

International Mediterranean Survey Workshop



10 – 12 May 2019

PULA, Croatia



Venue:
Juraj Dobrila University of Pula, Faculty of Humanities,
Ivana Matetića Ronjgova 1, Pula

ArchaeoCulTour Project



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ROVINJ-VRSAR



International Mediterranean Survey Workshop



Juraj Dobrila University of Pula
10 – 12 May 2019

FRIDAY 10 May

12:00 – Meeting point: Faculty of Humanities, I. Matetića Ronjgova 1

12:00 – 13:30 Lunch at university campus, Preradovićeva 28b

13:30 Opening remarks

Session 1 Modelling settlement dynamics from survey data

13:40 – 14:00 Peter Atema, Remco Bronkhorst (University of Groningen)
The Roman afterlife of Archaic towns in Latium Vetus (Italy): the cases of Satricum and Crustumerium

14:10 – 14:30 Devi Taelman, Dimitri Van Limbergen, Vittoria Canciani, Frank Vermeulen (University of Ghent)
Trial and error in the diachronic modelling of rural settlement and population from field survey data. The Potenza Valley Survey as a case study

14:40 – 15:00 Christine Spencer (University College London)
Modelling Bronze Age settlement dynamics from legacy survey data

15:10 – 15:30 Rebecca Diana Klug (University of Goettingen)
Settlement dynamics in rural roman Sicily: the Agrigento-Hinterland-Survey in comparison to several roman landscapes in Sicily, Italy and Spain

15:40 Tea/coffee break

Session 2 Issues, problems, solutions?

16:00 – 16:20 Rajna Šošić-Klindžić (University of Zagreb)
When crop issue gets you bigger picture

16:30 – 16:50 Igor Kulenović, Neda Ocelić Kulenović, Šime Vrkić (University of Zadar)
ProHeritage Project Archaeological Survey – Issues of Archaeological Research in Karst Areas

17:00 – 17:20 Katarina Gerometta, Robert Matijašić, Sara Popović, Davor Bulić, Katarina Šprem (Juraj Dobrila University of Pula), Gianbattista Marras, Giovanni Boschian (University of Pisa)
Surveying an eroded and wooded Mediterranean karst landscape – case study of Vrsar area

17:30 General discussion

19:00 Social dinner, *Alighieri*, Dante Square 3

International Mediterranean Survey Workshop



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SATURDAY 11 May

Session 3 Gearchaeological and paleoenvironmental survey

10:00 – 10:20 Ana Konestra (Institute of Archaeology, Zagreb), Fabian Welc (Cardinal Stefan Wyszyński University in Warsaw), Anita Dugonjić (Archaeological Museum in Zagreb), Paula Androić Gračanin

Adriatic island's ge archaeology: understanding changing landscapes through interdisciplinary methods. Island of Rab case study

10:30 – 10:50 Irina Kajtez, Jelena Martinović, Mihailo Radinović (University of Belgrade)
Implementing the optimal methodology for survey of potential Paleolithic occupations in caves and rockshelters, a case study of Svrlijski and Trgoviški Timok basins, Serbia

11:00 – 11:20 Mario Rempe (University of Goettingen)
Paleoenvironmental approaches in the chora of Kamarina

11:30 Tea/coffe break

Session 4 Archaeological prospection survey

11:50 – 12:10 Burkart Ullrich (Eastern Atlas–Geophysical Prospection, Berlin), Teresa Bürge (Austrian Academy of Sciences, Vienna), Margherita Carletti, Ronald Freibothe (Eastern Atlas–Geophysical Prospection, Berlin), Peter M. Fischer (University of Gothenburg)

Integration of geophysical surveys in archaeological research at Hala Sultan Tekke, Cyprus

12:20 – 12:40 Bartul Šiljeg, Hrvoje Kalafatić (Institute of Archaeology, Zagreb)
Sv. Juraj hillfort above Selca through air photography from 1968 to present

12:50 – 14:10 Lunch break: lunch at university campus, Preradovićeve 28b

Session 5 Inter- and multidisciplinary: future directions for Mediterranean survey

14:10 – 14:30 Michael Doneus (University of Vienna), Nives Doneus (Austrian Academy of Sciences), Christopher Sevara (University of Vienna)
Landscape changes and archaeological prospection

14:40 – 15:00 Ignasi Grau Mira, Julia Sarabia Bautista (University of Alicante)
Archaeological Survey in the Upper Vinalopó Valley (Eastern Spain). Strategies for the research of rural landscapes and communities

15:10 – 15:30 D. Burcu Erciyas (Middle East Technical University)
Revisiting some church sites around Komana

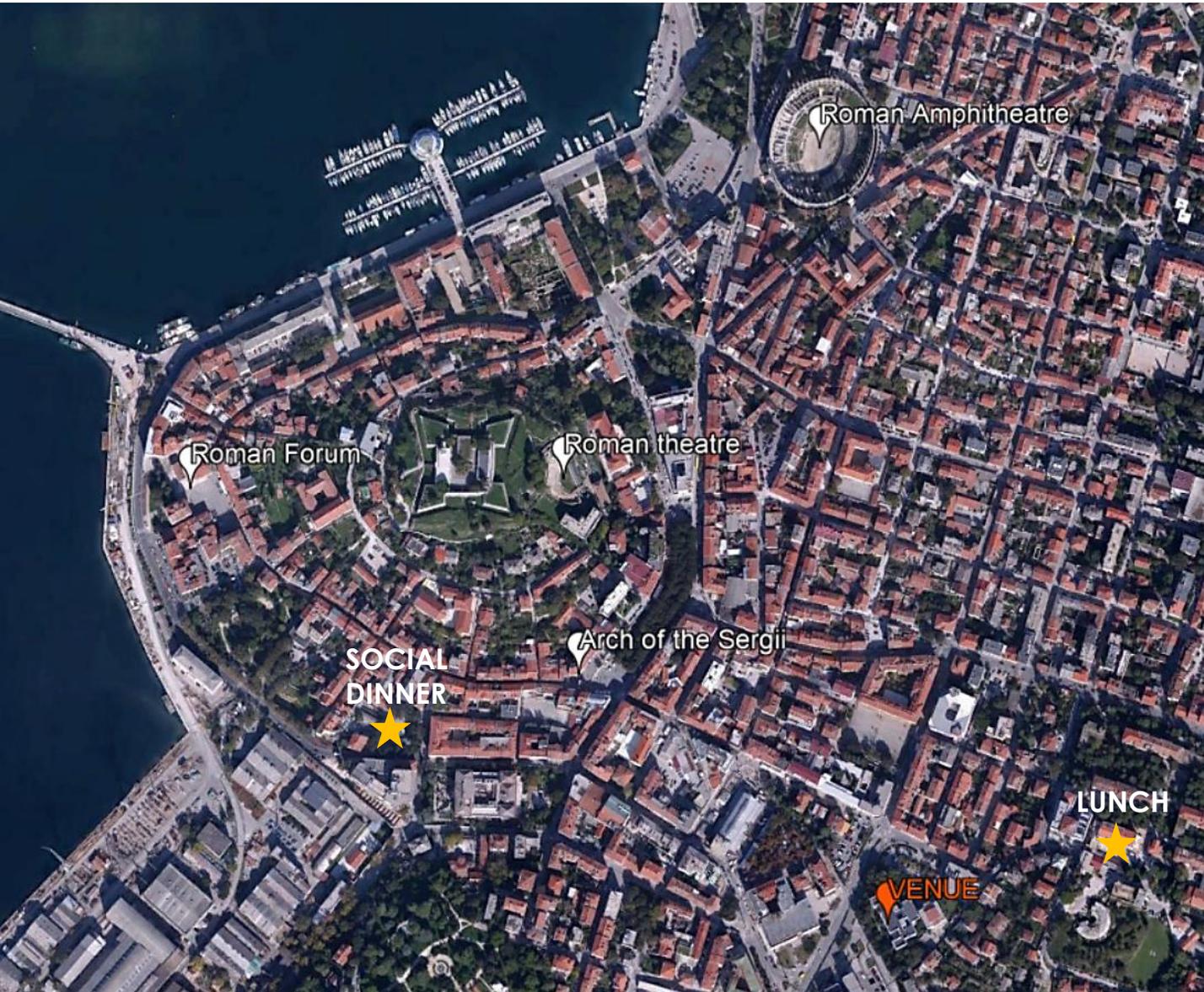
15:40 – 16:00 Jesús García Sánchez (University of Leiden/ CHAIA Evora), Devi Taelman (University of Ghent), Jitte Waagen (University of Amsterdam)
Field survey data representation and narrativity

16:10 – 16:30 Johannes Bergemann (University of Goettingen)
Archaeological Survey between nature and culture

16:40 Concluding discussion

Venue:

Juraj Dobrila University of Pula, Faculty of Humanities, Ivana Matetića Ronjgova 1, Pula



Field trip to Brijuni/Brioni islands:

Sunday, 12 May – bus is departing at 8:15h from Pula (meeting point in front of the Faculty of Humanities, I. M. Ronjgova 1 (boat from Fažana at 9:00)).

Session 1 Modelling settlement dynamics from survey data

Peter Atema, Remco Bronkhorst (University of Groningen)

The Roman afterlife of Archaic towns in Latium Vetus (Italy): the cases of Satricum and Crustumerium

Towards the end of the Archaic period, many towns seem to undergo profound changes in their development. Settlement areas are largely abandoned, as testified by a general decrease in terms of archaeological material and the results of field surveys suggest a movement of their inhabitants to the countryside.

However, there is substantial evidence that the former settlement areas were also frequented in later times. Although post-Archaic strata are often disturbed by agricultural works, post-Archaic material is frequently encountered in ploughsoil assemblages, both during recent intensive surveys as well as during earlier visits.

We will highlight two case studies. One is the city of Crustumerium that was abandoned around 500 BC; the other one Satricum, largely abandoned in the course of the fifth century BC.

Aside from the evidence from past intensive field surveys, we present an alternative for post-abandonment occupation of Archaic settlement areas. During the excavations of Satricum's acropolis, ploughsoils were excavated in a grid-like manner and documented in an accurate way, making it possible to perceive it as a survey assemblage.

Devi Taelman, Dimitri Van Limbergen, Vittoria Canciani, Frank Vermeulen (University of Ghent)

Trial and error in the diachronic modelling of rural settlement and population from field survey data. The Potenza Valley Survey as a case study

In an earlier paper presented at the Fields, Sherds and Scholars conference in Athens (2017), we offered a preliminary series of contemplations on how to translate recorded artefact scatters from archaeological field survey to diachronic settlement patterns. Focus points were the followed survey strategy (and how it impacts further interpretations), the use of diachronic data distribution methods, and the establishment of workable thresholds for discerning rural sites. The dataset for this exercise came from the Potenza Valley Survey Project, a multidisciplinary research project in central Adriatic Italy (along the river Potenza in central Marche) by Ghent University (2000-2019). Two years later – after a full reassessment of site characterization and pottery chronology, together with a refinement of our diachronic data distribution methods – we would like to share our insights on (1) how these developments in data and methodology affect our understanding of earlier settlement reconstructions for the Potenza Valley, and (2) how these insights help us in advancing our interpretations; and thus our understanding of the rural occupation in the valley of the river Potenza in the Roman period. In particular, we would like to focus on three core issues: (2.1) site definition, location and chronology, (2.2) settlement trends and dynamics, and (2.3) the extrapolation of population numbers from our modelled survey data, and the various biases and parameters that influence such demographic reconstructions.

Christine Spencer (Institute of Archaeology, University College London)

Modelling Bronze Age settlement dynamics from legacy survey data

The Mirabello region surveys provide the most detailed published documentation of settlement patterns for Prehistoric Crete. Analysis of these surveys using Monte Carlo simulation methods of logistic regression modelling defines, in terms of environmental characteristics, settlement preferences on the north coast of the isthmus area and their changes through the Bronze Age. In the vein of traditional predictive models in archaeology, settlement models produced from the analysis help formalise our understanding of how settlement systems were organised and how they relate to the wider environment. Building on these modelling methods, this paper explores inter- regional dynamics of Bronze Age Crete through a comparison of Mirabello settlement trends to settlement models built for the large arable Mesara plain on the south coast. In the Mesara region, the surveys were conducted earlier and were focused on placing the large urban centres that developed in the Bronze Age into their regional context, and the published information is more restricted in site level details (i.e. surface scatter extent, temporal attribution). The comparability of the different topographic regions and their survey datasets, and the modelling approaches proposed to help deal with uncertainties will be discussed. This will allow an exploration of potential intra- and inter-regional trends in sub-regions of different scales within the variable topography of south and south-east Crete, and how they relate to wider economic and political processes across the island.

Rebecca Diana Klug (University of Goettingen)

Settlement dynamics in rural roman Sicily: the Agrigento-Hinterland-Survey in comparison to several roman landscapes in Sicily, Italy and Spain

The Agrigento-Hinterland-Survey was conducted from 2008 to 2013. The research area covers the territories of the modern communities Cianciana, Alessandria della Rocca, Bivona and Santo Stefano Quisquina, in total 274 km². 100 spots with roman ceramics were detected. Beside some villae rusticae, in this area, we have located several farmsteads of different scale. In parts, the villae rusticae and the farmsteads are close together, especially the smaller farmsteads. Therefore, it is necessary to analyse the relationship between these sites to understand the settlement pattern and the settlement dynamics. However, we should not forget to consider the vici. Several of these are located in the research area. In my paper, I will try to analyse the relationship and the dependencies between the vici, the villae and the farmstead to understand the use and therefore the settlement pattern of a rural area without a roman city as a centre. In the next step I will compare our results with the results of other Survey Projects in Sicily, Italy and Spain.

Session 2 Issues, problems, solutions?

Rajna Šošić-Klindžić (Faculty of Humanities and Social Sciences, University of Zagreb)

When crop issue gets you bigger picture

Every discipline is guided and constrained by its own discourse and methodology, as it is widely known, (but not always accepted and recognized) ever since from Thomas Kuhn and the Structure of the Scientific Revolutions. Development of technology changes methodology, but epistemological part of the research often comfortably rests, not rattled by the changes that are fundamental on the surface.

One of such examples is the idea of Neolithic settlements. Neolithic people living simple peasant life in a small helmets was dominant interpretation for the last 150 years. Evidence of complexity and evidence of large sites were often perceived as special and/or unique. In the last two decades new evidence emerged from various types of research: large scale infrastructural work revealed large area of settlements, availability of areal photographs showed much larger number of big sites than perviously thought. I will here present a preliminary results of a of site Gorjani Kremenjača where small scale excavation started in 2015 following small scale geomagnetic survey. It revealed Sopot culture settlement with a ditch of around 70 m in diameter. But only because of the unavailability of the site for the excavation in 2018 because of the crops planted did we get the idea of the actual size and the complexity of the settlement.

Igor Kulenović (Department of Tourism and Communication Sciences, University of Zadar), Neda Očelić Kulenović (Zadar), Šime Vrkić (Department of Tourism and Communication Sciences, University of Zadar)

ProHeritage Project Archaeological Survey – Issues of Archaeological Research in Karst Areas

The ProHeritage project was started in 2018 with the intention to develop methodologies and procedures for the classification of landscape character types. The problem of characterizing landscape is approached from a specifically archaeological angle. This means that our focus is material remains in the landscape and how they embody various practices. In order to achieve this, a careful and systematic documentation of all material remains in the landscape is required. Archaeological survey is deployed as one of the key methods in the landscape archaeology in order to evaluate data acquired using other methods. Karst is a specific archaeological environment where specific kinds of archaeological remains are preserved and they are preserved in a specific manner. Therefore, the problems we are facing include the identification of various archaeological remains as they are preserved in a karst environment and the development of proper survey and documentation techniques appropriate for the area we are working in. Here, we would like to present some of the findings of our survey project conducted in a hinterland area of northern Dalmatia.

Katarina Gerometta, Robert Matijašić, Sara Popović, Davor Bulić, Katarina Šprem (Centre for Interdisciplinary Research in Landscape Archaeology, Faculty of Humanities, Juraj Dobrila University of Pula), Gianbattista Marras (Department of Civilisations and Forms of Knowledge, University of Pisa), Giovanni Boschian (Department of Biology, University of Pisa)

Surveying an eroded and wooded Mediterranean karst landscape – case study of Vrsar area

The first field survey conducted by our team in the Vrsar-Orsera area (western Istria, Croatia) was carried out in 2015 as a part of the *Roman Age transformation and reuse of prehistoric hillforts in Istria* project. Since much of the studied area is covered by thick Mediterranean shrubbery and woods, we concentrated our first survey on ploughed fields. However, even if surface visibility was very high, only very few new sites were discovered. Several hills were also reviewed since prehistoric hilltop settlements and burial mounds, characteristic for the region, could be expected there.

In 2018 we undertook the first evaluation of airborne LiDAR data as part of a new project *ArchaeoCulTour – The Archaeological Landscape in a Sustainable Development of Cultural Tourism in the Municipality of Vrsar* which unveiled archaeological features previously hidden from reconnaissance by woodland cover. The results of the targeted field survey showed that the most intensive activity in the area took place during the Bronze Age and Roman period.

Recent fieldwork on agricultural fields, including soil augering and coring suggest that postdepositional processes (erosion and subsequent deposition) are an important factor in site discovery, and may influence our understanding of site location preferences of past societies and their use of the landscape.

Session 3 Geoarchaeological and paleoenvironmental survey

Ana Konestra (Institute of Archaeology, Zagreb), Fabian Welc (Cardinal Stefan Wyszyński University in Warsaw, Institute of Archaeology), Anita Dugonjić (Archaeological Museum in Zagreb), Paula Androić Gračanin

Adriatic island's geoarchaeology: understanding changing landscapes through interdisciplinary methods. Island of Rab case study

Since 2013, a team lead by the Institute of Archaeology in Zagreb has been conducting field reconnaissance on the Island of Rab with the aim of mapping archaeological sites and features relative to all periods, as a base for further analytical and methodological approaches. Since the onset of the project several difficulties related to the island's geology, modern land-use and aggressive urbanisation, had to be overcome in order to allow an island-wide approach. As classical field-walking has in most cases proven inadequate, several methods have allowed better site recognition and the gathering of not only archaeological, but also paleoenvironmental data. Subsequent campaigns of targeted multi-method geophysical surveys (GPR, magnetometry) and trial trenching were carried out to check the diverse collected data. These allowed us to determine the impact that natural and anthropogenic landscape modifications have on site's visibility and ultimately on the preservation of archaeological features.

In this contribution, a few case studies will be presented, showcasing the afore-mentioned problems and methods, while highlighting the benefits of an interdisciplinary approach to a highly modified island's landscape.

Irina Kajtez (Belgrade), Jelena Martinović (Knjaževac), Mihailo Radinović (Faculty of Philosophy, University of Belgrade)

Implementing the optimal methodology for survey of potential Paleolithic occupations in caves and rockshelters, a case study of Svrlijski and Trgoviški Timok basins, Serbia

Survey of potential cave sites and rockshelters requires a specific methodological approach since they represent distinctive geological features and sedimentary traps. Regarding the archaeological context, Palaeolithic deposits are almost exclusively preserved in them. The aim of this research is to implement and improve the methodology of cave survey applied to Sokobanja municipality, Eastern Serbia, and broaden the research to the adjacent territory, Svrlijski and Trgoviški Timok basins in Knjaževac municipality. The intensive surveys of Sokobanja were conducted in 2012 and 2013, with one of the authors, Kajtez, being a part of the research team and methodology development. Eastern Serbia is a region abundant in caves, and some of the key Central Balkan Palaeolithic sites are located in this area. Therefore, a selective approach to researching traces of Palaeolithic occupations is needed.

The starting point of cave survey is collecting the data from geological literature and topographic/geologic maps to obtain the information of the primary importance – location or coordinates, and, acquiring additional information if available. This data will be used for creating a starting spatial database. The next step is the application of GIS techniques to the obtained spatial data. For the purpose of this research, points from the database are plotted to the SRTM terrain model and overlapped with topographic maps and aerial imagery (high-res World Imagery). Having obtained such a model, it is possible to make the selection of caves potentially preferable for the survey, according to their accessibility, based on the criteria that includes: present-day relief and vegetation coverage, elevation and terrain slope.

Later on, the field research includes documenting caves, namely, obtaining precise GPS positions and their detailed description. The important aspect is providing a suitable, standardized and detailed form for documenting the caves on-field, which will enable having comparable data sets. The form used in previous research is further developed, with the focus on the information of the most value for this research, such as the presence/absence of undisturbed sediment in the cave, the existence of plateau in the front, size of cave/rock shelter - since the existence of archaeological material depends directly on these aspects. The other important factors include remoteness to the river's flow, exposure to the sun and precipitation, presence/absence and intensity of erosion and other geological processes.

Mario Rempe (University of Goettingen)

Paleoenvironmental approaches in the chora of Kamarina

Within the scope of the Kamarina survey we began to add paleoenvironmental perspectives to the surface survey in 2016. Kamarina is a well-studied ancient site, with detailed visions on the chora stemming from the Italian research in the city's surroundings and the new Göttingen survey. Augering and pollen analysis in the chora offered new insights and explanations for settlement dynamics and developments of sites.

Session 4 Archaeological prospection survey

Burkart Ullrich (Eastern Atlas–Geophysical Prospection, Berlin), Teresa Bürge (Institute for Oriental and European Archaeology, Austrian Academy of Sciences, Vienna), Margherita Carletti, Ronald Freiboth (Eastern Atlas–Geophysical Prospection, Berlin), Peter M. Fischer (Department of Historical Studies, University of Gothenburg)

Integration of geophysical surveys in archaeological research at Hala Sultan Tekke, Cyprus

Hala Sultan Tekke is a large Bronze Age city close to the famous homonymous mosque near Larnaca on the south coast of Cyprus. Previous research demonstrated that the city was occupied around 1600 BCE and flourished mainly in the later part of the Late Bronze Age during the 13th and 12th centuries BCE. Since 1971, excavations have been conducted by Swedish missions. Recent excavations at several city quarters as well as at the necropolis point to Hala Sultan Tekke as a major hub in the eastern Mediterranean with close connections to the Aegean, the Levant, Egypt, and possibly Anatolia.

Since the very beginning of the availability of geophysical survey technologies for archaeological prospecting, the latest field survey methods available have been used at this site. For example Ground Penetrating Radar (GPR) - newly becoming a standard technique in archaeological geophysics - was applied already in 1980 for the prospection within the ancient city. In this tradition recent geophysical surveys have been carried out between 2010 and 2018 focused on large scale magnetometer prospection and targeted GPR surveys at selected areas.

In the presentation we will introduce the latest available technology in archaeological geophysics. The geophysical data from Hala Sultan Tekke covering the entire city and adjacent areas as well as comparison of data achieved with different methods will be presented. The derived approach for the interpretation of geophysical data and the archaeological conclusions will be discussed in detail.

Bartul Šiljeg, Hrvoje Kalafatić (Institute of Archaeology, Zagreb)

Sv. Juraj hillfort above Selca through air photography from 1968 to present

The presentation aims to present archaeological analysis of vertical imagery, panchromatic, colour, near-infrared aerial photography and UAV images in northern part of Croatia coast in karst landscape.

Basis of research was comparative image study of digitalized vertical images originating earlier than 1968 and available since 2015 (produced by Military Geographical Institute, Belgrade), than 5 cyclic photogrammetric surveys made by Republic of Croatia State Geodetic Administration in the period from 1997 to 2017. First two surveys were made in panchromatic technique, the third in colour technique, on film slides 23x23 cm and in digital format, while the fourth and fifth survey are made in digital format covering colour and near infrared spectrum. Satellite imagery and Internet geographic services such as Google Earth, Bing maps, Croatian Internet geodetic (Geoportal.hr) and agricultural (Arkod.hr) map services were also extensively used in this research. Spatial analysis of aerial images was combined with Internet historical map and image sources such as mapire.eu, the First Military Survey (1763-1787) and the Second Military Survey (1806-1869). On this set of aerial images, we recognized ancient field division, prehistoric enclosure, hillforts, tumulus, roman and medieval fortification etc.

This paper also presents the result of the drone recordings of St. Juraj hillfort, where from the larger number of drone pictures 3D relief model and orthophoto view were made. Model has visible details of 5 cm. This provided enough data to analyze a detailed pattern of the structures inside settlement which enabled us to discuss early start of protourbanisation on this Bronze age and Iron age hillfort in North Adriatic karst.

Session 5 Inter- and multidisciplinary: future directions for Mediterranean survey

Michael Doneus (Institute of Prehistoric and Historical Archaeology, University of Vienna),
Nives Doneus (Austrian Archaeological Institute, Austrian Academy of Sciences),
Christopher Sevara (Institute of Prehistoric and Historical Archaeology, University of Vienna)

Landscape changes and archaeological prospection

Today's landscape is a result of uncounted traces of human occupation accumulated over several millennia. This means that large-scaled archaeological prospection approaches will result in a documentation of entire landscapes that include surviving traces from all periods of human occupation. During archaeological interpretation, it is therefore an important task to decipher the accumulated traces of land use and landscape changes in order to get a clearer picture of continuity and discontinuity and to understand the presence and absence of human traces through time. This includes understanding how subsequent land use may mask traces of activities from earlier periods. In our contribution, we will demonstrate two possibilities to address this issue: (1) by stratigraphic analysis of the documented human traces and (2) by using historical surface models to reconstruct earlier iterations of the landscape and to understand the influence that modern intensive agriculture can have on the information in the prospection data. Methodical implications of these approaches will be discussed during the presentation.

Ignasi Grau Mira, Julia Sarabia Bautista (University of Alicante)

Archaeological Survey in the Upper Vinalopó Valley (Eastern Spain). Strategies for the research of rural landscapes and communities

We present the recent fieldwork carried out in the Upper Vinalopó Valley during the 2018-2019 campaigns. This study is included in the archaeological research on landscape archaeology developed by the University of Alicante during the last years (2007-2019). The main objective of these investigations is the understanding the long-term landscape dynamics and the formation of rural areas in the eastern area of the Iberian Peninsula (present-day Alicante province). From the methodological perspective, this research is characterized for the intensive survey and the use of geospatial technologies, as GPS geolocalization, geophysics, LiDAR modelling and GIS integration. We use the high-resolution spatial and temporal data obtained to focus on peasant settlement patterns and the intensification of land-use during ancient times.

We are particularly interested on the interpretation and discussion the results of this survey. The area is characterized by the apparition during the Late Iron Age of dispersed settlement patterns and the presence of surrounding halos of dispersed scatters that we interpret as manured fields. We relate this spatial pattern to intensive agricultural land-use that fits well in the Small Householders Model proposed by R.M. Netting. Therefore it can contribute to the general discussion on the processes of intensified use of the landscape and the increasing human influence on the formation of anthropogenic landscapes in other Mediterranean regions.

D. Burcu Erciyas (Graduate Program in Settlement Archaeology, Middle East Technical University)

Revisiting some church sites around Komana

Extensive and partial intensive surveys were conducted at the Hellenistic sanctuary site of Komana in central Black Sea region in Turkey between 2004-2008. During the surveys a peculiar distribution of church sites during the middle Byzantine period was recognized. Excavations at Komana since 2009 confirmed dense settlement at and around the site during the middle Byzantine period. Following promising excavation results further surveys were planned to revisit the previously identified sites as well as to locate new ones. In 2018, one of these, in the immediate vicinity of Komana was systematically surveyed and geophysical prospection was done. At another site, some modern activity revealed new data. These new findings will be shared in this presentation with a special focus on surface representation in comparison to geophysics and excavation.

Jesús García Sánchez (University of Leiden/ CHAIA Evora), Devi Taelman (University of Ghent), Jitte Waagen (University of Amsterdam)

Field survey data representation and narrativity

On the last edition of the IMSW (Bintliff in Amsterdam 2018), on the EAA (García and Taelman in Barcelona 2018) and on the RAC/TRAC (Casarotto and García in Rome 2016) sessions, as well as in the archaeological literature (cf. Haciguzeller 2012), we face an increasing concern with cartographical representation of complex field survey datasets, the construction of historical narratives and the scientific processes in which these narratives are produced. The process of mapping survey datasets (from raw data to cartographical output of statistical analysis) should be understood as a heuristic tool that contributes to the exploration of spatial data, and eventually leads as part of an integrated analyses with other archaeological and historical data to the construction of narratives and interpretation of spatial phenomena in different spatial and time scales, which can be addressed both from a theoretical and a practical point of view. In this paper we will present diverse possibilities to explore field survey datasets from a range of projects with different regional, chronological or methodological characteristics (intensive regional surveys in the Potenza Valley Survey, and point sampling statistical analysis in Molise, Italy, intra-site and off-site surveys in Sasamón, Spain, and recent case studies from Portugal) to illustrate how these diverse types of surveys could be explored with traditional and new methods of data representation. In order to engage with ongoing discussion on large datasets containing data obtained through an increasingly wide range of methods, we will emphasize the inherent complexity of combining statistical analysis with data from ancillary techniques as GPR survey, LiDAR, geomorphological analysis.

Johannes Bergemann (University of Goettingen)

Archaeological Survey between nature and culture

Some survey projects place a strong emphasis on the cultural history, others on the natural environment. Both perspectives have their full justification, because culture in a specific way always develops in its respective natural space. Three surveys in Sicily, Gela, Camarina and Monti Sicani in the hinterland of Agrigento, due to their methodical comparability, offer an approach to interpret natural and cultural influences on the distribution of the archaeological findings. There are cultural aspects that clearly differentiate the settlements and ways of life in the territories of the Greek cities (Chora) from those in the indigenous hinterland.