

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 their projects individually, except in some stages in which work is carried out in groups. The course is conducted as a design studio, with studio instructors meeting with students 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 sessions, and formal project presentations (i.e. interim and final reviews). Formal reviews normally include invited reviewers from within the Faculty, the University and/or elsewhere. The Barcelona offering of EVDA 782 is conducted as a design investigation of relevant current urban issues through hypothetical projects for real sites in that city. All classes, meetings and reviews will take place in the studio situated at Makers of Barcelona (MOB) at C/ Bailén 11.

Studio Topic 2019

"In addition to democratizing the social fabric of the city, public housing can also be used to stitch together a frayed urban fabric. Housing is a powerful tool for urban improvement."

-David Juárez et al, "ATRI: Innovation for Inclusion", 2019

Students will develop an architectural design for a mixed-use project consisting largely of public housing within and adjacent to an existing building, the *Cesire Aulatec* in Barcelona's historical centre, very close to Las Ramblas and Plaza Colón (Columbus Square). It is a "real" project, with a real client: the Ajuntament de Barcelona (City Council) is currently studying options for this municipally owned property, and an outcome of this studio is to present them with feasible alternatives. The site is an avenue with unusual characteristics for central Barcelona: it consists mostly 20th century buildings that are detached and surrounded by greenery; an attempt to carve a distinctly "mid-century modernist" avenue through a pre-modern context.

Cesire Aulatec is a primary school dating from the 1960s that is now only partially used. The buildings, which are not without a certain architectural interest, are now being provisionally used as a training facility for teachers. The city is interested in the adaptive re-use of these buildings as social housing, given that there is currently a severe shortage of affordable housing in the city centre due largely to tourism and gentrification. The original project left important voids between built elements that are suitable for possible extensions, thus enabling a wide number of architectural and urban approaches to be taken.

The challenge is to convert these buildings not only into affordable housing, but also into a meaningful place and community through the incorporation of public space, landscape, and the incorporation of complementary programmatic amenities.

An important aspect of the studio is the pressing issue of sustainability. Materials and construction processes will be given consideration, as will approaches that could improve performance through energy savings, which improves affordability.

The eventual inhabitants of this project are unknown, requiring assumptions to be made about them. Nevertheless, each project must be elaborated within a context in which participation by future dwellers is a given fact. This entails providing options to be presented; "tool kits" and "kits of parts" that enable multiple scenarios instead of a single architectural outcome.

PROJECT STAGES

1. Public Space and Domesticity	Review I Thursday 19 September 15:00
2. Public Housing as Urban Improvement	Review II Tuesday 08 October 15:00
3. Sustainability	Mid-Term Review III Thursday 24 October 15:00
4. Materials / Building System	Review IV Thursday 14 November 15:00
5. Globality	Final Review V Friday 29 November 10:00

Assignment sheets containing detailed site information, programmatic requirements, methodology, exact deliverables and submission process will be distributed at the outset of each stage, accompanied by a talk and class discussion.

1/ PUBLIC SPACE AND DOMESTICITY

The first stage of the project will be to explore Barcelonian boundaries between public, communal, and private space; to study the contemporary urban context and document examples of the way open space is used "domestically" in different parts of the city.

How does the morphology of the city and the typology of its buildings influence ways of living? How does domesticity extend into the communal and the public sphere in different parts of the city?

Working in small groups of 2 or 3, students will be assigned different neighbourhoods to study. The urban morphology and the dominant building typology must be analyzed, along with the way open space is used. Can a pattern be perceived between morphology / typology and use of open space? Does domesticity "spill over" into open space in some areas more than others? What is the relation between interior/exterior and private/public in a globalized, complex and layered compact city? How does domesticity manifest itself in open space and vice versa?

Deliverables:

Documentation (in the form of maps, photography, video, diagrams, or sketches) of ways public space is used domestically in a given neighbourhood of Barcelona.

2/ PUBLIC HOUSING AS URBAN IMPROVEMENT

Approximation toward the site and the unique urban form of Drassanes Avenue, a mid 20th century urban transformation rich with vegetation that connects Plaza Colón with the Rambla del Raval and widens at some points to generate expanded public spaces in front of some public buildings, as is the case with Cesire School or the adjacent Official Language School.

This stage involves designing a massing proposal for the site, keeping in mind the importance of exterior open space for public and communal use. Attention must be paid to the urban context and to the consequences of infill. Spaces between buildings must never be considered "residue" or "leftover space", but rather as public or communal activity areas generated *through* the positioning of built mass. New construction can often create "in-between spaces" that can be appropriated not only by the designated users of the building but also by visitors and passers-by alike.

Deliverables:

Physical and virtual 3D context model of the area (class project: organize yourselves)
Physical and virtual 3D massing model
2D and 3D diagrams explaining the relation to the context and the vertical / horizontal distribution of program
5 sketches on urbanity of the area

3/ SUSTAINABILITY

During this design development stage, social and ecological sustainability as well as affordability will be taken into consideration. Thought must be given to the spatial and energy efficiency of dwelling units, their flexibility and adaptability, the system of aggregation of units, the socially 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, flexibility and replicability of the design.

Methods must also be presented for incorporating users at the center of the proposal, starting with active participation (to the extent possible) of the agents involved in different moments of the housing process.

Deliverables:

A fully considered proposal presented informally, schematically and provisionally
5 sketches of references and reflections on the subject of sustainability

4/ MATERIALS / BUILDING SYSTEM

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 must be prioritized. Important construction details must be thought through, and the building design revised accordingly.

Deliverables:

Construction details and basic definition of the structural system
Design revisions
5 sketches on materiality

5/ GLOBALITY (final presentation)

The project will be presented as a whole, from the relation with the context, to the response to the program, the constructive decisions, and the general coherence.

Deliverables:

A4 booklet of project (landscape orientation), printed and bound, and PDF file

Detailed Class Schedule

1	Thursday	05 Sep	Term + Assignment 1 Introduction
2	Tuesday	10 Sep	Work in Studio / Desk crits
3	Thursday	12 Sep	Work in Studio / Desk crits
4	Tuesday	17 Sep	Work in Studio / Desk crits
5	Thursday	19 Sep	Review I
6	Thursday	26 Sep	Assignment 2 introduction [site visit]
7	Tuesday	01 Oct	Work in Studio / Desk crits
8	Thursday	03 Oct	Work in Studio / Desk crits
9	Tuesday	08 Oct	Review II
10	Thursday	10 Oct	Assignment 3 introduction
11	Tuesday	15 Oct	Work in Studio / Desk crits
12	Thursday	17 Oct	Work in Studio / Desk crits
13	Tuesday	22 Oct	Work in Studio / Desk crits
14	Thursday	24 Oct	Mid-Term Review III
15	Tuesday	05 Nov	Assignment 4 introduction
16	Thursday	07 Nov	Work in Studio / Desk crits
17	Tuesday	12 Nov	Work in Studio / Desk crits
18	Thursday	14 Nov	Review IV
19	Tuesday	19 Nov	Assignment 5 introduction
20	Thursday	21 Nov	Work in Studio / Desk crits
21	Tuesday	26 Nov	Work in Studio / Desk crits
22	Thursday	28 Nov	Work in Studio / Desk crits
23 24	Friday	29 Nov	Final Review V Presentations + Book 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:	10%
Assignment 2:	10%
Assignment 3:	30%
Assignment 4:	10%
Assignment 5:	40%
Total:	100%

Grading Scale

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

Assignments 1-6 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)

Notes:

ACADEMIC ACCOMMODATION

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; 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/. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>

ACADEMIC MISCONDUCT

Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Most commonly plagiarism exists when: (a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work, (b)

parts of the work are taken from another source without reference to the original author, (c) the whole work (e.g., an essay) is copied from another source, and/or, (d) a student submits or presents work in one course which has also been submitted in another course (although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved. While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism is an extremely serious academic offence. Any suspicion of plagiarism will be reported to the Dean, and dealt with as per the regulations in the University of Calgary Graduate Calendar. For information on academic misconduct and its consequences, please see the University of Calgary Calendar at <http://www.ucalgary.ca/pubs/calendar/current/k.html>

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.

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.

UNIVERSITY STUDENT APPEALS OFFICE: If a student has a concern about the course, academic matter, or a grade that they have been assigned, they must first communicate this concern with the instructor. If the concern cannot be resolved with the instructor, the student can proceed with an academic appeal, which normally begins with the Faculty. <https://ucalgary.ca/student-appeals/>

More student support and resources (e.g. safety and wellness) can be found here: <https://www.ucalgary.ca/registrar/registration/course-outlines>