

iasap•bv

illinois architecture study abroad program at barcelona-el vallès
illinois school of architecture university of illinois at urbana-champaign

yearbook of student work

YB2²⁰¹⁵₂₀₁₆

Foreword

The iasap-bv (Illinois Architecture Study Abroad Program at Barcelona-El Vallès) is a year-long study abroad program for undergraduate students of the Illinois School of Architecture (ISoA) at the University of Illinois at Urbana-Champaign. It is a comprehensive international learning experience that has the unique advantage of providing the extraordinary opportunity of living and studying one academic year in a historically, culturally and architecturally rich overseas environment while simultaneously offering a curricular structure that is fully equivalent –in content and academic rigor– to the courses offered on the Illinois campus. The year of studies is rigorous and demanding, and all participants –students, faculty, guest and administration– are expected to strive for excellence at all times.

The iasap-bv is part of an overarching agreement between the University of Illinois and the Universitat Politècnica de Catalunya (UPC) that provides for a significant and long-term academic collaboration. The program is hosted at the Escola Tècnica Superior d'Arquitectura del Vallès (ETSAV) located in Sant Cugat del Vallès, a municipal district within Barcelona's metropolitan area.

The iasap-bv's goal is to provide students with a multicultural and cross-national approach that fosters integration in a different academic and cultural setting, enriching their educational and professional development. At the same time, the experience of living abroad for an entire year provides opportunities for personal growth and learning from direct interaction with different peoples, environments and cultures.

Committed to a holistic, creative and open-minded approach to architecture, the program's curriculum is based on three core courses: Architectural Design, Architectural History and Structures; a fourth course (Overseas Architectural Studies) consists of a range of special activities such as field-trips, elective seminars, and thematic workshops.

It is my pleasure to introduce the 2015-2016 Yearbook of Student Work of the Illinois Architecture Study Abroad Program–Barcelona–Vallès (iasap•bv). The iasap•bv yearbook continues a tradition that began with the 2005-2006 cohort of Illinois architecture undergraduates who studied in our program when it was hosted at the Ecole Nationale Supérieure d'Architecture de Versailles. The 2015-2016 yearbook is the second to feature the accomplishments of students enrolled in our senior-year abroad program hosted at Escola Tècnica Superior d'Arquitectura del Vallès (ETSAV), a constituent of the Universitat Politècnica de Catalunya.

The words and images collected in the yearbook are of immediate import: they make clear why the Illinois School of Architecture must maintain a study-abroad program that immerses students in a vibrant nexus of design influence. The yearbook is of lasting import as well: like yearbooks before it, this one is a durable record of achievement that members of the 2015-2016 iasap•bv cohort can look back upon over time as they assess and re-assess the impact of their academic year in Barcelona.

In 1970, Illinois architecture undergraduates began studying abroad in year-long European programs. It would take many chapters to describe the wonders of each year's program since then. This year's chapter must begin with praise for Professor Alejandro Lapunzina and his administrative and instructional staff, whose tireless efforts everyday ensured the iasap•bv's unqualified success. As well, appreciation is due Professor Víctor Seguí, Director of ETSAV, whose commitment to a thriving iasap•bv is unflagging. I thank them all for their exceptional effort.

Peter Mortensen, Director

Illinois School of Architecture
University of Illinois at Urbana-Champaign



An Overview of the year

Twenty-nine senior-level architecture students from the University of Illinois at Urbana-Champaign arrived in Barcelona on September 3, 2015 to participate in the second year of operation of the Illinois School of Architecture's reputed overseas program in Barcelona-El Val·lès. Eight months later, the year is coming to an end and in just one more week they will be packing their belongings to go back home, their bags full with memorable experiences.

The program's activities began shortly after their arrival. In the first week following their arrival, students participated in a variety of orientation activities, both in Sant Cugat and at the central campus of the UPC in Barcelona.

Academic and pedagogic activities started one week later with the introductory sessions of the program's three core courses—Architectural Design, Architectural History, and Structures—and an intensive week-long analytical sketching workshop led by special guest Jack Kelley. In this workshop, students visited and studied in sketch form a handful of architectural landmarks, from the historic Monastery of Sant Cugat to the city's emblematic "Barcelona Pavilion" designed by Mies van der Rohe in 1929. The workshop was part of the fourth course of the program's curricular structure, Overseas Architectural Studies, a course designed to take full advantage of the unique opportunities offered by having an overseas program of studies.

While their specific characteristics are uniquely adapted to the overseas location, all the courses taught at the iasap-bv are equivalent in content and rigor to those offered at the home campus in Urbana-Champaign. This little book is dedicated to present the work of students who participated in the iasap-bv during 2015-2016 academic year; it is organized in sections that reflect the curricular organization of the program and reveal the intensity of all the activities undertaken during these eight months. It is also an opportunity to look back and assess accomplishments and shortcomings, looking forward to a greater future.

The Fall semester Architectural Design course, also known as the Cap-Stone studio, was taught by Professors Vidar Lerum and Xavi Vancells. They challenged students to design a Boutique Hotel in Barcelona's celebrated Eixample.



However, the rich historical urban site was just one among many complexities students had to consider in developing their projects, from strict code restrictions to demanding sustainable requirements (pages 8-15).

In the Spring semester, Architectural Design was taught by Professors Mario Corea and Alejandro Lapunzina, who presented different projects and emphasized the students' comprehension of the task of the architect. Each professor led a separate studio section composed of approximately half of the class.

Corea's studio was dedicated to designing an Indoor Sports Complex adjacent to the Mirasol train station in Sant Cugat del Vallès, while Lapunzina's section worked in developing a project for an International School of Cooking in Barcelona.



Whereas program and site characteristics were largely different, the two studios shared an interest in developing methodological design process with emphasis in site insertion and integration of building systems (pages 16-23, respectively).



Courses in Architectural History are an essential component of any architecture overseas program because they provide immense opportunities of combining traditional classroom activities (lectures, discussions) with field-trips in which students can see, study and understand architectural landmarks through direct experience.

At the iasap-bv, the curricular sequence of Architectural History courses is comprised of distinct components: a traditionally formatted course concentrated on the development of ideas in art and architecture in the 19th and 20th centuries and a separate module focused on special topics of Catalonian architecture. The former was graciously taught by ETSAV Professor Miguel Usandizaga to a student audience that included iasap-bv participants as well as numerous students from the host school who opted to take this course in English language. The second was offered for iasap-bv participants by Professor Raúl Martínez; it consisted of a mix of field-trips to local architectural landmarks, students' presentations and traditional classroom activities (pages 24-31).

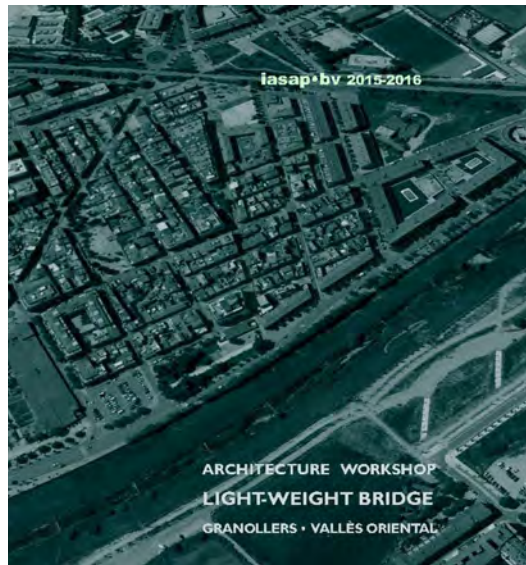


The Illinois School of Architecture is renowned for the strength of its courses in Structures. The Structures' courses offered at the iasap-bv fully match the rigor and quality of their homonymous at the home campus: Theory and Practice of Steel and Timber and Theory of Reinforced Concrete, both taught by Professor Jeffrey Kansler in the Fall and Spring semesters, respectively.

However, not unlike all the other courses, the program's location provides plenty opportunities for widening the students' knowledge by exposing them to see and analyze selected buildings in which the structural system stands out. Thus, in addition to arduous calculations and demanding mathematical formulas, students benefit by engaging case studies of connections and materials related to the buildings' structural systems (pages 32-37).

The fourth course of the curricular structure—Overseas Architectural Studies—has been specially conceived to benefit from the overseas location and consisted of a wide range of activities that promoted firsthand experience of architecture and urbanism through field-trips, special assignments, independent travel and a variety of thematic workshops.

The course thus focused on seeing, studying and understanding architectural landmarks through graphic studies, from structured analytical assignments to the development of travel notes (pages 38-45).



A series of thematic workshops built into the program's complex calendar of activities offered different perspectives to the already rich pedagogic content offered by the four courses. One of them was the so-called Architecture Workshop, a two-week semi-intensive design exercise with a strong focus on structural design. Working in teams of four or five, students were asked to design a Light-weight Pedestrian Bridge in Granollers, an industrial center of the Vallès Oriental (pages 46-51).

The two other thematic workshops were stand-alone modules built into the Overseas Architectural Studies course. The first was a week-long intensive Traveling Workshop led by faculty from the Illinois School of Architecture. Half of the class joined the workshop offered in Brussels (Belgium) by Andrea Melgarejo de Berry; the other half went to Copenhagen under the guidance of Sara Bartumeus. Throughout the week they visited and studied buildings through diagrams, sketches and group discussions (pages 52-55).

Later in the Spring students participated in a History-Criticism Seminar led by distinguished historian William J. R. Curtis; this two-week long very intensive pedagogic module was offered in two non-consecutive periods in the second half of the Spring semester. The first week was dedicated to a six-day trip through southern and eastern France in which students visited a wide range of architectural masterpieces while Curtis delivered on-site lectures that promoted critical observation and understanding of architecture (pages 56-59). The second week, which is taking place as these lines are being written in early May, focused on special topics of modern and contemporary architecture with an emphasis on visiting relevant buildings located in Barcelona and environs.



One of the extraordinary opportunities of a study abroad program that is part of an institutional agreement between peer universities is the possibility of expanding the “home-school” offerings with those of the “hosting” institution.

Thus (and in some cases challenging the linguistic barrier), several students seized the opportunity by enrolling in elective courses offered by the ETSAV; some joined a hands-on workshop to build plaster models that was taught by Laura Baringo; others participated in Adolf Sotoca’s “Cities: Stones on Paper” seminar.

In the Fall semester all students took a certified Spanish language course offered by Sant Cugat’s Merit Language School. Educational extracurricular activities are an integral part of the yearlong experience.

At the iasap-bv two stand out: field trips and public lectures. The former are embedded throughout the curricular structure: all courses involve, in one way or another, visits to relevant buildings and sites in which students learn through direct observation and on-site presentations by faculty members, special guests and official guides. In 2015-2016 we visited a wide range of significant buildings, from ancient sites, to medieval monasteries and award-winning recently completed buildings.



Public lectures are another essential component of the program; two were jointly organized with the ETSAV: in December 2015, Eli Synnevg (a senior architect at Snøhetta, Oslo, Norway) presented Snøhetta’s recent work with a lecture entitled “People, Process, Projects;” later, in April 2016, Madrid-based architect Victor López Coteló exposed the principles that guide his practice with a talk titled “The task of the architect.”

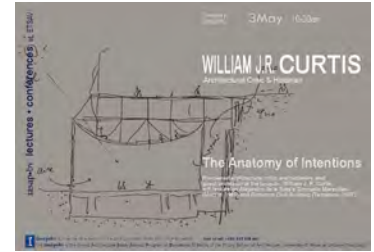
In the Spring semester the iasap-bv hosted three additional public lectures: Benjamin Nesbeitt (Principal Worksbureau, Phoenix, USA) presented his office’s work; William J. R. Curtis lectured on the work of Alejandro de la Sota, and Nicholas Gilliland (Principal of Tolilla+ Gilliland, Paris, France) closed the year with a lecture entitled “Process / Tolilla+Gilliland: Recent Work.”

A singular aspect of the year overseas is the opportunity of traveling independently. Either on week-ends or during the two full weeks built into the calendar to promote independent travel students journeyed throughout Spain and beyond, to Europe and other countries in the Mediterranean basin. A selection of their own photographs taken at the many buildings and sites they visited during their travels provides but a small window into their search of architecture and personal experiences (pages 60-69).

A true institutional exchange is never unidirectional; the agreement between the ETSAV/UPC and the Illinois School of Architecture provides for seven generous year-long scholarships for students enrolled in the ETSAV to study at Illinois. A glimpse of their education experience at the Illinois School of Architecture is presented in the final pages of the book (pages 70-76).

In closing, this modest book illustrated with a rather random selection of drawings, projects and photographs presents the work of students at the iasap-bv in 2015-2016.

The images presented in this book, however, cannot transmit the vibrant experiences, personal and collective, of a full year of overseas studies, experiences which will forever remain with the students, certainly to emerge in countless opportunities in their future personal and professional lives.



ETSAV+iasap-bv lectures-conférences at ETSAV



ETSAV+iasap-bv lectures-conférences at ETSAV
Tuesday/Dimarts 12*Apr 10:30am

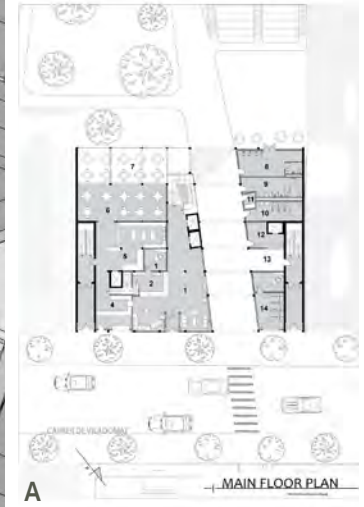
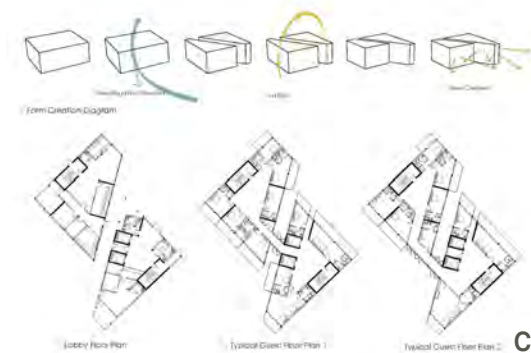
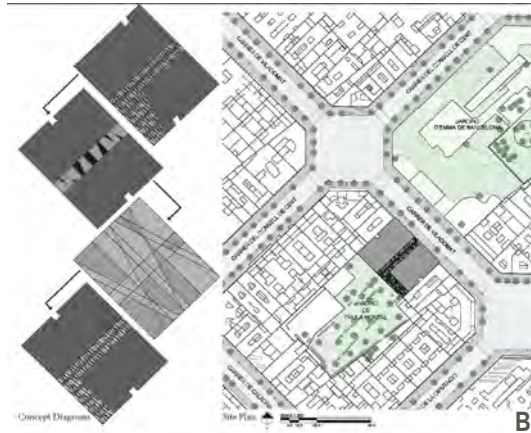
Sant Cugat del Vallès, May 2016

Capstone Studio Project: a Boutique Hotel in Barcelona's Eixample

The capstone course is the culmination of the design studio sequence at the undergraduate level and a gateway to further study at the graduate level. The capstone studio is the student's opportunity to integrate knowledge and skills attained in areas of design, environmental technologies, structures, and history into the development of a comprehensive design process.

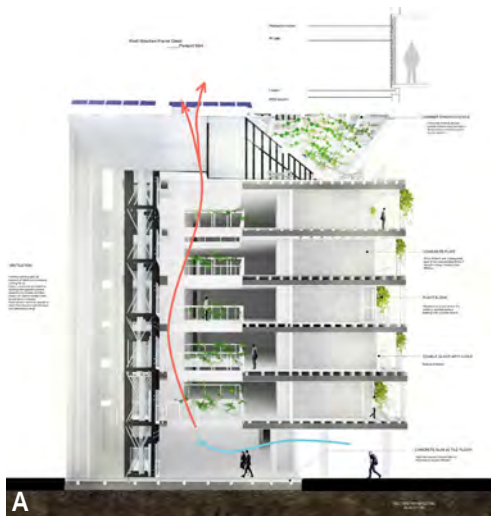
At the iasap-bv, the Capstone Studio matched the requirements of the equivalent course offered at the home campus; however, the project developed at the overseas program incorporated a set of different challenges directly derived from the specific conditions imposed by the dense historical urban fabric of the site selected. The semester's assignment thus consisted of developing a comprehensive design for a new boutique hotel building located on a typical plot of Barcelona's world famous Eixample.

A "Boutique Hotel" was defined as a relatively small, locally owned and operated hotel typically located in a central walkable urban district that offers a unique guest experience as compared to the typical large, corporate chain hotel. For this project, the unique guest experience was characterized as providing an affordable, well-designed hotel that contributes to the character of the urban fabric with minimal negative impact on the environment. Finally, special emphasis was placed on designing high-performance buildings that achieve innovation in energy efficiency and design excellence.



8 A> Aerial plan of site -B> M. Kodros -C> S. Fahey

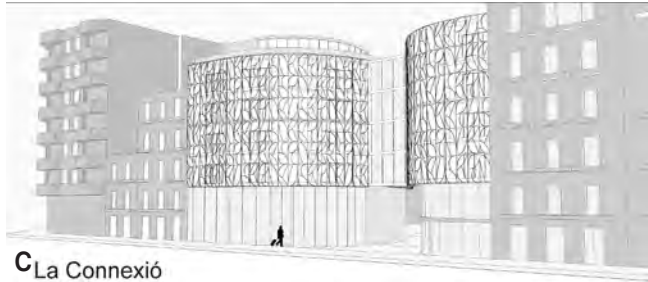
A> B. Berg -B> A. Menolascino



A



B



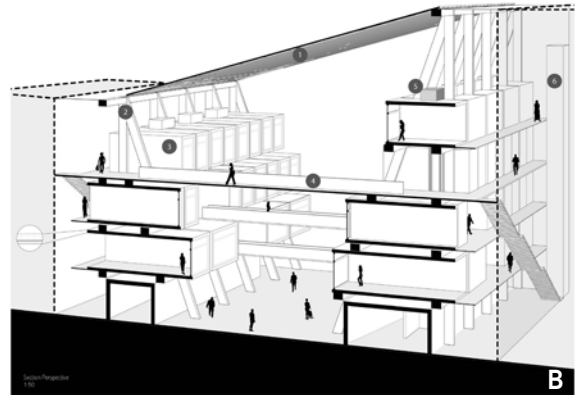
C La Connexió



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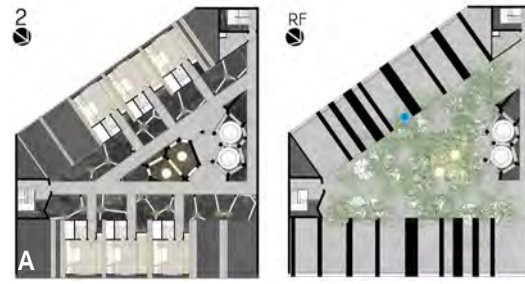
B

- 1 SOLAR COLLECTING ROOF A solar system supports a grid of horizontal photo-voltaic cells that harvest energy for the building or other uses.
- 2 SLIMS LAMINATED TIMBER GLULAM SUPERSTRUCTURE A long timber superstructure is used that will house the modular units on each floor.
- 3 CROSS LAMINATED TIMBER EXT-MODULAR UNITS Prefabricated units will be pre-plugged into place and bolted for safety.
- 4 SOLAR CAPABLE Glulam create an alternate mode in case of the allowing the collection of energy to power the store.
- 5 PLINTHS Plinth is supported on a green plan and other directly water and heating cooling vertically to 4 stories.
- 6 ELEVATOR CORE Location can be located at the entrance of the store. Elevator can be located for service.



D

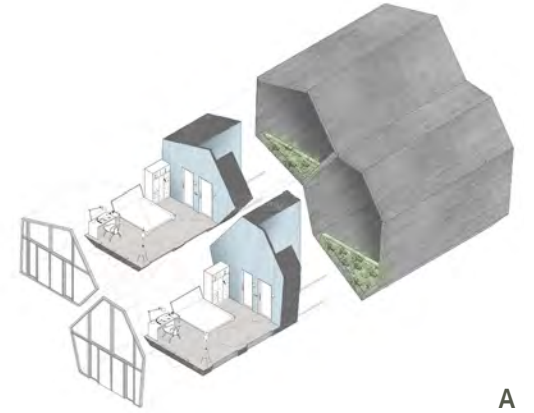
This hotel is an extension of the atmosphere around it, a home. It is the home of Barcelona that welcomes visitors to the city. The idea of this hotel is to invite guests to interact as they would in their homes. There are private rooms for each user, a public outdoors restaurant, an outdoor workout space, and a private garden in the back. To make this villa urban, the ground floor is open to allow the public and guests to interact. This creates a connection between the private garden and the park across the street.



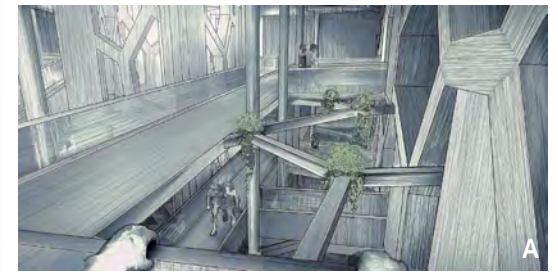
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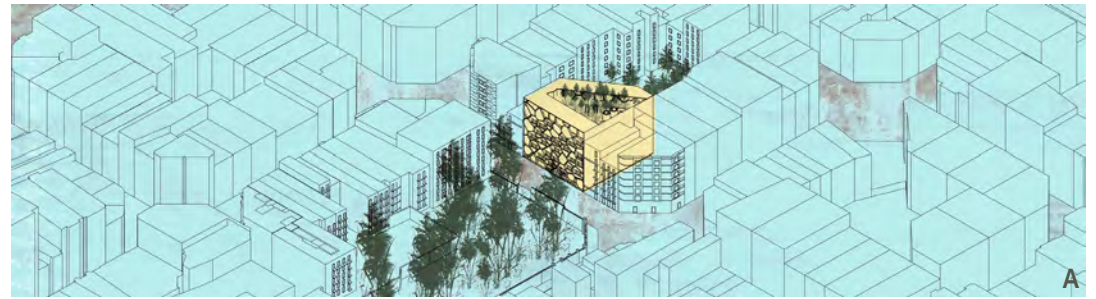
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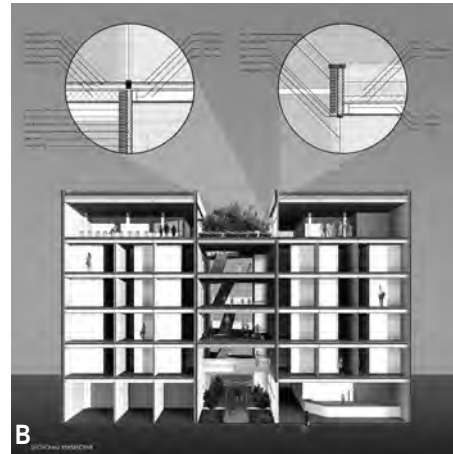
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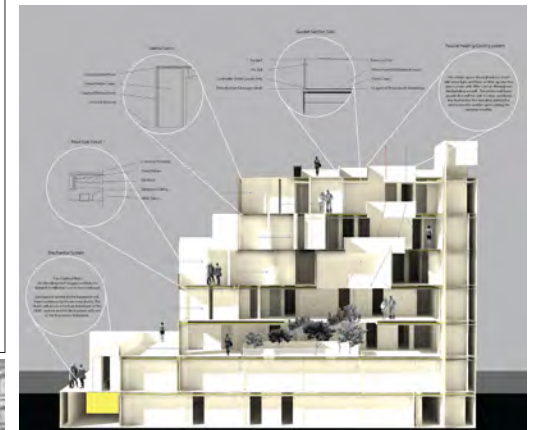
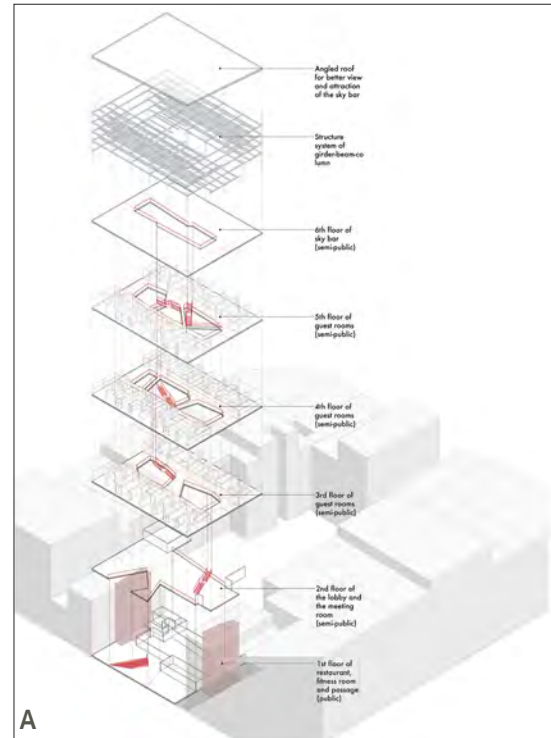
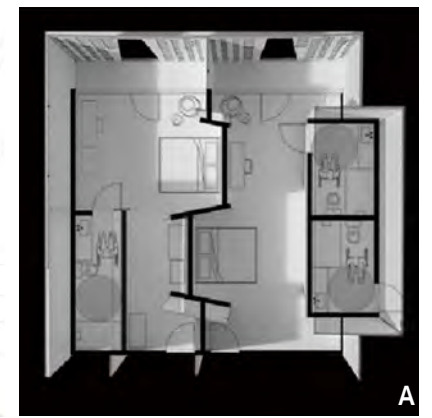
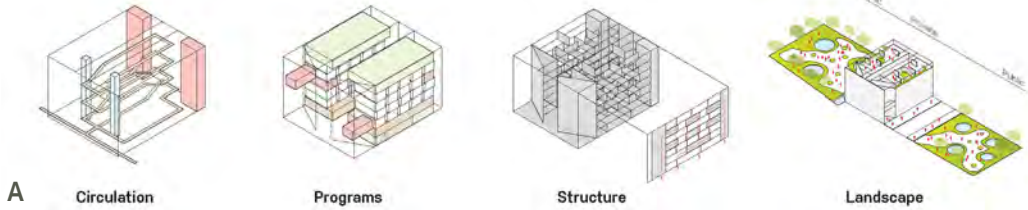
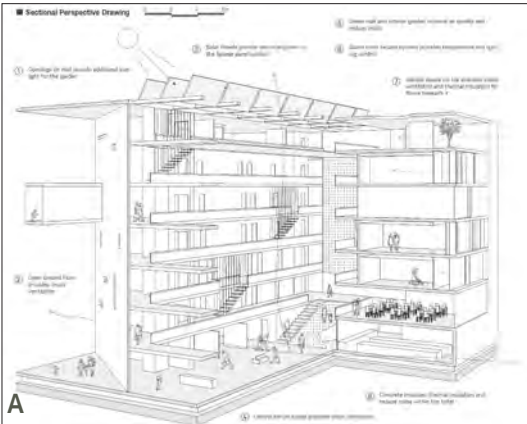
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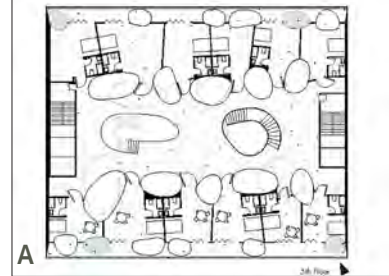
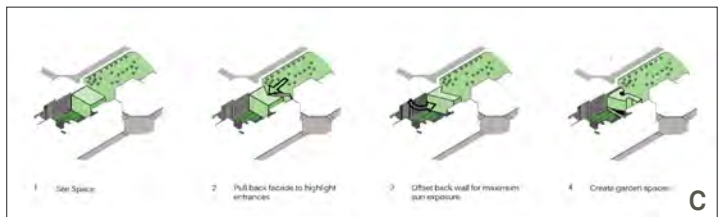
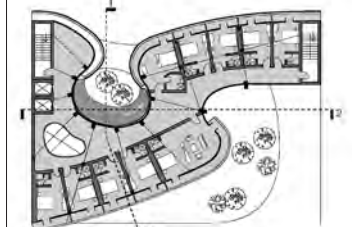
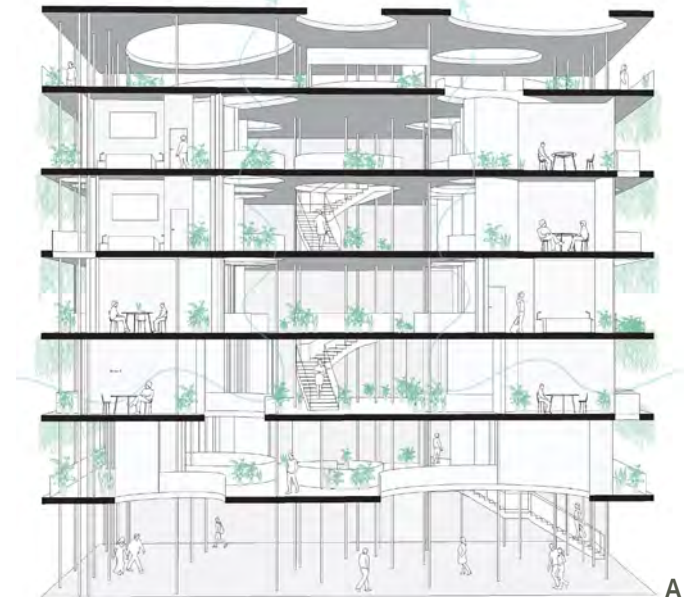
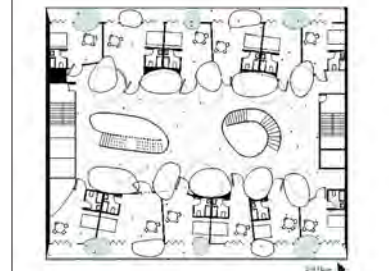
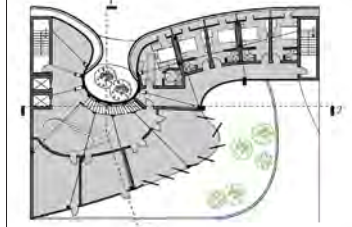
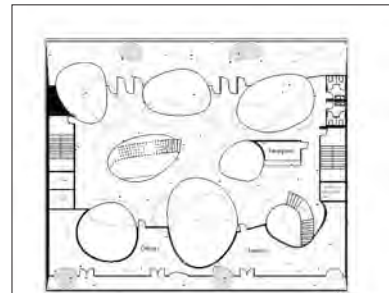
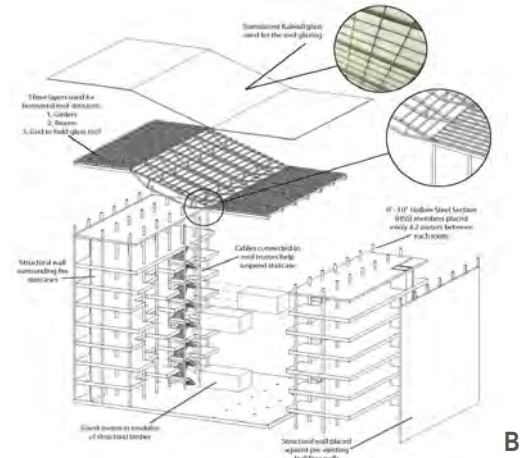
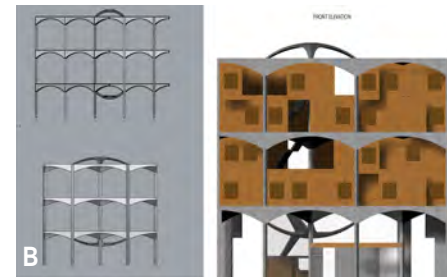
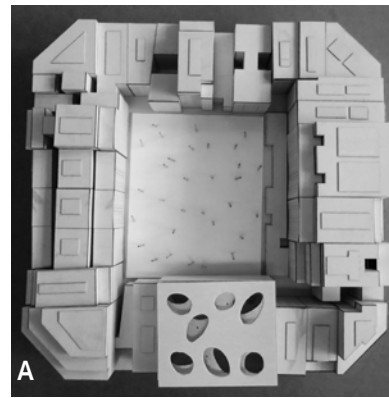
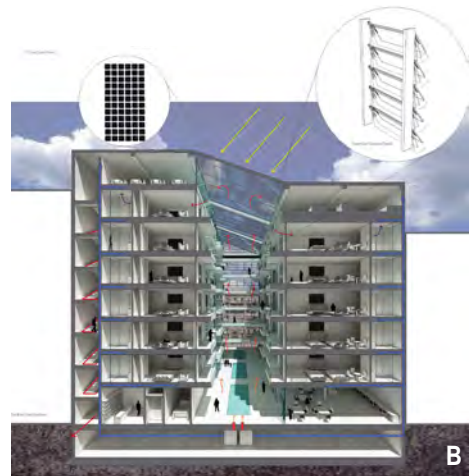
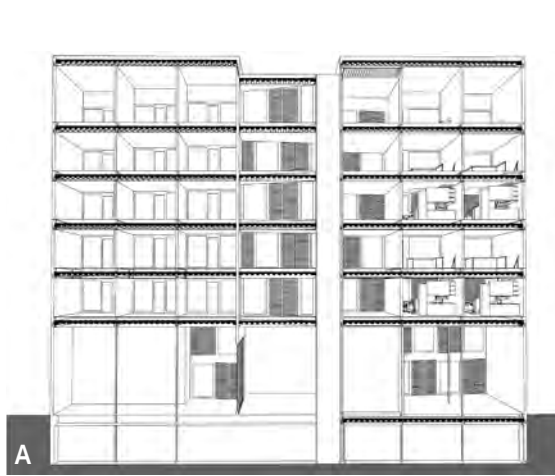


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Capstone Studio Project: a Boutique Hotel in Barcelona's Eixample

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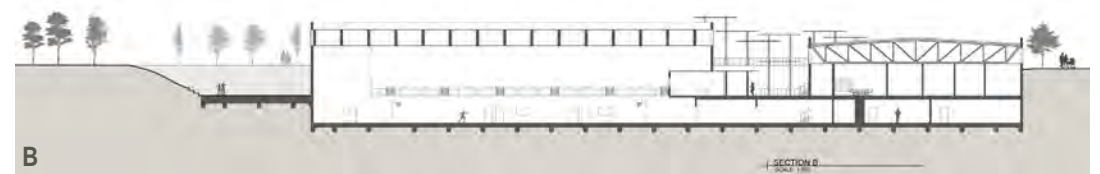
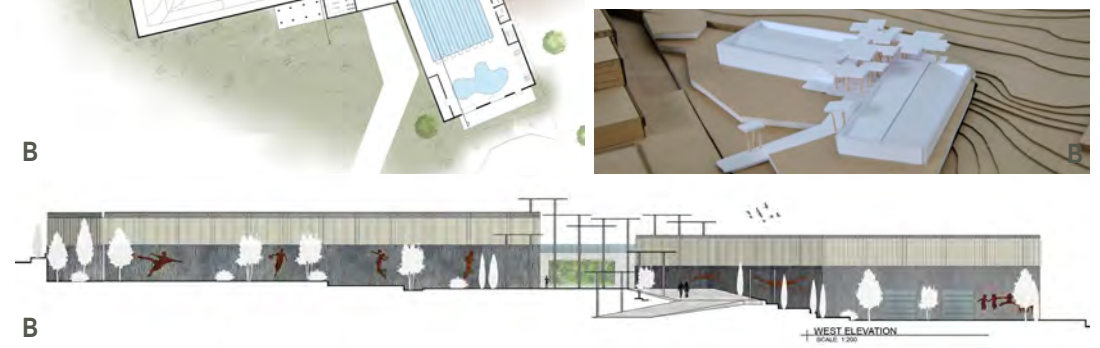
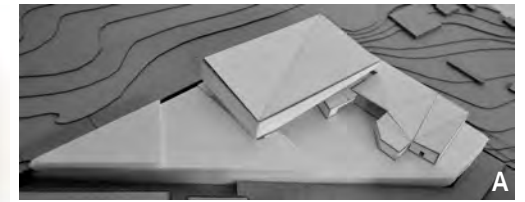
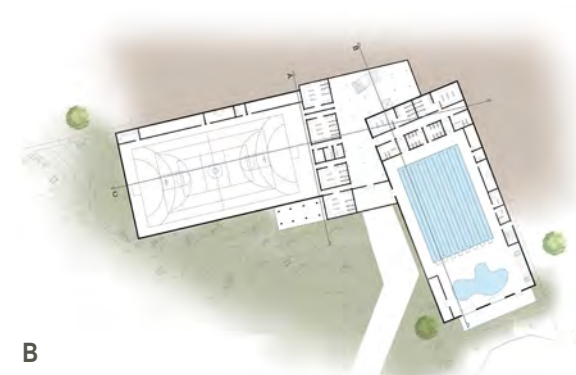
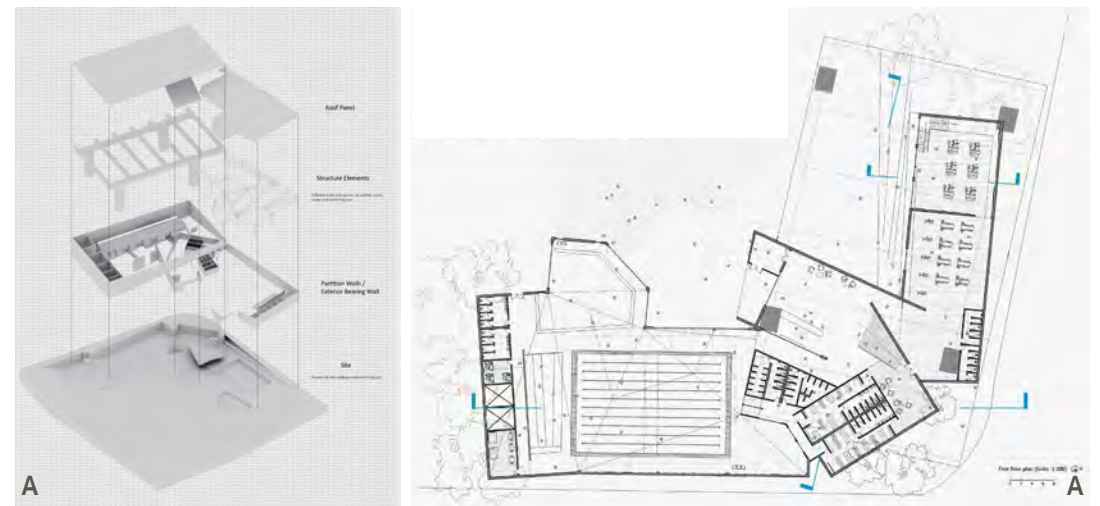
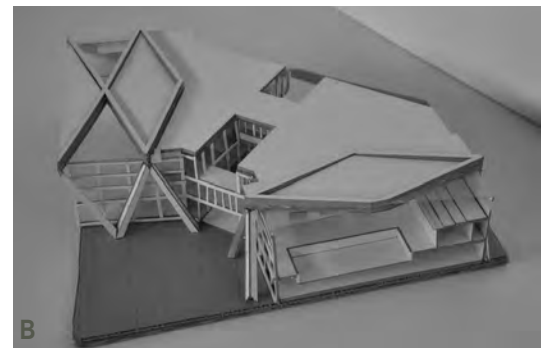
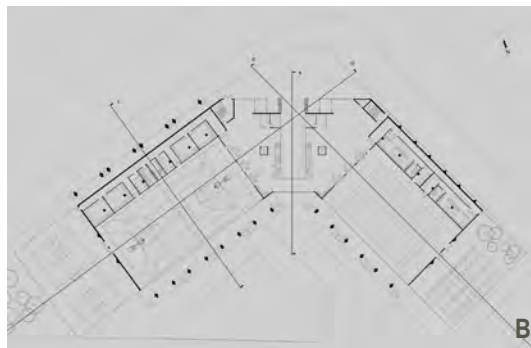
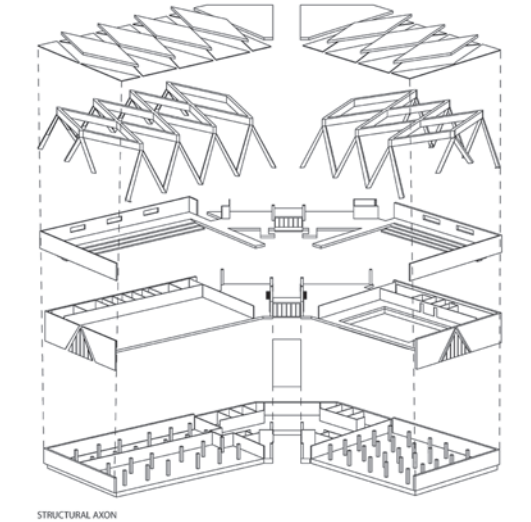


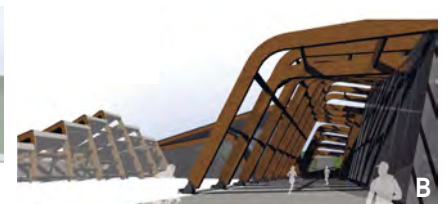
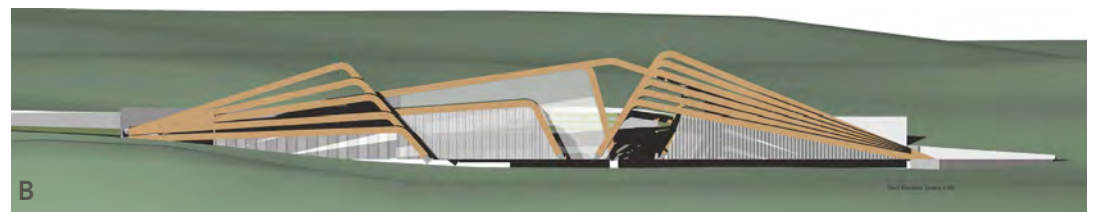
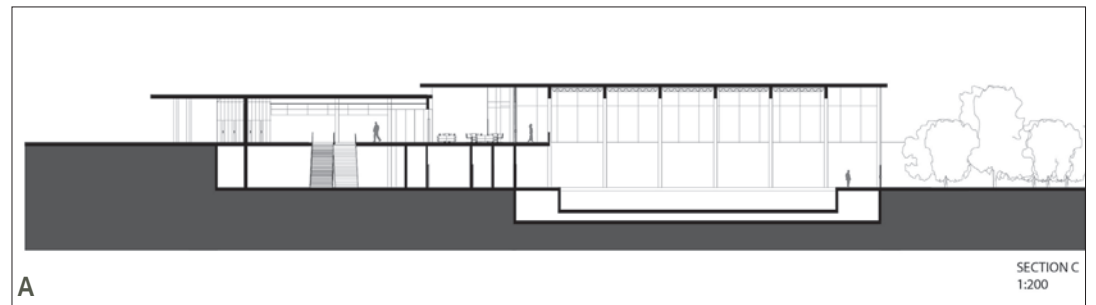
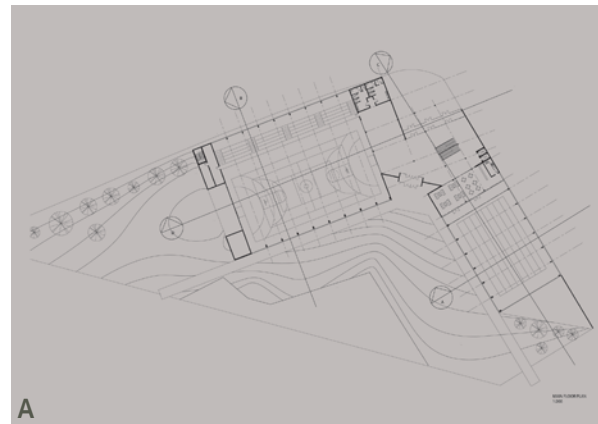
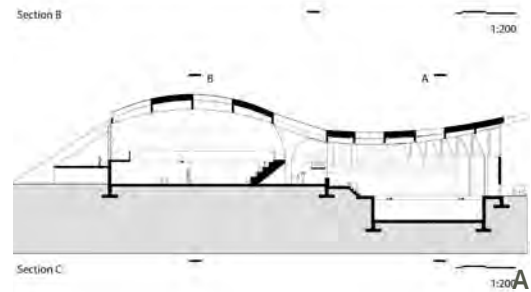
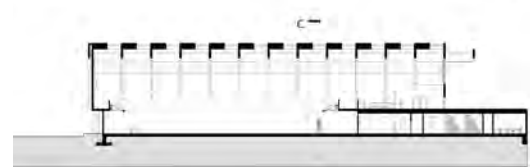
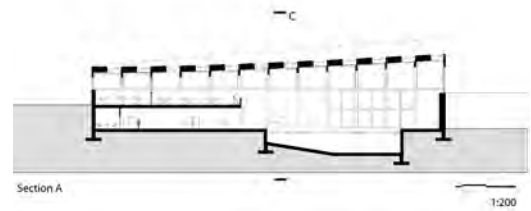
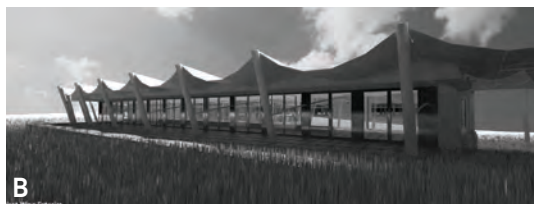
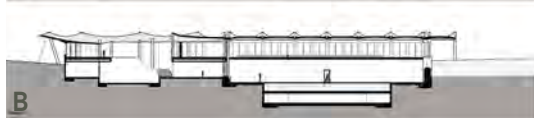
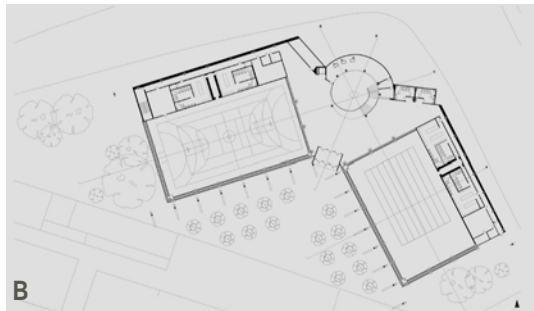
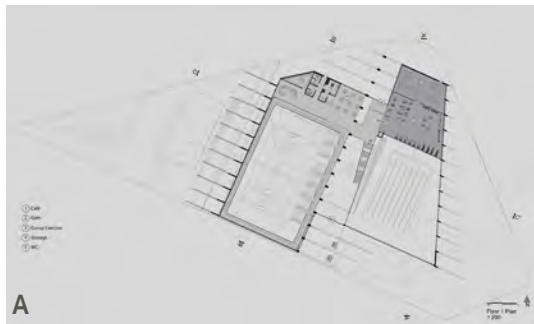
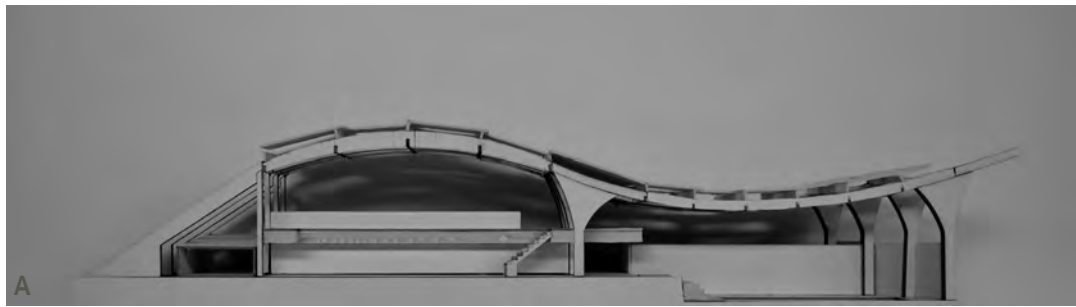


Mirasol Sports Complex in Sant Cugat

This studio section was dedicated to designing an indoor sports complex at Mirasol in Sant Cugat del Vallès. The program consisted of an indoor swimming pool, a multisport gymnasium and all complementary spaces.

The focus of the course was on learning a methodological design process. This process began with the analysis of the relationship between the “place” and the program in order to search for architectural concepts upon which the projects evolved. Special interest was placed in understanding the function of a sports complex within the surrounding neighborhood in terms of providing both a place for exercise and training, as well as a place for social interaction, and in implementing the integration of the building system—space, structure, materials, landscape, etc.—with the architectural proposal.





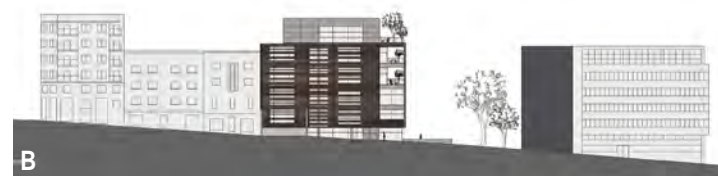
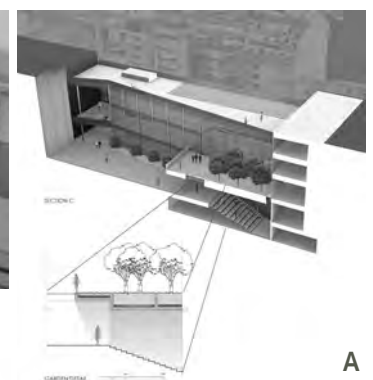
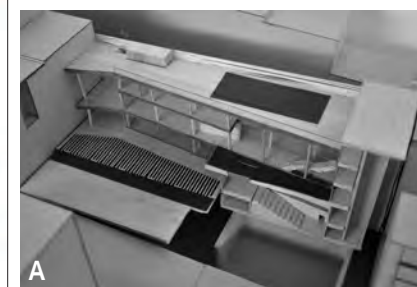
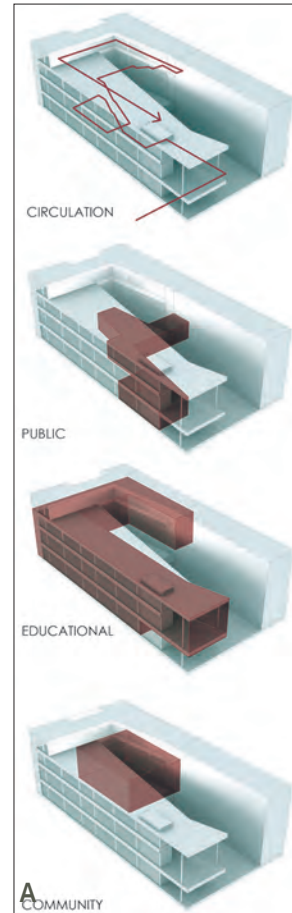
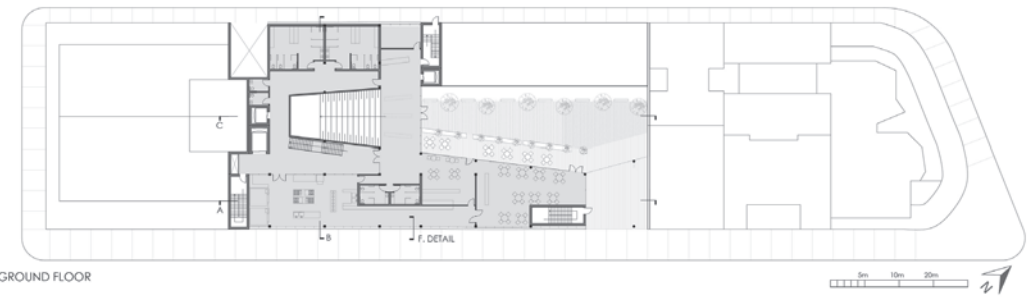
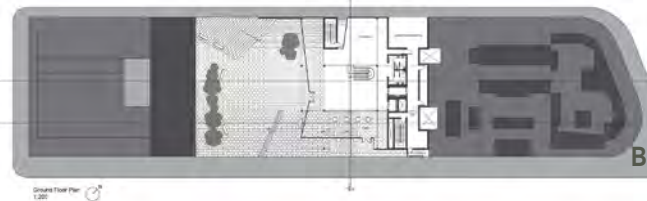
Catalunya's International Cooking School

"The professor to his cook: you are a little opinionated, and I have had some trouble in making you understand that the phenomena which take place in your laboratory are nothing other than the execution of the eternal laws of nature, and that certain things which you do without thinking, and only because you have seen others do them, derive nonetheless from the highest scientific principles."

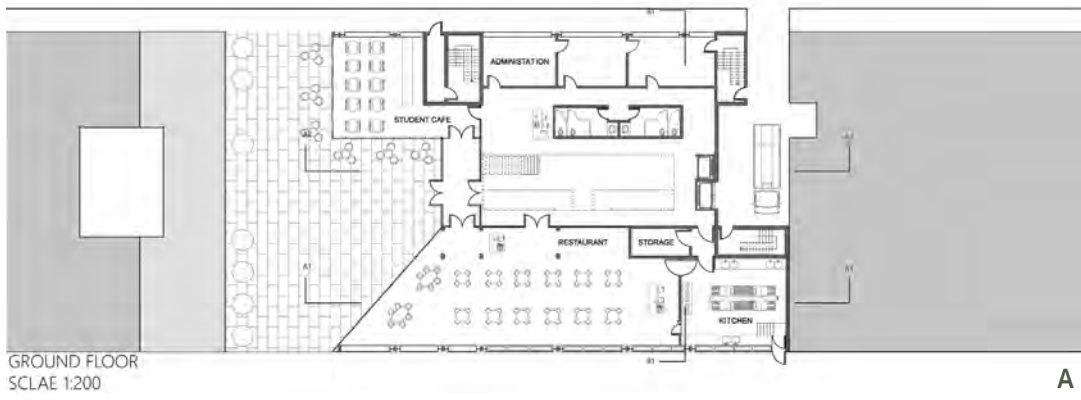
Brilliant-Savarin, The Physiology of Taste.

In this studio section the assignment consisted of designing an institutional facility dedicated to teaching the art and science of cooking. The site was located on Avinguda de la Mare de Déu de Montserrat and Carrer de la Mare de Déu de la Salut, slightly southeast and downhill from Barcelona's famous Park Güell. Bounded by neighboring six-story buildings but opening to two streets in the longer dimension, the site posed a variety of design challenges that included the consideration of a future residential facility to lodge students who attend courses at the school.

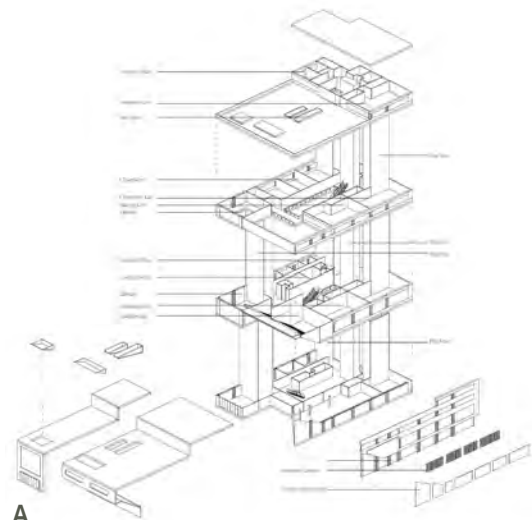
The program called for workshops and cooking labs, supporting instructional areas, administrative offices and a wide range of public and semi-public spaces such as an auditorium/demonstration lab, cafeteria and restaurant. Special attention was placed in considering the insertion of the building into the consolidated yet heterogeneous urban fabric of the site and its environs.



International Culinary Institute of Barcelona
 The project focuses on introspective architecture in order to foster a collaborative learning and teaching environment. The garden becomes an outdoor living area by building through a series of angles and setbacks. The green space is extended to the full level, creating a double-height community gathering space on the mezzanine and differentiates the public spaces from the main spaces. The twisted tower facade system allows users to see to the outside, brings in natural light and prevents direct interior visibility to the community. This system protects the privacy of the students and relocates the attention on learning the culinary arts.



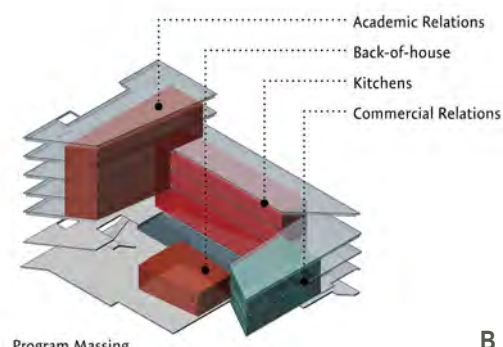
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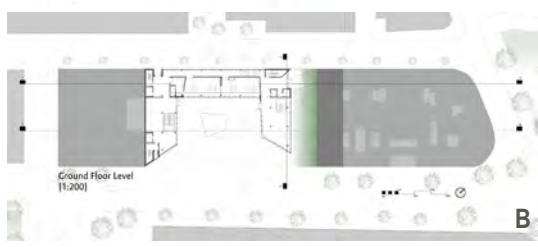


Program Massing

B



B



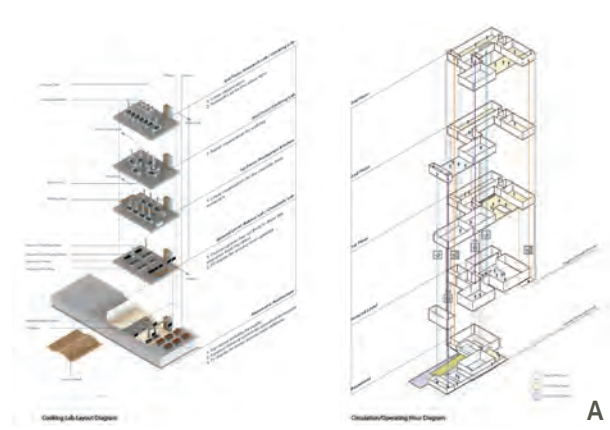
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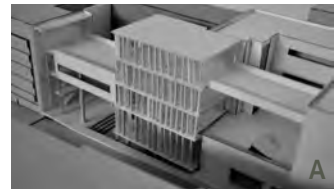
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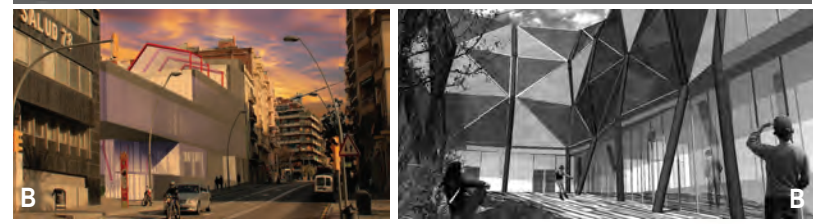
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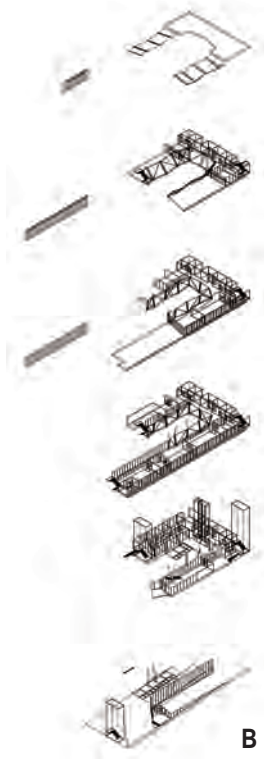
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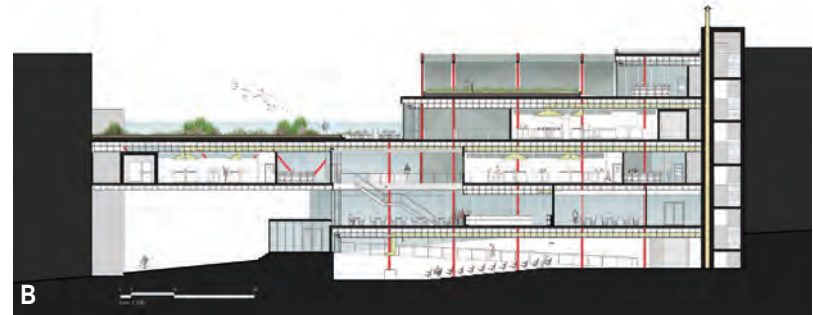
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Special Topics in Spanish Architecture

History of Catalan Architecture I/II is a course focused on the most significant periods of Catalan Architecture and its major aim is to provide a general overview on the architectural history of Catalonia. The Fall Semester started with History of Catalan Architecture I. This course introduced the students to the architectural history of Barcelona, from the Roman period to the Middle Ages, paying special attention on Catalan Gothic Architecture (13th–15th centuries).

The semester consisted of the combination of a series of lectures and field trips to the most emblematic buildings located in Barcelona and its environs: Visigoth and Romanesque architecture (the Episcopal See of Egara: Saint Peter's Church, Saint Michel's Church and The Virgin Mary's Church); religious Gothic architecture (Cathedral Basilica of Barcelona, Basilica of Santa Maria del Mar, Monastery of Santa Maria de Pedralbes); civil Gothic architecture (City Hall, Palau de la Generalitat).

This year we spent a day in Girona to visit the most emblematic buildings: Monastery of Sant Pere de Galligants (Romanesque); Cathedral of Girona (Gothic); Law School and Public Library Carles Rahola (20th–21st century). During the field trips the students improved their skills of perception by analyzing and comparing the formal aspects of the buildings visited. During the lectures, at the beginning of each session, the students were immersed in the basic bibliography of the course doing an oral presentation -in groups of two- based on a chapter of Paul Frankl's book, *Gothic Architecture* (1962), and followed by a class discussion.

The Spring Semester followed with History of Catalan Architecture II. This course introduced the students to the Catalan architecture developed after the Industrial Revolution (19th–20th centuries), from the Pla Cerdà to the 1970s. Along these two centuries, the course paid special attention to the Catalan Modernism and its two major figures: Lluís Domènech i Montaner and Antoni Gaudí.

As in the Fall, sessions consisted of the combination of a series of lectures and field trips: the Modernisme of Lluís Domènech i Montaner (Castle of the Three Dragons, Citadell Park); the Modernisme of Antoni Gaudí (Palau Güell); Catalan Modern Architecture/G.A.T.C.P.A.C (Casa Bloc); and Catalan Architecture in the 1970s (Ricardo Bofill Taller de Arquitectura, Apartment Building Walden 7).

This semester the oral presentations and discussions were based on Henry-Russell Hitchcock's book *Architecture: Nineteenth and Twentieth Centuries* (1958). The semester finished with a final presentation and final paper in which the students presented their first-hand analysis of a building that was selected earlier in the semester.

Composició II/III is the sequence of two related courses, one in each semester, concurrent with the third year of studies in architecture at the Vallès School of Architecture. This course was offered jointly to the ETSAV and the iasapv students. These two courses are intended to provide a general overview on theory and history of art and architecture, from the French Revolution to World War II. The articulation of both courses is not chronological, but conceptual. In the Fall semester, Composició II dealt with the formalist approach in art and architecture, from Neoclassicism to International Style, or, to put it with Emil Kaufmann's title, "From Ledoux to Le Corbusier." The keyword for this course is art, and it is almost exclusively a European History. During the lectures, the students, organized in mixed groups with the Vallès School's students, learned to apply the formalist theory by fast exercises of comparing images. In the Spring semester, Composició III was dedicated to studying the Romantic tradition in modern art and architecture; to borrow Robert Rosenblum's title, it will encompass works "From Friedrich to Rothko," or, in architecture, "From William Morris to Walter Gropius", to now borrow a title from Sir Nikolaus Pevsner. Keywords are here Beauty and the Sublime. During the course the students wrote a paper comparing one work designed before WWII to one after WWII.

by: M. Riley + L. Rockwell

The Santa Creu i Sant Pau Hospital is a landmark site within the city of Barcelona that encapsulates the *Modernisme* movement while pioneering modern health approaches to patient welfare. Through the organization of the site, the rich architectural features, and the focus on psychological responses to environmental conditions. The hospital was designed by Catalan architect Lluís Domènech i Montaner, an important contributor to the modernisme movement in Catalonia, Spain. Montaner's work is distinguished by the synthesis of strong Spanish-Arabic influences with standard curvilinear Art Nouveau forms. He refined his technique over time, using ceramic tiling in combination with rational structure solutions composed of iron that resulted in bright, open spaces made up of large windows and detailed ornamentation. These particularities of Montaner's buildings evolved into some of the defining features of the hospital's design; they impacted not only the form of this distinct hospital, but also the way in which hospitals in general were conceived and organized. In a sense, the *modernisme* design of the building stood on a tipping point between the past and the future; it was the culmination of the need for a new brand of healthcare and through its architectural delivery it set an example for future architects to design while keeping the needs of building occupants in mind.



Before the new Hospital de Sant Creu i Sant Pau was designed from 1902-1930, the old hospital, Hospital de Santa Creu, was located in the current Raval district where it had stood for five hundred years after the merging of six major hospitals in 1401. Increasing population demands necessitated that a new hospital be constructed. This hospital was funded by the well-known banker Pau Gil, who commissioned Lluís Domènech i Montaner to design a larger, more functional hospital to meet the needs of Barcelona's growing population and advancements in the medical industry. The site is located in the El Guinardo district at the northern corner of the Eixample. It features a large avenue that carves diagonally through the Eixample and connects the hospital to La Sagrada Família. The entire site where the hospital occupies is comprised of three city blocks making it the largest single work of Art Nouveau construction in the entirety of Europe. The hospital itself is contained in the southern corner of the site and is made up of the administration building in the corner entrance, two linear rows of four buildings, a building in the center of the



these rows, and another large building that caps the north end of the area. In its corner of the site, the Hospital de Santa Creu i Sant Pau is rotated forty-five degrees away from the angle of the Eixample and so lies along a North to South axis. This discrepancy allowed the hospital to occupy a busy corner, but, more importantly, establish itself as an independent city block of its own within the urban context. The hospital was constructed as a "city within a city"; its wards became the occupants of the city, its tunnels were the underground streets, the main axis beyond the administration building was an extension of the avenue just outside the site, and the gardens filled in the miniature grid with green space.

Montaner created an isolated environment within which the hospital patients could recuperate.



This isolation from the rest of the city allowed for the unique designs that characterized the hospital as a work of *modernisme* art. These architectural styles were mostly derived from Spanish-Arabic influences with some instance of Christian architecture represented as well. The majority of the patient housing was made up of the Arabic artistry where Arabic tiling inside and outside, horseshoe arches, and even abstractions of minarets could be found. The heavy symmetry, cathedral-like clock tower spire, slight window tracery, and sculptural saint iconography indicated the use of religious themes throughout the rest of the building. The austerity of the Christian-styled administration building and front entrance of the hospital create a safe boundary for the patients where the playfully curving modernisme and Arabic styles encourage a state of inner peace and happiness.

Within its attractive building forms, a sophisticated circulation grounded the project's design by urging a smoother transition between patient housing and the rest of the hospital via an underground network. The underground tunnels of the hospital aided in

the recovery of patients by simplifying the transportation of hospital wards and medical supplies, and creating quick routes along which medical staff and faculty could travel. The main tunnels ran directly below the central axis of the site between the two rows of patient housing. These tunnels incorporated exterior access by way of two sets of two circular, spiral staircases. The main tunnels branched off into smaller tunnels that connected directly to the patient housing blocks where they deposited the patients. The access to the exterior shaped the way that patients interacted within their hospital setting. They were allowed more freedom to the outside via these tunnels and were able to experience the exterior gardens and pavilions that surrounded their housing.

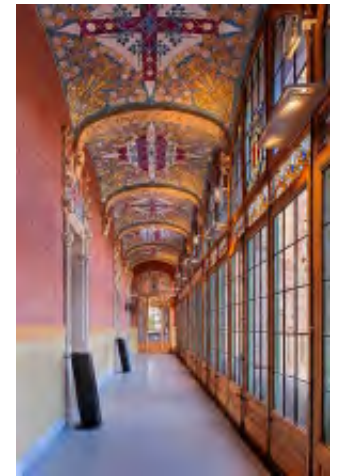


In addition to a rational site organization and circulation, the hospital was dedicated to providing the best medical advancements with the most advanced healthcare strategies for its patients. There were pioneering breakthroughs made in the areas of patient psycho-physical well-being, or the thought process that psychological happiness or unhappiness can have a positive or negative impact on patient recovery. Because of this push for better standards of living within hospitals, the Hospital de Santa Creu i Sant Pau became a model for future hospitals across Europe. Several aspects of the site had dual-purposes for existing in order to encourage positive health benefits while remaining aesthetically appealing, such as the air purifying qualities of the trees in the garden or the easy maintenance of the colorful tiling.



There were two gardens for each pavilion within the hospital. The overabundance of foliage ensured that patients felt surrounded by nature and were kept visually interested by views to the outside. The trees within the gardens were strategically planted to be of the highest benefit for improving air quality. Increased air circulation, better humidity, and fresher air were just some of the benefits from the gardens that carried over into the interior spaces of the hospital.

The other visually important design strategy was the use of colorful glazed ceramic tiles throughout the entire hospital. On the interior of the building the tiles were used extensively and could be found on the ceilings, walls, and sometimes floors of the hospital. Not only did the tiles create colorful, mood-brightening spaces, but because of the glazing on them, the tiles were easy to clean and disinfect. This reduced the spread of germs and created an overall cleaner and more sanitary internal environment for the patients. Externally, the tiles were used as roofing element on the exteriors of buildings to sustain the Arabic inspirations and to bolster the exotic, playful experience of the gardens. Used in combination with stone sculptural elements on the façade and unique geometry of building forms, the ceramic tiles added a colorful twist to the housing blocks of the hospital that generated an ethereal effect. Emphasis on recovery was promoted throughout the hospital whether it was physically administered by way of advanced medical treatments or subliminally suggested in the colorfully organized surroundings.



Perhaps, one of the most important breakthroughs that the hospital received was the emphasis of light throughout every building and all spaces. This was not only specifically applied to the hospital, but Montaner designed most of his project to allow large amounts of light in through large windows. The buildings that made up the hospital each had many tall windows that surrounded the space and allowed for maximum light levels to penetrate to the interior spaces as well as created optimal air ventilation and views to the outside gardens. The high levels of natural lighting and spacious interior rooms increased the amount of square footage allotted to each patient to about one hundred and forty-five meters squared. That amount of space was previously unprecedented throughout many city hospitals around Europe. However, with the dawning of the twentieth century and new medical advances, the Hospital de Santa Creu i Sant Pau wanted to be on the forefront of the rise in new building models for hospitals looking to increase efficiency and patient recovery rates.

Through the organization of the site, sophisticated tunnel circulation system, commitment to providing green space throughout the grounds, uniquely designed building geometry, and emphasis on natural lighting, the Santa Creu i Sant Pau Hospital left its mark on the world of both healthcare and architecture. The architect, Lluís Domènech i Montaner, used the style of *Modernisme* to challenge the preexisting standards of hospitals from the nineteenth century. He ushered in a new era of building design where concepts are derived from the needs of the occupants, and light and space interact with form to create enriching experiences for the resident.

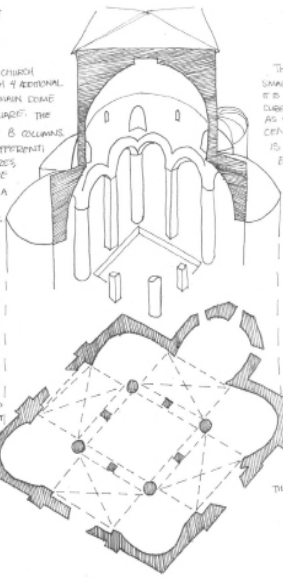


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IGLESIA DE SAN MIGUEL

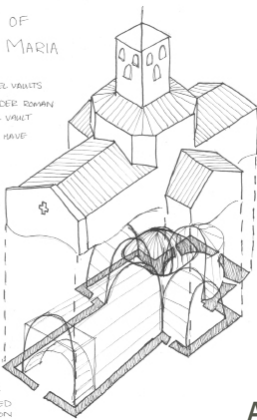
THE PLAN OF THE CHURCH IS A GREEK CROSS WITH 4 ADDITIONAL CORNER DOWNS. THE MAIN DOME IS IN THE CENTER SQUARE. THE DOME SITS ON TOP OF 8 COLUMNS. EACH COLUMN IS DIFFERENT SHAPES, SIZES AND CAPITALS. IN THE 4 CORNERS, THERE IS A 1/4 DOME RISING TOWARDS THE CENTER. THE 4 SIDES OF THE CROSS HAVE GROUND FLOOR VAULTS, AT THE A VARIETY COLLAGE OF THE CHURCH, SOME OF THE WALLS HAD TO BE REBUILT. THE NEWER WALLS ARE EASILY IDENTIFIABLE BY THE BRICKS THAT DON'T QUITE MATCH THE EXISTING/OLD BRICKS. BETWEEN THE WORKSHOPS' QUARTER ASKE, THERE IS A CENTRAL AREA WITH ACCESS VIA A CORRIDOR TO THE LEFT OF THE APSE.



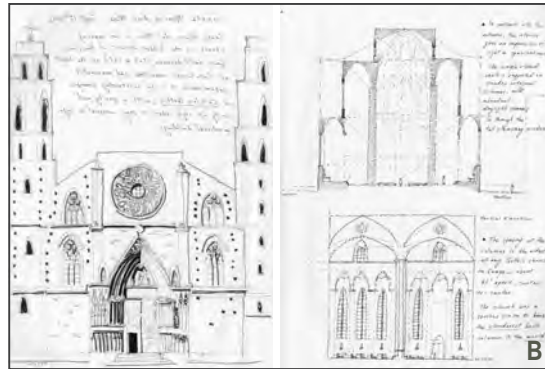
THIS CHURCH IS THE SMALLEST OF THE THREE. IT IS COMPOSED OF NINE SQUARES GETTING SMALLER AS YOU APPROACH THE CENTER. THE APSE IS LOCATED ON THE EAST SIDE AND IS FORMED BY 7 PERSONAL FACETS. IT IS THE ONLY CORNER OF THE CROSS THAT HAS ITS PRIMARY FLOOR PLAN STILL. THERE ARE TWO ARCHWAYS ON THE SIDES THAT TRANSDUCE THE APSE. THE MAIN DOME AND CORNER DOWNS CAN NOT BE SEEN FROM THE EXTERIOR. THE DOWNS ARE HIDDEN BY HIP ROOFS. THERE ARE ALSO A GALLERY SURROUNDING THE CHURCH BUILDING.

CHURCH OF SANTA MARIA

- FINISHED BARREL VAULTS
- ENTRANCE UNDER DOWNY ARCH BARREL VAULT
- VAULTS DO NOT HAVE ANY RISKS
- ALL COLUMN CAPTIVES AT THE SAME HEIGHT
- CORNER ON THE RIGHT APPEARS TO BE IN POSITION
- LATIN CROSS PLAN WITH ONE TOWER AND A TRANSEPT
- WORK THE INTERSECTION OF THE WALLS - THROUGH THERE IS A DOME
- THE APSE IS A SEMI CIRCLE
- CONTEMPORARY WALL TOWER CORNER ON TOP OF DOME
- WINDOW DESIGNED THROUGH ADDITION

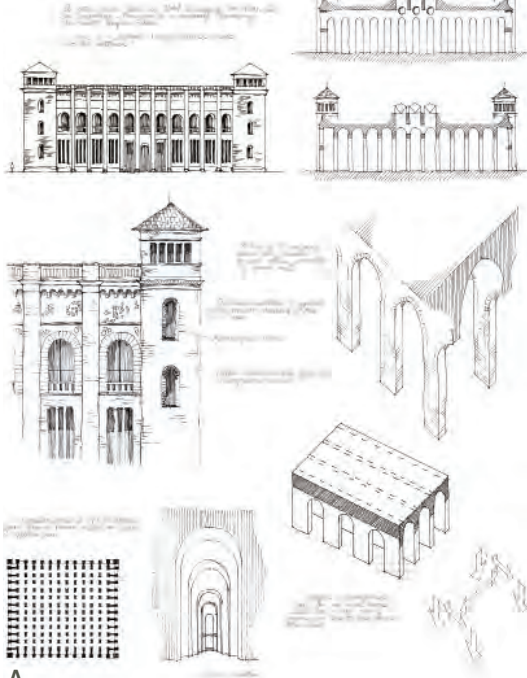


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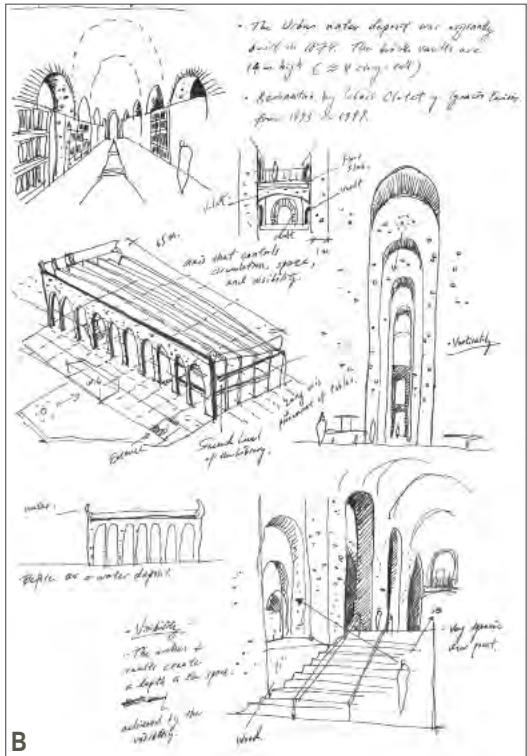


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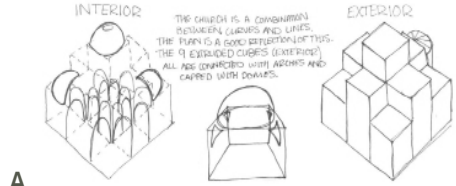
Dipout de les Agos



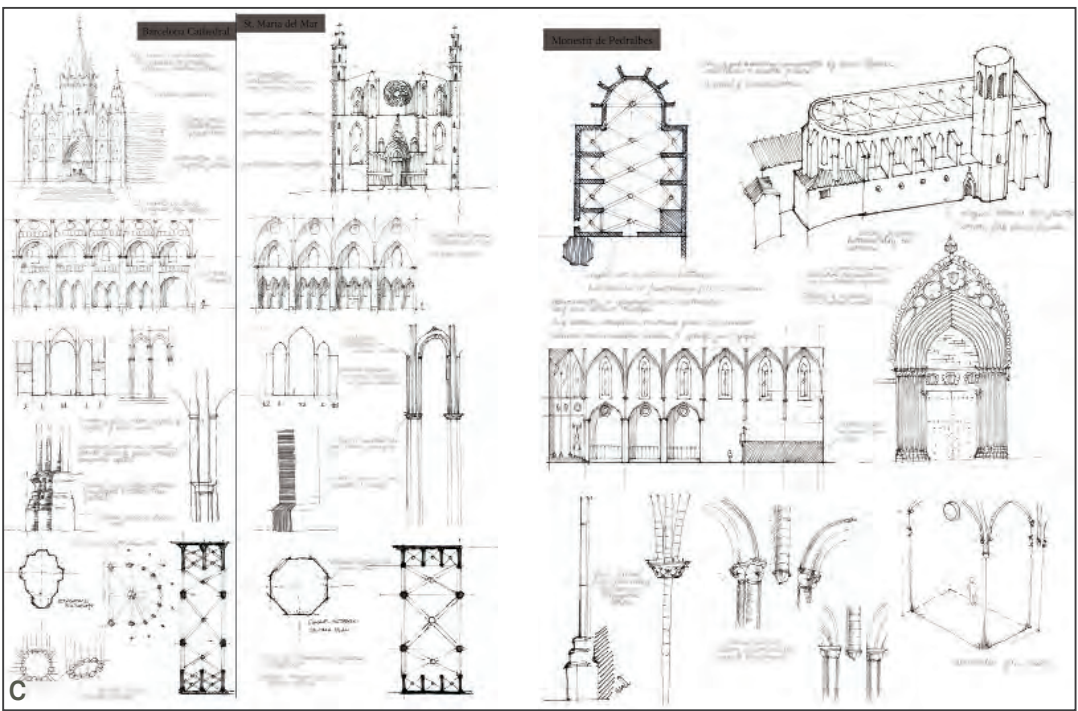
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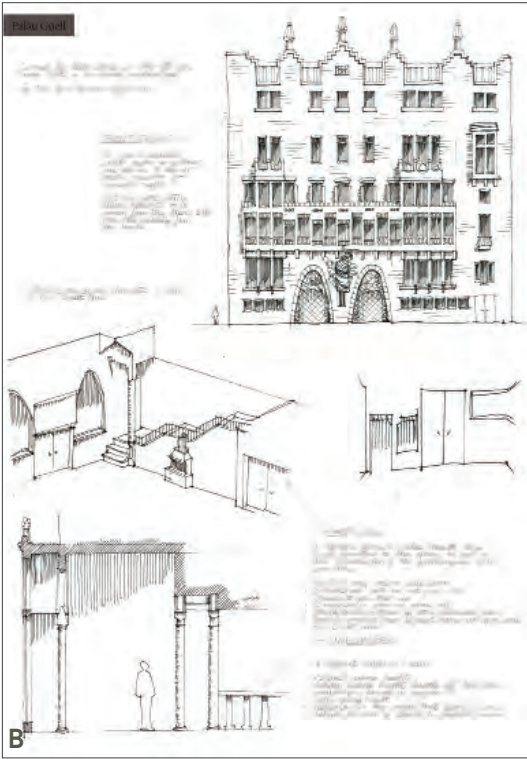
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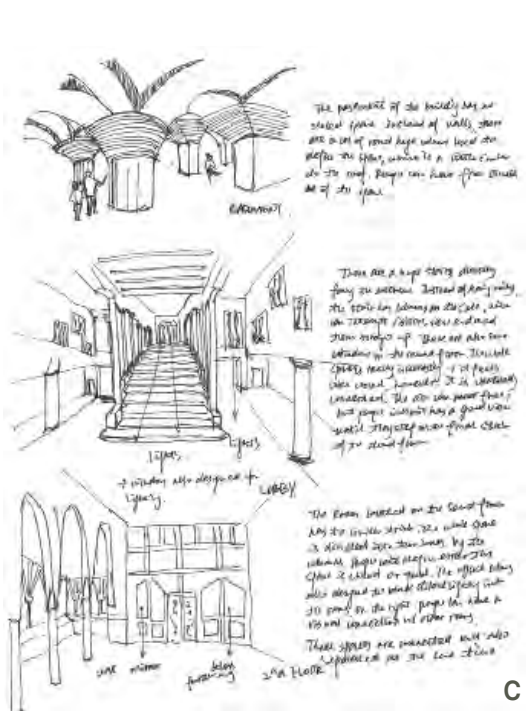
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28 A> J. Miller -B> Y-L. Hsu -C> K. Ngo



A> K. Ngo -B> Y-L. Hsu -C> Y. Liu



C

Santa Creu i Sant Pau Hospital

Architect: Josep Domènech i Montaner
 Style: Modernism, with Gothic Revival influences
 Built: 1900-1930
 City: Barcelona
 Location: El Guinard district



Tunnels allow ease of access without having to go outside while still allowing the buildings to be externally accessed from anywhere. The tunnels led an underground street for the main flow of traffic (are organized with a main axis and branches that connect all the buildings, providing efficiency in the transportation of supplies between buildings.



Each building supports large windows allowing light to permeate the building from all sides. Access to ample light is believed to aid in the patients recovery and state of mind.



These elements help compose the buildings of Sant Pau Hospital, iron forges helped to support large glass windows while brick and stone work helped to support the structure. Large brick arched windows and a fully tone to the overall composition.

A

LA FABRICA CASARAMONA

ARCHITECT: PUIG I CADAFALCH
 YEAR: 1909 - 1912
 BARCELONA SPAIN

GRID LAYOUT

ROOF PATTERNS

A

The Centre for Contemporary Culture in Barcelona

Architect: Drew & Nico

BIBLIOTECA JAUME FUSTER

Architect: Josep Lluís Sert
 Location: Girona, Barcelona, Spain
 Year: 2011

B

C

Conjunt d'habitatges del Banco Urquijo

Jose Antonio Coderch

Legend: Circulation, Parking, Commercial, Green Spaces, Residential

B

31

The Structures curriculum consisted of two courses: Theory and Design of Structural Steel and Theory and Design of Reinforced Concrete. Although the courses were essentially equivalent to those offered back home in Champaign, Illinois, they were enhanced by the unique opportunities afforded by the program's location abroad.

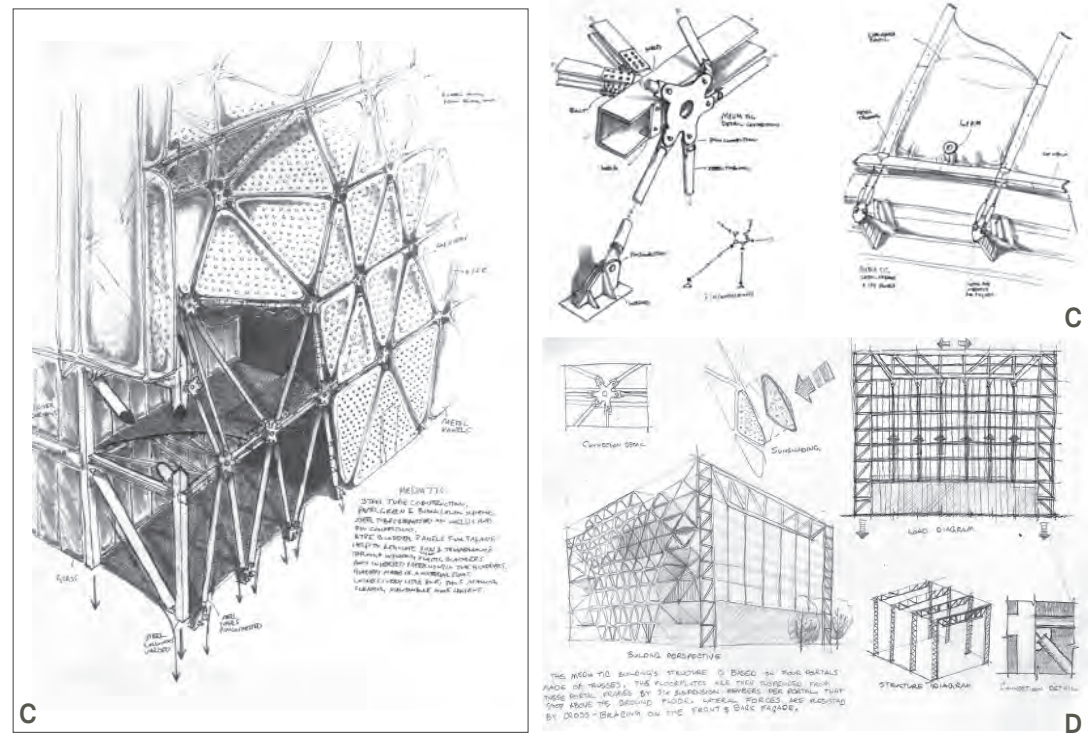
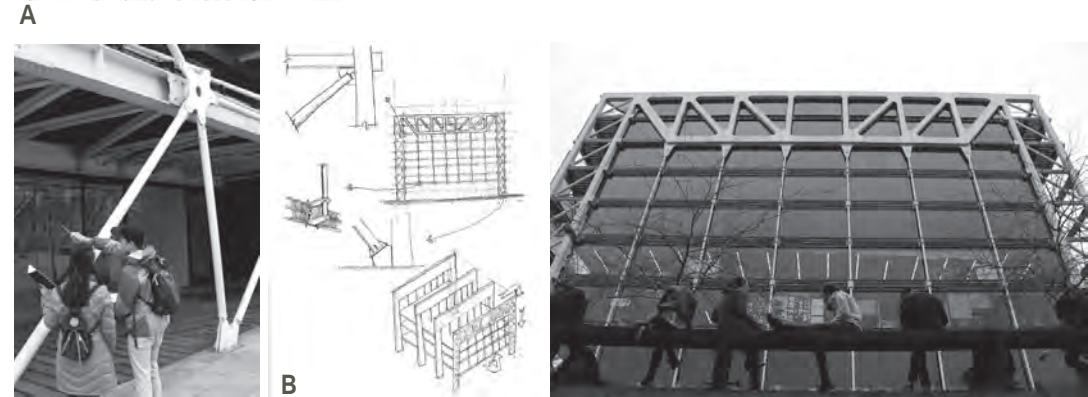
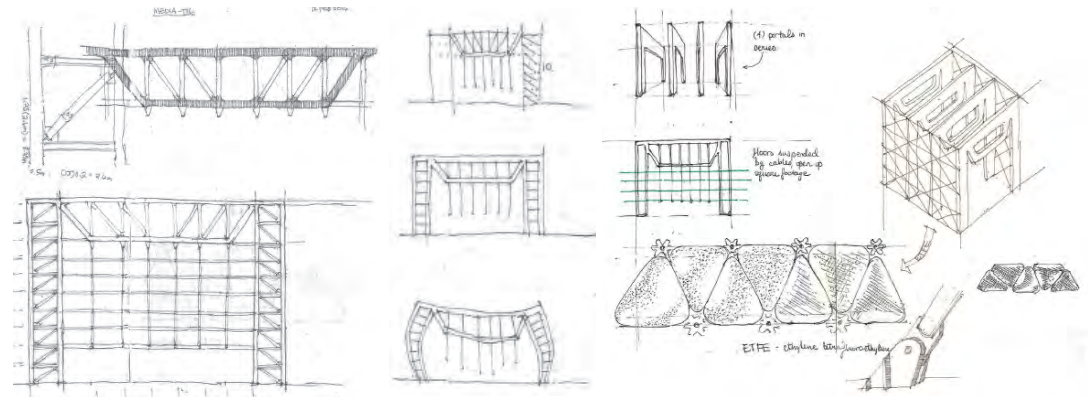
As such, course content was not solely delivered in the classroom, but also during many fieldtrips, site visits, and also through collaboration between different courses and their faculty, such as design studio.

The two main courses are rigorous, continuing the University of Illinois' long-standing reputation for technical excellence. There was a primary focus on learning the skills required to analyze and design various key components of building structural systems, such as beams, columns, slabs, frames and connections. Likewise, essential topics such as load calculation/distribution and continuous load path permeated the entire year's coursework.

The typical classroom sessions consisted of lectures followed by "laboratory" sessions where students had time to work on daily assignments in the presence of the professor.

Outside of the classroom, studies in structures continued via: fieldtrips and building visits, studio visits and consultation periods, special sketching assignments, and during the Architectural Workshop, where structures was a major component of a design challenge.

A major focus of the year has been to learn not only the theories and equations involved in structural design, but also to develop a better understanding of how building structures work holistically, how they fundamentally influence our perception of space and architecture, and most importantly, how they can become powerful tools in the hands of a designer.



CIRCULAR DESIGN

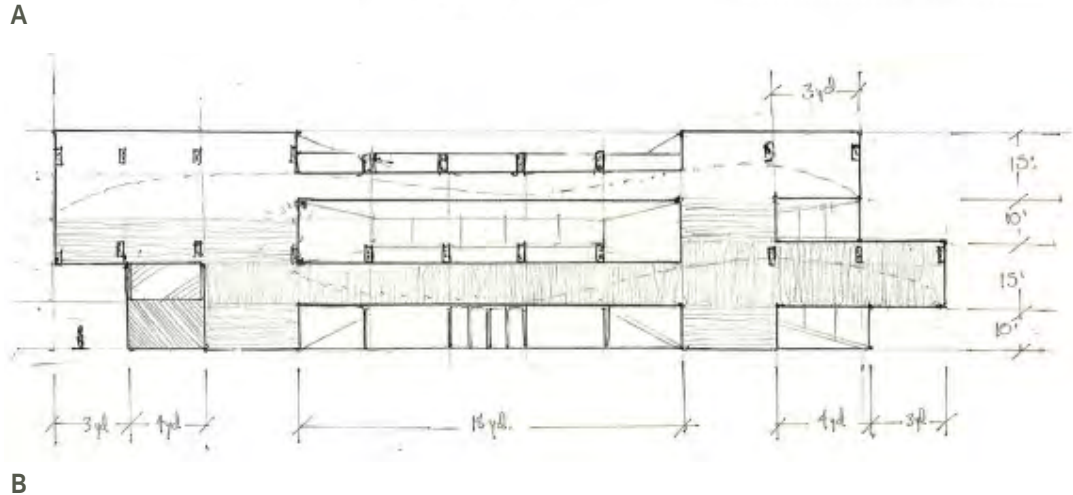
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LONGITUDINAL BEAM

1) $S_{pl,y} = 1000 \text{ cm}^3$
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TRANSVERSE BEAM

1) $S_{pl,y} = 1000 \text{ cm}^3$
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Design of Axially Loaded Columns

1) Square load column: $P_0 = 2000 \text{ kN}$, $P_1 = 1000 \text{ kN}$, $P_2 = 1000 \text{ kN}$, $P_3 = 1000 \text{ kN}$

2) Axially loaded column: $P_0 = 2000 \text{ kN}$, $P_1 = 1000 \text{ kN}$, $P_2 = 1000 \text{ kN}$, $P_3 = 1000 \text{ kN}$

3) Axially loaded column: $P_0 = 2000 \text{ kN}$, $P_1 = 1000 \text{ kN}$, $P_2 = 1000 \text{ kN}$, $P_3 = 1000 \text{ kN}$

4) Axially loaded column: $P_0 = 2000 \text{ kN}$, $P_1 = 1000 \text{ kN}$, $P_2 = 1000 \text{ kN}$, $P_3 = 1000 \text{ kN}$

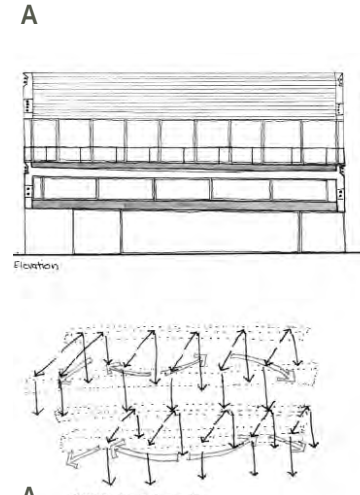
C A> S. Artajo + N. Navni -B> K. Ngo -C> S. Artajo

LONGITUDINAL BEAM

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TRANSVERSE BEAM

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 $S_{pl,z} = 1000 \text{ cm}^3$
 $S_{pl,y} = 1000 \text{ cm}^3$
 $S_{pl,z} = 1000 \text{ cm}^3$



Design of Axially Loaded Columns

1) Square load column: $P_0 = 2000 \text{ kN}$, $P_1 = 1000 \text{ kN}$, $P_2 = 1000 \text{ kN}$, $P_3 = 1000 \text{ kN}$

2) Axially loaded column: $P_0 = 2000 \text{ kN}$, $P_1 = 1000 \text{ kN}$, $P_2 = 1000 \text{ kN}$, $P_3 = 1000 \text{ kN}$

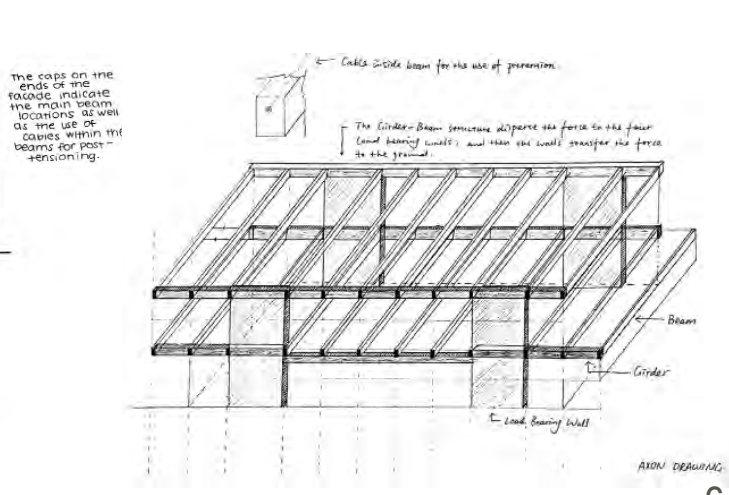
3) Axially loaded column: $P_0 = 2000 \text{ kN}$, $P_1 = 1000 \text{ kN}$, $P_2 = 1000 \text{ kN}$, $P_3 = 1000 \text{ kN}$

4) Axially loaded column: $P_0 = 2000 \text{ kN}$, $P_1 = 1000 \text{ kN}$, $P_2 = 1000 \text{ kN}$, $P_3 = 1000 \text{ kN}$

D A> S. Fahey + M. Kodros + A. Menolascino -B> M. Riley -C> Y. Liu + T. Wang + Y. Zhang -D> S. Fahey

4 SOLID WALL

2 CONTAINERS



Lecture 5

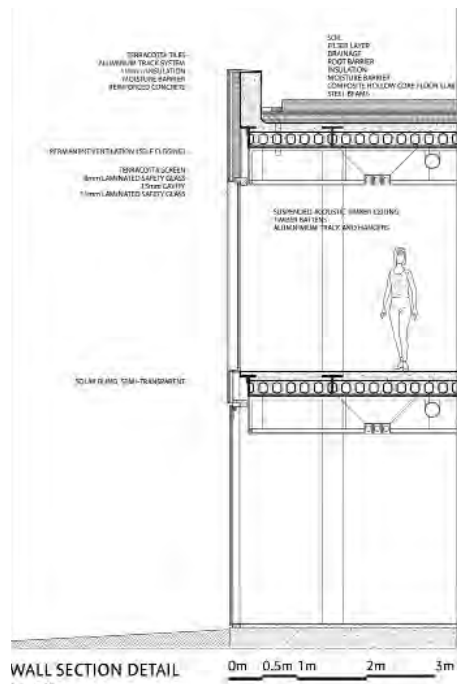
welding (strength based limit state)

plastic hinge

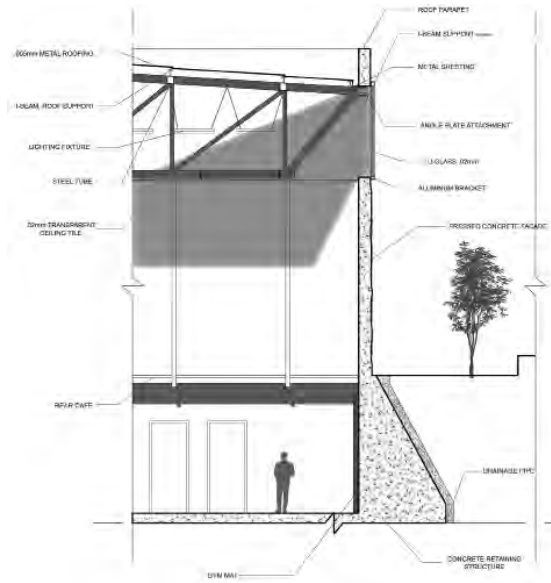
plastic moment

$M_y = F_y \cdot S_x$

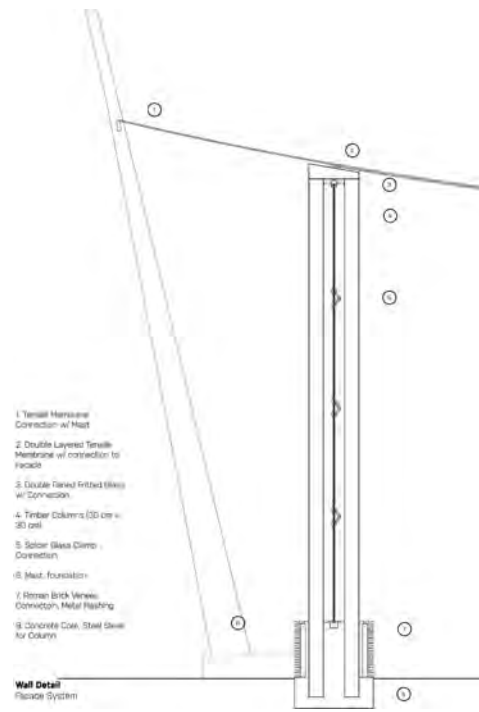
C A> S. Artajo + N. Navni -B> K. Ngo -C> S. Artajo



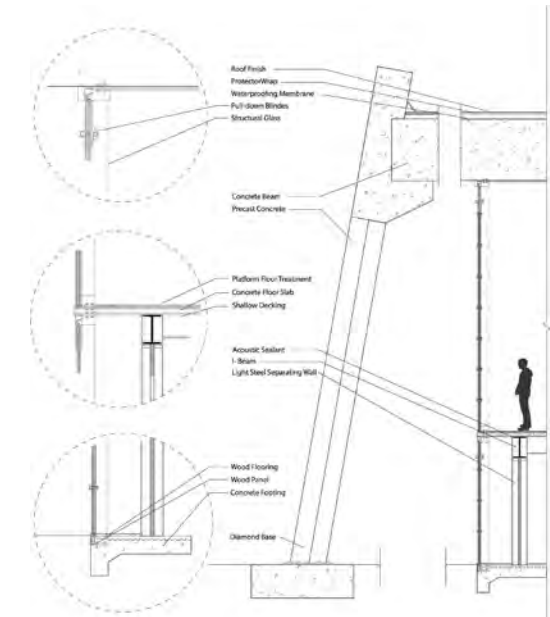
WALL SECTION DETAIL [1-20] B



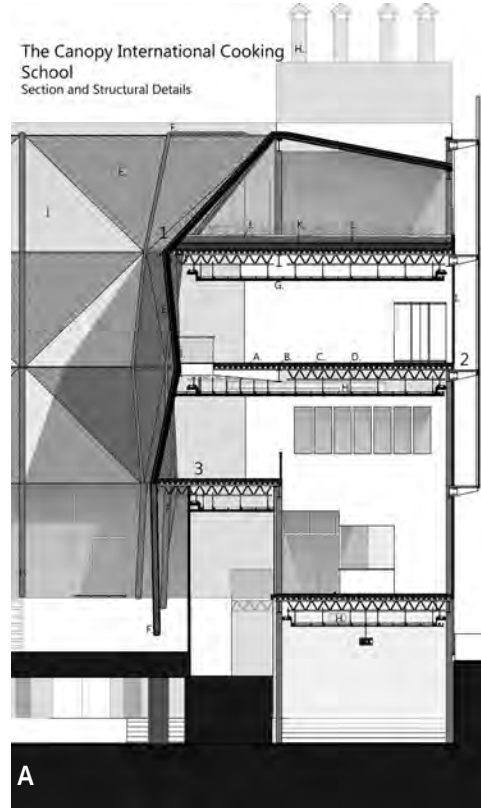
DETAIL WALL SECTION SCALE: 1:50 C



Wall Detail Flange System B

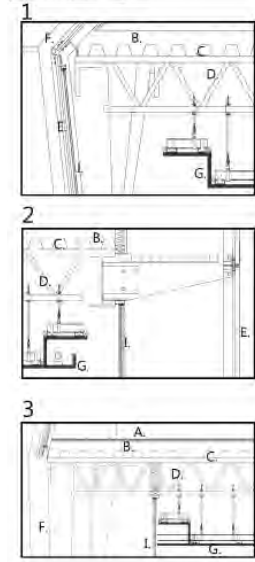


C

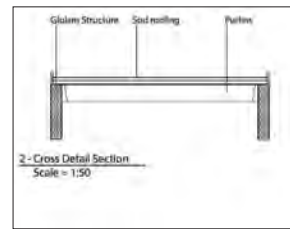


The Canopy International Cooking School Section and Structural Details

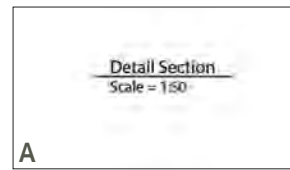
- A. Floor Finish
- B. Concrete Slab
- C. Steel Decking
- D. Steel Truss
- E. 1/4" Metal Perforated Panels
- F. 1/2" Thick 20 cm diameter Steel Tubing
- G. Ceiling Tiles
- H. HVAC
- I. Glass Glazing
- J. Soil Layer
- K. Insulation Layer
- L. Waterproofing



1
2
3

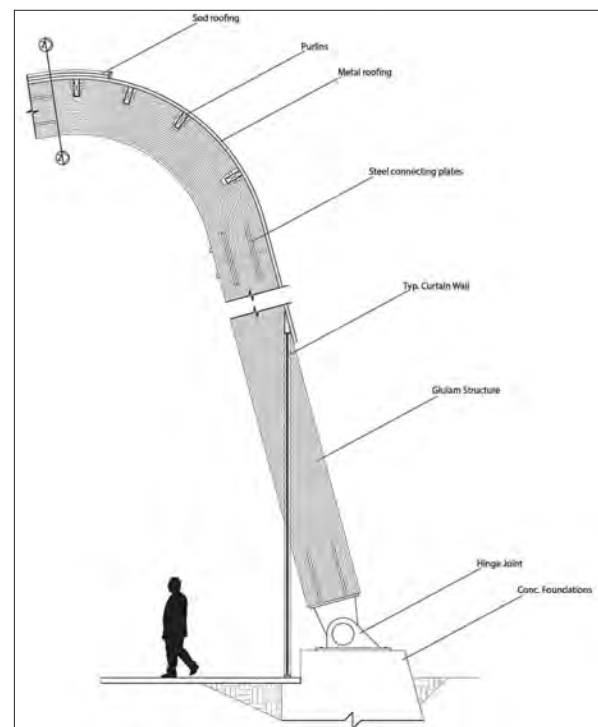


2 - Cross Detail Section Scale = 1:50



Detail Section Scale = 1:50

A

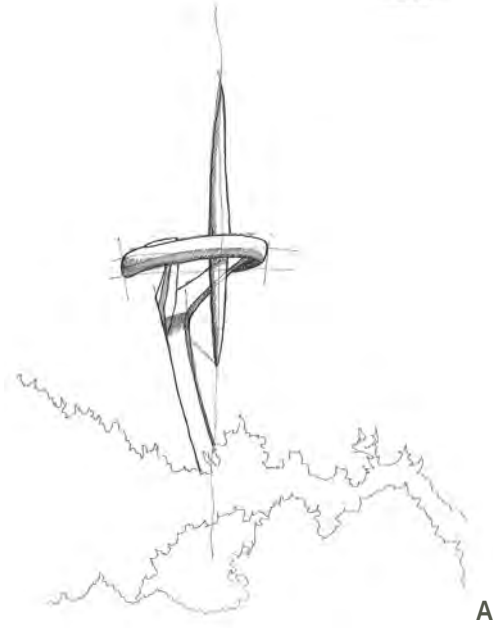


A> S. Busman + K. Callahan -B> J. Buss + A. Smith -C> J. Miller + S. Rydecki

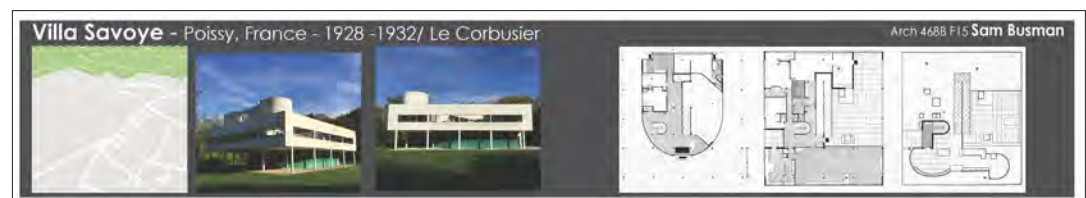
"When one travels and works with visual things -architecture, painting or sculpture - one uses one's eyes and draws, so as to fix deep down in one's experience what is seen. Once the impression is recorded by pencil, it stays for good, entered, registered, inscribed. The camera is a tool for idlers, who use a machine to do their seeing for them. To draw oneself, to trace the lines, handle the volumes, organize the surface.... all this means first to look, and then to observe and finally perhaps to discover....and it is then that inspiration may come. Inventing, creating, one's whole being is drawn into action, and it is this action which counts. Others stood indifferent - but you saw!"

Le Corbusier, Creation is a Patient Search

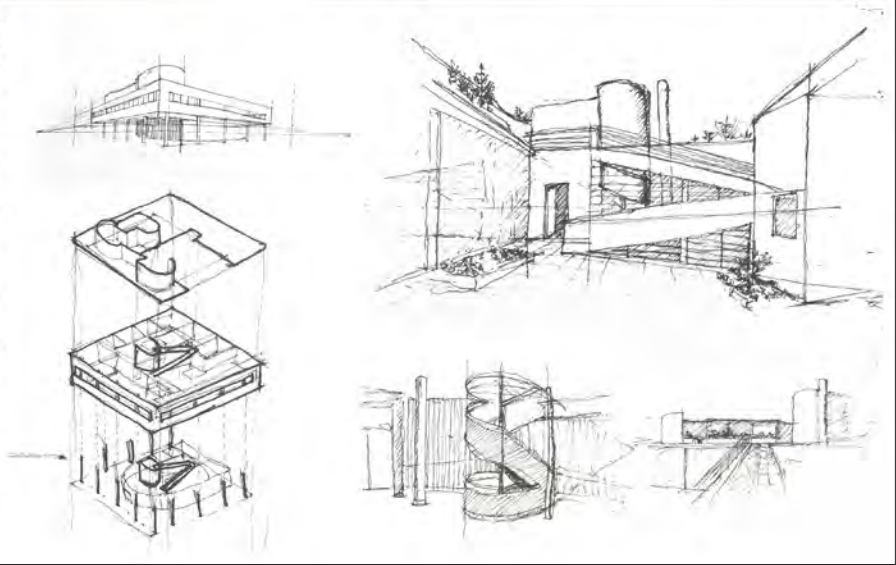
Designed to enrich the professional development of students in a study abroad location this sequence of two interrelated courses —one in each semester— was oriented to the development of an understanding of architecture as a discipline of critical thought and creative reflection through observation and analysis of relevant works of architecture. The course consisted of several interrelated and autonomous components, from analytical lectures of selected architectural masterpieces, assignments during periods of independent study-travel, and a variety of field trips and thematic workshops.



A



Villa Savoye is arguably the most famous house in the world. The house is a living example of Le Corbusier's Modernist Manifesto. Villa Savoye is a clear illustration of Corbusier's five points of architecture. The structure is clear in a pilotis arrangement that carry the load clearly from top to bottom. The house is lifted off the ground with a lack of supporting walls on the inside of the home to guarantee the free use of the space held within the stark exterior walls. The pilotis are separated from the facade, and horizontal ribbon windows characterize the villa as modernist. The rooftop garden solidifies Villa Savoye as the fifth point in a perfect example of a Corbusier Modernist home. The home was commissioned as a French country retreat home for the Savoye family. The home was renovated from 1985 to 1997, after being made an official French historical monument in 1965. The vertical circulation of the home revolves around the center of the structure through a continuous ramp system and a winding stair. There is a mixture indoor-outdoor space that is facilitated through a large open-air space on the elevated first floor, which connects to the rooftop garden. The mixture of indoor and outdoor space connect the Villa to their contextual environment. Through its clear obedience to Corbusier's five points of architecture, Villa Savoye will stand as one of the world's clearest illustrations of modernist architecture.



A



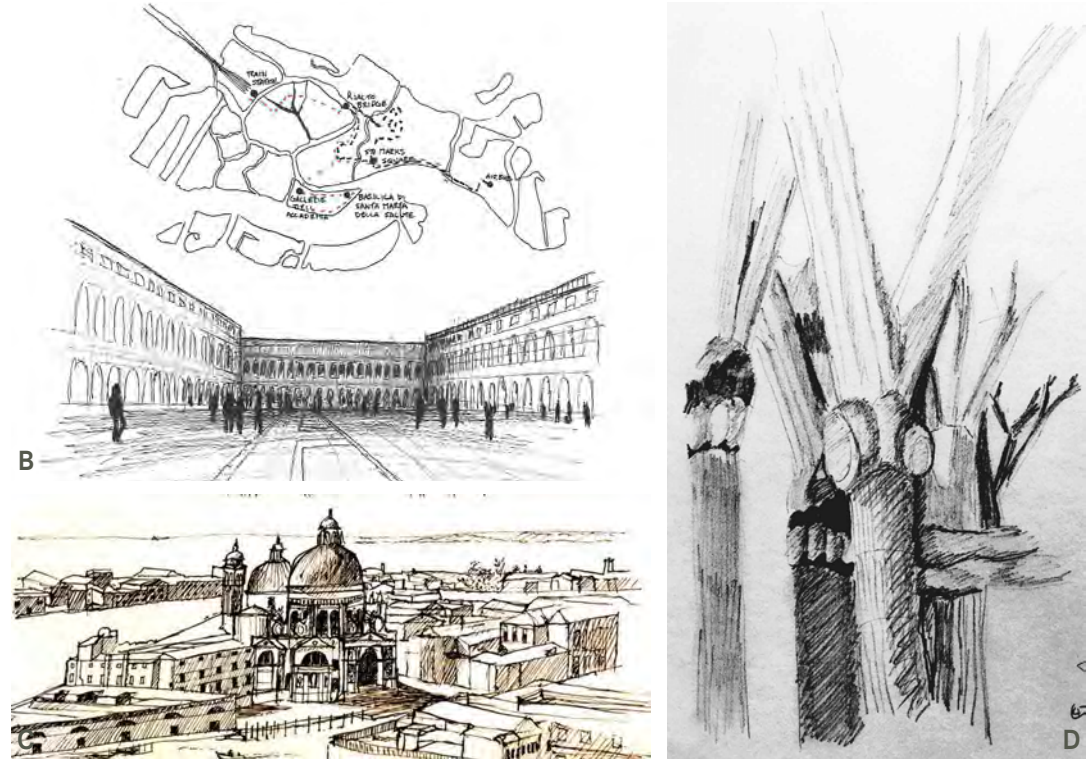
The Cascada fountain was inaugurated in 1881. The original fountain was void of décor and thus required further decoration.

Josep Fontserè was the architect primarily involved in the project, however Antoni Gaudí also had a part in the design. The fountain was designed with inspiration from the Trevi Fountain. The figure at the top of the waterfall fountain is Venus standing on top an open clam.

Although there is no program in the monument, many visitors can be seen climbing the stairs often on the monument's right side up and climbing down the left side. This space provides more for viewing than anything as an explanation as to why the fountain is a well-occupied space. Many locals hang around here where there is a small bar, ample sitting space, and a small gazebo. The fountain also is a prominent stopping point in between the pond where paddle-boats are ridden and a major road and entrance gate to the park.

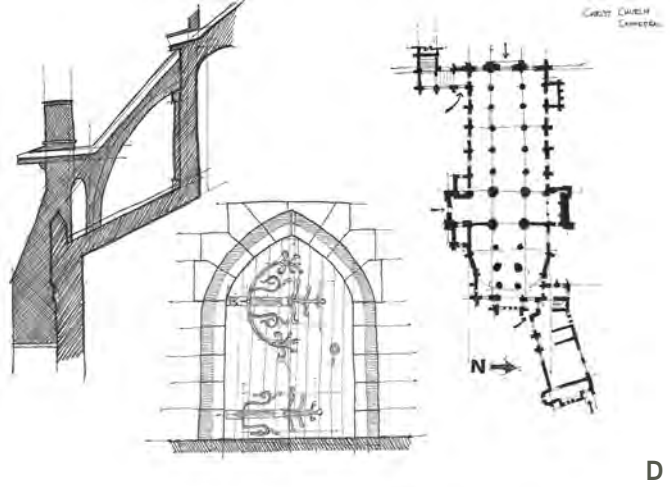


B



B

A> S. Busman -B> S. Canada -C> L. Rockwell -C> T. Wang



Berlin Jewish Museum - Berlin, Germany - 2001 / Daniel Libeskind Arch 4688 F15 Bradley Berg

Conceived from a 1988 design competition the "Blitz", "Zig-Zag", Berlin Jewish Museum commemorates all episodes that have impacted the Jewish community through time and location. Numerous items are on display of the Jewish culture and religion; however, none is more powerful than the building itself. It is a building based around the use of voids, structural, architectural and of course voids in the hearts of the Jewish community.

Daniel Libeskind, architect of the Berlin Jewish Museum, hoped to layout a building that arranged the feelings and emotions of its visitors. Using a three axis plan, no 90 degree angles, and cold materials, Libeskind was able to turn a space into a place that echoes the history and despair of the Jewish population.

Two of the strongest elements include the Memory Void and Holocaust Tower which consist of simple architectural materials and one quiet change in facade or texture which creates a space of empathy for those that have suffered imprisonment and dispel. Libeskind created a building that conducts feelings between itself, a community and each single patron.

Sagrada Familia - Barcelona, Spain - 1882 - still constrecting / Antoni Gaudi Arch 4688 F16 Ting Wang

Sagrada Familia is one of Gaudi's most famous buildings. It was started in construction in 1882 and has not finished yet. It is one of the landmarks of the city of Barcelona. It is a large Roman Catholic church dedicated with Gothic and modernist architecture.

The meaning of the Sagrada Familia is communicated through the form and organization of its architecture and the geography of its location. At the exterior 18 towers at each facade of the cathedral have a specific significance. In the middle is the tower dedicated to Saint Christ and around it are for towers representing the Gospels. The four towers at the corners provide a sense of elevation to the central tower dedicated to Jesus Christ.

Compare to the exterior with form and structure of exterior, the interior is simpler and full of feeling of harmony. Structure members are formed in branches shape with Gothic arches. The roof is made of large glass panes on two sides. The light and air make the space full with color. The wall side of the vault is decorated with blue and green stain glass and the west side is decorated with red and orange stain glass.

Tietgenkollegief - Copenhagen, Denmark - 2005/06 / Lundgaard & Tringberg Arch 4688 F17 Sabrina Canada

Tietgen Student Hall is a new residence located in the Ørestad district of Copenhagen, Denmark.

The building has a circular shape, inspired by traditional student housing architecture and designed by Danish architects Lundgaard & Tringberg in 2006.

The curved building is seven stories high. The rings are broken by five central open-air courtyards that provide access from the ground level to the resident levels and on the resident levels, each an passage between the sections, and to the different levels. The ground floor houses all the common facilities: cafe, auditorium, study rooms, workshops, library, and meeting rooms. The apartments are located on the other stories, facing the courtyard. All rooms face the center. The common kitchen, auxiliary rooms, lounge, and terraces are located on the central courtyard.

By concept houses on view the residence can help to change the personal and social development of the students. The courtyard around which all common areas are located, reinforces the idea of community.

Malahide Castle - Malahide, Ireland 1871-78 G.E. Street Arch 4688 F15 Krisjan Callahan

Home to the Talbot family for almost 800 years Malahide Castle was first built in 1175. Since the first construction the Castle has been added onto as the family grew and the castle changed from a military stronghold to a residence. The largest expansion of the castle was from 1600-1650 when it was enlarged and the Towers were added.

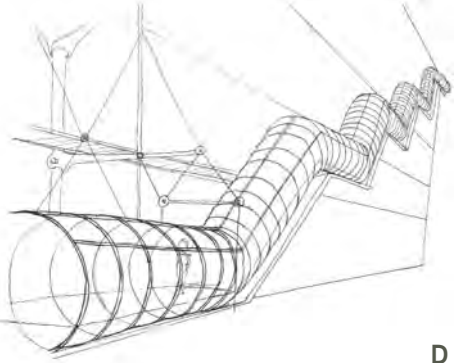
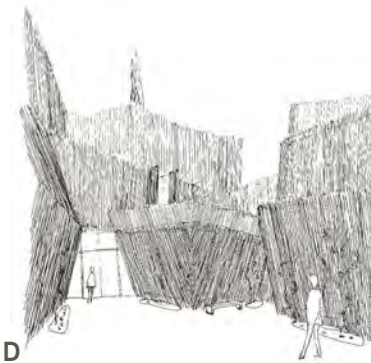
From 1649 to 1660 was the only time that a Talbot did not reside in the castle due Cromwellian soldiers seizing the castle.

In 1975 the castle was sold to the Irish State. While it was owned by the state a Talbot would still occasionally reside in the Castle until her death in 2009.

Even through reconstruction and remodels the Castle has kept its Medieval style of architecture.

Through the history of the castle two people have hung them selves from the balcony in the dining room. One was a jester out of love for another mans wife. The other was a watchman that fell asleep which resulted in the castle being attacked that night. Both are said to haunt the Castle.

Architectural drawings include: Front Elevation with the Malahide Castle logo, Detail of exposed wood structure in dining room, Window above main Entrance, and Right elevation and Site plan.



THE PLAZA SERVES AS A PEDESTRIAN WALKWAY THAT FOLLOWS THE OUTLINE OF THE BUILDING, RESTORING AN URBAN LINK THAT HAD BEEN BROKEN FOR ALMOST A CENTURY BY FORMER MILITARY BARRACKS

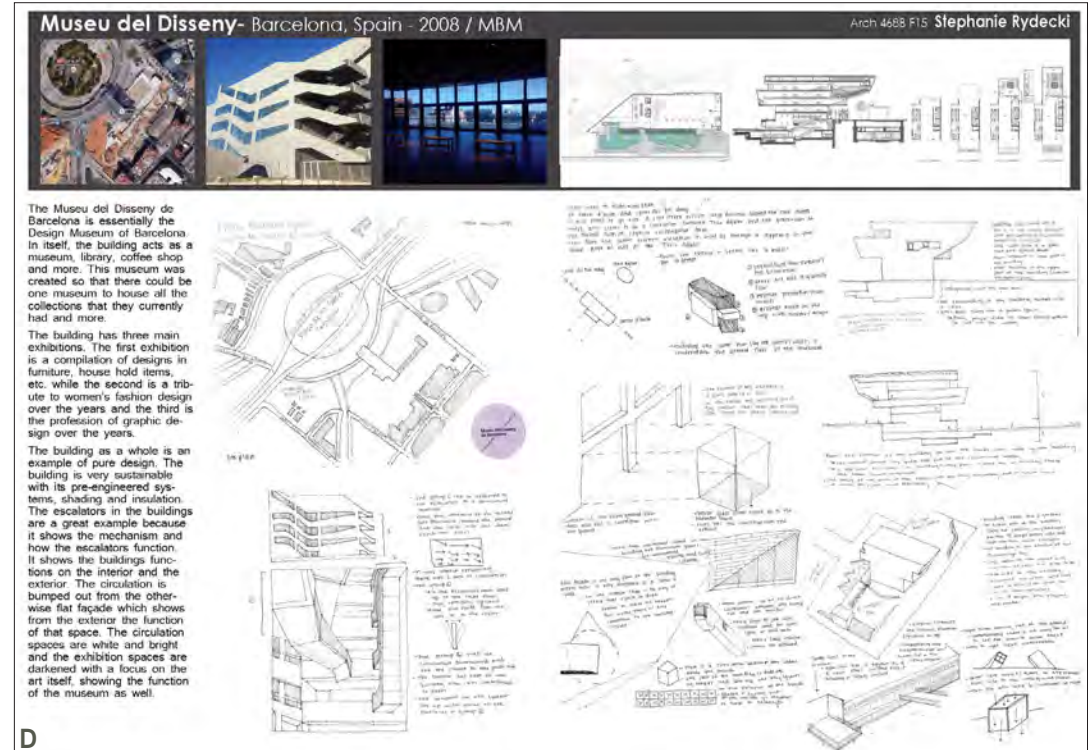
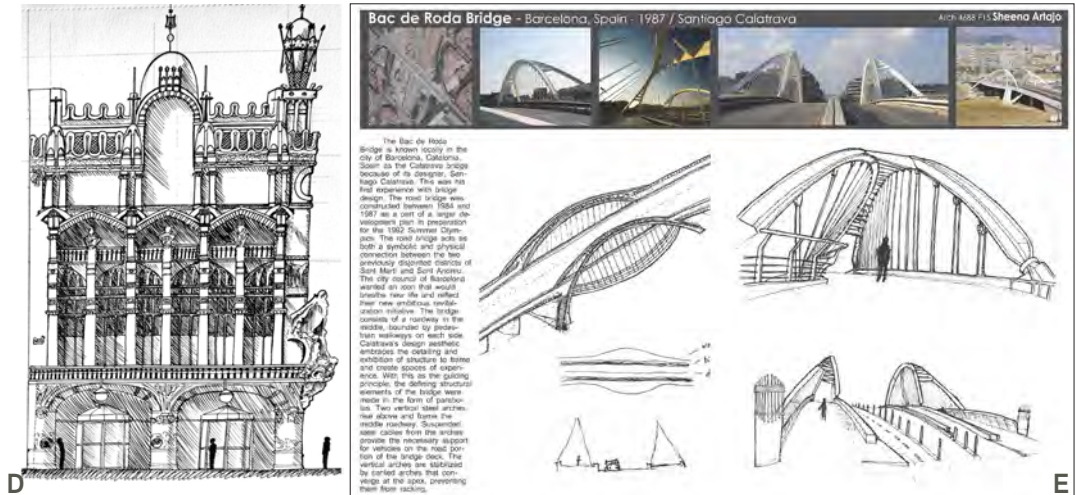
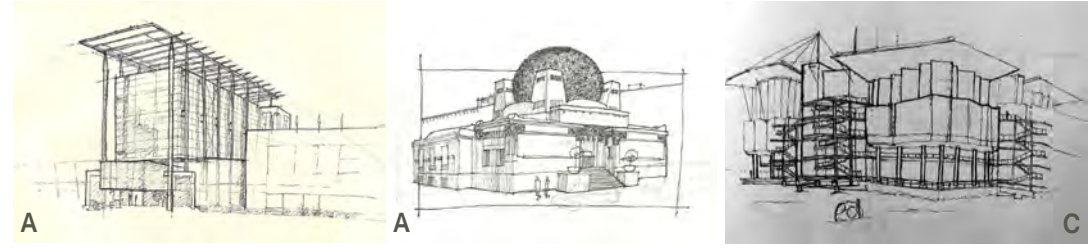
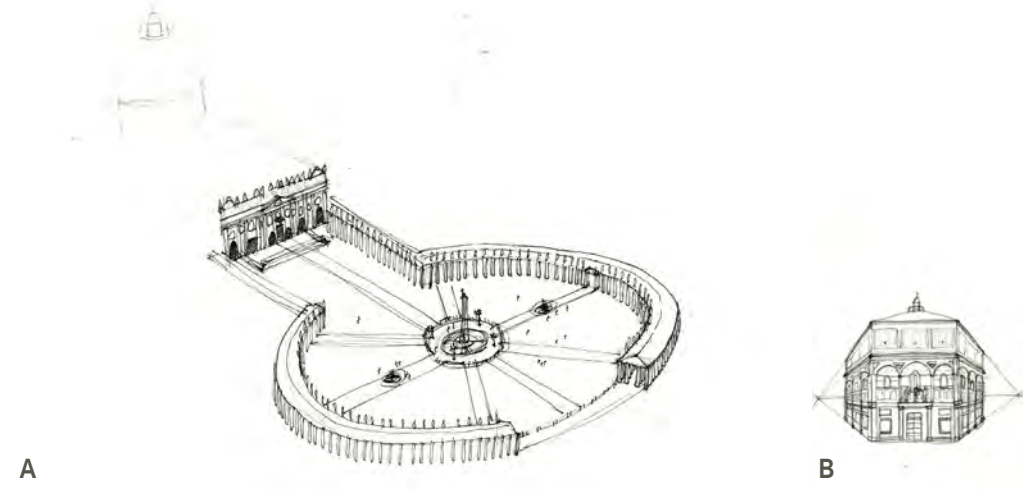
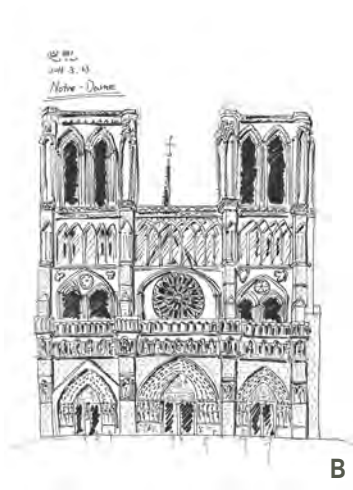
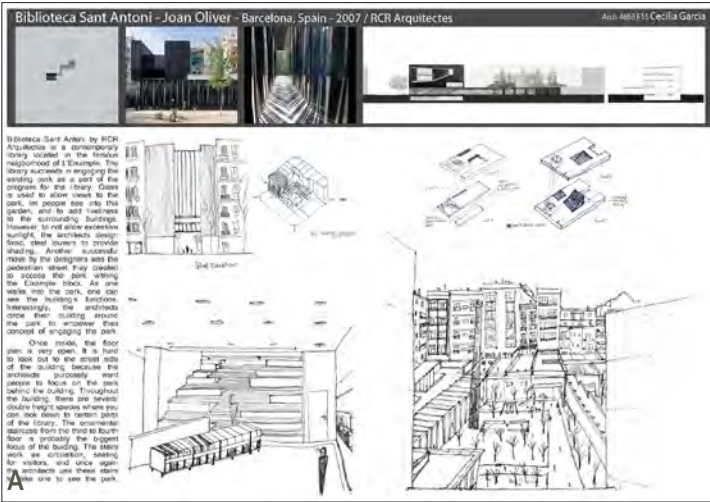
Fondation Louis Vuitton - Paris, France - 2006 / Frank Gehry Arch 4688 Yu-Lun Nico Hsu

Fondation Louis Vuitton is designed by the architect, Frank Gehry, and opened in 2006 as a contemporary museum. The use of glass as exterior facade is inspired from the Grand Palais. The architect used the glass facade to create a sense of sailboat.

Frank Gehry always comes out with innovative structure design to challenge the industry, this project is no exception. The building is being composed by clusters of spaces, which form the basic massing. A layer of framing structure is added after that, which support the exterior glass facade.

When Frank Gehry was designing the project, he noticed the two adjacent parks: Jardin d'Acclimatation at north, and the Bois de Boulogne at south. The building is sitting on a east-west direction so people can have the views to the parks.

Architectural drawings include: site plan, floor plan, and various structural and facade details.



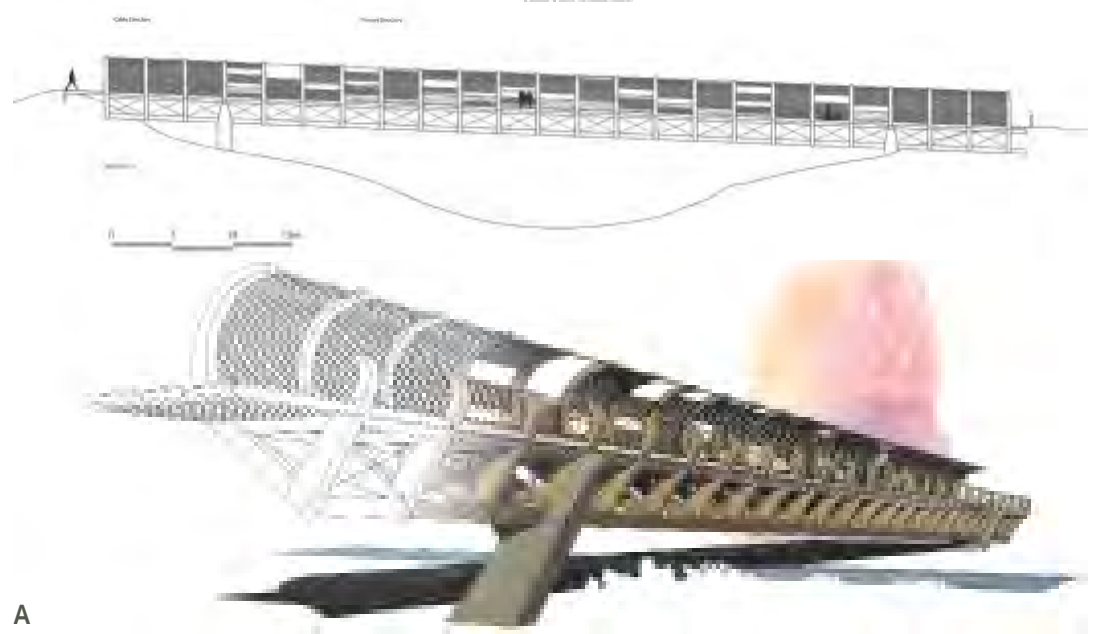
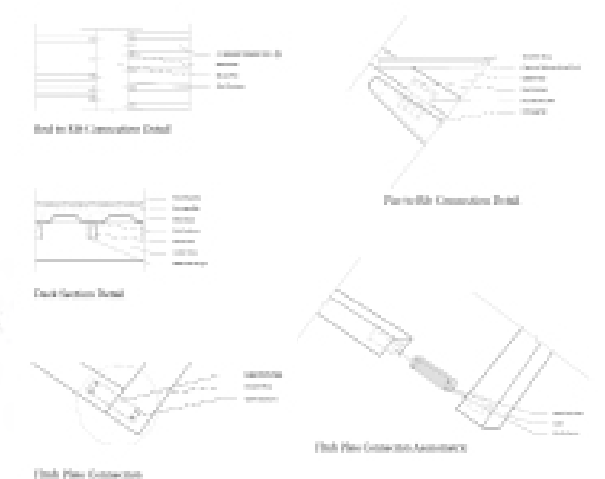
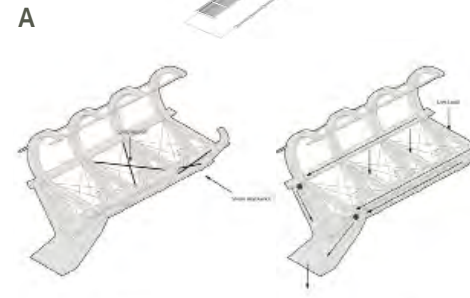
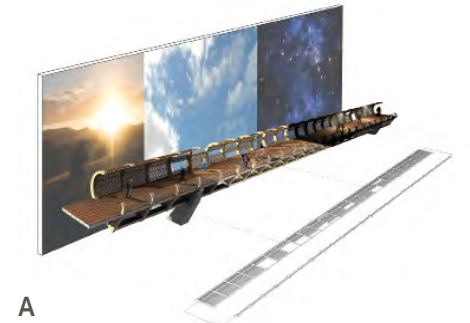
Light Weight Bridge in Granollers

Granollers is an important business and industrial center. Its dense urban fabric extends along the two shores of the Congost river; the city's center is located on the east side, while industrial zones dominate the western side; as the city grows, new residential neighborhoods develop, particularly in the northern part of the city; these new neighborhoods —such as Can Xarlet and Quatre Barris— extending on the two banks of the Congost river are poorly connected. A connection bridging the river will certainly facilitate communication between these two neighborhoods.

This short intensive workshop was dedicated to developing a light-weight bridge for pedestrian and bicycle circulation between Parc del Lledoner (on the east side of the Congost river) and the other side of the river. The project was therefore dependent upon the structural system; thus, the understanding of architecture as an activity that integrates creative design concepts with structural/technological systems through all stages of the design process was of utmost importance throughout the development of the assignment.



46 A> Site aerial views



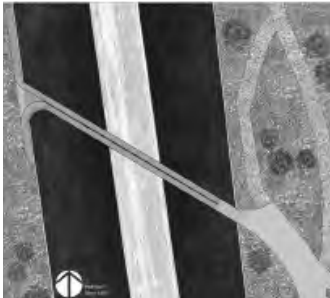
47 A> Y-L. Hsu + H. Murphy + K. Ngo + S. Rydecki



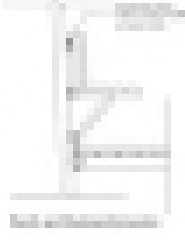
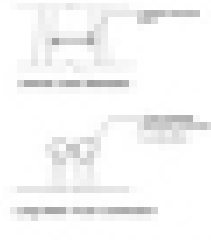
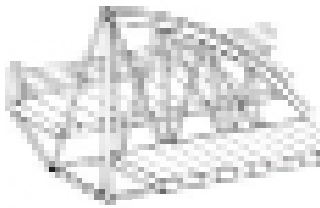
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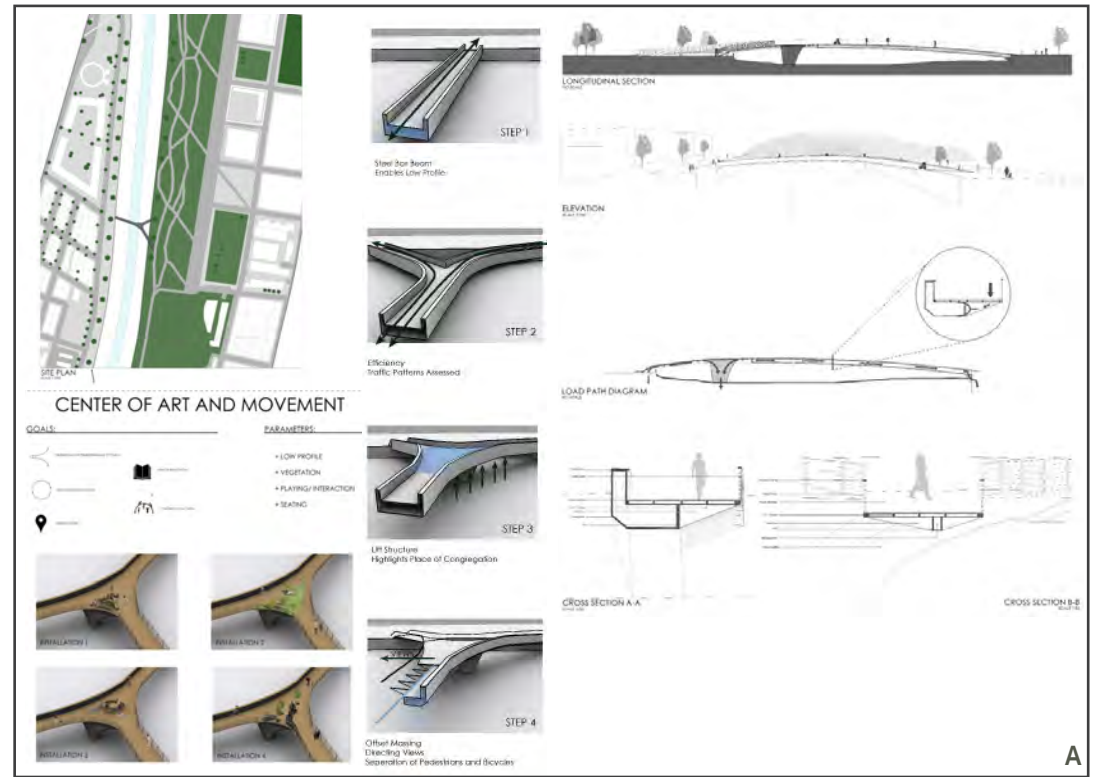
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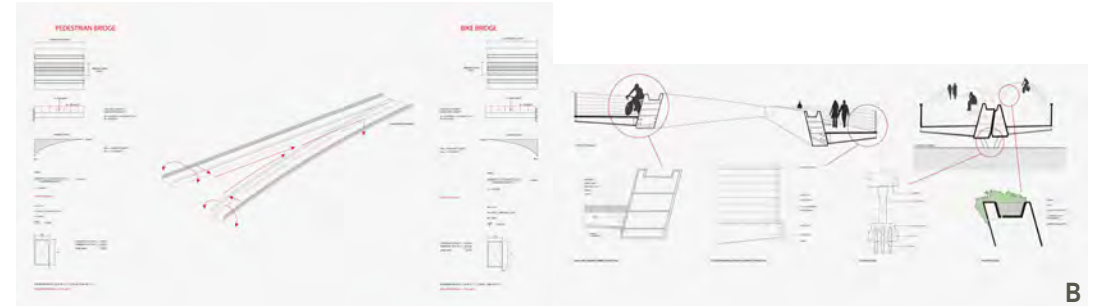
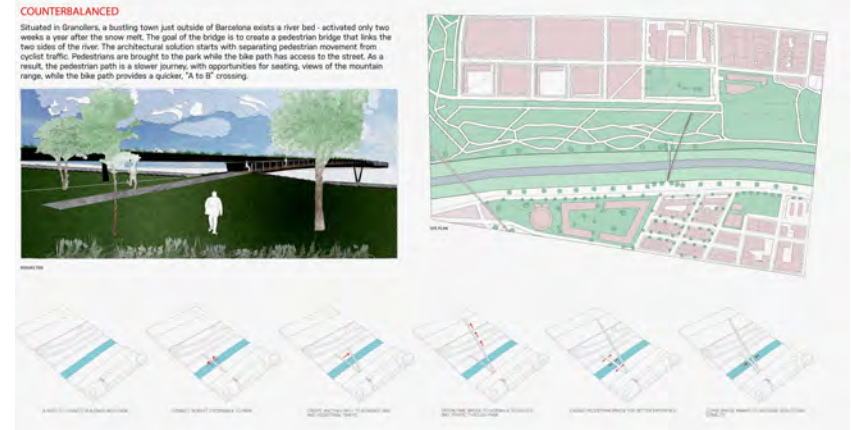
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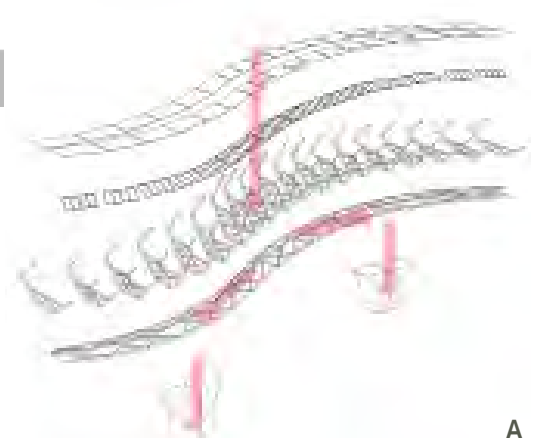
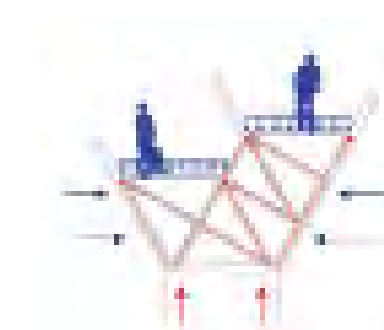
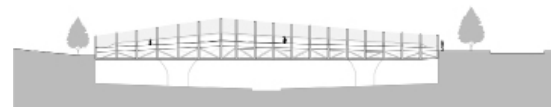
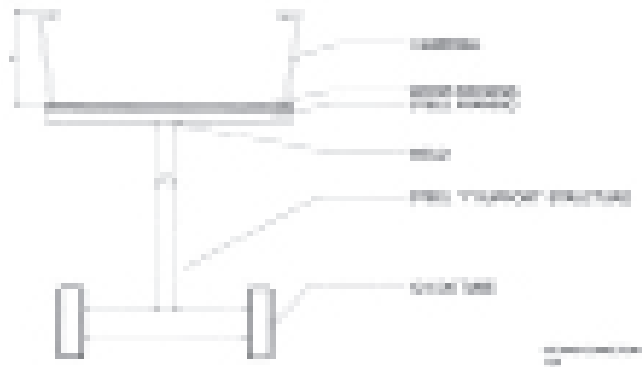
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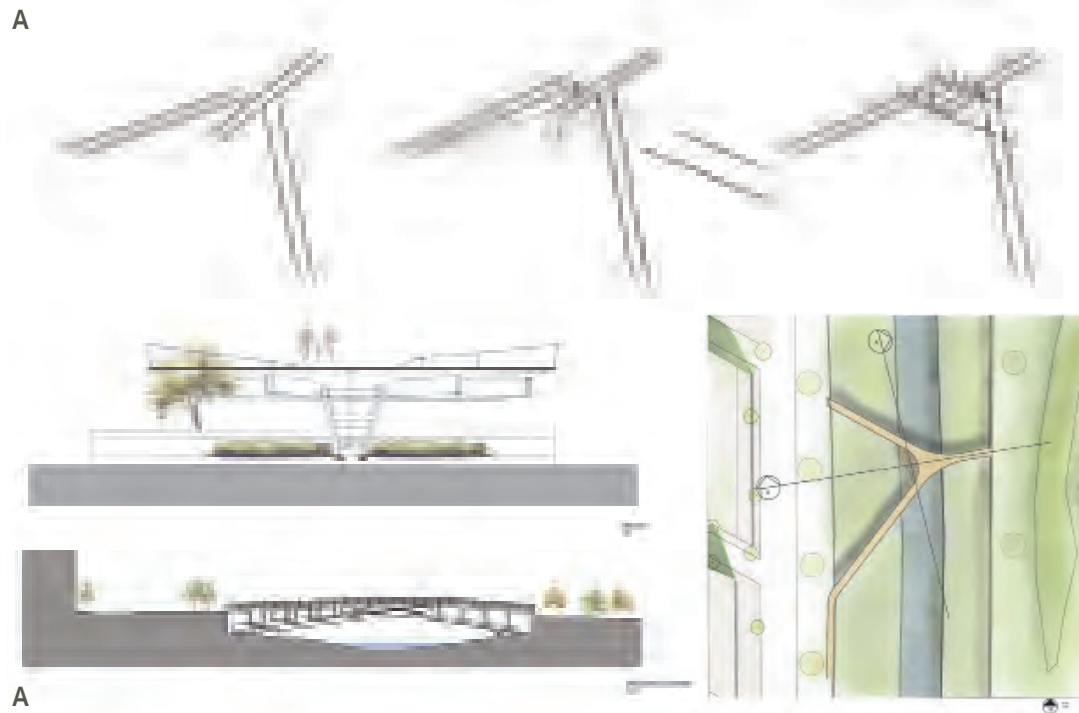
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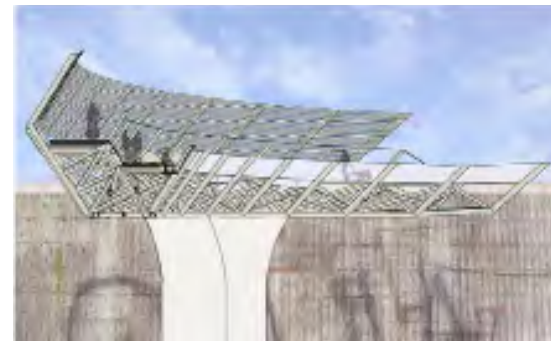
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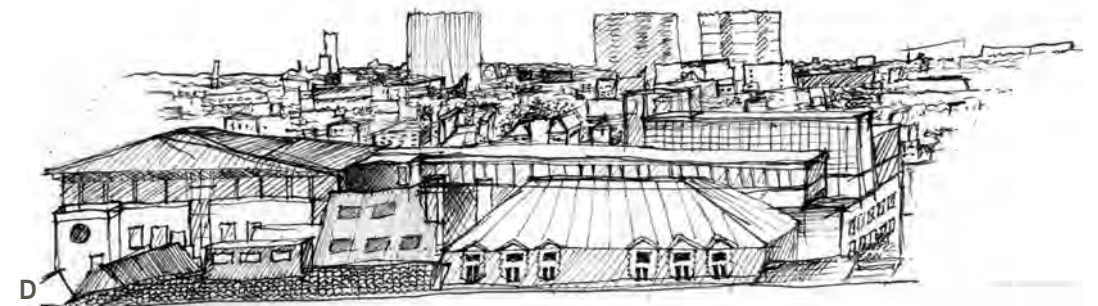
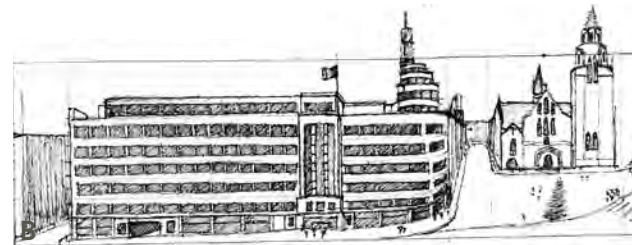
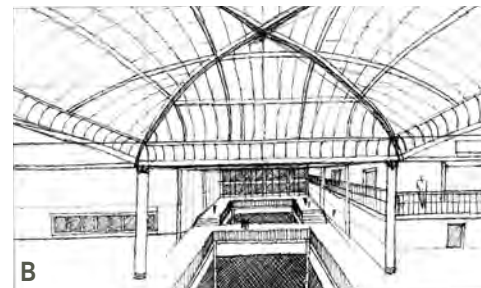
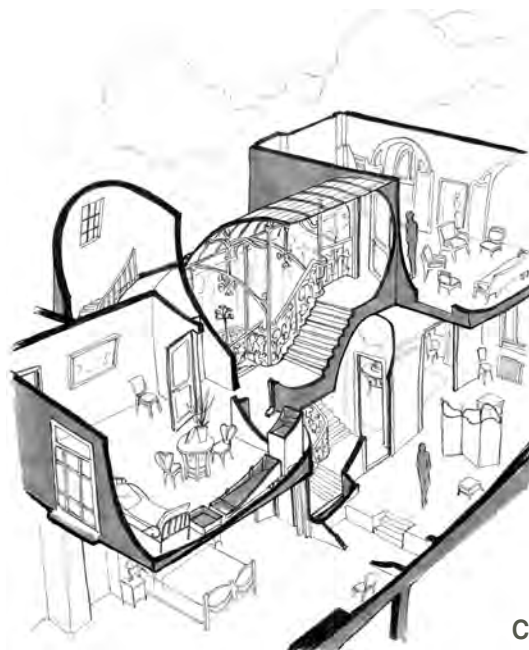
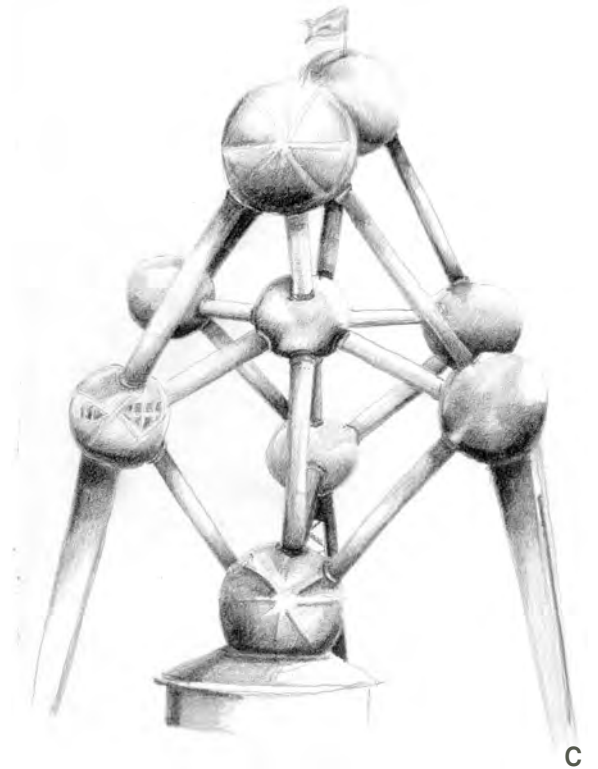
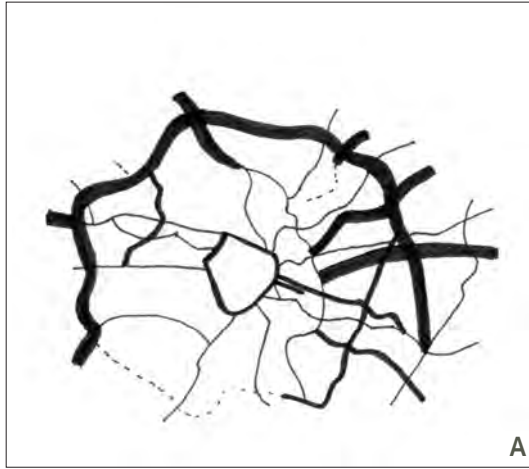
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Brussels' Architecture: from imitation to the creation of a new style

The goal of this workshop was to study the evolution of diverse architectural styles that developed in Brussels and, more specifically, to understand Art Nouveau in its architecturally diverse context.

Brussels is teeming with architectural gems and provides a unique framework for students to study a wide array of architectural styles that spans from the clashing combination of Gothic, Baroque and Louis XIV styles to postmodern buildings.

Through detailed observation, on-site sketch analysis and photographs, and discussions recorded as journal entries, students studied the architecture of Brussels throughout time, deciphering the intrinsic collage of diverse architectural styles of Brussels' historical center.



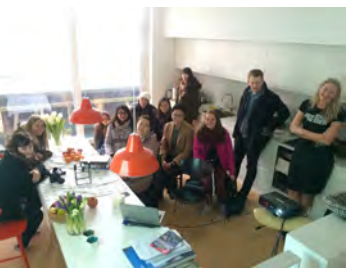
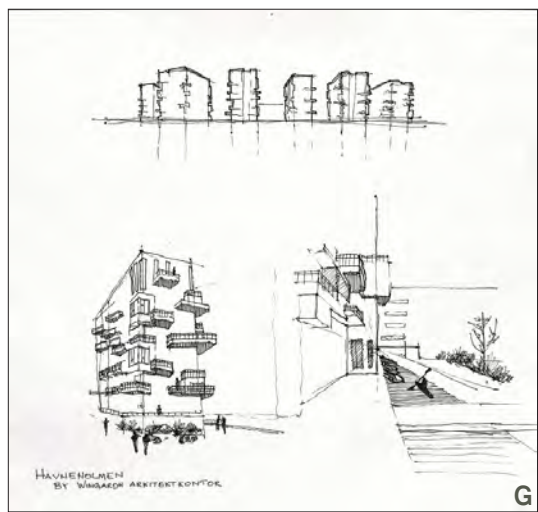
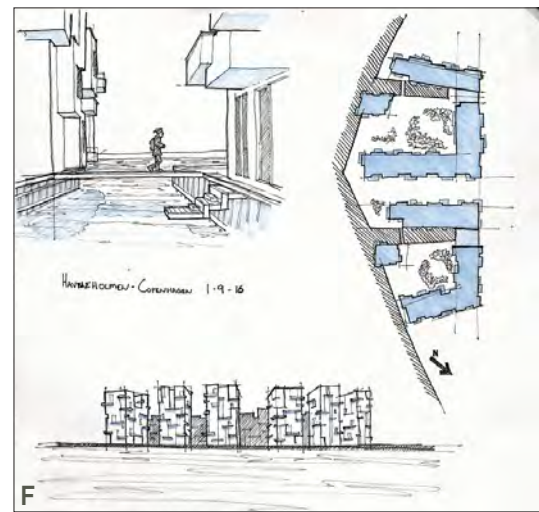
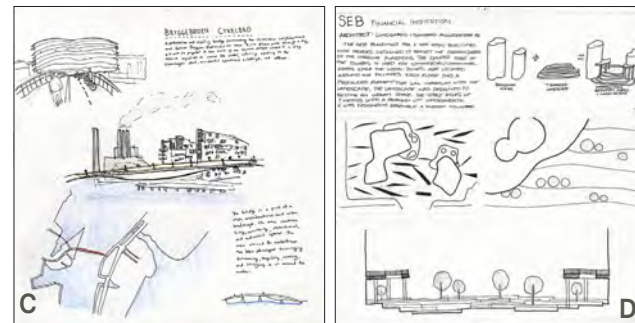
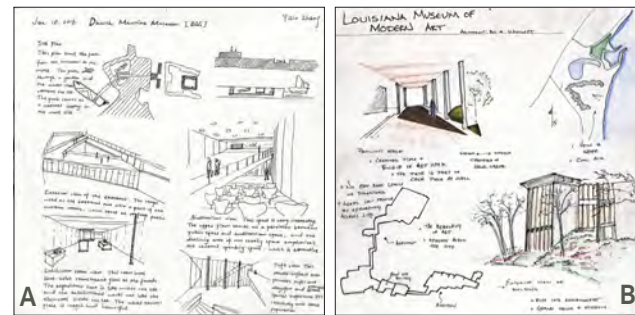
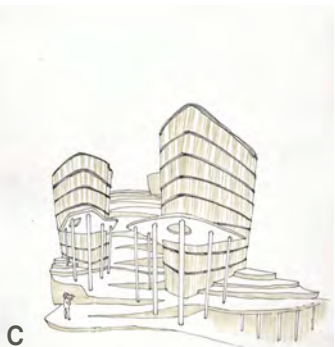
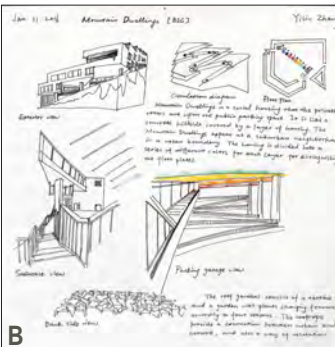
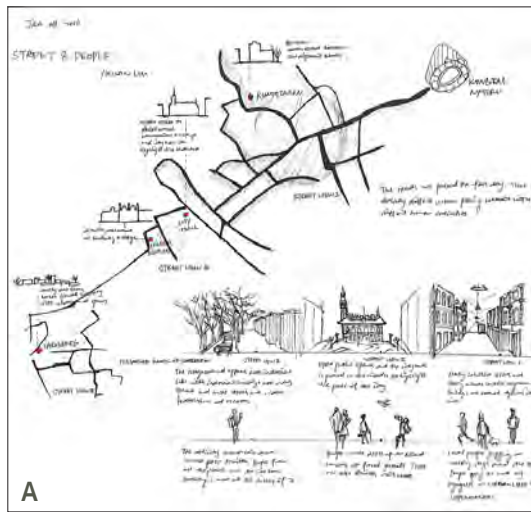
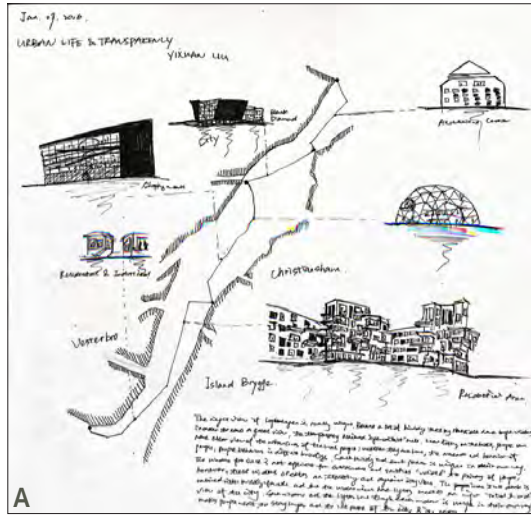
TRAVELING WORKSHOP in Copenhagen s-2016 Prof. Sara Bartumeus

Architecture and Beyond: Copenhagen's Architecture and Public Space

A laboratory for innovative architects Copenhagen is a pioneer in architectural and city design. Beyond offering incredible contemporary architecture, Copenhagen's influence by prominent urbanists has promoted cutting-edge policies to improve urban life. Thus, Copenhagen is an ideal setting to introduce students to thinking about architecture at the urban scale.

Students produced an analytical graphic representation of their experiences and observations in a travel notebook. Using hand sketching, photography, and thoughtful verbal/written reflection students also documented and analyzed the qualities of Copenhagen urban architecture.

Emphasis was placed on going beyond merely recording space, but abstracting it into diagrams and cartographies which captured how architecture influenced, and is influenced by, the larger scale of the city to create urban life.

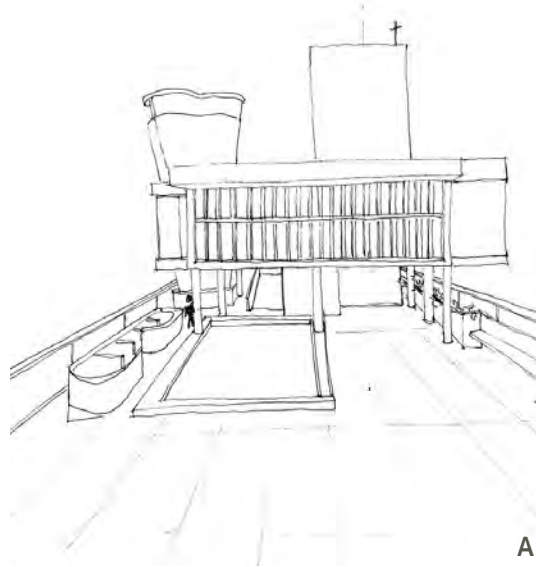


The Anatomy of Intentions

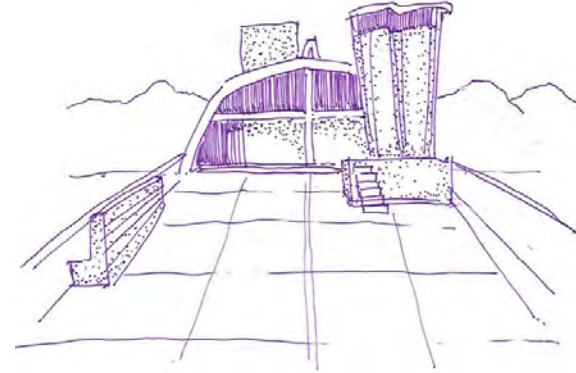
There are many ways of learning architecture but one way is to draw lessons from existing buildings. Students need to learn to see, to penetrate to intentions behind forms, to absorb, to abstract and to transform. In this two-week seminar/workshop the emphasis was placed upon the experience and analysis of buildings themselves through both historical lectures and site visits.

In the first week the workshop took the form of a long road-trip through France, visiting architectural masterworks such as Le Corbusier's Unité d'Habitation in Marseille, Ronchamp and the Convent at La Tourette, contemporary buildings by Pierre-Louis Faloci and Henri Ciriani, and the Roman 'Pont du Gard' and the monastery at Le Thoronet. The second week had focused on 20th century and contemporary architecture in Barcelona and environs with visits to works by Josep M. Jujol, Mies van der Rohe, Alejandro de la Sota, José A. Coderch, Josep L. Sert, Carlos Ferrater, Alvaro Siza, Rafael Moneo, Miralles & Pinos and RCR.

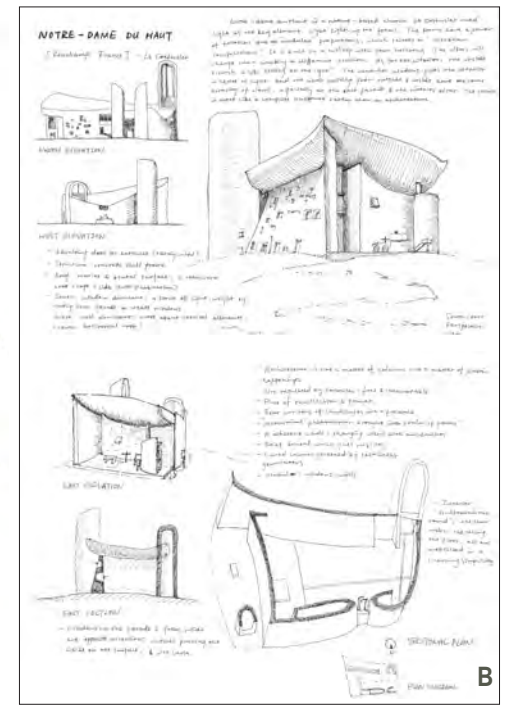
Students were encouraged to observe, searching for direct experience of sequence, space, light, materials and site, and then to internalize and store away in memory with the aid of drawings, notes and sketches produced on site.



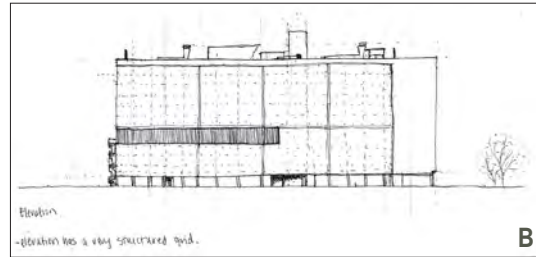
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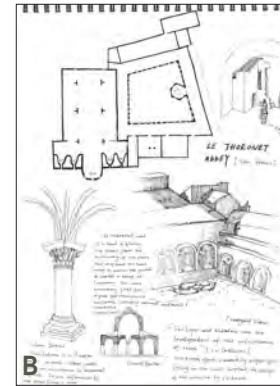
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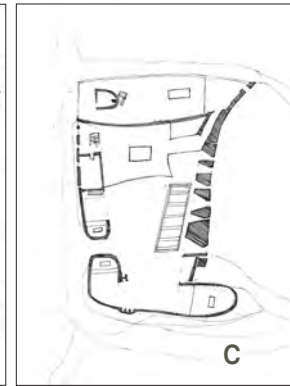
B



B



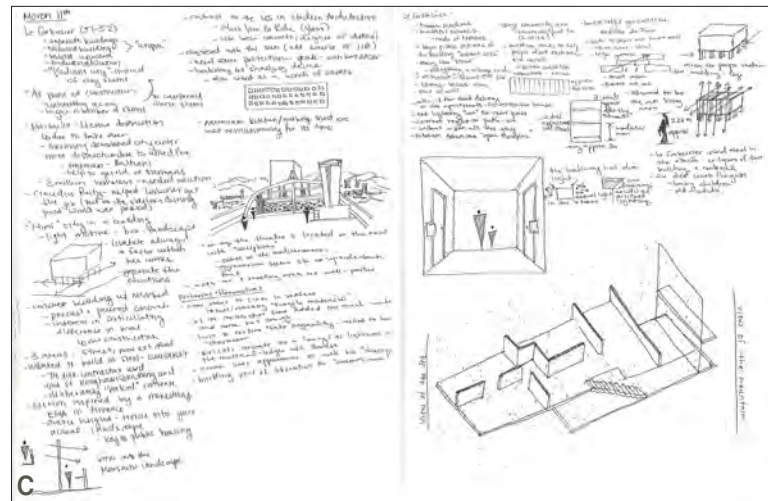
B



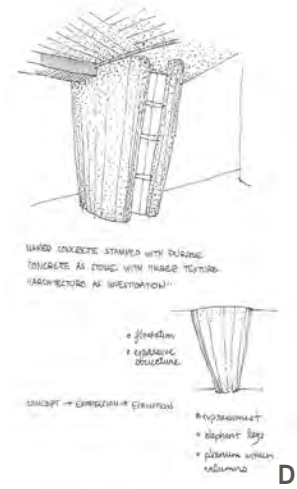
C



D



A> Y, Zhang -B> C. García -C> S. Rydecki -D> K. Ngo

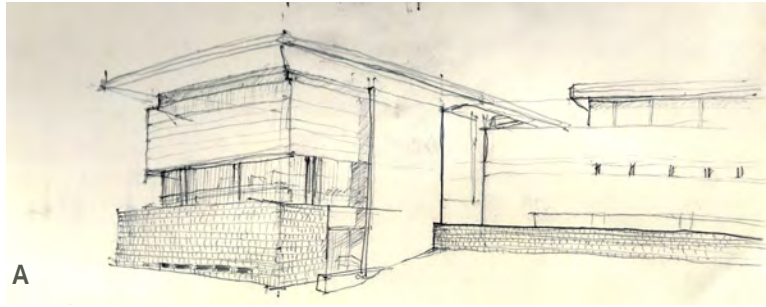


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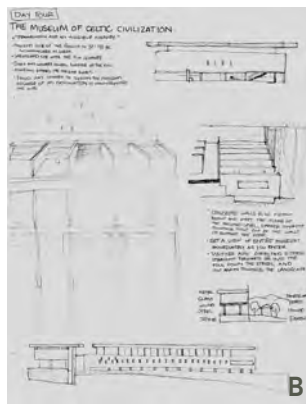


A> K. Ngo -B> Y. Zhang -C> C. García -C> S. Busman

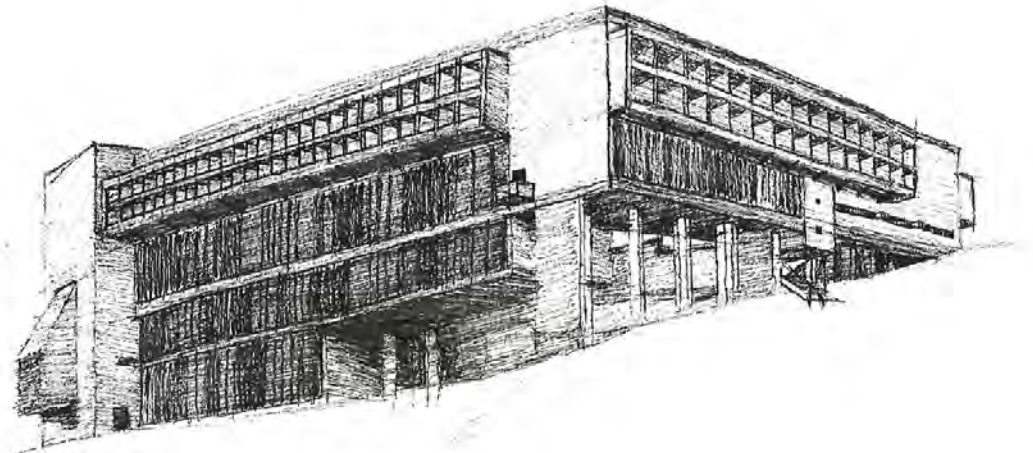




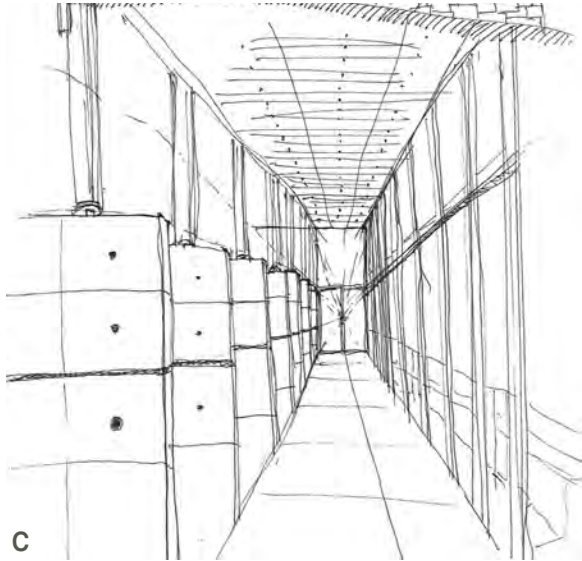
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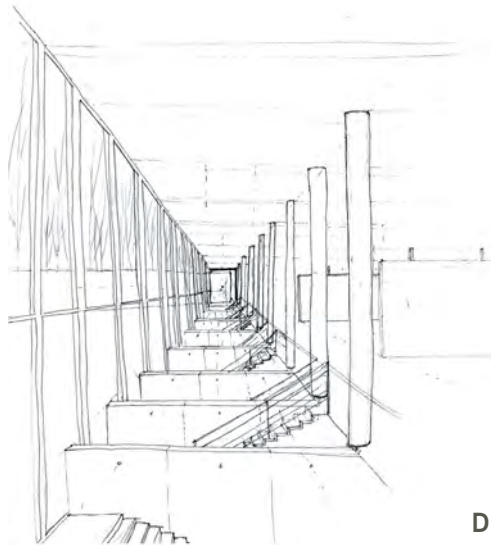
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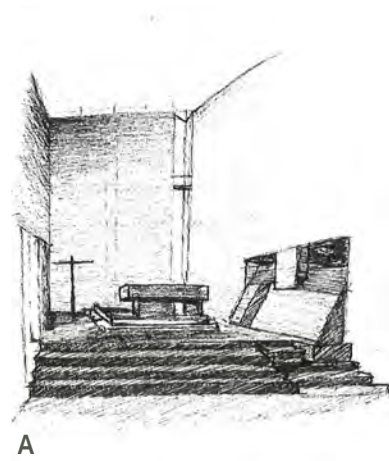
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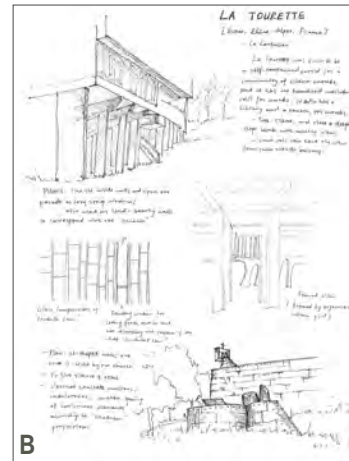
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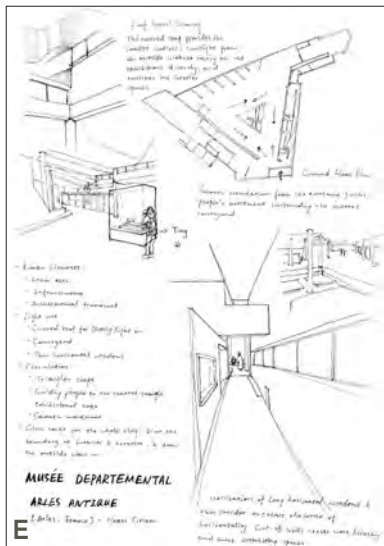
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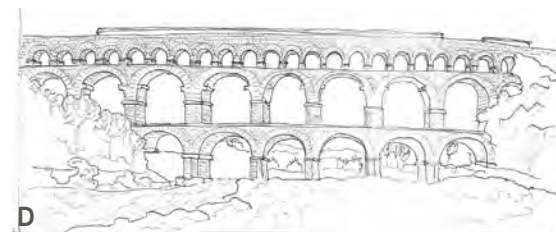
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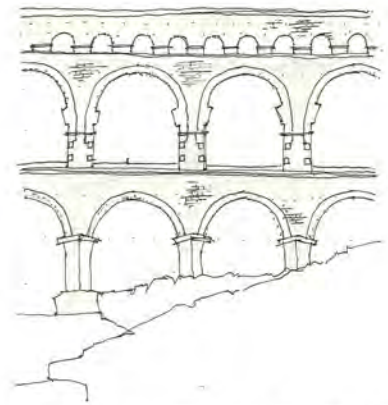
E



D



D



Bank, almost sun-down. ICES OF NABEH. Bags everywhere, left ahead of it was OK. Museum was very good, lots of multimedia displays, mostly audiovisual. Jason & Andrea went swimming in the river (it wasn't there). A dog almost followed us home

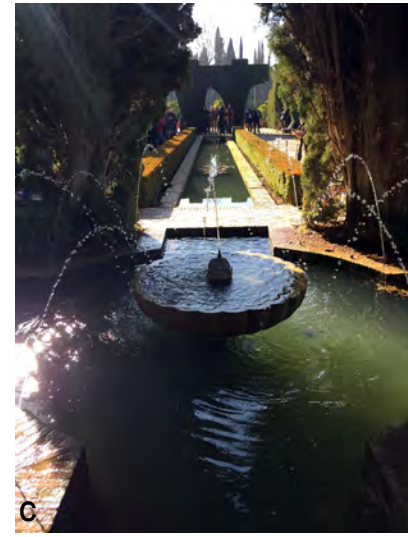
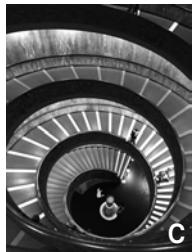
E

STUDENTS' TRAVELING

From Sant Cugat/Barcelona to the rest of Europe and the Mediterranean basin! One of the program's goals is to provide students with opportunities to travel to see and experience in person the rich and varied cultural, architectural and urbanistic history of Europe. Both as part of program-organized activities and by independent travel, students reached the four corners of Europe.

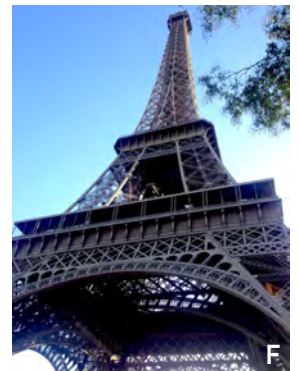
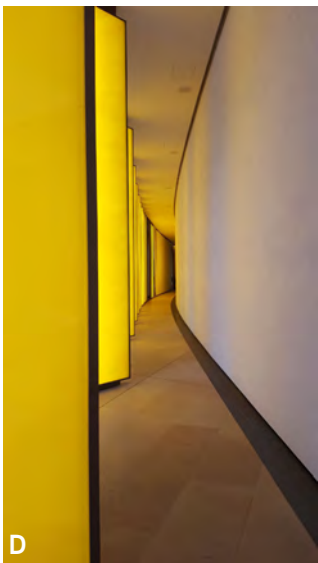
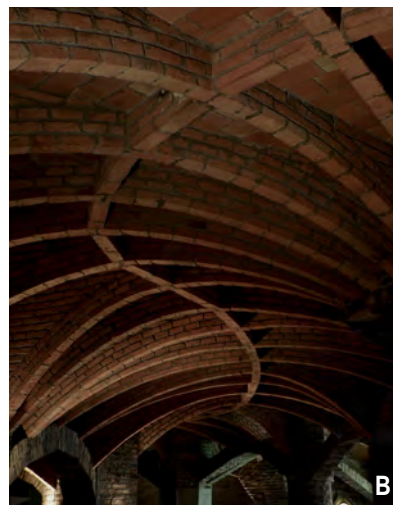
They recorded their experiences through photographs of the nearly one hundred cities they collectively visited. Earlier in the year, Adrià Goula, a local architectural photographer had provided hints on architectural photography in half-day workshop-presentation. The intention was to initiate the less experienced photographers with the basic principles of recording buildings through still images.

These pages are illustrated with a selection of the students' own favorite images taken during their travels.



60 A> A. Louise, Lleida -B> K. Callahan, Copenhagen -C> T. Wang, Rome -D> J. Miller, Athens

A> K. Callahan, Barcelona -B> S. Canada, Paris -C> N. Navni, Granada -D> A. Smith, Santorini- E> Y-L Hsu, Colonia Güell 61



62 A> S. Busman, Milan -B> K. Ngo, Colonia Güell -C> H. Murphy, Kyle of Lochalsh
D> J. Buss, Paris -E> S. Artajo, Santorini

A> N. Navni, Tarragona -B> S. Busman, Barcelona -C> A. Menolascino, Zaragoza
D> C. García, Paris -E> A. Sahakian, Rotterdam -F> M. Kodros, Paris



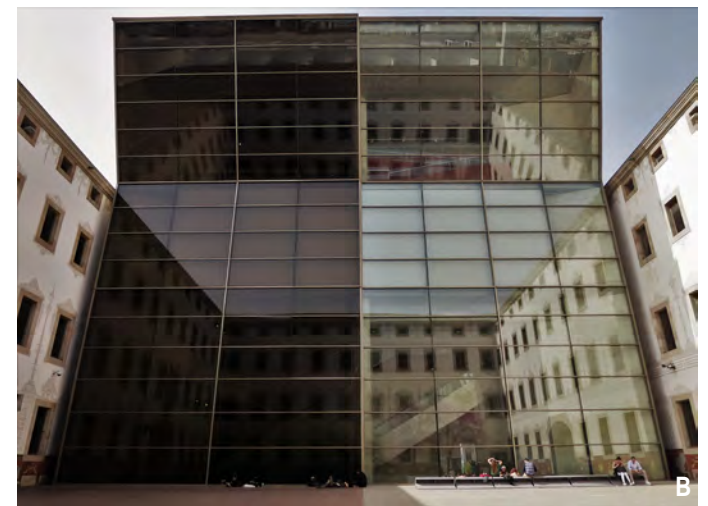
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B



A



B



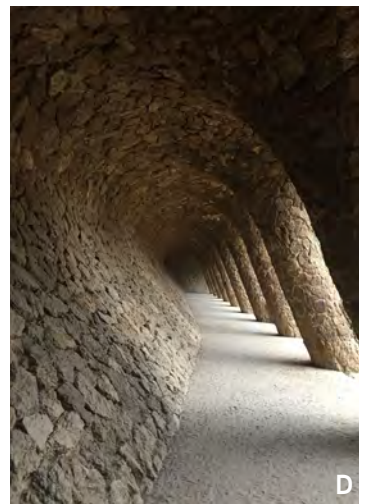
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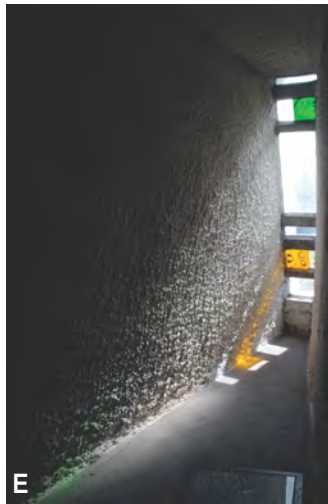
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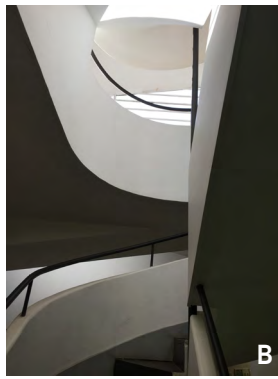
E

64 A> B. Berg, *Eveux sur l'Arbresle* -B> C. García, *Eveux sur l'Arbresle* -C> S. Fahey, *Eveux sur l'Arbresle*
D> M. Riley, *Athens* -E> K. Zeng, *Ronchamp* -F> A. Louise, *Granada*

A> S. Rydecki, *Copenhagen* -B> A. Smith, *Barcelona* -C> L. Rockwell, *Ronchamp*
D> S. Busman, *Barcelona* -E> H. Murphy, *Granada*



A



B



A



E



C



B



C



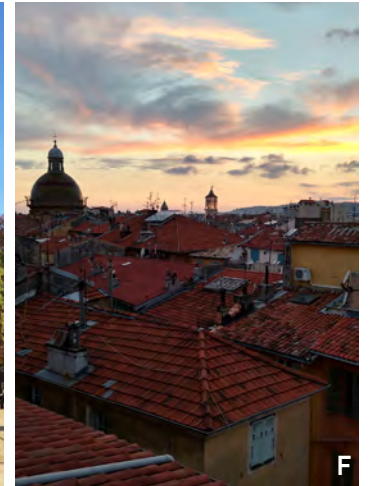
D



D



E



F



F



G

66 A> T. Wang, Rome -B> S. Busman, Poissy-sur-Seine -C> H. Murphy, Loarre
D> T. Song, Valencia -E> M. Zukowski, Barcelona -F> S. Canada, Venice

A> K. Callahan, Santorini -B> J. Miller, Prague -C> M. Cooper, Rome -D> B. Berg, Budapest
E> S. Rydecki, Paris -F> S. Fahey, Nice -G> A. Smith, Paris



A



B



A



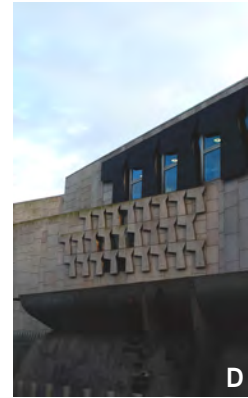
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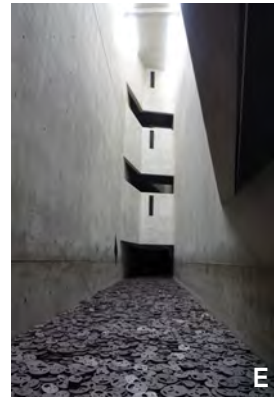
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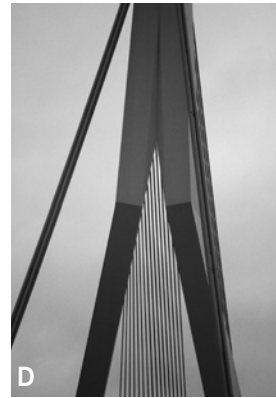
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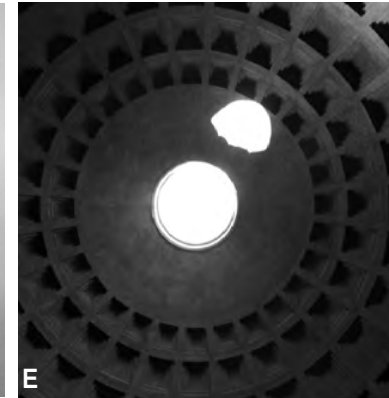
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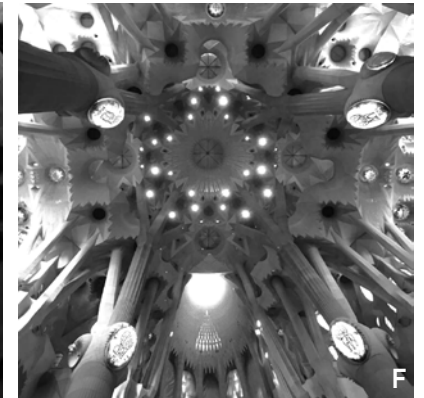
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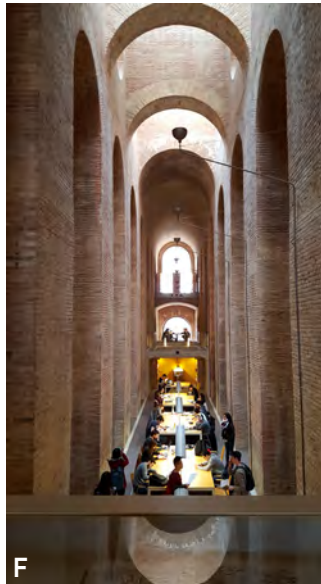
D



E



F



F



G



G

68 A> A. Sahakian, Rotterdam -B> A. Smith, Zaragoza -C> T. Song, London -D> K. Zeng, Glasgow
E> Y. Zhang, Berlin -F> J. Buss, Barcelona -G> S. Artajo, Pont-du-Gard

A> Y-L Hsu, Zaragoza -B> B. Berg, Arles -C> T. Wang, Paris -D> K. Ngo, Rotterdam
E> A. Menolascino, Rome -F> Y. Liu, Barcelona -G> K. Callahan, Budapest

ETSAV STUDENTS at the Illinois School of Architecture

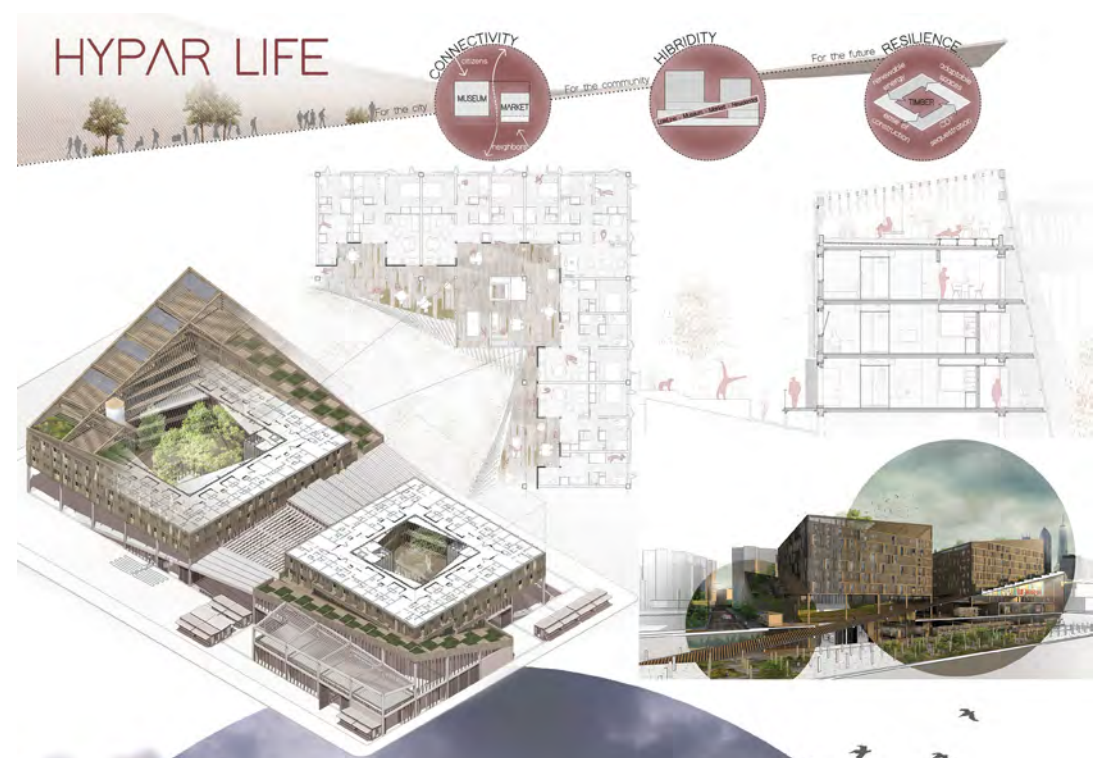
The Illinois Architecture Study Abroad Program at Barcelona-El Vallès (iasap-bv) is part of an overarching agreement of institutional exchange between the Escola Tècnica Superior d'Arquitectura del Vallès of the Universitat Politècnica de Catalunya (ETSAV-UPC) and the Illinois School of Architecture of the University of Illinois at Urbana-Champaign (ISoA).

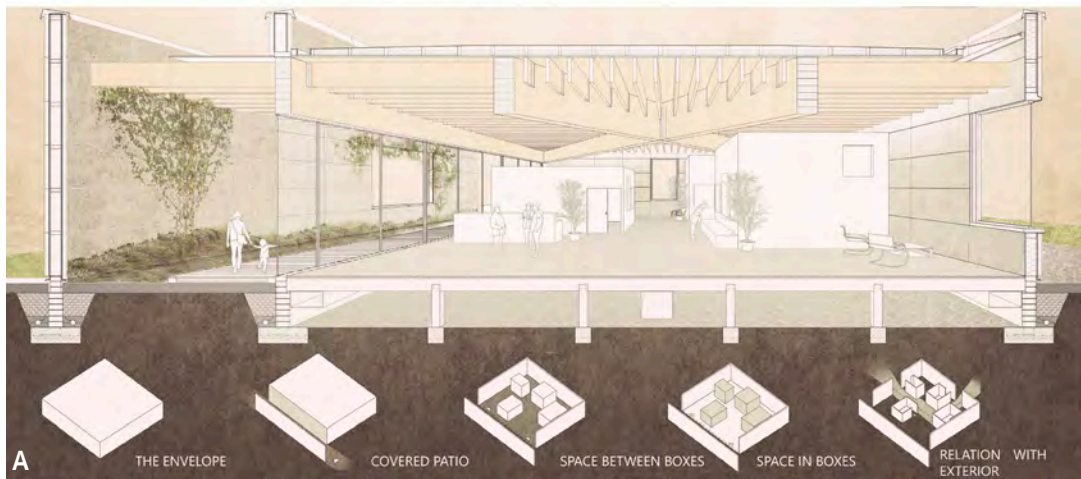
The agreement contemplates the provision of scholarships for studying at the ISoA for students enrolled at ETSAV. Thus, every year, seven ETSAV students travel to United States to spend one year of studies at the ISoA. Typically enrolled as upper-level students, they take courses in Architectural Design and in other areas of Illinois' rich curricular offerings during the two semesters of the academic year.

As an intrinsic part of the bilateral agreement between the two institutions, the iasap-bv's Yearbook of Student Work is once again very pleased to host and display the work produced at the ISoA by the seven exchange students who spent the 2015-2016 academic year in the University of Illinois at Urbana-Champaign.



A





A Josep Foraste

FALL STUDIO - 574 PUBLIC SPACE + HOUSING

First project - Design of an investment Tower



The towers of investment were not created to be habited, its function is purely iconic, like many other objects, at other times, represented wealth, in our days the demand for land in certain specific areas has resulted in the creation of these buildings. While they represent wealth, the shape and materiality show us prosperity and lead us to consumerism that is catalog in the inside. The different levels represent the different economical strata of the society and in each platform, the cost rises as the high does. As a metaphor, the investment tower do not respond on behalf of their function, it is a physical metaphor representing the purchasing power of the people who can afford to spend the money on something that will be worn by all.

Second project - Accomodating study Book

This second project was a book of 120 pages plus a poster studying the form, the envelope, core + circulation, the units and finally the amenities of 101 examples of different housing projects.

101 HOUSING FORMS



Main project - Housing project in NYC.



This project was placed in NYC, at the edge of Hudson river, south Brooklyn.

The main idea of the project was designing two buildings that work as a filter in between the city and the edge of the river creating new spaces for the neighbors to relax and disconnect from the city.

The buildings itself goes from 2 bedrooms units until 4 bedrooms + studio units.



SPRING STUDIO - HOTEL KÖNIGSHOF, MÜNICH

This second study is the recreation of the contest held in Munich, Germany, to redesign the new Hotel Königshof that ended with the firm of Nieto Sobejano as winners. The project goes from the general design of the building to detailed design of the rooms, including the design of structures and facilities necessary for the hotel.



Fourth floor



Third floor



Ground level

EXTERIOR VIEW



INTERIOR VIEWS



Common areas

Room example



Carles Diaz Lucero

University of Illinois at Urbana-Champaign 15-16

A> Carles Diaz

ARCH 574

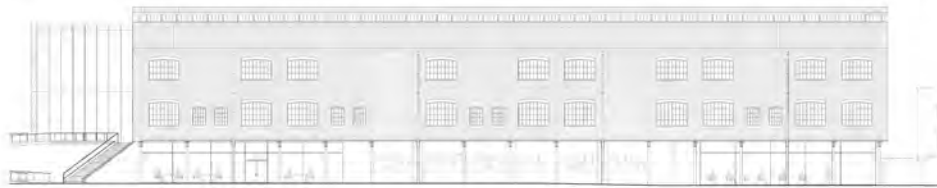
studio fall 2015

Prof. Paul H. Kapp

Coalbrookdale Shropshire, England



solution:



ARCH 576

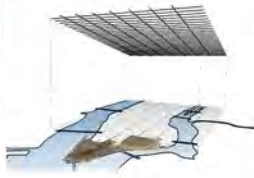
seminar fall 2015

Prof. Kevin Erickson

1961
New York City Resolution
to the extreme



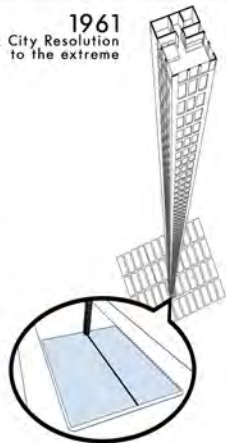
Future view of infrastructures



Greatest Grid
Master Plan of Manhattan



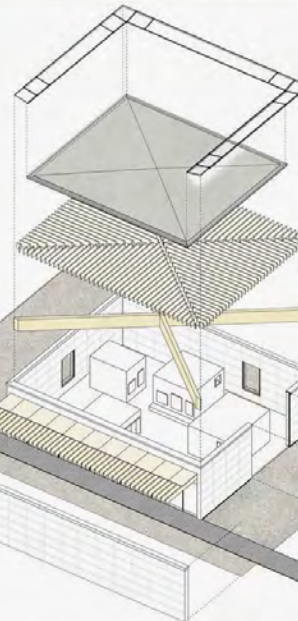
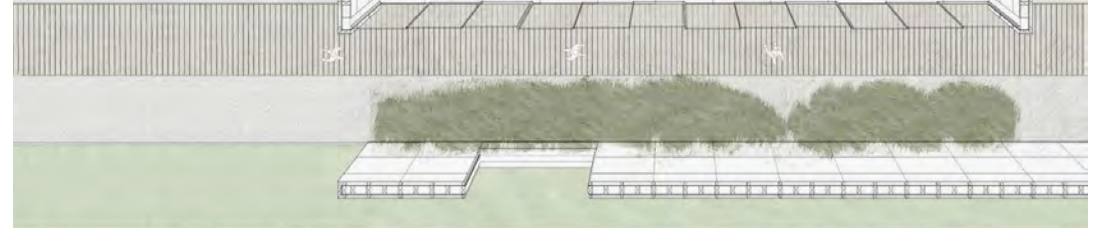
How the railway got to NYC



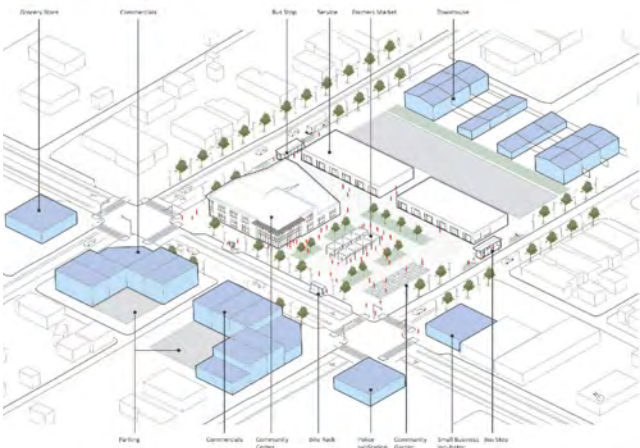
A Oriol Ramon UIUC Exchange program 2015-16

BOX

VISITOR CENTER FOR FARNSWORTH HOUSE



A
A> Guillem Canudas



A

Alejandro Lapunzina; Professor & Director

Arquitecto (professional degree), Universidad de Buenos Aires, Argentina (1983); Master of Architecture, Washington University in Saint Louis (1987). Taught one section of Architectural Design in the Spring semester and Overseas Architectural Studies in the Fall. Coordinated the program's curriculum and curricular and extracurricular activities and conducted workshops and field-trips.

Mario Corea; Visiting Lecturer

Arquitecto (professional degree UNL, Rosario, Argentina (1962); Master of Architecture in Urban Design, Harvard University (1964); Diplome in Urbanism, Architectural Association, London (1970); taught one section of Architectural Design in the Spring semester.

Jeffrey Kansler; Visiting Lecturer

BS in Architectural Studies, University of Illinois at Urbana-Champaign (2003), Master of Architecture, University of Illinois at Urbana-Champaign (2005); taught the curricular sequence of Structures' courses and conducted workshops and field trips.

Raúl Martínez; Visiting Lecturer

Arquitecto (professional degree) UPC-ETSAV (2006), Master in Architectural History and Theory, UPM-ETSAM (2008), PhD in Architectural History (2014); taught the curricular sequence of Architectural History courses and led numerous field trips.

Vidar Lerum; Associate Professor

Architectural professional degree, Norwegian Institute of Technology, Trondheim, Norway (1973); Master of Science in Building Design, Arizona State University (1996); PhD Doctor in Engineering, Norwegian Institute of Science and Technology, Trondheim, Norway (1996); taught one section of Architectural Design in the Fall semester.

Xavi Vancells; Visiting Lecturer

Arquitecto (professional degree) UPC-ETSAV (1996), PhD in Architecture UPC-ETSAB (2015); taught one section of Architectural Design in the Fall semester.

Magalí Veronelli-Lapunzina; Administrative Coordinator

Professional degree in Political Science and Public Administration, Universidad Iberoamericana, Mexico (1984); Master in Public Health, Universidad de Buenos Aires, Argentina (1986); in charge of the program's administrative activities and students affairs.

Other Participants

Sara Bartumeus, Associate Professor ISoA; conducted a one-week Travelling Workshop in Copenhagen in the Spring semester.

William J. R. Curtis, IASAP-BV Guest Professor; conducted a two-week intensive Seminar-Workshop in Architectural History and Criticism in the Spring Semester.

Adrià Goula, Architectural Photographer; led a session on architectural photography in the Fall semester.

Jack Kelley, Principal McBride, Kelley and Baurer Architects (Chicago, USA); conducted a one-week Sketching Workshop in Sant Cugat and Barcelona in the Fall semester.

Andrea Melgarejo de Berry, Visiting Lecturer ISoA; conducted a one-week Travelling Workshop in Brussels in the Spring semester.

Miguel Usandizaga, Professor ETSAV; taught the joint ETSAV+IASAP-BV component within the sequence of History courses in the Fall and Spring semesters.

Merit Language School (Sant Cugat); offered a certified Spanish language course to interested participating students in the Fall semester.

Guest Lecturers

William J. R. Curtis, Architectural Critic and Historian, Cajarc, France; delivered an IASAP Public Lecture.

Nicholas Gilliland, Principal Architect, Tolilla+Gilliland, Paris, France; delivered an IASAP Public Lecture.

Victor López Coteló, Principal Architect, Madrid, Spain; delivered an ETSAV+IASAP Public Lecture.

Benjamin Nesbeitt, Principal Architect, Worksbureau, Phoenix, USA; delivered an IASAP Public Lecture.

Eli Synnevåg, Senior Architect, Snøhetta, Oslo, Norway; delivered an ETSAV+IASAP Public Lecture.

The following guest professionals and scholars participated in diverse activities related to the Architectural Design courses offered in the Fall and/or Spring semesters: Jaime Batlle, Pere Fuertes, David García, Nicholas Gilliland, Eulalia Gómez, Burke Greenwood, Enric Massip, Carmen Mendoza, Tomeu Ramis, Nuria Sabaté and Eli Synnevåg.

First and foremost, the iasap-bv and the Illinois School of Architecture want to thank both the institution and the members of the ETSAV/UPC for hosting the program and for the gracious assistance received throughout the entire year. Very special thanks to the Director of the School, Professor Victor Seguí and to the other members of the school's administration and support areas who helped us in every single aspect needed for the smooth and successful operation of the iasap-bv.

The iasap-bv team of faculty and staff are very grateful to the Director of the Illinois School of Architecture, Peter Mortensen, for his continuous support to the program and the activities undertaken during this second year of the program. Our gratitude extends to the numerous offices of the ISoA and all their members who supported the program all along.

We are also very thankful to everyone —teachers, scholars, professionals, special guests, visitors and external provider of services — who assisted with the development and implementation of the program's activities throughout the entire year. The year could not have culminated successfully without this support.

Last but definitely not least, the iasap-bv team wants to thank the twenty-nine students who participated in the iasap-bv in 2015-2016. Without them, neither this booklet nor this program would exist.

Congratulations to all and good luck with the continuation of your journeys!

