

INTERNATIONAL MEDITERRANEAN SURVEY WORKSHOP – FALL 2022

Vrije Universiteit Brussel, 2nd–3rd December 2022

Programme

Presentation slots are 30 minutes (20 minute paper and 10 minute discussion)

Friday, 2nd December 2022

09:00 – 09:15 Welcome and opening remarks

Session 1, Near East

09:15 – 09:45 **Steven A. Rosen (Ben-Gurion University of the Negev)**
Sites in the Mediterranean Desert: Archaeological Survey in the Negev

09:45 – 10:15 **Ella Egberts (British Museum), Jaafar Jotheri (University of Al-Quadisiyah), Dita Auzina (British Museum), Sebastien Rey (British Museum)**
Sensing a city. Surveying the urban landscape of tell sites in southern Mesopotamia.
Remote sensing results from Tello/Girsu

Session 2, The Balkans

10:15 – 10:45 **Damjan Donev (Institute for National History, Skopje) (online)**
Settlement and mining in the western Osogovo Mountains – the survey design

10:45 – 11:15 Coffee break

11:15 – 11:45 **Igor Medarić (University of Ljubljana) (online)**
Geophysical survey results from the ancient Roman Villa Rustica of Lucan and multi-periodic Hill-fort of Kaštelir near Čedlje (Slovenian Istria)

11:45 – 12:15 **Patrick T. Willett (University at Buffalo SUNY), Eda Andoni (Institute of Archaeology, Albania), Jana Anvari (University of Cologne)**
Contextualizing the Neolithic of the Korça Plain: Initial Survey Results

Session 3, Iberian Peninsula

12:15 – 12:45 **Jesús García-Sánchez (Instituto de Arqueología, Mérida (IAM), CSIC – Junta de Extremadura)**
Building up a framework for the study of Roman Lusitania. Field survey and remote sensing at Estremoz Portugal

12:45 – 13:15 **Günther Schörner (University of Vienna), Victor Martinez Hahnmüller (University of Vienna), Felix Teichner (University of Marburg)**
A New Project in the Wild West of the Roman Empire: First Results of Research in and around Regina Turdulorum (Badajoz Province, Spain)

13:15 – 14:30 Lunch break

Session 3, Italy

14:30 – 15:00 **Valentina Limina (Université Catholique de Louvain), Marco Cavalieri (Université Catholique de Louvain), Simonetta Menchelli (Università di Pisa), Antonella del Rio (Università di Pisa), Linda Cherubini (Università di Pisa)**
From the seascape to the inland: current research and a new survey project in the ager Volaterranus (Tuscany, Italy)

15:00 – 15:30 **Marianna Negro (University of Cambridge), Simon Stoddart (University of Cambridge), Caroline Malone (Queen's University Belfast), Letizia Ceccarelli (Politecnico di Milano), Nicholas Whitehead (University of Cambridge)**
Gubbio Revisited: understanding occupation and agency in the landscape through survey analyses

15:30 – 16:00 **Ulla Rajala (Stockholm University) (online)**
The road cuttings of the Faliscan area: a multi-period approach

16:00 – 16:30 **Stefano Finocchi (Soprintendenza Archeologica delle Marche), Emanuela Stortoni (Università di Macerata), Luca Belfioretti (Università di Macerata)**
The submerged maritime archaeological heritage of the Roman era along the Italian mid-Adriatic coast (Marche, Italy)

16:30 – 17:00 **Johannes Bergemann (Archäologisches Institut in Göttingen)**
Extra urban Settlement patterns and Demography: production and consumption in Greece and Sicily

17:00 – 18:30 Reception

19:30 Dinner for speakers and organisers.

Saturday, 3rd December 2022

Session 5, Turkey

09:00 – 09:30 **Birgül Ögüt (Humboldt University Berlin)**
Land of the Stormgod – Gaziantep/Şehitkamil Survey, Turkey

09:30 – 10:00 **Frans Doperé (KU Leuven)**
Quarry surveys, what to extract more than a few additional points on a map?

10:00 – 10:30 **Sam Cleymans (KU Leuven), Ralf Vandam (Vrije Universiteit Brussel)**
Roads for the living, the last passage for the dead. The entranceways to Sagalassos

10:30 – 11:00 Coffee break

Session 6, Methodological Approaches to Survey

- 11:00 – 11:30 **Martijn van Leusen (University of Groningen)**
Towards re-usability of survey data and documentation: update on the FIDO and SEMAFORA projects
- 11:30 – 12:00 **Lieven Verdonck (École Normale Supérieure, Paris)**
Ground-penetrating radar surveys of Roman towns in 2022 (Italy, France and the UK) illustrating some principles of the technique
- 12:00 – 12:30 **Luca Alessandri (University of Groningen), Peter Attema (University of Groningen), Francesca Bulian (University of Groningen), Wieke de Neef (Ghent University), Jan Sevink (University of Amsterdam)**
Survey and Salt, fieldwork at Piscina Torta
- 12:30 – 13:00 **Marcos Llobera (University of Washington)**
Patterns on the landscape: untangling survey surface scatters
- 13:00 – 14:15 Lunch break
- 14:15 – 14:45 **Martina Cecilia Parini (University of Groningen), Martijn van Leusen (University of Groningen)**
What can we do with low-density survey assemblages? Analyzing and interpreting Hellenistic and Roman off-site data in the Sibaritide area (Italy)

Session 7, Greece

- 14:45 – 15:15 **Alex R. Knodell (Carleton College), Demetrios Athanasoulis (Ephorate of Antiquities of the Cyclades), Rosie Campbell (University of Cambridge), Thomas G. Garrison (University of Texas at Austin), Evan Levine (Norfolk Academy), Denitsa Nenova (Norwegian Institute at Athens), Hüseyin Öztürk (College Year at Athens)**
Lidar-Based Remote Sensing and Multi-Scalar Pedestrian Survey on Polyaigos, Greece
- 15:15 – 15:45 **Ritchie Kolvers (Leiden University), Joanita Vroom (Leiden University)**
Beyond Chalkida: Landscape and Socio-Economic Transformations of its Hinterland from Byzantine to Ottoman times
- 15:45 – 16:15 Coffee break

Session 8, Eastern Mediterranean Islands

- 16:15 – 16:45 **Polte De Weirdt (Vrije Universiteit Brussel), Jan Coenaerts (Vrije Universiteit Brussel), Karin Nys (Vrije Universiteit Brussel), Ralf Vandam (Vrije Universiteit Brussel)**
Living Apart Together – a diachronic spatial analysis on the hinterland of Hala Sultan Tekke, Cyprus
- 16:45 – 17:15 **Nadia Coutsinas (Université Libre de Bruxelles)**
The settlement patterns of the Ierapetra Isthmus (East Crete) from the Archaic to the Venetian Periods: the methodological problems of a diachronic study

- 17:15 – 17:45 **Dominic Pollard (New York University)**
Using What We're Left With: Investigating Settlement Histories and Agricultural Landscapes with Legacy Survey Data in Late Bronze Age and Early Iron Age Crete
- 17:45 – 18:15 Concluding remarks

Registration

For attendance at the IMS-workshop (in person or online), please register through this [form](#).

The link for online attendance will be distributed one week before the workshop.

INTERNATIONAL MEDITERRANEAN SURVEY WORKSHOP – FALL 2022**Vrije Universiteit Brussel, 2nd–3rd December 2022****Abstracts**

(sorted alphabetically on first author)

ALESSANDRI, LUCA¹; ATTEMA, PETER¹; BULIAN, FRANCESCA¹; DE NEEF, WIEKE²; SEVINK, JAN³**Survey and Salt, fieldwork at Piscina Torta**¹University of Groningen²Ghent University³University of Amsterdam

In November 2021, the Groningen Institute of Archaeology started the interdisciplinary project “Salt and Power, Early States, Rome and Resource control” with the aim to investigate salt production along the Tyrrhenian coasts of Central Italy between Bronze Age and the Roman period (<https://saltandpower.gia-mediterranean.nl/>). To detect ancient salt production, the project makes use of a combination of geophysical research, coring, artefact survey and excavation. In our contribution, we report on the preliminary results of fieldwork carried out on the shores of the ancient lagoon of Ostia at Piscina Torta, south of Ostia and discuss these in the context of the current debate on the nature and scale of ancient exploitation of the coastal environments of central Tyrrhenian Italy.

BERGEMANN, JOHANNES¹**Extra urban Settlement patterns and Demography: production and consumption in Greece and Sicily**¹Archäologisches Institut in Göttingen

Surveys in Gela and the Hinterland of Agrigento (Sicily) have revealed extra urban settlement patterns. Starting from this evidence it is possible to reconstruct demographic trends as well as the production and consumption of agricultural products. Athens and Attica had an extremely dense population. There, the relationship of production and consumption especially of grain hardly ever reached a sustainable equilibrium.

CLEYMANS, SAM¹; VANDAM, RALF²

Roads for the living, the last passage for the dead. The entranceways to Sagalassos

¹KU Leuven

²Vrije Universiteit Brussel

The Roman street network within the archaeological site of Sagalassos (SW Asia Minor) is fairly well-known thanks to years of urban surveys, excavations, geophysical surveys and aerial imagery. Outside of Sagalassos, the network of roads leading from town into the fertile valley to the south and from there further into the territory is more difficult to reconstruct. New road constructions, urban development and agricultural practices have erased most traces over the centuries. Nevertheless, several of the main entranceways that connect Sagalassos to the ancient village in the valley (where present-day Ağlasun is located) have been tentatively mapped by (members of) the Sagalassos Project. So far, no systematic surveys have been undertaken to reconstruct these roads. This paper will combine various strands of evidence (funerary phenomena, digital elevation models, terrace walls, modern roads etc.) that were collected over the past 30 years in order to come to a hypothetical trajectory of the entranceways to Sagalassos. As such, this paper will serve as an assessment for the potential of reconstructing the road network around Sagalassos.

COUTSINAS, NADIA¹

The settlement patterns of the Ierapetra Isthmus (East Crete) from the Archaic to the Venetian Periods: the methodological problems of a diachronic study

¹Université Libre de Bruxelles

Through the example of the wider Ierapetra isthmus region this paper intends to present the methodology and results of the research project SettleInEastCrete. Spatial Dynamics and Settlement Patterns in Eastern Crete from the Classical to the Venetian Period, conducted in 2019-2021 at the Laboratory of Geophysical – Satellite Remote Sensing & Archaeoenvironment of the Institute for Mediterranean Studies-FORTH.

The project SettleInEastCrete combines the study of historical and archaeological evidence with the spatial analysis offered by the application of new technologies in archaeological research. The extended chronological frame allows a study of settlements in a diachronic perspective comprising quite different political and administrative systems: the Classical city-states, the Roman Empire, the Byzantine Empire (with an intermediate Islamic Emirate of Crete), and the Venetians. This diachronic approach reveals an evolution that would not have had otherwise appeared.

The project being based on already published material, it is quite dependent on the quantity and the quality of the existing studies. The inequality of material and methodological approaches make the diachronic study quite difficult.

DE WEIRD, POLTE¹; COENAERTS, JAN¹; NYS, KARIN¹; VANDAM, RALF¹

Living Apart Together – a diachronic spatial analysis on the hinterland of Hala Sultan Tekke, Cyprus

¹Vrije Universiteit Brussel

Almost 100 years after its initial discovery, the Late Bronze Age site complex of Hala Sultan Tekke (Cyprus) has been explored through a multitude of excavation campaigns, yet the spatial extent of the LBA site complex has never received much attention. During the autumn of 2021, a first archaeological fieldwalking survey campaign took place near the site with the primary aim to establish a spatial analysis on the direct hinterland of the Late Bronze Age urban complex by means of mapping out the distribution patterns of pottery sherds and other dateable material in GIS. Since no reliable information on the site's spatial extent is available, the first aim of the campaign was to establish whether or not traces of human activity (sites) during the Middle to Late Bronze Age were present within the urban site's immediate hinterland. By comparing the survey data and spatial analysis with the results of recent excavations, the suggestion rises for the Late Bronze Age Urban complex at Hala Sultan Tekke having been an 'open urban townscape', rather than a dense and compact urban centre. The second aim of the project was to obtain a diachronic perspective on human-landscape interactions from pre-Middle Bronze Age to post-Late bronze Age for the broader hinterland of the site. This, in turn, would bring new valuable information regarding the early site history of Hala Sultan Tekke and could provide new insights on how the site came to be. After the major success of the 2021 campaign, a next campaign had been organised in the autumn of 2022, the (preliminary) results of which will also be discussed.

DONEV, DAMNJAN¹

Settlement and mining in the western Osogovo Mountains – the survey design

¹Institute for National History, Skopje

The earliest historical references to mining in the area of Mount Osogovo date to the High Middle Age, but there are traces scattered in the archaeological record that point to earlier episodes of mining in this area. Both direct and indirect evidence suggests episodes of intensive ore exploitation in Roman Antiquity. In view of the wealth of the local polymetallic deposits and the impressive physical remains of mining works, pre-Roman or even prehistoric episodes of organized mining should not be excluded. One of the goals of the Western Osogovo Mountain projects is to reconstruct the history of mining in this area. This is a multicomponent, interdisciplinary project and this presentation will be limited to the archaeological survey component. Because it is notoriously difficult to find chronologically sensitive evidence at mining sites, it was necessary to draft a research strategy that will effectively address this question from a different angle. This research strategy and its underlining postulates are the topic of the present paper.

DOPERÉ, FRANS¹

Quarry surveys, what to extract more than a few additional points on a map?

¹KU Leuven

Stone analysis shows that the majority of the Roman Imperial constructions at Sagalassos (Southwestern Anatolia) was built with stones extracted from the quarries in the Monumental Centre, the necropolei, and from the nearby Ağlasun Dağları Pass. However no major quarry exists, apart from Sarıkaya, but this was not the major source for building stones.

The 2021 and 2022 surveys delivered 61 extraction points, of which 16 only delivered one or two blocs, 34 just a few more each. Five additional extraction points were set up to carve one chamosorion, six other for the carving of groups of sarcophagi/chamosoria. The limestone rocks at the Southern Necropolis, partly also at the Western, and at the Ağlasun Dağları Pass, all show a very intensive natural fractionation, which strongly suggest that extraction with a lever of these naturally isolated blocs was more the rule than neatly implanted quarries working with appropriate stone cutting techniques. The positioning of the unfinished sarcophagi at one quarry shows that the stonemasons took technical and economic advantage of this fractionation by positioning the planned sarcophagi with at least one of their facings along these rock fractures. Additionally, the different sarcophagi typologies and widths, within one quarry, show that these sarcophagi were carved after individual orders, and not for stock production and future selling.

EGBERTS, ELLA¹; JOTHERI, JAAFAR²; AUZINA, DITA¹; REY, SEBASTIEN¹

Sensing a city. Surveying the urban landscape of tell sites in southern Mesopotamia. Remote sensing results from Tello/Girsu

¹British Museum

²University of Al-Quadisiyah

The world's earliest urban centres developed in southern Mesopotamia (Iraq). Emerging from ca. the 4th millennium BCE and having been inhabited over millennia, today many of these ancient cities appear as archaeological tells above the floodplains of southern Iraq. Traditionally, ancient Mesopotamian cities have been viewed as nuclear compact settlements which gradually expanded around religious complexes. Due to decades of conflict in Iraq, much of this understanding is based on data collected in the late 19th and early 20th centuries, when excavations were biased towards exposing temples and palaces and little is known about the wider urban landscape.

Girsu, occupied from at least 4800 BCE until 1600 BCE, was one of the major cities of the Lagash state (ca. 2475–2315 BCE). Using multiple remote sensing techniques, we surveyed for the first time this important tell. Our results reveal the residential areas of Girsu, its canal system, several harbours and major waterways connecting it to other cities. This provides a completely new picture of this ancient urban landscape. The various remote sensing data also offer key insights into interpreting archaeological survey results and inform excavation strategies.

FINOCCHI, STEFANO¹; STORTONI, EMANUELA²; BELFIORETTI, LUCA²

The submerged maritime archaeological heritage of the Roman era along the Italian mid-Adriatic coast (Marche, Italy)

¹Soprintendenza Archeologica delle Marche

²Università di Macerata

The maritime archaeological heritage along the western mid-Adriatic coast, now corresponding to the Marche coast of central Italy, has been investigated since the later twentieth century. The Soprintendenza Archeologica delle Marche has led research in collaboration with the University of Macerata (Marche) and the Italian Navy. This, and occasional finds by sport divers and fishermen, has resulted in the discovery of numerous archaeological finds along the coast and beyond territorial waters, ranging from prehistoric times to the early Middle Ages.

Despite maritime finds from coastal towns such as Fano, Ancona, Focara, S.Benedetto del Tronto the maritime heritage of the Roman era is still poorly understood. The Soprintendenza and the University will present the key results of recent research, which has brought to light evidence of rich and significant submerged deposits of the Roman era along the Marche coast in the Augustan Picenum and Adriatic Umbria regiones. Our goal is to better understand, with the aid of more sophisticated survey techniques, the colonial and municipal organization of this coastline, the connecting roads, sea routes, and contacts with other Adriatic coastlines and the rest of the Adriatic basin.

GARCÍA-SÁNCHEZ, JESÚS¹

Building up a framework for the study of Roman Lusitania. Field survey and remote sensing at Estremoz Portugal

¹Instituto de Arqueología, Mérida (IAM), CSIC – Junta de Extremadura

In 2021 the so-called EstremHUB project was inaugurated to find new scenarios and collaborations to promote the study of Roman rural Lusitania. This project was conducted in parallel with another survey project that happens alongside the Guadiana valley and north of Mérida/ Emerita Augusta, the capital of Roman Lusitania. The EstremHUB project was set up in collaboration with Universidad de Évora and the local authorities to create an updated Regional catalogue. Other colleagues from European and UK universities participated in delineating the project to extend the scope to other areas of interest.

So far, the project has focused on three sites representing the historical periods of primary interest to the project, transition of Late Iron Age to Roman Republic and Early Imperial period; Imperial period and Late Antiquity. These sites are Castelo Velho de Veiros, Silveirona and Santa Vitoria de Ameixial. Regardless of our interest in these sites we also approached other sites in Fronteira and Alto do Chao, municipalities located north of Estremoz, where access to the sites and excavation data was also guaranteed.

Remote sensing research at these sites consisted of aerial photogrammetry with visible and multispectral sensors (Silveirona); magnetometry (Silveirona and Castelo Velho de Veiros), and GPR (Santa Vitoria de Ameixial). A Field survey project started at the site of Silveirona, in an area previously know by the presence of a Late Antique necropolis, that attracts our attention to study the continuum nature of Roman occupation across the characteristic open-oak forest (dehesa-montado).

KNODELL, ALEX R.¹; ATHANASOULIS, DEMETRIOS²; CAMPBELL, ROSIE³; GARRISON, THOMAS G.⁴; LEVINE, EVAN⁵; NENOVA, DENITSA⁶; ÖZTÜRK, HÜSEYİN⁷

Lidar-Based Remote Sensing and Multi-Scalar Pedestrian Survey on Polyaigos, Greece

¹Carleton College

²Ephorate of Antiquities of the Cyclades

³University of Cambridge

⁴University of Texas at Austin

⁵Norfolk Academy

⁶Norwegian Institute at Athens

⁷College Year at Athens

This paper presents an archaeological survey of the island of Polyaigos, undertaken in 2022 by the Small Cycladic Islands Project (SCIP). Since 2019 SCIP has surveyed 45 uninhabited islands in the Aegean, most of which are well under 1 square kilometer in size. In order to address research questions concerning the relationship between island size and intensity of use, it was important also to include larger islands in the study. At 18 square kilometers in size, Polyaigos is the largest uninhabited island in the Aegean, meaning that we had to adjust our methodology to accommodate a (much) larger area, while still in the context of a broader, comparative project. SCIP used a layered approach to survey across different spatial scales: island-wide lidar analysis and ground truthing, sample-based intensive fieldwalking, and site-based gridded collection, drone survey, and architectural documentation. This paper examines these forms of data collection side-by-side to highlight their relative strengths and weaknesses in Mediterranean landscapes. We highlight especially what lidar “sees” that pedestrian methods do not (and vice versa) and explore where it might also be possible for one method to predict the results of another.

KOLVERS, RITCHIES¹; VROOM, JOANITA¹

Beyond Chalkida: Landscape and Socio-Economic Transformations of its Hinterland from Byzantine to Ottoman times

¹Leiden University

The first fieldwork campaign of the Beyond Chalkida: Landscape and Socio-Economic Transformations of its Hinterland from Byzantine to Ottoman times -project was undertaken during the summer of 2022. Three sites have been surveyed: Kastri, Feges and Duo Bouna.

Kastri is a large site situated on a rocky plateau. It dates from the Late Byzantine period until the Ottoman period, with emphasis on the 13th century. This site has yielded exciting results. A grid survey has been conducted. The best preserved structure on the site is likely a chapel or church with a preserved fresco. At Feges, four interesting focus areas are identified. The hill top is crowned by the remains of a tower, support structure and perimeter wall. The southern foot of the hill revealed the remains of a Crusader settlement. Two further areas have been identified: a pre-Christian burials and an antique settlement. A lime kiln, of which a nearly exact copy is located at Kastri, was identified at Duo Buona. Remains of another structure might belong to a tower. Due to disturbances and lack of finds, it was hard to ascertain anything.

LIMINA, VALENTINA¹; CAVALIERI, MARCO¹; MENCHELLI, SIMONETTA²; DEL RIO, ANTONELLA²; CHERUBINI, LINDA²

From the seascape to the inland: current research and a new survey project in the ager Volaterranus (Tuscany, Italy)

¹Université Catholique de Louvain

²Università di Pisa

Since '90, the University of Pisa has started the project “Vada Volaterrana harbour of Volaterrae in Etruscan and Roman times”, directed by Marinella Pasquinucci and Simonetta Menchelli, and including excavations in the port centre and surveys in the coastal ager Volaterranus. Since 2005, UCLouvain has been investigating an inner area of ager Volaterranus with the project “VII Regio. Valdelsa during the Roman Age and late Antiquity” directed by Marco Cavalieri. RELOAD (REthinking Liminality Open Access Data) is a recently funded project by FNRS (promoter M. Cavalieri). It undertakes for the first time a systematic comparative analysis of boundary areas between Volterra and the territories of Pisa, Lucca, Florence, and Siena, expecting significant results through an interdisciplinary approach and long-term perspective. The aim is to compare the coastal and the inner areas to reassess the crucial role of liminal zones in the organization and perception of space and the processes of identity formation in Northern Tuscany (3rd BC–5th AD). Integrating field surveys, GIS, legacy data, archaeometry, and statistics, RELOAD aspires to apply the Antifragility theory in archaeology and to implement an open-access database for an innovative understanding of ancient landscape complexity.

LLOBERA, MARCOS¹

Patterns on the landscape: untangling survey surface scatters

¹University of Washington

This study describes a methodology to uncover activity patterns obtained through surface survey. More specifically, we present a way to elicit and interpret pottery surface assemblages from Mallorca's Late Iron Age, the Balearic Period (550–1 BCE) recovered during the 2014–2018 seasons of the Landscape, Encounters and Identity Archaeological project (LEIAp). To achieve this goal, we derive a new binary (pseudo-)metric or dissimilarity coefficient that in combination with a spectral biclustering algorithm allow us to group areas on the landscape with similar pottery assemblages. This new metric better aligns with our intuition about the similarities between pottery assemblages than other well-known binary metrics. Careful examination of the composition of the groups obtained from clustering enable us to forward interpretations regarding activities that occurred at various non-monumental enclaves throughout the landscape. These results provide a more nuanced view of the landscape during this period of time.

MEDARIĆ, IGOR¹

Geophysical survey results from the ancient Roman Villa Rustica of Lucan and multi-periodic Hill-fort of Kaštelir near Čedlje (Slovenian Istria)

¹University of Ljubljana

In this paper, ongoing survey work at a prominent multi-periodical site of Kaštelir near Čedlje and at an ancient Roman site set on the Northwest Adriatic coast will be presented. In the integrated

geophysical surveys, various archaeological datasets were used: previous excavation records, aerial photography, LIDAR data, geophysical surveys and finally also ground truthing with small trenching (1 x 2 m) conducted over significant measured anomalies. A combination of three geophysical methods' survey results proved to be efficient in recognizing various types of commonly represented archaeological structures: pits, ditches and also architectural remains composed of local rocks. The presentation will discuss the possibilities of further research in the challenging environment (dense vegetation, small field-parcels, terrace walls. . .) and will ultimately portray some solutions which could ideally serve as a basic methodology ensuring the optimum survey efficiency and a more effective problem solving of geophysical survey in this specific geo-pedological environment.

NEGRO, MARIANNA¹; STODDART, SIMON¹; MALONE, CAROLINE²; CECCARELLI, LETIZIA³; WHITEHEAD, NICHOLAS¹

Gubbio Revisited: understanding occupation and agency in the landscape through survey analyses

¹University of Cambridge

²Queen's University Belfast

³Politecnico di Milano

This paper deals with the analysis of the development of Umbrian and Roman landscapes and the relationship between the two in the Gubbio Valley. The results are obtained through the revisitation of the partly unpublished data that was recovered with the Gubbio Survey, carried out in the homonym basin between 1983 and 1987 by the University of Cambridge. In particular, the incorporation and analysis of all the data was aided by a Geographical Information System, in which all the 1464 surveyed areas were digitalised, to assess the areas of highest activity and the distribution of sites and settlements through time. The research has shown that there is a correlation between the distribution of Umbrian sites throughout the valley and the landscape occupation by the Romans. Firstly, the occupation of the countryside is already well developed in the Umbrian phase of the study, indicating an already forming complex state organisation. Therefore, it is plausible to affirm that the Umbrian political and social organisation influences the Roman. Secondly, the results of the research highlight how memory does have an important role in shaping cultural change, the emergence of sub-cultures and the occupation of the territory, as occupation develops around ritually significant areas.

ÖĞÜT, BİRĞÜL¹

Land of the Stormgod – Gaziantep/Şehitkamil Survey, Turkey

¹Humboldt University Berlin

The site of Dülük in Gaziantep/Southeast Turkey is of central importance in this archaeological survey as, on the one hand, it is an significant Palaeolithic site and, on the other hand, the sanctuary of the storm god Jupiter Dolichenus, dating to Iron Age II, was located in the vicinity. In Hellenistic-Roman times, the sanctuary became a cultic centre of supra-regional importance; later, a medieval monastery complex was built there. A contemporary settlement to the temple has so far only been excavated from the Hellenistic period at Keber Tepe/Doliche, and seems to be a new foundation with no traces of older periods (other than the Palaeolithic). The settlement structures and settlement network in the immediate vicinity before the Hellenistic times are unknown, as is the need for a new foundation. In general, the periods between

the Palaeolithic and the Hellenistic in this area have only been superficially researched. In addition, the rapid expansion of Gaziantep and its industrial areas puts known and unknown archaeological sites at risk of destruction. Therefore, the investigation, which began in 2022, focuses on the mountain where the temple stood and on documenting the surrounding sites from the Palaeolithic to the Ottoman Period.

PARINI, MARTINA CECILIA¹; VAN LEUSEN, MARTIJN¹

What can we do with low-density survey assemblages? Analyzing and interpreting Hellenistic and Roman off-site data in the Sibaritide area (Italy)

¹University of Groningen

In the last decades, most of the field survey projects have switched from a site based to a non-site or off site approach, recognizing the importance of recording the continuous presence of anthropic activity in a territory. However, when it comes to deeper analysis and interpretation of the survey results, sites still play a major role, while a systematic analysis of off-site data is not a common practice. Therefore, the potential information of these data, collected with a time and resource efforts, is not always fully explored. In this paper, we present some methodological approach and we discuss possible interpretations of low density assemblages. We analyze a wide area of the interior of Sibaritide (Calabria region, Italy) by using and comparing datasets of two survey projects (Raganello Archaeological Project – University of Groningen; Castrovillari municipality – University of Calabria/University of Roma La Sapienza), and focusing on the Hellenistic and Roman periods. Since an earlier version of this work was presented at the previous IMS Workshop, we look forward to further feedback and discussion with the IMSW community.

POLLARD, DOMINIC¹

Using What We're Left With: Investigating Settlement Histories and Agricultural Landscapes with Legacy Survey Data in Late Bronze Age and Early Iron Age Crete

¹New York University

This paper explores some of the opportunities and limitations afforded by legacy survey data, especially for confronting questions of settlement history and the development of agricultural landscapes. A case study is presented of the Mirabello region of eastern Crete, where three intensive surveys were conducted in the late 20th century, covering a contiguous area of over 80km². The methodologies, results and publication of these three surveys are compared, and their potential contributions to further studies explored. I suggest that digitisation and analysis with GIS breathes new life into these legacy data, especially when considered alongside other relevant archaeological data from the same geographic and historical context. I illustrate this through the modelling of agricultural catchments for survey sites of the Late Bronze Age and Early Iron Age periods, making use of population density estimates drawn from excavated settlements in the wider Mirabello region, and parameters aimed at capturing some of the historical and ecological constraints on ancient agricultural practices. This permits some tentative conclusions about the development of agricultural systems following the Bronze Age 'collapse' and leading up to the emergence of the Classical city-states, or poleis, on Crete.

RAJALA, ULLA¹

The road cuttings of the Faliscan area: a multi-period approach

¹Stockholm University

Apart from the surface survey, surveying different monument types has always been part of the Mediterranean survey repertoire. In this paper I will present my future research project that will continue where Juha Tuppi (2015) left: I will systematically study all road cuttings in the Faliscan area irrespective of their date. Tuppi in his work discussed only the pre-Roman cuttings and in the course of my PhD work I realised how many road cuttings there were in the Nepi area. My aim is to look at the characteristics of the road cuttings (length, width, depth, rut marks, recutting, pavement slabs, tombs etc.) in order to try to date the road cuttings and use their distribution as the basis of three different road networks in the area: pre-Roman, Roman and Medieval. I will carry out this survey as the Amos Anderson fellow at the Institutum Romanum Finlandiae within the project 'From protohistory to the Medieval times: road cuttings in the south-eastern Etruria'.

References:

Tuppi, J., 2015. Carving Territories: Road Cuttings as Part of Early Socio-Political and Urban Development in Central Tyrrhenian Italy with Special Reference to Crustumerium. Academic dissertation, the faculty of Humanities, University of Oulu.

ROSEN, STEVEN A.¹

Sites in the Mediterranean Desert: Archaeological Survey in the Negev

¹Ben-Gurion University of the Negev

The archaeological record in the deserts ringing the southern and eastern Mediterranean offers unique opportunities for, as well as challenges to archaeological survey and the interpretation of data. In contrast to the Mediterranean zone, site visibility in the arid regions (south of the northern Negev steppe) is high due to limited vegetation cover, a generally deflationary geomorphological regime, and limited modern development/site destruction. Even small campsites with limited or no architectural remains are common. Thus, assuming reasonable survey methods, site numbers offer a reliable sample in terms of diversity of site types (size, function, features, etc.) and inter-period site frequencies for reconstructing social and historical trends and trajectories.

The picture obtained is one of marked inter-period site frequency fluctuations, with periods of cultural florescence punctuated by both short and long periods of demographic decline. Two general factors can be posited for these cyclical patterns. First, the arid environment of the region in general, and the specific situation of the Negev, as a transition between the Mediterranean zone and the deeper desert, and as a land bridge between the south Arabia-Africa-India and the Mediterranean world, renders the region sensitive to the geopolitics of exchange and buffer zone effects (including the expansion and contraction of settled zone cultures into the desert). Second, the general fluidity of mobile pastoral societies, the primary inhabitants of the desert, facilitates territorial shifts.

In terms of the interpretation of survey (and excavation) data in the region, the biblical narrative, including the stories of the Patriarchs, the Exodus, and the wanderings in the desert, constitute a significant complicating factor. Although sites and features have been identified with various biblical events and personages, these identifications are deeply suspect, both in terms of chronology and historicity. Uncritical

acceptance of the biblical narrative commonly undermines historical and archaeological interpretation.

SCHÖRNER, GÜNTHER¹; HAHNMÜLLER, VICTOR MARTINEZ¹; TEICHNER, FELIX²

A New Project in the Wild West of the Roman Empire: First Results of Research in and around Regina Turdulorum (Badajoz Province, Spain)

¹University of Vienna

²University of Marburg

The Project 'Mirobriga – Regina Turdulorum: Town and Country in the Roman Far West' (MiReg) is carried out jointly by the universities Vienna (PI: Günther Schörner) and Marburg (PI: Felix Teichner) and supported by the local antiquities authorities. Its main aim is to investigate town-rural relations in the provinces of Baetica and Lusitania using the example of two smaller towns and by that to overcome the still very frequent separation between urban and rural studies. Within this framework, excavations, geophysical prospections and intensive surface surveys were carried out in the urban area and surrounding countryside of Regina Turdulorum (Casas de Reina, prov. Badajoz) in September 2022. In the lecture, besides a short characterization of the scientific questions of the project, the first – admittedly preliminary – results will be presented as well as a short look at the parallel ongoing research in Miróbriga and surrounding area (Santiago do Cacém, Portugal).

VAN LEUSEN, MARTIJN¹

Towards re-usability of survey data and documentation: update on the FIDO and SEMAFORA projects

¹University of Groningen

In this presentation I will update the IMS members about the progress of two projects that work toward the same goal: achieving re-usability of both future and legacy survey data. The first project, FIDO, aims to establish documentation guidelines for field surveying and have them politically supported by the EAA; I will present a summary of the first full draft of these guidelines, prepared by a small working party. The second project, running at Groningen University until spring 2023 and called SEMAFORA, is creating a software toolset for the 'mapping' of survey datasets to a newly designed conceptual reference model (CRM) for archaeological surveying and survey data. This, if followed by conversion to RDF format and publication online, makes such data fully searchable and reusable. I will present the status quo and next steps to be taken.

VERDONCK, LIEVEN¹

Ground-penetrating radar surveys of Roman towns in 2022 (Italy, France and the UK) illustrating some principles of the technique

¹École Normale Supérieure, Paris

In the last decade, the investigation of Roman urban sites by means of ground-penetrating radar (GPR) at Ghent University has partially or entirely revealed towns in Italy, Portugal, Corsica and the UK. In 2022, this work was continued at Ghent University and the École normale supérieure in Paris, in collaboration

with several other institutions. The outcomes of the prospections carried out in 2022 varied, illustrating important aspects of the GPR technique. The investigation of a suburban villa at Falerii Novi (Lazio, Italy) stressed the need for a high sample density to detect subtle structures. A prospection at Fregellae (Lazio) failed to detect structures known from magnetometer survey, demonstrating the dependence of GPR survey on low conductive soil conditions, and on a sufficiently strong contrast between archaeological structures and surrounding soil. At Eboracum (York, UK), the investigation of deep foundations belonging to the legionary fortress required a careful choice of the antenna frequency, and the combination with other sources of information to distinguish Roman from medieval foundations. At Gisacum (Vieil-Evreux, France), part of the Roman sanctuary was surveyed with a new GPR antenna array lifted 10 cm above the surface. This introduced noise in the time slices. Therefore fast data acquisition by lifting the sensors should be balanced against higher data quality obtained through (slower) ground-coupled antennas.

WILLETT, PATRICK T.¹; ANDONI, EDA²; ANVARI, JANA³

Contextualizing the Neolithic of the Korça Plain: Initial Survey Results

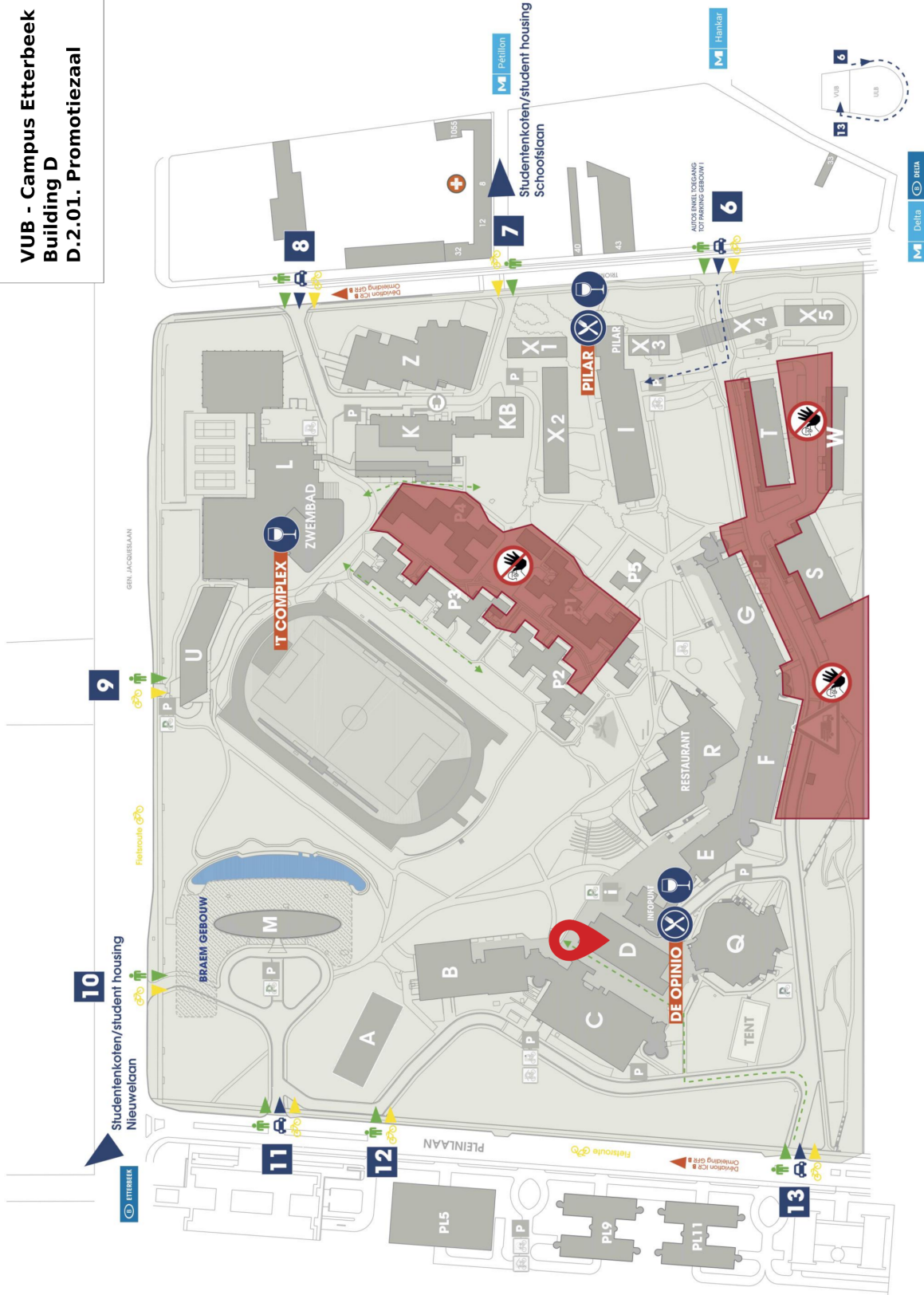
¹University at Buffalo SUNY

²Institute of Archaeology, Albania

³University of Cologne

This project seeks to research the settlement structure and landscape contexts of Neolithic sites in southeastern Albania, which represent the earliest farming communities in the country and date from 6400 BCE. Fieldwork activities in 2022 comprised the extensive survey of potential Neolithic settlement locations mentioned in the literature and intensive on-site survey of seven previously identified prehistoric sites with evidence of Neolithic occupations. The survey had the aim of informing the location of subsequent geomagnetic prospections and forthcoming targeted excavations. Additional off-site survey efforts also resulted in the identification of a previously undocumented site with a substantial surface artifact scatter dating to at least the Late Neolithic period. These results form the basis of a field campaign planned for summer of 2023 that will employ additional subsurface prospection methods and targeted excavations to—for the first time—assess the extents and layout of these Neolithic settlements as well as improve their dating. Beyond contributing to prehistoric research in the region, this work will allow for better protection of sites which are threatened by modern development. Results from this project will also help to inform us about the relationships that Neolithic settlements had with each other, with the landscape, and shed light on later reuse of the settlement sites.

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Map	Hotel	Address	Workshop booking discount
1	VUB – Campus Etterbeek	Pleinlaan 2, 1050 Brussels	-
2	U-Residence	Generaal Jacqueslaan 271, 1050 Brussels	€75 pp/night (no breakfast)
3	Adagio Access Brussels Delta	Boulevard du Triomphe 207, 1160 Oudergem	-
4	Hotel Barsey by Warwick	Avenue Louise 381–383, 1050 Brussels	-
5	Le Châtelain Boutique Hotel	Rue du Châtelain 17, 1000 Brussels	€149 pp/night
6	B&B Hotel Brussels Centre Louise	Rue Paul Spaak 15, 1000 Brussels	10 % discount via hotel website (discount code: IMS-Brussel (step 4 of booking))
7	Hotel Agenda Louise	Rue De Florence 6, 1000 Brussels	-
8	NH Brussels City Centre	Boulevard Adolphe Max 7, 1000 Brussels	-
9	Le Berger	Rue du Berger 24, 1050 Brussels	-
10	Aqua Hotel	Rue de Stassart 43, 1050 Brussels	€80 pp/night (mention VUB during booking)
11	Holiday Inn Brussels–Schuman	Breydelstraat 20–24, 1040 Brussels	€149 pp/night (booking via this link)
12	Hotel Satellite	Rue Franklin 157B, 1000 Brussels	-

