BEING THE MOUNTAIN
IIT COLLEGE OF ARCHITECTURE, CHICAGO IL
STUDIO BY PRODUCTORA
FALL 2016
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Ricardo Legorreta, Ixtapa Hotel, Ixtapa Guerrero, 1980 (Photo Armando Salas Portugal)

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The Ixtapa Hotel consists of an extended volume draped over the whole surface of a hill sloping downwards to a private beach. The rooms are stacked one on top of the other following the exact same inclination as the existing topography, creating a fairly easy constructive solution. Seen from the ocean the building looks like a massive 10 story construction, but in reality it rarely raises more than two levels above its foundations.

The Ixtapa project raised our interest in building types that are architecture and topography simultaneously. The idea to make a mountain-like building or a building-like mountain was however not new. In 1925 F. L. Wright’s had already designed his proposal for the Gordon Strong Automobile Objective and in the early sixties some visionary architects in Caracas, Venezuela had started construction on the Helicoida, a large scale commercial project that unfortunately would never be fully completed. Also Cesar Pelli’s project for Santa Monica (1965) or Moshe Safdie’s Puerto Rico Habitat (1968) or the many stepped and terraced housing projects developed and built during the seventies (1) were obvious precedents to this project. All these projects defied one way or another the modernist ethos of simply ‘multiplying by stacking’, a strategy that had proved to be a commercial success but had far too often a redundant social failure. Many of these projects exemplify well a paradoxical ambition: to be mega-structure and vernacular village simultaneously, to be extremely large and extremely small at the same time. But rather than issues of scale, it is the notion of territory and the shifting relation between architecture and the ground it stands on that interest us here.

(1) The housing project in Umiken, Switzerland by Team 2000 might be one of the most noteworthy. These 30 units of hillside housing organized around diagonal elevators. Demonstrate the design excellence and expertise the Swiss obtained after following permanently a national strategy of building housing on steep hillsides not suitable for agriculture.

(2) The housing project in Umiken, Switzerland by Team 2000 with 30 units of hillside housing organized around diagonal elevators.

Tita Carloni, Balmelli House, Rovio, Switzerland, 1957

Ken Architects, Terraced Housing in Brugg, Switzerland, 2013

ARCHITECTURE & TOPOGRAPHY

Course Description

The city works as an agent of change of different urban and social conditions. Searching for new models to understand, developing and solving city problems while rethinking individual and collective metropolitan experiences, the studio explores the relationship between topography and architecture through the design of a housing program with mixed use additional programs on a steep site. Rethinking habitat implies debate about urban politics, new social relationships, programs, new forms of habitation among other things. The Studio encourages students to achieve real breakthroughs in the creation of a new habitat.

Precedent

The topic of this studio is triggered by our fascination with Armando Salas Portugal’s photography of the Ixtapa Hotel by Ricardo Legorreta built in 1981 (see cover), an image we encountered preparing the exhibition ‘Mexican Modernisms’ by Ricardo Legorreta built in 1981 (see cover), an image we encountered preparing the exhibition ‘Mexican Modernisms’ by Ricardo Legorreta built in 1981 (see cover), an image we encountered preparing the exhibition ‘Mexican Modernisms’ by Ricardo Legorreta built in 1981 (see cover), an image we encountered preparing the exhibition ‘Mexican Modernisms’ by Ricardo Legorreta built in 1981 (see cover), an image we encountered preparing the exhibition ‘Mexican Modernisms’ by Ricardo Legorreta built in 1981 (see cover), an image we encountered preparing the exhibition ‘Mexican Modernisms’ by Ricardo Legorreta built in 1981 (see cover), an image we encountered preparing the exhibition ‘Mexican Modernisms’ by Ricardo Legorreta built in 1981 (see cover), an 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Armando Salas Portugal’s photography of the Ixtapa Hotel.

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Our office has worked in many occasions on sites with steep hills. From the House in Chihuahua (2008), the addition to that same house (ongoing), the Diaz House (Valle de Bravo, 2011), the Blas House (Valle de Bravo, 2014), the House in Tequesquitengo (2014), the Fleischmann Residence (Los Angeles, under construction) to larger public projects such as the Museum in Teotitlan del Valle (under construction) or the Cultural Auditorium in Cuernavaca (under construction) ... all these projects mediate one way or the other very specific geographic and topographic conditions.

CASE STUDIES

The content of the studio will be complemented by collecting and researching multiple case studies that will serve as references for the development of the project. Some initial examples here below:

References

- Romero Gutierrez, El Helicoide de Roca Tarpeya. Caracas Venezuela, 1955
- Tita Carloni, Casa Balmelli, Rovio, Switzerland, 1956
- Jose Antonio Coderch de Sentmenat, Torre Valentina, Costa Brava, 1959
- Siedlung Halen, Atelier 5, Bern, Switzerland 1961
- David Leavitt, The house at Ansty 1962
- Cesar Pelli Sunset Mountain Park Santa Mónica; Los Ángeles, 1964
- Alvar Aalto, Shiraz Art Museum, Shiraz, Iran, 1969
- Moshe Safdie, Habitat Puerto, Puerto Rico, 1971
- Ricardo Legorreta, Casa en Valle de Bravo, 1973
- Kikutake & Kiyonori, Pasadena Heights, Mishima, Japan, 1974
- Ricardo Legorreta, Hotel Camino Real Ixtapa, Ixtapa, Guerrero, 1981
- Glen Howard Small and Shizuo Harada, Tatami Mat Hillside Housing, 1985
- Tadao Ando, Awaji Yumebutai International Conference Center, 1995
- Tadao Ando, Rockefeller Housing I, II and III, Kobe, Japan, 1981-1999
- Iñaki Ábalos y Juan Herreros, Planta Reciclaje Valdemingomez, Cañada Real, Madrid, 1999
- Alvaro Leite Siza, Tolo House, Lugar das Carvalhinas, Alzite, Paroquia de Cerva, Comunidad Ribeira da Pena, Distrito de Vila Real, Portugal, 2005
- E2A, Terrace Housing, Meilen, Switzerland, 2001-2005
- Eduardo Souto de Moura, 2 Houses in Ponte de Lima, Portugal, 2003-2012
- Ken Architects, Terraced Housing in Brugg, Switzerland, 2013

Other examples

- Adolf Loos, Grand Hotel Babylon, Nice, France, 1913
- Hans Poelzig, Festival Theatre, Heilbrunn Salzburg, 1920
- Frank Lloyd Wright, Gordon Strong Automobile Objective and Planetarium, Sugarloaf Mountain, Maryland, United States, 1924-1925
- Justus Dahinden, Tent House, Rigi, Swiss Alps, 1954
- Moshe Safdie, Habitat 67, Montreal, Canada, 1967
- Justus Dahinden, Ferrohouse, Zurich, Switzerland, 1970
- Justus Dahinden, Hill City, 1968-1972
- DP Architects, Golden Mile Complex, Kallang, Singapore, 1973
- Georg Heinrichs, Autobahnüberbauung Schlangenbader Strasse, Berlin, Germany, 1981
- Glen H. Small, Turf Town, Los Angeles California, United States, 1983
- Renzo Piano Building Workshop at Punta Nave, Genoa, Italy, 1991
- Tadao Ando, Awaji Yumebutai (gardens), Awaji, Japan, 1995
- Emilio Ambasz, Fukuoka Prefectural International Hall, Fukuoka, Japan, 1995
“Nature somehow always charges us for the insults we’ve inflicted over the years. This is perhaps the case of the landslides in the hills of Santa Fe where, in a foolish and wrongheaded way, office and apartment buildings, houses, and luxury shopping centers have been built on sandy and porous terrain above garbage-filled caverns. [These properties] were then sold for thousands of [US] dollars to people who, seeking status, didn’t notice the risks of living on unstable land.” (1)

In order to solve the overall problematic rigorous controlled laboratory studies where made. The final proposal was to make large volumes of mass with layers of ground material and soil-cement. The form and aesthetic of these volumes alludes to the architecture of our ancient Mexico, functioning as buttresses and retaining walls while giving aesthetic value to the large space they occupy, seeking to achieve an urban landscape that characterizes the site.

Los Contrafuertes of Santa Fe

Los Contrafuertes (The Buttresses) of Santa Fe were built as a response to the necessity of solving a soil mechanics problem in order to retain a large mass of land that would allow the construction of one of the main avenues in Santa Fe, Av. Vasco de Quiroga. The construction of this project meant to cut through an already existing natural topography and to solve what could have been a serious landslide problematic. This manmade terrain cut is now the boundary that separates what used to be the landfill for Mexico City, and the new development of the City Santa Fe.

In this studio we will do a project proposal-in a very specific relation to the existing sloped topography- that can help prevent landslides by making the building itself work as a ground retaining wall. A long site just next to the Av. Prolongacion Vasco de Quiroga, in Santa Fe District was chosen to develop a section that could be extended over the whole length of the topographic break: architecture as infrastructure. At the same time we aim to generate typologies that improve the relation to the street, promote walkability, develop new systems of vertical circulation and review the historic typology of terraced housing. The relation between architecture and topography, between the natural and the manmade will play a central role in those urban and architectural explorations.

Architecture as Infrastructure

Recent landslides just next to million dollar developments in the rich and corporative outskirts of Mexico, urges us to rethink the way we deal with natural topography when developing land and demands us to explore alternatives to the modernist ethos of simply ‘multiplying by stacking’.

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Project Name: Los Contrafuertes (The Buttresses or ‘Counterforts’) | Location: Av. Vasco de Quiroga, Santa Fe, Mexico City | Authors: Arch. Eliseo Arredondo González, Arch. Ismael Palomares García | Engineering: Colinas de Buen Ingeniería | Year of construction: 1995-1996 | Awards: Mention at the First Landscape Architecture Biennale of Mexico

Studio Exercise

First exercise: With volumetric models a series of formal solutions will be explored, produced and photographed. These exercises – without scale or any specific program – will allow students to have an intuitive and fresh initial approach to the problem. (Individually)

Case studies: Simultaneously with the development of both exercises, students will review and make a graphic synthesis of several architecture-and-topography projects. PRODUCTORA will propose some case studies and students will bring forward research examples of their own. (Individually)

Second exercise: The studio explores the relation between topography and architecture through the design of a high-density housing development on a steep site in the City Santa Fe district in the outskirts of Mexico City. A continuous production of physical models, drawings and images will allow the project to be evaluated on structural, programmatic, formal, functional and theoretical qualities. The final projects will be developed in groups of two.

Study Trip

A study trip is planned to Mexico City (October, 2016) in order to obtain general understanding of the city and its socio-cultural context, to visit the site, to establish dialogue with local architects and critics and to visit several private and public buildings.

Required Resources:
- An general format, the studio will work with metric system.
- Floorplans, sections, elevations and axonometrics will be black color line drawings made in CAD according to a given graphic reference.
- Images will be done with three color scheme, red, blue, yellow and green using different opacities and intensity variations.
- The produced material of each exercise should be both physical (printed on high resolution paper) and digital (uploaded into the studio’s Dropbox account and orderly put in each submission and final review folder).

Attendance Policy: Students cannot have more than 3 unexcused absences.

Grading Policy:
10% Attendance and participation
30% Mid-term review
60% Final Presentation

A more detailed description of the project and final presentation requirements will follow. Grading criteria is subject to change at the discretion of instructor.

Americans with Disabilities Act (ADA) Policy Statement
Reasonable accommodations will be made for students with documented disabilities. In order to receive accommodations, students must go through the Center for Disability Resources office. The Center for Disability Resources (CDR) is located in Life Sciences Room 218, telephone 312 567 5744 or disabilities@iit.edu

Calendar

Week 01 (22.08 - 26.08): PRODUCTORA at IIT
Studio Lottery
Studio Introduction, first exercise, form analysis and case study research

Week 02 (29.08 - 02.09):
First exercise development
Friday 02: Skype with PRODUCTORA

Week 03 (05.09 - 09.09):
First exercise development
Friday 09: First Exercise Submission

Week 04 (12.09 - 16.09):
PRODUCTORA at IIT
Second exercise, conceptual scheme plans and model, lecture from PRODUCTORA
Monday 12 Case study exposition and first exercise review

Week 05 (19.09 - 23.09):
Second exercise conceptual scheme development
Friday 23: Skype with PRODUCTORA

Week 06 (26.09 - 30.09):
Second exercise conceptual scheme development
Friday 30: Second Exercise Conceptual Scheme Submission, skype with PRODUCTORA

Week 07 (03.10 - 07.10):
MEXICO CITY (Itinerary to be defined)
Tuesday 4: Second Exercise Conceptual Scheme Submission with guest jury

Week 08 (10.10 - 14.10):
Second exercise final scheme development
Friday 14: Skype with PRODUCTORA

Week 09 (17.10 - 21.10):
Second exercise conceptual scheme development
Friday 20: Second Exercise Conceptual Scheme Submission, skype with PRODUCTORA

Week 10 (24.10 - 28.10): Second exercise final scheme development
Friday 28: Skype with PRODUCTORA

Week 11 (31.10 - 04.11):
Second Exercise Final Scheme Submission
Monday 31: Second Exercise Final Scheme Submission
Final scheme development and editing

Week 12 (07.11 - 11.11):
Second exercise final scheme development and editing
Friday 11: Skype with PRODUCTORA

Week 13 (07.11 - 11.11):
Second exercise final Scheme Submission
Friday 21: Midterm review

Week 14 (21.11 - 25.11):
Second exercise final scheme development and editing
Thanksgiving break

Week 15 (28.11 - 02.12):
Second Exercise Final Scheme Submission
Friday 02: FINAL REVIEW - Plans, models, detail model, images, case study research

LOGISTICS

Concrete Steps

Retaining wall system with precast concrete cribs
BEING THE MOUNTAIN

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Cloud Studio
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Arch 419 / Arch 545
Mo-We-Fr, 2-5:50pm
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