisible.

Sign decoding and interpretation, therefore, have been carried out with a methodology which considers survey the shared instrument of analysis able to support approaches and methods of research.

Historical narrative takes place through a model of representation which expresses the mutations time has visibly and introspectively exerted on the system. The model becomes the visualization of a reconstruction of the evolving dynamism of signs imprinted in that place. The methodological analysis is then a living system which makes use of technology not only to virtually explore places but also to build the networks that history has woven with the purpose of culture dissemination and to reestablish the cultural order within the real space.

In particular, the analysis, conducted on the basis of precision surveying and with the support of literature and archive material, focused on the creation of a 3D document for the virtual reconstructive process of the archaeological heritage.

1 The representation of stratified places in Syracuse

The research has been conducted into the archaeological sites of Syracuse which tightly interweave with the dynamic and complex dialectic of landscape archaeology, urban archaeology and the archaeology of the stratified architectural structures. The rigorous analysis is the result of the succession and concatenation of historical experiences.

So, the types of relations established between material archaeological remains and time inspire reasoning about the urban space, as if in its evolving, it could "subtract" portions of the city incorporating them sometimes in a perceptibly visual way, some other times in an intangibly perceptible way. Gutting, with the subtraction of materials, confers new point of views to the space around with the new arrangements given by the contemporaries who rediscover its value.

In the specific case, it is necessary to distinguish at least two typologies of physical and architectural evidences; the first ones consolidated and settled in the perceptible history of the place, the second ones brought back to light in relatively recent times, therefore, "rediscovered" by the urban landscape.

As for the last ones—being forgotten or not refunctionalised in the course of time and being "rediscovered" from the half of the XIX century on thanks to archaeological excavations—the design of the landscape context deriving from survey operations conducted with the most innovative technologies, revives history mending the passages of the rediscovery of the city (Fig. 2).

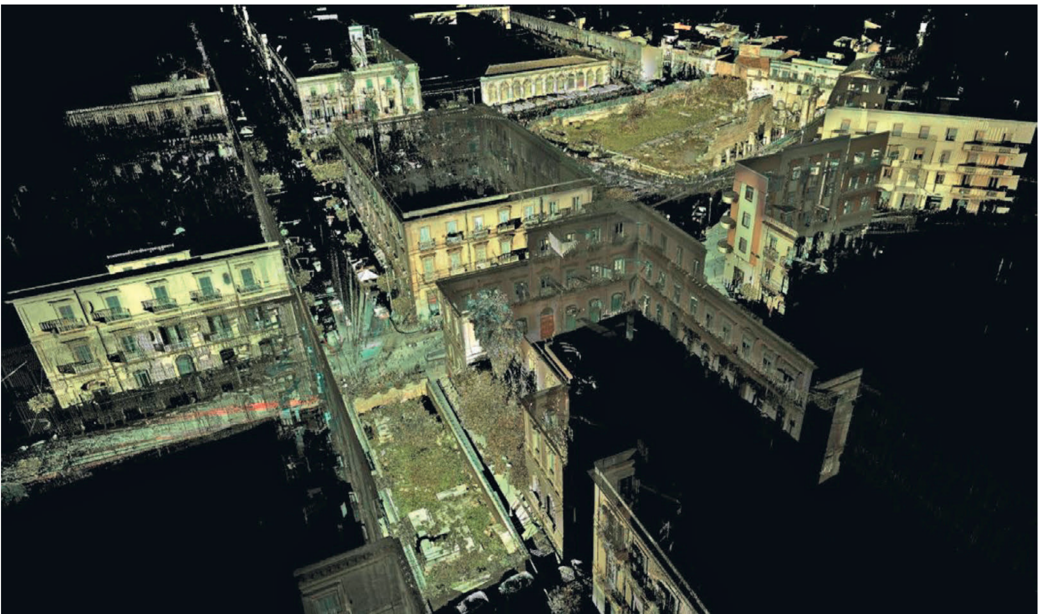

Fig. 2 Syracuse. Ortygia. Survey TLS. Images processed by Laboratory of Representation of SDS of Syracuse, University of Catania, by Emanuela Paternò.

In the present case, 3D data restitutions acquired from specific survey campaigns conducted with 3D laser scanning technology provide the present urban images with high potential communication about the evolutionary processes of the city (Valenti 2015).

It is necessary, therefore, to put into action a holistic approach to the cognitive process which can take into consideration the complexity of all the components present in the study of a stratified landscape. This holistic approach will be able to create a network of information which makes clear the connections between the visible elements, and the "absent" reality, because no more existing or currently not visible.

The methodology in use is in assonance with the ongoing process of transformation of the representation which, thanks to the continuous evolution of technology for cognitive monitoring of formal complexity, becomes more and more digitalized (Attenni, Bartolomei, Hess & Ippolito 2017).

Extremely important, from this point of view, is the methodological process of product visualization through a virtual experience respecting the canons of objectivity and recognition of all the subsequent processing phases. In this way it is possible to start a network of easily accessible and communicable information.

All the problems connected with the dissemination of reconstructive practices and virtual visualization in large scale have drawn the international scientific community's attention on the strict and intellectually precise criteria developed by the London Charter in 2009. For the archaeological field in particular, the expression "virtual archaeology" is used with reference to the reconstruction of sites and urban landscape kept in the form of ruins or fragments.

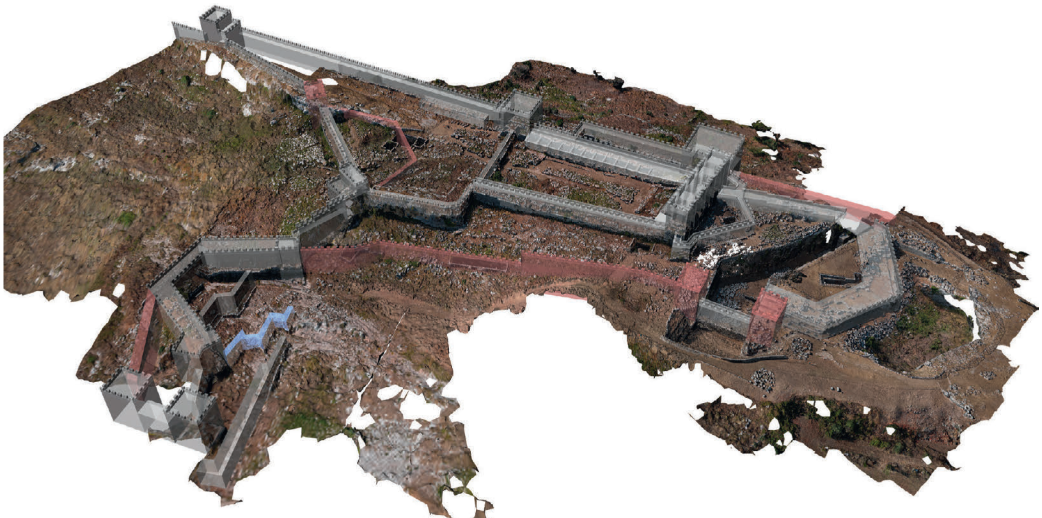

Fig. 3 Syracuse. Euryalus Castle. Thematic model created on the basis of instrumental and photogrammetric survey and bibliographic sources. 3D model constructed by the Laboratory of Representation of SDS of Syracuse, University of Catania, by Graziella Cusmano.

Particular attention must be especially given when the research is conducted into material undetectable archaeological remains (Fig. 3).

In this case, representation and communication through virtual simulation appears as the unique instrument for the visual dissemination of knowledge able to guarantee, at the same time, the protection of memory (Valenti 2022).

2 Virtual visualization of absent Archaeological Heritage: methodological approaches for 3D modelling

The archaeological heritage object of experimentation of 3D visualisation deals with some archaeological sites in Syracuse where the Laboratory of Representation of the University of Catania has been playing an active role for a decade.

The representation and dissemination of the archaeological heritage in Syracuse is especially devoted to the research of shapes and proportions through virtual reconstructive simulations not only of absent structures, but also and primarily, to the backward conformity process which during the different historical phases have generated the present urban and architectural setting. (Valenti 2016, 109).

In the course of the research, on the occasion of the present study, some emblematic cases have been selected whose 3D restitution pertains to three different methodological approaches.

The first two cases deal with visible and surveyable archaeological goods for which a survey campaign with TLS (Terrestrial Laser Scanning) instruments was implemented. The third case deals with archaeological sites whose structures, in the course of time, were transformed into real absent stratifications, therefore no more visible or tangibly perceptible. The different implemented modes to generate the digital models are the result of the specific contents which, through representation, should become evident according to the level of supporting information and communicative purposes.

3D modelling wants to be the natural instrument of expression able to connect the visible with the invisible, with just the same meaning Italo Calvino attributed to the term "word" in his "Lezioni americane": "the word connects the visible trace with the invisible thing, the absent thing, the thing that is desired or feared, like a frail emergency bridge flung over an abyss. The proper use of language, for me personally, is one that enables us to approach things (present or absent) with discretion, attention, and caution, with respect for what things (present or absent) communicate without words" (Calvino 1993, 85).

Hence the visualisation process through the modelling of the studied cases involves the clear and immediate explanation of the interpretation phases so that both the objective phase of restitution and the interpretative phase, together with the supporting references, would be always recognizable. The experimentation adopted a unique approach for the dif-

ferent emblematic cases and, however, provided the appropriate virtual restitution in relation to the peculiarities of the archaeological examined object, looking for a visual balance between analysis and synthesis.

The virtual geometrical models proposed in the present study allow an immediate interpretation of what is really existing (visible) from what has inexorably been lost (invisible) whose reconstruction is based on archive researches and on the drawings of conducted excavations.

In detail, the first two examples are about the Temple of Apollo in Ortygia and the so called “Roman pool” in Neapolis, Syracuse. In this context, a methodological approach basically similar to the starting phase was adopted with two modelling formats conceptually different in the final outcomes.

In both cases an objective survey campaign of the structures still in situ was conducted with TLS systems supplied by the Laboratory of Representation. The surveyed remains were digitally reproduced through reverse engineering process. Survey conducted with laser scanning technology, in combination with traditional survey methodologies, allows the study of the sites of interest and the disposition of scientifically exact data for reconstructive elaborations.

As for the Temple of Apollo a visual documentation summing up the two integrated parts has been processed. After a careful historical research, on the point cloud converted to a continuous surface through the generation of triangular meshes with *Geomagic Wrap* software, the reconstructed missing points were inserted. The starting level was made up of an objective stratigraphic environment which set up the subsequent modelling of the reconstructive hypothesis in the same way as a material restoration (Fig. 4).

The final model through “the implementation of render engines such as Cinema 4D has, also, made it possible to distinguish the objective parts from the interpretative ones recognizable with the application of a transparent texture” (Taibi et alii 2016, 2016, 111).

A narrative scenario was created which is able to transmit even to non-specialists useful information connecting the archaeological remains with the original work.

The second example is about the so called “Roman pool”, a “small architectural jewel located in the Archaeological Park of Neapolis in Syracuse, made up of two adjacent areas, a overlaying church, probably of Norman origin, and a multiphase partially built underground chamber with different final usages, access road to the area of the theatre of Syracuse during Greek times, cistern for the storage of water in Roman times, place of worship in Medieval times and finally mass grave as far as the XIX century” (Taibi et alii 2016, 113).

In this case the complex survey campaign conducted with Leica C10 ScanStation provided precise information from the metric and formal point of view of all the multistratified archaeological system allowing a global perception of the present situation (Fig. 5).

In particular, the digital reconstruction makes clear the researches and the hypotheses deriving from an extensive interpretation of the survey.

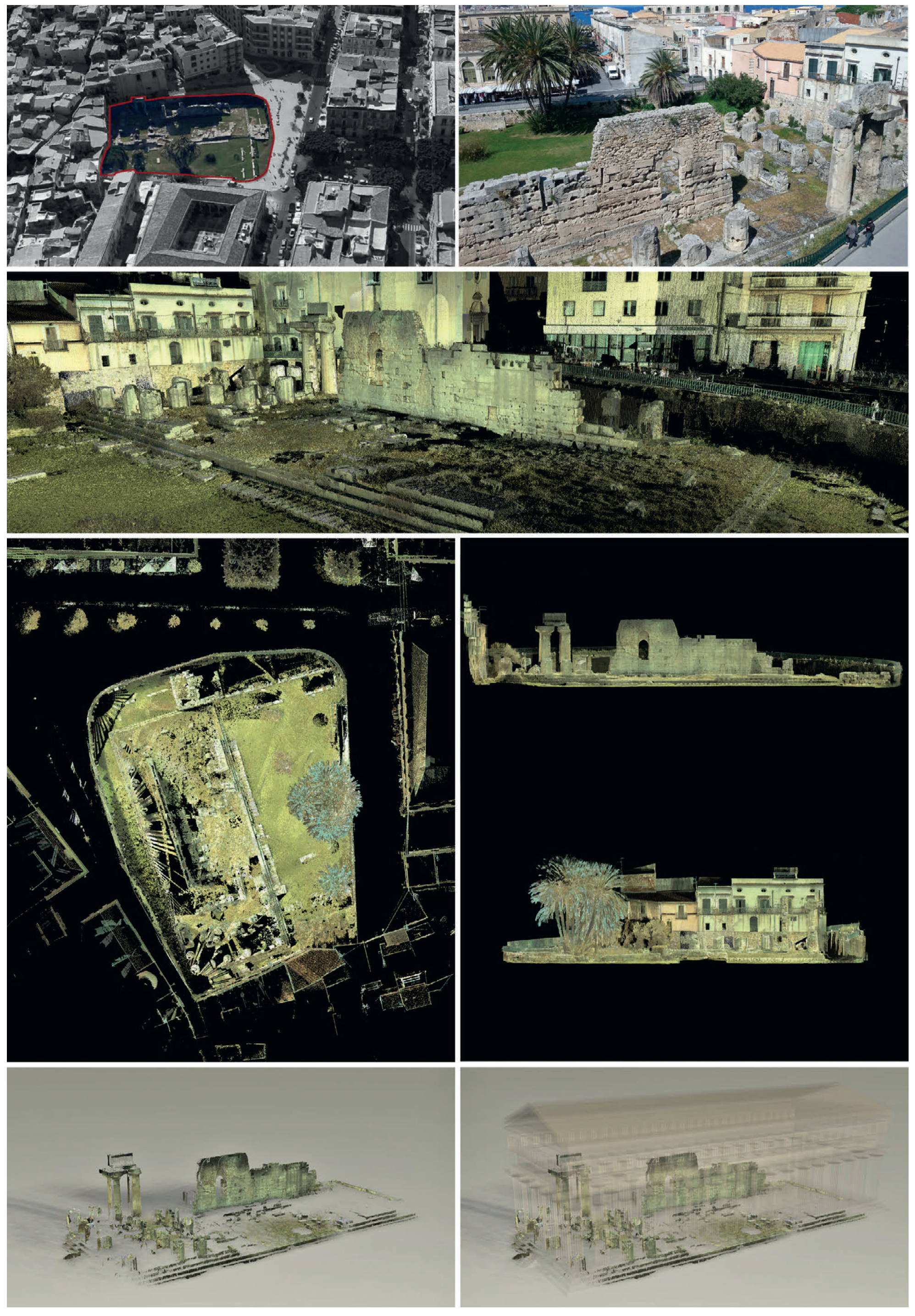

Fig. 4 Syracuse. Temple of Apollo: stratigraphic objective reality and reconstructive hypothesis. Images processed by Laboratory of Representation of SDS of Syracuse, University of Catania, by Emanuela Paternò

Fig. 5 Syracuse. The Archaeological Park of Neapolis. Roman Pool. Survey TLS, virtual reconstruction and life cycle restitution. Images processed by Laboratory of Representation of SDS of Syracuse, University of Catania.

> "The virtual 3D reconstruction of the site allowed a broadening of the historical knowledge already known, enabling a comparative study of the sources, the restitution of the life stages and a better focus on the reconstructive hypotheses provided by different and renowned authors" (L. Aliano in Taibi et alii 2016, 113).

The third case study deals with the stratified urban context of the Duomo Square in Ortygia which hosts the remains of its own past in an introverted way considering that recent history has returned them back to earth, making them invisible.

At the end of the excavations conducted in the course of the last decade of the 20th century, the urban landscape appeared as an inaccessible memory archive.

Today, the elegant carpet with large white stone slabs, protects the history buried underground whose presence is "marked" by black lines of melted lead which becomes the graphic sign of the origin and devotion of the place to holiness. Signs point at the foundation of the *oikos* in the 8th century B.C., embedded in another holy structure of the 7th century B.C., to which the section of the Greek road running parallel to the Archbishop Palace can be added. These findings go back to the excavation campaign of 1990s conducted by the superintendent of cultural heritage of Syracuse Giuseppe Voza on the occasion of a new paving of the square.

The survey and the photos of the excavations conducted between 1996 and 1998 (Voza 1999) represent the only source of the status quo of the ruins today buried underground.

For this "absent" stratification the study[1] has implemented a faithful modelling of the buried archaeological site and a 3D restitution of what remains (graphically and photographically) surveyed during the excavation campaign.

The study intentionally proposes no reconstructive hypothesis of the context with the specific purpose to provide a complete interpretation of the history of this little urban area.

In particular, it was not possible to put into action a reverse engineering process. The study proceeded through the management and processing of digital images using the orthographic survey of the excavation area in front of the Cathedral.

The obtained model was then inserted in the present context of the wings which delimit the square importing the point clouds of the overlooking buildings acquired from previous TLS surveying (Fig. 6).

1 The research was conducted within the PON project named "NEPTIS" ICT solutions for the accessibility and "augmented" exploration of Cultural Heritage. The modelling methodology was experimented by architect Emanuela Paternò who was awarded a PON Project research grant; Prof. Rita Valenti was scientific supervisor. The research results were published in Valenti & Paternò 2016.

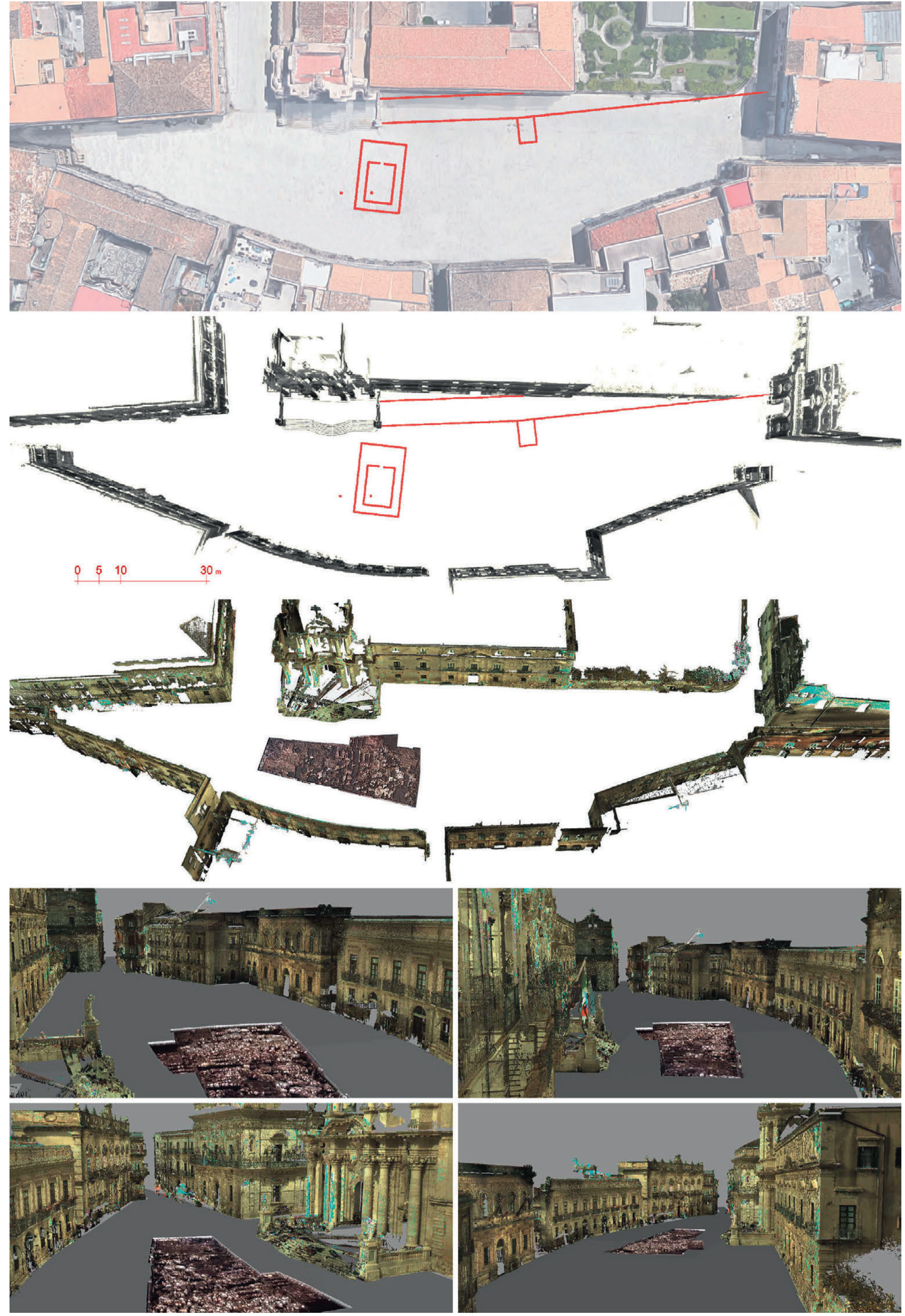

Fig. 6 Syracuse. Duomo Square. Insertion the 3D model of the excavations. Images processed by Laboratory of Representation of SDS of Syracuse, University of Catania, by Emanuela Paternò.

The proposed digital modelling has the only purpose of bringing back to light and making visible the ruins placed at a few decimetres under the paving of the main basin of Ortygia in order to restore all the strata of the stratified site of Duomo Square in Syracuse: from the paving level to the archaeological excavations to the (accessible) hypogea connecting the square to the Marina and to the great harbour.

Conclusions

The main purpose of the research has been to identify a complete approach for the representation of the archaeological visible and "absent" remains, through 3D modelling visualization.

Modelling, in the first part of the study, is meant not as a replica of what exists but as an explicative means of absent parts with the same assumptions of a material restoration and as an instrument of analysis and a study of stratigraphies imposed by history. In the last example, on the contrary, modelling becomes a replica of the invisible with the aim of giving shape and consistency, virtual though, to an "absent" reality full of important evidences.

In such a way they become accessible even if only virtually and the virtual model becomes a primary document of knowledge.

Generally, modelling archaeological monuments offers an opportunity for dissemination towards a non specialist audience and, above all, for the preservation of cultural identity over time. Virtual visualization becomes then an additional document allowing accessibility and dissemination of the history of places.

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Heritage Management or Counting Curls?

Recent Developments in German Academic Institutions Dealing with Classical Archaeology and Cultural Heritage

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Abstract The two workshops on Crete and Sicily showed the potential of landscape and public archaeology and provided inspiring best-practice examples through various projects. In this article, we explore the extent to which classical archaeology at German universities has embraced these new fields. Integrating landscape archaeology, cultural heritage, and site management practices remains a key concern, especially regarding heritage, conservation, and imparting relevant skills to archaeology students. It is uncertain whether the conditions in German institutions can favour these clearly advantageous approaches.

After a workshop on using landscape to bridge the past and the present, and the social role of archaeology, we feel compelled to analyse the status of landscape and public archaeology in German speaking universities.

In 2000, prehistoric archaeologist, Ulrike Sommer, wrote "As has already been stated by countless reviewers, in Germany academic merits are not achieved with brilliant ideas but through thorough collection, documentation, and typochronological classification of data—certainly not through brilliant deconstruction."[1] A detailed and painful analysis, such as counting curls of statues in order to establish their chronology. She laments a kind of conservatism[2] in German archaeology, which is relegated to an 'auxiliary science' with respect to disciplines offering more precise data[3]. Sommer exposes how landscape archaeology only found its way into German archaeological disciplines at the turn of the millennium

1 Sommer 2000, 160.
2 Sommer 2000, 160.
3 Sommer 2000, 161.

Sandra Kyewski & Mario Rempe:
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through Lüning[4] and Schade[5], while it has been practised in the Anglo-American sphere since the 1970s[6].

Settlement, environmental, and landscape archaeology are closely linked subdisciplines that combine the fundamentals of archaeology and spatial sciences and address sociological questions for studying the human-environmental relationships of the past. Settlement archaeology (Siedlungsarchäologie) has been practiced in Germany since its introduction at the end of the XX century through Gustav Kossinna[7]. It was, however, primarily concerned the distribution of settlements, while the final decades of the XX century saw deeper analysis of the wider environment and the influence of landscape on human settlements (and vice versa), especially in USA and Great Britain[8]. Although German research institutions introduced and established landscape archaeology in the 2000s, and a master's program was launched at the *Freie Universität* and the University of Applied Sciences Berlin, many archaeologists still consider it a "diffuse construct"[9] with no clearly defined content and research questions. In addition, landscape archaeology in Germany is undertaken almost exclusively by practitioners of prehistoric archaeology, who are more concerned with geophysical, botanical, and zoological subjects than classical archaeologists[10]. In most classical archaeology curricula, there is little evidence of landscape archaeology and the innovative research approaches that might inspire young scientists and offer new and relevant perspectives of the ancient world. The use of scientific methods and the increasing interdisciplinarity of the subject renders landscape archaeology a powerful tool for investigating new and more broadly contextualized issues. The scientific results of such interdisciplinary projects are of great value, especially in relation to contemporary concerns such as climate change, migration, and globalization.

Archaeology moreover offers a high degree of communicative potential towards the wider public and a potent social role in public archaeology. Many projects with active public involvement in archaeological research have been already successfully conducted[11]. McGimpsey coined the term of public archaeology in the 1970s[12] to indicate that archaeology should not be a private activity, but a matter of public interest[13].

4 Lüning 1997.
5 Schade 2000.
6 Sommer 2000, 161; Teichmann 2010, 127–34.
7 Lang 2002, 252.
8 However, a more intensive use of landscape concepts and approaches would be worthwhile, see Meier 2009, 707–19; Rempe 2018, 47–48.
9 Doneus 2013, 13.
10 Teichmann 2010, 134; Meier 2009, 709–19. Only in recent years, several projects by classical archaeologists focusing on the archaeology of landscapes were conducted in the Mediterranean region: Teichmann 2010, Rempe 2018.
11 Doppelhofer 2017, 392.
12 McGimpsey 1972.
13 McGimpsey 1972, 10.

The building boom of recent decades has endangered archaeological sites and triggered the need for rescue excavations (known as 'motorway archaeology' in Switzerland[14]) and the deeper involvement of local populations in investigating, preserving, and rendering cultural heritage accessible.

As Christoph Doppelhofer explains in his paper "Der Archäologe und die Öffentlichkeit: Die neue Rolle der Archäologie im 21. Jahrhundert", the development of the post-processual discourse following 'New Archaeology' as well as the post-colonial disputes with Native Americans, for example, contribute to a more intense collaboration between archaeologists and local populations[15]. Archaeology is still a field of public interest and media broadcasts on science and cultural tourism are flourishing[16] in the "experience society"[17]. Unfortunately, while German museums arouse the public interest through highly effective public exhibitions, they mainly focus on highlights and common stereotypes like the Celts or the Teutons that erroneously portray different cultural groups as single, closed societies[18]. German archaeologists must forego the use of stereotypes to interface with the public and acknowledge that modern media has allowed interest to widen from specific groups such as the educated middle class to a far broader audience. There is increasing demand for public involvement in archaeology "at eye level"[19] and "working from the academic ivory tower"[20] or attempting to preserve cultural heritage for scientific purposes[21] are no longer sustainable. A recurring question is gaining traction: Who owns the past?

Modern archaeology must therefore not limit itself to conveying results, but also has to promote the participation of local populations. Methods of deep or cultural mapping that capture the traditions, histories, and experiences of the locals can also inform archaeologists about the excavation and its local context[22], which promotes a sense of identity and awareness of an individual's own cultural heritage and should to some extent help curb destructive phenomena such as looting or vandalism. For classical archaeologists from Northern Europe engaging in short-term campaigns in the Mediterranean regions, such public relations can drive a far deeper appreciation of the specific contexts and of their research objectives in general.

The formulation of identity through public involvement can, however, also have a negative impact. Many archaeologists in Germany still fear an instrumentalization of their

14 Kaeser 2016, 202.
15 Doppelhofer 2017, 388.
16 Holtorf 2018, 29.
17 Kircher 2012, 63.
18 Sabine Wolfram in: Simon-Nanko & Rauhaus 2015, 481; more in general: Kircher 2012.
19 Doppelhofer 2017, 388.
20 Doppelhofer 2017, 387.
21 Skeates 2000, 62–63.
22 Doppelhofer 2017, 389–90.

field by ideological and extreme groups, which is not unfounded[23]. The revival and reconstruction of national myths like the narrative of The Teutons, which strengthen notions of national identity, may also be leveraged by extremist interests. As Dr. Miriam Sénécheau pointed out in a talk in Basel 2018, broadcasts surrounding the national myth of Arminius and the Battle of Varus are deliberately disseminated on the internet by groups with National Socialist backgrounds. While some of the reluctance of German archaeologists to embrace public archaeology stems from this promotion of national myths, many archaeologists insist that it remains integral to making active contributions to contemporary issues[24]. Doppelhofer thus calls for the integration of questions on ethics, mediation, and the obligations of archaeology into university curricula to allow critical reflection on the relevance and responsibility of such disciplines[25].

It is surprising that the trends described above have not had more impact on archaeology in German universities. Public archaeology and heritage management remain relatively neglected topics even after the catastrophic damage inflicted on world heritage in the Near East in recent years. The avenues for studying heritage management or protection in German academia, or at least for connecting archaeology and heritage management, remain limited. In the courses offered by German archaeological institutes in the summer semester of 2019, only four out of thirty-one institutions[26] deal with heritage management. While budget and staff constraints may account for the scarce coverage of the wider aspects of archaeological research and public archaeology in many smaller university departments, the overall situation for a student seeking tuition on heritage management practices in German archaeological institutes is somewhat dismal. Some universities offer separate programs associated with archaeology degrees[27], which include education in heritage management and conservation. Other degree programs for conservation and heritage management are in no way connected to archaeological institutes and do not focus on the demands of classical archaeology; namely at the universities of Frankfurt/Oder, Cottbus/Senftenberg, Bernburg/Dessau/Köthen, and Paderborn. For archaeology students in Germany, it therefore becomes a choice between settling for traditional classical archaeology at local institutions or moving abroad to attend degree programs designed to teach heritage and site management. One positive highlight is the Archaeological Heritage Network of DAI (German Archaeological Institute), as it does offer opportunities to students and perhaps some scope for synergies.

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23 See: Bizeul 2013, 9–33; Sénécheau 2012, 219–34 treats the revival of the Teutons as national myth in German schools.

24 Kaeser 2000.

25 Doppelhofer 2017, 393.

26 At the university institutes of Augsburg, Berlin (FU), Cologne and Leipzig, bearing in mind that even these four institutes did not offer in all four cases seminars on heritage (management), but in the latter two cases individual events in colloquia.

27 At Bamberg, Halle, Heidelberg; these three are not included in the above cited 31 departments of Classical Archaeology at German universities.

The two workshops on Crete and Sicily showed the potential of landscape and public archaeology and provided inspiring best-practice examples through various projects. The networking of doctoral students from various European countries offers the potential to allow new collaborations and results and can also help widen archaeological research to include heritage practices. The trend towards becoming aware of ethical questions and mediation as well as interdisciplinary integration renders meetings like in Kapetaniana and Scicli essential for archaeological education, especially since the opportunities to delve into heritage concerns in German universities remain decidedly limited.

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In the broadening of the concepts of 'past' and 'cultural (also archaeological) heritage', the notion of landscape can be both a powerful tool and a unifying concept, providing a backdrop against which we can fix material traces scattered along a long span of time from the distant past till our days. This idea has been at the foreground of the present volume, which presents the results of the project "Modelling Archaeological Landscapes. Bridging Past and Present in Two Mediterranean Islands", organized by the University of Heidelberg and the University of Catania in 2018 and funded by DAAD (Deutscher Akademischer Austauschdienst/German Academic Exchange Foundation).

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