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IDWRK 09 10

In many ways, a school of architecture holds and moves the city in which it resides. As our population demonstrates, the USC School of Architecture engenders a large cultural scene with diverse intentions and intelligences— a microcosm of the global urban scene, in which new possibilities and new trends are always emerging or being submerged. It is the School's responsibility to catch what emerges to either to consolidate or evaporate it. The way to do it is to create a strong connection to the fundamental principles and cultural responsibilities of architecture through interdisciplinary discourse amongst architecture, landscape architecture, building science, and historic studies. It is also to integrate design strategies and research agendas with teaching.

The work presented here is a captured moment in the dynamic condition that is at once the city, the school, and the profession. The confluence of disciplines, global influences, culture, and ideas, create a vital flux that challenges the divide between practice and theory.

This second edition of IDWRK not only documents examples of outstanding student work, but begins to view the currents that structure the deposition and concretization of skills and knowledge as topical threads.

Here, the precipitation of thought and work in the form of projects are but a momentary manifestation of ideas in constant movement. While some consolidate, others evaporate to form later, in neither case, is there permanence.

Qingyun Ma, Dean

Della and Harry MacDonald Dean's Chair in Architecture

ON EDITING

A snapshot freezes a moment in time, freezing for perpetuity what we might ordinarily have missed while focused on studio deadlines, tests, lectures, turn-in dates and upcoming vacation days. Each volume of IDWRK captures one academic year of the School of Architecture's production. In the first volume, IDWRK 0809, the task was great—how to curate a succinct vision of the School of Architecture that heretofore had run unchecked against the mirror of publishing. Building on the foundation established by the first editorial duo to collect the work of the school which might at any given moment comprise some 10,000 images, we have here sought to push further and reveal not only the figure of the work that has been produced, but also the critical pedagogical structure on which that work rests.

The USC School of Architecture has long held an important role in shaping both the practice and the discipline of Architecture. It is important to promote the present and suggest an engagement for the future as a continuation of this legacy. While no one publication can comprehensively represent an entire academic department, our goal as editors is to demonstrate the breadth of knowledge of the School of Architecture's students and faculty and the excellence of the body of work they produce as a collective.

We would like to extend an enormous thank you to all faculty and staff who assisted in putting together the book. Thank you to Dean Qingyun Ma, Amy Murphy, Kim Coleman and John Mutlow for their support in expanding the mission of IDWRK. And thank you to Gennaro Avoilo-Toly, whose job it is to actually handle every image in the school archive.

Laurel Broughton
Undergraduate Editor IDWRK 0910

Selwyn Ting Graduate Editor IDWRK 0910





THE UNDERGRADUATE DESIGN STUDIO: 2009-10

Fields of thematic issues, critical intentions, and directed skills thread through each of the ten semesters of design studio, establishing a dialogue of essential principles juxtaposed with the introduction of new technologies and innovations. Vital questions of the moment: How can DIAGRAM be asserted as a tool, focusing point-of-view on a broad fabric of possibility? How does one navigate SITE, both the abstract place of an idea and its physical space? How does MATERIALITY engage the question of appropriateness, both social and physical, and support SUSTAINABILITY, including light, climate, energy, and performance? And how does that relate to the TECTONICS of structure and skin? What is the impact of SCALE, from body, room, building, to infrastructure, city, globe? How does CRAFT and assembly, whether by hand or digital fabrication, impact both design process and representation?

The threads that weave through this edition of IDWRK are an outgrowth from a series of discussions that our semester coordinators have pursued over the past year. The weaving of threads into cloth represents an appropriate

metaphor for our mission of teaching design. The warp of tightly spaced threads that continue throughout a bolt of fabric represent the strands of fundamental skills and principles of our foundation curriculum. They are taut while on the loom but flexible after they've been woven with an overlay of materiality. The weft of oppositional threads that bind and secure the strands of the warp as the fabric is woven may be thin or thick, subtle or dominant, depending on the elaboration of the weave.

The specificity of the warp is highly visible in the early semesters. The first year emphasis on skills, order, and analysis is built on in the second year with issues of urban form, materials, and tectonics. As semester builds on semester, students attach to and embellish the basic underlay with great variety, bringing forward aspects that enrich the process and strengthen the resulting work. The pedagogy of the School, woven over their undergraduate education, is the basis for understanding architecture as a dialogue between process and making. After the six semesters of core studios teaching fundamental agendas, offerings for the subsequent three semesters of topic studios, including studios conducted in full semester global programs, provide intensive and provocative foci on particular aspects of design thinking. In the culminating fifth year degree project semester, the individual student develops the focus for his or her own work, which is framed by a series of themes bound by the underlying strands of fundamental design principles.

Kim Coleman, Chair of Undergraduate Studies

UNDERGRADUATE CORE STUDIOS

The value and consequence of making is fundamental to the first semester of design. The familiar idea of intuition, tempered by and informed through the introduction to critical thinking, design analysis, and iterative learning becomes essential to building an awareness of intentional and informed making. Establishing craft, as a deliberate and provocative act, whether through building or drawing, conceptualizing or observing, immediately instills the paramount idea of responsible design.

SCALE

The idea that architecture is about inhabited form; plural space rather than singular object is a new concept for first semester design students. Enlightening each student to the importance of this issue calls for each of our projects to present, explore and critique the qualitative aspects of scale, both literal and implied, from the tactile to the phenomenal, spanning the intimate to the grand, all as measured by the known, namely the datum of body and movement, and the unknown, the ephemeral and temporal experiences of space.

Lee Olvera, Coordinator 102A





ARCH 102A AWARENESS

Coordinator, Lee Olvera, Instructors: Valery Augustin, Laurel Broughton, Mina Chow, Susan Fleiss, Arianne Groth, Rebecca Lowry, Lauren Matchison, Anna Neimark.

The process of developing an understanding of design fundamentals began with a series of projects. Project 1ABC positioned the issues of awareness through observation, and value through critique as forefront instigators for design exploration.

Project 1, organized into three phases, contained a series of 2D and 3D design problems. This began with the selection of a pair of objects, one organic the other man-made, and a pair of on-campus buildings. Through an analysis that included writing, photography, drawing and dialog, the objects and buildings were documented, scrutinized and compared to demonstrate a critical understanding of their physical and innate qualities and the potential relationships of their design to one another. The end result synthesized positive form and negative space while adhering to specific dimension and material constraints.

Project 2 introduced the concepts of program and site to explore relationships of form, space, function and context. The project began with research and documentation into a variety of global site conditions, both physical and cultural. Once completed, students selected oppositional site pairings forming the particular context of their site. Given a program of designing a threshold between specific site conditions, students explored issues of formal and spatial transition through the manipulation of scale, material and movement.

Project 3 advanced the design principles of previous projects through the integration of interrelated constraints: a site with specific orientation and topography, an existing set of Cartesian planes, limited size parameters, inclusion of landscape, and limited material use. Within this context, students placed a pavilion containing a program of spaces, distinct places of rest, work and gathering, as well as horizontal and vertical circulation elements. Inserting program and circulation into and around existing elements required a formal and compositional strategy that engaged issues of place making relative to the qualitative manipulation of enclosure, light, scale, material and landscape.

Project 4 examined architectural precedent as a means to actively engage the idea of history and architectural criticism as a continuation of design inquiry. Based upon an assigned architect and house project students completed focused background research, a critical written essay, analytical diagrams and a series of intensive presentation drawings.

Project 5 culminated the semester with a final portfolio. All work was compiled, documented, edited and assembled into a portfolio design that represented their creative work in an ordered, comprehensive and compelling manner.

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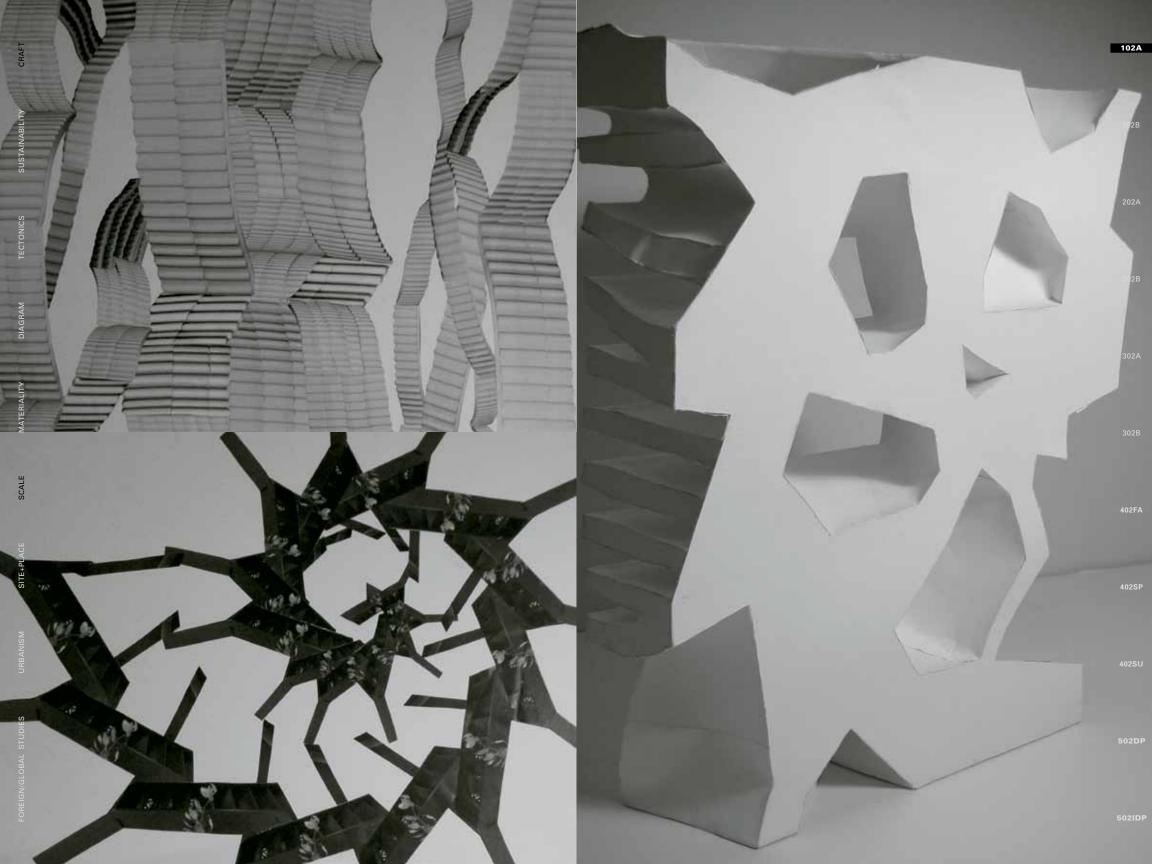
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102B teaches students to understand that the how is as important as the why and the what. Emphasis is placed on empowering students to make informed decisions regarding the means of production (i.e. traditional model making vs. digital fabrication); the appropriateness of the method to the artifact being produced; and perhaps most importantly, the relationship between the means of production and the design process.

TECTONICS

Tectonics is introduced primarily as a platform from which to investigate a form-making methodology. Models and drawings are critiqued to challenge students to carefully consider the implications of how building elements interact. Students become aware of how the subtlety and nuance of detail can define an architectural vocabulary.

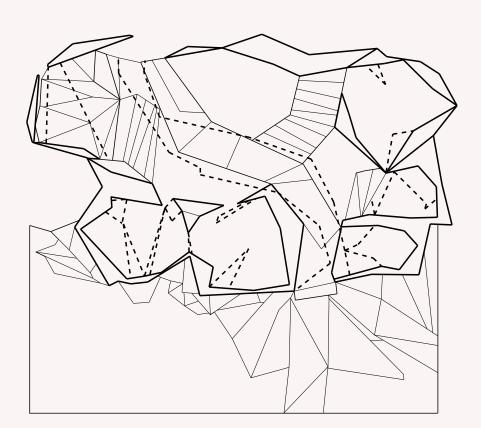
DIAGRAM

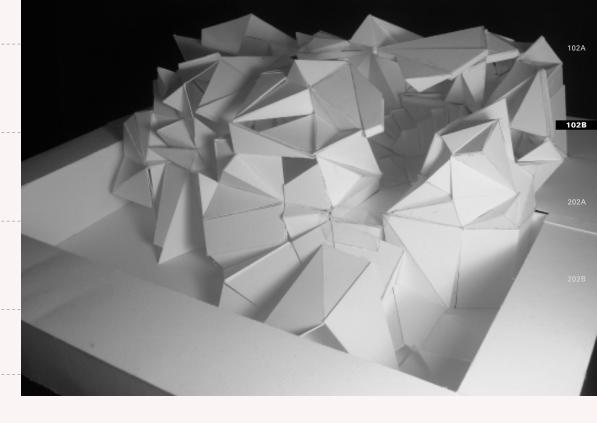
Students are taught that the power of the diagram lies in its dual capabilities: it is both a tool for distillation/analysis as well as a driver/generator for architectural form. The ability to recognize the latent potential of information in graphic form and how to effectively communicate design intent is emphasized in all design exercises.

SCALE

The profound effect of scale on the spatial experience is discussed in the micro, the macro and points in between. 102B is students' primary introduction into how scale can codify the reading of space, movement, and sequence

Valery Augustin, Coordinator 101B





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ARCH 102B

INVESTIGATE/MAKE

Coordinator: Valery Augustin, Instructors: Dana Bauer, Aaron Bentley, Laurel Broughton, Anthony Guida, Rebecca Lowry, Lauren Matchison, Scott Mitchell

The ambitions for the Spring Semester of ARCH 102 found their origins in the syntactic relationship between the words investigate and make. The potential of the dual processes were formulated into a new curriculum that exposed the students to the generative possibilities inherent in the dominant modes of design communication: the drawing and the model. The act of investigating and making was actualized through both the traditional methods of hand drawing and model building and vis-a-vis their emergent corollaries, 3D modeling and digital fabrication.

The semester was organized into two segments: the first portion of the semester was structured around a series design exercises focused on the form-generating methodologies of solids, surfaces and vectors while the second portion required a synthesis and application of the techniques to an architectural design project. The design

exercises in the first half were conceived in the binary of the analog and the digital, the cerebral and the haptic, and the process and artifact. Over the course of the semester, drawing, representation, physical models, 3D modeling and digital fabrication all became synonymous with thinking and were understood to be essential tools in the process of design.

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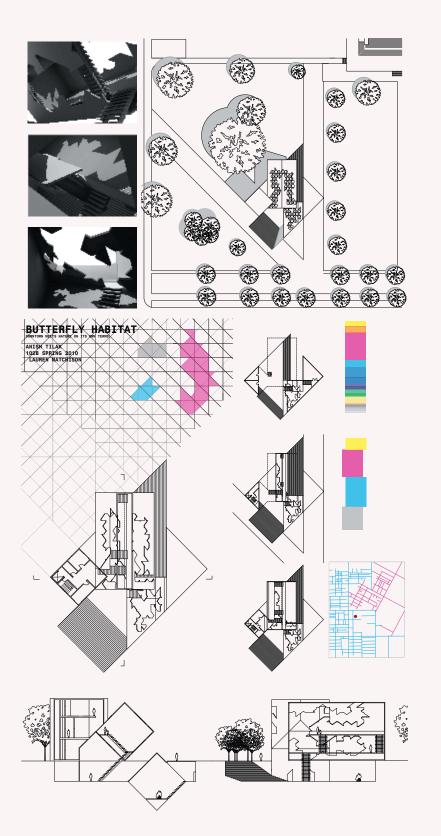
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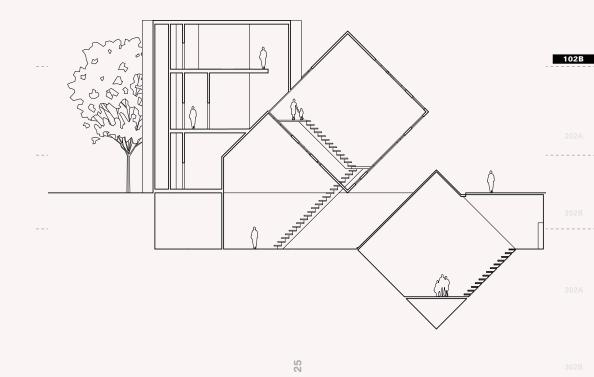
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We balance the analog and the digital aspects because there are values to understanding those different thought processes. How a student thinks about something comes out in how they make it and vice versa. The analog and the digital realms suggest very different ways to rationalize and synthesize ideas relative to methodologies. There are different ways of joining surfaces together or bending them. We believe both methodologies are important to the learning process.

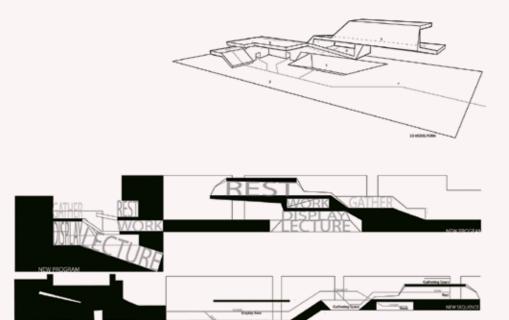
DIAGRAM

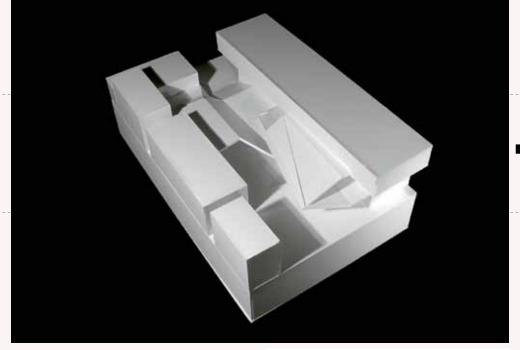
Diagrams happen at a multitude of layers and they are used for different purposes. You have diagrams that are strictly about analysis. They are the kind that let things bubble to the surface-delaminated so we can understand what the project is about. That's one set of diagrams. And then there are the diagrams that are operational—form making or space making. And then there are the diagrams that just simply capture ideas. These seem to be more an embodiment of threads of ideas that can be found in projects. Each type has a richness, as part of a set of tools for architecture.

FOREIGN/GLOBAL STUDIES

Each year of the Undergraduate Program we should increasingly pan out to a global scale. In Second Year right after Mid-Review we go for a long weekend in San Francisco. Trips like these allow students to experience the architecture and its total spatial environments as a complex body of engagement and considerations. It allows for student to faculty boding socially and create studio culture.

Andrew Liang, Coordinator 202A





ARCH 202A SYNTACTICAL OPERATIONS

Coordinator: Andrew Liang, Instructors: Chris Warren, Janek Dombrowa, Aaron Bentley, Jeff Kim, John Dutton, Rudabeh Pakravan, Mario Cipresso, Richard Corsini

Architecture as a form of learned and generative language requires, as with any language and linguistic studies, a fundamental understanding of its syntax and syntactical operations. Whereas syntax conveys the principles and rules of structuring ideas and elements, syntactical operations convey the formal properties and logic of the process. Space, form, movement, program, site, context and the urban are looked at throughout the semester as assemblies synthesized by a set of rules governed by clear ideas. The semester progressed through three topical assignments covering the four umbrella topics (space/ form, programs, sequence/movement, and the urban):

Assignment One—Space/Form Morphology: Spatial concepts introduced in the students' first year of studies were expanded upon and explored through an ontological

study of the formal. Emphasis was placed on the diaon logues and reciprocal relationships of space and form.

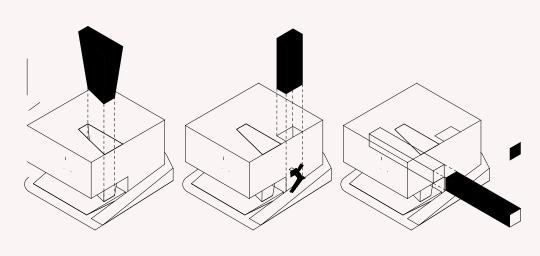
Assignment Two—Episodic Architecture: This assignment built upon architectural programs' quantitative and utilitarian values to include qualitative and experiential narratives to inform spatial / formal thinking. This was combined with the choreography of architectural experiences through program sequencing and movement as a device. Emphasis was placed on sequencing and movement as spatial and formal agitators that prescribe utility and experiences in architecture.

Assignment Three—Urban Morphology: This assignment served as an introduction of urban principles and the role of architecture in establishing a macro understanding of the city as a by product of design.

Aside from carrying out the thematic focuses and exploratory assignments, the semester culminated in a six-week final and comprehensive semester project.

The students were expected to demonstrate their comprehension of the subjects introduced throughout the semester. Paralleling the thematic teachings are integrated skill set development of both tactile and digital methodologies with emphasis placed on process, presentation and representation.

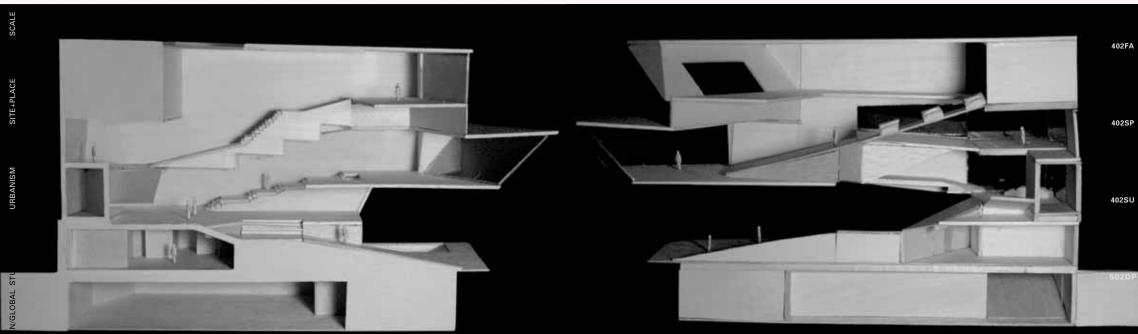
THIS PAGE: [2] [3] WARREN OTTO NEXT PAGE: [1] [2] [3] [4] MARTIN SCHUBERT





3

502IDP



The idea of craft is of course paramount to architecture. As the method by which we design and the care by while we create it represents an ethic. The tools we use define the outcomes that we produce, from the pencil to the software to the hammer, each of them implement their own methodological and ultimately formal agenda. The way we make is attached to the way we think and thus it is essential to have full control, knowledge and access to all media and methods of making for both representational purposes but also for fabrication, construction and installation.

TECTONICS

Tectonics at its most basic level is the way in which things come together. This is the history of architecture. As all things are assembled out of smaller pieces, the detail, systems and formal resultants from their organization govern the experience of a building and the legibility of an object. Tectonics are a language that speak toward the ideology of the maker and the intention of the object. The part to the whole is an integral relationship that must be conceptually, functionally and intentionally executed across all scales.

MATERIALITY

There is no greater force in architecture than material. It is the matter with which we work. It is embodied energy, It is resistance. Integrating material and process of working with the material to find a collaborative engagement is the foundation architecture. We are all makers of things, thus what we make things out of is undeniable. As a collaborator, the physicality of the tactile world is necessary to engage for practical and effectual agendas alike. Material is the beginning and the end.

SITE & PLACE

The relationship of architecture to site is what distinguishes itself from all other creative disciplines. Emerging from a place intrinsically establishes a dialogue with cultural context, urban relationships, social trends, and environmental realties. Architecture has the opportunity and responsibility to respond to place. Performative, formal, material responses become essential to the idea of buildings space and place.

Gail Borden, Coordinator 202A





- 2. Assemblies: The second segment engaged the relationship of connections and larger systems of assembly. Given a very specific unit and a limited collection of operations [cutting, drilling, notching] each student developed an individual tectonic. Both the resulting joint conditions were modeled [full scale to illustrate the detail] as well as the collective effect of the assembly. Assembly drawings focused on the sequencing of the system and the collective field effect.
- 3. Performative Object: The third segment was focused on design through making. Building on the cube projects of 211 (non-functional material based investigations), the performative object required more of the material. Adopting a specific function [a bench], the associated rituals and needs collaborated with material to define form. The end result was a full-scale material fabrication.

4, 5, 6. Material Architecture(s): The fourth and final seg-

ment integrated process, material, and program in a specifically sited context. To begin the research, three process logics were engaged. Focusing on 1: casting (plane, subtractive removal, positive/negative, void, surface and continuity, etc.) 2: unit (aggregation, chunking, field effect, etc.) 3: line: (bone, member, stick, cage, etc.). Each segment required a working methodology and modeling appropriate to the material and tectonic. Students were required to cast/aggregate and segment their models. The program required an integration of previous projects as well as site and material to develop a clear concept of design through making. Resolving all the complexities of structure, materials, program, site, and experience all organized with a clarity and cohesiveness, the scheme required a total aggregation of tectonics, history, and representation through design. The design of the car wash emerged from materiality and the application of construction, developing a finely-crafted material logic.

THIS PAGE: [2] [3] CHRIS RAIMONDI

NEXT PAGE: [1] [3] JESSICA CHANG, NATHAN HALIMI,
CHRIS RAIMONDI, [2] [4] TRISTAN MCGUIRE

ARCH 202B MATERIAL

Coordinator: Gail Peter Borden, Instructors: Andrew Atwood, Chris Coe, David Gerber, Eric Haas, Steffen Leisner, Anna Neimark, Rudabeh Pakravan

Course Description: This studio was the fourth in a design sequence developing the connection between materials and architectural design. The translation of an idea into architecture is a complex process: emerging out of site, mediated by program and budget, executed to join the larger network of daily actions and events intrinsic to the city as a complete organism, but its expression ultimately comes through the presence, ability and tectonic of material. An understanding of how a material and its associated systems of assembly are intertwined with the design process to generate the performance, form and experience of architecture is imparative. The semester proceeded as a series of segmented investigations.

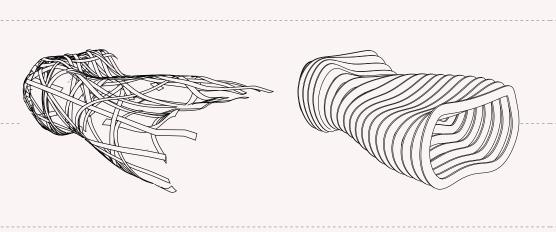
 Material/Precedent: The first segment was the focused deployment of an architectural material case study.

Through the unpacking of a precedent of specific historical

SITE+PLACE



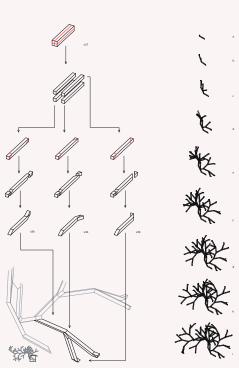


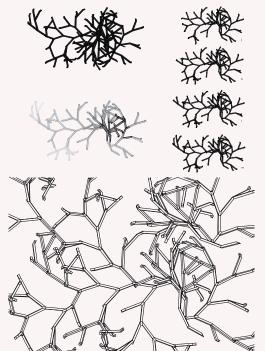




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The Third Year Housing Studio parallels real world analogs of housing in which agendas of craft are treated in the context of the mass produced object. Craft in multi-family housing is organizational and performative. Students must form relationships and patterns as much as spaces and objects—ultimately to understand a building as a rationalized array of systems (often modular) which need a framework.

SUSTAINABILITY

Buildings - and domestic uses in particular—consume a large portion of all energy produced worldwide.

Students must think about the long-term impact of their designs and integrate a variety of strategies—
via high-performance or traditional means—aimed at improving the sustainability of their projects.

Incorporating these strategies into the design process at the beginning can inform an entirely new grammar of forms and building responses.

DIAGRAM

Students often do not understand their building until it gets played out in diagrams. Diagramming is a very important aspect of designing housing. Oftentimes the best way for students to understand systems relationally—such as a water-wall—is to digitally model them in three dimensions to understand how organizational patterns are both generated and affected.

SCALE

The design of domestic space is based on dimension and nesting which become the basis for spatial organization. Bodies, at motion or at rest, establish sets of immediate dimensional relationships with their environment in the form or furniture, cabinetry, rooms, etc. These parameters are aggregated and nested and ultimately define the relationships one has within the building, to the neighborhood, and even globally.

URBANISM

The texture of cities is formed by the distribution of housing. The way we organize the proliferation of housing determines how we live and establish relationships. How tall are the structures along our streets? How set back? How dense do we build? How much do we walk? What is our relationship to landscape? And to other programs? Housing is the DNA with which cities and communities are grown and formed.

Warren Techentin, Coordinator 302A





ARCH 302A Housing

Coordinator: Warren Techentin, Instructors: Eric Abramson, Liz Falletta, Anthony Guida, Eric Haas, Cara Lee, Olivier Touraine, Ed Woll, Greg Otto (Systems Integration)

The Third Year Housing Design Studio asked students to understand architecture less as an object of design and more as an integrative process - as space created by a synchronized network of parameters and systems: social, political, structural, technical, mechanical, modular, dimensional, typological, sustainable. Housing design reflects the way in which we organize our living environments, interface with nature, relate to our families and neighbors, and participate in our communities. It is the building block of our cities and the background of everyday life.

Additionally, the studio challenged students to integrate and innovate a variety of passive and active sustainable strategies deployed in an effort to reduce the ecological footprint of their designs, while also helping to build sustainable, dense, and expandable neighborhood networks.

The students were assigned four projects throughout the course of the semester, each of which addressed the subject of housing from a different perspective.

Project 1: Students were asked to design a small canvas-sheathed and wood-framed research station for three researchers set in an urban park. Themes emphasized dimensioning space to the body, site orientation, the use of pre-fabricated elements, and wood framing.

Project 2: Students were assigned precedents from both historically significant and topically current housing projects. They were asked to re-draw them to gain intimate knowledge of their scale but also to subject them to a performative analysis which looked at particular design strategies comparatively across precedents. Interestingly, subjecting mid-century typologies to today's sustainability standards lead to an interesting dialog about the values of the historic precedents assigned.

Project 3: Students were introduced to the design of housing in a low-rise setting and asked to design a four-unit building on a block previously composed of single-family residences. Several themes were explored simultaneously including typological adaptation, unit clustering, material strategies, incorporation of landscape strategies, articulation of privacy gradients, and the development of neighborhood networks to help define community spaces.

Project 4: Students were asked to explore high-density, medium-rise housing on highly charged sites. Using the parameters of Transit Oriented Development guidelines, students developed a project incorporating 50 units in conjunction with a limited set of mixed uses and necessary parking. Several themes were explored in this project including aggregation, access, egress, code adaptation, pre-fabrication of elements, sustainable strategies, communal spaces, programmatic diversification, and unit variation.

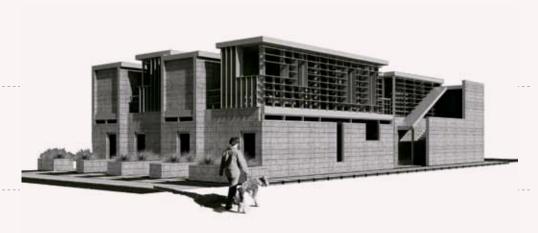
THIS PAGE: [2] TIFFANY CHEN, [3] ENOCH CHOW
NEXT PAGE: [1] CHASEN RAINEY, [2] JOANNA LAM,
[3] PETER THAI

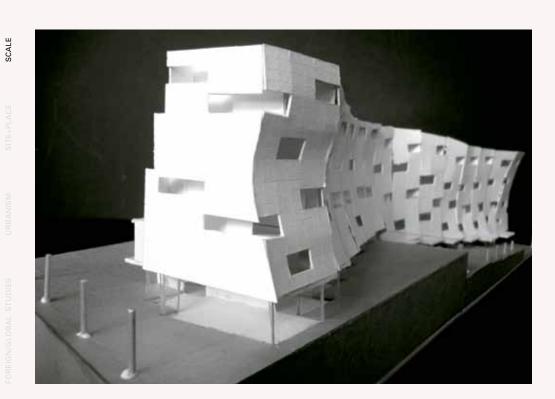
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While traditional notions of craft will always be part of the curriculum; carefully put-together models, exquisite drawings, etc.—we must also embrace new notions of "digital craft" that also apply the values of care, attention to detail, and communication to these new tools of 3D printing, CNC milling, laser cutting, and robotics

SUSTAINABILITY

Sustainability permeates through the studios, in Third Year it is explored through developing projects that have a fundamental relationship in a significant way to their environment. This may operate at multiple scales, in the projects' site relationship, or at the detailed level of an opening or material.

TECTONICS

Tectonics in Third Year, the way material, detail and form coalesce to express ideas, is explored through large-scale wall sections and fragmentary physical models that allow a rigorous examination of the potentials of built form. These models are working models, and meant to be adjusted, manipulated, and transformed as learning tools that demonstrate the design process.

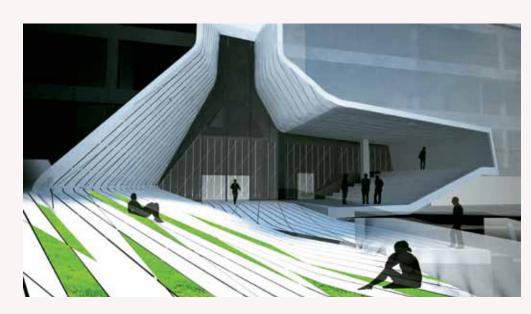
DIAGRAM

Diagrams are never just two-dimensional—they are two-dimensional drawings often, but they are fundamentally three-dimensional constructs. The understanding that the architectural diagram is both a design problem unto itself and a method for critical communication is one of the most important things we try to communicate to students.

MATERIALITY

Materiality in third year is taken quite tectonically, with students exploring the nature of materials as they apply to structure, form, and spatial relationships. Large scale models allow materiality to be researched at a tangible level, exploring methods of connection, detail and assembly.

John Enright, Coordinator 302B





ARCH 302B HYBRID PROGRAMMATIC INVESTIGATIONS

Coordinator: John Enright, Instructors: Ric Abramson, Mario Cipresso, John Dutton, Jeff Kim, Erik Mar, Chris Warren, Christoph Kapeller, Goetz Schierle (systems integration)

This studio occupies a critical location on the curricular time-line for architecture students. It stands at the end of the structured core studio sequence and is the last semester in which the entire class works on one design project with the same program. It is the foundation for the differentiated, increasingly self-structured focus of the topics studios. It is intended to serve as a summary and extension of the design exercises experienced in the previous semesters. This studio gives students the opportunity to address a comprehensive design problem and requires bringing to bear all the knowledge and skills that have been accumulating during the core sequence, to extend the depth and breadth of understanding of design issues, and to deal definitively with the interaction of conceptual, formal, experiential, regulatory and technical requirements of architectural design.

The studio provided an opportunity for students to develop a deep understanding of program within their design projects. While a base program type of a Community Civic Center was given as a beginning point, students chose and researched additional program types to augment and enhance their conceptual ideas.

The studio focused extensively on building systems, including physical systems (structure and enclosure) and experiential systems (circulation and day lighting.) Provisions for ventilation, heating and cooling (both natural and mechanical), lighting, and for acoustic amenity were required, as well as designing for life safety, egress, accessibility, and an understanding of building codes. A portion of the projects were developed in detail to investigate, understand, and ensure integration of the various systems.

The studio schedule required students to generate a developed conceptual design by midterm, to develop selected elements and systems of the building to a detailed design level, and finally to revisit and rework the entire design in light of the implications of the detailed design exercise.

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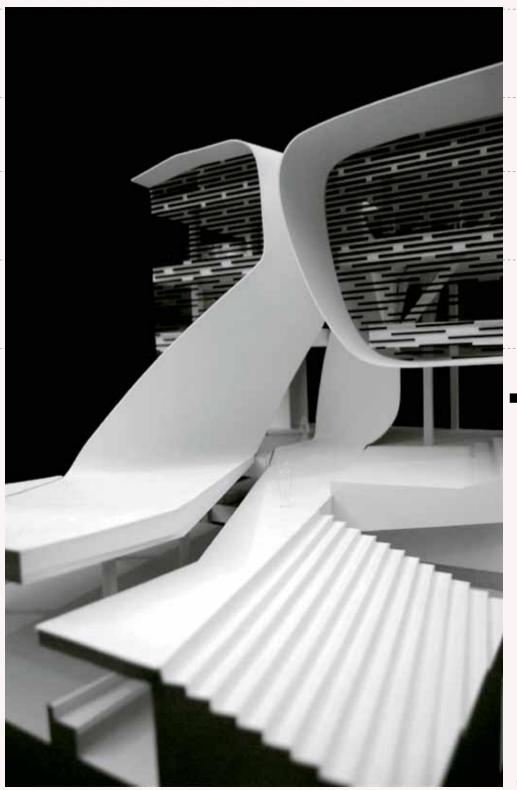
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UNDERGRADUATE TOPIC STUDIOS

Process provides discipline. If you think about John Hejduk you can see this. If you do a drawing each day, you have a mark of what that day was. It is enormously powerful. I would like to think our students leave the program with that kind of discipline. Kim Coleman, Undergraduate Chair

SUSTAINABILITY

It gets to the issue of performance at all the levels when a student approaches a project. The student has to examine what the best siting is, how that affects the building performance, where the wind is coming from, the solar issues. It is these issues that setup and determine what the boundaries are. It is finding those boundaries and seeing where you can get using those frameworks that create meaningful projects.

Kim Coleman, Undergraduate Chair

DIAGRAM

Any point when you are brought out of your comfort zone and into a new situation is very powerful. For First Year students, the growth curve in their knowledge is so intense. When you are in a different environment you learn new things. Sometimes it is as simple as having a new set of rules. This edge is what education is aboutbeing able to see things in new ways. Kim Coleman, Undergraduate Chair

We are looking at the diagram as a methodology for examining and analyzing performance which is also about communication. How does a diagram communicate very directly how a building works— what is the student reacting to in developing it? Putting that abstraction into the diagram is key. *Kim Coleman, Undergraduate Chair*

FOREIGN/GLOBAL STUDIES

The Global Programs provide a studio environment with a lot of intensity. It is a really important aspect of our learning experience. One of our goals is that we want our students who are in good academic standing to join one of these programs. They provide so many learning opportunities. *Kim Coleman, Undergraduate Chair*

The group and the studio culture that develops in the Global Programs is really amazing. A wonderful synergy develops as the students have to rely on each other for peer reviews and feedback. Selwyn Ting, France Program

The Como Program or the Asian Studies Programs provide students with a context vastly different from Los Angeles. In the US we talk about the lifespan of vernacular buildings being 50 to 70 years. Suddenly, students are in a place where things have been around for hundreds of years. In these contexts your relationship to architecture changes: new perspectives are opened in ways the built environment of Los Angeles can never approximate. Warren Techentin, Visiting Instructor to the Como-Program

TOPIC STUDIO INTRODUCTION

The Topic Studios of 2009-10 offered a diverse range of issues for students to test ideas and expand both their own knowledge and the knowledge base of the School. Eleven fall vertical studios, which include both fourth and fifth year students, examined a full range of issues, including social, cultural, site forces, materiality, and digital processes. Five spring semester topic studios for fourth year students encompass the domain of design development with wide variation, with students developing small projects to a high level of detail, approaching both contextual issues and tectonics.

Several of the Fall 2009 studios explored innovative approaches to architecture. Roland Wahlroos-Ritter's studio tested ideas about how digital forces such as scripting might become methodologies for the making of architecture and how modern digital tools might become generators for architectural form. The Doris Sung and Gail Borden/Andrew Atwood studios embraced eco-design and the exploration of new materials. Kara Bartelt's focus was on branding and user experience. Scott Mitchell's studio began with moving digital designs to the physical world, as each student designed and fabricated a functional object that subsequently was inspiration for the design of an artists' community. All of these studios began with studies at the scale of fabrication and perception that led to more extensive projects.

Three studios focused on the realm between public and private spaces. Olivier Touraine's studio designed buildings as flexible spaces, beginning with a clearly determined program, an exhibition space and residence for visiting artists, but also designing for an evolving use of the building. Janek Dombrowa's studio, designing a small destination hotel for Santa Monica, also explored intelligent building skins. Susan Lanier and Paul Lubowicki used the ACSA Steel Competition as the means for exploring the relationship between the built and the unbuilt environment

Urban and contextual issues were paramount in several studios. Our global studios, in Saintes, France and Como, Italy, as well as Sarah Graham's studio using various sites in Los Angeles County, explored opportunities to reuse abandoned or underutilized sites. As well, context and existing structures played an important part in the fall studio by Susan Lanier/Paul Lubowicki, due to a site of enormous telescopes in an isolated mountain in Chile. Landscape architecture was the subject of a pair of studios: the design of portable gardens became inspiration for infill parks in a studio led by Andy Cao and designing an

urban park for Medea Creek, part of the Los Angeles River watershed, by Clark Stevens.

USC's commitment to community and humanitarian architecture both locally and globally are represented by a number of design studio efforts in the 2009-10 academic year. Three studios focused on the redevelopment of under-performing neighborhoods, including two in the area around the USC campus, one a fire station with a neighborhood education component, taught by Charles Lagreco, and the other a community outreach facility for the arts, led by Ed Woll. As well. Victor Jones' fall studio. Tekrema African Cultural Center, was for a struggling neighborhood in New Orleans. Students in Erik Mar's Transitional Settlements studio selected sites areas prone to natural disaster to design collections of emergency shelters that respond to both physical and community needs, and the Asia Summer program studio, led by James Steele, worked on a design/build humanitarian project for a school in Loei, Thailand, a small rice-growing village near the Laotian border.

Kim Coleman, Chair of Undergraduate Programs

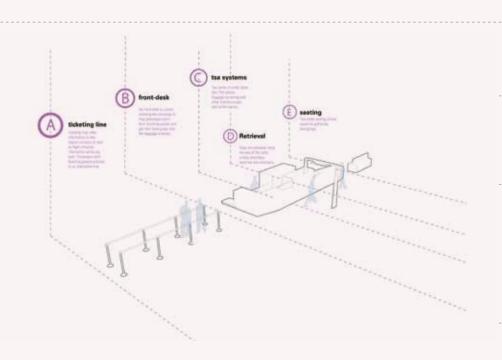
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ARCH 402FA
DESIGN CONVERGENCE/

NEW ARCHITECTURE FOR AIR TRAVEL

Instructor: Kara Bartelt

Architectural convergence, like technological convergence, is about strategic consolidation, and the modern airline industry is simultaneously at the head and tail end of the information age. Despite commonplace technological devices that now make virtual commuting easy, we are still and likely will always be dependent on air travel for face to face relationships. In the process of air travel, travelers are dislocated from their normative environments, yet feel all the same basic needs of their modern life. Travelers are dislocated in a new temporary environment(s) needing sustenance, entertainment, sleep and communication. Whether waiting in a terminal or in the cabin of a transatlantic flight, one deals with all the architectural issues of live, work, play, and commune that we consider when designing a traditional building.

Virgin America, a relative newcomer in the airline industry, is interested in putting user experience, design and

technology at the forefront. With the cooperation of Virgin America and the USC School of Aviation Safety, the studio explored how new technologies can simultaneously further the design interest of the airline while continually monitoring the environmental impact of air travel, through a redesign of both the interior of an Airbus A320 and Virgin's base at LAX, Terminal 3.

The investigation included new designs for a plane user interface system, new programming and for plane and terminal interiors, a 'docking' station for the plane's connection to the terminal, current airport security requirements and concerns, and the role and design of retail and shopping in air travel.

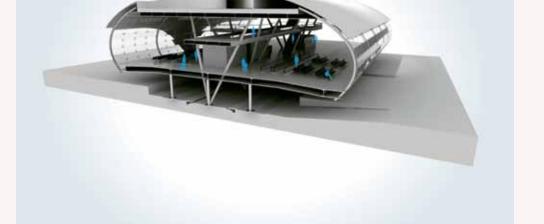
[1] [2] [3] BRYCE TRAVIS

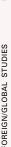
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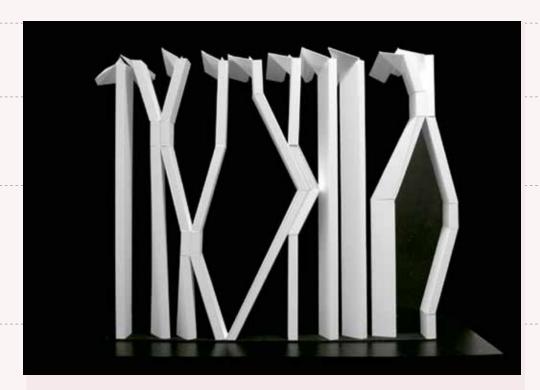
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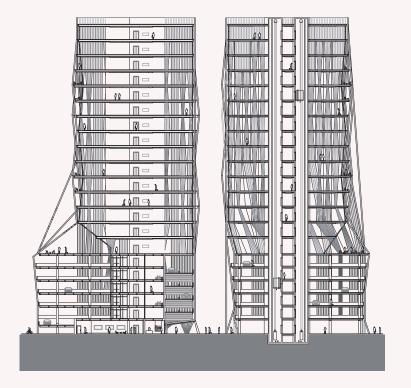
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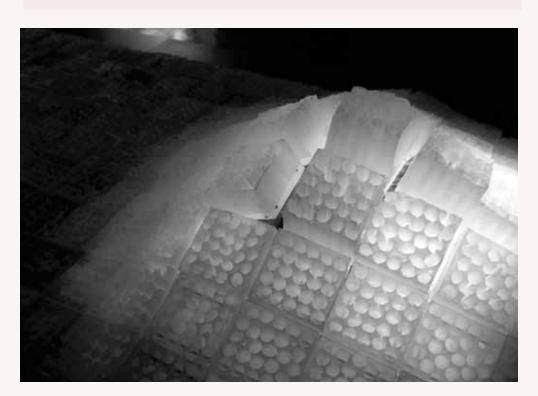
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ARCH 402FA

MATERIAL+PROCESS

Instructors: Gail Peter Borden, W. Andrew Atwood

Conventional materials are consumed as predefined products. The methods and process of their fabrication, installation and formal employment are the result of the manufacturer's suggested application. This course rethought the fundamentals of material application. Beginning with the conventional, evolving to emerging technologies and ultimately transferring to a physical rethinking of the processes of making, each student defined and investigated a new process fabricating a formal composition through the evolution of a material method. This studio investigated architecture through the potential of material.

Approach The first segment of the course dealt with building science theory, and its practical application through a series of investigative assignments focusing on the physical properties of materials. Each student investigated a specific material. This phase of the semester culminated in a large scale fabrication (4'x8') illustrating the 1:1 scale

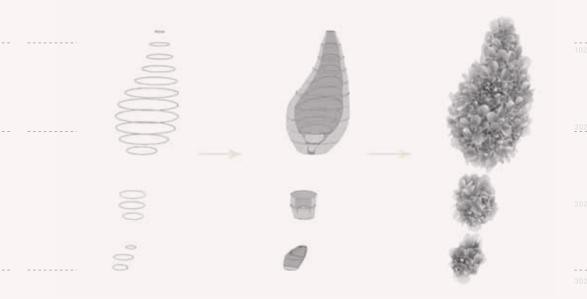
effect. The segment was founded in a initial appropriation and re-assignment of materials through a fundamental rethinking of their relevant physical properties and potential application as architectural processes and components. This involved field investigation and material analysis, methods of construction, material systemization, and the formal and functional implications of building materials as process applications. Each student pursued simultaneously the material of their choice and the process [manufacturing, installation, etc.] of their choice. This was a craft based hands on working of a material and a method to investigate full scale material potential. The second segment of the studio integrated process, material, and program in a building. Pattern, skin, structure, effect etc. were the premise for the re-interpretive design. In opposition to full project design, the project was the addition, reconfiguration and the cloaking of the existing to find a prototypical methodology emphasizing systems, fabrication and repetition.

[1] [2] [3] SUSIE LOEWENSTEIN

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ARCH 402FA NON-SITE: FROM PORTABLE GARDEN TO POCKET PARK

Instructor: Andy Cao

Martha Schwartz once said, "A garden can be anything". This studio was a laboratory to develop ideas about overlooked everyday materials. Drawing on a "non-site" approach, students were encouraged to unlearn; to detach from trends and academies of styles. Once students learned how to draw inspiration from everyday life and their natural surroundings, they began blending landscape and art to create a place for dreaming.

Non-Site Portable Garden: Students were encouraged to step outside architecture's comfort zone and observe the process of many creative disciplines. They then applied their newfound inspiration to create a portable, non-site specific "Garden for Less". Budget: \$100.

The Garden could be small enough to fit inside a suitcase, to hang on the wall, float in the air, or be up to 100 square feet (the size of a small terrace or courtyard). For the remaining portion of the class, students took the non-site

concept of a Portable Garden and transformed it into a site-specific Pocket Park.

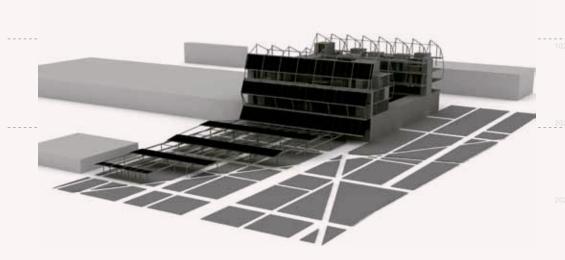
Pocket Park: In 2007 the Los Angeles Mayor's Office announced twelve vacant lots as potential park sites acquired through interdepartmental property transfers. These sites, scattered throughout Los Angeles County, varied in sizes from 0.12 acre to 1.35 acres. Budgets for site revitalization ranged from \$20,000 to \$311,700. Arch 402 students conducted site surveys and analysis of the twelve lots, then formed five teams, and selected sites to create their own Pocket Parks.

The Pocket Parks had to address practical and technical concerns regarding conservation and maintenance issues, as well as the recreational needs of the neighborhood. Using the non-site, Portable Garden project as a springboard, students expanded their original ideas into a site-specific Pocket Parks.

[1] [2] ARSIN MNATSAKANYAN

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ARCH 402FA GHOST BOXES: BIG BOX RE-TALE URBAN STRATEGIES FOR REUSE

Instructor: Sarah Graham

This studio proposed the investigation of urban sustainable redevelopment within a context of economic, social, and environmental issues. Focusing on the reuse of vacant "ghost box" stores within greater Los Angeles, the studio investigated a re-tale of retail.

Initially, the work contextualized the development of this building type in order to understand the paradigm shift in strategic planning away from any traditional approach to design or urbanism. Wal-Mart, as a case study, relied on a system of standardized buildings in pursuit of a territorial agenda. The buildings themselves were understood primarily as elements in a network of information transmission in which their value lies primarily in their interconnection and logistics transfer.

Given the success of corporate retail expansion with its attendant policy of abandonment, followed by the current economic recession, a significant impact has been made

within our cities. Conventional assessments such as scale, density, community, open space, and infrastructure are among those challenged by big box development. Once a facility has been left behind, the urban consequences become highly exposed.

Employing existing abandoned sites throughout Los Angeles County, the studio investigated adapting abandoned large-scale retail buildings for social and cultural uses.

Proposition / Process: With an understanding of the economic and strategic logic inherent within big box development, analysis was made of social and environmental conditions of various abandoned sites, inclusive of landscape and infrastructure.

Proposals for reuse and potential densification of the existing properties formed the core of the studio work. Architectural ideas were developed into building proposals that promote social and cultural programs, demonstrating progressive technologies including engineering systems and sustainable design. Reconsideration of infrastructure and landscape were integral components of each proposal.

[1] [2] [3] CHRISTOPHER GLENN

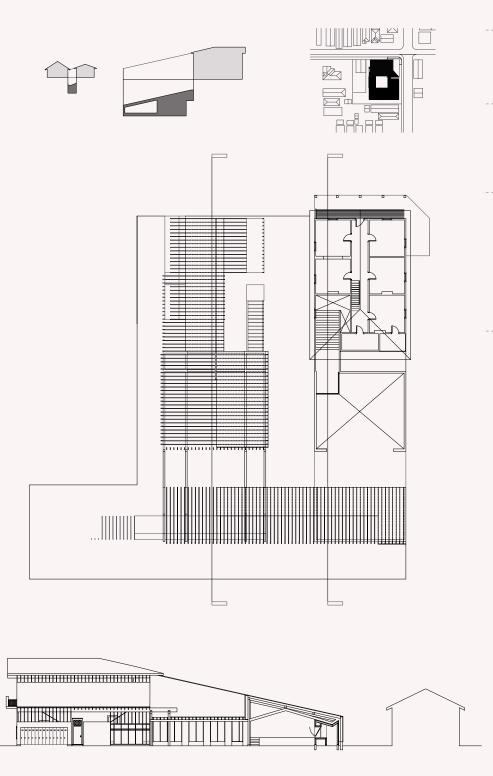
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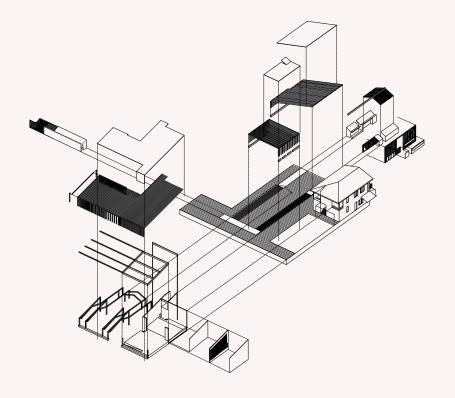
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ARCH 402FA TEKREMA CENTER FOR ART AND CULTURE

Instructor: Victor Jones

Gabo and Greer Mendy founded the Tekrema Center for Art and Culture in 2001 to advance cultural identity and community sustenance in New Orleans Lower Ninth Ward. The necessity for such an endeavor became even more critical after hurricanes Katrina and Rita.

The studio project emerged from the collaboration between Professor Victor Jones, Gabo and Greer Mendy, New Orleans community members, local businesses and artists. The primary objective of the studio was to initiate an interdisciplinary dialogue to test the potency of "Culture as a Weapon" in the aftermath of community destruction. The project focused on design solutions for affordable cultural infrastructure and activities to instigate a second wave of reconstruction efforts following the initial disaster relief work. The studio proposals provided temporary spaces for live performances and other cultural activities using inexpensive, locally available materials, as well as implementing alternative energy systems that

would operate independently from municipal utility services.

The studio began with two short design assignments that introduced key issues to the semester's focus:

Joinery: The first assignment examines tectonic paradigms. First, primary construction methods and material processes will be explored through physical models of joinery. Second, generative growth potential inherent in individual components will be explored through repetition, projecting possibilities for networks from a single connection.

Exterior Wall Systems: This assignment begins with an initial research phase of the Maison Dom-ino to better understand the historical and genealogical relevance of this architectural canon. This investigation will include the analysis of selected text and the reproduction of a scaled physical model. Using the Maison Dom-ino model as a structural armature, the focus will be to design an exterior wall system that responds to current performance standards while engendering the tectonic logic of the Maison Dom-ino.

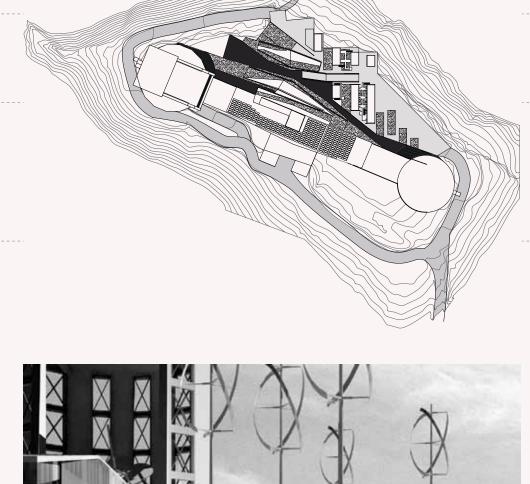
[1] [2] [3] CHRIS BURSCH

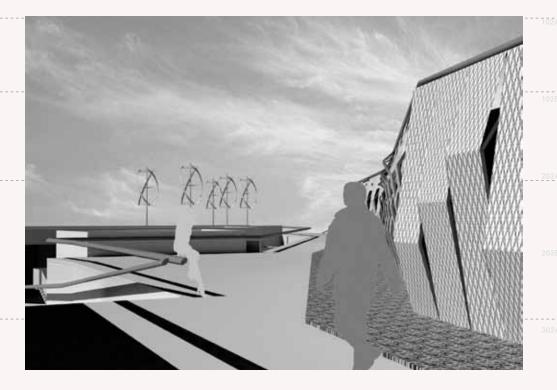
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ARCH 402FA
LAS CAMPANAS OBSERVATORY

Instructors:Lanier/Lubowicki

Development of the site and auxiliary buildings for the Giant Magellan Telescope proposed for Las Campanas Observatory in Chile.

Scheduled for completion around 2018, the Giant Magellan Telescope (GMT) will open a new window on the universe for the 21st century. It will answer many of the questions at the forefront of astrophysics today and will pose new and unanticipated riddles for future generations of astronomers.

This studio project focused on the development of an alternate vision for the design of the Las Campanas Observatory (LCO) site and support facilities. The desert Mars-like terrain, views of adjacent mountaintops and valleys, absence of human habitation and the extraordinary night sky, along with the Giant Magellan Telescope were points of departure for this studio's design exploration.

Activities governing the use of the facilities and their relationship to this unique earthly and astronomical setting, informed the examination and design of each student's organizational strategy. A sensitive integration of this larger view of site design, building design and sustainable design was stressed to achieve both an ecological and aesthetic harmony between the natural and built environment.

Students were encouraged to consider the territory of the earth and the night sky in new ways — as a graphic image, as history, as illusion, as science, and as a landscape in motion. Development of an appropriate, architecturally rich solution involved analysis of both Celestial and Earthly systems of alignment, resolution of disparate relationships of scale, insight into aspects of the phenomenological and the creative use of materials and tectonics.

Ancient and modern observation sites of significance were studied to determine what might have inspired and influenced their making; be it technological invention, myth, or a desire to express an understanding of the universe—by what means of interpretation were these concerns articulated into built form? The premise of the studio maintained that Architecture acts as a mediator between earth and sky.

[1] [2] [3] JASON KIM

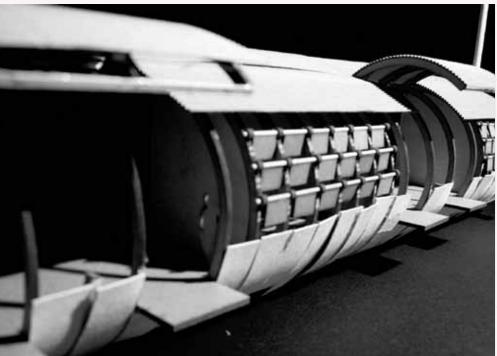
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ARCH 402FA

CONTEXT, INFRASTRUCTURE, COMMUNITY

Instructor: Eric Mar

The semester was structured around an initial investigative exercise and three design projects. The investigative exercise established the context within which design decisions will be made, and it explored alternatives for infrastructure provision.

The first design project was the design of an emergency shelter for a family. Large-scale models and drawings of each proposal, with clear ideas about structure, tectonics, material, detailing, and environmentally sustainable systems were required. The siting of these shelters as it impacts sustainability and the future social and economic development were considered. This project aimed to a large degree towards the prototypical. The shelters lent themselves to mass-production, but also allowed for extreme transformation through local vernacular construction methods by their inhabitants.

The second design project was for a competition / exhibit in conjunction with the non-profit Wherever The Need "to design a fixed and mobile disaster response sanitation unit for countries where polluted water and poor sanitation account for 2,000,000 needless deaths per year and half the illness in the developing world." Additional information can be found on their website at: http://www.wherevertheneed.org.

The third design project was for a community amenity, which maybe a static building, a mobile service, or even a small piece of infrastructure. An analysis of the amenity's program with an eye towards long-term social and economic sustainability was required. Active and passive systems for heating, cooling, ventilation, and building services were considered, with an emphasis on low carbon footprint solutions that could be widely applied in other contexts.

[1] [2] [3] BERNICE NGO

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ARCH 402FA ARTISTS IN ISOLATION: ARCHITECTURE FOR THE SMALL SOCIETY

Instructor: R. Scott Mitchell

In the initial phase of this studio the students were required to design and fabricate a working prototype based on a specific, self-defined need. This assignment was introduced to foster an investigation of process and material with very personal design parameters. The concept was to build an actual structural object that would not be relegated to the dumpster at the semester's end. This pushed the students to be more thoughtful and practical in their design decisions. For critical feedback we were able to bring in product designers from Rios Clementi and Hale for early and mid-reviews. While most of the students had little to no prior fabrication experience they took to the project quickly. There was a large digital component. However, they were required to keep detailed sketchbooks documenting the development of their prototype and construct iterative models at scales up to 1:1. This type of analog/digital balance was a critical to the studio. Utilizing the resources at USC (woodshop, welding

shop, lasercutting) combined with outside vendors (powdercoating, water jet cutting, and CNC milling), the students were able to produce remarkably advanced and intricate fabrications.

The final phase of the studio involved the design of a remote artist residency. Seeing that this studio was based on the idea of the "artist in residence" it was logical to enlist the help and guidance of local artists. Andrea Zittel, a sculptor and installation artist was kind enough to provide us with a real world site on her property in the high desert near Joshua Tree. Michael Parker and Ry Rocklen, graduates of the Roski's MFA program at USC, were our desert guides and residency consultants. This remote, extreme, and ecologically sensitive site pushed the students to develop very thorough and thoughtful responses to the project with an emphasis on low carbon footprint solutions that could be widely applied in other contexts.

[1] [3] CHRISTOPHER VAIL





ARCH 402FA

WHO WHAT WHERE WHEN AND HOW MUCH?: AN URBAN CREEKSCAPE

Instructor: Clark Stevens

Although both Ecology and Urbanism can claim "community" as namesake, they have traditionally ignored the other's definition of the term, and as agents in the landscape have tended to act in outright opposition to one another. The ecological perspective seeks to identify and promote unifying sets of relationships. For example, continuity is inevitable and appropriate in a creek, regardless of context. On the other hand dis-continuity tends to be a hallmark of urbanization. In the reach of Medea Creek that was the subject of this studio, urban processes had clothed the creek in an embarrassing combination of adjacencies. First, Medea flows in a natural, vegetated channel, albeit unnaturally deepened from the excessive inputs of cul-de-sacs and turf gardens. Then, without a contextual or topographic explanation, Medea is abruptly denuded, compacted, rip-rapped and grouted, stripped bare by the local "Watershed Protection District" while the signs on her banks cheerfully claim "Park" (!) status.

Inexplicably, a pedestrian bridge provides wonderful views over the barren reach. Next, as abruptly as it began, the "flood control basin" enters a natural channel again. A similar patchwork of bottom, bank, ownership, and land use adjacency conditions continue randomly for another 2 miles, where our park-to-park urban riparian corridor study ends.

Purpose/Goals:

To understand Medea's current state of disarray and dysfunction, to determine her potential as a true community member from both urban and eco-perspectives.

To suggest for her a more coordinated and inspiring attire, by determining specific programs of use and architectural interventions appropriate to her re-debut in urban society, and develop a more mutually sustaining relationship between Medea Creek and her urban context.

To use restoration/remediation as a vehicle for engaging communities, ecologies, and stakeholders, for changing perceptions, for "grounding" truly sustainable architectural form, and initiating processes of transformation to unfold over time.

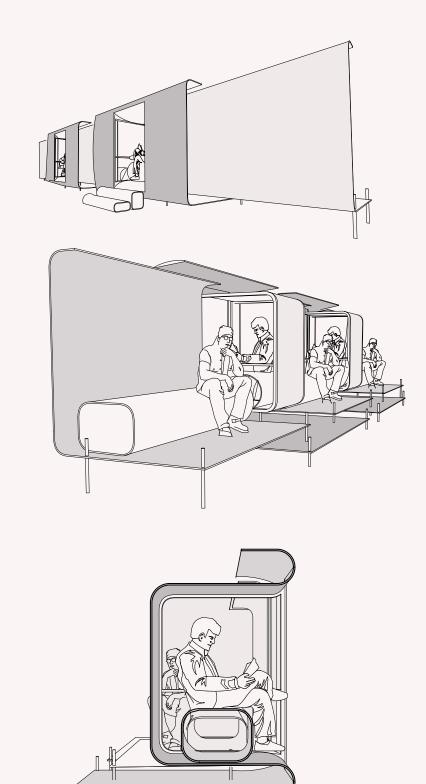
[1] [3] ERIKA BENSON

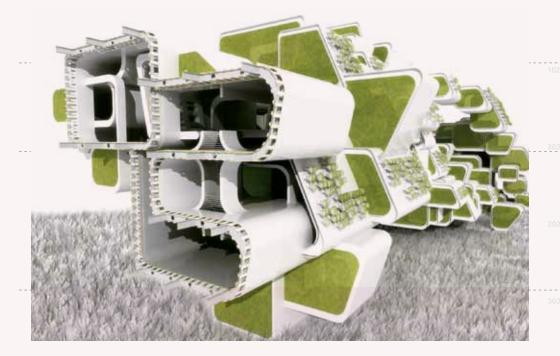
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ARCH 402FA
GHOSTS IN THE MACHINE:
REVEALING INNOVATIVE TECHNOLOGIES
AND MAGICAL DOMAINS

Instructor: Doris Sung

"Newer, more glamorous technologies still glimmer with mysterious and sensual ancestors"—Barbara Maria Stafford in Devices of Wonder: From the World in a Box to Images on a Screen

In the Hopi language, the word Koyaanisqatsi means "life of moral corruption and turmoil" or "life out of balance." It is the title of the cult film by Godfrey Reggio, in which several sequences of beautiful landscapes in time-lapsed or in slow-motion cinematography are contrasted with crowds of people, industry and construction. After 25 years, the message still remains the same with modern society in battle with nature. In our quest for the ultimate technology, we ignore the casualties of our efforts and the damage to our surroundings. But, one thing we still crave is the indefinable moment when reality is suspended and when magic is revealed. Through close examination of

this movie, our studio group attempted to find the balance between the awe of nature and ecology through technology (digital design, new materials, innovative detailing) and the awe of technology through the physics of nature, or what some may call "wonder", which, albeit subtle, was evident in the film. Studying the early phenomena of photography (camera obscura and pinhole cameras) and motion picture, students sought out the "ghost in the machines" and translated the prints into digital landscapes, energy-generating building machines and phenomenologically experiential places.

A Los Angeles-based company called Penmen Elite, the world's first "Creator's Guild" (a collection of creative professionals who work together to turn thoughts into tangible products such as books, videogames and filmed entertainment), joined together with a billionaire financier in Japan to form the first hybrid, eco-friendly motion picture company. Their intent was to build a studio the size equivalent to the Warner Brother's Studio at a site in Otokoyama, Japan, with approximately 20 sound stages, 15 back lots and all necessary amenities. Utilizing innovative methods of responsive systems, students designed and developed projects that were eco-friendly, sensual and mysterious.

[1] [2] GREGORY CREECH

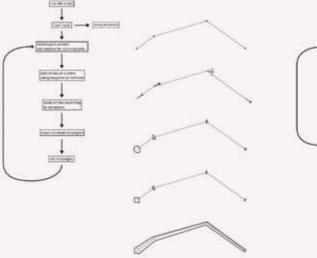
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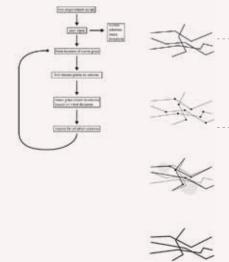
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ARCH 402FA
NON-LINEAR AGGREGATIONS
OR EMERGENT TECTONIC SYSTEMS FOR
THE J.S. BACH INSTITUTE

Instructor: Roland Wahlroos-Ritter

This studio was a design research studio investigating algorithmic design techniques with an emphasis on space, form, tectonics and structural morphology. Techniques of non-linear, cellular aggregations on a programmatic and tectonic level were tested through the development of complex component systems for the J.S. Bach Institute. The fictitious institute was loosely based on the notion of complexity in Bach's compositions and its potential multi-disciplinary research. The contemporary state and definition of form and its tectonic articulation within and outside the boundaries of the discipline of architecture has crossed an irreversible threshold, questioning the modernist notion of linearity, uniformity and single modular repetition. New research and theories of selforganization, crossing disciplinary boundaries, revealed the potential of complex behavior of cellular aggregations to recover inherent morphogenetic possibilities. We are

now in a position to think and design the genesis of form and structure, not as something imposed from above, but as being allowed to emerge from within the interplay of adaptive components of a non-linear system.

The studio began its design research by investigating, analyzing and reproducing

processes of self-organization found in nature. Our analysis was driven by our interest to instrumentalise syntax and grammar of nature's generative sequences as design processes to develop performative component systems. The unravelled modi operandi was algorithmically transferred to generative sequences for tectonic assemblies. In the second part, the studio tested the previous research work through the design of the J.S. Bach Institute. The institute accommodated a variety of research activities ranging

from music, music theory, mathematics, physics, biology, social sciences, computer science and architecture. Complexity was not only the predominant research agenda but also a paradigm of the interrelation between disciplinary boundaries thus driving programmatic and spatial desires reflected in tectonic articulations.

[1] [2] MICHAEL SUN

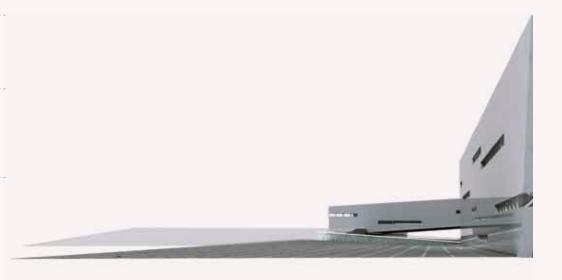
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ARCH 402FA GLOBAL STUDIES PROGRAM, SAINTES, FRANCE

Instructor: Selwyn Ting

Since its founding as the Roman capitol of the Saintonge region, Saintes has experienced generations of modifications and reinventions. War, religion, technology, climate, and commerce shaped the form of space, access, and movement and defined the cities evolving regional significance through the ages. More recently there has been a measured evolution into the 21st Century, the pace of progress comfortably suffering from the lack of strong developmental impetus or crises that might otherwise cause a city to redefine itself.

In a setting of cultural and contextual displacement, USC students were challenged to seek a comprehensive and critical understanding of Saintes and its significance at various scales and modes of analysis. Utilizing field studies in Paris, Berlin, Amsterdam, Rotterdam, Utrecht, Bordeaux, and la Rochelle students explored the matter of which cities are formed. Economy and technology, power and policy, culture and consumption, environment and

resources; these were all studied as contributing determinants of both urban history and form.

Observations and research were compiled into mappings of trends in use, movements, intensities, as well as the formal, spatial, and connective matrix of the city. These performative and qualitative mappings were projected into conjectural premises that ultimately became the basis for an urban transformation. Site specific programmatic strategies became the apparatus for urban transformation, a provocation to bend urban evolution towards an alternative urban future.

The studio sought 14 unique programmatic solutions on 14 sites from 14 students. The resulting projects were as varied as the students. All projects demonstrated the rigor of the process, and through integrated planning, all sought to assert change well beyond the bounds of their building.

About the Saintes Program: In 1996, Dean Robert Timme established USC's Study Abroad Program in Saintes, France. With this program, he shared a passion for a culture and a context that expanded horizons well beyond the syllabus. After 15 years, the School of Architecture will shift its focus towards other study abroad opportunities outside the Saintes context. This semester's work represents the evolution of a program towards the urban topic, and through process, prided itself in synthesizing varied coursework into the generative process of studio. The program provided a comprehensive experience, with Gerald Knowles, Director of Centre d'Etude d'Architecture et d'Urbanism (C.E.A.U. our host institution), orchestrating group travels and providing a peaceful refuge where academics could flourish and personal experiences could form great bonds, and great memories.

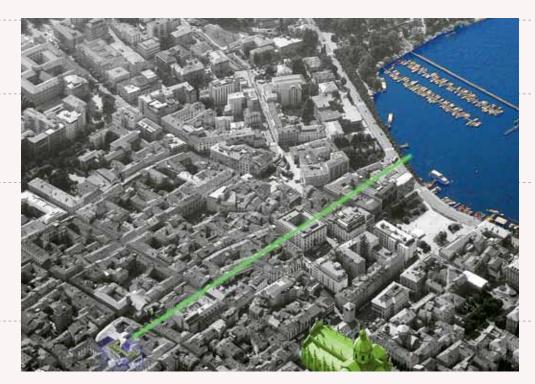
[1] [3] CHRIS SANFORD

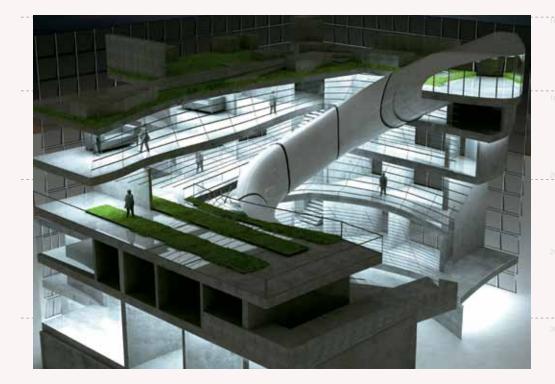
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ARCH 402FA PROPOSED URBAN REDEVELOPMENT. USC / IDC. 2010 INTERNATIONAL DESIGN CENTRE IN COMO, ITALY.

Instructor: Graeme M. Morland

The University of Southern California School of Architecture, in collaboration with the city of Como, has been investigating a series of existing sites, all strategically located in important domains of the city. These sites are under-utilized and present opportunities to vitalize neglected urban areas. Programmed development for these sites has been assessed by the city and USC. The particular site chosen for Spring Semester 2010 was called "Ex Fulda," having been named for a no-longer existing Como Company employee restaurant that was located there.

One of a variety of program considerations discussed was an International Studies Center for Design which would house visiting international students. This facility would provide a new location for the exhibition of current design ideas and further provide the opportunity to exhibit and celebrate the extensive and profound architecture and

design heritage of Como and the Lombardy region of Italy. In conjunction with this, exhibition, conference and lecture resources for the city were to be combined. These facilities were to provide a permanent all-year center of studies for the USC School of Architecture. This program could stand alone or be part of a hybrid program of cityprescribed public functions to be determined. There was also the option of alternative selected site locations to specifically determine program requirements.

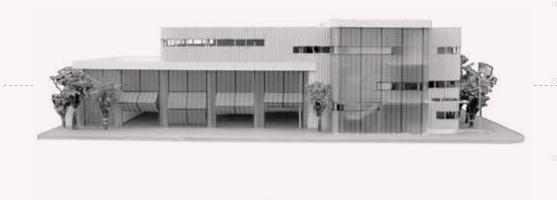
A descriptive architectural program was distributed following initial site evaluations. A variety of sites were selected within the city for this purpose, each one representing an opportunity to repair and re-connect a part of the city that is being currently neglected.

Students, following introductory discussion with faculty, were asked to analyze and document the potentialities of the selected site, and to further evaluate opportunities and program options for development. Alternative schematic design studies were then developed and presented to the city for evaluation. Students then selected site strategies for design development throughout the remainder of the semester.

Final work was then exhibited following a public presentation and reception hosted by the city of Como.

[1] [2] [3] JOSEPH SARAFIAN





USC / NEIGHBORHOOD LAFD STATION

Instructor: Charles Lagreco

Proposition: This was a topic studio that asked each student to begin to take responsibility for the community in which we live, to work to influence the direction and priorities of the University, to consider alternative sites for an important community resource and the impact that might have on the development of the neighborhood around the site, to design a facility that addresses the fundamental responsibilities and values of architecture while demonstrating the ability to develop the tectonic content of the project and test the performance of the proposals made.

Vehicle: USC is proposing a massive redevelopment of the property owned by the University north of Jefferson. As a part of that strategy they want to remove the existing Fire Station on Jefferson and relocate it to an acceptable site along the Vermont Corridor. The necessity for a new Fire Station was the mechanism for a critical appraisal of the neighborhood to the west and north of the main campus and the university's desire to create an extension of

the campus domain and aesthetic. The potential of the building type as a neighborhood resource and urban intervention was tested on various sites and the design of a new fire station addressed issues of systems integration, materiality and process.

Format: The studio approached the problem from three distinct perspectives using urban context, building program, and tectonic experimentation to define the criteria for individual project proposals. While some group efforts were used to reduce redundancy and share information, the primary emphasis was on the proposals and testing of individual design initiatives. There was a joint lecture series shared by the whole topic studio group which concentrated on issues and examples that relate to the general design development topic area and outside consultant resources were made available for each topic studio section to support each topic focus.

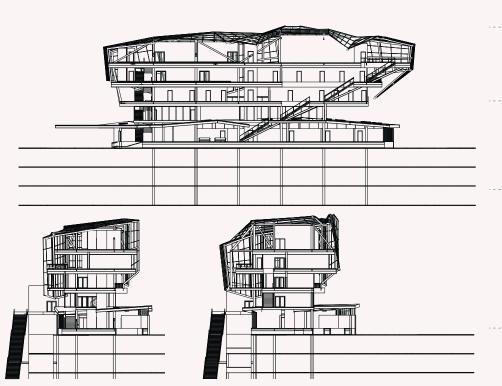
[1] [2] [3] JESSICA PALEY

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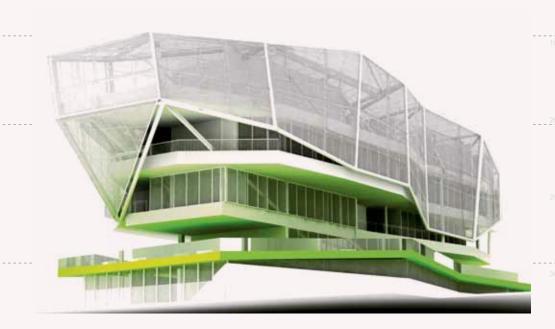
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ARCH 402SP RE-LIGARE INSTITUTE: RECONNECTING MIND AND BODY

Instructors: Lanier / Lubowick

Students were asked to enroll in the 2009-2010 Steel Student Design Competition, sponsored by the Association of Collegiate Schools of Architecture (ACSA) and the American Institute of Steel Construction (AISC). The competition provided a framework for the studio investigations and constituted a portion of the necessary requirements for the semesters work.

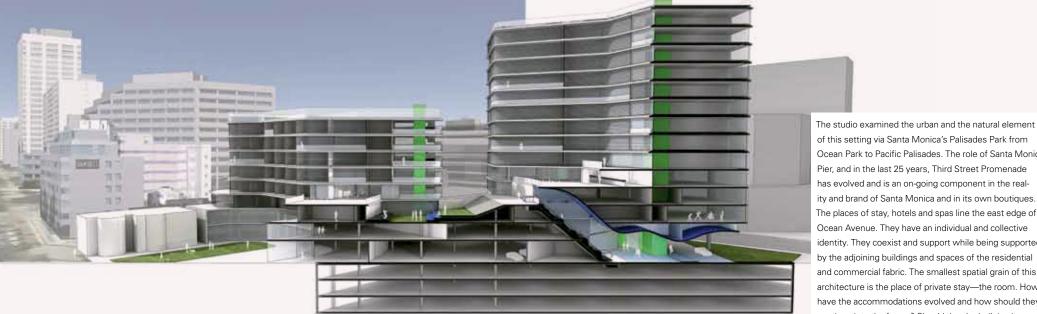
The competition program called for the design of a public urban oasis and retreat, dedicated to rejuvenation, restoration and the pursuit of reconnecting people with their true selves, others and nature. Although its purpose was to provide sanctuary, a place for reflection and study, within the larger context of a surrounding urban community, it also sought to maintain fluidity between public and private and interior and exterior aspects of the built and natural environs.

The creative use of Steel and Structural Steel as the major medium in the design and construction of the institute was stressed. Strategies for taking advantage of steel's unique qualities in the creation and expression of an appropriate, integrated architectural language and aesthetic were explored and developed in detail. Structural frame systems, structural wall and prefabricated panel systems, façade systems, along with other custom fabricated components were some of the components used in the design formulations.

Three urban sites in the Greater Los Angeles Area were chosen that correspond to the parameters set out in the competition. Each site is tied to a community with its own unique set of geographic, contextual characteristics and design possibilities. All have one thing in common: they represent spaces within the urban fabric that ordinarily are seen as compromised or unsuitable for development. Specific emphasis was placed on the investigation of structural opportunities derived from unique site conditions as means of formulating a conceptual design strategy and architectural language for the project. consultant resources were made available for each topic studio section to support each topic focus.

[1] [2] [3] JUN WING LIANG







ARCH 402SP DESTINATION HOTELS PUBLIC SPACES, PRIVATE SPACES AND TRANS-MATERIALS

Instructor: Janek Tabencki-Dombrowa

Boutique hotels and boutique destinations have a life of their own: Santa Monica, Santa Barbara, and Laguna Beach maintain a myth for vacation goers and visitors alike. They are all beach cities with a unique urban character and the "illusion" of paradise. What essence draws visitors from all over the world to Santa Monica?

What roles did the residential and commercial fabric play in the equation? Was it their scale, density, or the lifestyle. Was is all and more. Was it politics, economics, geography and socio-environmental characteristics; was it the quality of the light? All these elements are fused and expressed in the architecture of hotels. They are enmeshed into space and envelope, and into regional and global notions of trendiness and brand. Aspects of these are universal domains of architecture.

of this setting via Santa Monica's Palisades Park from Ocean Park to Pacific Palisades. The role of Santa Monica Pier, and in the last 25 years, Third Street Promenade has evolved and is an on-going component in the reality and brand of Santa Monica and in its own boutiques. The places of stay, hotels and spas line the east edge of Ocean Avenue. They have an individual and collective identity. They coexist and support while being supported by the adjoining buildings and spaces of the residential and commercial fabric. The smallest spatial grain of this architecture is the place of private stay-the room. How have the accommodations evolved and how should they continue into the future? Should they be built in situ or prefabricated and assembled on site? Should they be large, like components of sea side villas or small like cabins of ocean liners? How do hotels function internally and externally? Their entrances, the public spaces, the private domains are temporary for some and part of daily routine for others. As entities they cry out their individuality and uniqueness, yet in context they must perform as group players in all the aspects of their urban setting. The preservation issues of the adjoining built past and the pressures of new life style and global competition drive their evolution as buildings and their image as parts of memories lived and sold.

How did material choices affect their perception and making? How were these assemblages supported vertically and laterally in an active seismic setting and in a climate where temperature fluctuations never leave the human comfort zone by more than 20 degrees? How were aspects of these solutions and choices conscious and subconscious elements in the branding and reality of Santa Monica and in the theatre of collective behavior?

Architects are critical players and their choices and answers to the above are the result with which we live.

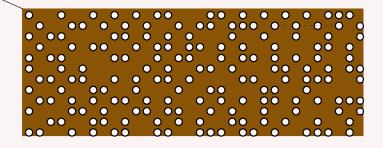
The materials chosen, the light admitted into the spaces within and the spaces between are the city. This studio studied and discussed the history, the present and the future of these choices in the context of the Santa Monica edge of the Pacific.

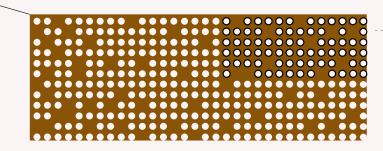
[1] [3] IAN KOMINSKI

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forecasting a longer life for the building by allowing potential alternate uses in the short or long-term future.

Maybe our mission in the near future will not be to design a one-of-a-kind building with a limited lifespan, but rather a receptacle for an evolving use of space?

Description: This topic studio explored the development of a small/medium scale project throughout the semester. The selected site was a "real" site so to speak with a "real" client. LACMA, the Los Angeles County Museum of Art is in perpetual development. Recently, it bought a property south of Wilshire Boulevard. A building was demolished to create a well needed temporary parking space; this is just a temporary solution for this strategic site. Part of this property, just on the other side of the street from the museum, between Ogden Drive and Genesee Avenue, is a corner lot that LACMA intends to develop as a residence for visiting artists. This is a real project with a real schedule. A top LACMA staff member was involved in key reviews providing client input to the student proposals.

The building proposals offer an atelier / exhibition space area as well as a residence for an internationally renowned young artist. The space has to be flexible for various uses: art production, exhibition, performances etc. Some programmatic freedom was allowed so each student could develop her or his own strategy in terms of polyvalence and flexibility.

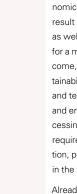
[1] [2] [3] EMILY MATHIS



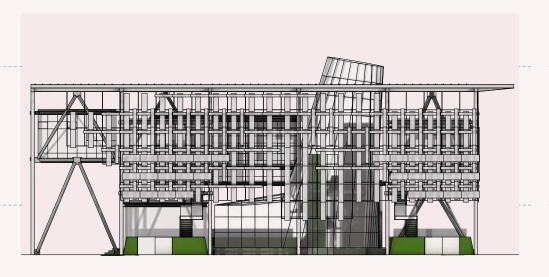
Instructor: Olivier Touraine

Statement: A possible consequence of the so-called "economic recession" that we are currently enduring may result in a total reshaping of the architectural profession as well as its academic and educational process. The time for a more realistic, optimal, minimal architecture has come, one based on the precepts of modernity and sustainability that address the reality of building methodology and technologies, optimization of means of construction, and energy use from day one all the way to the "re-processing" of these building components. This architecture requires Darwinian skills. It will have to be a flexible solution, possibly offering other unknown uses for the building in the future.

Already in Japan and Europe, the construction cost which now has to include the whole life span and recycling of a building generates a new architecture, an architecture that is reusing existing structures more often and is









ARCH 402SP USC ARTS OUTREACH: VERMONT COMMERCIAL CORRIDOR

Instructor: Ed Woll

The studio project was for design of venues in which USC students and volunteer faculty will staff community outreach enterprises in the arts: specifically music, visual arts and performance/media. These venues were located in the Vermont commercial corridor close to the University's proposed residential/ commercial/ academic development north of Jefferson. They were intended to subvert campus isolation by stretching university activity onto the commercial street—not to serve the university but to provide valuable community service. The enterprises operate as after-school programs: providing "third places"—that is, not home and not school—for the kids served, as well as for the USC students and faculty who participate.

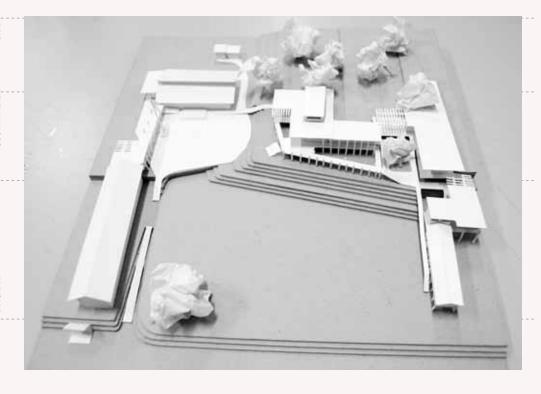
These buildings are not very large but they were intended to have an iconic character to establish presence along the corridor. Each project developed music and theater

enterprises that included small performance spaces along with teaching/ practice/ workout spaces and visual arts enterprises included a group studio space, printmaking and ceramics facilities.

Because the enterprises are located in a commercial corridor that's now lightly used, the projects demonstrate an attempt toward re-vitalization of the adjoining commercial spaces: not by building shops and cafes but by bringing in enough foot traffic to make new shops and cafes viable prospects along the corridor.

[1] [2] [3] CHRIS SANFORD

402SP







ARCH 402SU GLOBAL STUDIES PROGRAM: ASIA STUDIO

Instructor: James Steele

The USC Summer Program in Asia Studio in 2009 involved the design of a Kindergarten through 12th grade school in Loei, Thailand, a small rice-growing village near the Laotian border. The liaison for the project was a NGO based in Bangkok. As they have since 2005, our students were teamed up with an equal contingent from the University of Malaya, and in this Studio one project was selected from the twenty-two teams that competed for final documentation and construction. Funding was handled by a non-profit organization called Students Designing for Students, which is run by past USC gradvuates who have participated in the Summer Program in Asia. The selected project was designed by Mei Ng and Nadiyah Deraman (University of Malaya). Their scheme was chosen unanimously by the jurors, who included Ken Yeang and Serena Kasturi, because of it's sensitivity to difficult site conditions, intelligent use of local materials and construction methods, buildability, and it's potential to

be phased, which would allow funding to be incrementally applied.

Prior projects in this Studio have included temporary housing for Tsunami victims in Kedah, Malaysia, another K through 12 school in Krabi Rial (Water Buffalo) village in Siem Reap, Cambodia, and an Environmental Education Center in Sarawak, Borneo. In each case the plan is always to build these projects. The Borneo project is now in the first stage of that process.

[1] [2] [3] CAROLYN MEI NG, NADIYAH DERAMAN, UNIVERSITY OF MALAYA

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EUSIDI



CRAFT

Currently, the method of making in architecture is in flux. As we grapple with making in the digital medium, the connection between designing and building seems to be getting closer. The architect is gaining greater control of fabrication (and construction) through the digital medium and, therefore, requires a deeper understanding of materials behaviors and applications. In order to move ahead, students need to learn these mechanisms earlier and in greater depth without sacrificing the values of materiality, detailing and experience. Those who truly understand their medium are able to manipulate it properly. If that medium is constructing something or making, then working in real time with real materials is the seed of inventiveness. What is hopeful is for students not to view digital design and hands-on construction as mutually exclusive.

SUSTAINABILITY

Performance in architecture is an important and comprehensive approach to design today. It looks at the mutable, changing or transient. Whether it is about how a people occupy buildings, how parts of buildings go together in the balancing of systems, how generative rules or forms of algorithms influence values and parameters, or how interactive materials and systems respond to outside influences, each represent a corner of performative design that students should be interested in exploring. In some ways, it is a much more inclusive way of designing and a broader medium to tackle issues of sustainability.

DIAGRAM

Diagrams explain why we value or bring meaning to the context of each project and the forces that have hatched its creation. They carry a whole spectrum of information that develops over the course of the curriculum from representational to communicative to generative. Ultimately, the power is in its ability to perform as a tool for visualization and thinking. How can any architect or student proceed without this too?

Doris Sung, Coordinator 502

ARCH 502 DEGREE PROJECT

For their final semester studio, students can choose between taking a studio based on a theme or develop an independent project of their own. The variety of studios offered for the culminating Degree Project Studio of the B.Arch. program is indicative of the diverse interests of the student body. Rather than topic-based like those offered in Topic Studio courses, the studios were oriented around themes determined by each faculty member. Ranging in scale from innovating small products to rethinking urban centers, the studios required students to incorporate in-depth theoretical studies with a rigorous process of design, which ultimately culminated in a comprehensive design project representative of each student's education at USC.

Students selected their one-year course of study in the fall beginning with a theory seminar and followed with a design studio in the spring semester. Weekly discussions in the seminar covered theoretical readings and lead to research papers within the given theme. Development of individual design projects in the spring were natural derivatives of the previous seminar. Urban design issues were covered in studios offered by Stefano de Martino, Victor Jones and Warren Techentin. Diagramming information was an invaluable tool used in de Martino's studio where students redefined the meaning of spaces and places in the urban environment, while Jones' group focused on ideas surrounding redevelopment via slow or incremental growth in consideration of future contingencies. Techentin's students tried to push the envelope with notions of "radical pedestrianism" and other views about psycho-geographic wanderers and modes of way-finding. Other studios were themed around developing specific programs. Housing in the form of ambitious future dwelling systems in light of recent technological advances and environmental interests framed Alice Kimm's studio, exhibitionism in interactive museum programs questioning concepts of interiority and exteriority preoccupied Annie Chu's group, and identifying experience (or experiencing identity) of a spa in a dry climate directed the development of projects in Rick Corsini's studio. The last two studios examined responsive systems, Doris Sung's studio through the challenge of the urban farm program vis-a-vis biomimicry, material developments, structural systems and green technologies, and Lee Olvera's group through the redefinition of processes like making, producing, fabricating and manufacturing relative to current technological trends and changing cultures. The following pages display some of the 100+ projects produced in these studios.

Because the studios are designed to support a broad variety of interests, students are able to either test new methods of design or investigate familiar ideas in depth. Studying generative form-making softwares, performative design principles, new programs/cultures, effects of climate change, energy-efficient strategies and intelligent design are some of the recent foci common in several of the studios as well as the discourse of architecture. With the aid of individual feedback from structural, MEP, sustainability and facade consultants from Arup/Los Angeles, each student developed their own project from concept to product, developing numerous diagrams, imagery, models and details. The results, in both depth and breadth, displayed the robustness of the overall program.

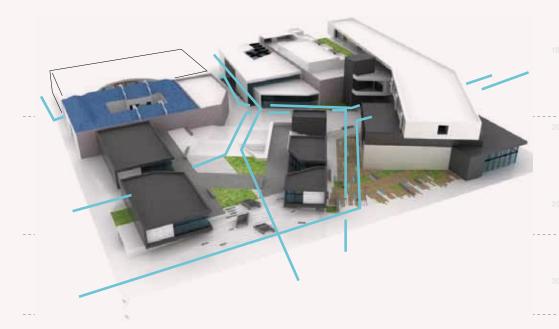
To qualify for the Independent Degree Project, students have to prepare a document that thoroughly outlines their proposed project as well as exposes the theoretical underpinnings of their intent. Upon approval by faculty, they are allowed to proceed to develop their project in an independent and rigorous manner. Common current issues prevalent in the discourse of architecture, such as innovations in materiality, sustainability, digital technology and performative architecture, appear in many of the projects, while the scale of interest is diverse. Projects range from urban-scale developments to material studies and detailing to generative digital versioning. The range is diverse. The quality superb.

Doris Sung, ARCH 502 Coordinator

502DP

502IE







ARCH 502DP
PLACED-REPLACED-DISPLACED
URBAN INTERPOSALS + MODES OF TRANSMITTANCE

Instructor: Annie Chu

The studio conducted inquiries regarding the conceptual and perceptual framework of architecture to transmit information. A short exhibition design project introduced the concept of displacement, interposition and explored the honing of meaning derived from the tension between the curated artifact and its context at the Pacific Asia Museum (PAM) in Pasadena. Students continued individual program research for the city block that includes PAM and the Pasadena Museum of California Art. Various modalities of investigation were initiated for each student's program combination. Students were required to respond to remnant feedback from the prompts of the first project, the local environmental and social situations as well as larger scale urban and regional concerns via idioms of landscape, planning, architecture and interior.

[1] [2] [3] TIM NGUYEN









ARCH 502DP THERMAL BATHS IN KULA, TURKEY

Instructor: Richard Corsini

Can a spa, commonly understood as a luxury experience for an elite clientele, be transformed into a critical component in the economic engine of eco-tourism, and be capable of revitalizing and transforming a regional economy? Can this be accomplished in an environmentally and culturally sustainable way, without debasing or displacing the cultural and environmental elements that define that region and its identity?

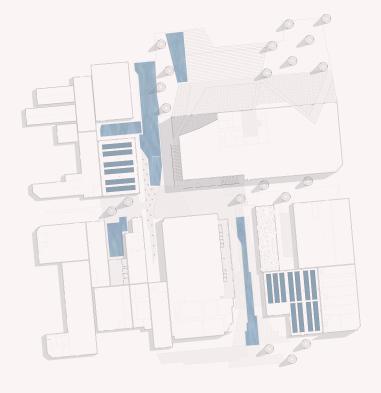
This studio addressed these questions by engaging critical areas of knowledge of architectural practice through the design process: historical and theoretical; environmental and technical; social and economic; esthetic and tectonic. The fall semester Arch 501 seminar "The Bath and the Body: Politics, Spirit, and Environmental Form", which used traditions of communal cleansing as a critical lens for understanding societal culture and politics while tracing the current major paradigm shift in architectural

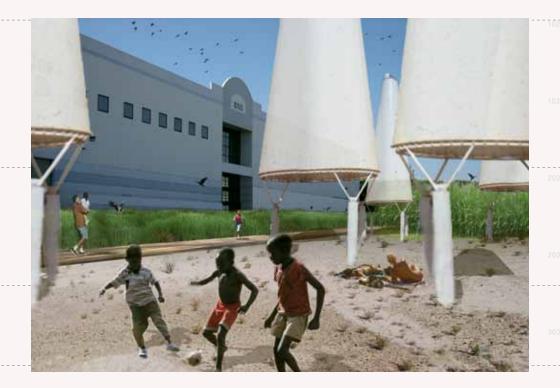
theory, served as the historic and theoretical framework of the studio.

The site in Kula, Turkey, provided a rich and varied real world cultural and environmental context for design intervention: a historic 5th C. town, dramatic volcanic landscape ecology, local handicraft traditions, and an integrated tourism plan for an eco/geothermal national park. The realities and mechanisms of the global economy, and how it interfaces with traditional localized economies was carefully considered as students evaluated current marketing plans for a global hospitality network and reconciled them programmatically with local historic, ecological, and cultural factors in the design process.

This subject and site were concurrently studied in a 5th year architecture studio at the Istanbul Technical University. The top four USC students from this studio, Joe Garcia, Sam Pitnick, Whitney Joslin, and Natalie Shull, and the top four from the Istanbul Technical University were invited to present their projects at the Global Spa Summit, an annual convention of leading spa industry executives, in Istanbul, May 15-18. The projects were judged by a panel of industry leaders, architects and government officials. Sam Pitnick won first prize and Natalie Shull took third prize in the competition.

[1] [2] [3] SAM PITNICK





ARCH 502DP SPACES AND PLACES

Instructor: Stefano de Martino

A city that covers some 4,850 square miles lays a clear claim on land as an endless resource to expand across. The exclusivity of trying it on, here, there, wherever, is a model in need of serious revision, if not outright scrapping, in the face of dwindling resources and means. It is no coincidence that water supply and renewable energy are among the state's highest priorities. What is the significance of "urbanized regions", what are their specific environmental and spatial characteristics, and how do notions of space and place apply in a seemingly endless matrix? Through a seminar, we looked at ways of perceiving and interpreting these conditions, as well as the focus for exploring their tectonic and programmatic potential.

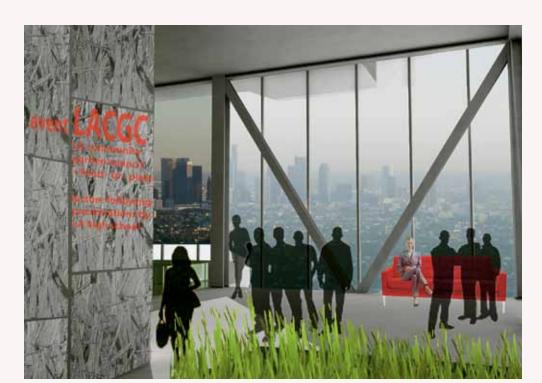
The Los Angeles River is a lesson in how to design for changing uses, definitions and destinations. From the San Fernando Valley to Long Beach, the Los Angeles River crosses and defines a range of geographical situations that engage the city and its communities. It is a section

through varying topographies, ecologies and urban conditions. The river basin is subject to the Los Angeles River Revitalization Plan launched in 2007, which envisages the recovery of the river as a vital element in the enhancement of the environment and the communities adjacent to it (www.lariverrmp.org). The studio looked at a specific section of the Los Angeles River, where it crosses the Metro area (Mission to Redondo Junctions). This is where the river is a totally engineered structure, tied into large infrastructural systems (rails, metro, freeways), embedded into a conglomeration of super-scaled industrial units, warehouses, factories and lofts that isolate the edges of Downtown and Boyle Heights. We explored the potential of this setting in environmental, urban and programmatic terms, to articulate public space, connectivity and access across perceived and actual boundaries, and to define in detail the architectural consequences this entails.

[1] [2] [3] ZOLTAN NEVILLE

502DP





DESIGN APPROACHES TO THE CORNFIELDS ARROYO SECO SPECIFIC PLAN

Instructor: Victor Jones

This studio investigated design techniques for the production of alternative urban redevelopment models in Los Angeles. We collaborated with the Community Redevelopment Agency of the City of Los Angeles as well as the Los Angeles Department of City Planning led by Claire Bowin.

The Studio focused on a 5000-acre area located east of Downtown Los Angeles within the Cornfields Arroyo Seco Specific Plan (CASP), which provides detailed planning guidelines for a new urban redevelopment project. The guidelines stress the preservation of existing light industrial businesses, while supporting opportunities for new clean technology, affordable housing and mixeduse applications.

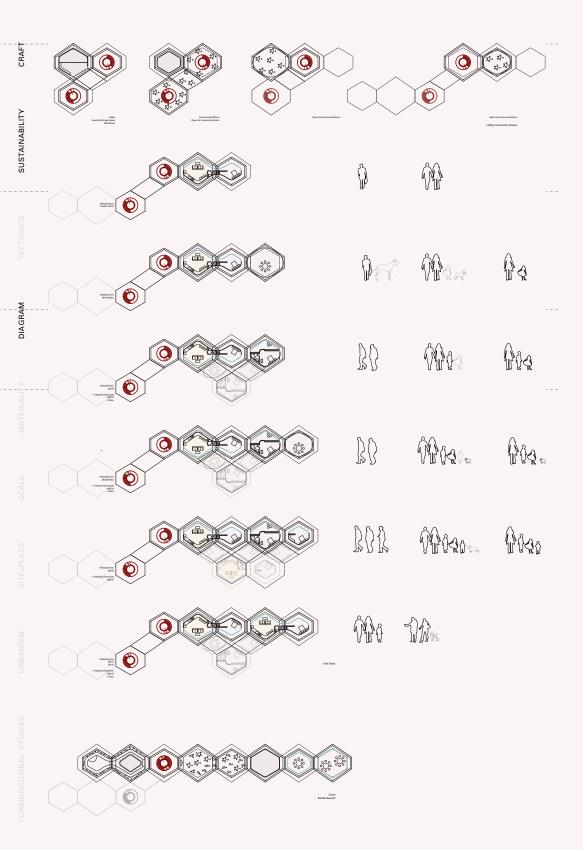
The studio explored design approaches for the CASP's eventual implementation and the neighborhoods inevitable transformation. With an emphasis on Slow Growth,

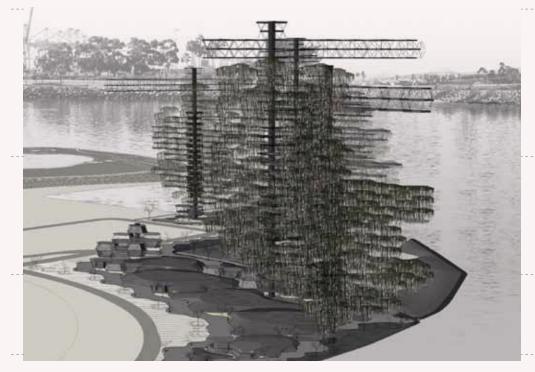
the studio confronted the lifecycle of buildings and the consequences of traditional master planning and development. Accordingly, the studio speculated on mechanisms of incremental growth and instigated design solutions at varying scales that would improve the capability of urban planning and architecture to adapt with greater flexibility to current and future contingencies.

Given the complexities of private and public investment within existing urban areas compounded by recent market instability, we assumed an intensified imperative to challenge, reassess and propose alternatives to conventional redevelopment practices and their associated conventions and standards.

The studio took stock of the existing neighborhood from which judgments on density and scale, program, building time lines and construction sequencing, became means for rescripting normative redevelopment as well creating innovative urban and architectural visions in Los Angeles.

[1] [3] HEATHER EVANS





ARCH 502DP
LIVING IN EQUILIBRIUM:
TECHNOLOGICAL VISIONS
FOR FUTURE DWELLING SYSTEMS

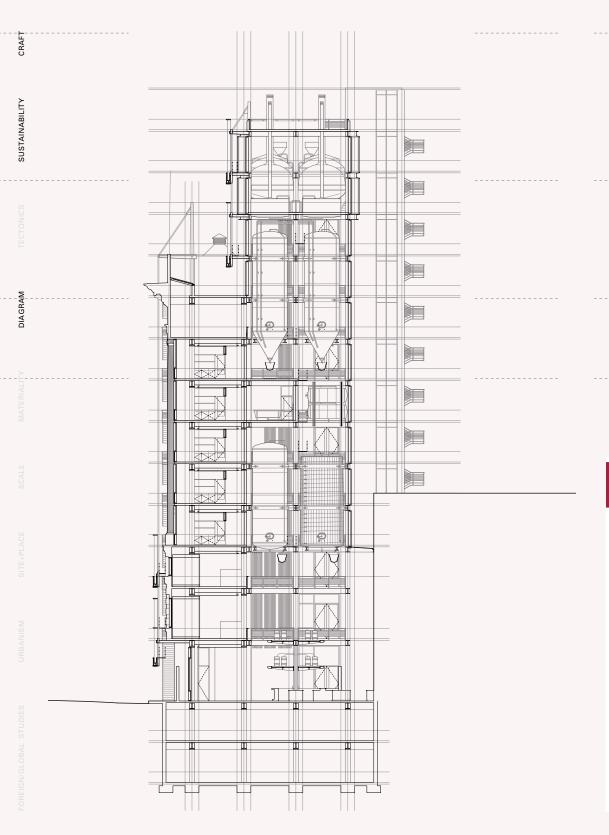
Instructor: Alice Kimm

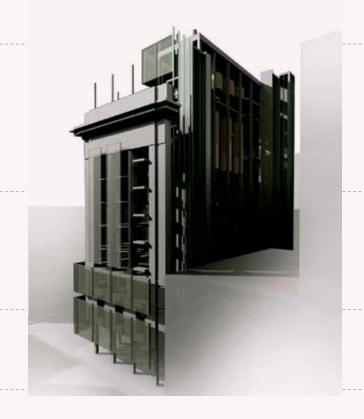
To comment on "the world as we know it" is to deliver an oxymoron. The world is transforming rapidly, and rates of change—whether economic, cultural, technological, climatic, or otherwise environmental—have risen to levels that demand significant alterations in how we interact with our surroundings. What of the dwelling, then, that most basic and heartfelt of designed environments? How might urban dwelling systems of the future respond to these demands? How might these man-made systems interface with existing and increasingly disturbed natural systems to reverse some of the negative effects of environmental flux? Students were asked to become informed (at varying scales) about those aspects they deemed significant in defining the contexts in which we build our dwelling systems, and to explore extreme conditions that might exist in cities on the western coast of the United States and elsewhere in the year 2060 and beyond. Advancing sustainable, structural, and material technologies played an important role in how these conditions were dynamically addressed in the design of adaptable urban dwelling systems for the future. The design brief was broad: to integrate technology and design; to create an architecture that seeks to bring contextual forces or conditions into equilibrium; to offer up an optimistic view of sustainable and self-sustained living; and to not forget that at the core of the design of dwelling systems lies the human experience.

[1] [2] JESSICA SANO

502DP

EUSIDI





ARCH 502DP TRUTH IN MAKING, CRAFT: AN ARCHITECTURAL INQUIRY

Instructor: Lee Olvera

The process of making something, anything and everything from the products we consume to the food we eat has returned to the forefront of our consumer consciousness. The act of producing, once generally eclipsed by the product being produced, now in many instances has risen to a level of equal importance. Consumers at all socio-economic strata demand, even crave 'more-for-their-money.' Having transcended base monetary issues, the desire for 'responsible making' has encompassed an ever-expanding range of cost and value parameters including cultural, social, political, technological and environmental.

The 501 Degree Seminar presented a limited collection of largely contemporary readings to generate a series of critical dialogues that explored the issues of making. Making not only as revelation of process and assembly but also as critical investigation into the philosophical and the practical issues of craft, art, and aesthetics and inherent

personal, material, societal and financial investment.

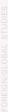
Spanning the hand-made, machine-made and non-made, the functional and non-functional, discussions cited examples of architecture and building, fine art, practical arts and crafts, product design, graphic design and culinary arts.

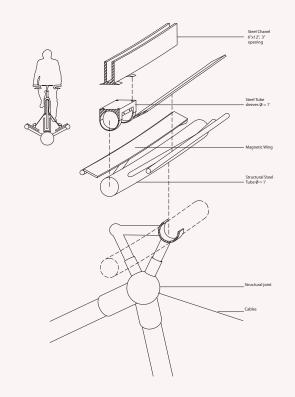
The 502 Degree Project Studio developed an individual-driven range of responsive architectures based on investigations, semi-independent or otherwise, into a variety of material processes, ranging from the boutique—the artisan, to the industrial—mass-produced scale. Students conducted detailed research into a personally determined selection of consumer products and/or services, critiqued their design, technical and cultural merit, and their technical/technological practices and logistical processes. The analyses led to a critically informed determination of client, site, program, planning proposal and ultimately the design of a manufacturing 'production' facility. The facility through its architectural scope, scale of development and formal parameters directly demonstrated a complete understanding of the product, its particular process-ofmaking and the critical inquiries and process philosophies presented in the 501 Degree Seminar.

[1] [3] NICHOLAS COLEMAN

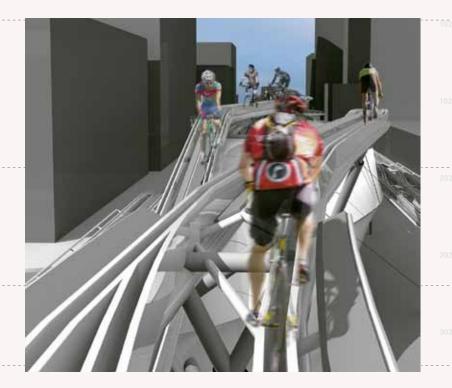
EUSIDI











ARCH 502DP SWELL: DESIGNING RESPONSIVE ARCHITECTURES FOR A CHANGING WORLD

Instructor: Doris Sung

"In traditional scientific method, sensitivity and exposure to the surroundings can be thought of as disruptive 'input' that interferes with traditional working methods...What does it mean to create a responsive world today?"-Beesley, Hirosue, Ruxton from Subtle Technologies

Even though all facets of human existence operate organically, contemporary architecture tends to be static and inert. Climate change, technological developments, economic growth, cultural alterations, political variations and biological mutations change the way we live at a rate faster than ever before. The rate of consumption and population has been increasing in logarithmic patterns. But, strangely we continue to build architecture to be rigid, fixed and inactive. The theme of this studio was based on the idea of "swell". Although it can mean many things with a variety of interpretations, it is fundamentally about expansion and contraction vis-a-vis place, space, tenor,

flavor, personality and volume. Architecture must be designed to be more adaptable, flexible and responsive. Students were asked to consider energy-generation in architecture, taking a more ambitious and creative stance on design responsibility. Our walls, roofs, floors and windows could do much more for us than seal us in a temperaturecontrolled, artificial environment. Visionary thinking was necessary in this studio.

The program for this studio was an Urban Farm, which had the added requirement to respond to fluctuations in size, use, and climate. It was up to each student to determine what was being farmed (kelp, strawberries, fog, pigs, viruses, wealth, energy, etc.), as well as to question what the details of program, function and utility of their farm would be. Students were encouraged to formulate their own visionary concepts within this broad theme in response to an outside "swell" stimulant (context, program, environment, culture, politics) and design responsive architectures and performative systems at various sites around the world.

[1] [2] [3] JASON KIM



ARCH 502DP RADICAL PEDESTRIANISM

Instructor: Warren Techentin

This studio asked students to investigate, develop, and invent new architectural strategies for circulation which will augment the Hollywood Boulevard historic district: currently a formless array of cultural, retail and entertainment programming. The cultural merging in recent years of the museographic and retail into a carefully scripted, interrelated, and choreographed set of experiences has opened up new modalities of design and media integration in public space which promises to make our environments (and Hollywood Boulevard specifically) more performative and participatory than ever before.

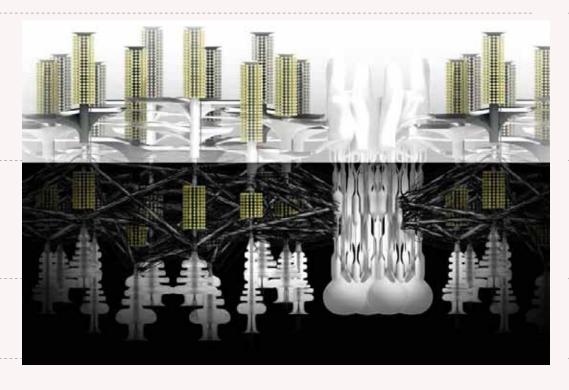
The first part of the studio asked students to use strategies of the Derive, Promenades Architecturale, psycho-geographic wanderings, desire paths, and modes of way-finding to investigate off-Hollywood Boulevard as a social, cultural, and architectural milieu in an effort both to critically understand the unmapped phenomena of this area as well as to develop inclusive design strategies for

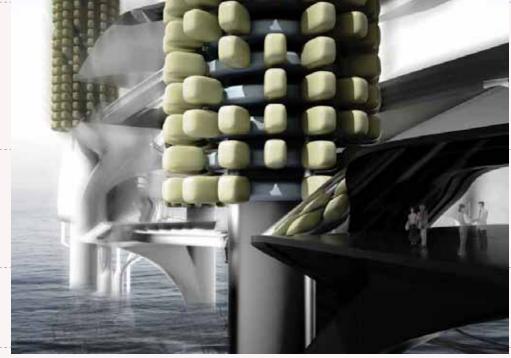
urban space and a building which explicitly endeavor—through scripted circulation patterns—to augment pedestrian expectations. The second part of the studio asked students - in a project incorporating an array of programming typical of the district—to graft onto a given set of sites a second, performative, catalytic layer of cultural and commercial programming. How can this programming supplement or even sublimate the expectations pedestrians come to Hollywood Boulevard with? In addition to addressing the spectacle of the Boulevard itself, students were asked to investigate mid-block pedestrian development as a viable alternative to the existing, street-oriented programming strategies.

[1] [3] ULISES GONZALEZ

502

502







Advisor: Doris Sung, Student: Brent Nishimoto

The urban proposal for the South China Sea began as an exploration of the ocean's capacity to provide sufficient environments. The rising sea level was the primary catalyst for justifying the relocation of virtually all coastal communities to international water territory. The ocean's potential for sustaining our inhabitants was overwhelmingly great: wind generated power, current generated power, geothermal power, natural resources, sunlight, and even surface area. Its capacity allowed coastal cities to create new systems, new urban organizations, and even new borders. The project began with a flexible urban system that would transform based on the changing weather conditions. Next, a series of infrastructural, social, and political systems were overlaid to achieve the necessary programmatic relationships. The city thrived off of the constant and continual blending of the many cultures that were intended to relocate. It became quite clear that the city would embody a plethora of different governments, religions, and cultures. Ultimately, the city

on the water would become a country in itself, where people would come for the opportunity to choose a government, religion, and culture of choice. The water desalination system provided an underwater network of water supply. The housing towers, agricultural strands, and diving bell systems were then designed in order to fit the necessary water requirements. As the entire system flexes, the environment transforms from an extremely compact and protected mass to a stretched out, breathable network of communities.

[1] [2] [3] BRENT NISHIMOTO

EUSIDE

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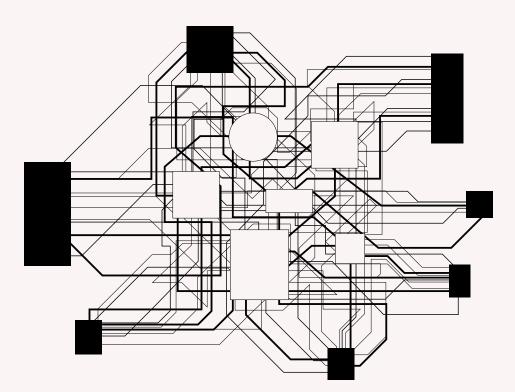
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ARCH 502IDP THE BROAD CENTER

Advisor: Stefano de Martino, Student: Reid Cigolle

The navigational characteristics of Los Angeles were here employed to inform an approach to design that combines the ambitions of a private institution with the desires of public interest. Eli Broad's 2,000-piece contemporary art collection is given a home on Lincoln Boulevard, a mundane streetscape of strip malls, auto shops, faceless storefronts and relentless billboards. The activity and inventory of the Broad Art Foundation was appropriated into the architecture of a new building in conjunction with a network of spaces and infrastructures already present on Lincoln Boulevard, to thus exploit the aura of the institution to re-frame the city in the eye of the visitor.

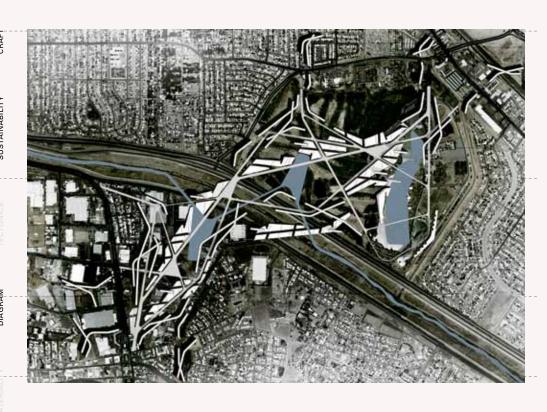
The cultural, economic and civic potential held within the Broad Art Foundation is approached as a vehicle for fostering understanding and creativity in Los Angeles. The museum was viewed as an overlapping of informational, architectural, programmatic and transportation networks to be laid into the existing rhythms of the city.

The success of the institution becomes tied to the success of the city, as the shared uses of spaces, vehicles and virtual networks blur the boundaries between the museum and the everyday operations present on Lincoln Boulevard. At the urban scale, the Boulevard Museum and its accompanying infrastructural improvements aimed to respond to the city at four navigational scales. Lincoln Boulevard's image was recast to celebrate its defiantly opportunistic architecture and signage, symbolic of the city's individualistic approach to community. Local infrastructure was strengthened with the implementation of an interactive virtual network that will elucidate activity and mobility in the city. The identity of the boulevard was transformed through a series of museum galleries, artist studios, installations and event spaces. Finally, a spirit of inclusivity bolstered neighborhood interaction by encouraging local businesses to interact with the museum.

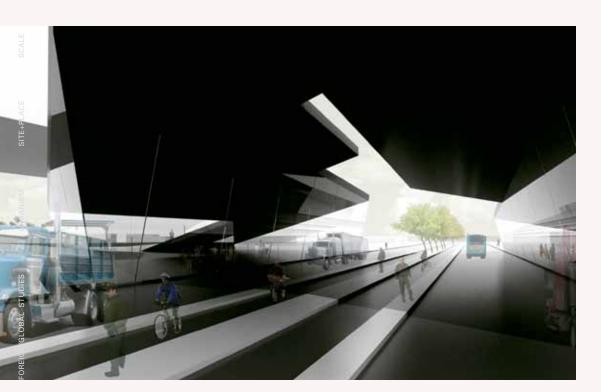
A combination of specific and flexible systems was used to provide an organizational structure for the museum that can accommodate a diversity of activities and durations. Stable and unstable spaces were distributed into the Broad Center and onto Lincoln Boulevard, connected by networks of physical records and digital information. The principle architectural goal was to create flexible spaces subject to unexpected adjacencies and intersections.

[1] [2] [3] REID CIGOLLE

EUSIDE







ARCH 502IDP
PLACED-REPLACED-DISPLACED
URBAN INTERPOSALS + MODES OF TRANSMITTANCE

Advisor: Annie Chu, Student: Ryan Ramirez

The studio conducted inquiries regarding the conceptual and perceptual framework of architecture to transmit information. A short exhibition design project introduced the concept of displacement, interposition and explored the honing of meaning derived from the tension between the curated artifact and its context at the Pacific Asia Museum (PAM) in Pasadena. Students continued individual program research for the city block that includes PAM and the Pasadena Museum of California Art. Various modalities of investigation were initiated for each student's program combination. Students were required to respond to remnant feedback from the prompts of the first project, the local environmental and social situations as well as larger scale urban and regional concerns via idioms of landscape, planning, architecture and interior.

[1] [2] [3] RYAN RAMIREZ

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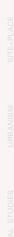
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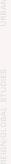
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502IDF









ARCH 502IDP AN AMERICAN HOME THE ADAPTIVE REUSE OF A 17TH CENTURY CITY RESIDENCE. THE AMERICAN EMBASSY BRUSSELS, BELGIUM

Advisor: Annie Chu, Student: Peter Kovacich-Harper

The embassy as a structure from its very inception, has been defined by its role as a residence. The ambassador and his cortege take up residence on a small plot of earth that has been yielded by their host to the auspices of their nation thus beginning the process of approximating their nation of origin on foreign soil. The diplomatic envoy then implies the very essence of residency—of dwelling, with all of its attendant activities and energies. They might focus their efforts on extending a hand in friendship, instead of building walls—viewing an embassy as a gradient of dissemination - as an enlightened sphere of influence—of composed diplomacy, instead of a medieval redoubt. The embassy itself becomes the thickened wall of defense its galleries and drawing rooms, the blast radius. This might be asking America to wear her heart on her sleeve, asking her to invite unknown, possibly dangerous, guests

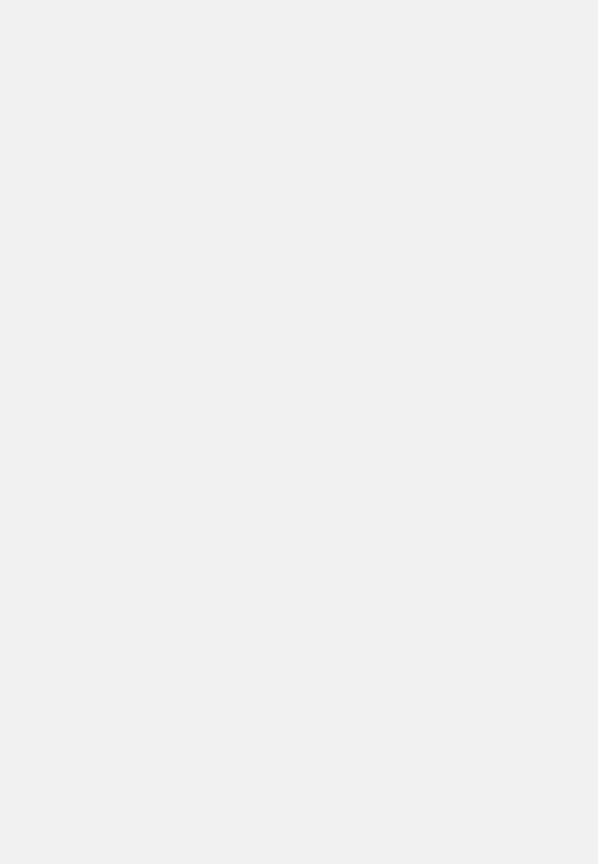
into her home. But she must-for until we fully engage the arts, the sciences, and the humanities in their ability to transform human thinking and values, we will succumb to control by the cruder forces of violence, egotism, and ignorance.

Brussels—the heart of a little nation. . .

An embassy should engage the direct literal and physical relationship of the host nation with respect, and to a large degree, on its own terms. America has the opportunity, through the existing infrastructure of our embassies, to contribute to the preservation of other cultures around the globe. In the direct one-to-one juxtaposition of a found native artifact and new foreign ownership—an active, creative, sensitive ownership—the embassy will begin to communicate the multi-dimensional quality of its message, as well as the mutually inclusive true nature of the diplomatic mission.

[1] [2] [3] PETER KOVACICH-HARPER

GRADUATE PROGRAMS



THE GRADUATE PROGRAMS: 2009-10

Graduate students come together with a diverse and distinguished faculty at the crossroads where knowledge of history, current conditions and the future is dissected, extended and transformed. Theoretical explorations are combined with technical and performative examinations. Outcomes are not known in advance, just invariably a step or more beyond current design intentions and production conventions - ready to transform the future in the face of wide-ranging present conditions and critically important local and global challenges.

Five graduate programs are located in the new Robert Timme Graduate Research Center. The former roof of Watt Hall of Architecture and Fine Arts has been converted to a light filled steel and glass third floor studio space whose open plan configuration facilitates interaction among students and faculty across distinct but highly related disciplines. Urban studies and theory classes cross disciplines to reinforce the integrative approach of the graduate programs.

A graduate student population of over 200 is enrolled in four Master Degree Programs and four Certificate programs in Architecture, Landscape Architecture, Building Science and Historic Preservation, and in a new Ph.D. degree. A unique aspect of these programs is that students immersed in any of the master degree programs can simultaneously obtain a Certificate in one of the other three programs. This form of interdisciplinary collaboration is considered essential to address critical environmental and social issues of 21st century regional and global conditions.

The academic opportunities offered are numerous, thus students are provided options to pursue their own professional interests. The first professional degree programs in architecture and landscape architecture are designed to meet national accreditation standards by providing a comprehensive set of basic studies. Upon completion of the basic sequence, students are intermixed with post-professional degree students in advanced studios and courses to generate progressive, supportive and sustainable projects, places and infrastructures suitable to cities around the world, especially cities of the Pacific Rim.In the post professional architecture degree program, theoretical studios in architecture are utilizing digital parametric software for scripting with biometric, algorithm and robotic thought processes utilizing rhino and Gehry modified CAITA software. Visiting faculty from both ARUP and Buro Happold offices provide the technical expertise for the parametric investigations and explorations where geometry can be

rationalized and tested, and similarly for the Basics accredited programs. The Urban Lab sequence examines past urban successes and failures and projects future potential environmental solutions for expanding and new cities.

LA(P) in LA: the Landscape Architecture Program, focuses on integrating and celebrating the complex natural, cultural and social systems of large cities. Landscape design research addresses parallel forces of natural systems restoration, of cross-cultural cultural diversity, and of the transformation of urban infrastructure. The Building Science Program emphasizes the integration of current practices with the development of new tools and technologies which evolves into a paradigm of synergistic and holistic integrated building elements. One theme of the Historic Preservation Program includes sustainable preservation studies, which are tested and evaluated in the restoration of the USC owned Frank Lloyd Wright Freeman House. In the PhD program advanced tectonic building research includes the testing of performative requirements and analysis of skins, the buildings exterior envelope.

Research opportunities continue to be an integral element in both the Building Science and PhD programs, and the two new research centers formed by Dean Ma: COPE, Center of Performative Environments, and CODO, Center of Design Operatives.

Another unique opportunity that exists is the Graduate Research Scholars program (GRS) where graduate students are linked with faculty members in the investigation of scholarly endeavors. This program offers wonderful opportunities for students to engage on-going research studies. A series of study abroad programs expand educational opportunities and global awareness. Dean Ma has established the USC American Academy in China (AAC) where graduate students are immersed in the local culture of both Beijing and Shanghai, fostering academic exchanges with the participation of both local and international universities and led by leading creative minds.

Recent visitors to the graduate programs include Sir Peter Cook, Rem Koolhaas, Enrique Norton, Thom Mayne, Kazuyou Sejima andRyue Nishizawa, Ian Richie, Francois Roche, Michael Maltzan, Laurie Olin, Charles Waldheim and Stan Allen.

John Mutlow, Chair of Graduate Studies

MASTER OF ARCHITECTURE

The overall goals of the Masters of Architecture Program are to provide students with a competitive edge of advanced knowledge and skill, to provide study choices that support career interests and address societal issues, and to make fully available the Los Angeles region as an instructive laboratory for advanced architectural studies within and out of the United States.

The program focuses on Innovative Sustainability, Global Urbanism and Digital Technology and stands on the foundation of professional training and preparation. The program believes the transformative power of advanced concepts, innovations and strategies should be validated by testing and locating the design research within the unpredictable, problematic and resistant environment of reality—the reality of culture, site and construction.

Architecture in cities throughout the world face conditions of increasing density and require design initiatives that support amenity, sustainability, and cultural meaning. This is a serious search given the complexities of modern cities, their continuing haphazard growth and development, and their wastefulness with regard to natural resources and societal potential.

Within an overall consideration of urban studies, digital technology and sustainable systems, five sets of investigations are fully supported by the faculty and other resources of the University and the region. These design and research directions include the following:

The strategic opportunities to create more supportive urban places-amenity, sustainability, and meaning: habitat, places of commerce and exchange, the public realm, historic districts, open space and the streets, circulation interchanges, and infrastructures

The transformation and redefinition of building typologieshousing, cultural and educational institutions, civic and social service facilities, centers for health and wellbeing, market places, and environments for production and employment

Understanding the integral importance of advanced technology and engineering, applied towards the advancement of and ecology-building construction, materials and methods of assembly, structures, environmental systems, manufacturing procedures, industrialization, energy and natural forces, and natural systems

Attention to design methodologies and processes, theories of architectural design, process structures, visual communication, computer studies, methods and techniques of architectural simulation Investigation of issues of theory, history, criticism, historical inquiry and methodology, theories of interpretation, architectural criticism, history of ideas, cultural and social implications.

Global Urbanism

In 1910, urbanism struggled for a new definition, shedding its classic and congested past to embrace new shifts in politics, culture, technology and infrastructure. 100 years later, in 2010, what defines urbanism in the global context? At the outset of the century's first decade, we face a condition that is not as reactive as the model of 100 years ago. Rather, the reactive model has evolved into a highly tuned set of self deterministic systems, defined by tactics rather than strategies. Unimagined and unexpected human ecologies are surfacing across the world narrated by local logic and economy, and propelled by rapid communication technology.

The Master of Architecture curriculum interrogates, analyzes and speculates on these global urban ecologies and their problematic conditions. No longer are western typologies the emerging and defining benchmark; the undeniable growth of Asia, South America, and the Middle East, with their corresponding complex urbanisms inspire and challenge the current discourse in urban design.

To initiate the urban pedagogy, the Master of Architecture programs have actively established a Los Angeles and Shanghai based program. The L.A. River studio (2007) and the Expo Park studio (2010) are demonstrative of the Los Angeles based agenda while USC's establishment of the American Academy in China (AAC) in Shanghai allowed workshops with government agencies and universities on the current crisis of preservation and development.

Innovative Sustainability

The destructive scope of fossil fuel based energy systems have defined the zeitgeist of the the world for the past twenty years. The built environment consumes 40% of the world's energy and the responsibility rests heavily on the architecture and construction industries. As a result, academia have led the research into more efficient systems and the innovative integration of sustainable systems into a comprehensive design.

[4] LA RIVER REACH 5: MIGUEL MAGANA, JANICE WONG, BRAD ZUGER. RIVER BECOMES DEVELOPMENT CATALYST WHEN VALLEY CITY IS CREATED AS SAN FERNANDO VALLEY SECEDES FROM CITY OF LOS ANGELES. ARCH 605AB. FALL

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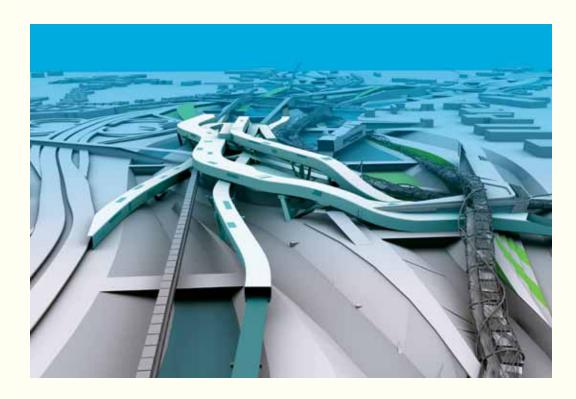
In 2007, the School of Architecture faculty voted to adopt "The 2010 Imperative" requiring all studios to focus on design solutions to engage the environment to dramatically reduce or eliminate the need for fossil fuel. Spearheaded by the Master of Building Science programs, the future of all graduate studies lie in this ethos, engaging all design and engineering curriculum of our school. Coupled with their curriculum, this initiative was immediately incorporated into the Master of Architecture design studios from the 2007 — 2008 academic years and had an immediate impact on the pedagogy of the programs. The very first two studios under this mandate was the Eco-Tower studio and the L.A. River studio. Subsequently. several design studios focusing on environmental performance have spawned tangential research into material science, facade engineering, and urban design.

Digital Technology

Technology fueled much of Modern Architecture's early manifestos and aspirations and buoyed its social values. As heroic scions of the Industrial Revolution, structural, material and transportation technology persevered. Now, digital and computer technology has defined the paradigm shift of the Information Revolution. The absolute integration of digital technologies has systematically raised the intelligence and sophistication of the design and construction profession. In an alarming short time, digital technology has evolved from a drafting and representational tool to a design partner whose ability to analyze and optimize has placed its performative qualities as the raison d'être of all design fields. This technological omniscience has deeply influenced the methodology and theory of cultural production from furniture to urban design. As the pursuit of complex, multi-disciplinary projects increases, design and engineering blurs with the corresponding increase in precision, variations and efficiency.

One of the first studios to undertake a new theoretical application of computer technology is the Augmented Architecture studio. The studio speculated on the potential of interactive technology, using digital technology with sensors, servors and sophisticated displays to conceptually transform, enhance and redefine the perception of space. Augmented architecture allows a continuously dynamic and interactive relationship between the space and the user resulting in the customization of the user's environment to their own needs. Traditional architectural "material" surfaces give way to "information" and kinetic surfaces thereby "collapsing" space and time between two nodes of communication. Since this studio's offering in 2008, the M.Arch program has aggressively broadened its curriculum with advanced digital courses in BIM, parametric and emergent systems.

Eui Sung Yi, Director Master of Architecture Programs 2007-2010



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Instructors: David Fletcher, Eui-Sung Yi

Revive the River, Free the Freeways

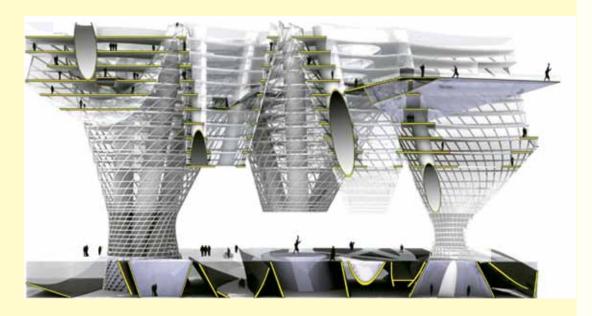
Population surges of the past two decades generated an unprecedented crisis in housing and transportation, thinning rural communities and hyper-intensifying urban centers. Unfortunately, these growing megalopolises agglomerate human habitation via an oscillating pattern of re-centering and networking, densification and dispersion. Such confusing oscillations have produced only stopgap responses in sustainable landscape measures and infrastructure rather than comprehensive solutions. Similarly in Los Angeles, we have a conflicted American city caught in the same debate, falling victim to NIMBYism and a blurred vision of its own future. The envisioning of Los Angeles's future is a rich legacy; we will continue this legacy by reclaiming the city once again as a surrogate laboratory of urban speculations and optimized plausibilities.

Intent: [(Infrastructure) (High Density Housing)]=Performative Urban Landscape

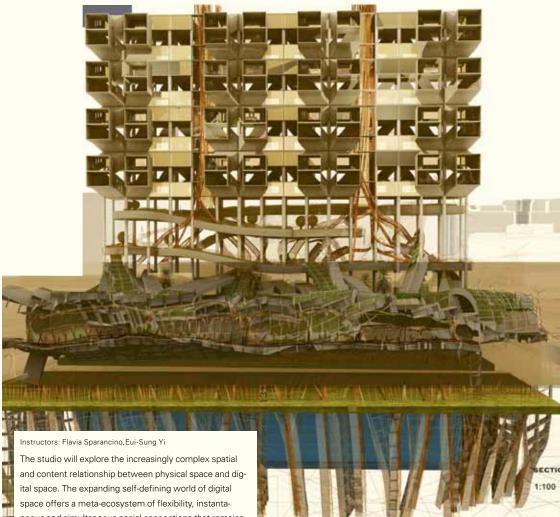
A performance driven vision for the Los Angeles River, integrating housing, advanced transit systems and

landscape ecology into a complex heterogeneity. This studio will engage conventional architectural typologies and strategies —such as Transit Oriented Development (TOD)—through an adaptive, flexible and intelligent morphology that reacts to an emerging set of specific parameters. By designing such an open-ended system, urban designers can generate multiple eco-system scenarios that are highly contextual, contrarian and sustainable.

[2] LA RIVER REACH 2: YUNAN ALLAN, JEFF VAGLIO, JAMIE WU. HOW CAN THE RIVER PROVIDE 10 IDENTITIES FOR THE 10 CITIES IN ITS REACH 27 ARCH 605AB. FALL 2007







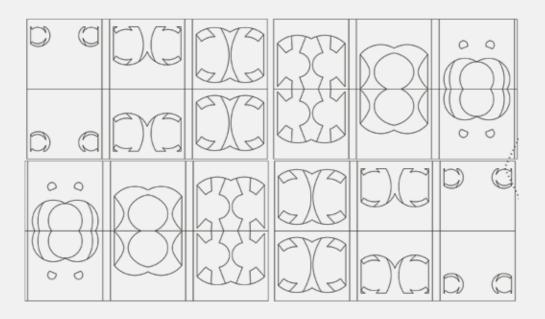
The studio will explore the increasingly complex spatial and content relationship between physical space and digital space. The expanding self-defining world of digital space offers a meta-ecosystem of flexibility, instantaneous and simultaneous social connections that remains only as intent in the physical world. Scale and content are infinite. Digital structure and information offers two powerful exegesis on contemporary urban culture: simultaneous consumption of digital media as the generative DNA for an expanding urban planning matrix. In other words, the macro world of urbanity and the micro world of personal interface do not exist in a linear relationship, rather they are continuously reflexive and parametric.

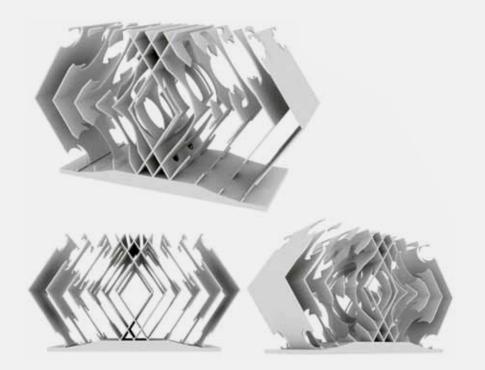
Manuel Castells conjectures our current infantile digital era is the young heir to contemporary urbanism's lost role: to facilitate communication and consume information, and to resurrect symbolism and meaning in architecture.

[1] [2] [3] LI HUA, JINYANG SONG. L.A. FESTIVAL MUSEUM. ARCH 505B. SPRING 2008

I think that our best work is that which remembers the point-and the point is always the big idea.

-Sarah Graham, Principal Partner of Angélil/Graham/Pfenninger/Scholl Architecture in Los Angeles and Zürich. USC Visiting Professor. Interviewed by Andrew Liang, IDNWS Spring 2009





505AL

M. ARCH +2 1ST YEAR DESIGN STUDIO

The first-year +2 program graduate design studio engaged students in the examination of material tectonics. If tectonics is, broadly, the theory and techniques of construction, material tectonics can be defined as the theory and techniques of construction as they relate to the behavior and properties of materials. Spatial experiences are informed and enriched by material choices; material choices also give rise to very particular spatial organizations and processes. It naturally follows that what binds material and space together is structure, and that what allows us to realize structure are the myriad construction techniques that are available to us. Each assignment this semester asked students to work with a particular material or set of materials, to inquire into their underlying behavioral preferences, and to construct a structured spatial artifact. Students were asked to remember that even the most abstract construct inhabits a specific place - in space, in time, in history - while even the most defined and restrictive one must still retain those experiential

qualities of space and materiality that allow it to transcend the specificities of context.

The studio also required students to move fluidly between the two-dimensional and three-dimensional worlds and provided training on the utilization of digital design and fabrication tools. There was an emphasis on movement back and forth between drawing and CAD; between physical modelmaking and 3d computer modelling/rendering; between traditional construction techniques and digital fabrication.

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05AL

M. ARCH +2 1ST YEAR DESIGN STUDIO PROBLEM 1: ITERATIVE MAPPINGS

Instructors: Andrew Atwood (digital technologies), Annie Chu.
Co-coordinators: Alice Kimm, Chuck Lagreco.

Iterative Mappings introduced students to techniques of patterning, bridging, layering, and space-making via a series of small paper exercises, each of which built upon the previous one to produce, at the end, a structured spatial artifact that occupied a unique landscape of each student's making.

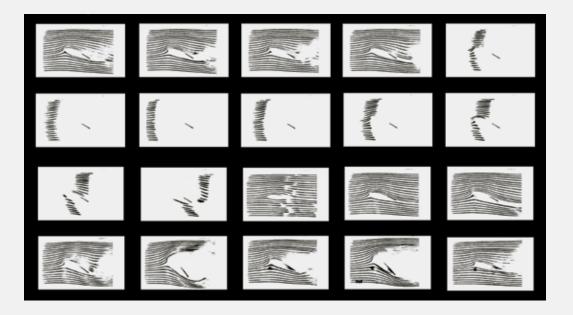
The first step activated the students' 3d sensibilities through the analysis of two-dimensional figurative patterns that represent three-dimensional spatial formations found in our surrounding environment or in nature. These patterns were re-presented and then, through a process of connection and linkage, transformed into new spatial constructs that expanded upon the analyses of the original patterns. Scale, density, materiality and its limits, joints, and tectonic expression were addressed.

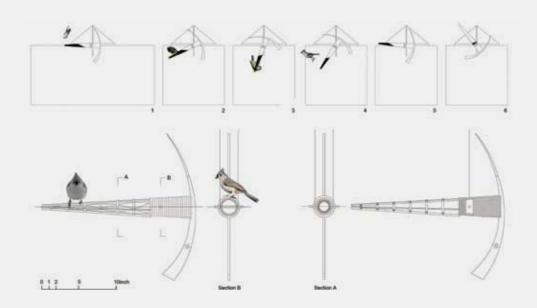
The second step built upon the significant properties of the spatial environments created in the first step through the digital exploration of key sections that were pulled out, re-layered, and stretched to form new dimensional limits.

Finally, students transformed the selected sections into physically modeled layers that were then arrayed in/on/ over/under a site that provided a structural framework for the new spatial matrix.

[1] [3] YINGYING ZHANG







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M. ARCH +2 1ST YEAR DESIGN STUDIO PROBLEM 2: FOR THE BIRDS

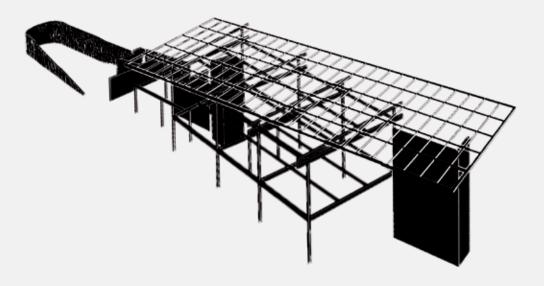
Instructors: Andrew Atwood (digital technologies), Annie Chu.
Co-coordinators: Alice Kimm, Chuck Lagreco.

For the Birds followed upon the paper explorations of Iterative Mappings with the design of a bird feeder designed and constructed out of wood. The primary focus was on the use of framing in articulating a full-scale environment. The site for the bird feeder was a length of guardrail on the bridge connecting Watt and Harris Halls, overlooking the School of Architecture courtyard. Each student was assigned a 6' length of guardrail, and had to respect a 1' setback on either side. 6" projections into the walkway were permitted. No limit was given to the outward projection or to the height of the bird feeder.

[1] [3] LI LI



Architecture is a tool for articulating narrative. It's not a final static product.-François Roche,
Principal of R&Sie(n), Paris. A.C. Martin Visiting Professor in Architectural Design. Interviewed by
Anna Neimark, IDNWS Fall 2009



505AL

M. ARCH +2 1ST YEAR DESIGN STUDIO PROBLEM 3: URBAN INFRA-NODE: NOT JUST A BUS STOP:

Instructors: Andrew Atwood (digital technologies), Annie Chu.

Co-coordinators: Alice Kimm, Chuck Lagreco.

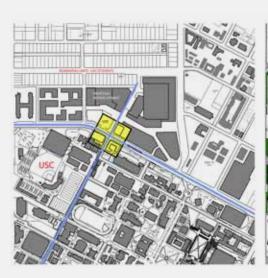
Every design challenge is a consideration of at least three scales — including those of context, object, and component. This is true whether one is designing a bird feeder or a building along one of the major boulevards of the world. Urban Infra-node was framed as a study of the complexities of infrastructure, public space, and social covenants. It utilized a material investigation into the potential of steel to develop an urban edge-defining building that accommodates functions in support of the individual, the community, and the city. The selected site was along Wilshire Boulevard, just west of Downtown Los Angeles

The program included a bus stop providing protection from inclement weather; a wi-fi core public space with seating for 20; a neighborhood council office with a suggested programmatic floor area of approximately 3,000 s.f.; and

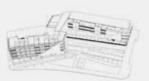
an accessory program of each student's choosing that spoke to a projected communal and/or technological need. Students were asked to design their projects as self-sustaining, zero-emissions, and zero-carbon footprint structures.

[1] [2] RACHEL BROWN

I understand architecture as a system of relations more than a question of objects. The development of an understanding of social, cultural and physical environments and their interrelation requires media other than architecture. -Stefano de Martino, Partner, of Lorma Marti, Based in Los Angeles and Berlin, Chair of the Institute of Design at the University of Innsbruck. USC Professor of Practice in Architecture. Interviewed by Andrew Liang, IDNWS Fall 2009











505BL
THE EMERITI CENTER STUDIO

Instructor: Victor Regnier

This project was initiated as a theoretical exploration of a mixed-use building to house the USC Emeriti Center on one of two sites (one within the new USC Village complex). The Center, made up of 2500 retired faculty and staff, is well positioned to connect the university with the surrounding community by bringing together faculty, staff, students, alumni and LA community residents through programs that are multicultural, multigenerational and multidisciplinary.

The 56,000 SF building program specified a range of public to private uses including a coffee shop, mentoring center, classrooms, an auditorium, 20 offices and 30 housing units for retired faculty (6 were set-aside for internationally renowned scholars). The building allowed the USC Emeriti Center to accommodate many more participants in an expanded lifelong learning program, which was being contemplated. The coffee shop was conceptualized as an expanded social and intellectual setting for all constituents

that would encourage post-class discussions and contribute to the "residential college" atmosphere the university advocates.

The pedagogy of the studio involved 18 lectures from architects, urbanists, landscape architects, philosopher's, planners, demographers and engineers. Thirty faculty, practicing professionals and emeriti members participated in 6 reviews throughout the semester. Six "charette-style" workshop sessions were devoted to explorations of site, program, landscape, structure and unit configuration.

A group of 7 distinguished faculty (including 4 former/current Deans) met with students during the semester to discuss the work and the priorities of retired faculty and staff.

The two sites located adjacent to the important north edge of campus also explored a range of urban and land-scape issues including building forms that respected the geometry of the Spanish and Jeffersonian grids (at play in both sites). Building forms accommodated and encouraged the NW to SE flows of pedestrian traffic through both sites as well as adjacent structures. The design of the housing utilized a "Danish-style" co-housing format and design features that encouraged social exchange and friendship formation between participants. Passive solar concepts including flow-through breezes were central to a serious sustainable agenda.

A 42 page publication resulted from the work which identified eight design considerations that students explored in-depth in their collective work.

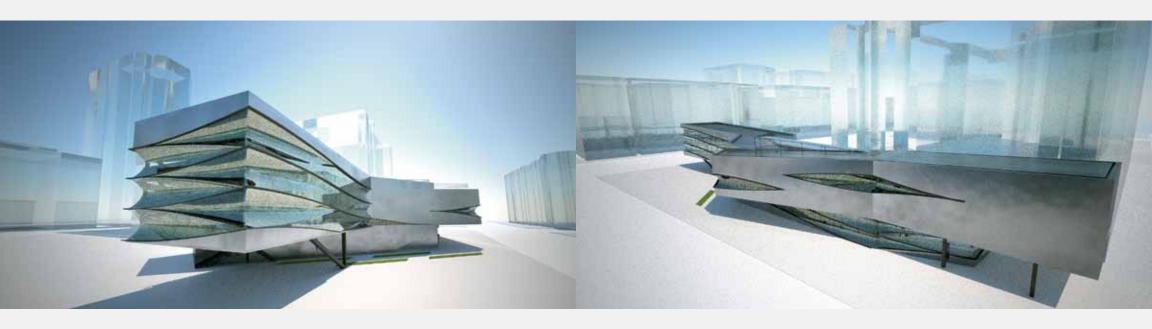
[2] [3] VICTOR FRESSIE

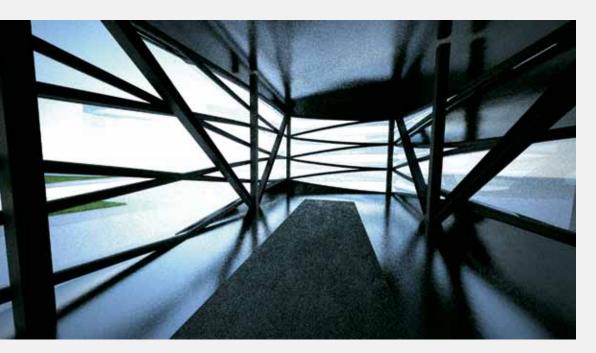


We are pushed and pulled in many directions. We are both hostage to and dominated by the multiplic-

ity and the arrogance of disorder.-François Roche, Principal of R&Sie(n), Paris. A.C. Martin Visiting

Professor in Architectural Design. Interviewed by Anna Neimark, IDNWS Fall 2009





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FASHION DESIGN CENTER STUDIO

Instructor: Paul Tang

The term of fashion conjures up images of constantly changing trends tending towards the frivolous rather than the practical. As a consequence, the discipline of fashion design is often disregarded in the critical debates and discussions of architectural discourse. However, since the early 1980's, the disciplines of fashion and architectural design were marked by significant events and advances that have contributed to the cultural shifts in each field necessitating reconsideration and evaluation. In this regard, once the terms, "fashion" and "architecture", are reduced to their basics definitions of body and shelter, identity and syntax, the juxtaposition of the two terms becomes a rich field for architectural design investigation.

With the above stated, it was the intent of the studio to explore the common visual and intellectual principles that underlie both fashion and architecture. Both disciplines start wit the human body and expand on ideas of space

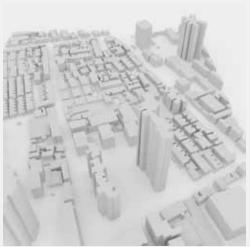
and movement, serving as outward expressions of personal, political, and cultural identity.

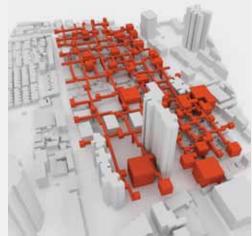
Architects and fashion designers produce environments defined through spatial awareness — structure, volume (space and form), function, proportion, and material. The studio examined issues of shelter, identity, tectonic strategies, creative process, and parallel linguistic tendencies of deconstruction and minimal.

Lastly, it was also the intention of the studio to use the vehicle of the project to understand architecture as assembly of systems — architecture as systems of language with all the issues of literacy and visual literacy and systems of performance in space, structures, and environmental controls. In this regard, as a critical component of the design discourse between architecture and fashion, the studio examined ideas of "envelope" as systems of protection/performance and identity/language.

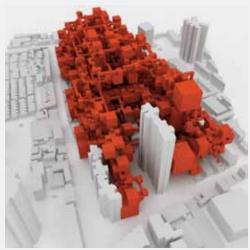
1] [2] [3] YINGYING ZHANG

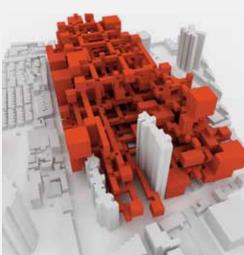
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Architecture is a very slow medium, I don't think it can make any point that retains actuality. It is usually overtaken by events, it produces stage sets or archaeologies. The enjoyment of its effects is entirely contingent on circumstance, on situations that constantly re-invent it. Stefano de Martino, Partner, of Lorma Marti, Based in Los Angeles and Berlin, Chair of the Institute of Design at the University of Innsbruck. USC Professor of Practice in Architecture. Interviewed by Andrew Liang, IDNWS Fall 2009

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599 2009 USC AMERICAN ACADEMY IN CHINA (USC AAC) EMERGENT URBANISM

Program Coordinator: Paul Tang

Beijing Workshop: 2008 Beijing Olympic Park Instructors: Rachel Berney, Neil Leach, Laurence Liauw, Xiangning Li, Roland Snooks, Paul Tang

Shanghai Workshop: Street Ecologies of Shanghai Instructors: Laurence Liauw, Young Min Koo, Roland Snooks, Roland Wahlroos-Ritter, Paul Tang

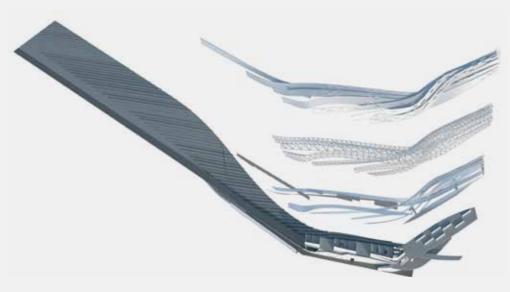
After decades of stagnation, urban design and urban issues have emerged as a dominant component for current societal, economic and political analysis and discussions. Emerging economies around the world, especially China, has demonstrated the necessity of understanding complex issues surrounding urban development and renewal. As old models break down and new relationships and organizational systems emerge, the principle pedagogical thrust of USC American Academy in China's summer research workshop was to examine two distinctly different urban conditions as systems of emergence.

The intention was to examine the evolving definitions of Beijing and Shanghai's urban and urbanism in the face of rapid development and economic change to offer multiple urban scenarios for speculative discussions. The findings of the research and convergence of different positions did not and was not intended to produce strategic urban design proposals based on preconceived positions. Instead, each urban proposal was conceived as tactical design and research engagement to usher potential new urban paradigms and challenges of different speculations to allow the emergence of new.

[1] [3] RACHEL RUNQING ZHANG, JONE JANKOSKI, MARTA PEJOSKA, IN DONG CHO



The disorder lies in all the things that surface along the way, the external forces that challenge the preconceived notions. It is our job as architects to reign in the distractions, to stay true to the vision and ultimately produce an architecture indicative of this. Patrick Tighe, Tighe Architecture. USC Visiting Professor. Interviewd by Gail Peter Borden, IDNWS Fall 2009







605AL FLUID TOPOGRAPHIES: THE CONFLUENCE OF THE HIGH DESERT ECOLOGY AND URBAN DEVELOPMENT

Instructor: John Enright

This studio examined a particular area of the high desert of California, namely the northern edge condition of the Joshua Tree National Park and its proximity to the town of 29 Palms. The area of interest was seen as a prototypical and ubiquitous urban condition that occurs within many cities where the natural topographic edge collides with the typically denser, flatter plains of the city proper. Historically, this condition has been one of two simple typologies of organizational systems utilized to organize urban growth; on the one hand the city grid, or Cardus and Decumanus as a superimposed system, and on the other a topographically conforming system of paths and circulation mediating between the natural topography and the technical needs of transportation and infrastructure. In the case of public parks and other protected areas, this edge condition occurs as a strong demarcation, or border, between that which is protected (the park areas), and those

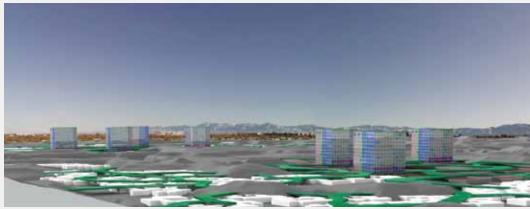
areas which contain the city, typically defined by property lines dictating private vs. public areas.

This studios' investigation attempted to create a new urban type for this edge condition by beginning with questioning the notion of property boundaries and public vs. privatized space. Students thoroughly examined the target area from both sides of the dichotomy; on the one side a vigorous investigation of the existing ecological and topographic conditions (performative and formal), and on the other the ubiquitously creeping suburban sprawl that constitutes the pixilated orthogonally configured "edge" of the city.

The specific project then entailed both a planning strategy for the area, and the development of specific building projects. The program for the project combined aspects of both of the Joshua Tree National Park, and the prevalent residential aspects of the current edge of 29 palms.

[1] [2] [3] ERIC ANDERSON







605A ISLANDS IN THE STREAM: LOW CARBON, HIGH DENSITY, URBAN PROTOTYPES FOR SOUTHERN CALIFORNIA ECOLOGIES

Instructor: Christoph Kapeller, AIA, LEED-AP

The studio developed prototypes for high-density, low-carbon emission urban neighborhoods for approximately 7,000 inhabitants. Eco-Cities have been proposed in various parts of the world the most famous one being Masdar City in Abu Dhabi. As it has proven very difficult to transform an entire region to be more sustainable and energy efficient, the studio focused on the creation of prototype enclaves.

Los Angeles County consists of a series of major ecologies that differ significantly in their climate, geology, flora, fauna, urban morphology, infrastructure and built form.

Each of these ecologies presents limitations and offers opportunities for a sustainable sity development.

The studio identified and analyzed major ecologies within Los Angeles County such as the shoreline, the hills, the flatland and the desert through series of speculative mapping exercises. Each group of students worked on a

different ecological system and presented their analysis to the studio.

In addition, individual student identified areas and locations for the proposed prototype neighborhood using ecological, economical, land-use and connectivity criteria. During this process special emphasis was given to the fact that the new neighborhood prototype be more energy and water efficient than the existing land use in each specific location. Furthermore, each student analyzed case studies of similar size developments and determined the most suitable density and land area for his/her prototype

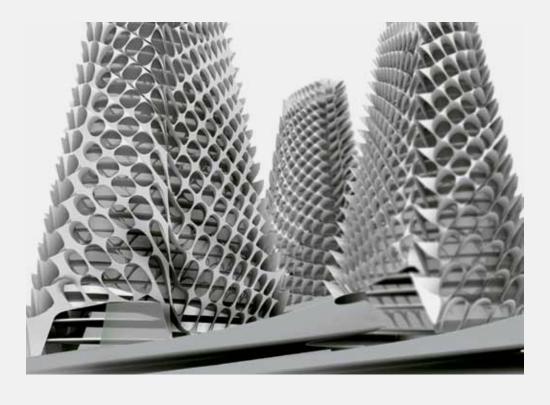
At midterm, each student presented his/her first vision of the sustainable neighborhood prototype.

After midterm, each student evaluated the various scenarios and visions presented to develop it into a phased urban design development plan. Infrastructure, connectivity, landscape and built form were presented in a layered and phased approach. The proposals emphasized strategy and process over design and product to blur the lines between landscape, infrastructure and architecture.

Finally, each student developed an urban / landscape / architectural vision for his/her prototype neighborhood. The student tested the design vision against the constraints of the particular ecology chosen and against existing and neighboring land-use patterns. The final design demonstrated the vitality and the urban character of the place while including concrete measures for the reduction of non-renewable resources, waste management and the diversification of habitats.

[1] [2] [3] KWANGWOOK RYU







605A MANGROVE URBANISM PROPOSAL FOR HOUHAI CBD, SHENZHEN, CHINA

Instructor: Neil Leach, Nick Pesca

This project sought to evaluate an existing proposal for a CBD in Houhai, Shenzhen, and develop an alternative, improved version. The project took place in Fall 2009 in a studio run by Neil Leach and Nick Pisca as a funded studio for the Shenzhen Planning Department.

The approach adopted was to see the city as an adaptive, dynamic entity operating largely through bottom-up processes, in opposition to most traditional approaches that understand the city in terms of a top-down static model. In order to capture the dynamic operations of the city a series of custom made parametric tools was developed scripted in Maya Embedded Language (MEL).

The team used these tools to generate a more efficient proposal based on the theme of 'mangrove urbanism'. The Houhai site is close to a series of mangrove plantations. Mangroves are shrubs/trees with complex rooting systems that survive in often difficult coastal conditions through strategies, such as moving/adapting to their

terrain, filtering out salt, and self-shading through their foliage. This inspired an overall design strategy based on the theme of 'mangrove urbanism' with four research units focusing on specific topics for Houhai CBD concerning smart transportation systems, intelligent development, environmental sustainability and landscape/building integration.

[1] [3] YAO HUIJUAN







605A URBAN BRIDGING: HOLLYWOOD 101 FREEWAY

Instructor: Graeme Morland

The Graduate Studio Design focus this semester deals with the engagement of "Architecture, Place and connection", where the dialogue between building and surrounding context is fundamentally inseparable, where buildings reach out and connect beyond the primacy of their program to influence and instruct the larger place, and similarly, where buildings welcome and invite the public realm to engage within the building, consequently dulling the abrupt embarkation of public and private or entry and exit.

PROPOSITION: By developing the commercial potential of the 101 freeway airspace in a creative manner and connecting the Pueblo de Los Angeles at Olvera St and Union Stn, to a revitalized LA mall, a powerful pedestrian linkage and commercial /cultural development is envisioned.... To re-unite the northern historic districts of El Pueblo/ Union Stn and Chinatown with the southern historic district of the Music Cr/ Civic Cr, Bunker hill/Historic core and the little Tokyo Arts district, via a "bridge/building" or modern Ponte Vecchio, filled with pedestrian activity, retail

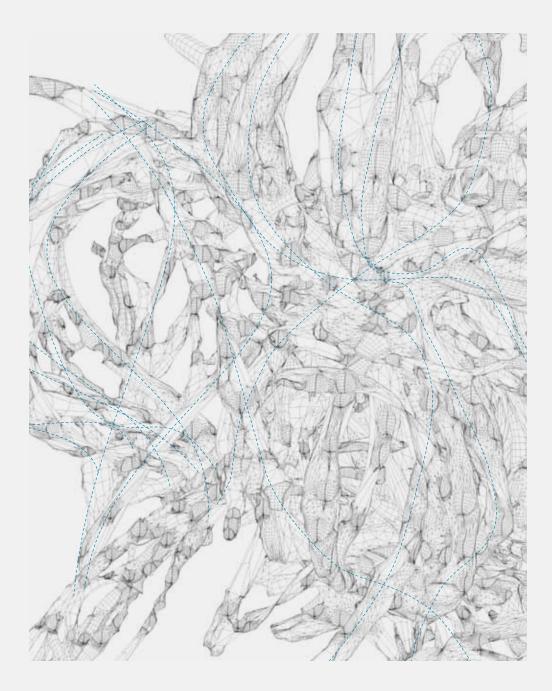
commercial opportunity and the prospect of mixed use residential/ commercial development commanding views over this dramatic site. Not since the prior to the construction of the LA freeway system over a half-century ago, will the urban fabric of Downtown Los Angeles and the outlying historic districts be more connected. This Freeway air-rights proposition, unique to this potential location, should also be seen as an Urban "prototype" for other similar situations in LA, where the Freeway ring has severed historic city fabric connections.

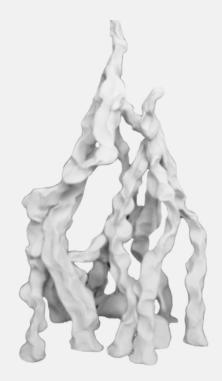
The development of a proposed mixed use "Urban Bridge" over the 101 Hollywood Fwy to connect el Pueblo to the Civic Center of downtown. To visually and functionally close the section of the 50 year breach in the urban fabric of the historic core of the city created during the construction of the 101 freeway transportation asset. This proposed linkage, using the "air-rights" over the freeway should be designed to promote a safe and commercially active pedestrian connection between the Civic centre and the, two historic and cultural districts north of the freeway, Chinatown and the El Pueblo and Union station. There are thousands of commuters each day traversing between Union station and the CBD, with the terse and alien presence of the fwy to be negotiated, not only will the proposed development bridge enhance this journey, but the propensity for commercial opportunity along the new route is enormous.

[1] [2] [3] RYAN AUSTIN

Our aim is to articulate antagonistic forces and to make visible their intrinsic nature, both on their own and in the way that they conflict with one another.-François Roche, Principal of R&Sie(n), Paris.

A.C. Martin Visiting Professor in Architectural Design. Interviewed by Anna Neimark, IDNWS Fall 2009.





605A (N)CERTAINTIES (BIOTOPES) 4.0

Instructors: François Roche/Marc Fornes

Preliminary hypothesis:The studio is targeted by the hypothesis of transforming the "social contract" confronted to the mass media culture biotope _ and to define the morphologies of (n)certainties (biotopes) 4.0, an unknown urbanism fragment. The research is to define the shape, the social organization, even the smelling of this unpredictable and polymorph city, including a machinism design and protocols.

Rumours: I've heard about something called (n)certainties (biotopes) 4.0 that builds up only through multiple, heterogeneous and contradictory scenarios, something that rejects even the idea of a possible prediction about its form of growth or future typology. Something shapeless grafted onto existing tissue, something that needs no vanishing point to justify itself but instead welcomes a quivering existence immersed in a real-time vibratory state, here and now.

It also arises from anguishes and anxieties. It's not a shelter against threats, but remains open to all transactions. The world is terrifying when it's intelligible, when it clings to some semblance of predictability, when it seeks to preserve a false coherence. In (n)certainties (biotopes) 4.0 it is what is not there that defines it, that guarantees its readability, its social and territorial fragility and its indetermination.

Foreword:The contemporary city's developmental tools manifest the tyranny of tightly scripted determinist procedures, planning mechanisms based on predictability. The city's growth, densification and entropy are driven by pre-set and invariable geometrical projections. Urban morphological transformations are supposed to follow closed scenarios that cannot deviate from the pre-programmed representations on which they are based. Thus the cartography of the city's becoming is fettered by a mode of production that takes the future as already written. Everything yet to come is spelled out in advance and tightly locked up by that forecast.

Can we envision something totally different, urban structures driven by human contingencies? Can we work out adaptive scenarios that accept unpredictability and uncertainty as operating modes? Can we write the city based on growth scripts and open algorithms porous to a number of real-time inputs (human, relational, conflictual and other data) rather than trying to design an urban future formatted by rigid planning procedures?

Situation: Possibility of a abstract location, or a location in a situation. In this last hypothesis the site is able to affect the "construction process" or by the specificity of the situation (chemical/morphological/topographical) or by the possibilities to use recycling material of construction from the site (car garbadge, river, existing building to recycle...)

Programm of the "urban structure": A "politic" community, both collective and individualistic, as a social experiment.

[1] [2] SHUANG XU



There is a big debate about what kind of nature we want to preserve — do we want to preserve the nature we create, our industrial nature, or do we want to preserve the very rare and confrontational primitive nature, the risky nature, the wild?.-François Roche, Principal of R&Sie(n), Paris. A.C. Martin Visiting Professor in Architectural Design. Interviewed by Anna Neimark, IDNWS Fall 2009.



605B AUGMENTED URBANISM

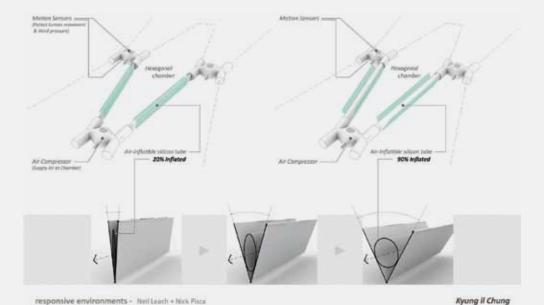
Instructor: Selwyn Ting

The premise for the semester design project was to seek alternative urban futures for Los Angeles. Without preconceptions of site or program, students pursued a critical evaluation of the Los Angeles urban context, breaking its environs into component ecologies, each a complex product of influences. Through mapping demographic, economic, land use, infrastructural, and growth patterns, students sought to distill key opportunities for transformative interventions, insertions that, through programmatic, infrastructural and systemic modification, would provide a medium for study of the broader implications of architecture as an active modifier of the urban condition. These opportunities were thought of as programmatic provocations designed to affect a greater systemic transformation of the city through an empowered architecture. A structured lineage of research, understanding, proposition, and delineation pre-positioned process, as integral to design strategy, and provided coherence to an open process.

Sustainability, density, connectivity, programmatically integrated neighborhoods, and access to amenities, formed

the general set of urban goals for the transformations. Projects engaged freeways, rail, boulevards, the LA river, industrial lands, and parking fields, in each case redefining their roles, form, and potential to evolve the surrounding context.

[1] [3] LI CHEN LU

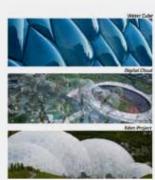




I do as a theorist is to codify that (new design) intelligence and make it recognizable as a new paradigm of thinking. And that new design intelligence is taking the logic of Digital Tectonics

- scripting, programming, parametric modeling and other advanced digital techniques—and applying it on a larger scale. Neil Leach, Professor at the University of Brighton and Visiting Professor at USC. Author of The Anaesthetics of Architecture, Camouflage, Designing for a Digital World and Digital Tectonics. Curator, (Im) material Processes: New Digital Techniques for Architecture, at the Architecture Biennial Beijing 2008. Interviewed by Roland Wahlroos-Ritter, IDNWS Spring 2009.





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605B RESPONSIVE ENVIRONMENTS

Instructors: Neil Leach/Nick Pesca

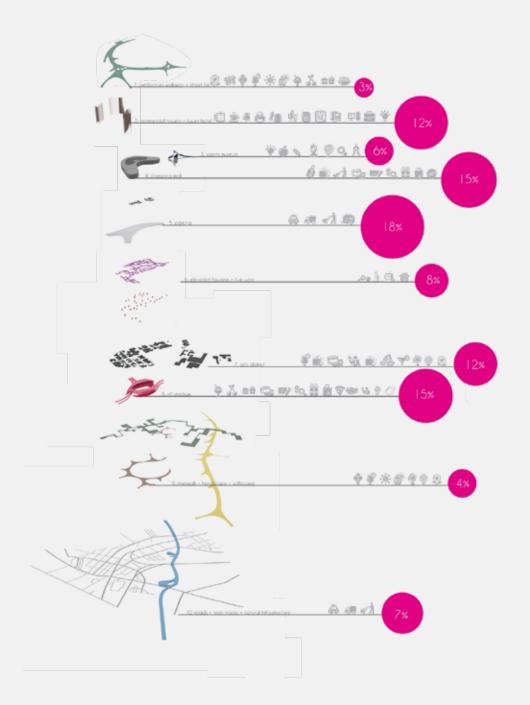
Nature provides us with countless examples of organisms that survive by adapting to their surroundings — chameleons that change color according to their environment, plants that follow the sun, cells that develop antibodies to viruses etc. But what would happen if buildings were also able to adapt to their surroundings? And what if buildings could also adapt to their users, and vice versa?

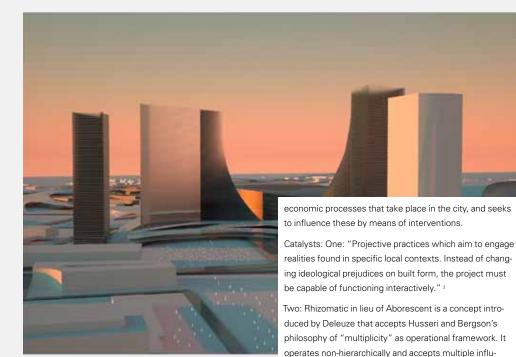
The Spring 2010 studio on 'Responsive Environments' for students on the Master of Architecture program sought to explore the potential of making buildings interactive. Some work has already been done in this area, but much of it has been limited to art installations and media events. What if the potential of interaction were developed in a more meaningful way towards environmental and social issues? What if buildings could not only respond intelligently to the changing seasons and weather patterns, but also adapt to the changing demands and patterns of behavior of their users?

This studio operated as a collaboration with the Interactive Media Division, http://interactive.usc.edu, in the School of Cinematic Arts at USC, http://cinema.usc.edu. The studio explored a number of techniques currently used by researchers in the School of Cinematic Arts, such as 'motion capturing' and 'gesture interface'. These techniques were then used to provide data that could be processed through various scripting techniques to generate intelligent environments. Other cinematic techniques used included the exploration of Massive, a software programme for generating multi-agent crowd scenes, first used in the film, Lord of the Rings. The scripting tutorials were taught by Nick Pisca, www.nickpisca.com.

[1] [2] [3] KYUNG CHUNG

Los Angeles is a city by default, it happened and is still happening by the relentless addition of implausible propositions, dream developments, speculative campaigns, by a carpet bombing of dingbats and phantoms of cities, Universal, Century, Panorama, Storage or Arcadia.-Stefano de Martino, Partner, of Lorma Marti, Based in Los Angeles and Berlin, Chair of the Institute of Design at the University of Innsbruck. USC Professor of Practice in Architecture. Interviewed by Andrew Liang, IDNWS Fall 2009





605B PARASITIC AND PREDATORY URBANISM

Instructor: Andrew Liana

Framework: The studio's theme concerns parasitic and predatory urbanism. Both conceptualized as antithetical and arguably more strategic and intelligent responses to the over-leveraged, static and often over simplistic master-plan paradigmatic approaches to urban thinking. It is predicated on the argument that both parasitic and predatory organisms are intelligent matters, fully-capable of assimilating to the genetic codes of its host to reproduce and multiply for survival.1 While both offer curative or destructive consequences, balanced in the theoretical dialogue about corporeality of cities as complex constructive bodies, both have their place in urban ecology. This framework opens up the possibility of understanding architecture and urbanism not as a stable substance but as encoded information, their role as matters of the host city are contingent upon their ability to transform and be transformed continually. Suffice it to say, this idea postulates that the architect should be capable of recognizing the intangible, morphological, mental, sociological, political and Three: Projective Thinking—more about an approach, a strategy, than a specific archetypal product.

ation of intelligence.

ences, interpretations and representations. It embraces trans-species (nonpure) as an acceptable outcome for more adaptive and sustainable models. This scenario is entered without prejudice and is predicated on the gener-

Objective: The urban core of Los Angeles and its immediate vicinities are studied and analyzed. Each student must identify their respective area of urban engagement and propose a program matrix to influence the existing urbanism through parasitic and/or predatory intelligence. The program matrix is not intended to be merely a static list of functional criteria but an intelligent performative device that is subject to evolve and mutate as part of the student's process of work. Given the large area of each student's engagement, the studio occupies the blurred zone between reality and fantasy as works of "urban fiction"—not in the sense of whimsical story telling but reflective provocation. The underlying objective is to challenge the city's under and ill performing urban existence based on static land use and zoning policies.

 1 Arets, Wiel, "A Virological Archiecture", A+U: Architecture and Urbanism Vol. 2(281), 1994, pp. 103 — 106.

 2 Van Toorn, R., Crossover. Architecture Urbanism Technology, "After Criticality: The Passion for Extreme

Reality in Recent Architecture...and Its Limitations" (Rotterdam, 010 Publishers, 2006) P173

[1] [2] MINDY KING







605B EXPO: PROJECTING THE FUTURE OF IDENTITY FOR THE CONTEMPORARY CITY

Instructor: Michael Maltzan/Jessica Varner

The research studio studied contemporary urbanism through the lens of Exposition Park. The Park is a place within the city of Los Angeles, which exemplifies the new paradigm of open space. Neither park nor district, the site is being re-envisioned by multiple entities as a catalytic development for the surrounding communities, re-centering its importance within the larger metropolis of Los Angeles. The first half of the studio focused on the overall master plan and design at the urban scale while the second half of the semester focused on the architectural scale of the site. Key moments in the design of the master plan were chosen and further designed. By looking at public space at two scales through landscape urbanism strategies, new models of the city emerged.

5 AGENDAS IN THE CITY

The studio focused on five main urban agendas; infrastructure, density, commerce, open space, and community. With each pair of students assigned an agenda, the intent was to push big ideas through the lens of a contemporary urban design issues in Los Angeles to provide a new identity for Exposition Park and Los Angeles.

OPEN SPACE: With open space at a premium and density in flux, pressure is placed on the city as never before. Open space in the capitalist Laissez faire society is neither a space of true leisure, nor a space attached to the fabric of the built city. Open space needs a new identity.

INFRASTRUCTURE: The traditional images of infrastructure such as gridlocked traffic no longer encompass and embody Los Angeles. As the city looks towards new modes of transportation such as high speed rail, questions arise as to how the city can provide a connected and seamless pattern of services in a fragmented metropolis.

DENSITY: The city has reached its limits. The citizens of Los Angeles ask to be part of a defined city; one with identity, visual connectivity, and tangible amenities. How can new interventions build on the past fabric while adding to the new visual language of the city.

COMMUNITY: Tensions between the communities continue to thrive on economic lines which separate low and high income communities. As Los Angeles integrates, the lines of tension have the opportunity to heighten or dissolve based on the community shared resources that provide opportunity for a future Los Angeles.

COMMERCE: Income shifts and escapist fantasies shape commerce in the superficial city of Los Angeles while underground and illicit markets thrive under the radar of traditional jurisdictions. As Los Angeles shifts, new models of commerce must emerge to serve the citizens of Los Angeles as well as to lubricate the taxable system of the metropolis.

[1] [3] IVAN PRIATMAN, NATHANIAL RATHER



The tools of algorithmic and parametric design will increasingly become ubiquitous and an essential part of the design process in practices with agendas ranging from experimental to commercial.

-Roland Snooks, Principal, Kokkugia. USC George Isaacs Distinguished Fellow in DigitalTechnology.

Interviewed by Neil Leach, IDNWS Spring 2010.

605B ENCODING MATTER

Instructor: Roland Snooks

Encoding Matter posited a behavioral design methodology, re-conceptualizing design as the organization of matter. This behavioral understanding of design focuses on the dissolution of normative hierarchies that operate within architectural organization and tectonics. A non-linear algorithmic design methodology was developed capable of displacing existing hierarchies through the emergent operation of self-organizing systems.

The studio developed an understanding of agency and its role in the formation of complex structures. This exploration involved rethinking the formation of order from the behavior and intent of the monad or agent and explored this within a framework of the brief for the design of a mixed-use tower.

The studio explored how normative tectonic hierarchies can be dissolved and re-imagined within a systemic non-linear logic. Where it is the local interaction of the monad which gives rise to global complex order, rather than a design process operating on sequentially decreasing

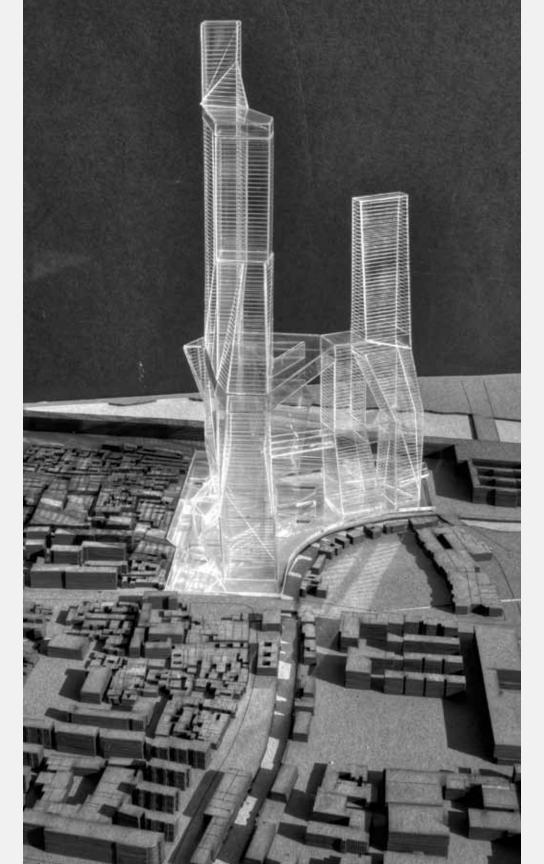
scales. The premise of the studio rejects modernist tectonics (including mass standardization) and contemporary parametric component assemblies (mass customization). Instead we developed an alternative organization of matter that draws from an understanding of micro-structures such as those found in butterfly wings; where color and pattern are determined through the organization of matter as a geometrical configuration rather than through chemical attributes such as pigmentation.

The design methodologies explored in the studio were largely extracted from the field of Swarm Intelligence in developing agent based design strategies. Students developed their own methodology that embeds intent at a local scale and enables the self-organization of intention within a system of swarm intelligence.

The non-linear algorithmic design methodologies developed within the studio was tested through the design for a mixed-use tower. This project was developed through questioning the hierarchical relationships of precedent towers. The implications of replacing these hierarchical relationships with systems that are engaged in non-linear negotiation was examined in developing radical tectonic and organizational structures.

[1] [2] HAYLEY BURNS, SEAN HOHMAN, NIMA ABILI







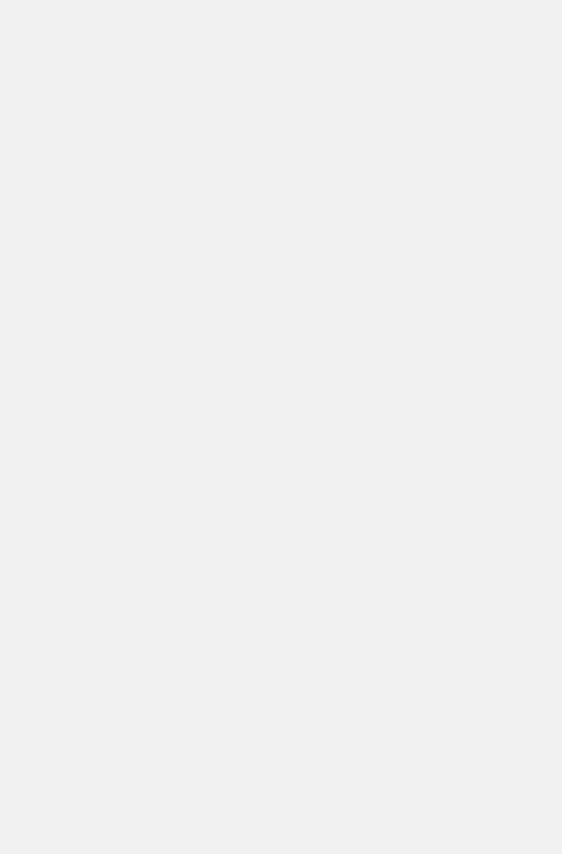
693 DIRECTED DESIGN RESEARCH

Instructor: Andrew Liang

Living circumstances which contain the quality of neighborhood, work, public transportation, commercial facility, entertainment and natural environment are the most important considerations in today's mega Chinese cities where the city's fabric is undergoing drastic transformations. Citizens that are integral to the heritage of the city through several generations are being displaced due to the rapid growth and speedy developments. These mindless and status quo developments are breaking the balance between the old and the new. In Nanjing, since not enough open space could be used to support city's rapid growth and also spurred by the skyrocketing of real estate prices since the 1990's, old historic city fabrics are massively cleared to make way for new developments. New developments are also sprawling to the outskirt farmlands surrounding the old city, displacing farmers. Myriad of fresh communities are emerging in these outskirt areas with only housing and without any other support programs. As the result, these new developments are like isolated islands with little inhabitants

and contribute to a deep gap between the peripheral new towns and the existing city. There is a need and an opportunity to re-think and re-strategize the current trend and methodologies of inner city developments and city regeneration. The main thrust of this thesis project concerns the symbiosis of the old and the new — the need to preserve the heritage of the old city fabric, culture and values while allowing new developments to become catalysts for new growth and to accommodate new demands of the city.

[1] [2] YUE YANG



MASTER OF BUILDING SCIENCE

Building science and technology studies at USC recognize that exemplary buildings are based on responses to the human condition and to natural forces, requiring good judgment and knowledge for the creative use of architectural technology.

The Master of Building Science program is intended for students with a degree in architecture, engineering or related areas. The typical program length is two years. Students with a professional five-year architecture degree may qualify for advanced standing. Studies are centered around each student's thesis and are supported by research seminars and electives from architecture, engineering and other related fields. Students are individually guided through their study and thesis by three faculty advisors. The faculty has academic, research and professional practice experience in architecture, civil and structural engineering, environmental control system design, and computer applications. Many papers based on thesis work have been co-authored by faculty and students have been published and/or presented at professional conferences.

Design and Research Directions

The need exists for a new generation of professionals whose education has prepared them to fully participate in bringing appropriate technology to the building and rebuilding of humane and supportive cities. Within this context, the program emphasizes:

The integration of planning, design and technology to form a coherent and interdependent force for the appropriate construction of urban places.

Recognition of the ecological importance of energy-conscious design and construction as well as the high social value of places in which natural forces and systems are being utilized rather than suppressed.

The development of research and design methods suited to the complexity of building in urban settings and effective in the use of extensive information.

Areas of Study:

Design processes that explore form in response to natural forces: sun, wind, water, seismic and thermal

Exploration of unique structures: lightweight, long-span and high-rise

Static and dynamic simulation models for investigation of structures

Lighting and daylight design

Passive and active solar design for heating and cooling

Acoustic isolation and performance

Systems integration: structure, mechanical, electrical, envelope, for fit and synergy with architectural objectives

Industrialized construction processes, automation, transportation, etc.

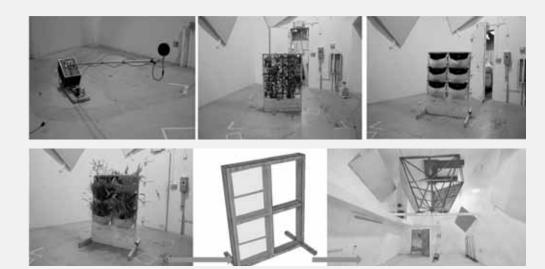
Materials and methods of construction

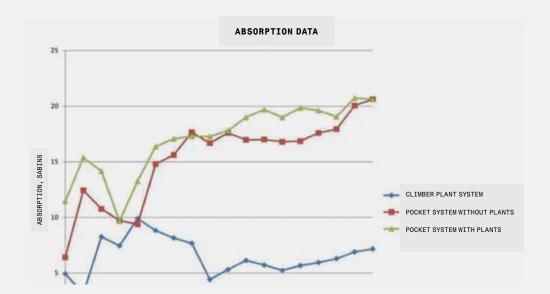
Theory of architectural technology

Computer tools: animation simulation, structural and environmental analysis, simulations of lost architecture, design information systems, smart building technology, stereoscopic visualization, and related topics.

Sustainability.

Marc Schiler, FASES, LC, Director, Master of Building Science Program





The marriage of creative and analytical thinking leads to new approaches to old problems, new uses for old materials, and new tools to apply to new concepts I look forward to encouraging this marriage within our school and across the university in multidisciplinary approaches to the entire life cycle of our built environment. Anders Carlson, Ph.D., Structural Engineer, Simpson Gumpertz & Heger. USC Assistant Professor. Interviewed by Kara Bartelt, INDWS Fall 2009.

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692 VERTICAL GARDEN: THE STUDY OF VERTICAL GARDENS AND THEIR BENEFITS FOR LOW-RISE BUILDINGS IN MODERATE AND HOT CLIMATES

Instructor: Marc Schiler

Living circumstances which contain the quality of neighborhood, work, public transportation, commercial facility, entertainment and natural environment are the most important considerations in today's mega Chinese cities where the city's fabric is undergoing drastic transformations. Citizens that are integral to the heritage of the city through several generations are being displaced due to the rapid growth and speedy developments. These mindless and status quo developments are breaking the balance between the old and the new. In Nanjing, since not enough open space could be used to support city's rapid growth and also spurred by the skyrocketing of real estate prices since the 1990's, old historic city fabrics are massively cleared to make way for new developments. New developments are also sprawling to the outskirt farmlands surrounding the old city, displacing farmers. Myriad of fresh communities are emerging

in these outskirt areas with only housing and without any other support programs. As the result, these new developments are like isolated islands with little inhabitants and contribute to a deep gap between the peripheral new towns and the existing city. There is a need and an opportunity to re-think and re-strategize the current trend and methodologies of inner city developments and city regeneration. The main thrust of this thesis project concerns the symbiosis of the old and the new — the need to preserve the heritage of the old city fabric, culture and values while allowing new developments to become catalysts for new growth and to accommodate new demands of the city.

[1] [3] JAMIL BINABID



It is from a non-ideological, non-formal position that we approach the study of facades; it is very much engaged in the political-economy of the envelope and its broader relationship to all other building systems. -Marc Simmons, Founding Partner of Front, Inc. USC Visiting Professor. Interviewed by Andrew Atwood, IDNWS Fall 2009.

692 GLASS BEAM DESIGN AND CALCULATION

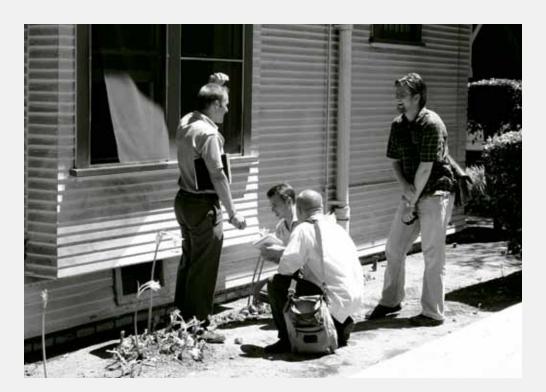
Instructor: Marc Schiler

This research examines how to choose the right types of glass and dimensions for glass beam design and construction. There is a tendency of structural use of glass recently to achieve maximum transparency on buildings, and glass beam is one of the most popular elements. However, there is only limited information on this new technique and some of the information has not been published to the public, which make it difficult for architects to design and build buildings with glass beams. The primary target of this thesis is to provide an introduction about glass beams to explain how they work, and create tables for size selection. Strength of structural glass is discussed and four primary criteria three structure design, bending, deflection and buckling, are examined. Several conclusions are listed below.

- Bending stress is still the governing criterion for glass beam design even though other criteria were considered.
- 2. Heat-treatment on glass could greatly reduce the required size of beams.

- 3. Most of the annealed beams fall in the range of red or orange, which indicates that the strength properties of annealed glass are so poor that annealed glass should not be qualified as structural glass.
- 4. Tempered glass is so strong that some tempered beams even fall in the blue area. Although strength properties of tempered glass are quite good, sometimes this type of glass can suffer spontaneous breakage, especially for area supported by a less developed glass industry. As a result, heat-strengthened glass is recommended as a first choice, and then tempered glass.
- 5. The more layers designers use, the smaller the resulting depth they get for the beam. They can also cut the overall area of cross section by selecting laminated glass with more layers and thinner sheets. However, because of the capacity of the glass fabrication industry, the more layers they have on laminated glass, the less available those glass beams are. And also, by doing so, the beams get more surface area and edge and introduce more Griffith Flaws, which leads to reduction of the strength quality. As a result, three or four layers are recommended, which are also the most widely used numbers in existing glass beams.
- 6. Simply increasing thickness of glass sheets will cut down the depth of beams but increase the area of cross section and material needed to build the beam.

[1] LEI FU





HISTORIC PRESERVATION PROGRAMS AT THE UNIVERSITY OF SOUTHERN CALIFORNIA

Studies in Heritage Conservation at the School of Architecture at USC were inaugurated in 1993 when Jeffery Chusid established the Summer Short Courses in Historic Preservation. After fifteen years this class continues to meet every July for two and a half weeks of intensive field trips and lectures that explore the wide range of disciplines associated with preservation practice in the United States. In 1997 the school established a Graduate Certificate in Historic Preservation and five years later the university approved a Master of Historic Preservation degree. All of these programs reside in the School of Architecture, which also offers graduate degrees in architecture, building science and landscape architecture.

Housed together on the third floor of the architecture school, this unusual combination of curricula offers an integrated approach to architectural studies, which places the field of heritage conservation within a broad professional context. It has also fostered an effort to develop new paradigms in the field of sustainability, which can call upon and integrate the knowledge of each of these fields of study. Students in each of these degree programs are offered the option of obtaining a graduate certificate in any of the other disciplines. The preservation program's location in Los Angeles also provides it with an ideal opportunity to explore new approaches to the study of the recent past and the preservation of diverse cultural communities and landscapes, and places it in close contact with emerging fields of conservation in Asia and Latin America.

The USC School of Architecture is also responsible for the management and conservation of Frank Lloyd Wright's Freeman House (1924) and Greene and Greene's Gamble House (1908-09). Ongoing research and work on these architectural masterpieces provides students with handson experience in cutting-edge preservation methods and technologies. The Freeman house has recently undergone extensive seismic rehabilitation and is now the subject of ongoing conservation work. In addition to the original design by Frank Lloyd Wright, Harriet and Samuel Freeman subsequently commissioned furniture by the noted Austrian modernist Rudolf Schindler, who also remodeled significant parts of the house. Along with the cultural and political significance of the Freeman's to the history of avant-garde Hollywood, the chronological complexity of this house has been the subject of extensive study and debate. The Gamble House, which is the object of continued conservation efforts, represents one of the finest

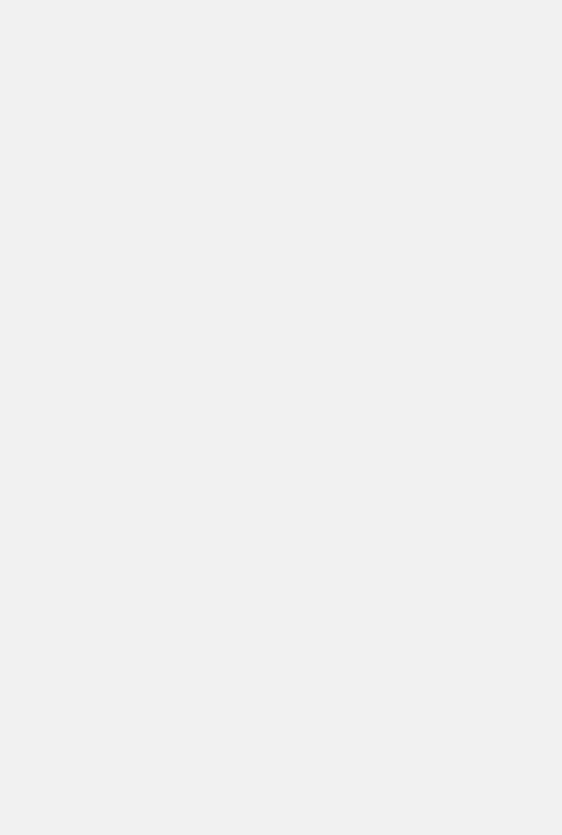
and most intact examples of Arts and Crafts design in the United States. Completed in 1909, it still houses nearly its entire original inventory of architect designed furnishings and fixtures.

In 2008, the School of Architecture, under the direction of Dean Qingyun Ma, initiated a new graduate course in Global Studies in Architecture and Urbanism in Beijing. This Initiative is structured to allow for opportunistic academic research into critical urban issues. Its format revolves around focused workshops involving USC, other institutions, and critical local stakeholders. Students work as interdisciplinary teams to investigate specific historical and environmental conditions.

Kenneth Breisch, Director

[1] USC STUDENTS IN THE FIELD. [3] CHRISTOPHER GRAY, FRICS, DEMONSTRATING LASER SCANNING TECHNOLOGY IN A WORKSHOP ON DOCUMENTATION.





691 HISTORIC PRESERVATION THESIS, THE USC EXPERIMENT IN MODERN ARCHITECTURAL PEDAGOGY, 1930 TO 1960

Instructor: Kenneth Breisch. Student: Debi Howell-Ardila

Although USC offered the region's first and only professional degree in architecture from 1925 until the 1960s, very little research has been conducted on the school's history. Much of what has been written generally accepts—and perpetuates—the assumption that, in the post-World War II period, through the work of a few determined actors, the USC School of Architecture shed virtually overnight its Beaux-Arts-influenced curriculum and adopted a modern, pragmatic approach.

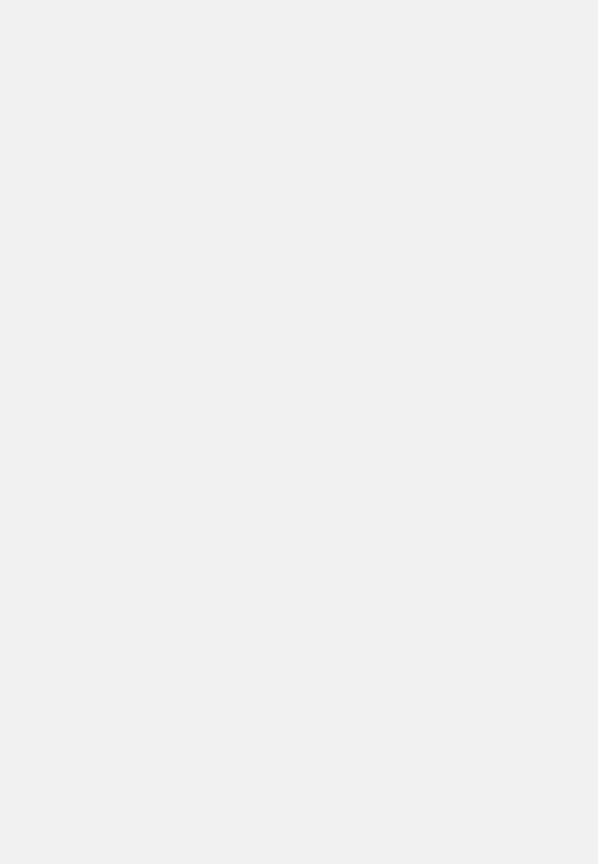
This thesis demonstrates that USC launched a modern "experiment" in architectural education far earlier than is generally acknowledged—beginning in the early 1930s, rather than 1945. And the figure who proved most decisive in this shift is also the figure least cited in the literature: Arthur Weatherhead, faculty member and dean from 1914 to 1944.

In 1930, through Weatherhead's initiative, the USC "College of Architecture" became the 5th out of 45 US schools of architecture to begin the shift from Beaux-Arts methods to a locally-determined alternative, grounded in pragmatism, contemporary, site-specific design, regional identity, and a close association with the allied arts. Once the USC "experiment" was established and in place in the early 1940s, the curriculum and design philosophy remained largely intact through the early 1960s.

This study does not intend to diminish the achievements of the postwar dean, Arthur Gallion. From 1945 to 1960, Gallion built on the foundations in place and expanded the school according to the pressing issues of the day: housing, planning, industrial design, and landscape architecture. In national terms, the example of the USC School of Architecture illustrates how educators and architects on the "far western" periphery of Southern California responded to the issues challenging—and changing—the architectural profession and academy across the United States.

These narratives, which have gone largely unexplored, offer another facet in the development of modern architectural thought and design in Southern California.

Debi Howell-Ardila, USC Historic Preservation Program



MASTER OF LANDSCAPE ARCHITECTURE

The sixty-three year history of landscape architecture education at USC, through extraordinary ups and then some downs, finds the USC MLA program thriving in 2010. Twelve faculty members offer fourteen courses to forty-seven graduate students plus a large number of non-majors. Recent growth in student numbers has been matched by an increase in faculty, and the next several years should include additional full-time faculty to anchor the primary subjects of the program — design research, history and theory, and knowledge, skills, actions. The program may well be nationally accredited this academic year.

Three critical aspects of research and teaching characterize the program and provide a focus for its further development:

Design Research: the Los Angeles Laboratory is a major asset for examination of the nature of landscape places and projects, the operative issues of contemporary urban conditions, and for understanding challenges and opportunities related to natural processes in an especially dynamic cultural landscape. Leading-edge and historic places can be enjoyed and studied. Los Angeles and USC continue to support the spirit of critical inquiry and creative energy that characterize the culture of southern California. The region has unequaled demographic diversity and cultural richness. Art thrives here. Meanwhile, the region faces challenges from projections of significant population growth amid water shortages, improved but still hazardous air pollution, natural systems in need of restoration, and an aging and incomplete infrastructure. Los Angeles is a puzzling complex of urban centers that are not easily characterized and related. Landscape design must be the activity that sorts out and weaves together evocative and healthful urban futures.

Urban Nature: an essential focus of the 21st century is global urbanity, including the relation of natural systems to built infrastructure, the necessity for using and inventing resilient technologies, engaging and transforming the skills for design exploration and communication in a variety of places and cultures, and a commitment to participatory processes that embrace cultural complexity. Our nature in nature must be explored to find corollaries for a healthy learning ecology. Urban society has powerful economic and technological tools whose uses promise both amazing as well as disturbing potentialities. The harmonious relation of cities and nature produced by an earlier age of modest technologies inspires research for using new and powerful methods in the interest of healthful and sustainable urban nature.

Advocating Landscape Studies: Program initiatives must continue to create a vibrant center at USC for landscape studies, including a wide scope of curricular interactions, a continuing attraction of distinguished faculty and visitors, and greater visibility of landscape studies as a basis for proper and sustainable urban development. There are only a handful of graduate study programs on the U.S. west coast, and not many more along the entire Pacific Rim. Landscape is the home of all life, it is the fundamental infrastructure for all cities, it is the essential spatial tissue of cities, and its study is in full force ahead at USC.

The USC Master of Landscape Architecture first professional degree program is new, but our history of landscape architecture research, practice and teaching provides a strong legacy for success.

October 2010

Robert S. Harris, Director

Master of Landscape Architecture Program

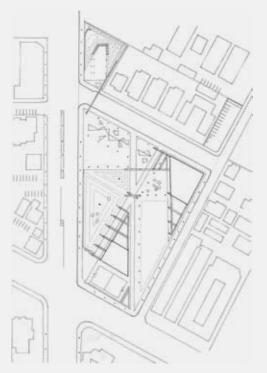
Emeritus Professor of Architecture

ACSA Distinguished Professor

My wishes include that our students leave school with a honed sense of visual perception, analysis, and thought. I would like to see our students succeed in all fields where creative problem solving is a must; I think they would be uniquely well qualified. Rachel Berney, Assistant Professor. Interviewed by Annie Chu, IDNWS Fall 2009.







541AL LANDSCAPE ARCHITECTURE IN PLACE

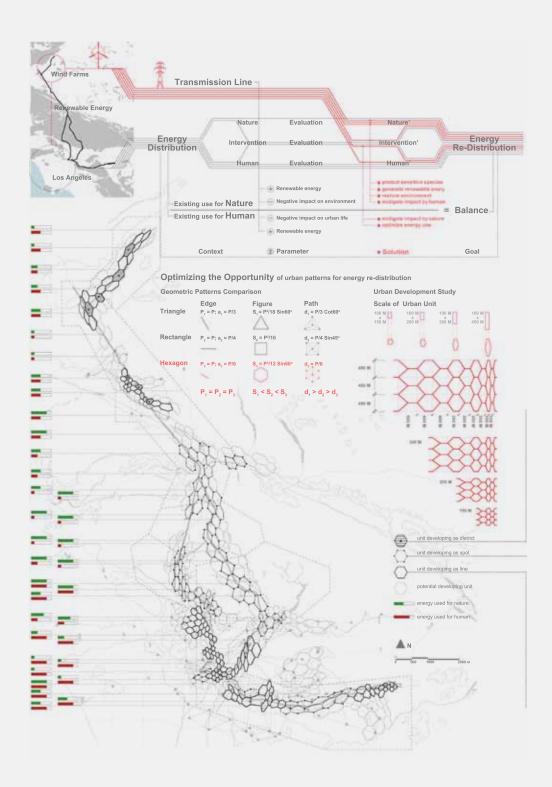
Instructor: Rachel Berney

COURSE GOALS: This primary M. L. Arch. studio focuses on introducing concepts of urbanity and the city fabric in relationship to landscape architectural design, including especially the street, plaza, and park, as well as urban natural and cultural complexities affecting design.

STATEMENT OF THEME: What is the role of the urban park in the 21st century? What is its meaning?
Usefulness? Longevity? Care and maintenance? How can we, as designers, contemplate and design for multiple and competing uses in the Los Angeles Urban Park System? In other cities, such as Barcelona and Bogotá, park design and use is vibrant and inventive. What models will work for Southern California? Our overarching goal was to design an urban, neighborhood and district-serving park that could function as a template for the LA Department of Parks and Recreation and for the Los Angeles Parks Foundation to create innovative parks throughout Los Angeles (and perhaps, beyond).

STUDIO OBJECTIVES: This studio emphasized methods and techniques for understanding the following: site analysis; site planning; the multi-step process of the three-dimensional design of landscape architectural space; visual graphic representation of design ideas; sustainable design and community planning strategies; and clear verbal presentation of work.

[1] [3] TRACI REITZ



The ability to comprehend why something must be done is conjoined with the how—a kind of critical juxtaposition where the end result is an insightful, sober realization that posits design education directly in the center of current issues and trends in the built environment.-Gerdo Aquino, President, SWA Group Worldwide, SWA Los Angeles. USC Adjunct Associate Professor of Landscape Architecture.



542A LANDSCAPE OPERATIVES

Instructor: Gerdo Aquino

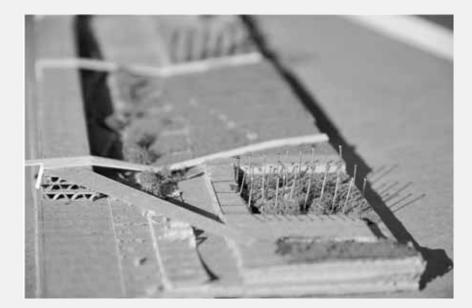
Southern California's desire to access rich renewable energy resources - solar, geothermal and wind offers both opportunities and constraints for the greater Los Angeles Metropolitan region. The extension of major transmission lines and the planning/implementation of new corridors to meet future energy demands begs the question—are these corridors being designed with nature and people in mind? Are these corridors addressing the issues being discussed in local communities whose geographic location is in the path of these major infrastructural projects? This studio will focus on one such corridor, located in the Los Angeles region that is both regional in scale and localized in its impact. With over 100 miles of contiguous corridor, numerous branches and overcoming difficult terrain, the Tehachapi Renewable Transmission Project is perhaps the largest renewable wind energy project in US history capable of delivering 4,500 megawatts of electricity to 3 million homes.

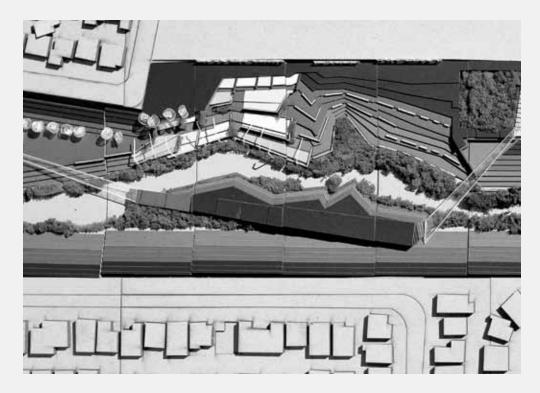
It is the intention of this design studio to investigate the potentialities of these existing and proposed transmission

corridors both from a regional scale that identifies all of Southern California's renewable resource projects as well as specific reaches of the Tehachapi corridors at transect desert, mountains and urban fabric. A process of mapping, documentation and synthesis (urban research) formed the initial foundation of study to include watershed data, climate data, population data, wildlife, vegetation, hydrologic data and comprehensive infrastructural systems. Urban design strategies were subsequently developed in order to establish a concise response (landscape operatives) to the issues identified in the urban research. Large scale urban ecological strategies such as water harvesting, use of native plants, wildlife habitat creation, were integrated during this step as well as the identification of enhanced access to open space, foster active health and recreation, establish environmental stewardship, support water harvesting strategies, urban farming, etc. The primary objective being to stitch together disparate land uses into a cohesive whole.

[1] BOHUA XU







Los Angeles is re-inventing itself into a 21st century city. We are rebuilding our infrastructure and in the process we can help educate the community so they can make informed decisions and their aspirations will improve our design – this is the best way to create a great and lasting design. -Mia Lehrer, FASLA, Principal of Mia Lehrer + Associates Design Studio. USC Distinguished Visitor in Landscape Architecture. Interviewed by Rachel Berney, IDNWS Spring 2010.

and the Ballona wetlands downstream, with the potential to address regional pedestrian linkages as well as the ecological viability of the Ballona corridor. The entrenched belief within the community, that the park will create more harm than good with the influx of "outsiders" from other parts the city, puts a halt on the development of Milton Street Park. The studio will attempt to address these social issues through landscape architecture, provide creative solutions to effect positive change. Concurrently, using the Ballona Wetlands as an inspiring example of vibrant urban ecology, the students will explore ways to naturalize the Ballona Creek, thus improving the urban ecosystem and promoting social harmony among its citizens.

LEARNING INTENTIONS

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Context: Designing an urban park is not a simple matter, particularly within a complex set of socio, political, economic, and natural factors, many of which are beyond the expertise of a landscape designer. Nevertheless, with detailed site analysis and research, a strong understanding of the context will help to develop a clear landscape framework and set of principles, which will serve as the foundation for design. At a regional context, the Milton Street Park and the Ballona Creek have the ability to connect to other neighborhoods, from the inner city to the ocean. Sustainability and Natural Systems As a society, we have begun to understand and experience the devastating effects of global warming andresource scarcity. As a responsible citizen of this beautiful planet, we need to adopt sustainable practices in our daily lives such as the use of renewable resources, reduction of the carbon footprint, and employment of local materials and drought-tolerant plant species as the basic building blocks for our design. Lastly, a thorough understanding of the site: topography, water, soil, vegetation, will further provide guidance on design. The site is very long and narrow, which may inspire the designer to develop an unorthodox approach to form and function. The designer may seek to confront, reveal, conceal, absorb, or balance site's various eccentricities and develop a design language that is consistent with one's attitudes and assumptions about

[1] [3] OIAN ZHANO

the site.

542B FRINGE PARK

Instructor: Ying-Yu Hung

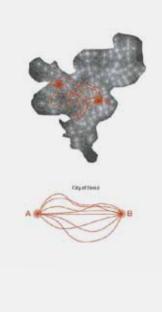
GENERAL BACKGROUND

Los Angeles metropolis is park poor. The neighborhoods are often divided. The physical boundaries between the public and private zones are drawn, where personal interests are protected and defended behind those invisible property lines. As an "unclaimed territory", the public realm is the open forum where people of diverse cultures and social values express their fears, aspirations, and visions of what the world could become. Along a six-mile channelized waterway is a long linear parcel of unclaimed land, where its future awaits the next group of well intentioned neighbors, designers, and policy makers to give it new meaning, identity and unity for this divided urban nature.

Milton Street Park is a linear park located along the Ballona Creek, at the intersection of S. Centinela Avenue and Highway 90, approximately 900 feet long by 40 feet wide. It is also part of the sixile bikeway system linking Culver City to the Strand at Marina Del Rey. The project has a strong physical connection to the Ballona Creek

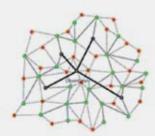












It is not one, but many, and you never get there. The beauty of Manhattan is that it is an island, it evokes an instant sense of recognition. Los Angeles is a whole archipelago (at one point, the perfect twin city to Berlin). Its eduction is in coasting its shoals, between fictions and realities, a kind of Riddle in the Sands. It is more software than hardware, more pretense, more Potemkin, wannabe, standin and body double. Stefano de Martino, Partner, of Lorma Marti, Based in Los Angeles and Berlin, Chair of the Institute of Design at the University of Innsbruck. USC Professor of Practice in Architecture. Interviewed by Andrew Liang, IDNWS Fall 2009

or taming it (banking, shoring, cropping, leveling, blasting etc.). It will be necessary to understand both the natural history of the Basin as much as its social, cultural and economic make-up and their respective constructions and dynamics.

array of techniques employed in exploiting, suppressing

Approach

The scale of the Basin requires an initial approach that is both diagrammatic and qualitative. From the coastal mappings of early explorers to satellite imaging and logistics, examples that serve as reference will be identified. Through a series of exercises we will develop techniques of representation as analytic and projective tools.

It is expected that participating students will be able to apply and work with the knowledge gained from the LA course as a whole, to bring this to bear in reading and interpreting the territory in analytic, synthetic, and speculative views, in order to develop a definition of what we understand as "landscape": where is it evident and where are its limits, what is its potential and by what means can we engage this.

Outcome

This course encourages to develop a particular interest in convergence and its potentials - actual state of ground, panorama, ecologic quality. Based on study and visualization of typical surface zones of the Basin during the first half of term the second half will focus on acting and intervening within one specific area or condition.

In compliance with the 2010 imperative, the design should engage the environment in a way that dramatically reduces or eliminates the need for fossil fuel.

[1] [3] MENG YANG

642 SURFACE: NATURAL/ARTIFICIAL

Instructor: Stefano de Martino

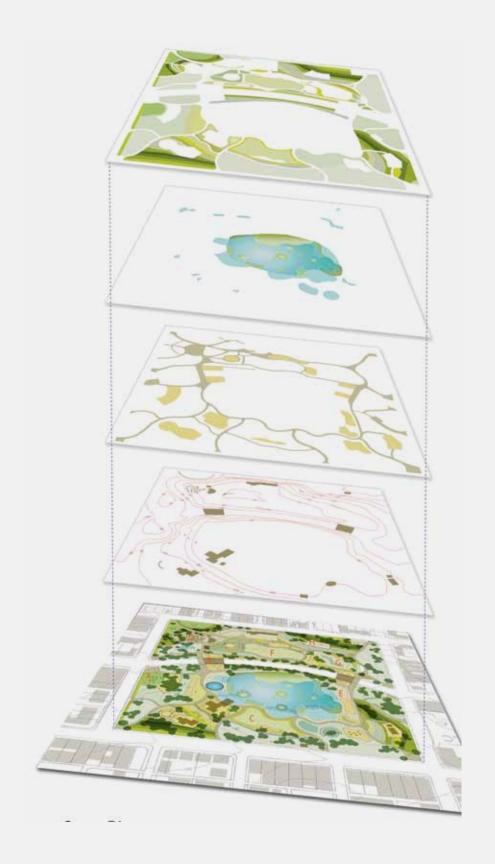
The course aims at understanding the interdependency of natural/artificial systems emerging across the Los Angeles Basin. Contemporary landscape assumes a role well beyond the provision of amenities and improvements in the public realm: it is increasingly about controlling the surface, tracking, monitoring, securing, imaging it (see all the resources that go into monitoring and safeguarding high-risk areas and guaranteeing the surface as it is).

How is the difference between natural and artificial environments articulated? Can the contemporary environment be understood as a convergence of correlated systems?

If the surface of the Los Angeles Basin is the generic outcome, how does it respond locally, when typical geographic, climatic, cultural and material action applies?

Intentions

In order to understand the reciprocal potential of these systems, it will be necessary to identify and qualify their characteristics, from the consistency of the ground (as a geological, topographical and climactic condition) to the





698B WATER MANAGEMENT AT THE URBAN SCALE: THE REDESIGN OF MACARTHUR PARK

Instructor: Rachel Berney

MacArthur Park is an iconic place with strong cultural significance to the local community. The challenge of redesigning MacArthur Park lies in retaining the symbolic meaning of the park while incorporating ecological imperatives. The existing planting scheme provides limited biological value and large areas of turf use extensive irrigation. Onsite runoff is collected by series of downdrains and channeled to city's storm drain system. Very little runoff is directed into the lake with no implementation of storm water management practices.

Effort to redsign the park and surrounding neighborhood areas aimed at improving water management at the local scale. The goal was to conserve water within the park and capture and clean stormwater runoff in the park. By constructing green streets and alleys in surrounding neighborhood, runoff would be directed into the park through filtering medians such as porous pavement, grassy edges, litter traps, and wetlands. Various possibilities of physical and biological treatment processes

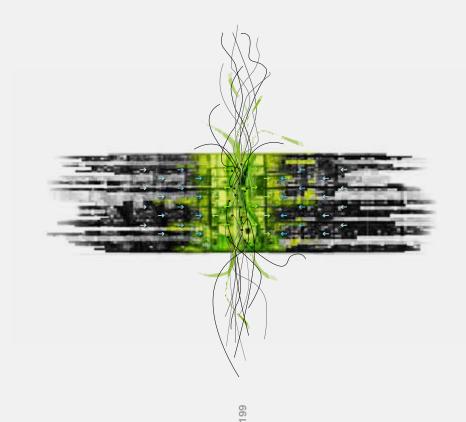
of runoff were examined to enhance the functions of a healthy ecological system. The outcome was a water sensitive urban design within the park which also provided wildlife habitat and enjoyable scenery for the public.

Strategies implemented in the project revealed natural processes to the public through legible ecological land-scape design. Planting schemes were crafted carefuly based on hydro zoning, in which designs follow irrigation needs. Various programs within and around the park educates the public about relationship that the larger ecosystem has to human communities. Stormwater management practices utilize streets and existing topographies for water retention and interception within and around the park. Alternative planting scheme worked to bring back native plants and provide wildlife habitat. Designs at the edges of the park and surrounding neighborhood explored opportunities for highly multi-purpose streets that provide places for a chain of healthy activities for local residents.

Proposed landscape design did not take away what the locals enjoy the most, which is a place to gather and relax. Designated areas was provided for the public while strategic planting schemes integrated ecological functions to other areas in the park. The project addressed fundamental issues of water management, public health, and recreation with aesthetically pleasing and ecologically functional landscape designs.

[1] [2] IRIS TSAI





698 DIRECTED DESIGN RESEARCH, RE-PURPOSING THE BEIJING OLYMPIC SITE: EVERYDAY LIFE, ECOLOGICAL RICHNESS AND CULTURAL DIVERSITY

Instructor: Robert Harris

Despite China's rapidly developing economy, landscape infrastructure projects in China should be concerned about long-term and sustainable future. Post-Beijing Olympic development is a good case study for seeking sustainable futures in China.

The study first concentrated on context study and site analysis. There was not only the research about urban fabric, but also considered the whole in a large natural geographic background. The study was far beyond the physical site of Olympic site and primarily focused on everyday life, ecological richness and cultural diversity.

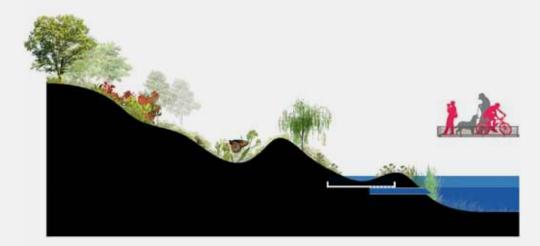
Despite people's social circles enlarging in recent years, the intensity of social relationships is weaker than ever before. We should differentiate specific groups of people with corresponding space to gather together.

The water shortage problem was an essential issue in Beijing. Even though the South-North water transfer project would solve the water shortage problem in the future, the highest water price within the whole nation and more than 16 million populations still revealed that a new type of water management should be applied for sustainability. 45 acres of water body with single function in Beijing Olympic site was wasting a lot of water every day. The geographical feature of Beijing Olympic site gives us a great opportunity to collect stormwater from the surrounding neighborhood. A new storm water treatment system would connect with 3 major constructed wetlands to filter urban runoff from surrounding neighborhoods. This new water system gave a great opportunity to combine diversity programs, open spaces and public amenities together to address the goals for everyday life, ecological richness and cultural diversity. There were some popular programs or activities in Beijing throughout different period of time, such as sport, taichi, shopping and Bar street, etc. This series of programs regarded to 3 sections and 3 aspects which were everyday life, culture and ecology.

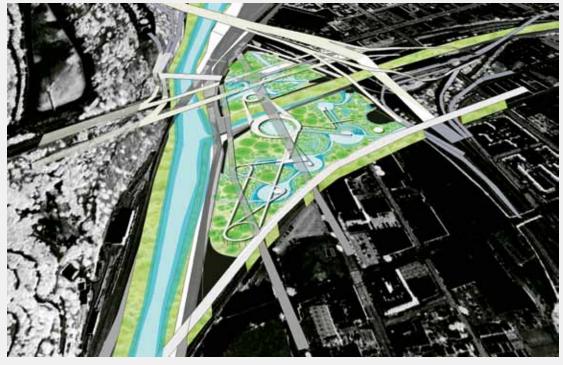
[1] [2] YANG MENG











698 DIRECTED DESIGN RESEARCH, WILDLIFE CORRIDORS: LOS ANGELES RIVER

Instructor: Robert Harris

The wildlife living condition is an important part of landscape. In Los Angeles the urban land took over the original wildlife habitat, the existing habitat is in pieces and need a plan to rehabilitate. The overlook of LA Basin has one nature "corridor" goes through in it—the Los Angeles River, it goes all the way from the foothill of Santa Monica Mountain till the ocean. Bring green back to the river and adjacent area is a best feasible plan to build up a wildlife corridor in LA.

First of all, Los Angeles River is a nature water resource for the wildlife habitat. So the design started with water management design. The bottom of habitat was little lower than the river bottom, so water came in through gated entrance with gravity, filling up the water system as needed amount and stopping water running out of the habitat in dry season.

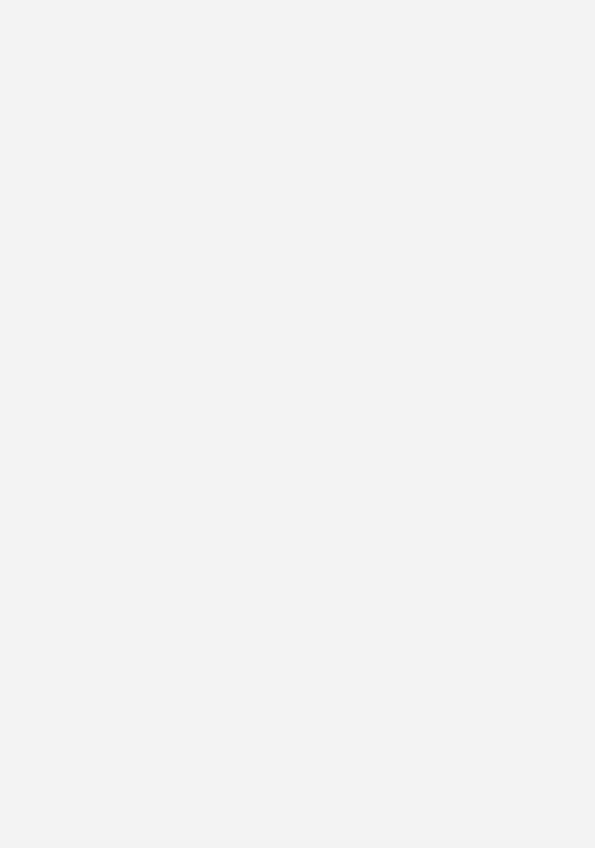
Second, the topography of the habitat was complicated and optimized the surface size so more type of habitats

(sun-shade, moisture-dry...) could happen. As the water goes up and down through the year, and the edges that touching the water has been designed as big as possible, more life and dead process of the plants and insects could occur and thus bring the best food resource and opportunity to the food chain.

Third, the habitat chose native plants according to the topography and moisture, also prefer to choose plants that wildlife attracted to. By offering a habitat with good water supply and planting, let the nature do its course to choose wildlife to move in and inhabit, this place could actually working as a real habitat.

In the end, by applying this habitat as a model to the areas along LA River, and turn the concrete banks into green step by step, a bright future is not that far away. If this project could happen all along the river, it could work as a green lung for the city and bring more than expected advantage to people and nature.

[1] [2] [3] XINYI LIAO



PH.D IN ARCHITECTURE

The Ph.D. program at USC admits students of exceptional intelligence, character and commitment. Graduates will add to the knowledge base of the field of architecture while they gain knowledge and experience about the teaching, research and service aspects of academic careers. Graduates will be prepared for leadership positions in academic, research and practice settings.

The USC Doctor of Philosophy (Ph.D.) in Architecture addresses the rapidly growing global demand for leaders in environmental design research. Our highly qualified faculty guide students through a rigorous and highly demanding program of advanced study and original research. The program maintains a commitment to the highest standards of academic achievement. Admitted students are exceptionally well prepared to structure and communicate ideas and to make scholarly contributions to the built environment discipline.

Re-established in 2008, the Ph.D. program is an umbrella degree designed to grow into additional areas of specialization as the graduate program positions appropriate coursework, faculty, and research support. As we originate the program, we will build in the strengths of the previous "Doctor of Building Science XE "Doctor of Building Science" " degree program that was established in the School of Architecture in the mid 1960s'.

The program is structured around intensive seminars and an individualized program of study. Students will gain a fundamental knowledge base in building science and technology including advanced analytical and research methods. Students are expected to master a defined field of scholarship that constitutes a foundation for critical inquiry required by research. Graduate Certificate XE "Graduate Certificate" programs offer students the opportunity to establish additional areas of expertise. After completion of a core set of required and elective coursework, the program of study culminates in the development of a dissertation of original scholarly research guided by a faculty team. The Doctor of Philosophy is awarded to students who complete a substantial dissertation of original research that adds new knowledge to the field.

The Ph.D. program seeks to address serious challenges and global implications. Admitted doctoral students will join the faculty and continuing students as we investigate topics.

Examples of current research interests by the USC Architecture faculty include:

Sustainability XE "Sustainability"

Digital Media XE "Digital Media"

Solar Access XE "Solar Access"

Building Skins XE "Building Skins"

Seismic Design XE "Seismic Design"

Fabric Structures XE "Fabric Structures"

Digital Fabrication XE "Digital Fabrication"

Performative Architecture XE "Performative Architecture"

Materials and Assemblies XE "Materials and Assemblies"

Lighting XE "Lighting" / Daylighting XE "Daylighting" / Glare XE "Glare"

Building Information Modeling XE "Building Information Modeling"

Historic Structures Technology

Cable-Suspended Glass Skins XE "Glass Skins"

Architectural Science Education

Integrated Architectural Technology

The Ph.D. program encourages an attitude towards study that USC President Steven B, Sample describes to as "breadth with depth." Students are expected to have a broad education, skills, and experience. A community of scholars from diverse locations and cultures provide a rich setting for learning. We actively seek candidates from around the world, and we encourage our students to participate in our graduate overseas programs.

Ph.D. candidates are colleagues of the faculty and are expected to contribute to and foster the intellectual community of the USC School of Architecture. Candidates will be prepared to function in research, academic and professional environments as university faculty, consultants, professionals, and scientific researchers. Faculty and students are held to the highest standards of academic excellence and environmental ethics that help create the quality of experience expected at one of the world's finest universities.

Doug Noble, FAIA, Ph.D., Chair Ph.D. Program

It is from a non-ideological, non-formal position that we approach the study of facades; it is very much engaged in the political-economy of the envelope and its broader relationship to all other building systems. -Marc Simmons, Founding Partner of Front, Inc. USC Visiting Professor. Interviewed by Andrew Atwood, IDNWS Fall 2009.

790 POST-TREATMENT ANALYSIS OF THE GLARE REMEDIATION OF THE WALT DISNEY CONCERT HALL

Instructor: Doug Noble. Researcher: Jae Yong Suk

Designed by Frank Gehry, the Walt Disney Concert Hall (WDCH) is known for its sweeping curvilinear forms, beautiful exterior skins composed of brushed stainless steel, polished stainless steel, and white limestone. These are not only beautifully shiny and sparkling but also problematic. This building had serious problems because of its specular façade materials and curved surfaces. The strong glare and heat problem to drivers and neighbors was a serious concern after completion of the building. These complaints led to the County of Los Angeles hiring a consultant to measure the level of the glare and suggest solutions to reduce the glare and heat issues.

In 2003 and 2004, the consultant assessed the glare of this building and suggested several possible solutions to the architect. As a temporary solution, a fabric covering was applied to critical portions of the polished stainless steel surfaces of the Founders' Room. Subsequently, vibrating and orbital sanding was implemented on all the problematic parts of WDCH. There have been no more complaints since the surface treatment has been applied. However, no one has actually tested the new level of thermal and visual glare after the remediation. The question remains whether this building causes or does not cause dangerous glare to surrounding buildings and intersections. In addition, it would be useful to know if the assessment methods used accurately predicted the glare levels before and after the building was treated.

For this reason, this study completed a second glare analysis on the building and tested whether the treatment was helpful in solving the problem. For the visual glare issue, Disney Hall was photographed every 30 minutes on September 23rd, 2006, with exactly the same field of view as the previous research, and the Schiler Glare Method was used to evaluate the level of glare. For the temperature issue, an infrared thermometer and data loggers were used separately for measuring light weight surface temperatures at mid-air focal points and ground temperature in front of REDCAT marquee, which had the most serious thermal glare problem before the remediation. Nine data loggers were embedded in the surface of the concrete at critical intervals, and measurements were taken from August 30th, 2006 to March 3rd, 2007.

All glare scores from photographs of Disney Hall were evaluated by CULPLITE software and compared to previous research results. Also mid-air focal point temperature and ground temperature were recorded and compared to previous temperature data. Los Angeles's downtown's

weather history was studied to compare ambient temperatures of 2004 and 2006. After processing luminance histograms, it was concluded that the visual glare scores from this study were similar to previous research results. Either the glare was not reduced, or the assessment method does not accurately predict all of the glare factors. Exterior glare analysis research has lots of variables such as the amount of cloudiness, dustiness of building surfaces, different camera functions, etc. For example, additional camera tests showed one reason that the visual glare analysis method was producing inaccurate results - the digital camera automatically functions to ameliorate glare in the photographs. Five cameras produced images with very different glare scores for a building photographed at the same time and location. These results suggest that it is necessary to use a manual camera or have a better grasp of the algorithms that the digital camera is using for more accurate visual glare analysis. There may also be other factors that are not currently accounted for in the visual glare assessment procedure.

The ground temperature also showed almost similar or sometimes slightly worse results than previous temperature data. By contrast, the mid-air focal point temperatures were lower than half of the previous research's highest record of 348°F. It was shown that even though the remediation removed heat at the mid-air focal points, the stainless steel surface still reflects heat and increases the surrounding ground temperatures. The methods shown in this study, although still not perfect, would help to assess other metallic skin buildings' glare problems and help in the determination of solutions before the building is constructed.



