Umut Almaç, **Structural conservation of historic buildings and monuments: methodology and recent advances in technology**

Turkey has a vast and diverse cultural heritage in the form of historic buildings and monuments as well as archaeological sites and remains. However, due to the high seismicity of the region, historic sites and buildings have suffered from numerous earthquakes. Apart from the seismic activity, structures have also been affected by fires and alterations in their long history; furthermore, most of them have damages caused by ageing and direct exposure to natural weathering. Under these circumstances, the protection of cultural heritage, which is the concern of all humankind, becomes crucial to keep them intact as much as possible for future generations.

Conservation of historic constructions and sites requires a multidisciplinary approach. A civil or structural engineer involved in this field has the task to study and assess the structure in order to ensure its safety. The approach of a civil engineer that employs a collection of qualitative and quantitative data to understand and estimate the behaviour of the structure has not changed much in the last 50 years. The methodological steps: anamnesis, diagnosis, therapy and control are still valid. However, recent technological advances in different fields provide enormous and continuous data stream, which significantly contribute to detailed studies within the above-mentioned steps.

From the architectural and structural point of view, each historic construction is a unique case of its own. This is due to the variation in the building typology, construction techniques and materials, location, function, damages, etc. For this reason, in terms of conservation, there is no fixed recipe applicable to all kinds of built heritage. The type and extent of structural remedies must be developed individually for each case. Therefore, the civil engineer should follow the methodological steps for each historic asset and develop proposals valid only for that particular case.

In this presentation/paper, some case studies of the Late Antique-Middle Ages will be presented to underline the basic steps of the methodology and the contribution of recent technological advances in the field of conservation. Some problems involved in the evaluation and intervention phases of historic constructions will be also pronounced to give broad information on the subject.

Özgü Çömezoğlu Uzbek, **An Overview to the Distribution and Trade of the Ceramics During the Late Middle Ages Around Aegean and Mediterranean**

Aegean and Mediterranean have been a convenient environment for certain ceramic types to spread by commercial activities. This mobility, which goes back prior to the Byzantine period, was also active in the early and middle Byzantine era. Especially from the second half of the 12th century on, new styles appeared within the glazed ceramic types and spread around the area.

Some pottery workshops of this period have produced their own motive and composition styles. Some others have kept the common ornament habits of the period, while displaying their own characteristics in technique and form. Moreover, certain types produced around the Aegean area were distributed largely in this period, while the Latins were active in trade.

In this study, we aim to observe the distribution of these styles at Mediterranean, Aegean and Constantinople during the late middle ages. This observation will be based on findings of the excavations at Damatris Palace in Istanbul, Adramytteion in northern Aegean, and Myra in Lycia. Especially the types as Aegean Wares, Zeuksippos family, Glazed White Ware IV, and products from Cyprus after the 12th century will be considered primarily. The locations of production centres will be pointed out for comments.

Displaying the distribution of these wares will help us understand the relationship between the production centers and the trade routes.

Zeliha Demirel Gökalp, **Amorium Excavations, 2013-2017**

The first works in Amorium were started by Professor Doctor R. Martin Harrison in 1987 with surface analysis. "Amorium Excavation Project" was maintained by Dr. Chris Lightfoot between 1993 and 2009. Amorium excavation works in 2013 maintained under the Scientific Advisory of Associate Professor Zeliha Demirel Gökalp from Anadolu University and under the Presidency of Afyonkarahisar Museum and approval of
Turkish Republic Ministry of Culture and Tourism. As of 2014, excavation works have been maintained by the Anadolu University Lecturer Assoc. Prof. Dr. Zeliha Demirel Gökalp with cabinet decree.

The city of Amorium has witnessed settlement uninterruptedly since 2000 BC to date. The city is examined in two parts: "Lower City and Upper City". "The Lower City and Upper City" are surrounded by a wall fortified with large number of towers and cover an area of approximately 80 hectares.

Amorium is an important medieval city which was well-preserved except a small village built in the middle of the city during the Ottoman period and natural hazards (earthquakes, floods, etc.), and only a small part of the city has seen excavations to date. The total area in the excavation works between 1988 and 2009 and 2013 and 2016 was not more than 1 hectare. Hence, the excavations in the medieval city of Amorium have been conducted within the context of the unanswered questions/problems regarding urbanisation such as the connection of the city with city gates, roads, and public, religious and civilian structures and population, production/consumption. Archaeological fieldwork has also brought documentation along. While the Harris Matrix System is used for easy monitoring of the medieval layers, the advanced technologies utilised in the domain of archaeological documentation in the city include remote detection, geographical information systems, topographic photogrammetry, laser scanning, global positioning system, and georadar.

The priority objective of the Amorium Excavations is to examine the residence in the city between the Roman and Ottoman periods. In this paper, Late Roman, Byzantium and Ottoman period findings that shed light on the history of the city in archaeological excavation carried out between 2013 and 2017 and support previous works will be submitted by evaluating their layers.

Şehrigül Erdek Yeşil, Latest Approaches In Conservation of Mosaics In Turkey

Archaeological sites with mosaics in Turkey have attracted much attention of the media, public and the national authorities in the last two decades. Thanks to this unusual interest, funding opportunities designated for mosaic preservation became relatively more available which initiated numerous in situ mosaic conservation projects. In the meantime increasing number of projects have led to a positive approach and instead of preserving mosaic by lifting and moving them to the museum, their preservation in original architectural context has been considered as an alternative that would make them a touristic attraction to the sites as well. Although the increased interest in conserving mosaic seems positive, recent experiences also indicate that some poorly planned and rather instant conservation projects accelerate the deterioration of the mosaics and cause extensive damage. As a result, it has been observed that, when the conservation projects are not well planned, it ends up with an unsuccessful attempt to preserve the mosaics.

This paper attempts to discuss the latest approaches developed in order to minimize adverse effects of conservation procedures on mosaics and presents recent studies aiming a well-planned conservation, maintenance and display programme which has been carried out on the Late Antique and Early Byzantine period mosaic pavements in the ancient sites of Perge, Perinthos and Rhodiapolis.

Seçkin Evcim, 3D Laser Scanning and Modelling Studies in Olympos

The ancient city of Olympos is an important Lycian settlement which has been documented and introduced with the archaeological works carried out in recent years. Urban structure and buildings of the city, which most of them belongs to the Early Byzantine period, in well preserved condition and perceptible situation at the present time. However, dense vegetation makes it difficult to identify and sightseeing of the buildings.

3D laser scanning technology has been used in Olympos studies since 2006, in order to obtain detailed technical drawings and to be able to evaluate on three dimensional images separated from plant cover. Because of fast results and high accuracy, the use of this technology is very convenient and widespread in cultural heritage and archaeological surveying for the documentation, archiving and modelling of structures.

Another digital study area that has become widespread especially in recent years in understanding and explaining archaeological structures is 3D modelling. Models help us to understand the mechanisms to test hypotheses we construct. They also show how historical buildings and settlements actually look. The fact that Olympos is under dense vegetation has led us to trying to make digital models it to be presented to curious ones.

In our presentation, we will describe the process of 3D laser scanning and digital modelling studies carried out in the scope of Olympos Excavations and show samples from these studies.
Sotiris Fotakidis, *The excavation finds of the works of dismantling the remnants of voivode Hadji Ali Haseki’s residence in Hadrian’s Library, Athens*

The paper aims to present an excavation that took place at the archaeological site of Hadrian’s Library, in the historic centre of Athens. This particular excavation was directly integrated into the program of the protection, preservation and showing of Hadrian’s Library, which joined the Unification of Archaeological Sites of Athens Project. The findings of the excavation will be presented, dating from the Roman till the recent years and illuminating aspects of the history of this city. Finally, information will be given on the project of the Unification of the Archaeological Sites of Athens, which helped create a new image of the Greek capital city.

Michalis Kappas, *From Desolation to Restoration: The Case of Andromonastiro in Messenia*

Andromonastiro, one of the most impressive monastic foundations in the Peloponnese, is located in a protected fertile valley a few kilometres SW of ancient Messene. Built on a partially artificial west to east sloping terrace, the fortress-like complex comprises buildings of various periods and functions with an irregular ground plan. Dedicated to the Transfiguration the katholikon (main church) rises in the southeast over a natural spring of drinking water. To the north, a row of buildings comprises the refectory and adjacent tower, the bakery, and a two-storey multi-purpose building, through which one enters the monastery by means of a vaulted passage. To the west is another two-storey wing with storerooms, stables, and a wine press on the ground floor, as well as monks’ cells and the synodikon (reception hall) on the first floor. A three-storey tower, which once housed the monastery’s hegoumeneion (abbot’s quarters), rises at the west wing’s south end. The monastery was completely abandoned and left to decay during the last many decades which deteriorated its state of preservation. The refectory and adjacent tower presented severe static problems and were about to collapse. In the katholikon, the wall paintings were almost entirely covered with plaster, as were the interiors of the chapels, narthex, exonarthex, and parts of the exterior’s original cloisonné masonry. Implemented by the Ephorate of Antiquities of Messenia, the monastery’s restoration programme included two projects of a total budget of 1.900.000 Euros that was funded by the European Community. Restoration works started on May 2011 and were completed on June 2016.

Gökçen Kurtuluş Öztaşkın, *Excavation Works In Olympos (Lycia)*

The first scientific exploration was the rescue excavations conducted by the Antalya Museum in 1991-1992. Surveys were started in 2000 by a team from Anadolu University in order to document the present condition of the city and its extant archaeological remains. Excavations started in 2006 still continue. It’s known that the Olympos Ancient city was established in the Hellenistic Era. According to the existing remains, the urban areas had spread on both sides of the valley in the Roman Imperial Period. The urban texture of Byzantine Olympos, formed by an intense construction program, based largely on the Roman texture that took place in the 5th and 6th centuries AD.

The most significant change embodied by the Byzantine Period is the expansion of the living areas. When distribution of the structures is taken into account, the new buildings on the slopes and the secular dwellings on the necropolis areas were constructed. Also eight churches were located in the city. The excavations conducted no data from the post-7th century, apart from a limited number of coins, suggest that the area had no urban settlements after this century. The most striking feature observed at Olympos is that clearly distinguishable conversion of the urban texture from Roman to Early Byzantine period.

Stavros Mamaloukos, *Restoration Projects and Research on History of Byzantine Architecture in Greece*

It is generally accepted that every study and consequently, every project of conservation of a monument should be based on its comprehension not only as a structure but also as an historical event as well, as much as this may be possible. Moreover, as the conservation projects constitute unique opportunities in the study of the history and architecture of the monuments, the scientific exploitation of elements that results through the process of the work should aim on such studies and projects, beyond the proper conservation of the structures itself. Aim of the following paper is: 1st. The presentation of older interventions on Byzantine monuments in Greece and the process in the interventions in such monuments today and 2nd. a sampling presentation of the research on History of Byzantine architecture, realized in Greece during the last decades with the occasion of conservation studies and projects.
Nicholas Melvani, *Mapping texts, images, and monuments with digital technology*

The field of Digital Humanities covers a wide range of methods and applications related to diverse areas of the humanities, from textual analysis to image processing and from archival documentation to geographical visualization. The Institute of Historical Research of the National Hellenic Research Foundation has implemented various digital humanities tools in several directions, thanks to its close collaboration with the National Documentation Centre, thus advancing Byzantine studies into the 21st century. For example, the Institute has launched a series of databases cataloguing Byzantine and post-Byzantine archival documents and manuscript codices preserved in the libraries of Mount Athos and Patmos. In 2014 and 2015 a multi-layered project dealing with the concept of Networks based on GIS technology included a geographical data system mapping the dependencies of the monasteries of Mount Athos throughout the eastern Mediterranean. The commitment to offer all this material in Open Access mode is one of the basic principles underlying all these projects carried out at the Institute. This experience has shown that sustainability, adaptability, and reliability for future reference, as well as the continuous demand for high standards of scholarly quality, are the main challenges faced by Byzantine archaeologists and art historians using new technologies. The shared geographical space and the strong affinities between the archaeological material preserved in Greece and Turkey are key factors in forming joint projects on the digital platform.


Philippi stands amongst the principal archaeological sites in Northern Greece and arguably the most significant in eastern Macedonia. The first excavations at Philippi took place at the beginning of the 20th century, while the University of Thessaloniki began excavating in 1958 and with small intermissions continues until today. Pelekanidis excavated the area east of the Forum, which revealed the glorious building complex of the Octagon, the bathhouse and a large building complex to the east, originally identified as the Episkopeion. From 1988 and up to the present day, a large portion east of the Octagon and the so called Episkopeion has been unearthed. In this area, excavation has exposed part of the city’s residential core. In the meantime, the ongoing study of Philippi material conducted by the University team in the last five years (2012-2016)- has enabled us to re-evaluate excavation data and to put forward new proposals and interpretations.

In this presentation, therefore, we will discuss data that promote new “readings” of the city’s history and people especially during the transitional period (mid-7th – 9th centuries), focusing on certain case studies of buildings and their uses, as well as on small finds.

In this way, we will consider the challenges and the potential that the study of an old excavation material may yield, under the scrutiny of modern research approaches and in pursue of questions that the original excavators did not have.


The present communication attempts to outline an overview of the consolidation and restoration projects of Byzantine, World Heritage, Monuments in Thessaloniki, implemented, either by the former 9th Ephorate of Byzantine Antiquities or the new Ephorate of Antiquities of Thessaloniki, during the last two decades (1997-2017). The presentation focuses (a) on the various, either natural or anthropogenic, damage hazards documented on monuments of different type and character, (b) the operational problems and difficulties encountered during consolidation and restoration projects, financed by the 2nd and 3rd Community Support Frameworks (1994-1999 and 2000-2006) and the National Strategic Reference Framework (2007-2013), (c) different approaches introduced in the consolidation and restoration projects of Byzantine monuments of Thessaloniki during the last two decades (1997-2017) —in contradistinction to restoration works implemented during the first period after the 1978— and (d) the efforts made in order the newly restored monuments to be sustainably preserved, participating dynamically in the cultural, either religious or secular life, of the city.

Even though the presentation will focus mainly on two case studies, the consolidation and restoration of the emblematic Acheiropoietos basilica, that seems to form a palimpsest of Thessaloniki from the Late Antiquity until the modern times, and the restoration of the seldom Byzantine Bath at the Upper City —both World Heritage Monuments, restored by interdisciplinary teams with the personal involvement of the writer—, several experiences gained during other consolidation, restoration, conservation and maintenance projects, as those implemented at the Rotunda, the katholikon of the Latomou monastery (Hosios David church), and the atrium of the Hamza Bey mosque, will also be reported.
Konstantinos Roussos, *Reconstructing the Settled Landscape of the Cyclades during the Late Antique and Early Byzantine centuries*

During recent decades, the study of island environments is being increasingly recognized as one of the most promising areas of research, forming the broad field of “island studies”. The concept of “insularity” became a key idea in the theoretical and methodological approaches to islands. Additionally, the establishment of landscape archaeology as both an archaeological technique, and a theoretical construct affect our understanding of the past societies and contribute to a shift in the older dominant historiographical perceptions. Island landscapes are approached as spaces of cultural products which reflect the evidence of a dynamic process of human-environmental interaction and contribute to the recognition and interpretation of the material culture and settlement patterning of different periods of time. In this respect, the development of island and landscape archaeology in Greece offered new perspectives and interpretative tools for Late Antique and Byzantine Archaeology providing the basis upon which the insular communities of the Aegean can be studied and interpreted.

Despite the fact that research has made important steps in studying the insular societies of the Aegean until recently the increasing volume of data regarding Late Antiquity and the Byzantine Early Middle Ages (4th – early 9th c.) from the Cyclades remained without interpretation on the basis of the conceptual and methodological models of island and landscape archaeology. The aim of this paper is to offer a fresh approach to the history and archaeology of the Cyclades under the light of current archaeological investigations, setting a new framework for the discussion and examination of the material culture dated between the 4th and the mid-9th c. It is an attempt to identify and interpret human-environmental interaction in order to “read” the relationship between islands, settlements, monuments, communication networks, cultural groups, landscapes and seascapes in the context of the diverse and highly interactive Eastern Mediterranean world.

Ayça Tiryaki, *Emergency Archaeology: TAY Project*

The cultural heritage of Turkey has rapidly been destroyed. A quite a number of these sites have been the victims of destruction or illicit diggings. Unfortunately, in most cases it is not possible to trace what was destroyed or lost as there are no accurate and complete inventories of these archaeological sites. The most important task for now against the vanishing of Turkey’s cultural heritage is to urgently complete the inventory of every kind of cultural heritage in Turkey. TAY (The Archaeological Settlements of Turkey) Project is working on a chronological inventory of all the archaeological sites in Anatolia and Thrace documented by surveys or excavations for 24 years.

The project that has started in 1993, is being conducted, independent from of any institution, by a team of archaeologists and art historians. The archaeological settlements and monuments belonging to the period between Palaeolithic to the end of Early Bronze Age and Byzantine Period are being documented one by one by these specialists.

One of the most important and necessary components of the project is TAY Expedition (TAYEx). All regions of Anatolia and Thrace were surveyed systematically by a team of specialists. The objective of this component of the project was to verify the data in the literature against the field realities, actual measurements and assessment of the state of the sites and to prepare a guide for further monitoring and conservation of these sites. On this paper, the inventories of Byzantine architectural remains in the TAY Project (Marmara Region and Central Anatolia Region) are going to be presented. In addition, the data collected in the field and the problems encountered in this research will be discussed.

Christina Tsigonaki, *The Excavation of the Akropolis of Eleutherna*

This paper presents the excavation on the Akropolis of Eleutherna (Sector-II, Central), carried out under the auspices of the Department of History and Archaeology of the University of Crete. The Eleutherna excavation makes part of the undergraduate program of the Department, aiming at students training in excavation techniques. The systematic excavations of Sector II have focused, for the past thirty years, on the Central Plateau of the Pyrgi hill. The archaeological investigations revealed the public nature of the Central Plateau, directly relating to the political and religious functions of the city. An Archaic temple, a Roman public bathhouse and an imposing Christian church were brought to light during the excavations. These buildings seem to have constituted the major landmarks of Eleutherna’s akropolis during different phases of its history. What we consider as the crucial aspect of our research aspiration is to understand the dynamics inherent to the use of space by humans in the long term.
Tolga Uyar, *Settlement Archaeology and Field Surveying in rock-carved environment of Byzantine Cappadocia: Context, New Evidence and Some Questions*

My presentation deals with the conception and implantation of settlements in the rock-carved environment of Byzantine and Post Byzantine Cappadocia, interconnections between religious and secular, between human occupation and the landscape. I will present new – unpublished- evidence from my previous and current field surveys as well as from other ongoing projects in Cappadocia. My investigation will be based on the nuances and differences between the typologies of dwellings and settlements. By doing this I would like discuss various elements of the secular (agrarian, industrial facilities and means of security) and religious landscapes (burials, cemeteries, painted churches and holly springs), along with different epigraphic and material evidence such as pottery findings. I would like to address also specific issues related to reuse and re-appropriation of the rock-carved sites within a long durée perspective.

Selda Uygun Yazıcı, *Field Survey on Early Christianity Baptisteries (4-6th Century) In Anatolia: Examples for Cilicia, Pamphylia And Lycia Regions*

This study discusses questions, issues and conclusions encountered during surface survey performed within the framework of PhD thesis. The aim of this study is to identify early Christianity baptisteries that were built in Anatolia, to document their current conditions, and to probe and evaluate these buildings within the scope of art history. In this framework, field surveys have been made in Cilicia, Pamphylia and Lycia Regions with permissions granted by the Ministry of Culture General Directorates of Monuments and Museums for two seasons in summer 2015 and 2016. The study is limited to seeing the buildings on the premises and documenting them by means of photography. The surveys on the premises are rather important in terms of assessment of the baptisteries’ current conditions and documentation of their restoration/destruction/change and etc. We specified the baptisteries through literature search before field survey. In addition, we identified and added to the literature a baptistry that was not mentioned in the literature. Updated architectural data of buildings in field surveys provide different results than literature search. In example, baptistery pools—which were considered as architectural elements in our study and enabled us to qualify indoor space as baptistery—, have not provided reliable data, as they were filled with soil or displaced and broken in our time. Furthermore, field surveys can be interrupted or cannot be conducted according to official procedure, if archaeological excavations, protection and restoration works are performed in the region of surface survey. The field survey’s challenges include old names of settlements in the region, outdated geographical information, difficult transportation conditions of route, dilapidation of buildings, human-caused and nature-caused destruction. There are 23 baptisteries in total in the said region. While architectural characteristics, material-technical qualities, regional similarities and differences of these buildings provided us important clues about early Christianity in Anatolia, it also enabled us to specify problems encountered during field surveys.

Keywords: Baptistery, Early Christianity, Cilicia, Pamphylia, Lycia.

Günder Varinlioğlu, *Byzantine Survey Archaeology in Turkey in the Context of the Boğsak Archaeological Survey (BOGA)*

Byzantine survey projects in Turkey often consist in reconnaissance explorations to record previously unknown or unstudied sites. Research goals range from the reconstruction of the historical geography, to the creation of an inventory of sites, and ultimately to the close study of a region, in which a site is singled out for excavation. As a result, survey archaeology is often conceived as a precursor to the big dig, and as such, as a methodology somewhat inferior to excavation. This perspective prevails in the Turkish legislation guiding archaeological projects, prepared by the General Directorate of Cultural Assets and Museums. Survey permits may be acquired by doctoral students and assistant professors, while excavation permits are reserved for associate professors and beyond. Furthermore, the aforementioned legislation imposes rules on the collection and treatment of surface material, the analysis of archaeological samples, and organization of the field crews, all of which inevitably affect the survey methodology and research agendas. In the context of Byzantine heritage—similar to other fields of study—monumental remains, such as well-preserved architecture, wall paintings and mosaics, and sites producing museum-quality artefacts are prioritized. The primacy of the object contributes to the challenges faced by archaeologists conducting diachronic, extensive and intensive landscape surveys. Despite these challenges, a rising number of Byzantine scholars carry out both
regional and site-based survey projects across Turkey. Their publications in the past decade contributed significantly to the understanding of Byzantine habitation, land use, and rural landscape.

The Boğsak Archaeological Survey-BOGA, the case study of this paper, was launched in 2010 as a site-based, architectural survey of a late antique island settlement. Since 2014, it has gradually been transformed into a multi-disciplinary, diachronic landscape survey, which comprises extensive and intensive pedestrian survey, architectural documentation and study, maritime survey, archaeometric and geological research, and the characterization of historic landscape. This paper presents the short history and the preliminary results of this survey project. It discusses how the legislative, financial, and logistical challenges, as well as opportunities, have shaped the research agenda and engendered multi-disciplinary, multi-period, and international collaborations.

Athanasios K. Vionis, *Surveying the Byzantine/Medieval Countryside: Landscape Data and Methods*

Although there is a tendency on behalf of historians to overlook material culture as an additional means through which one can build up the ‘cultural history’ of a specific region, historical geography in the past, and landscape research in recent years, have finally been incorporated in the field of Byzantine Studies. Ever since landscape studies and spatial analysis (of both artefacts and sites) entered the field of New Archaeology more than forty years ago, archaeologists, historians, anthropologists, and geographers have been trying to explain through surface survey how and why complex settlement systems developed in the post-Roman landscape.

The ability of archaeological survey to identify, date, and interpret concentrations of surface potsherds in the Byzantine landscape has occasionally been challenged. It is true that many previous interpretations of post-antique settlement continuity and transformation are now unreliable as a result of the revision of ceramic chronologies. This paper considers and evaluates past and ongoing survey data and methods, and offers alternative ways for undertaking landscape research and examining archaeological evidence for settlement systems and land use in the Byzantine/Medieval Eastern Mediterranean.