**45th International Mediterranean Survey Workshop: Abstracts**

**Session 1 – Approaches to survey data and methodology**

**Martijn van Leusen – Tymon de Haas (Groningen Institute of Archaeology)**

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

In this presentation we 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. The second project, running at Groningen University until December 2024 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.

**Victorino Mayoral Herrera (Mérida)**

**Good practice vs real practice: How can we help to improve survey methods when time and money rule?**

IMSW community has been for years the ideal forum for fruitful discussion about how we can improve surface survey and other non-invasive archaeological approaches. Most of this intense activity comes from the academic environment, and was developed in the framework of long-term research projects at a regional scale. However, a problem arises when we try to transfer these good practices to the field of commercial archaeology, in which both economic profitability and the times required for preventive interventions have a dramatic influence. This scenario becomes even more complicated when, due to the impact of intensive and aggressive agricultural activity, this type of work becomes the only testimony that will remain of many ancient rural settlements. Taking as reference a series of case studies in the province of Badajoz (Spain), we propose that a rigorous methodology can be adapted to situations in which it is unrealistic to carry out long survey campaigns. This is an experience promoted by the regional administration of Extremadura, which in addition to ensuring the protection of these archaeological sites, seeks to establish protocols that are both effective and realistic.
Session 2 – Italy

Valentina Limina (University Louvain-la-Neuve)
Rethinking ancient landscapes in northern Tuscany: RELOAD, preliminary results from the first survey campaign.

RELOAD (Rethinking Liminality Open Access Data) is a research project integrating landscape archaeology and ABMS funded by F.R.S.-FNRS at UCLouvain. The project, dealing with Northern Tuscany, focuses on bordering areas of ager Volaterranus between 3rd BC – 5th AD to understand better the peculiar long-term settlement strategies featuring these zones when compared to the rest of the territory. As an update of the previous IMSW (Spring 2023), the contribution will focus on the preliminary results of the first survey campaign (September-October 2023) that took place in the northern district, including the municipalities of Capannoli, Ponsacco, Pontedera, Peccioli. The goals, sampling approach, methodology, and challenges of this first survey campaign will be presented. Preliminary data related to the interpretation of the hypothesized Roman centuriation and the related dynamics of settlement pattern evolution would be prompted, also taking into account material assemblages. In the end, the communication of the activities, perspectives for future survey campaigns, and the data treatment concerning modelling and simulation for the project implementation will be discussed.

Wieke de Neef (University of Bamberg) – Peter Attema (University of Groningen) – Antonio Larocca (Gruppo Speleologico ‘Sparviere’)

High-altitude impact: The Pollino Archaeological Landscape Project

The Pollino Archaeological Landscape Project (PALP) so far conducted four short field seasons in the Pollino mountain range (southern Italy). The aim of the project is to map human occupation in a typical Apennine mountain landscape and integrate traces of high-altitude land use with the archaeological record of the lowlands and coastal regions of Calabria and Basilicata. Steep limestone peaks, glacial landforms, dense forests, erosive soils in intermontane basins, and canyons, characterize the Pollino range. We take a historical-ecological approach to understand long-term human-landscape interactions in these mountains, combining non-invasive research with environmental studies and ethnographic interviews. Our surveys have uncovered a previously unknown high-altitude Palaeolithic landscape, ephemeral presence by early hunter-pastoralists, historical pastoral systems and infrastructure, and recent charcoal burners’ occupation. In this presentation, we take stock of our results so far in the light of methodological challenges to working in rugged mountain terrain.

Johannes Bergemann – Rebecca Klug (University Göttingen)

A New Project in Sicily: Vizzini (Catania) – Where Paolo Orsi did not receive a warm welcome

Vizzini (Catania province) is known mostly by the prehistorians Corrado and Ippolito Cafici, members of a local elite family. Although they published extensively about the local archaeology and especially finds from their own property in the late 1800s and early 1900s, Paolo Orsi, the great explorer of early Sicilian archaeology, went straight to neighboring Licodia Eubea, where he believed to search for another Greek colony. In this way the territory of Vizzini remained
unexplored. Only recently, a new survey project discovered the multiperiod history of this territory in the mountains of southeastern Sicily between Catania, Lentini and Syracuse leading from bronze age to late antiquity.

**Session 3 – Balkans**

**Michael Doneus (University of Vienna) – Nives Doneus (University of Vienna) – Dave Cowley (Historic Environment Scotland, Edinburgh)**

**Spatio-Temporal Interpretation of a Dry Stone Walled Landscape on the Island of Cres (Croatia) Using Digital Feature Models from Airborne Laser Scanning**

Dry stone walls are a worldwide phenomenon that may shape entire regions. As a specific form of vernacular agro-pastoral practice, they are expressions of the culture and history of a region. Dry stone walls have recently received increased attention in Croatia, primarily due to research in landscape architecture and (historical) geography, though archaeological research on such remains is rare in part due to the challenges of undertaking such work in areas covered by dense evergreen maquis vegetation. Under such environmental conditions, Airborne Laser Scanning (ALS) based digital feature models are the only possibility for large scale documentation. The presentation will demonstrate the complexity of such systems using a case study from the Mediterranean region of Punta Križa, Croatia. Our spatio-temporal interpretation within the framework of GIS and a Harris Matrix reveals a wealth of information on a complex sequence of human activity.

**Nives Doneus – Michael Doneus (University of Vienna)**

**Roman land use and remote sensing survey data: Case study of Medulin Bay, Istria, Croatia**

Our image of the Roman landscape of Istria is characterised by large-scale centuriation and architectural remains of Roman villae. Trying to detect and map other, more hidden landscape features requires systematic large-scale prospection. The developments in the field of airborne laser scanning offer the possibility to successfully carry out archaeological surveys in areas where no other survey method can be used due to dense vegetation and difficult terrain. Aerial photographs and a laser scan of about 24 km2 of land and underwater terrain in the Medulin Bay was archaeologically processed, visualised and interpreted. The results reveal not just features ranging from prehistoric hilltop settlements to modern military installations but a complex picture of the Roman land use. Of particular interest is here the large number of Roman planting pits, which were sometimes combined with grid-shaped parcelling with a grid size of approx. 35 x 35 m. They can be interpreted as relics of Roman agriculture in the form of orchards/lemon groves or tree nurseries and belong to the intensively cultivated Roman villae estates on the Istrian coast.

The results show once again that the potential of archaeological prospection methods goes far beyond the mere finding of sites or the recording of punctual information and can open up new perspectives on topics that have been little explored archaeologically.
Patrick T. Willett (University at Buffalo) – Edlira Andoni (Institute of Archaeology in the Centre for Albanian Studies, Tirana) – Jana Anvari (University of Cologne)

Contextualizing the Neolithic of the Korça Plain, Part II: Highland interfaces

This paper will present the preliminary results of a seven-week survey campaign in the Korça region of SE Albania carried out by an international team from the US, Germany, and Albania. The Korça plain is well-known for its high number of early agricultural sites, dating back to at least 6450 BCE, which concentrate around the former Lake Maliq. In 2022, a previous survey campaign in the study area by our project aimed to securely locate and ascertain the extents and state of preservation of the previously encountered prehistoric sites there identified in the literature of the past several decades. In the summer of 2023, we conducted a seven-week intensive off-site survey in the region with the goal of better contextualizing these sites in the surrounding landscape with a particular focus on the mountainous interfaces connecting the Korça plain to the nearby permanent lakes Ohrid and Prespa. This survey was not limited to collecting prehistoric material, and sheds light on land-use behavior in the study region from the Early Neolithic until the modern period.

Session 4 – Greece

Alex R. Knodell (Carleton College) – Demetrios Athanasoulis (Ephorate of Antiquities of the Cyclades) – Jeffrey Banks (University of Cincinnati) – Anna Belza (University of Cincinnati) – Rosie Campbell (University of Cambridge) – John F. Cherry (Brown University) – Thomas G. Garrison (University of Texas at Austin) – Magda Giannakopoulou (National and Kapodistrian University of Athens, National Centre for Scientific Research Demokritos) – Hallvard Indgjerd (University of Oslo) – Evan Levine (University of Copenhagen) – Brody Manquen (University of Texas at Austin)

Regional Survey in the Eastern Cyclades: Island Size, Nodality, and Occupational History

The Small Cycladic Islands Project (SCIP) is a diachronic, comparative survey of numerous small, currently uninhabited islands in the Cycladic Archipelago of Greece. Since 2019, SCIP has carried out systematic archaeological surveys of 67 small islands. The 2023 field season focused on 22 islets in the vicinity of Andros, Tenos, Mykonos, and Amorgos. These zones are points of comparison with the western and central Cyclades, where the project conducted fieldwork previously. This year, we included more “medium-sized” islets in the survey. We had previously surveyed only two examples between 1 and 3 square kilometers. In 2023 we surveyed five such islets, where the volume and variety of finds suggest a critical size threshold in this range. Finally, the 2023 field season used a lidar-led methodology that combines intensive pedestrian survey with high-resolution remote sensing. This was an exceptionally effective survey strategy, especially for covering larger survey zones in a limited amount of time. In addition to these comparative and methodological advances, findings of particular interest include evidence of Neolithic visitation in several places; a major Early Cycladic settlement; an Archaic-Hellenistic sanctuary site; Roman fortifications and waystations; and several medieval churches and settlements.

Emeri Farinetti – Matteo Rossi (University Roma tre)
Wildfires are the real scourge of the Mediterranean ecosystems. Boosted by the scarcity of rainfall and hot winds, a great number of fires destroy hectares of Mediterranean scrub and forests every summer, producing an impressive negative ecological impact. In this paper we try to frame the effects of these fires on the archaeological survey data: despite the natural calamity, could an archaeological survey project, especially in a forested area, benefit from such a disaster? The case study we will discuss is the archaeological site of Vrestiza (Greece). Aiming to study the ancient landscape of Western Megaris, since 2019 the Western Megaris Archaeological Landscape Project (WeMALP) is working on this site in the Gerania mountains with architectural and artifact surface survey activities. In 2021, a massive wildfire burnt a great part of the pine forest that covered a large portion of the site. Taking this unlucky event as the chance to analyze the effect of fire on architectural and ceramic survey data and to reflect on survey methodologies, we returned to the site in 2022 and 2023 to experiment with new survey practices and compare the new data with the old ones.

Session 5 – Iberian Peninsula I

Florian Hermann – Felix Teichner (University of Marburg, Germany)

“Where the land ends and the sea begins” (Luís de Camões, Os Lusíadas): Non-invasive fieldwork in the landscape of the western End of the Roman Empire

At the centre of this brief presentation are two of the so called "small towns" in the far west of the roman empire, on the one hand Mirobriga (Santiago do Cacem, Portugal) in the Roman province of Lusitania and on the other hand Regina (Casas de Reina, Spain), in the roman Province of Baetica. In order to document, valorise, protect and understand these towns and their landscape system, a qualified definition of the extent of their urban territory, suburbium and the urban area is still lacking. Within the current MiReg project of the Universities of Vienna and Marburg, extensive non-invasive geophysical work has been carried out by a team led by the two authors over the last 3 years (2021-2023). The aim of this presentation is to present a first summary of the results of these multidisciplinary surveys, specifically near surface geophysical surveys carried out in an integrated approach consisting of Magnetometry, Resistivity and Ground Penetrating Radar measurements.

Session 6 – Turkey

Birgül Öğüt (University Freiburg) – Matthias Lange (Humboldt University Berlin) – Murat Dirican (Austrian Archaeological Institute)

The second season (2023) of the “Land of the Stormgod Survey” Gaziantep/Türkiye: What has changed?

The “Land of the Stormgod Survey” project began in 2022 with a focus on investigating archaeological remains from the Neolithic to the Hellenistic period in the Şehitkamil district of Gaziantep, Türkiye. In the second campaign in 2023, we were able to investigate a much wider area with a considerably larger team and changed methods. In contrast to the first year, e.g. geological investigations, remote sensing with CORONA and modern satellite images (and their
verification/falsification), as well as larger off-site survey areas were integrated into the work. However, some methods – e.g., drone photography, geophysical survey, material analysis – could still not be implemented for various reasons.

In this presentation we will introduce the preliminary results of the 2023 campaign, contrast them with the results of the first campaign and compare it with the information known so far in the literature. In addition, we will present a sketch of the settlement history of the region and discuss further possibilities for the next campaign in 2024.

**Sara Rapp – Bernhard Ludwig (German Archaeological Institute (DAI))**

**Bozköy-Gilmandere. A Roman-Byzantine rural settlement in the Pergamon Micro-Region (Turkey). Geophysical prospection and field surveys between 2011 and 2022**

This paper presents first results of the ongoing investigations of a Roman-Byzantine site carried out by the German Archaeological Institute (DAI) and synthesized in a master’s thesis by the first author. Fieldwork in the micro-region of Pergamon is necessary due to stone theft, construction measures and agricultural interventions. The site is located about 17 km southwest of Pergamon and was first extensively surveyed in 2011. As part of the DFG-funded project "Transformation of the Pergamon Micro-Region", the site has been re-examined since 2019 through intensive, systematic field-walking surveys by the DAI and various geophysical prospection methods by the University of Kiel. The large number of marble fragments recovered during these surveys suggest an architecturally richly furnished rural settlement site. In addition, misfired ceramics indicate extensive production.

The master's thesis aimed to place the site within the political-economic structure of the Pergamon Micro-Region. In this presentation, we will elaborate on the following question: What was the role of the site in terms of land use, production of goods, and social differentiation of the Pergamon Micro-Region according to current research?

**Session 7 – Cyprus**

**Polte de Weird (Free University Brussels)**

**Portrait of collective communities: The diachronic spatial configuration at the Late Bronze Age site complex of Hala Sultan Tekke, Cyprus**

Nearly a century since its initial discovery, the Late Bronze Age urban site complex near Hala Sultan Tekke in Cyprus has undergone extensive systematic exploration through numerous excavation campaigns. Nevertheless, the spatial dimensions of the site complex have received limited scholarly attention, predominantly manifesting as speculative approximations. Commencing in 2021, a team from the Vrije Universiteit Brussel initiated annual survey campaigns within the immediate hinterland of the site, aiming to procure evidence of human activity pertaining to the Late Bronze Age. Following two successful campaigns in 2021 and 2022, the preliminary findings from the most recent campaign in 2023 will be discussed as well. Comparative analysis of the accumulated survey data with findings from prior and concurrent excavations has yielded novel discoveries into the site’s spatial configuration. Concurrently, the project endeavours to scrutinize the hinterland itself, aspiring to establish a diachronic comprehension of
human-landscape interactions spanning from the Bronze Age to the Iron Age and later periods. This holistic approach delivered to furnish novel and valuable insights into the early historical trajectory of the Hala Sultan Tekke site nucleus, unveiling hitherto obscured facets of the site’s formation. Moreover, the investigation has provided relevant new insights pertinent to Iron Age chronologies and later periods, a scholarly lacuna hitherto unaddressed in the proximity of the site complex as it has conventionally been construed as abruptly abandoned at the end of the Late Bronze Age with no evidence of human activity until a much later timeframe.

Session 8 – Iberian Peninsula II

Günther Schörner – Tomáš Sobihar (University of Vienna)

Suburbium and hinterland of Miróbriga: In search of agricultural production sites through on-site and off-site surveys

In the framework of the MiReg project surveys in the surroundings of Miróbriga (Santiago do Cacém, Portugal) have been conducted which, contrary to expectations, were unable to detect any intensive agricultural use in the vicinity of the city. However, there is evidence of agricultural production in the wider surrounding area. It will be shown how an on-site survey of one of these production sites, Herdade da Defesa 3, can yield additional data to complement excavation results and in which way a combination of the on-site survey method with a functional approach to the analysis of the ceramic finds can be beneficial. In spite of the remaining challenges, this approach promises to produce as much information as possible on the basis of difficult-to-interprete fragmentary material.

Ines Guth – Julia Mišek – Günther Schörner (University of Vienna)

A City and its suburb: Fineware consumption in and around Regina Turdulorum

The MiReg project is centred around the relationships of two cities in Hispania with their rural surroundings. This paper focuses on the city of Regina Turdulorum and the Cerro de las Nieves settlement (Reina, Spain) located in its hinterland. The 2022 excavation of an urban building in the area of the city limit has yielded a copious amount of fineware, consisting of terra sigillata and thin-walled pottery. The 2023 surveys of the nearby hilltop settlement have likewise produced a large quantity of Hispanic and imported wares, enabling a preliminary insight in the use of terra sigillata and local fineware in both urban and suburban contexts. The volume of the collected materials allows for a first comparison between the fineware consumption in the city and its surroundings and give an impression of the pottery used in early Imperial time.

Session 8 – Roman Urbanism

John Bintliff (University of Edinburgh) – Luuk de Ligt (Leiden University)

Rethinking the Roman City: Insights from the European Project
I think most of us have a good idea of what ancient Roman towns looked like: a central square or Forum with public offices and a market, well-built domestic dwellings in formal blocks or insulae, and an efficient orthogonal street plan, maybe city walls, a theatre and an amphitheatre. Civilisation in other words!

But if we look deeper, a number of central questions have long remained little researched, even unknown. For example, how many cities were there in the Roman Empire at any one time, and what exactly did they do, beyond having plentiful baths and circuses for leisure, a market for citizens to buy things, and a forum to enact council business and legal transactions? To answer these questions, a European project was proposed, very ambitiously to solve these central questions, for an urban network that underpinned the entire structure of the Roman world.

The European Research Council-funded, EMPIRE OF 2000 CITIES PROJECT was created by ancient historian Professor Luuk de Ligt in Leiden University and he kindly invited me to co-direct the project as the archaeological specialist. It employed five PhD students and three Postdoctoral researchers. There was also an additional PhD student, Peter de Graaf, researching the internal transformation of towns in Roman Italy in Republican to Early Imperial times. The core group of eight researchers was given each a major region of the Early Roman Empire and their task was to delve into all the historical, inscriptional, coinage and archaeological evidence for urban centres, thus creating with the use of Geographical Information Systems (GIS) a complete gazetteer with source information for each town, including size, public buildings, coinage if minting, official status and preceding history. One of the main aims was the most accurate map of cities for the period around 200 AD.