

Remote sensing, Survey and Groundtruthing in the Crustumerium Project, Italy

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Abstract

In this paper I will reflect on patterns found in surface artefact distribution mapped at the protohistoric site of Crustumerium (Central Italy), its relation with historic land use at the site, and the way remote sensing and groundtruthing ultimately may help in understanding how these patterns have come about. I will present data from old and new surface surveys at Crustumerium and discuss these in relationship with the ongoing geophysical mapping taking place at the site. The results from the geophysics and of subsequent groundtruthing illustrate the complexity of the surface archaeological record of this protohistorical site while at the same time illustrating the potential of an integrated approach.

Studying Roman Cities in Asia Minor from afar: dealing with centuries years of disparate data and how modern remote sensing could help

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Abstract

In Asia Minor, there has been an interest for ancient cities for many centuries. What started as an interest from an antiquarian perspective, whereby travelers visited the places known through Xenophon, Homer, Virgil, Strabo etc., developed into archaeological and historical researches of cities, which is still ongoing and flourishing. For the Roman period, this is understandable, since Turkey presents a large area once under Roman rule which was rich in cities, as attested by Philostratus and Josephus famously (probably hyperbolically) numbering the cities of Asia as 500. In my research on the cities of Roman Asia Minor, part of the ERC project “Empire of 2000 Cities” (directed by prof. Luuk de Ligt and by prof. John Bintliff), I try to collect and analyze information available on these cities. Yet the state of research on

Roman cities in Asia Minor is rather mixed, with some cities being seriously studied for over a century, while others are unlocated or only superficially explored, with Karasis, a monumentalized (Hellenistic) site being ‘discovered’ only in 1994. Therefore, the data on Roman cities is disparate, with information stemming from historical sources (e.g. Pliny, Hierocles), numismatics, epigraphy, to reconnaissance surveys, full excavations and more recently geophysical prospection and remote sensing. Is it possible to characterize the Roman cities from these sources?

Several syntheses on Roman or ancient cities have appeared in the 20th century, with work by Arnold Jones, Thomas Broughton, Louis Robert, George Bean, Ekrem Akurgal dealing directly with the Roman period, whereas work by Hans von Aulock and the volumes of the *Tabula Imperii Byzantini* deal more indirectly with the Roman cities. Yet these works tend to focus on either historical or more archaeological aspects of cities (the TIB being the exception) and do not advance in spatial or quantitative analyses. This leads to many cities being localized and known through epigraphic and numismatic sources, but with very little evidence for the physical aspects of the city. Despite much progressive work (Pompeopolis, Comana Pontica, Sagalassos, Ephesos, Elaea etc.) currently being done in Asia Minor, this inevitably leads to a skewed picture of the cities, from which only broad patterns can be obtained.

This paper will, perhaps naively, propose that opportunities do exist to further complete the archaeological aspects of these cities, by employing geophysical and remote sensing prospection methods, which can raise these sometimes mere dots on the maps to analyzable and understandable cities. Some of these cities are currently overbuilt by their modern equivalents (e.g. Smyrna or Izmir), but many smaller cities located all over the Turkey are ripe for study. Even by employing ‘low brow’ remote sensing using Google Earth, basic information can be gathered on many of these places (presence and size of public buildings, relative size of the overall city etc.) And by analyzing these (sometimes problematic) data, our understanding on Roman cities and Asia Minor in general can be greatly increased.

Implications of the Sample Fraction statistic and the “missing loomweight syndrome” for the cultural biography of surface sites

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Abstract

The representivity of surface artefacts is a well-known problem but rarely leads to systematic study and procedures to parameterize this potential filtering of information. It comes to surveyors' awareness commonly when a certain category of object appears irregularly and counterintuitively. In the case of small rural domestic sites I immediately think of spindle whorls, loomweights, pithos/ dolia rims and domestic stone grinders. One simply, for example, does not normally find enough loomweights to create a loom, rather one or two or perhaps none; but clearly inadequate numbers are due to sampling, while absence can hardly count as proven. Since questions such as permanent or temporary use of sites is one of many hard issues for survey, such indicators matter a lot to our landscape reconstructions. Similar problems arise with the low presence or unpredictable absence of certain periods, which like Barker's small surface sites “go on and off like traffic lights”. This paper will try and explore the implications of these concerns for survey practice.

Modern landscapes vs ancient landscapes: policies and ethics of cultural heritage in a living world

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Abstract

Archaeology is not anymore a practice that can isolate itself from the living world. Excavators of archaeological sites are mostly seeking ways to turn their excavation places into archaeological parks and integrate the sites into the urban landscape for a sustainable conservation. However monumental buildings and other sort of tangible remains are vital for

convincing governmental institutions for such achievements. Yet it is still possible to make more visible the less attractive archaeological remains for a mediocre audience. This is a difficult task for archaeological survey projects as well, particularly for the regional ones. An archaeological survey that conducts intensive survey methods in a defined region in Mediterranean averagely documents 10-20 archaeological sites each season. Documenting an archaeological site is not the final deed of a project. The sites are categorized and some are chosen for expropriation, which may be conflicting with the dynamics of the region in various aspects. It is a two edged sword particularly at regions where the destruction potential of urbanization is high. Here I will discuss these issues on the basis of my own experience from the archaeological surveys that I have been conducting for the past nine years on Urla-Çeşme peninsula in İzmir. I will try to present a model for the sustainable conservation of archaeological landscape in a dynamic modern landscape and discuss the ethical and political issues related to the topic.

The Conflict Between the Archeological

Findings and the Regulations

Bilge Hürmüzlü, Süleyman Demirel University, Department of Archaeology (Turkey)

Abstract

The Isparta Archaeological Survey (IAS) project produced important information for the pottery production in Pisidia during the survey project in 2014 which was concentrated partly on the ancient cities of Seleuceia in Pisidia and Adada. In both cites a considerable amount of misfired pottery and pottery fragments have been identified. The variety of the pottery repertoire, which belongs to a wide chronological sequence from Hellenistic to Roman Period, is quite significant. However, collecting and studying of this finds was not possible because of a new regulation of Turkish Culture Ministry since 2013. According to this new regulation which we received just a month in advance before the survey season started, in 2013, surveys in Turkey were not allowed to collect any archaeological material from the field! Nevertheless the field work is always full of surprises and fortunately cannot be limited by regulations, which not fits in the survey methods. It is clear that these new findings are an

important source of information that will provide answers for the questions relating the pottery production in Pisidia during Hellenistic and Roman periods; therefore, it is a must to conduct a detailed examination. This contribution will try to discuss the difficulties and problems that the new regulation is causing in order to conduct a survey with scientific and acknowledged doctrine of surveys methods, and will try to offer resolutions.

Aquileia – a trading hub in the Northern Adriatic. Results of surveys in the western suburbium

Stefan Groh, Florian Schimmer, Austrian Archaeological Institute, Department of Studies of Central European Archaeology (Austria), Patrizia Donat.

Abstract

The Department of Studies of Central European Archaeology of the Austrian Archaeological Institute (ÖAI) conducted large-scale geophysical prospections in the western suburbium of Aquileia, based on a FWF-granted project, from 2011 to 2014. These activities were completed by core drillings and two field survey campaigns in 2013 and 2014. The surveys comprised both collecting surface finds and using metal detectors. Right next to the first survey zone a new harbor had been detected by geophysical research in 2011. The area of this survey (2.4 ha) extended along the so-called Canale Anfora, an artificial canal which linked the city, i.e. the western harbor, to the lagoon of Marano and the Adriatic Sea. The second survey campaign (3 ha) was conducted in the area of the late Roman circus in 2014, between the republican and the late Roman city walls.

As the core drillings have shown, the surface finds from the Canale Anfora-survey can be directly connected to the structures that became visible in the geophysical data (primary deposits). The circus area instead is marked by massive levelling layers, covering the structural remains, which makes the interpretation of the surface material more difficult (secondary deposits).

The presentation gives an overview of the survey results, core drillings, distribution patterns and the interpretation of selected find categories.

Şeref Höyük / Komama and Environs Project

R. Becks, B. A. Polat Becks

Abstract

A new archaeological survey project was begun in 2014 in southwestern Pisidia. The research area covers the plains and surrounding mountains between the modern towns of Bucak and Korkuteli. In the center of this fertile region lies the settlement Şeref Höyük, a mound that was occupied from the Late Chalcolithic through the Roman period. The prehistoric mound is one of the largest in the whole of Pisidia and neighboring regions, and is located at a strategic crossroad connecting to Pamphylia and Lycia. The aim of the new research project is to investigate the cultural history in a geographically defined area from the Paleolithic through the Late Antiquity. The multi-disciplinary research project uses both archaeological and geo-scientific methods in order to investigate and document all cultural remains and natural resources. Besides the development of the cultural history through time, the natural pre-conditions of this region, e.g. available resources, prevailing climate, which may have attracted humans to settle here, and vice versa the anthropogenic impact on the landscape and its changes in the course of time, are in the focus of this project. In this paper, some results of the first survey campaign will be also presented and discussed.

Recent surveys in Northern Pisidia

Fikret Özcan, Süleyman Demirel University, Department of Archaeology (Turkey)

Abstract

In the last two years, a new survey project was launched. Mainly little-known and little-studied settlements in the mountainous region of Northern Pisidia are pursued. These settlements were essentially of military character they were connected to each other in a distance of even more than 150 km. From the beginning of the late Hellenistic period settlements like Kapıkaya, Prostanna and Mallos become urban but could not quite unfold herein in imperial times. Apparently every ones territory was big enough for self-sufficiency

and so it was not abandoned until the beginning of Christianity. Even during crisis periods in early Christianity Kapıkaya and Mallos seem to have regained its former importance as area of retreat. In accordance with findings also the Karakuyu hill with the sanctuary of Men near Pisidian Antioch used to be a military stronghold.

The Case for Slow Survey: Place, politics and landscape archaeology in the region of Yalburt Yaylası

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Abstract

Archaeological survey projects in the Mediterranean basin and the Middle East have powerful methodologies in providing diachronic, long term histories of settlement and landscape while challenging tradition archaeological excavations that usually focus on large scale elite sites by re-orienting research instead towards a plethora of cultural landscape features from small towns to villages and hamlets, from rock cut monuments to farm houses, from dams and irrigation networks to roads and hollow ways. This allows a much more nuanced and democratic view of the past, a much more intimate connection to contemporary landscapes and its local communities, while inflicting far less scale of physical impact on archaeological heritage and therefore assuring a sustainable future for the past. Yalburt Yaylası Archaeological Landscape Research Project is a diachronic regional survey in central western Turkey, investigating a small region west of Konya. Since its first season in 2010, field techniques combined archaeological survey, geomorphological research and informal ethnographic interviews to understand the long term history of settlement in this little explored karstic landscape of highland pastures, river valleys, and lowland plains around the modern town Ilgın, west of Konya province. The project investigates specifically a unique borderland region of the Hittite Empire, and focuses on the imperial-local interactions concerning agricultural practice, settlement, and material culture. Methodologically, the project advocates a *slow*, place-oriented archaeology that does not isolate ancient (so-called *authentic*) landscapes from contemporary (supposedly *degenerate*) ones but emphasizes the connections, ruptures, and continuities between the ancient and modern landscapes. Using the results of the last five seasons of fieldwork, this paper will argue that place-based approaches in survey archaeology supported by geomorphological and ethnographic work are

fundamental to understand long term practices of land use and the production of indigenous knowledge about landscapes.

Archaeology of Vidourle valley (France): spatio-temporal analysis of settlements from the Iron Age to the High Middle Ages

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Abstract

From its source to the Mediterranean Sea, the Vidourle valley, 95 km long, meets the various landscapes of the low-Languedoc géo-system. Through its journey, the river runs across the Cévennes (a small chain of mountains), the karstic hills, the garrigue and the Camargue. This very rich natural environment is a perfect field for spatio-temporal analysis of settlements from the Iron Age to the High Middle Ages. Occupied since millenaries, this valley is of great archaeological wealth and allow us to question the behavior of man towards a river, through his travels and his way to develop the land, but also provides some answers on the roles of streams in this development. Based on many already advanced archaeological works (excavations, surveys, geomorphological analysis), this study was completed by new fieldworks in the upper valley of the river, expanding our knowledge of the settlement and helping us to provide a database of 832 archeological sites on which this analysis is based. Combining archeology, history and geography, along with the use of well known methods of studies (G.I.S, statistics, etc.), this research highlights the desire to offer a review of the issue of dynamics in valley of Vidourle. The broad chronological framework strengthens this desire and gives a more complete picture of the history of human occupation.

The Survey of Pre-Pottery Neolithic Period in Urfa Region

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Abstract

In the present study, the Neolithic Period settlements at Tektek Mountains located within the provincial borders of Şanlıurfa province central district. The properties of all settlements pertaining to the Pre-Pottery Neolithic period are unearthed and significant findings are encountered as regards the domestic architecture of that era. In some of these settlements that arranged in the north-south direction “T” shaped pillars within cult buildings are founded. Screening method by village to village was applied for determination of the settlements. The shepherds and hunters were quite helpful during these researches. Besides, satellite photos and topographical maps were used. Thus, as a result of surveys conducted in 2013 and 2014, many settlements have been discovered for the first time.

Paleolithic Surveys in Turkey: Past, Present and Future

Berkay Dinçer, İstanbul University, Department of Prehistory (Turkey)

Abstract

Turkey is one of the least researched countries for the Paleolithic archaeology. The reason of this might be the history of archaeological research in the country. Most of the known Paleolithic sites had been discovered between 1940 and 1960's. The main research method in these years must have been done by going to the villages by cars and asking the villagers if they know any caves. The researchers' main motivation was to cover the whole Turkey and to discover as much Paleolithic sites as possible. After this period, the number of researchers and newly discovered sites had been decreased.

In the last two decades, the number of newly discovered sites started to increase again. In this period, researchers begin to conduct walking surveys, focusing on micro areas. These surveys cover smaller areas than the earliest researches. This approach increases the number of discovered sites however it results in geographical gaps. The examples of this are the surveys of Göllüdağ and surveys in the northwestern Anatolia (Bursa, Kütahya, Eskişehir provinces).

The future of the Paleolithic surveys in Turkey depends on the past and present methods: the former covering large areas but lacks detail and the latter with high detail but missing the big picture.

Pros and Cons of New Survey Projects with the New Survey Regulations: The KEYAR Survey Project

Çiğdem Maner, Koç University (Turkey)

Abstract

The Konya Ereğli Survey project (KEYAR) started as a five year project in 2013. The aim is to conduct a systematic survey of the southeast corner of Konya and to locate and investigate the Bronze and Iron Age settlements. This area, which comprises the province towns of Ereğli, Halkapınar, Karapınar and Emirgazi has only been partially systematically surveyed. This talk will present the survey results of the last two seasons and will also discuss the pros and cons of a survey conducted with the new regulations, that pottery and fragmentary small finds cannot be collected and stored.

Mediterranean Fieldsurvey, a Guide to Good Practice, proposals for a joint review article

**Peter Attema, University of Groningen (The Netherlands), John Bintliff, University of
edinburgh (Scotland), Martijn van Leusen, University of Groningen (The Netherlands)**

Abstract

Since 2000, landscape archaeologists from the universities of Amsterdam, Gent, Groningen, Leiden and Leuven working on survey projects in the Mediterranean have gathered at least two times a year to discuss methodological issues in workshops that attracted landscape archaeologists from a range of European countries. On the basis of the empirical work presented at those occasions and the ensuing

methodological discussions, the initiative was taken to write a paper on the status quo of Mediterranean Survey containing the outline of what we may term 'good practice'. The proposed publication wants to strike a balance between the strengths and limitations of survey methods, to provide guidelines for minimum standards in Mediterranean survey and to clarify from the authors' joint experiences the potential of various approaches towards the study of the archaeological surface record in the Mediterranean. In this contribution an update is given.