



Spring 2023

Urban Design Studio in Architecture
T/Th 10:00 – 13:00 PM, Barcelona Studio C/ Bailén 11

Rafael Gómez-Moriana & Tonet Font
rafagomo@gmail.com +34 696063926

Introduction

The course is a research design studio in which students collaborate with design faculty in exploring projects that engage contemporary issues defining the built and natural environments. Students choose topics outlined by faculty research expertise, including sustainable design, digital design and fabrication, architecture and the contemporary city, and innovative practice. Includes field trips to studio site and exemplary built work.

Objectives

1. To become familiar with the culture and spatial practices of another part of the world, especially as these relate to architecture and urbanism.
2. To gain an understanding of the ways that architecture and urban design are shaped by—and in turn shape—urban life.
3. To apply empirical observation and analysis of an unfamiliar built environment toward a design problem in that very environment.
4. To develop and refine architectural design skills for dense, multiple-use, and highly complex urban situations.
5. To resolve an architectural and urban design problem beyond the scale of a singular architectural object so as to include those of building typology, the city block, landscape, public open space, and infrastructure.

Teaching Approach

Students work on projects in teams, with individual responsibilities. The course is conducted as a design studio. Instructors meet with student teams on a regular basis to review progress, discuss matters related to the project, provide feedback, and give direction. Project content and progress is also discussed and reviewed through informal 'pin-up' reviews, and formal project presentations (i.e. mid-term and final reviews). Formal reviews normally include invited guest reviewers from local professional and academic communities.

The Barcelona offering of EVDA 782 is conducted as a design investigation of relevant current urban issues through hypothetical projects for sites in that city. All classes, meetings and reviews take place in the studio situated at *Makers of Barcelona* (MOB) at Carrer de Bailén 11, ground floor.

Studio Topic 2023

Evolving toward compact and dense neighborhoods

How should old neighborhoods evolve to meet contemporary challenges?

The common practice is to "substitute" old buildings and old urban fabrics when these are considered obsolete or incapable of meeting the needs of contemporary cities, unless their heritage "value" demands conservation.

On the one hand, cities naturally evolve into denser and more complex systems. Therefore, the substitution of obsolete low-density areas will usually result in more people inhabiting a well-serviced area, avoiding further city expansion and all its material and energetic consequences while achieving other benefits such as social interaction and innovation that are always more present in compact and dense cities.

But on the other hand, demolition implies consequences in terms of the destruction of social networks and their substitution (gentrification), disruption caused by long period of works, and urban banalisation. A lot of energy is embodied in a building or neighborhood- not only "material" or "environmental" energy, but also "social" energy. It is now widely recognized that demolishing a structurally sound existing building entails a loss of "embodied energy" that a more energy-efficient replacement cannot make up for. This is significant, as it means that even the most banal and ordinary buildings in our cities –the bulk of the built environment– possess more "green" value than new buildings; even ones that are designed to be sustainable. The same idea applies to a neighborhood, and therefore the question is necessarily how can we make these evolve to meet current needs without losing the social capital that they have accrued over time.

This studio investigates themes of *adaptive re-use*, *growth* and *urban consolidation* in a historical area of low-rise single-family houses in inner-city Barcelona. Situated in the north-east of Barcelona, and surrounded by modernist housing estates, the site is a cluster of four city blocks of small row houses that were mainly built in the first third of the 20th century in an area that was then semi-rural and semi-industrial. During the 60s and 70s, the surrounding environment of these modest houses (typically three-room houses under 40 square meters with no independent kitchen or bathroom) underwent a major transformation with the construction of an avenue --Rambla Prim-- and large housing blocks, some up to 16 stories in height.

In 1953, and again in 1976, Barcelona's Urban Plan required these houses to be substituted by two conventional blocks and a mid-size community facility. Though neighbors have consistently fought to prevent the demolition of their houses from being carried out, the plan is still in force.

The project will investigate *evolutional* urbanization scenarios that satisfy the programmatic requirements of the current urban plan through transitional and adaptive re-use scenarios. An initial research phase and an urban design proposal are to be worked on in groups of three, followed by individual architectural design proposals for different components of the urban design. The program calls for mixed uses including housing and public community facilities according to needs determined through research. *Evolutional* design that capitalizes on *existing* resources –natural as well as urban– forms the underlying theme of this studio.

- How might a poorly defined urban area be consolidated through urban design that incorporates existing structures dating from both industrial and post-industrial historical periods?
- What sort of urban morphologies and building typologies are most appropriate within such a heterogenous urban context?
- How can an existing park be re-accommodated within a new urban design proposal?
- How can architecture be "energized" by the embodied energy of existing structures?

PROJECT STAGES

1. Empirical Analysis	Review I Thursday 18 May 10:00
2. Urban Morphology	Review II Thursday 03 June 10:00
3. Building Typologies	Review III (Mid-Term) Thursday 17 June 10:00
4. Tectonicity	Review IV Thursday 06 July 10:00
5. Dissemination	Review V (Final) Tuesday 25 July 15:00

Assignment sheets containing detailed site information, programmatic requirements, methodology, exact deliverables and submission process will be distributed at the outset of each stage of the studio, together with input lectures and class discussion.

1/ EMPIRICAL ANALYSIS

Barcelona's urban morphology is rich and varied. The city has evolved multifariously in different areas and at different times owing to historical, geographical, and socio-cultural circumstances. This research stage will investigate how different building types commonly found in various neighborhoods have evolved over time up to the present day, leading to different urban tissues and ways of life. Working in groups of 3, neighborhoods consisting of different building types will be analyzed in terms of their evolutions. What patterns of transformation can be identified? Why

might these have occurred? Findings are to be documented using photography, maps, and diagrams.

Deliverables:

1. A 15 - 20 minute slide presentation on an assigned neighborhood
2. Physical 1:200 and virtual 3D model of existing site (organize yourselves as a class)

2/ URBAN MORPHOLOGY

This group project stage involves designing a *schematic* landscape urbanism and massing proposal, and a schematic study of the distribution of the programmatic requirements on site, keeping in mind the importance of different types of exterior space for public, communal, and/or private use. Attention must be paid to the urban context and to the spatial consequences of infill or demolition, avoiding the creation of "residue" or "leftover" spaces. Transitions from public to communal to private space must be considered in terms of barriers and thresholds.

Deliverables:

1. Physical and virtual 3D schematic urban massing model
2. 2D / 3D diagrams explaining massing, relation to context, and vertical / horizontal distribution of program
3. 2D schematic landscape plans showing schematic ground floor plans of buildings

3/ BUILDING TYPOLOGY (mid-term review)

During this (group) design development stage, social and ecological sustainability as well as affordability must be taken into consideration. Thought must be given to the spatial- and energy-efficiency of dwelling units, their short- or long-term flexibility and adaptability, the system of aggregation of unit types, the social inclusivity of public and communal spaces (circulation spaces, courtyards, entryways, rooftops, etc.), access to daylight and natural ventilation, eventual reusability of construction materials, ecology, economy, speed, and replicability of design.

Deliverables:

1. A fully considered proposal presented *informally, schematically and provisionally* as a "work in progress." To be presented in groups, but with individual responsibility for different components of the design.

4/ TECTONICITY

Materials and building systems must be incorporated that respond to the environmental challenge of sustainability, and limitations of time, energy, and resources. Prefabrication, recycled and reused elements, and local manufacturers should be prioritized. Important construction details must be thought through, and the building design revised accordingly. To be presented in groups, but with individual responsibility for different components of the design.

Deliverables:

1. Construction details and basic definition of the structural system
2. Design revisions

5/ DISSEMINATION (final review)

Completion of the project as a cohesive whole for audio-visual as well as documental presentation. To be presented in groups, but with individual responsibility for different components of the design.

Deliverables:

1. A4 booklet, 3 hard copies printed and bound
2. PDF file of booklet (high-resolution)
3. PPTX file of audio-visual presentation (low-resolution)

Detailed Class Schedule

1	Tuesday	02 May	Studio & Assignment 1 Introduction & site visit
2	Thursday	04 May	Attend opening of Model Festival of Architecture
3	Tuesday	9 May	Work in Studio / Desk crits
4	Thursday	11 May	Work in Studio / Desk crits
5	Tuesday	16 May	Work in Studio / Desk crits
6	Thursday	18 May	Review I
7	Tuesday	23 May	Assignment 2 introduction
8	Thursday	25 May	Work in Studio / Desk crits
9	Tuesday	30 May	Work in Studio / Desk crits
10	Thursday	01 June	Review II
11	Tuesday	06 June	Assignment 3 introduction
12	Thursday	08 June	Work in Studio / Desk crits
13	Tuesday	13 June	Work in Studio / Desk crits
14	Thursday	15 June	Mid-Term Review III
			(Block Week)
15	Tuesday	27 June	Assignment 4 introduction
16	Thursday	29 June	Work in Studio / Desk crits
17	Tuesday	04 July	Work in Studio / Desk crits
18	Thursday	06 July	Review IV
19	Tuesday	11 July	Assignment 5 introduction
20	Thursday	13 July	Work in Studio / Desk crits
21	Tuesday	18 July	Work in Studio / Desk crits
22	Thursday	20 July	Work in Studio / Desk crits
23 24	Tuesday	25 July	Final Review V Presentations + Booklet hand-in

Means of Evaluation

Evaluation is based on the assignments to be completed during the term. Each assignment will be graded for both content and presentation. Most of the assignments are individual work.

Assignment 6 documents the work of the semester in an 8.5x11 PDF publication that will contain graphic and written descriptions of the minor and major design projects as well as a written critical reflection on the research work. Graphic standard for the publication and further details on the critical reflection will be provided during the term. Students will be expected to complete each of the course assignments. There will be no final exam. Students must obtain an overall passing grade to pass this course, however, if a student fails any phase of the course worth 30% or more they will fail the course.

Assignment 1:	15%
Assignment 2:	15%
Assignment 3:	25%
Assignment 4:	15%
Assignment 5:	30%
Total:	100%

Grading Scale

Final grades will be reported as letter grades, with the final grade calculated according to the 4-point range.

Assignments 1-5 will be evaluated by percentage grades, with their letter grade equivalents as shown.

Grade	Grade Point Value	4-Point Range	Percent	Description
A+	4.00	4.00	95-100	Outstanding - evaluated by instructor
A	4.00	3.85-4.00	90-94.99	Excellent - superior performance showing comprehensive understanding of the subject matter
A-	3.70	3.50-3.84	85-89.99	Very good performance
B+	3.30	3.15-3.49	80-84.99	Good performance
B	3.00	2.85-3.14	75-79.99	Satisfactory performance
B-	2.70	2.50-2.84	70-74.99	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	2.15-2.49	65-69.99	All final grades below B- are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements.
C	2.00	1.85-2.14	60-64.99	
C-	1.70	1.50-1.84	55-59.99	
D+	1.30	1.15-1.49	50-54.99	
D	1.00	0.50-1.14	45-49.99	
F	0.00	0-0.49	0-44.99	

Notes:

- A student who receives a "C+" or lower in any one course will be required to withdraw regardless of their grade point average (GPA) unless the program recommends otherwise. If the program permits the student to retake a failed course, the second grade will replace the initial grade in the calculation of the GPA, and both grades will appear on the transcript.

Readings (Recommended)

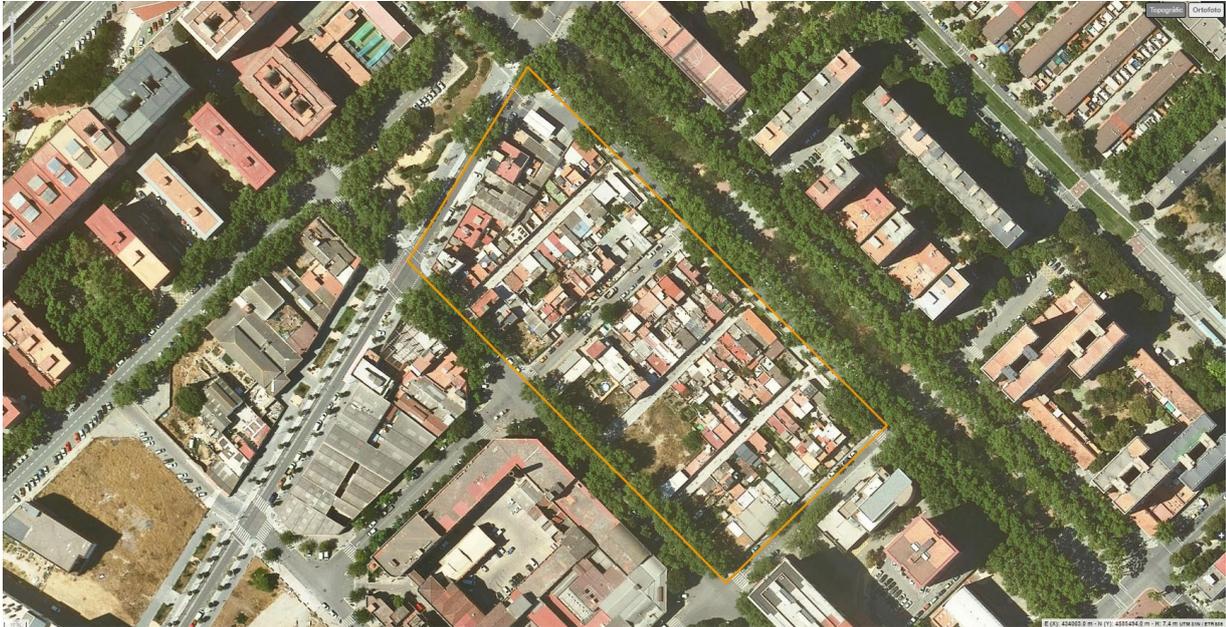
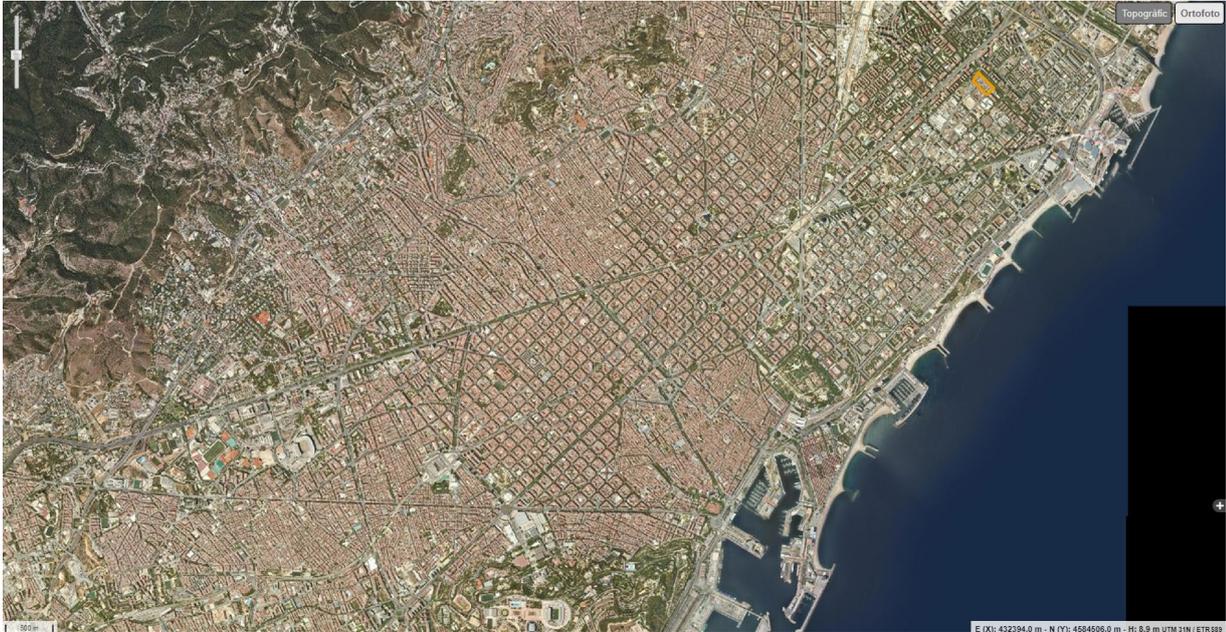
Iñaki Ábalos, *The Good Life: A Guided Visit to the Houses of Modernity* (Barcelona: GG, 2019) Joan Busquets, *Barcelona: The Urban Construction of a Compact City* (Cambridge, Mass.: Harvard University, 2002)

Jae Sung Chon and Kent Mundle, eds., *House Us* (Winnipeg: OCDI Press, 2018)

Santiago Cirugeda et al, *Arquitecturas Colectivas* (Seville: Vibok 2010)
 available here: <https://vibokworks.bigcartel.com/product/arquitecturas-colectivas-art-book>
 Yona Friedman, "Mobile Architecture" in *CIAM X Manifesto*
 Manuel Gausa, Marta Cervelló, Maurici Pla, Ricardo Devesa, *Barcelona Modern Architecture Guide 1860 – 2013* (Barcelona: ACTAR, 2015)
 Manuel Gausa, *Housing: New Alternatives, New Systems* (Barcelona: ACTAR, 1998)
 Gustau Gili Galfetti, *Model Apartments: Experimental Domestic Cells* (Barcelona: GG, 1998)
 Oliver Heckmann and Friederike Schneider, *Floor Plan Manual: Housing* 5th edn (Basel: Birkhäuser, 2017)
 Nicholas John Habraken, *Supports: An Alternative to Mass Housing* (London: The Architectural-Press, 1972)
 Robert Hughes, *Barcelona* (New York: Vintage Books, 1993)
 Lucien Kroll, *An Architecture of Complexity* (Cambridge, Mass.: The MIT Press, 1987)
 Bernard Leupen, *Frame and Generic Space* (Rotterdam: 010 Publishers, 2006)
 Tim Marshall, ed. *Transforming Barcelona* (London: Routledge, 2004)
 Diana Mitlin and John Thompson "Something about Participation: Participatory approaches in urban areas" in ____
 Josep Maria Montaner, Zaida Muxi, and David H. Falagan, *Tools for Inhabiting the Present: Housing in the 21st Century* (Barcelona: Master Laboratorio de la vivienda del siglo XXI. 2011)
 Maurici Pla, *Catalonia: A Guide to Modern Architecture 1880-2007* (Barcelona: COAC, 2008)
 Estanislau Roca, Inés Aquilué & Renata Gomes, *Walking the City: Barcelona as an Urban Experience* (Barcelona: Universitat de Barcelona, 2015)
 Raquel Rolnik, *Urban Warfare: Housing and Cities in an Age of Finance* (New York: Verso, 2019)
 Peter G. Rowe, *Building Barcelona: A Second Renaixença* (Barcelona: ACTAR, 2006)
 Tatjana Schneider and Jeremy Till, *Flexible Housing* (Oxford: The architectural press. 2007)
 Manuel de Solà-Morales, *10 Lessons on Barcelona* (Barcelona: ACTAR, 2008)
 Arturo Soria i Puig, ed. *Cerdà: The Five Bases of the General Theory of Urbanization* (Madrid: Electa España, 1999)
Collective Housing Atlas collectivehousingatlas.net
 John F.C. Turner, *Housing by people: Towards Autonomy in Building Environments* (London: Marion Boyars Publishers, 1976)

Groups

1	Biernacki	Klara
	Cosentino	Sarah
	Doyon	Laura
2	Hopkins	Joseph
	Kalsi	Noordeep
	Lamothe	Steven
3	Levinski	Natasha
	McGoldrick	Sinead
	Nahal	Bhupinder
4	Prokopowich	Morgan
	Richardson	Carrie
	Rozendaal	Ethan
5	Sharma	Sachi
	Wray	Daniel
	Zabarka	Alexandra





University of Calgary Policies and Supports

COVID-19 PROCEDURE FOR SICK STUDENTS: <https://www.ucalgary.ca/risk/covid-19-procedure-for-sick-students>

UNIVERSITY OF CALGARY COVID-19 UPDATES: <https://www.ucalgary.ca/risk/emergency-management/covid-19-response>

ACADEMIC ACCOMMODATION

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The student accommodation policy can be found at: <https://www.ucalgary.ca/legal-services/university-policies-procedures/student-accommodation-policy>

Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities: <https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure>

Students needing an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to their instructor (contact information on first page above).

SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/ .

ACADEMIC MISCONDUCT

Academic Misconduct refers to student behavior which compromises proper assessment of a student's academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

For information on the Student Academic Misconduct Policy and Procedure please visit:

<https://ucalgary.ca/policies/files/policies/student-academic-misconduct-policy.pdf>

<https://ucalgary.ca/policies/files/policies/student-academic-misconduct-procedure.pdf>

Additional information is available on the Academic Integrity Website

at <https://ucalgary.ca/student-services/student-success/learning/academic-integrity>.

COPYRIGHT LEGISLATION:

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy (<https://www.ucalgary.ca/pubs/calendar/current/k.html>).

INSTRUCTOR INTELLECTUAL PROPERTY

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

SEXUAL VIOLENCE POLICY

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at <https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>

UNIVERSITY STUDENT APPEALS OFFICE: If a student has a concern about a grade that they have received, they should refer to Section I of the Undergraduate Calendar (<https://www.ucalgary.ca/pubs/calendar/current/i-3.html>) which describes how to have a grade reappraised. In addition, the student should refer to the SAPL's Procedure for reappraisal of grades

OTHER IMPORTANT INFORMATION

Please visit the Registrar's website at:

<https://www.ucalgary.ca/registrar/registration/course-outlines> for additional important information on the following:

- Wellness and Mental Health Resources
- Student Success
- Student Ombuds Office
- Student Union (SU) Information
- Graduate Students' Association (GSA) Information
- Emergency Evacuation/Assembly Points
- Safewalk