METU ARCH PROG GRADUATE SEMINARS

ARCH 504 Spring Semester 2024-25

ARCH 504

This is the official document prepared for the graduate seminar course of ARCH 504.

Spring 2025 Semester

Date of the Meeting: 17.06.2025
at Kubbealtı, Faculty of Architecture

Online Meeting Link:
https://teams.live.com/meet/933106614012?p=EKe1iKM90fXgFSaJgy

Meeting ID: 933 106 614 012
Passcode: j2m6dy

Course Instructor: Gizem Deniz Güneri Söğüt

10:00 – 10:20

A Neoliberal Spatial Instrument: Smart City Policies and Their Ideological Impacts on Architectural Education and Research in Turkey Since 2000
Elif Kara

10.20 – 10:40

Spatial Backdrops: Expanding Scenography in Exhibition Design
Nusret Atakan Harmancı

10:40 – 11:00

Beyond Storage: An Architectural Inquiry into Museum Depots
Beyza Nur Yağlı

11:00 – 11:20

Anthropogenic Landscapes: Sinkholes as Symbols of Shifting Grounds
Selen İlhan

11:20 – 11:40

Artificial Architectural Imaginations: A Critical Look at Diffusion AI's Role in Architecture
Bartu Lokumcu

11:40 – 12:00 **Assessing Energy Poverty and Household Vulnerability in the Built Environment**
Başak Elgin

12:00 – 12:20 **A Data-Driven Design Support Framework for Sustainability Transition in Educational Buildings**
Beste Eser Kantekin

10:00 – 10:20

A Neoliberal Spatial Instrument: Smart City Policies and Their Ideological Impacts on Architectural Education and Research in Turkey Since 2000

Elif Kara
Supervisor: Güven Arif Sargın
Jury Members: Olgu Çalışkan
Arzu Gönenç Sorguç

The growing impact of smart city regulations on architectural education and research in Turkey will be the focus of our study. It is believed that, although these policies are often promoted as neutral, technology-based solutions to contemporary urban challenges, such as traffic congestion, energy use, and disorganised growth, they are, in fact, deeply embedded in broader neoliberal restructuring processes. The study illustrates how state-led smart city objectives influence knowledge production in architectural education through their integration into academic institutions via various means.

Key public institutions — including the Council of Higher Education (YÖK), the Scientific and Technological Research Council of Turkey (TÜBİTAK), and the Ministry of Environment, Urbanisation, and Climate Change — play an active role in shaping research and curriculum through strategic funding programs, performance metrics, and priority areas. Consequently, while social engagement or justice-oriented approaches receive minimal institutional backing, architecture departments increasingly value data-driven, efficiency-oriented research. The study will use a qualitative research design. The research argues that smart city policies, rather than being purely technological, act as instruments of political and economic control. Such issues, therefore, raise important concerns about the autonomy of academic works and the narrowing of research agendas. The study aims to contribute to broader discussions about urban governance, neoliberalism, and the future of architecture education by offering a critical perspective on the intersection between ideologies and environmental studies.

keywords: Environmental Studies, Smart City, Ideology, Architectural Education and Research

10:20 – 10:40

Spatial Backdrops: Expanding Scenography in Exhibition Design

Nusret Atakan Harmancı
Supervisor: Ayşen Savaş
Jury Members: Haluk Zelef
Alişan Çırakoğlu

This ongoing research explores scenography beyond its theatrical origins, examining its role in shaping architectural formations across different contexts. Using the Tragic, Comic, and Satiric Scenes of Sebastiano Serlio (1475-1554) as a pretext, the study highlights their spatial frameworks shaped by perspectival representation, a mode that generates "spaces in relief." It traces the appearance of these scenes through Venetian paintings, where they act as spatial backdrops, opening new dialogues between art and architecture. From there, research extends to contemporary exhibition practices that interrogate the relationship between content and container.

In the context of recent developments in artificial intelligence, the fast-paced consumption of architectural visuals, and ongoing challenges in the construction sector, representation methods have become increasingly critical architectural tools. Exhibitions now serve as vital platforms for representing alternative social, political, and ecological narratives. Adopting a research-by-design methodology, this study proposes scenography as a tool for exhibition design, encompassing architectural drawings, façades, stage sets, vitrines, and display cases as forms of interdisciplinary exchange.

The study also considers scenography's metaphorical use in relation to the stage and the city, its dialogue with tectonics, and its resonance with the "Strada Novissima." It engages with debates around sciographia and perspective, offering a broader theoretical grounding. Highlighted examples such as Storefront for Art and Architecture in New York and Ka Space for Visual Culture & Artistic Thinking in Ankara reveal how urban vitrines can be reimagined within educational and narrative frameworks, transforming the city itself into a spatial backdrop.

keywords: Display, Representation, Architectural Drawing, Scene, Perspective

10:40 – 11:00

Beyond Storage: An Architectural Inquiry into Museum Depots

Beyza Nur Yağlı
Supervisor: Ayşen Savaş
Jury Members: Afşin Altaylı
Ayşegül Aydıngün

Along with the democratisation of museum institutions, storage spaces have undergone significant transformations with increasing efforts to make collections visible in line with institutional policies. In this context, once limited to technical roles of preservation and protection, museum depots are now being reconsidered for their spatial and narrative potentials. This ongoing research critically scrutinises the spatial and conceptual potentials of depots as narrative elements within contemporary museology. By exploring architectural alternatives that challenge traditional storage typologies, the study investigates the depot museum not only as a distinct typology that blurs the boundaries between storage and display but also critical lens for rethinking the role of storage in museology. Even though global discourse increasingly acknowledges the evolving role of museum storage, the architectural and curatorial dimension of depots in Turkey remains largely unexplored. The concept of a depot museum in Turkey has been restricted to a limited number of initiatives and has not yet been adequately addressed at a theoretical and practical level. In this context, drawing on international case studies and historical precedents of storage practices, and applying architectural analysis to selected examples from Turkey, this study aims to define the ideal components of the museum depot and explore new spatial strategies by contributing to the field of architectural discourse on museum depots.

keywords: Museology, Depots, Curatorial Practices, Depot Museum, Storage and display

11:00 – 11:20

Anthropogenic Landscapes: Sinkholes as Symbols of Shifting Grounds

Selen İlhan
Supervisor: Funda Baş Bütüner
Jury Members: Gizem Deniz Güneri Söğüt
Nesli Naz Aksu

The immense impact of human agency on the Earth, along with the accelerating force of environmental change, is causing transformations in various territories. The role of the Architect as the one who contributes to those alterations the most, has shifted. The epoch is now calling for architecture to engage with landscapes and to mediate between humans, soil, and more-than-human agencies. Anthropogenic Landscapes are areas that have been shaped or changed by human actions. One of the most important elements in these landscapes is soil where construction activities, mining zones, planetary urbanization, shift their characteristics. This study approaches soil as part of the Critical Zone, a thin layer of the Earth where life, land, and human activity all interact closely. Seeing sinkholes as part of this zone helps us understand them not just as surface problems, but as signs of deeper changes happening in the land.

Human-induced sinkholes as Anthropogenic Landscapes are investigated throughout the study while embracing mapping as a proactive tool. Sinkholes, as geomorphological forms occurring in karst plateaus, are both a result of and a contributing factor to the shifts on the ground. These elliptic collapses on the ground jeopardize urban and rural environments since they are abrupt and ambiguous in time, location, and scale. In this context, sinkholes can be discussed into two types: Human-Induced Sinkholes and Natural Sinkholes. Thus, by examining several sinkholes from Konya, Türkiye (Obruk Plateau) this research aims to map the shifting territories to highlight the subsequent operations on the ground.

keywords: Anthropogenic Landscape, Soil, Sinkhole, Shifting Ground, Critical Zone

11:20 – 11:40

Artificial Architectural Imaginations: A Critical Look at Diffusion AI's Role in Architecture

Bartu Lokumcu
Supervisor: Zeynep Mennan
Jury Members: Egemen Kızılcan
Duygu Tüntaş

This thesis critically investigates how diffusion AI models, such as Stable Diffusion and Flux, have influenced architectural design workflows. These tools blur the boundary between conceptual design and final visualisation and have started to be increasingly adopted in architectural practice, in addition to many other creative fields. The research aims to integrate theoretical analysis of diffusion models, from conceptual design to the production of various kinds of visualizations. Theoretically grounded in Guy Debord's Society of the Spectacle, it examines whether diffusion based AI workflows reinforce architecture's role as a spectacle -ignoring both material and social realities- or allow designers to develop more creative and interactive ways of design that produce valuable results.It plans contribute to the current literature with the critical investigation of some case studies for the rapidly evolving uses by asking the deeper questions about creativity, visual culture etc.

keywords: Diffusion Models, Generative AI, AI in Architecture, Creativity, Representation, Curatorship

11:40 – 12:00

Assessing Energy Poverty and Household Vulnerability in the Built Environment

Başak Elgin
Supervisor: İpek Gürsel Dino
Co-advisor: Günsu Merin Abbas
Jury Members: Gizem Deniz Güneri Söğüt
Ayşem Berrin Çakmaklı

Energy poverty is a growing concern globally, particularly for developing countries, which now extends beyond economic issues and starts to sprawl into spatial and environmental conditions that impact everyday life. This thesis will examine how the built environment, household structure, and changing climate parameters correlate with each other and how much they can be related to energy poverty in Ankara, Türkiye. While energy poverty is widely addressed in policy and academic discourses globally, most existing studies usually rely on income-based indicators or household energy expenditures, but they overlook the spatial, material, and climatic dimensions that contribute to energy deprivation. By creating a methodological framework that integrates socioeconomic data at the household level with building performance simulations assisted by current climate data and future climate projections, the study aims to fill this gap.

With the absence of official energy poverty recognition, climatic diversity, and a wide variety of housing stock, Türkiye is a context that needs to be studied from the perspective of energy poverty, especially in urban contexts with diverse housing stocks such as Ankara. A multidimensional energy poverty risk matrix will be designed, unique to Ankara's climatic and urban characteristics, to identify patterns of vulnerability across different segments of the city. This study will aim to contribute to a more robust and spatially focused understanding of energy poverty in Türkiye, not just to address urban policy issues but also to draw attention to the built environment.

keywords: Energy Poverty, Built Environment, Residential Vulnera* bility, Climate Change Adaptation

12:00 – 12:20

A Data-Driven Design Support Framework for Sustainability Transition in Educational Buildings

Beste Eser Kantekin

Supervisor: **İpek Gürsel Dino**

Jury Members: **Gizem Deniz Güneri Söğüt**

Ayşem Berrin Çakmaklı

Improving the environmental performance of educational buildings requires a comprehensive understanding of how building form, energy use, and climate-responsive retrofit strategies work together. School buildings, due to their high occupancy rates, regular usage patterns, and long-standing societal functions, present both significant opportunities and unique challenges for energy-focused renovation. Although these buildings play an essential role, much of the current research still focuses on isolated aspects, often addressing energy consumption alone without fully considering the combined effects of occupant behavior, physical characteristics, and local climate conditions. Limited access to accurate and up-to-date building data, particularly for older schools, adds further complexity to the development of effective retrofit strategies. To overcome these challenges, this study introduces a performance-based, climate-responsive decision-making framework designed to support the evaluation and prioritization of retrofit options for educational facilities. The research draws on multiple data sources, including institutional records, assumptions derived from literature, and simulation-based estimates, enabling comparative analysis across different building types and construction periods. The study compiles a broad dataset covering construction features, operational patterns, occupancy characteristics, climatic variables, and energy consumption data. The primary objective is to establish a framework that guides the selection and ranking of retrofit strategies by balancing potential energy savings, implementation feasibility, and climate resilience. By combining empirical data with design-informed evaluation methods, the study aims to contribute to the advancement of performance-based retrofit approaches for educational buildings.

keywords: Educational Buildings, Climate-Responsive Design, Design Tool, Performance-Based Renovation