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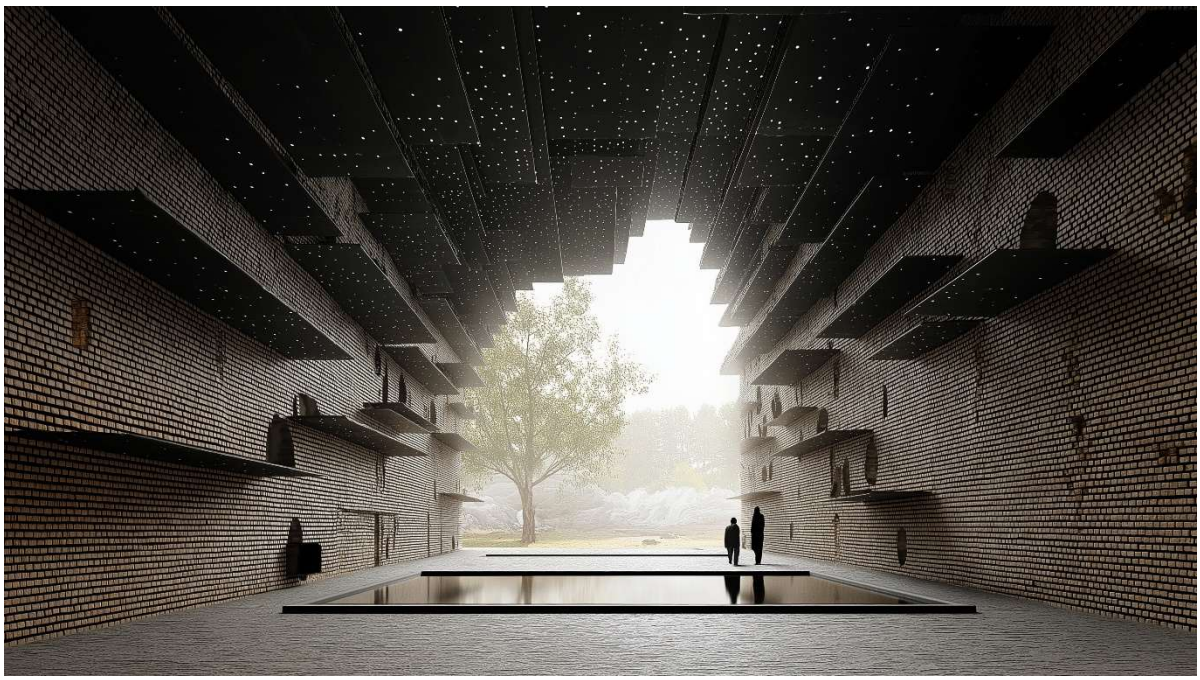
EM2 825188: >>Borderlessness: Architecture at the Fringe of Urban Heritage<<

UIBK Summer Semester 2026

Instructors: José Carlos López Cervantes/ Cynthia Sánchez Morales

Course meetings: Wednesdays 9:00 am



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Video presentation: https://youtu.be/8EUJR2St9LM

This video was created using artificial intelligence, based on the narration of a utopian near future of remote working in remote place.

Introduction

***Borderlessness defines a contemporary architectural condition in which the boundary between systems is no longer understood as a line, but as a gradient**. In the context of urban heritage, this condition challenges traditional notions of monument, preservation, and intervention.*

*The Alhambra of Granada is commonly perceived as a clearly delimited architectural object: enclosed by walls, protected by regulations, and separated from the city. However, when understood as a **spatial, environmental, and cultural system**, its limits become ambiguous. Water infrastructures extend beyond its walls, visual relationships traverse the valley of the Darro, and climatic, material, and spatial logics continue into the Albaicín.*

*This studio investigates **architecture at the fringe of urban heritage**, focusing on the **northern slope of the Alhambra**, where monument, topography,*

*river, and city intersect. Rather than proposing direct interventions on the monument, students will explore how architectural design can operate within **zones of transition**, where heritage dissolves into urban fabric through gradients of space, use, materiality, and geometry.*

*Artificial Intelligence will be used as a **critical analytical and generative tool**, enabling students to construct and train datasets that capture spatial logics from both the Alhambra and the Albaicín. Through diffusion-based models, the studio will explore how intermediate architectural conditions can emerge within the latent space between these two systems.*

*As part of the course, students will have the opportunity to participate in a **Blended Intensive Programme (BIP) in Granada,** developed in collaboration with partner universities. The BIP will focus on on-site analysis, collective workshops, and public presentations in direct relation to the Alhambra and its urban fringes. Participation in the BIP is optional, but strongly encouraged as an intensive complementary experience that expands the scope of the studio beyond the regular semester structure.*

Learning Outcome

Students will:

- *Investigate **Borderlessness** as a conceptual framework for architectural intervention in urban heritage contexts.*
- *Understand the monument not as an isolated object, but as part of a **continuous spatial and environmental system**.*
- *Explore architectural borders as **gradients rather than fixed limits**, drawing from historical, theoretical, and spatial analysis.*
- *Utilize Artificial Intelligence as a tool for **reading, abstracting, and translating heritage logics** into contemporary architectural proposals.*
- *Construct and curate training datasets combining architectural heritage and urban fabric.*
- *Develop architectural projects that operate at the **fringe between monument and city**, without imitation or reconstruction.*
- *Gain the opportunity to participate in an international Blended Intensive Programme (BIP), engaging in on-site research, workshops, and cross-institutional exchange focused on urban heritage and AI-driven architectural methodologies.*

By the end of the semester, students will deliver a complete architectural proposal that redefines how contemporary architecture can engage with urban heritage through transitional, gradient-based systems.

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Contents

The course positions architecture as a disciplinary tool to rethink the limits of urban heritage. Rather than focusing on preservation or formal reproduction, the studio addresses heritage as a ***set of operative principles****: spatial sequences, climatic strategies, material transitions, and modes of inhabitation.*

Borderlessness is explored through three intertwined dimensions:

- ***Spatial****: from enclosed monument to open urban fabric*
- ***Geometric****: from regulated geometry to incremental growth*
- ***Conceptual****: from linear boundaries to painterly gradients (Wölfflin)*

The course will be structured around three thematic investigations:

AI-Driven Analysis of Heritage Systems

- *AI-assisted reading of architectural plans, sections, photographs, and diagrams.*
- *Extraction of spatial patterns, thresholds, and gradients.*
- *Translation of architectural intelligence into abstract datasets.*

Border Conditions and Urban Gradients

- *The architectural fringe as an operative zone.*
- *Gradients of use, ownership, materiality, and climate.*
- *Architecture as mediator between monument and city.*

Projective Translations

- *Generating architectural proposals through latent transitions.*
- *Diffusion models as instruments for exploring intermediate states.*
- *Designing architectures that emerge from systems, not forms.*

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Course Blocks

The course follows a three-block progression, moving from conceptual analysis to procedural experimentation and final architectural proposals.

BLOCK 1: Conceptual Knowledge – Borders, Systems, Gradients

- *Historical and theoretical analysis of architectural borders.*
- *Wölfflin's linear vs painterly as spatial framework.*
- *Reading the Alhambra and the Albaicín as systems.*
- *Dataset construction: heritage and urban fabric.*

BLOCK 2: Procedural Knowledge – Latent Transitions

- *Training diffusion models using curated architectural datasets.*
- *Exploring intermediate spatial conditions within latent space.*
- *Testing geometric, material, and spatial gradients.*
- *AI as a tool for architectural translation, not form generation.*

BLOCK 3: Practical Knowledge – Architectural Proposal

- *Design of an architectural intervention at the fringe of the Alhambra.*
- *Focus on the northern slope, Darro river, and Albaicín interface.*
- *Development of drawings, diagrams, and AI-generated mappings.*
- *Final architectural project articulating borderlessness.*

Architectural Framework: Access, Threshold, and Public Interface

*As a concrete architectural framework, students will develop a proposal for a **new access system to the Alhambra**, located along its northern fringe, in relation to the Darro river and the Albaicín.*

*The intervention will be conceived not as an isolated building, but as a **gradient-based architectural system** operating between monument and city. The program will include:*

- *A **new point of arrival and access** to the Alhambra*
- ***Ticketing and visitor management spaces***
- *A **small museum and documentary space**, dedicated to contextualizing the Alhambra as a spatial, environmental, and urban system*

*Rather than functioning as a conventional entrance pavilion, the project is understood as an **architectural threshold**: a sequence of spaces that mediate between different degrees of monumentality, publicness, and urban integration.*

*The program serves as a **disciplinary anchor**, allowing students to explore how borderlessness can be translated into architecture through gradients of space, use, materiality, and tectonics, without direct intervention on the monument itself.*

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Methodology

*The course employs a **research-by-design methodology**, integrating architectural theory, AI-driven analysis, and projective design.*

Research & Theoretical Framework

- *Study of urban heritage, borders, and architectural systems.*
- *Analysis of gradient-based spatial conditions.*

AI as an Analytical and Generative Tool

- *Workshops using diffusion-based AI models.*
- *Training datasets derived from architectural heritage and urban contexts.*
- *Exploration of latent architectural conditions.*

Architectural Design

- *Translation of AI findings into architectural proposals.*
- *Focus on tectonics, materiality, and spatial sequencing.*
- *Architecture as mediator between systems.*

Final Proposal

- *Complete architectural project at the fringe of urban heritage.*
- *Public presentation during the BIP in Granada.*

*The course includes an optional **Blended Intensive Programme (BIP) hosted in Granada**. This intensive on-site module will provide participating students with direct access to the study area, collaborative workshops with*

international peers, and collective reviews. The BIP complements the studio by reinforcing spatial analysis, heritage interpretation, and project development through physical presence and exchange, while remaining optional for students enrolled in the course.

Course Structure & Organization

Students will work individually. Each session will contain a theoretical lesson, deskcrits and specific software tutorials needed for developing the project. Progress will be reviewed weekly at the studio.

NEEDS:

Material Requirements:

Students need to bring their own laptops. Software will be accessible through educational licenses.

Tools and Techniques:

In order to apply this specific methodology, students will be instructed in specific software. No previous experience on the software will be required.

Final Deliverables & Requirements & Assessment (OLAT):

Complete graphic description of the project is expected, including visualizations, drawings, diagrams, research material, and any kind of visual information that support the entire comprehension of it.

SUBMISSION

Grading Procedures:

Grades are determined based on the quality of work produced, progress and improvement over the course of the semester, completion of project requirements, quality of participation, attendance, attitude, and ethical conduct. Grading policies will be discussed during the first weeks of the studio, and any questions regarding grades or policies should be directed to the instructors. A passing grade in the course requires committed completion of all projects, including the institute archive in proper formats. Incomplete work will not be evaluated until the submission is completed. A failing grade is given whenever cumulative work, final work, and/or attendance are unsatisfactory. It is also given when a student fails to submit a final project or fails to take a final examination without prior approval from the instructor.

Academic Integrity:

The integrity of the work of individuals is first and foremost a grading milestone. Student work that delivers the ideas or words of others as the student's own adversely impacts the whole faculty. Academic dishonesty,

including cheating, plagiarism, commissioning academic work by others, or performing academic work on behalf of another student, is strictly prohibited and would result in a negative grade.

Plagiarism:

This includes but is not limited to; copying words, images, or other material from a source without using appropriate citation rules such as quotation marks, footnotes, references, or other indications of the original source, paraphrasing another person's ideas in your own words without crediting the original source, taking sole credit for assignments without giving credit to those who worked with you, submitting work for a course that has already/also been submitted for another course or internet plagiarism, such as submitting work either found or paid for online, failing to cite any internet sources used, or cutting and pasting sentences from various websites to create a collage of uncited words.

Incomplete Work & Extension of time:

A student may receive a negative grade or no grade when the work is incomplete at the evaluation date by the end of the semester. By requesting permission from the instructor in good time prior to the date of the final examination or presentation, this can be avoided. Permission will be granted only under extraordinary circumstances and usually for medical reasons, requiring a medical document proving the situation. Incompleteness must be fulfilled to the instructor's satisfaction no later than two weeks after the end of the term.

Archiving:

Students are required to submit physical examples of their work or digital examples no later than one week after the end of the term to their instructors or administration for archiving. This is a chance for students to have their work displayed or exhibited online and potentially featured in future institute publications or research projects. The instructors will provide a document titled the Einwilligungsformular that allows the institute to keep track of the agreement; if you wish not to permit this archival material to be published, please contact the institute secretary in good time.

Learning Policy (Studios and Seminars):

Attendance is mandatory at critiques, pin-ups, and reviews. If you do not present your work regularly, you will not receive a passing grade for the course. Students must have all required work related to the course during course hours (not at another location or other time). Students should not use course time to leave school to procure materials, run errands, etc. All activities that require one to be away should be scheduled to occur outside

of course hours. Leaving in the middle of or before the end of regularly scheduled course times will result in an absence unless discussed with the instructors. Grades will be determined by the quality of work produced, an improvement over the course of the semester, completion of project requirements, quality of participation, and attendance.

All electronic recordings, image captures/screenshots (during zoom meetings), or audio recordings are strictly prohibited unless agreed upon or discussed beforehand with the instructors and participants.

Bibliography

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