The semi-annual International Mediterranean Survey Workshop have, since 2001, brought together an increasing circle of field survey practitioners and students from around Europe (and occasionally, elsewhere) for presentation of (preliminary) results and free-ranging discussion of issues of interest. Having started out in the Low Countries, the workshops have since been held alternately in many countries of Mediterranean Europe – Spain, Italy, Turkey, and Croatia – as well as in Austria and Germany. The e-mail distribution list, managed at Groningen, currently holds over 300 names. Meetings are very informal, and presentations by students are encouraged. The 38th workshop is again hosted by the Groningen Institute of Archaeology.

Venue and Timetable

The workshop will take place in the Archaeology buildings located around Academy Square in the vibrant heart of Groningen. The timetable is as follows:

**Friday 29 November (Room A900, Broerstraat 9)**

10.30 – 11.00 Welcome with coffee and cake in the Academy Building cafeteria

11.00 – 12.15 **Session 1: Field Reports**

- **New Field Survey in the Surroundings of Pergamon** - Bernhard Ludwig (German Archaeological Institute, Istanbul Department)
- **Archaeological survey in the town of Thignica (Tunisia): problems and research perspectives** - Annapaola Mosca (University of Roma “La Sapienza”)
- **The Ravenna Landscape Project – Archeologia dei Paesaggi di una Capitale: new data from Cervia and Faenza** - Michele Abballe (Ghent University); Mila Bondi, Marco Cavalazzi, and Michela De Felicibus (University of Bologna)

12.15 – 12.45 **Intermezzo session**

- **Can we identify the type of subsoil reservoir from the characteristics of survey pottery?** A 2-slide presentation - Martijn van Leusen (University of Groningen)
- **Sometimes a date is not a date - or is it? Some issues in the interpretation and use of specialist find datings in survey** – Vladimir Stissi (University of Amsterdam)

12.45 – 14.30 Lunch break (Harmonie Building cafeteria)

14.30 – 15.20 **Session 2: Methods of Analysis**

- **The archaeological survey of the Madonie mountain range in Sicily: GIS and spatial analysis** - Vincenza Forgia (University of Palermo)
Session 3: Integrating Surveys Across Regions and Periods
- *Hellenistic and Roman Landscapes of South Italy: outline of a new project to integrate and compare field survey data* - Martina Cecilia Parini (University of Groningen)
- *Unlocking (legacy) survey data: the KNIR data collection initiative and Fasti Survey* - Anita Casarotto (Royal Netherlands Institute in Rome)

Tea/coffee break

- *Economic integration and prosperity in the Italian countryside: towards a comparative analysis* - Tymon de Haas and Maxime Mulders (Leiden University)
- *More is better: big(ger) data for a modern economic history of the Roman world* - Willem M. Jongman (Department of History, University of Groningen)
- *Integrating Landscape Data and the Science Syndrome* - John Bintliff (Leiden University / Edinburgh University)

Conference dinner (Botique Hotel De Doelen / De Drie Gezusters, Grote Markt 36)

Saturday 30 November (Marie Lokezaal, Harmonie Building, Oude Kijk in ’t Jatstraat 26)

Session 4: Multi-Method Approaches
- *Reshaping the Landscape: Taking an integrated Approach to Fieldwork at the Temple of Athena (Paestum)* - Albert Ammerman (Colgate University), Federica Boschi, Enrico Giorgi, and Michele Silani (University of Bologna)
- *Beyond Olympia – an interdisciplinary survey project* - Franziska Lang (Technische Universität Darmstadt)
- *Discussion of how survey guides the placement of excavation areas* - Francesca Ippolito and Martijn van Leusen (University of Groningen)
- *Archaeological survey, geophysical survey and excavation: a difficult trio* – Johannes Bergemann, Rebecca Diana Klug (Georg-August-Universität Göttingen)

Tea/coffee break

Session 5: Off-Site Data
- *Off-site data from Abdera and the APAX project, Greece* - Mercourios Georgiadis (Institut Català d’Arqueologia Clàsica), K. Kallintzi (Hellenic Ministry of Culture) and E. Kefalidou (University of Athens)
- *Emptyscapes project: a new paradigm for the archaeology of Mediterranean landscapes?* - Stefano Campana (University of Siena)

Workshop closes
Session 1: field reports

New Field Survey in the Surroundings of Pergamon

Bernhard Ludwig (German Archaeological Institute, Istanbul Department; PhD student at Freie Universität Berlin); bernhard.ludwig@dainst.de

In a new project on the “Transformation of the Pergamon Micro-Region between Hellenism and Roman Imperial Period”, started in 2019 and funded by the German Research Foundation (DFG), a special focus is placed on the documentation and study of archaeological sites in the surroundings of the ancient metropolis of Pergamon. The work of the first season concentrated on the southern tributary valleys of the western lower Kaikos Valley and the foothills of the Yünt Dağ Mountains. One of the valleys was completely and systematically surveyed by a Turkish-German team of archaeologists, ancient historians and geographers. The valley is dominated by a rural settlement dating back to the Bronze Age, which had not been abandoned before the late Byzantine Period – a continuity of settlement activities comparable with the city-hill of Pergamon itself. The documentation of the intensive field survey was carried out almost completely digitally with the help of tablets and an Android app. The paper will describe the methodology of the field walking, the use of the app and finally present the first preliminary results of the fieldwork in 2019.

Archaeological survey in the town of Thignica (Tunisia): problems and research perspectives

Annapaola Mosca (Università di Roma “La Sapienza”); annapaolamo@gmail.com

New archaeological research has been started at Thignica as part of an international epigraphic and archaeological project led by the Institut National du Patrimoine and University of Sassari, with the aim of understanding some aspects of the settlement organization in the ancient town and of enhancing this archaeological area. We had to deal with several problems encountered during the field survey, as the urban layout was partly obliterated due to the construction of the Byzantine fortress, but also due to the progressive and aggressive burial of the buildings. Moreover, the despoliation of sacred and civil buildings with the consequent dispersion of epigraphic data does not favor the recognition of the function of different buildings. The archaeological surveys carried out in parallel with epigraphic research have made it possible to improve knowledge on water supply and have shed light on some lesser known areas of the city.

The Ravenna Landscape Project – Archeologia dei Paesaggi di una Capitale: new data from Cervia and Faenza

Michele Abballe (Department of Archaeology - Ghent University); Mila Bondi, Marco Cavalazzi, and Michela De Felicia (DiSCI Department of History and Cultures - University of Bologna); michele.abballe@ugent.be

The main aim of this paper is to present new data collected by the Ravenna Landscape Project, which was started as Decimano Project (2002-2005), to study the southern hinterland of Ravenna (Italy) using mainly artefact survey as method to document changes in settlement dynamics across time around this ancient capital. Afterwards, the Bassa Romandiola Project was started (2009-present), in the northwestern part of Ravenna province. In 2019, a rebranding of the project was carried out to include two new subprojects that focus on the countryside around the cities of Cervia and Faenza. Major differences exist in this large study.
area, both on the historical level and in the physical landscape, that influence the methods to use and the interpretation of the results. Briefly: 1. Bassa Romagna is a low plain where no Roman towns are known; 2. Cervia is situated along the coastline, where a city arose between the V-VIII centuries CE; 3. Faenza was a Roman municipium born along the Via Aemilia, at the edge between the Apennines and the Po plain. The results of these two new subprojects, presented here, allowed to document several sites, ranging between the Bronze Age until the Modern Age showing different local settlement dynamics.

**Session 2: methods of analysis**

The archaeological survey of the Madonie mountain range in Sicily: GIS and spatial analysis

Vincenza Forgia (PhD and outside collaborator, Dipartimento Culture e Società, Università di Palermo); vincenza.forgia@gmail.com

The archaeological survey of the Madonie mountain range, in northern Sicily, and the excavation of a key-site, Vallone Inferno (Scillato, Palermo), are revealing an articulated way of exploitation of the uplands and of the mountainous landscape, at least during the last 10,000 years. Settlement patterns between the final Late Pleistocene/Early Holocene and the Medieval era have been investigated through the support of a GIS, by performing a spatial analysis.

Results of the archaeological research are placed within the paleo-environmental framework. The mountainous territory has been divided into sample areas to be surveyed, and a targeted survey was devoted to very specific topics. The GIS platform has been designed to perform least cost analysis and visibility analysis, in order to investigate the settlement patterns and the mobility strategies in a diachronic perspective. This contribution aims to present the dataset and discuss the results of the least cost analysis involved in the interpretation of the mobility strategies with a particular focus on the seasonal exploitation


Rocco Palermo (Researcher - VENI Grant Recipient, Groningen Institute of Archaeology, University of Groningen); r.palermo@rug.nl

Archaeological surveys in the Middle East have substantially improved in quality and quantity over the last two decades. Recent archaeological work carried out in the Kurdistan Region of Iraq (North Mesopotamia) has also challenged approaches that have been in use in Near Eastern landscape archaeology for too long. Comparative and multi-scalar analyses are now being used to determine patterns of urbanization, landscape intervention (bottom-up and top-down) and human-ecosystem interaction. Also, unlike Mediterranean-based survey projects, those operating in the Kurdistan Region have developed a solid integrative and complementary approach to data collection, management and processing, facilitating large-scale interpretations.

In this talk, I will walk you through the data collection and recording protocol used by a large-scale project currently operating around the city of Erbil in northern Iraq: the Erbil Plain Archaeological Survey. I will describe our approach to landscape recording and interpretation, our data-collection process, with a particular emphasis on the use of state-of-the-art and innovative technologies, and the scientific outcomes relating to the project research goal, which is the understanding of the spatial patterns of the Erbil plain from Prehistory to modern times. I will then move to describe the enormous potential of our recording and
mapping techniques when it comes to define sharing knowledge protocols and training activities with and for local colleagues and archaeologists.

**Session 3: integrating survey data across projects and regions**

**Hellenistic and Roman Landscapes of South Italy: outline of a new project to integrate and compare field survey data**

*Martina Cecilia Parini (PhD student, Groningen Institute of Archaeology, University of Groningen); m.c.parini@rug.nl*

I recently started a PhD project aiming to analyze the socio-economic structure of South Italian landscapes during the Hellenistic and Roman period. It will use a supra-regional comparative perspective, based both on legacy survey data and on data from recently completed projects. In this paper, I will present the project outline and I will stress some of the methodological issues to be addressed.

For Southern Italy, some long-term survey research projects have produced high-quality data about past human occupation of various territories. These data have been generally interpreted at a local and a regional level, but fewer attempts have been made to compare data from different regions. To achieve this supra-regional comparison, this project will merge datasets from different areas in an overarching database, so it will be possible to analyze the settlement dynamics in rural areas with a broad perspective. My primary goal is to identify and to explain the large-scale diachronic patterns, comparing regional variations and similarities that characterized the countryside organization between the IV century BC and the II century AD.

**Unlocking (legacy) survey data: the KNIR data collection initiative and Fasti Survey**

*Anita Casarotto (KNIR Fellow, Royal Netherlands Institute in Rome); a.casarotto@arch.leidenuniv.nl*

Archaeological field survey data are crucial for reconstructing historical landscapes and large-scale settlement dynamics, but they are at risk due to modern landscape change and inadequate digital curation. Scholars working in the Mediterranean have accumulated an impressive quantity of legacy data from past pedestrian surveys, a majority of which is still trapped in locked databases. Despite their importance, there is a concrete risk that legacy survey data will be lost due to improper curation and digital obsolescence. To rescue these data the Royal Netherlands Institute in Rome (KNIR) has developed a crowdsourcing data-collection initiative among survey archaeologists: through the online digital platform Fasti Survey (2016, KNIR-AIAC), scholars have the opportunity to publish both metadata and primary survey data in open access survey-project webpages provided with permanent links. In this way, landscape archaeologists increase the visibility of their survey projects, and receive professional recognition in the form of citable survey-project webpages. Moreover, as with Fasti Excavation (2003, AIAC), there is the possibility to accompany the survey-project webpage with an article in the peer-reviewed journal FOLD&R, in which scholars can describe their methodological strategies, survey results and interpretations in more detail. In this paper, the procedure for contributing to the Fasti Survey platform is presented, and its scientific value critically assessed with a case study of multiple, complex legacy datasets of different regions of Basilicata, South Italy.
Economic integration and prosperity in the Italian countryside: towards a comparative analysis

Tymon de Haas and Maxime Mulders (Leiden University, Faculty of Archaeology); t.c.a.de.haas@arch.leidenuniv.nl, maxime_mulders@outlook.com

Considering the exceptional intensity and range of interregional interactions (both cultural and economic), The Hellenistic and Roman periods are now often considered as one of the first and major phases of globalisation in World History. But how extensive were associated processes of economic integration, and what was their impact beyond the urban sphere? In this paper, we propose to use ceramic consumption data as gathered in systematic field surveys as a proxy to evaluate regional changes in levels of economic integration and its possible effects on living standards. In this paper we focus on an initial analysis of data from the Metaponto survey, which is part of a database holding information from systematic field surveys in different parts of the Italian peninsula that will ultimately allow us to compare such trends.

More is better: big(ger) data for a modern economic history of the Roman world

Willem M. Jongman (Department of History, University of Groningen); willem.jongman@gmail.com

Economic historians of more recent historical periods have often been skeptical of the work of ancient economic historians, thinking the common rejection of the use of modern economic theory weird, and not able to believe anyone could do serious economic history with such crappy data. Fortunately, things are changing as shown in an increasing interest in classical antiquity among modern economic historians: modern economic concepts are increasingly used, and ancient historians and archaeologists are increasingly harnessing a vast wealth of archaeological data to underpin their reconstructions.

After years of work on the social position of trade and manufacturing, research has shifted to the central question of economic performance: how well did the ancient economy do in providing a measure of prosperity for the population, and how did this develop over time? Traditional literary sources and documentary data are completely inadequate for this. Fortunately, during the last few decades archaeology has begun to yield the volume of data that proper economic histories are made from. I will illustrate the new possibilities of such large datasets, but also the challenges of defining proper proxies for core economic variables, homogenizing and aggregating datasets and time series analysis.

Integrating Landscape Data and the Science Syndrome

John Bintliff (Leiden University / Edinburgh University); johnlbintliff@gmail.com

Over the last fifteen years or so, archaeologists, especially prehistorians, but increasingly ancient historians, have been attracted to the ‘big data’ publication syndrome, clearly imitating the model of Science, Nature and related journals such as PLOS One. A large area archaeological database, or an artefact, palaeopathology or ecofact database, or ancient DNA database, is assembled by a team of varying size in order to show that number-crunching can produce major new insights into the past. The gain is clear if the data are comparable, and the method of research and publication offers the shine of high scientific respectability. But are the data really comparable? This paper will look at the benefits and risks of this Science Syndrome.
Session 4: multi-method approaches

Reshaping the Landscape: Taking an integrated Approach to Fieldwork at the Temple of Athena (Paestum)
Albert Ammerman (Research Professor, Colgate University); Federica Boschi, Enrico Giorgi, and Michele Silani (University of Bologna); aamperman@colgate.edu

We have been working on an interesting and important project at and around the Temple of Athena at Paestum for the last three years. We have discovered that the temple was built on a large artificial mound. The fieldwork is based on wide GPR coverage of the sanctuary, coring (including 10 machine-made cores to a depth of 10 m documenting the mound and underlying geomorphology and geology) and excavations, which show how the mound was built. The three standing temples all stand on a more or less flat travertine plain. By putting the Temple of Athena on an artificial mound it then stood out about everything else in the civic center of the early city-state. In the study of ancient Rome, I have previously documented several major transformations of the landscape in the case of the Forum and the Capitoline Hill in the time before the Republic. In the talk, we would place emphasis on the integration of multiple lines on evidence (and how they fit together).

Beyond Olympia – an interdisciplinary survey project
Franziska Lang (Professor Klassische Archäologie – FB Architektur, Technische Universität Darmstadt); flang@klarch.tu-darmstadt.de

While research at the sanctuary of Olympia has a long tradition, its integration with the regional environment has not yet been fully studied. For this reason, a systematic landscape archaeological project including fieldwalking was initiated. What distinguishes this study is that a sanctuary, rather than a city, forms the centre of the region. First results are the characterisation of settlement structures, the visualization of an extremely sacralized landscape as well as the immense changes in paleoenvironment.

The general comparison of survey results with literary tradition will increase the level of knowledge about the socio-political organization, cultural history and mental, mythical and religious view on space generating mythological and sacral-memorial topographies. The resources in the surrounding of Olympia and evidences of political ecology are systematically studied through combined analysis of archaeological objects, textual evidence on ecological resources, pollen analysis and geoarchaeological ecosystem conditions. The use of local resources in Olympia will also provide leads on cult ecology as one of the effective practices in sacral environment.

The complexity of the project goals and different perspectives on the study area require a multi-methodological analytical strategy that is reflected through the core of participating disciplines: archeology, ancient history and geoarchaeology, which follow a complementary interdisciplinary research approach.

Discussion of how survey guides the placement of excavation areas
Francesca Ippolito (associate researcher) and Martijn van Leusen (associate professor at Groningen Institute of Archaeology); f.ippolito@rug.nl

How do we use survey data when making decisions about placing excavation trenches? This question has become relevant as the Groningen Institute of Archaeology intends to excavate at a site with a complex history of previous investigations. Called Timpone delle Fave, this Final Bronze Age hilltop site in northern Calabria (Italy) is of interest because, together with a few other sites that have emerged from the RAP
survey project, it offers the possibility of refining the regional pottery typochronology for the FBA-EIA transitional period.

So, we want to excavate a closed FBA1-2 hut context. But the information available on which to base the decision where to place an excavation trench is rather sketchy: several unsystematic surveys seem to indicate areas where hut loam and storage pottery are concentrated, but these previous collections may also have changed the patterning in the current surface record. A limited systematic total field survey and magnetometer survey conducted in 2019 both suffer from poor conditions – a sloping and uneven surface, and dense vegetation occasionally broken by wild boar rooting. If we cannot conduct a good systematic intensive (re-) survey, can we still fix on the optimum location for a test trench? We would like to discuss this.

Archaeological survey, geophysical survey and excavation: a difficult trio

Johannes Bergemann, Rebecca Diana Klug (Georg-August-Universität); johannes.bergemann@phil.uni-goettingen.de, rebecca-diana.klug@phil.uni-goettingen.de

The paper will give first results and even disappointments of this year Goettingen University excavations following archaeological and geophysical survey in the south eastern necropolis of Thorikos (Greece) and in the Chora of Camarina (Sicily). The challenges when combining the three methods will be shown as well as lucky results from the ‘nose’ of an archaeologist now open to interpretation.

Session 5: offsite data

Off-site data from Abdera and the APAX project, Greece

Mercourios Georgiadis (Institut Català d’Arqueologia Clàssica), K. Kallintzi (Hellenic Ministry of Culture), and E. Kefalidou (The University of Athens); mgeorgiadis@icac.cat

The accumulated data from the APAX survey project has been impressive over the last years. The big Classical city of Abdera has dominated the collected material and provided a clear picture of this polis. Even outside the city walls there are important concentrations of finds, arguing for the presence of a halo effect, farmsteads and small settlements, as well as burial tumuli in a radius of a couple of kilometers. In this complicated landscape there are areas with fewer data, but where finds are still recovered in what can be called off-sites. A preliminary assessment of them will be proposed for the case of APAX. The local topography and the character of finds can provide some ideas about interpreting the activities that have taken place there or the processes that have formed the current picture.

Emptyscapes project: a new paradigm for the archaeology of mediterranean landscapes?

Stefano Campana (University of Siena); campana@unisi.it

‘Emptyscapes’ is an interdisciplinary research programme designed to stimulate changes in the traditional ways in which scholars, in Italy in particular but also more generally in the Mediterranean world, study the archaeology of landscapes - that is, from an essentially site-based approach to a more comprehensive landscape-scale perspective. The programme aims to use the ‘traditional’ methods of landscape survey in partnership with large-scale geophysical prospection, airborne laser scanning, geo-archaeological, bio-archaeological and targeted minimalist test excavations. After 12 years of integrated surveys and three years of test excavations we have learned that in some circumstances it is possible to apply new and complementary strategies, and in doing so to seek answers to entirely new archaeological questions.
Two Italian study areas are used. The first is focused on the formerly urban, but now rural, area of the Veii plateau, the largest and most powerful Etruscan city of its time, rivalling Rome only 15 km to the south. The second is a stretch of a rural valley near the ancient city of Rusellae in southern Tuscany. A trapeze-shaped transect covering 2500 ha of the valley and hillslopes to the south-east of Rusellae was chosen to explore a range of environmental and archaeological contexts, with lowland fields appropriate for geomagnetic survey flanked by wooded hillslopes which act as a test-bed for high-resolution laser scanning.