

Middle East Technical University

**GRADUATE  
SEMINARS**

DEPARTMENT OF ARCHITECTURE

January 12<sup>th</sup> - 15<sup>th</sup>, 2016

KUBBEALTI

PANEL: Tuesday 09:00-12:20

09:00-09:20

**Volkan Polat** — The Effects of Total Quality Management Systems on the ERP Systems Implementation in Construction Industry

**Supervisor:** Ali Murat Tanyer

**Jury:** Turan Erman Erkan, Rıfat Sönmez

The construction industry has been faced with several problems of scheduling, budgeting, and specifications set by the employer and engineers. Therefore, proper utilization of resources is necessary for construction companies. Enterprise Resource Planning (ERP) system is one of the most efficient ways to solve these problems. However, because of the nature of construction, ERP systems have a tendency to fail in the sector. On the other hand, the usage of Total Quality Management (TQM) applications increases rapidly and this may contribute to the ERP systems application in construction businesses. This study aims to investigate TQM application in construction industry to find elements that can contribute ERP Systems usability and generate a road map for ERP applications.

09:20-09:40

**Mehmet Ali Gali** — Refurbishment and Retrofit: Issues on Application Rate

**Supervisor:** Koray Pekerçli

**Jury:** Ayşe Tavukçuoğlu, İpek Gürsel Dino

Buildings cause approximately 40% of world energy consumption. Refurbishment/Retrofitting of existing buildings offers a significant reduce to that consumption and greenhouse gas emissions. However, the analyzed literature and statistics show that the rate of refurbishment applications is lower than needed to reach future energy targets. So, the research focuses on the rate of refurbishment/retrofit applications in Turkey. The problems, measures and standards involved in building refurbishment/retrofitting are presented both for European Union (EU) and Turkey. The research also provides incentive models that can be adapted to building refurbishment to increase the rate.

09:40-10:00

**Burak İlhan** — Virtual Environments and their Potentials on Sustainable Trade Fair Design

**Supervisor:** Ali Murat Tanyer

**Jury:** Arzu Gönenç Sorguç, İpek Gürsel

Trade fairs are essential elements of economy. As many activities are being supported with their virtual counterparts, trade fairs also undergo such a transformation and by doing so, they reduce their organizing costs, material waste and become more available to public. The concept is getting more popular each day. This study aims to point out the parameters that should be integrated and extracted to create a realistic virtual fair. This is the research section of the study to determine the parameters for experiments, surveys and researches that are going to be performed in future sections.

10:00-10:20

**Elena İmani** — New generation of Islamic patterns in terms of Gestalt principles

**Supervisor:** Arzu Gönenç Sorguç

**Jury:** İpek Gürsel Dino, Agnes Van der Meij

The aim of this study is to propose a framework for Islamic pattern generation with principles of Gestalt theory. Within this respect, we will try to answer two main questions: i) Would it be possible to generate new geometric patterns by holding existing characteristics, with integration of gestalt principles? ii) Would it be possible to name the new generation of patterns based on gestalt principles, as Islamic patterns?

For achieving this goal, the proposed study will go through methodological framework within 3 steps: first, investigation on existing Islamic patterns as case studies and analyzing their characteristics by shape grammar methods. Second, generating new variation of Islamic patterns with application of gestalt principles, and finally a comparison between new set of generated patterns with the already existing ones.

10:20-10:40

**Şafak Sakçak** — A Guide to Assessing the Potential of a Building in Wind Power Harnessing

**Supervisor:** Ali Murat Tanyer

**Jury:** Oğuz Uzol, Arzu Gönenç Sorguç

The aim of the study is to develop a guide with visuals and descriptive texts, which is to be used for examining any building to have a grasp of its potential to be used as a host for wind energy conversion. It can be used as an estimation tool help clarifying preliminary decisions, without dealing with any kind of complex modeling, computation or simulation. To designate this assessment procedure; related architectural parameters and

wind flow characteristics are analyzed comparatively from literature. Selected parameters embedded in a software model and tested separately by simulations in terms of their effects on wind flows and put in a numerical scale.

10:40-11:00

**Yağmur Sünger** — Daylighting Systems: A Design Guideline Assessment for Tubular Light Guidance System Technologies

**Supervisor:** Soofia Tahira Elias-Özkan

**Jury:** Lale Özgenel, Berrin Zeytun Çakmaklı

At the present time, there are many daylighting systems used as energy efficient solutions for buildings, especially mono-component elements like light shelves or louvers and blinds are widely preferable. However, multi-component systems like tubular light guidance system technologies are evaluated as a whole by many research makers in the scientific field, causing uncertainty about selection between system's individual components for designers. This study aims to search about daylighting solutions for the projects which have the defect of daylight access within and fill the gap in the literature by assessing a design guideline specifically for tubular light guidance system technologies. In this context, fundamentals and advanced systems of daylighting in buildings are presented and a design guideline is proposed in the field of tubular light guidance systems.

11:00-11:20

**Murat Sayın** — Thermal Transmittance Estimation of Building Walls by In-Situ Quantitative Infrared Thermography

**Supervisor:** Ayşe Tavukçuoğlu

**Jury:** Levent Tosun, Arzu Gönenç Sorguç

There is necessity of measuring actual thermal performance of building walls and identification of thermal failure type in terms of measurable thermal parameters, such as thermal transmittance value and temperature index. Quantitative Infrared Thermography (QIRT) is a promising method in this regard. The main concern of the study is the determination of as-is thermal resistance performance for several non-insulated and insulated wall configurations only by in-situ QIRT measurements. The actual thermal transmittance performances of walls will be compared with the theoretically-calculated ones. The impact of as-is situation on actual energy efficiency performance will be assessed in terms of estimated annual energy consumption.

**11:20-11:40**

**Murat Salçıgil** — Mapping and Analyzing the Performance of Doing Architectural Design

**Supervisor:** Arzu Gönenç Sorguç

**Jury:** Ali Murat Tanyer, Koray Pekerçli

There is an enthusiastic shift in AECO culture for utilizing digital technologies. Concepts of computational design and building information modeling (BIM) provide new perspectives for the generation and utilization of data. Ever developing array of data-intense digital tools enabled architects to approach design challenges from multiple directions. On the other hand, managing the architectural design process itself is becoming a daunting task due to the increased complexity, variability and the sheer quantity of the data. Conventional methods are lacking the capabilities for capturing and analyzing the invaluable data relevant to the design process. This research attempts to instrumentalizing computational design for monitoring and cataloging design process, and for extending the performance analysis capabilities of BIM model.

**11:40-12:00**

**Serkan Ülgen** — A New Active Control Application for Environmental Noise

**Supervisor:** Arzu Gönenç Sorguç

**Jury:** Ayşe Tavukçuoğlu, Koray Pekerçli

Today's modern tools offering higher computation power, greater ability of collecting precise data for real time audio processing, drastically increased the application possibilities of the theoretical background developed so far on Active Noise Control (ANC) -an old concept in literature- to new product designs. Developing urban and industrial areas, growing motorway, airway and railway networks are important indicators, which shows that in near future, noise would pose problems to be solved in living spaces. ANC application proposed within this study, results in a system to be applied to open spaces to control the environmental noise and decrease its negative effects on human health.

**12:00-12:20**

**Fatih Küçüksubaşı** — Autonomous Inspection of Buildings via Micro Aerial Vehicles (MAVs)

**Supervisor:** Arzu Gönenç Sorguç

**Jury:** Ayşe Tavukçuoğlu, Koray Pekerçli

Inspection of buildings throughout their lifecycle is a worldwide issue of the moment as the number of structures expeditiously increase. However, it is not easy to perform inspection in terms of physical accessibility and complexity of the inspected area. Another major problem is to carry out the inspection missions without risking the inspectors' life while working in such

environments. In this study, it is aimed to achieve autonomous/semi-autonomous navigation of a micro aerial vehicle to be able to perform visual building inspection in order to detect macro defects such as structural cracks.

# January 13<sup>th</sup>, 2016 Wednesday

## AH504 PROTHESIS SEMINAR

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Coordinator: Namık Erkal

### PANEL: Wednesday 11:00-12:00

**11:00-11:30**

**Nihan Avcı** — (Trans)formation in Urban Characteristics of Yüksel Street

**Supervisor:** Elvan Altan

**Jury:** Namık Erkal, Neşe Gurallar

The main concern of this study is to understand the socio-spatial transformation of the new city center via the analysis of an urban street in Ankara. For this purpose, Yüksel Street, which was planned as part of a low density housing area close to Atatürk Boulevard in 1930s, will be analyzed with reference to its transformation between the 1950 and the 1990s. Corresponding to the spatial transformation of the area, the changed identity of the public space on the one hand and social relations on the other during the specified time period constitute the frame of the analysis in that will discuss the experiences and practices of the daily life and operating forces behind them with reference to the emergence of a public space. This will give the opportunity to understand the transformation of a street into a public space or public production as a social artifact, which manipulated and was manipulated by various social actors as well as the dominant culture. In other words, in the study, it will be discussed how a public space with its commercial, and cultural roles, developed in parallel to the social context of the city, by its users, functions and of course spatial formations.

**11:30-12:00**

**Yavuz Ömer Akmil** — Late Ottoman Administrative Buildings in Ankara

**Supervisor:** Elvan Altan

**Jury:** Namık Erkal, Neşe Gurallar

This research examines the built environment as physical evidences of reformist actions, which began to occur in the 19<sup>th</sup> century and continued until the downfall of the Ottoman Empire. Reformist actions materialised on various fields including architecture, which represented and provided the spaces of the reformist attitude. Within this framework, this research will concentrate on architectural production in general and handle its outputs through the designated period mentioned above. Ankara has been chosen as the research field to examine the late Ottoman administrative buildings in the city in order to discuss contemporary reformist attitude's relation with architectural production.

PANEL: Thursday 8:45-15:00

8:45-9:30

**Tuğba Özer** — Architecture as a Space Being Experienced by Multi-Senses

**Supervisor:** Mualla Erkişçi

**Jury:** Adnan Barlas, Ela Alanyalı Aral

Considered as one of the fine arts, architecture has been perceived by its appearance rather than being experienced as a whole. It has been degraded into visual instead of being experienced as a space. Indeed, architecture can provide more than visual experience. This study, mostly inspired by the book "The Eyes of the Skin: Architecture and the Senses", aims to voice criticism towards ocularcentric architecture and to suggest an understanding of multi-sensory architecture. The contribution between aural and visual senses is investigated in order to provide a space which is experienced as a whole.

09:30-10:00

**Çenk Çeşmeli** — On Landscape Urbanism: The Shift of Architectural Strategies

**Supervisor:** Funda Baş Bütüner

**Jury:** Ela Alanyalı Aral, Güven Arif Sargın

The aim of this research is to analyze the contemporary urban phenomenon, Landscape Urbanism, in practice and literature in order to establish the theoretical and practical grounds and reveal the strategies for an integrated practice of architecture and landscape offering interactive linked systems which will regenerate the urban environment. In order to clarify the topic, the origins of Landscape Urbanism will be traced back to the critiques of disciplines led by architecture in practice and theory for their inability to produce a livable public realm. The details of outdated dichotomies between architecture and landscape will be analyzed in order to reveal the roots of disciplinary realignment in contemporary city making. Then over these theoretical and practical bases Landscape Urbanism will be approached from different perspectives to grasp the whole relevant content. Finally following this theoretical elaboration, various relevant projects will be analyzed in order to explore and reveal the shifting architectural strategies in the scope of Landscape Urbanism. These strategies will be grouped accordingly and supported with related projects' arguments, drawings, diagrams, etc.

10:00-10:30

**Öncü Özalp** — Poetics and Politics of Gecekondu

**Supervisor:** Güven Arif Sargın

**Jury:** Ayşen Savaş, Bilge İmamoğlu

Throughout years, the consequences of pronouncing gecekondu as a form of settlement, having disruptive impact on cities, overshadowed what could have been learned from this peculiar architecture. In this respect, what a nation could learn from its own experience and how this process could operate become fundamental questions; while the former question is more about its political and social aspects, the latter one rather tells us through which agencies remembrance of gecekondu could happen. As a result, this research is about to highlight our scholarly background on gecekondu in respect to the role of political actors and such regulative forces behind them; secondly this is to discuss how gecekondu in 'architectural terms' could best be defined and described as a 'mnemonic device', with an intention to create 'gecekondu as a spatial device of storytelling.

10:30-11:00

**Murat Aydınoğlu** — The Transformation of the Identity of Atatürk Forest Farm

**Supervisor:** Elvan Altan

**Co-Supervisor:** Ali Cengizkan

**Jury:** Bilge İmamoğlu, Cânâ Bilsel

Ankara, the capital city of Turkey, was created as a product of the newly established Republic and its ideologies. Under the guidance of the city planning organizations, Mustafa Kemal Atatürk founded the Atatürk Forest Farm in May, 25, 1925. The main goal of the farm was to create a green recreational area for the use of the public as one of the modernity projects of the new Republic. With the construction of the new presidential complex, the perception of the publicness of the state farm has acquired a new political meaning. Considering the reciprocal transformation of the urban spatial patterns of Ankara and the Atatürk Forest Farm, the aim of this study is to analyze the reasons that lie behind the transformation of the farm's identity from its establishment to present day as evaluated from the perspective of administrative, economic and political aspects.

11:00-11:30

**Gülnur Güler Kavas** — Patterns of Association in Housing Experiments in Eryaman, Ankara

**Supervisor:** Aydan Balamir

**Jury:** Ali Cengizkan, Cânâ Bilsel

This study aims to discuss the relationship between physical structure of housing and social communication. By focusing on Housing Development Administration (TOKİ) experiments in Eryaman 3rd Stage in Ankara and based on the discussion initiated by Alison and Peter Smithson, "patterns of association" in the housing "clusters" with different "pedestrian circulation networks" designed by Ahmet Gülgönen and Tuncay Çavdar will be examined. In this respect, the study will try to compare these two layouts in terms of "association" on different levels and scales (individual and neighborhood) by conducting in-depth interviews with particular user groups who have experienced the outdoor spaces of these clusters.

11:30-12:00

**Deniz Kesici** — Constructing a Basis for Memorial Design: Ankara Train Station

**Supervisor:** Cânâ Bilsel

**Jury:** Esin Boyacıoğlu, İnci Basa, Neşe Gurallar

The recent social events such as Gezi manifestations and terrorist bombings have given rise to a search for alternative means of conceptualizing collective memory and the role of memorials that are meant to keep collective memories alive. In this study, they are going to be examined in urban context. A number of examples will be analysed and critically evaluated. And finally as a case study, Ankara Train Station as the site of a future memorial is going to be inquired based on findings from theoretical framework and examples. This research focuses on memorials by looking at them as social and spatial practices by a part of the dynamics of collective memory. In this regard, it is intended to generate a basis for memorial design that support the collective memory through putting forward a relational dialogue between everyday practices and the built environment.

**12:00-12:30**

**Hamide Rıhtım** — Changing Public and Private Relationships in Dwelling Architecture

**Supervisor:** Candaş Bilisel

**Jury:** Aydan Balamir, İnci Basa

This study aims to comprehend the multi-layered relationship between public space and private space, its transformation and implications on architecture and urban design. Public and private cover different grounds of everyday life, from the privacy of houses to the publicity of streets and neighborhood. Socio-cultural, economic and political factors which triggered the shift in the statuses of public and private have had impacts in both architectural and urban design at a variety of scales. The thesis will investigate housing architecture with its position in creating private, public and in-between spaces in the context of disputed space relationships.

**13:30-14:00**

**Mehmet Zafer Akay** — A Scrupulous and Silent Rationalist: The Architect Ayhan Tayman

**Supervisor:** Ayşen Savaş

**Jury:** Aydan Balamir, Elvan Altan

Ayhan Tayman, studied architecture in the second half of the 1940's in the Istanbul Technical University and worked as an assistant of Paul Bonatz who dominated the architectural scene of the country as well as educational approach of the school. He participated extensively in architectural competitions in the 1950s, working with different partners including Enver Tokay. In the 1960's he was oriented towards a totally different field, constructing his own housing designs, working as a contractor-investor mainly on a flat for land basis. He archived his drawings carefully creating an important accumulation of professional documents from the 1960's and 1970's.

**14:00-14:30**

**Yasemin Dehghan** — An Analysis of Libeskind's Buildings: Breaking with the Classical, Modern and Postmodern Languages

**Supervisor:** Aydan Balamir

**Jury:** Ayşen Savaş, Celal Abdi Güzer

The aim of this thesis is to make a formal analysis on Daniel Libeskind's buildings, in order to identify the prominent features of his architectural language. Three books on the Classical, Modern and Post-Modern languages of architecture (by Summerson, Zevi and Jencks, respectively) are helpful in providing a method for identifying principles, rules or 'antirules' of a codified language. Libeskind himself states that there are "seventeen words of architectural

inspiration" that underlie his vision for architecture. Matching those seventeen words with formal traits in his buildings, the codes of his language can be outlined and compared to those of the forgoing languages.

**14:30-15:00**

**Banu Deniz** — The Significance of Material Selection in Architectural Design

**Supervisor:** Celal Abdi Güzer

**Jury:** Aydan Balamir, Mustafa Haluk Zelef

This thesis aims to comprehend the major role of material selection in the architectural design process in which it affects design decisions because of their properties related with other architectural elements especially as the building form. Beside their constitutive functions, materials could be considered as the expressions of architects in terms of their ideals throughout the architectural history. Hence, with the case studies, the duties of the material assigned both by the architect and by material's own physical nature will be examined and the assessment of the architect's considerations to select proper materials will be presented. The thesis investigates the importance of a detailed comprehension and studies of materials for the architects both in academic and professional realm.

PANEL: Friday 9:00-17:30

9:00-9:30

**Meltem Çetiner** — Accessibility for People with Disabilities in Archaeological Sites, A Proposal for Labraunda

**Supervisor:** Güliz Bilgin Altınöz  
**Co-Supervisor:** Mualla Erkiş

The main subject of the thesis is the accessibility in archaeological sites. Our country has an enormous and very valuable archaeological heritage, but all of them was designed ignoring disabled people, although we live in a country where % 13 of population consisting of disabled people. At the present time, even if architectural designs and several studies are done related with bring disabled people to daily life, these studies are inadequate. Because our laws are inadequate and ineffective, therefore we need a new strategy.

In this respect, the aim of the thesis to provide a concrete example conservation area, and to demonstrate accessibilities importance for cultural heritage conservation and management processes. And to develop a guideline for inaccessible archaeological sites via creating a route that can be used by all people, regardless of their disability or ability. The accessible route provides perception some of the key attractions of the site for a clearly defined space.

The thesis is structured mainly two parts. In the first part, existing projects and implemented cases as well international charters and conservation literature will be assessed. The second part of the thesis consist of the case study on Labraunda. The site survey will undertake to evaluate the place's accessibility thoroughly, identifying all barriers and issues to be resolved.

To conclude, accessibility for archaeological sites is an important solution, which should not only be considering the accessibility problems in archaeological sites but also as a tool for contributing to the conservation.

09:30-10:00

**Mercan Yavuzatmaca** — A Study on the Building Techniques and Materials in the Late Antique and Byzantine Fortifications in Anatolia: Ancyra and Nicaea

**Supervisor:** Ufuk Serin

This research aims to investigate building techniques and materials in the Late Antique and Byzantine fortifications of Anatolia through the selected case studies of Ancyra/Ankara and Nicaea/İznik. The majority of Late

Antique and Byzantine fortifications in Anatolia are distinguished by ashlar masonry, including quantities of spolia, with alternating rows of brick. That the use of brick, in combination with more-or-less regularly cut blocks or spolia, frequently appears in the buildings and fortifications of Anatolia from the Late Roman through to the Byzantine periods (particularly from the ninth century onwards) makes it difficult to offer a precise dating for these structures.

The citadel of Ankara, in terms of construction technique and materials, finds one of its closest parallels in the fortifications of İznik. The major modification of the walls of İznik, originally built in the third century AD, is attributed to Michael III or precisely to the year 858 by the inscriptions. The eighth and ninth century phases of the walls of İznik are characterized by a rich amount of *spolia* alternating with bands of brick. Similarly, the rebuilding of the inner circuit of Ankara, built of large blocks of spolia up to a height of eight-to-ten meters, and above this of alternating rows of brick and rubble stone, is attributed to the year 859. The rebuilding of the walls of both Ankara and İznik were included in a large-scale program of fortification by Michael III. A close examination of these two fortifications will help us understand the development of the variations of ashlar masonry and spolia, in combination with brick, and shed light on dating and restitution issues, assisting in determining appropriate conservation approaches, in other Late Antique and Byzantine fortifications in Anatolia.

10:00-10:30

**Merve Aslı Hatemoğlu** — Site Interpretation and Visitor Management at the Byzantine Settlement of Herakleia/Latmos (Caria)

**Supervisor:** Ufuk Serin

This research is based upon two fundamental premises: first, only an affective awareness and understanding of the past can help promote awareness of the need to protect cultural heritage. Second, Byzantium needs to be re-interpreted and represented as part of a common cultural history for the recognition of its values and better protection of its heritage.

Byzantine cultural heritage has long been neglected in Turkey for a number of ideological (of political, social, cultural, educational, and religious nature) and pragmatic factors. These factors have also affected 'archaeological objectivity' and determined the 'selection' or 'exclusion' of a

specific past. Regarding archaeological sites in particular, Late Antique and Byzantine remains have not always been recognized as important as the visually more attractive monuments of Antiquity.

This research thus aims to investigate issues relating to the interpretation and representation of Byzantine archaeological heritage and offer a 'best-practice' model for its valorization, preservation, and management. In this context, the ancient site of Herakleia at Latmos, including impressive monastic settlements of the Middle to Late Byzantine periods, located within a 'Natural Park' on Lake Bafa, is selected as a case study. This relatively well preserved Byzantine archaeological site is very significant since it reveals not only the characteristics of Byzantine monastic settlements, but also the architectural and spatial features and typical building techniques and materials of the Middle and Late Byzantine Ages. This research also intends to offer a site interpretation and visitor management plan for the better understanding and protection of the Byzantine settlement at Herakleia-Latmos within its natural environment.

10:30-11:00

**Onur Doğan** — A Study on the Geotechnical Aspects and Foundation Types of Ancient Greek and Roman Temples in Caria (Western Asia Minor) for Conservation Purposes

**Supervisor:** Ufuk Serin

**Co-Supervisor:** M. Emin Candansayar

The protection of cultural heritage is an interdisciplinary task. Geotechnics which is one of the main branches of civil engineering, is a discipline widely used in conservation and restoration of cultural heritage. There are many applications of geotechnical engineering to contribute to conservation issues. First of all, a study of the geotechnical aspects of a cultural heritage can give a substantial contribution to the knowledge of the monuments and their history. Furthermore, geotechnical analyses, when taken within a broader, inter-disciplinary context, in association with historical studies, enable us to identify the nature and characteristics of structural deterioration processes and to reduce the factors leading to such deterioration. The main aim of this study is to explore the relationship between the geotechnical conditions and foundation dimensions and materials of the Hellenistic-Roman buildings in a selected

region. Changes that can be identified in the typology of foundations, in association with local soil conditions and seismicity factors, can help understand the development of foundation technologies, and foundation structures themselves, throughout the history of architecture. In this study, soil characteristics and foundation dimensions of historic buildings will be investigated with non-invasive geophysical methods. This study also aims to identify the foundation typologies of historic buildings through structural analyses and to understand the structural behaviour of building foundations under vertical and dynamic loads. These methods play a significant role in understanding the factors leading to structural deterioration and provide us useful inputs for successive interventions in the conservation and rehabilitation of buildings and near site.

**11:00-11:30**

**Damla Erdem** — Archeological Sites and Overlapping Rural Settlements: A Reassessment of Threats and Potentials for the Integrated Conservation of Iasos-Kiyıkışlacık (Muğla)

**Supervisor:** Ufuk Serin

The relationship between archaeological sites and their immediate surroundings has long been debated, resulting in a shift of focus from the archeological remains alone to the physical and social environment in which they are located. In this context, emphasis has been placed on the understanding of problems and potentials of archaeological sites in urban areas; while the relationship between archaeological sites and rural settlements awaits further investigation.

In this context, Iasos-Kiyıkışlacık is a significant example, reflecting the close physical and socio-economic relationship between an archaeological site and a modern settlement. This intricate relationship inevitably creates both threats and potentials, affecting the conservation of the archaeological site and its setting. Kiyıkışlacık is located on the site of the Iasian necropolis, making use of some archeological remains (mainly chamber tombs). On the one hand, this overlapping location and reuse provides some sort of protection for the archaeological remains, while on the other, it causes significant problems in terms of the conservation, representation, and management of the archaeological site as a whole. In this case, private ownership of land within the designated archaeological site and the use of this area for cultivation is one of the main factors, hindering an effective conservation of the archaeological site. This study thus aims to analyze the threats and potentials generated by this intertwined relationship between overlapping settlements and to

propose a series of guidelines, with the particular benefit of comparative studies, for the integrated conservation of Iasos-Kiyıkışlacık within its physical and socio-economic environment.

**11:30-12:00**

**Merve Çolak** — A Study on the Architectural and Socio-Cultural Transformations and Their Impact on the Conservation of Dereköy, After the Population Exchange Between Turkey and Greece in 1923.

**Supervisor:** Ufuk Serin

Socio-cultural changes in a determined place and time inevitably lead to the transformation of the built environment. Population change through migrations is of the main factors resulting in such transformations. For instance, numerous settlements in western Anatolia were abandoned and lost their original social, cultural, and physical characteristics after the Population Exchange between Turkey and Greece (1923).

Gökçeada, the biggest island in Turkey, located to the northeast of the Aegean Sea, not far from the mainland Greece and the Dardanelles, had always been a focal point of migration throughout its history. Along with the physical and geographical factors, social transformations also shaped the settlements on Gökçeada. For instance, Dereköy, the largest and once one of the most colorful villages on the island, is now an abandoned place far from the centers of activity. The case of Dereköy reveals the social, cultural, and physical values of an Ottoman settlement and their transformation after the Population Exchange, and comes forward as one of the best examples for us to evaluate the impact of such transformations on the protection of the built environment.

This study thus aims to determine the effects of social, cultural, and physical transformations on the built environment and understand how these transformations can produce or develop values and potentials, or bring about new problems, effecting conservation processes on the selected case of Dereköy.

**12:00-12:30**

**Beril Binoğul**— Conservation of Rural Heritage, Example of Nevşehir, İbrahimpaşa Village

**Supervisor:** Neriman Şahin Güçhan

Rural settlements are formed in time, in accordance with the landform, climate, local materials and traditional living styles as representations of the relationship of man and nature. Due to the changes in lifestyle, urbanization, tourism and migration to the city centers, they are faced with the threat

of either being destroyed or losing their architectural characteristics. To prevent the occurrence of these formations, a legal framework is in use, which is shaped through various national and international regulations. As rural settlements are examples of varying interrelations dependent on the authentic lifestyle, traditional architecture and inhabitants, these general principles are not satisfactory and not adaptable for their conservation.

The aim of this thesis is the assessment and preservation of Nevşehir, İbrahimpaşa Village through a master plan, which is prepared without using the general tools provided for the conservation of urban settlements. In accordance with this propose, the study will cover the analysis of the region and the settlement, values and its conservation problems, which are caused by changing conditions and new demands by preparing an inventory of the buildings to be preserved, determining the architectural and structural features and causes and forms of deteriorations.

**13:30-14:00**

**Cansu Can** — Controlling Energy Efficiency of the Traditional Historic Building, Eğirdir House

**Supervisor:** Neriman Şahin Güçhan

'Function' is one of the most essential subject for continuity of structure. Especially for buildings having cultural value, continuity of being in use is a vital circumstance for sustainability of their life. So, in terms of conservation approach, they need adaptation by both responding recent conditions and taking precautions for future. 'How possible to get involved Sustainable Architectural Design in Conservation of Architectural Heritage?'; 'How Conservation & Sustainability work together in a common philosophy and practice which is mutually supportive?'; 'Is it possible to apply conservation project that result in energy efficient building by passive and active sustainable methods with eco-friendly products without undamaging identity of buildings?' are questions that address critical problems in this field of research.

Within this context, my aim is producing a study that responds these questions by working on the Eğirdir House which has lost its energy efficiency capacity in a certain extent. To achieve a consistent finding, the thesis is going to use these methods: Analyzing and understanding energy efficient behavior of the house in terms of, materials, structural systems and passive design methods like space organization, orientation etc. when it is in a good condition; Researches on materials and methods that have been performed on different projects; Determination of appropriate interventions for Eğirdir House.

The scope of this study will be comprised of evaluations of problems, potentials and solutions and a proposal on

controlling energy efficiency that is suggested for the specific case, Eğirdir House.

**14:00-14:30**

**Tolga İhan —** A Conservation Proposal for Bilgin House in Arhavi

**Supervisor:** Neriman Şahin Güçhan

Traditional Eastern Black Sea region house is a regional subgroup of Ottoman traditional house inventory. Traditional Eastern Black Sea region house differentiates from its counterparts as a response to regional conditions such as; climatic conditions, topography and availability of resources. They show unique qualities in terms of stone and wood workmanship and represent a regional architectural culture which is formed on a harsh topography and rich flora. However, despite their significance, these structures are in danger of destruction. Changing life styles, difficulties owing to harsh nature of rural area, and degree of knowledge required for maintenance of these buildings make the houses undesirable for people. This situation leads to the construction of inferior structures instead of revitalization of the cultural properties.

This study aims to resolve aforementioned problems for Bilgin House in Arhavi, Artvin; which is one of the buildings in similar condition. For this, a detailed description about the condition of the building will be analysed with the help of drawings, laser scans, photographs and visual data. Then, architectural qualities with special emphasis on construction technique and material characteristics and their decay will be defined together with a comparative study of the buildings in the context and finally a conservation proposal will be prepared. The conservation proposal will serve as an example for the structures in the same context and outcomes of this process will guide people for preservation of their own buildings.

**14:30-15:00**

**Gözde Yıldız —** Conservation Proposal for Ertem's Olive Oil Factory in Ayvalık

**Supervisor:** Neriman Şahin Güçhan

Olive industry is very crucial field till history of the Aegean Region. Therefore, there are factories which are abandoned, re-functioned or are still being used currently with today's technology. There are 128 traditional factories, 76 of them is registered and the others are idle in Aegean Region. Ayvalık comes to the forefront with its 22 traditional olive industrial buildings in integration with its unique natural features and special industrial pattern. However, most of them are abandoned or restored under poor conditions resulted from the developments in industrial technology, urban necessities and financial profits. This situation causes

danger of extinction for Ayvalık's olive industrial heritage which constitutes the identity of the town.

Accordingly, this thesis aims to develop a conservation proposal for Ertem's Factory which is an important example of the Ayvalık's industrial heritage. Ertem's Factory is selected due to being one of the early built factories dating back to 1910. Its special location and original architectural features that carry the traces of traditional production process makes it a significant example. For this purpose, this building will be documented, analyzed and understood by means of measured drawings in terms of architecture, construction system and technique of the building, materials and deteriorations; goods production cycle and its phases. This analyzed data will be comprehensively re-evaluated in the light of the literature surveys and comparisons with corresponding examples in Ayvalık and Aegean Region including Midilli. Consequently, a conservation proposal will be developed for Ertem's Factory that will guide the others which are similar at this geography.

**15:00-15:30**

**Aslı Özahi —** A Modular System Design for Historic Depots in Ayvalık Commercial Center

**Supervisor:** Neriman Şahin Güçhan

As being industrial heritage of Turkey, Ayvalık olive oil complexes, factories and depots, constitute great importance with respect to other cities in Turkey with their level of development in history. However, in most of the cases, those buildings usually face with some insensibly alterations, abandonment and because of neglect, some demolition. To prevent these problems, they need to be re-used with the contemporary needs and reversible interventions, while sustaining their values and cultural significance. Refurbishment process needs to sustain flexibility and so that, modular approach becomes an important issue while examining these historical industrial buildings. Therefore, thesis proposes a brief introduction which defines the problem, aim and continues with a review on re-use, refunctioning and refurbishment of historical industrial buildings. The concept of modularity is taken into consideration while focusing on flexibility of spaces as proposed method of design and conservation. After all, the case of single spaced depot buildings of Ayvalık will verbalized with its general characteristics and evaluated by their current functions and interventions. Lastly, proposed design concept and conservation criteria within the thesis will studied for all types of single spaced depot buildings and in conclusion part data gained from thesis study is evaluated.

**15:30-16:00**

**Shajeea Shuja —** Structural Analysis and Evaluation of the Lahore Museum

**Supervisor:** Neriman Şahin Güçhan

**Co-supervisor:** Uğurhan Akyüz

The aim of the study is to recommend structural measures to ensure the longevity of one of the most historically significant building of the Colonial Era in Lahore - The Lahore Museum. The study would include structural assessment of the Museum building, taking into account both the qualitative and quantitative approaches. Recommendations will be made keeping in mind "minimum intervention to the building" philosophy.

Lahore Museum designed by John Lockwood Kipling and Bhai Ram Singh was completed in 1893, with the Industrial Revolution in full swing. It clearly signifies its construction period by incorporating metal along with the more traditional materials like brick and timber. In the original design load bearing brick masonry walls along with metal columns have been used while the roofing system ranges from brick domes to beam and batten flat roofs in timber to metal trusses. Over the years the building has been subjected to many additions and alterations as well as constant repairs. These interventions have not been sympathetic to the original fabric and the building exhibits signs of physical deterioration and structural deformation.

The building will be documented in detail using laser scanner to accurately determine the building's patterns of erosion and deterioration. Analytical modeling technique will be used to study the structural behavior of the building and to examine stability performance of the building against seismic activities. This methodical approach will help inform the recommendations that will be made as part of this study for the conservation of the Lahore Museum building.

**16:00-16:30**

**Zeynep İlay Oruç —** Reassessing Conservation and Use of a Modern Heritage Building: METU Archeology Museum

**Supervisor:** Güliz Bilgin Altınöz

Conservation of modern heritage is a relatively new issue. Even though this issue has started to be thought seriously in the world, any actual development has not been seen in Turkey yet.

METU buildings, as very important examples of modern buildings of Turkey, are designed by Altuğ and Behruz Çinici as a result of a competition. However, nowadays, they started to lose their characteristics because of some unqualified interventions.

METU Archeology Museum, constructed in 1969, is one of these buildings. The Museum is known as the first university museum in Turkey. The location of the Museum building can

be interpreted as central. It is located at the beginning point of the arcade of main entrance of the Faculty of Architecture. There is an auditorium just near the building, hosting many social activities. However, how many people are aware of this museum? For which purpose was the building constructed and for the time being what is the building serving for?

The aim of this thesis is to determine the physical problems of the building, search reasons of being disregarded and make suggestion for the conservation of the building. For these purposes, physical and social surveys are planning to be done. For social survey, interviews will be arranged both with the staff of the Museum and the students. Within the scope of this thesis, the building will be evaluated together with alley and the buildings close to it which are the Auditorium of Architecture and the Faculty of Architecture.

**16:30-17:00**

**Melih Emre Acar** — A Critical Analysis on Revitalization of Prisons in Turkey

**Supervisor:** Güliz Bilgin Altınöz

This thesis aims to recognize architectural conservation as a political and cultural *–present centered–* process instead of merely a visual and spatial *–past centered–* product. In order to provide a convenient critical reading on conventional understanding of architectural conservation and the materiality of heritage with regard to the politics and commemoration; the study focuses on the revitalization process of dissonant heritages, particularly on revitalization of prisons in Turkey. In this respect, this study intends to analyse the heritagization and revitalization processes of prisons which hold mnemonic, cultural and political significance to understand the ways in which modern aspects of heritage conservation fail to strengthen the collective memory of communities or minorities.

**17:00-17:30**

**Sami Usman** — Conservation and Rehabilitation of the Lahore Museum: Formulating A Methodology for the Conservation of Late 19th - Early 20th Century British Buildings in Pakistan

**Supervisor:** Neriman Şahin Güçhan

This thesis aims to produce a restoration proposal for the Lahore Museum building (completed 1893), in Lahore, Pakistan forming part of the Victoria Jubilee Institute celebrating Queen Victoria's Golden Jubilee in 1887. It was designed by John Lockwood Kipling, director of the Museum, assisted by Bhai Ram Singh, both key figures in the development of Industrial Arts in the Punjab and its construction was overseen by Sir Ganga Ram, the Executive Engineer of Punjab.

This museum will serve as a representative sample for its contemporary buildings built by the Public Works Department with similar materials and their associated building technologies, during the British Raj since their takeover of the north western India which comprises present day Pakistan.

The building is built in the *indo-saracenic* style and incorporates a diverse array of structural systems in its construction such as loadbearing brick walls and cast iron columns supporting wooden beam-batten flat roofs, saw tooth trussed roofs in steel, brick domes as well as later additions in concrete. The study of the problems of weathering and deterioration will be instrumental in creating a template for the conservation of various similar building types.

The building has gone through constant repairs, additions and alterations without any comprehensive plan. Changes in environmental factors have also contributed to its deterioration. The building's state of disrepair is also becoming a hazard to the artifacts housed within it. This thesis will also provide a retrofitting scheme for modern museum security, environmental control, display and lighting systems to the building.