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Hsinming Fung
INTRODUCTION


There once was an Anglican religious thinker, Malcolm Muggeridge, who suggested that tyrannies predictably attempt to cover the earth with concrete.

But tyrannies can't keep that metaphorical lid on.

The metaphor always cracks, and out of the cracks, says Muggeridge, comes what the concrete heretofore suppressed – a possible next hypothesis.

Rule systems are tyrannies in architecture. Check the appendix of Philip’s The International Style or review Patrick’s Spenglerian codification of Parametric parameters.

Rule systems are for believers.

Rule systems codify architecture.

Wanna be a radical architect, kid? Just follow the leader………

The rulers’ code is readily teachable and learnable.

It’s convenient.

But when architecture is teachable and learnable, it’s simultaneously repetitive and redundant.

SCI-Arc students and faculty are perpetually in search of what the rules don’t rule on.

That doesn’t mean SCI-Arc will warranty such discoveries.

Discovery is an aspiration.

Imagination in architecture should exceed the rules and tools of the contemporary discourse.

That’s the critical intellectual mind set.

SCI-Arc warranties that the context in which students speculate on new architecture posits the coming of that yet to be imagined prospect.

You have our word.

Eric Owen Moss
Director
FOREWORD

It is what is and it is what it is not.

Students, guest critics, and faculty; as we get ready to discuss our graduate thesis, I wanted to say a few words about its context.

This is meant neither to discourage you, nor give you too much permission to do things that you shouldn’t. It is meant to help you focus on this as a particular “format” for architecture and for SCI-Arc.

A thesis is an individual input into the collective conversation called architecture. It’s not about what architecture can do for you; it’s about what you can do for architecture. As peculiar as that may sound, the sooner we realize that, the sooner we gain the discipline to do what we really want to do.

We need to understand, right now, that whatever amazing thing we think we might know or whatever tricks we think we can do, none of it is nearly as original as we might think it is. But that is O.K. Thesis, believe it or not, shouldn’t be about inventing something completely from scratch that nobody has ever seen before. Instead, we like to think that it’s about identifying some very specific and hopefully important part of the larger architectural conversation that is presently at a critical inflection point.

This is probably the last chance for our students, at least for a while, to come up with a project that can deliberately go beyond what is possible or even what makes sense. Because we are arguing that this is the direction where things are heading, this makes a thesis a very specific contribution to a very specific conversation.

A thesis can shift, in its own small way, where we are going as a discipline. We need to understand where our part of the conversation came from, where it is now, where other people think it’s going, and then figure out how, in our own unique way, to move the line of what is possible and what is impossible. SCI-Arc, which in case you haven’t figured out by now, is just as much a madhouse as it is an architectural school, is most certainly not a traditional place in which to enter the conversation. If you are smart you will use this to your advantage. People expect you to do something unusual and amazing. So, if you don’t, you will disappoint them. Or surprise them.

Here at SCI-Arc we don’t really see architecture as part of the world, as much as we see the world as having: (1) parts that are architecture in which we are interested, and (2) parts that aren’t architecture, which we are happy to steal ideas from, and hope that the rest will take care of itself. It is assumed that you can and will borrow inspiration from the strangest places and mix them together into something new, hopefully something that is not horrible. It should go without saying that our job is to bring all of this stuff into architecture and figure out what it can do for the architectural conversation. It’s somebody else’s problem to worry about it the other way around.

One real last point: be optimistic. Even if we think the world is going to hell, then that only means it’s our job to design an escape route for us all.

Hernan Diaz Alonso
Graduate Programs Chair

THESIS PREP SYMPOSIUM

Elena Manferdini: Graduate Thesis was reintroduced at SCI-Arc six years ago. This period represented a playground for a re-shaped young graduate program to learn “how to play.” This occupation (that one could describe as imagining a word in absence of verification) has been geared towards individual creativity based on no pre-existing principles. As a result, the thesis program at SCI-Arc has been able to picture architecture in far more elastic terms. Final thesis projects appear as if they have reached a rare tension between individual interest and group investigations.

Now that SCI-Arc as an institution has unquestioningly reached a more mature stage, it is important that the thesis program demonstrate its ability to own the choices of what architects need to think about today, fostering a broader culture of ideas and inquiries and position-taking able to direct the goals of design.

What do designers need to think about today and how does thesis contribute to a broader position-taking at SCI-Arc?

Sanford Kwinter: Responding to the world and responding to our historical period is something we need to do. The thing about this, of course, is that we are weary of many of the cliché and routine ways in which this is being done in our field.

Wes Jones: To offer an answer to this question, it would be important to think about this issue from the projected perspective of the architect and the architect’s concern, as opposed to the more general concern of the designer; and recognize that the thesis could contribute or could have something to say, at least, within the context of that possibility.

Jeff Kipnis: If you look at a school of fish, it behaves as an intelligent organism, as a collectivity, precisely because each of the fish is not trying to behave as that organism. Intelligence comes out of the interconnectivity. What you want to do is resist the temptation to turn it into a monoculture. But when architects speak of crisis, population problems, or sustainability, there’s a tremendous urge to make those mono-cultural, whereas the ecological model demonstrates that the most intelligent thing to do is to proliferate specified differences and let the swarm intelligence sort it out.

Sanford Kwinter: For the game’s sake, I will continue to play the role of the generalist today. I think Jeff is trying to dismiss the scope of questions that architecture should be permitted to ask, and this is where I would disagree. Population explosion and sustainability problems are two examples of the scope of what architecture should be encouraged to address, especially in a thesis.
Jeff Kipnis: When you wipe out a diversity of species in order to plant one plant for economic reasons because it’s an urgent plant to have (like a solution to poverty or sustainability); that’s exactly what you would like to do in the field of architecture.

Wes Jones: Thesis, as an exercise, wants to have one hand, so to speak, in the larger questions like sustainability or poverty. The consciousness of the individual thesis position in relation to that actually makes it - it seems to me - more interesting, raises the stakes, invests it with more potential risk as it surfs this line between individuality in the monoculture, phenotype, and genotype.

Hernan Diaz Alonso: When it comes to an architectural thesis I’m interested in the question of “relevance” more than one of “importance.” I’m coming in the question of “relevance” more than one of “importance.” I’m coming to the conclusion that the idea that the discipline and the practice can come together is gone. So, you can have a general approach and then you have to work in a much more specific and isolated way.

Sanford Kwinter: Architecture today, perhaps more than ever before, serves as a kind of aggregator of knowledge and of different bodies of knowledge. There are lots of questions about how one will define the scope of an architectural problem today. I think thesis is an optimal place to test these new forms of thinking. That’s why it should be treated as a place where architects are protected to assemble hypotheses that may appear to have very little hope of adoption. It’s what they used to call high risk, high yield hypotheses; high risk of failing and astounding yield should they succeed. Thesis should be hypothetical. It should be imaginative. It should be bold. It should be rigorous, and it should ask fundamental questions.

Wes Jones: I think that risks only mean something within a context of the potential for the failure.

Hernan Diaz Alonso: Is it possible for architecture, or any kind of hypothesis of thesis to really have risks? I think we’re getting to a point that nothing seems to be that risky any more.

Sanford Kwinter: What occurred to me is that this is a school that has prided itself on a kind of exuberance and a kind of speculative production. At the same time, the tasks are different today; the mood is different today. I happen to feel that it’s a very good wager that if you go against the tenor of your times, you’re standing a much greater chance of coming up with something important.

Elena Manferdini: The current direction of thesis tends to be either an individual one (revolving around a personal interest) or an allegiance to a current debate.

The first one is usually a deep interest, propelled by the impatient quest for something different, and is characterized by a personal methodology of work and isolated conclusions. The latter is a collective manifestation, a pact of loyalty, and a form of organized aggression to the status quo of the discipline. Historically a collective front has been proven to be highly effective in galvanizing architects and reaching specific targets.

What is the role of individual vs. allegiance thesis at SCI-Arc and how are these two opposite models helping to focus on problems relevant to the discipline?

Jeff Kipnis: I think there’s something really important about thinking about this question, and that is how you allow conversations of passions to emerge without subordinating everybody into a collectivity. The history of this school is quite interesting as an “ecology.” Instead of giving students thesis topics, topics evolve from the students; students are part of emergent collectivities that are going to be fluid. There are two things that I think are the most horrible experiences of life: being alone, and being utterly annihilated by a collectivity. And so, I think you have to find a way to mobilize organic groups, allow them to emerge and dissolve depending on their economics and flow systems, and then you find they behave.

Sanford Kwinter: I always believe that thinking against the clichés, let’s say, or the routines of one’s time, is a fruitful exercise. It never fails to surprise.

Jeff Kipnis: For me, it’s a measure of a thesis if I leave with completely new ideas. In other words, it’s absolutely essential that we re-nourish ourselves with unexpected information from outside the discipline. And so, to get that balance in the thesis where you have not just a single topic which everybody is pursuing as if there were some kind of master discourse, but also, on the other hand, not so much individuality that there’s a kind of irrelevant atomization, much like has happened in the world of music. I feel like we’re at a very good balance right now, and that you can detect the communications. For the first time ever, we’re starting to see a thesis project refer to a thesis project from last year. In other words, the students are not only referring to other work, but they’re starting to refer to the work of the school.

THE GRADUATE THESIS PROGRAM AT SCI-Arc represents the culmination of the graduate curriculum and tests the school’s ability to synthesize and produce critical architecture. In the past six years certain topics, certain disciplinary tools, and certain terminology used during thesis, have proven to be able to capture the definition and operations of contemporary architecture at their incipit.

Thesis argumentation as structured this year attempted to support these conversations among students; during the last two semesters graduating students joined one of eight clubs and used these venues to share ideas, and ultimately claim and advance the discussion of a common interest.

In the attempt to offer a snapshot of a particular strain of thesis culture framing contemporary currents and trajectories at SCI-Arc, the thesis projects in this book have been structured to follow this division of eight.
“Borders are essential to pass judgement. Borders as metaphors. To be dissolved, when the judgement is passed. Moments of critical positions. Borders: To probe, to surmise, yet undecipherable. To embody borders by their absence. Borders, conceived as passages, compressed, shattered within their own density, to become fragments of new borders. Object and image appear inseparably interlocked by invisible and inseparable borders. Yet the awareness of their inseparability, incapable to liberate then from their own denseness, becomes the essential impulse toward reality. Of a continuously changing reality. Space and time are inseparable, yet exchangeable.”

– Raimund Abraham

What relationships exist from overlapping layers? Even relationships between seemingly unrelated things. Fragments that are created by similar or unlike forces. Lines that are the residue of these layers. These lines manifest into borderlines and border subsets. The judgment of layered spaces ruled by lines. Overlapping geometries of two or more things (example: building and site). There exists a hidden dialectic. Uncovering these conflicting forces by drawing, we see these relationships more clearly.

Finally, bridging to another representation that becomes generative for architecture. Existing Condition: forces -> layers -> borderlines -> geometries

Generative Condition: overlapping geometries -> Fragmentation -> uncover hidden forces -> spatial notions

**ANDREW BROMBACH**

**ADVISOR** Juan Azulay
This thesis is motivated by a curiosity for the capacity of “folding” of architecture to express character in new ways. Intertwining, overlapping, and interlocking have been typologies that have been introduced to the surfaces. In the 90’s came the fashion of the fold. It was the first time the floor, wall, and ceiling not only had the same color, but became part of the same surface. The fold meant a reduction of differences, as all faces became less and less distinguishable.

I try to find a structural and organizational order in the architectural element and investigate how a building system can be developed to accommodate a program. Many layers, horizontal surfaces, or three-dimensional spaces overlap with each other sectionally and plainmetrically in order to create larger spaces and connected spaces. A constant negotiation and aggregation between smaller elements to create a larger whole within is the volume of space created.

Continuous surface traverses its way through the entire building, sculpting distinct spaces that creates unique spatial conditions. Apertures created by the surface undulate into slightly claustrophobic and ephemeral spaces (short lasting) which then culminate into a larger space of aggregation.
WEIGHT SHIFTING CORNER

To achieve dynamic shifts in viewers’ perception, architects traditionally arrange solid and transparent objects as elements which represent absolute and opposite roles: lightness and heaviness. Additionally, architecture can be read in two ways: as a volume with character, and as a divider, which leads in different directions when standing at the corner. Depending on how transparency is applied, viewers have different perceptions towards the architecture, and that becomes a key to read it. When applied on the surface, it implies an object as a volume; when applied as holes through a wall, it reads as a divider.

This thesis deals with the perception of the lightness and heaviness of architecture, and explores various methodologies of shifting the definition of architecture between the wall as a volume and a divider. To test this issue, this thesis focuses on the corner due to its perspective effect. The architectural corner has dynamic properties in relationship to the building itself and the site, and the perception of lightness and heaviness are more exaggerated.

This thesis blurs the boundary between the solid and transparent properties of an object, letting the transparent part reveal a sense of gravity and affect the whole architectural and spatial composition. By extracting the properties of the objects, we read the architecture beyond the limitations of its form, and its sense of the weight is freed from the object itself. Normally, we read a solid object based on the lighting and the shadow it reveals. After the form and the solid properties are deconstructed, the object itself can be considered a three-dimensional transparent canvas with an opaque painting. Then, we can recognize both the original geometry as well as the opaque figure at the same time. The figure-ground relationship provides a new perspective where we sense the geometry and figure in a simultaneous double-reading.

If there is a way in architecture to pursue a sense of freedom from boundaries and gravity, rather than avoiding the heaviness, this thesis assumes it can be released by shifting its definition and boundaries.
This thesis is about Infinite Involutions. Topology investigates spatial properties that are preserved under the continuous deformations of objects and thereby “relinquish[es] all formal idealities.”

The investigation of continuity in contemporary architecture has resulted in a limited range of continuous formal deformations. Most contemporary architecture dealing with continuity primarily concentrates on formal developments in topology rather than utilizing characteristics of continuity on several scales.

Indeed, the discussion surrounding continuity has tended to focus exclusively on exterior performance and envelope pattern, rather than on more profound architectural effects. The multilateral potentialities of involution are based on how involutions show different behavior on various scales as expressed through the spatial organization, structure, and details. In this project for a floating library, the initial topological idea that comes from involution relies on the logic of continuity and is instrumentalized for the appropriate development of each level of hierarchy in the library as the main program. Through these serial logics and systems, continuity is incorporated into a new phase characterized by variations of material in multi-layered spatial organizations that are based on monolithic surfaces. The topological involution is coupled with materialistic involution based on how involutions show different behaviors from multi-layered spaces that have different scales. The application of glass forming techniques in Murano to articulate the involutions, specifically for fenestration in the library, will actively accelerate a discussion regarding localization in architecture.

Using elasticity as a device for design, infinite involutions trigger the discussion reconsidering the configuration between architecture and ground rather than a typical way to build. Taking into consideration the environment of Venice where inundation of the ground level frequently happens, this library selects a floating system as the means of occupying ground. This project provides a multilateral investigation regarding the potential of continuity in architecture. Ultimately, the logics of spatial organization and the articulation of multi-layered space based on monolithic surfaces will be developed through advanced architectural design technology.

The existentially constructed communities of urban dwellers are often displaced by accidents of both human and natural origin—politics, war, economic disaster, hurricane, earthquake. After all, where was the role for architects in them? What could architects do to turn these accidents into affirmations of the human spirit? Architecture is about spacing. How can architects define the space for the events, for the unpredictable?

In Event-Cities, Bernard Tschumi argues that there is no meaningful relationship between a space and the events which occur within it. This conclusion reveals the complexities of the architectural process and the texture of architectural events that define the nature of urban reality.

The Invelope explores a new scope of architecture to redefine the boundary between interior and exterior, producing a nuanced differentiation of space through a partially inverting envelope. As such, it offers an ambiguous form for the object. At certain moments, the negative spaces will be generated if a series of these objects are aligned together. Thereby, the Invelope holds a conversation between positive and negative, interior and exterior.
MULTIPLE BOOLEAN OBLIQUE SPACE. Architecture is symbolical of the age. The notion of my thesis is to redefine “the function of the oblique,” which was advocated by Claude Parent and Paul Virilio since the 1960’s and represents the architecture of this generation.

Historically, architecture expands for horizontal movement in the agricultural city (Broadacre City, Frank Lloyd Wright), vertical movement in the industrial city (La Ville Radieuse, Le Corbusier, 1932), and oblique movement in the information city. The world of the oblique movement represents dynamic design, including two other types of design at the same time. Vladimir Tatlin was the representative of constructivism, creating the 3rd International Tower, and DE constructivism came out as an atavism of constructivism. DE constructivism rejects consistency and reflects the worldview of fickleness, which means, it rejects architectural stability such as horizontal and vertical.

The oblique demonstrates horizontal and vertical as a representation of comparison and changes the order of the key notion in architecture. Order as a mechanism is created for the purpose of defining the clear boundary between nature and architecture. Functions such as stair, wall, slab, and structure include various possibilities of oblique. These possibilities are made more sophisticated by boolean space, creating complex compositions.

ADVISOR: Marcelo Spina
With cities growing denser and increasingly generic, architecture’s formalist opportunities to create iconic forms are disappearing. Architecture must cross the threshold to engage the re-emergence of interiority, where the inherent friction and complexity provides for a wealth of possibilities.

This thesis shifts formalist maneuvers from external massing to aggressive internal reconfiguration by way of interior massing, which at key moments registers as external conditions. Specifically, the reconfiguration shifts internal logic from an organizing column grid to a structural ceiling taking on mass-like qualities to choreograph spatial volumes.

Architecture operates best as incomplete. Internal reconfiguration affirms architecture’s status as incomplete by navigating through the existing interior-scape of a city. The act of reconfiguring accepts a pre-existing structure and pre-existing program, and all the intrinsic complexity, while striving to incorporate a new architectural/programmatic element. This internal reconfiguration does not attempt to harmoniously resolve the friction between the two opposing programs. On the contrary, the internal reconfiguration exploits the friction by cultivating a threshold where two opposing geometrical conditions—the rough (the market), and the refined (couture boutiques)—appear stitched together, creating instances of simultaneous existence.

**INTERIORITY COMPLEX: MASSING AS AN INTERIOR STRATEGY**

**ADVISOR** Hernan Diaz Alonso
This thesis is a transmutation in tessellated surfaces of the architectural envelope. Transmutation in this thesis is defined as the transition from one state to another. M.C. Escher’s drawing, Sky and Water, shows a single tessellation with two different, yet independently identifiable shapes, that transition into each other. This illustrates that a history of state change can form in a single tessellation system. This thesis explores and documents the transmutation, a history of transition, on an architectural façade.

The handcraft technique of crochet, a highly mathematical system, is used to create a thick skin based on the undulation of hyperbolic surface, mathematical 3D geometry that increase its surface up to infinity. Because this transmutation shows the transition according to time passing, the building envelope becomes thicker and thicker as the history of change accumulates.

Applied to a plastic surgery clinic in Beverly Hills, where people also change their physical and mental states, the building is a stage for transmutation in many forms and layers.
BRANDON VICKERS

ENTROPIC TENDENCIES AND DEGENERATE FORMS “The basic kinetic form in which space develops is metabolism, and its process is expressed as an increasing entropy. ‘Construction’ (minus-entropy) which is repeatedly put in during the development of space metamorphoses the ‘organization’ of the space. Modern architecture needs a methodology of metabolism and metamorphosis.” – Kisho Kurokawa, Capsule Declaration

Fuck the beauty pageant... we want the freak show! Contemporary design’s enduring emphasis on anomalies and the grotesque, stemming from popular culture, has shifted concepts of architectural techniques. The tenacious referencing of works by Francis Bacon and the resurgence of the writings of French philosopher Georges Bataille, illustrate this shift. Utopian ideals of flawlessness and perfection of form are no longer culturally relevant or aesthetically desirable; the great age of mathematics and physics is coming to an end. We are moving into the age of the algorithm (calculation to computation). No longer do designers seek to perfect the results of a non-perfect process. Instead we shift toward perfecting techniques that generate non-perfect results. A precise method for generating the ghost in the machine. The stability of symmetry, repetition and balance give way to the anomaly. The unstable. The informe.

Entropy, as defined by Rosalind Krauss and Yve-Alain Bois in their exhibition on the informe at the Pompidou Center in 1996, is the irreversible reduction of everything to sameness. Whereas form becomes formless, finite becomes infinite and individuality becomes totality. The 1970’s saw a surge of entropic techniques on architecture. Buildings were being assaulted, sliced, destroyed, exploded, masked, and drowned. Superstudio flooded all the monuments of Italy. Eisenman cut the Frank House to shreds. Matta-Clark split the suburbs of Detroit. The Austrians and French were blowing things up and Robert Smithson showed us the entropic consequences of dirt on an abandoned shed. Around this same time Kurokawa published his Capsule Declaration in which he identifies the importance of architectural environments that have the capacities to embrace these entropic tendencies.

The study is sited in an anonymous vertical slum. Chosen for its hyper-dense urban condition, the slum is used as an existing mass capable of supporting the entropic process. The systematic removal of material from the mass is based on a computational algorithm developed to facilitate this process based on given criteria. The technique is composed of three components: graphic (2D), texture (2.5D), and volume (3D). These components combine to dissolve the figure into abstraction. To blur the legibility of discrete hierarchies and through this disintegration produce a new set of intensive (entropic) affects. A new formal language born of a degenerative process.

ADVISOR Hernan Diaz Alonso
In the last two centuries, human power to control and shape the surroundings we inhabit has been continuously augmented, to the extent that it has become a truism to speak of a man-made world. In this context, vehicle design has been highly influential in the production of an aesthetic, as well as radically altering the qualitative nature of the life we live. For example, we have a specific term to summarize modern America’s car-centric social organization: Autoculture. The word means all societal attributes directly related to our utter dependence on the personal automobile. Here I won’t talk about autoculture. But I insist that this kind of industrial product has great influence on our aesthetic value.

Speed is the core value during the whole process of vehicle renovations. Obviously, it cannot be argued that engineers were inspired by artists to analyze how objects move in the air. In fact, artists, like engineers, were prompted to discover new forms when they began to focus on the material and tactile problems of objective sensations. Whether in the design of a mountain bike, a family automobile, a high-speed railway, or a Boeing 747, a single principle has ultimately prevailed: aero-dynamism.

A streamlined motorcycle will attract my eyes without question. What interests me more, however, is the universal taste behind the delicate machine, such as the taste for smooth, non-angular forms and polished or lacquered surfaces, and for large panels, or vivid colors, or large block letters. In the context of my thesis, I attempt to transplant these beautiful qualities and values into an architectural project. My speculation is that contemporary culture has adapted itself to autoculture, and that a new aesthetics is emerging that combines features that play an important role in contemporary vehicle design as well as architectural design.
This thesis proposes a volumetric and spatial analysis of rolling and unrolling, defined here as rotational folding and unfolding techniques. This thesis explores a strategic misuse of Peter Eisenman’s pre-digital volumetric tactics.

In architecture, formal and spatial advances occur hand in hand with new techniques. Although the theories and practices of many new techniques are valid and have enriched the architectural discourse, “misusing” an older technique specifically and strategically can produce unforeseen results. The idea here is not to reject current advances or take a nostalgic stance via outdated techniques, but to use those techniques with formal, spatial and topological insights in a different way, un- or under-explored at the height of their popularity. In this thesis, therefore, the goal is to purposefully misuse or to change a pre-existing technique in order to achieve new formal and spatial results.

Peter Eisenman’s fold/unfold techniques during the 1980’s and 1990’s, perhaps best exemplified in the Rebstockpark plan, presaged early digital techniques but made significant impacts on later digital projects. Roll/Unroll reassigns the directions of the fold/unfold of Eisenman’s pleats. While pleats have repeated folds in alternating directions, rolls require much more strategic sequencing to achieve their overall rotational qualities. Because of this, in Roll/Unroll, relationships between positive/negative, open/closed, and inside/outside spaces are different from those in pleats.

When applied to the Broad, an art museum in downtown Los Angeles housing the private collection of the Broad Art Foundation, Roll/Unroll creates a horizontally-spiraling arrangement of gallery and vault spaces. Visitors and pedestrians can move about, above, below and through these spaces, even without entering the building. Therefore, Roll/Unroll attempts to redefine the relationships among visitors as well as among visitors and passers-by. This permeability, combined with the unique programmatic requirement of a large public parking lot serving the entire Grand Avenue area, makes this private museum a public gateway for the larger community of major cultural venues of Los Angeles.

Advisor: Peter Zellner
By way of a simple radius-based curve versus a spline-based nurbs curve that introduced architecture to the digital and many of its current predilections, this thesis appropriates the notion of pedomorphism from evolutionary biology as a developmental freezing of adolescent traits into adulthood, through the negation of contextual pressures that otherwise lead the course of formal maturation. Underlying this subtle and specific trait shift is the suggestion that rather than relying on new technologies alone to drive changes in design, novel conditions of space and form can be imagined through alternate evolutionary paths from specific moments in architectural history, while maintaining a critical engagement in contemporary spatial practice. This approach is neither a nostalgia for jurassic technologies nor a rejection of current tools, but rather an observation that architecture has, in the past thirty years, developed a robust set of tools that when viewed chronologically appear to only carry one movement to the next, but when disassociated from their cultural context, often misinterpreted, and sampled into current architectural paradigms, have the potential to move beyond the techno-savvy doldrums of digital artistry and instead towards a messy, absurd, and degenerate architecture.
Innately, we hunt for patterns or recognizable figures in order to register and process our complex world, but when a figure is present yet blurred, an oscillation occurs between the legible and the blurry.

Engaged in the ongoing dialogue concerning figural perception, and the architectural effects of blurring, dissolution, and misrepresentation, Fuzzy Figures acknowledges the many recent techniques derivative of the scripted line, the use of hair, and the particle, and attempts to refocus attention on the pictorial surface and its potential to curate multiple readings.

Fuzzy Figures is a study of the ethereal dissolution of perception and legibility of an archetypal primitive: the cube. The aim is to provoke sensation through the careful manipulation of texture, geometry, coloration, and finish in order to engender new and diverse interpretation. The painterly technique of the “crosshatch” or “jagged splice” as a pictorial unifying device is studied in an architectural context, and the exploration manifests itself in the form of a proposal for a new downtown Los Angeles school building for the California Institute of the Arts.

Referential to James Rosenquist’s painterly use of jagged crosshatching, Fuzzy Figures allows the architectural surface to oscillate between slivers of indeterminable foreground and background. The blurring of the figural boundary of the massing, and the misregistration of the archetypal form of the cube itself through pictorial effects, creates room for multiple interpretations. These incongruities in the perception of the figure beget simultaneity of moods and messages. Allowing architecture to exude multiple readings in this fashion can fuel a culture’s ability to grow, question, create, and tolerate change.

**Advisor** Elena Manferdini
FAMILIAR PRIMITIVES  This thesis uses familiar primitives and operations among them to generate complex spatial systems that retain a high level of formal legibility and clarity.

Throughout history, primitives have been used as an expression of monumentality, religiousness, or even utopian dreams. They carry an intrinsic value and formal expectancy. Since childhood, we have been playing with these basic shapes, creating a predisposition to them. In contemporary architecture and with the use of digital tools, spatial configuration has advanced to a degree in which the audience outside the architectural field can no longer recognize it. By bringing back primitives, we can introduce a level of recognition for most people, and establish a foundation for the excessive formalism that can be achieved with contemporary techniques. With the use of specific tools, primitives could offer the first step for a system that can then evolve with its own complexity, retaining its familiarity to a broader audience, as well as a level of intimacy and expectancy to be understood at its core.

Cuba has been a country in constant search of its own identity since they first became a Spanish colony. In this search they found their identity in music through a mixture of American, African and French influences, and in religion, by merging the Catholic Church and African beliefs. In art and in literature, they were able to express their own ideas and positions. But not in architecture. The architecture of the country has seen many styles, from colonial to modern to regionalism, but none expressing Cuba’s unique culture, struggles and views. In the early 1960’s before the Soviet Union was fully established in Cuba, the government commissioned a design and construction campaign in search for their own architectural character, resulting in art schools and isolated houses, which were then forgotten as they did not fit the later views of the government.

This project reexamines the issue of identity as it questions and searches for its own character, for its place, its context...El Malecon. If the current state of the city is not perceived as old, how to make it new? The city is decaying, it is deteriorating and collapsing, it wears its scars. This project embraces its condition, to relate to what people in Havana are familiar with and understand as architecture, to move back and forth between the old – the primal, the familiar – and the new.

ADVISOR  Hernan Diaz Alonso
My thesis is about an architecture that hides in plain sight. It hides by inducing a heightened state of perceptiveness in extremely ambiguous environments. Details command attention in this type of environment, and the more one focuses on the details the less one perceives the building as a whole. Through extreme ambiguity the building can hide in its details.

As contemporary architecture becomes increasingly focused on optimization, the role of the architect and the importance of the experience of space itself becomes ambiguous in the future of design. Universal technologies also pose a threat to design in that “utility established as meaning generates meaninglessness” (Hannah Arendt, The Human Condition, p 154). Consequently, I propose hiding as a strategy for resisting an architecture that results in a generic spatial experience; and to this end I suggest a contradistinction between simple hiding and hiding in plain sight. When something is simply hidden it always exists as either completely hidden or obviously found, while something that hides in plain sight always exists between these two states. Hiding in plain sight is thusly a more powerful strategy for resistance because of the specificity required to achieve this state.

Many examples of the power of details in ambiguous environments exist in the work of artists Donald Judd, Dan Flavin, Sol Lewitt, Hanne Darboven, Carl Andre, Ad Reinhardt, Siah Armajani, and Dan Graham. Particularly successful at this are Judd’s 100 untitled works in mill aluminum as well as Lewitt’s line drawings. In the Labyrinth by author Alain Robbe-Grillet, leader of the Nouveau Roman movement, describes an extremely ambiguous setting in which a heightened state of perceptiveness triggers transcendent experiences for both the protagonist and the reader. The author uses grids throughout the novel as both motif and spatial organizer, a technique described by William Empson’s 7 Types of Ambiguity as the seventh and most extreme type of ambiguity in literature and architecture.

An architecture’s ability to succeed in hiding depends on the ability of its experience to convince the subject of its nonexistence as a building. Thusly, the experience alters the perception of the building by specifically appealing to the ways in which the subject’s body and mind respond to spaces. It actively avoids obvious readings that would categorize it as an optical illusion or simply hidden. The intent of my thesis is specifically to explore hiding in plain sight as a strategy to resist genericism in architecture; and generally to define a method of practice that re-establishes the role of the architect as culturally indispensable to a rapidly emerging global civilization.
ORTHODOX REPOSESSION “Modern architects abandoned a tradition of iconology in which painting, sculpture, and graphics were combined with architecture. The delicate hieroglyphics on a bold pylon, the archetypal inscriptions of a Roman architrave, the mosaic processions in Sant’Apollinare, the ubiquitous tattoos over a Giotto Chapel, the enshrined hierarchies around a Gothic portal, even the illusionistic frescoes in a Venetian villa, all contain messages beyond their ornamental contribution to architectural space.” – Robert Venturi, Learning from Las Vegas

The aspects of geometrical, functional, and economical values have always implemented to be considered as the driver of design. Within this value system, geometry acts as a visual organizational strategy, while exposed structural paradigms refer to the functional understanding, and spatial value is measured within economic aspects. Within this setup, the conceptual spatial characteristics driven by cultural context is neglected - the loss of cultural communication.

This thesis emphasizes how architecture could be generated by the importance of its local cultural reference rather than the traditional contemporary values.

The calligraphy of Chinese characters is an important and appreciated aspect of Chinese culture. It distinguishes itself from other cultural arts by its emphasis on motion, and it is charged with dynamic life.

The Chinese calligraphy of “Dragon” is not only visual linguistics, but also it has a deeper symbolic meaning than its appearance. According to the Chinese mythology, Chinese dragons are legendary creatures in the Chinese mythology. Traditionally, Chinese dragons symbolize potent and auspicious powers. The dragon itself is a symbol of power and strength. Historically, Chinese people use the term “Descendants of the Dragon” as a sign of ethnic identity. The symbolic significance and value to the Chinese cultural is essential as it is a symbol of ethnic identity, and a representation of pride and dignity.

The notion of this dialogue between cultural significance and architectural exploration serves as a conceptual value to its content and built environment - an orthodox repossession.

ADVISOR Volkan Alkanoglu
Twins are strange.

The conjoined twin is a special case of novel symmetry. Greg Lynn, in his article “The Renewed Novelty of Symmetry” argues “that novelty is the organizer of symmetry.” Lynn’s novel symmetry could better be understood as novel symmetries, or rather an organization of elements, or primitives, which themselves display symmetry about an axis, but their overall organization is anything but symmetrical. According to Lynn, this is a complex organization built on endogenous (the unfolding of unmotivated internal directives toward diversity) and exogenous (the infolding of external constraints towards adaptability) differentiation.

The notion of conjoined twins turns Lynn’s organization of symmetrical primitives on its head. The end result of the overall organization is a near symmetry which produces a series of predicaments for the parts and secondary organizations. The near symmetry of the whole produces the differentiation of the parts through the same endogenous and exogenous differentiations. While, in many ways, this may be similar to a more classical definition of symmetry, this is a monstrous symmetry, much like the actuality of the human finger mutations of William Bateson, meant to produce destabilization not only in the way the project looks, but in the way it acts and the way it is used. Twins have the benefit of both being destabilizing and seemingly predictable. Unlike the common understanding of symmetry, conjoined twins are not mirror images, but rather show simultaneous extreme similarity along with extreme differentiation.

Sensation can be both immediate and abstract, as much about the present as it is about the near future and the recent past.

Symmetry, rather than producing a stable identity, can instead produce a slippage between similar identities. A related sensibility exists within theater in the form of verfremdungseffek, or literally “to make strange,” originally coined by Bertolt Brecht. Here, recognition will impossibly double or unfortunately slip away towards “the other.”
The history of architecture is rich with significant examples of formal adjustment in aid of visual correction. The strict geometric and proportional rules underlying drawing were often locally adjusted on site to mitigate naturally occurring perceptual distortions in construction. It can be said that the optical experience of strong architectural form is, and has been, frequently mediated through a corrective distortion, invisible to our own eyes.

The aim of this thesis is to subvert such “corrective distortion” though alternative, intentionally attenuative techniques best described as “correctly distortive.” Situated along the historical traces of The Great California Cycleway in the Arroyo Seco, the project employs such techniques to create a new kind of distorted continuity in a landscape otherwise divided.

**FORSTER RUDOLPH**

**ADVISOR** Mohamed Sharif
The project will explore a recoding of the archetype in architecture as a way of reinterpreting it. It will look to ephemerality through drawing/projection as a way to reinforce or erase the archetype of its associations while highlighting the human action/interaction as key in the reframing of the notions of the type.

ADVISOR: Florencia Pita
This thesis is using familiarity as a driver to bring unfamiliarity into architecture. Familiar and unfamiliar plays a pivotal role in our perception of architecture. In sculpture the incorporation of some familiar aspect may be used to produce legibility. The transformation of the original figure produces a strong impression, making the viewer aware of the context that produces legibility and familiarity. This approach has often been used in art. This thesis explores the use of this technique on an architecture scale.

On an architecture scale, an important constituent of familiarity is proportion. It becomes a channel leading the viewer to catch the sense of scale in architecture. When people get the map of architecture, the sense of consistency in architecture builds trust to let the viewer understand the differential transformation and deformation.

Arches are both functional as well as iconic in architecture. A triumphal arch is a non-functional arch; rather it is a monumental sculpture. In Paris, triumphal arches approach the scale of entire buildings in the surrounding urban fabric. The triumphal arch refers to both the familiar and unfamiliar elements in the city. This idea provides a scenario of new perspective to view and sense architecture, and proposes a methodology of representation.

There are four techniques inspired from art works. They is awareness, synthesis, becoming, and projection. These four kinds of representation in architecture speculate on the effect of architecture in a city. They represent a different level of familiarity and unfamiliarity, interacting with the viewer in the city by a distinctive context. [The radical condition from the city which gives the different perspective decides the specific gesture of application on the original arches.] My proposal is to interrogate the authority of the familiar object by introducing aspects of unfamiliarity in architecture.
Technological advancements change many things humans experience including architecture and culture. The relationship between technology, architecture, and human activities can be observed in the evolution of the market typology. The traditional market opened for a few days at a time and functioned as a social gathering place for local people and traders from remote areas to buy, sell, exchange information, and establish personal relationships. Since industrialization, the market has changed according to economic efficiency and its space is used only for buying and selling goods, eliminating the cultural and social functions. Furthermore, advances in telecommunication technologies such as cloud system have made people’s lives faster and more convenient. These developments have also resulted in social problems, like addiction to hand held-devices and internet surfing, or ‘Hikikomori’ which is a phenomenon of reclusive people who have chosen to withdraw from social life. One of the inevitable aspects of these developments created by removing opportunities to touch and feel objects is a distance between perceived and actual mass and materiality.

This thesis proposes a new market typology in order to recover some of the social and cultural experiences that have evaporated through rapid technological changes and to provide solutions to some of its aforementioned social side effects. The space of this marketplace is configured as a cloud, which paradoxically is an advanced technological term. This emphasizes offline experience in the post-digital age marketplace.

This thesis focuses on the relationship between surface and mass where heaviness of the mass is reduced through surface operations. Evacuated mass performs as an occupiable roofscape where the relationship between mass and interior space shapes the architecture. The ambition of ‘Massive Cloud’, a new market typology, is a restoration of public engagements with the materiality, mass, and texture of the environment that surrounds us.
WOUNDING / SCARRING

“There is something beautiful about all scars of whatever nature. A scar means the hurt is over, the wound is closed and healed, done with” (Harry Crews), but never forgotten because the scar leaves a permanent mark. However, during a healing, the wound is in a continual danger of breaking the skin and bursting out again unless all imaginable care is given to heal them up.

This thesis proposes to capture the well balanced and equal juxtaposition of the destruction and the emergence of new being, the precise moment when the order and disorder is fully integrated; that neither has a hierarchical stand. As in the Japanese art of wabi sabi, the thesis exposes the intuitive appreciation of a transient beauty in the physical world that reflects the natural cycle of growth, decay and death. It seeks the purity of imperfection and profundity in nature, and in aesthetic sensibility, that finds a melancholic beauty in the impermanence of all things.

The site is located in Miyagi, Japan which was hit by the tsunami earlier this year, and the thesis explores the existing destruction site aftermath of the phenomenon. The residue of the disaster prevention center will interact with the new addition to create a youth learning center. Taking destruction as the rhythm of nature, the thesis suggests conveying the interplay between devastation and preservation, exposure and concealment, order and disorder, and planned and spontaneous. It is neither a reconstruction nor a restoration, but a healing and scarring. Architecture emerges from the destruction, creating an entire new existence and both co-habit to create a transcended unity. It challenges to unlearn the views of the conventional beauty and rediscover the intimate beauty found in the smallest details of nature’s artistry.

CHRISTINE YOON
JEAN CHOE

ADVISOR Coy Howard
Within the current discourse of technology and architecture, the notions of tangibility and intangibility of technology can be quantified through exploitations of light and sound. Correlations between music and architecture have been commonly made throughout history due to their all-encompassing nature. The concept of space-time is present within both genres and the perceived linearity of each experience, where the whole of the experience can only be identified at the culmination of the experience. Le Corbusier and Xenakis explored these aspects of music and architecture within the Philips Pavilion/Poème Electronique.

Through methods of immersion and proximity, the concept of spatial awareness can be utilized to enhance the situational experience within formless architecture. Cedric Price’s Fun Palace provides precedent for such formless architecture and the creation of indeterminate spaces. This allows for participation within the dialogues of building versus inhabitant, ephemeral versus permanent, and non-monumental versus monumental.

This thesis is seeking to find the balance where phenomenological and intellectual inputs create architectural indeterminacy, using the distribution of sound and light to subsequently bring the discourse of Xenakis to the forefront of technology.

By means of this thesis, I wish to challenge the notion of the necessity of the presence of physical enclosure. Prove the intangible qualities of technology able to provide tangible architecture. Utilize music and sound, along with various artistic genres, and infrastructural networks and structures as generative tools for creation of tangibility within an architectural space, providing a physical environment within the unphysical world. Music and sound within this project will serve as the symbolic and generative act, which will create a dialogue between the performance (interior) and the architecture and urban context (exterior), whereby both the music and the architecture simultaneously possess active and reactive qualities.
INTERFACE: PHYSICAL MANIFESTATION OF DIGITAL SPACE  The central idea of this thesis is to challenge media’s accepted role in today’s society and intertwine its dynamic behavior patterns with architecture. As exploration of digital reality in architectural applications proceeded, it became apparent that the co-dependent relationship between the physical and virtual spaces was inevitable. As a live organism, the building would acquire the ability to respond to the digital stimuli and become a physical manifestation that has nonpermanent, limitless, unpredictable existence.

To take a simple architectural space, enhance it with intelligence of intuitive architectural language and evolve its physical features via digital augmentative tools, is the underlining investigation of this thesis. Instigated by exterior inputs, available media tools take the role of altering the spaces to manifest the progression of the self-evolution. Reaching beyond what modern technology offers, this thesis proposes synthesis of virtual manipulation and physical accommodation.

Expressing the idea of transience in architecture is necessary when adopting fluid tendencies of media, which reflects the fast-changing modern culture.

The inner network of signals and transmitters of media is triggered by a stimuli that initiate a cascade of building’s various processes of accommodation for the subject. Media that embodies the physical appearance in reality, becomes an opportunity for subjects to experience the reactive nature of their physical spaces.

ADVISOR: Marcelo Spina
THE MEGA FLORA PROJECT

The Mega Flora Project is a series of networked ecologies that serve as architectural interventions for toxic urban output, and become agents of subtle environmental change. These integrated synthetic biological systems take into account a logic of an organic tectonic that can allow for architecture to evolve into something that’s closing the gap between architecture and nature.

The Mega Flora Project is made up of a series of creatures that are cultivated by a single user, and pervasively implanted around parts of the city to input waste from their environment, process it, and output as new material ready for use. On a more zoomed out level, the individual systems can be understood as an atomized infrastructure that is effervescing and atrophying throughout the city. These systems are capable of adapting to different sites and toxic conditions based on a specific mode of attachment, which has been indexed for each system. By implementing the human scale of interaction, one becomes an active participant and engages with the real time experience of a transforming urban environment.

MISHAL HASHMI
JAINE SANCHEZ

ADVISOR: Marcelyn Gow
REAL-TIME INDEXING  Coding is a process that, in its reorganizing or rewriting of the original, erases the traces of process usually found in an index. This rewriting, or reading, is often from that which is recognized by formal or pictorial conventions. (CODEX, Eisenman Architects)

On multiple layers, fake building envelopes rely on real-time indexing which is coded as an architectural machine. In CODEX, Peter Eisenman describes code and index as a process that, in its reorganizing or rewriting of the original, erases the traces of process usually found in an index.” An index: the original elements of the existing building which have static relationships and proportional conventions is transcoded into dynamic transformation. In other words, elements are reorganized into intrinsic and extrinsic value in materiality, structural and mechanical or electrical system, and spatial relationships such as the New U.S. Embassy project in London by Morphosis.

This meaning of a classical index does not support overflowing data anymore by some estimates. More data is created in one year than in the whole prior human history. A real time indexing visualizes data and gives us a greater awareness of the multitude of complex index. This indexing is transcoded into three-dimensional matrices of forces and effectuates blobs inside building and blurs the visible borders of two-and three-dimensional surfaces and objects.

The Federal Reserve Bank of New York expresses structural strength, stability and security with the same classical code as was used in the early 20th century. Nowadays, banks do not need to be covered with a thick, solid envelope because banks do not use real money such as gold. Instead, banks try to reveal their data for the public to see and use. For that reason, a real time indexing is coded into colours and forces that operate the architectural machine. These transcoded figures are reflected into the next buildings’ envelope and mixed with digital code. While scaffoldings are conventionally used to wrap other historical restorations, a trompe-l’oeil involves a mixing of real-life perspective and aesthetic distortions, creating a fake envelope that is transformed into the real.
NEW FABRICATIONS FOR ARCHITECTURE  “Only an architectural Luddite would disagree that architecture is the subject of constant transmutation. This transmutation is necessary for architecture’s continued centrality in respect to society. The frequency and amplitude are becoming extreme.” – Neil Spiller, Digital Dreams

If we do not actively engage in developing the technology of our built environment someone else will. The development of new techniques and technologies is an integral part of new architecture. It is not enough for us to simply invent these ideas without testing them anymore. The testing and development of these techniques, materials, and tools will lead to new techniques, new forms, and new shapes which are unanticipated. Through experimentation we will learn how to orchestrate these processes.

Critical to this thesis is the idea that we must actually build, test, develop, and experiment with these tools and processes to intelligently propose using them.

Interface: the first development in this process allows designers a simple way to interact with complex machines. Custom communication software allows the simple real-time interfacing, controlling, and programming of the once rigid and highly complex automated systems for fabrication. This is largely achieved with the use of the processing environment, allowing countless ways of creative interaction and experimentation.

Fabrication tool: with the additional development of the prototype fabrication tool (ron 2.0), the testing of full scale fabrication and control experimentation is a reality. Through making, new forms, ideas, and directions have already emerged... future areas of research are constantly appearing.

The end result is the collapse in the disparity between simulation and reality; the ability to use robots and automation as design tools as well as new ways of conceiving of and realizing architecture.

ADVISOR Eric Owen Moss
DAME BLANCHE The Dame Blanche, The White Lady, is a famous romantic French opera but it is also the name of a classic dessert, vanilla ice cream with melted chocolate.

There are two observations to be made from the Dame Blanche dessert. The initial presentation of two ingredients is deformed when it is mixed; the two clear boundaries are mixed and create deformed surface by movement. The degree of change is variable force and velocity. Secondly, the blending of the ingredients creates lines of white and black. It also partly makes a gray intermixing area that is made of the middle color of each area. This result will inform a new type of performance space.

This thesis project will be the Seoul Performing Arts Center in Nodul Island. The site is limited in infrastructure and is centered along a river. The formal process is taken from the observations of the Dame Blanche dessert. The formal tool is derived from the movement and intermixing. Variable force and velocity will be defined through limited infrastructure analyzed from a city to an island.

Therefore, the first experiment will be a form sculpture by dynamic. It will provide an idea of the shape, topography, and landscape that a new type of topological geometry formed through programmatic typological change.

The second is about the new type of performance space. Created through movement, each element broadly colors program and interaction between external and internal walls and ceiling, and it will be the re-creation of more opened space and present a new type of performance.

ADVISOR Herwig Baumgartner
THE LIVING HOUSE

Hylozism is a Greek term that refers to the constant motion of inorganic nature as evidence that it was in some sense, alive. It is the belief that matter is animate and possibly even conscious, and that life is inseparable from matter. I believe that everything is alive and in a state of transformation. In order for the occupant of architecture to step outside of their self, extend their self-consciousness outwards and blur the line between self and other, an environment will be created where the occupant is reminded that matter is living.

We live in a time where the subject of interdependence is highly important. We are redefining our relationships with nature, artificial intelligence, and ourselves constantly with new investigations and discoveries that have uncovered some of the different ways that interspecies communicate and form relationships with each other.

In this case the occupant and the architecture will have the ability to create a relationship based on the subject of interspecies mutualism, where each derive a benefit from each other. This mutual relationship will create a bonding relationship between the occupant and the architecture, creating an environment that blurs the distinction between animate and inanimate life.

An animate, intelligent house will be designed that will communicate and create a feedback loop between the user and the architectural species. This relationship will begin with basic necessities such as shelter and sustenance, and will move on to more intimate interactions, through touch, sounds, and movement.

ADVISOR Jean Michel Crettaz
Stacking allows for the reading of order, but piles have yet to stand as a unique typology. The stack is defined by specific intentions in its placement and conveys a sense of system and organization, whereas the pile is defined by formal unpredictability and disorder.

It is human nature to present order but it is nature’s intent to create chaos. Piles suggest a sense of landscape, and stacks are defined within architectural discourse. The transition from a stack to a pile does not occur at a specific point; rather, it is a series of transformations. Sculptural attitudes and architectural interventions will demonstrate the relationship between landscapes and objects found through repetition and variation. This demonstration challenges the convention of the stack and the pile as two separate entities. This thesis explores various behavioral and material studies, moving architecture, as an ordering act towards more nuanced, behavioral and disordered ontologies.
A stair by definition is a series of steps that connects one level to the next, typically found inside and around buildings. That is the dictionary definition that assumes the stair as an afterthought resulting in a mundane and banal mechanism for getting from point A to point B; not detracting attention of its own from its outer surroundings.

Architecture has shown that the stair has the ability to become more than movement efficiency but also have its own presence within a building, demanding the attention of its occupants. This thesis explores the separation of the stair from its typically ingrained conformity. Taking the stair from connector piece to a more complex environment, the stair now has the opportunity to regain space and allow for a multiplicity of program potentials. In this project the building contains a figural poche that has been carved away. The enclosure of this space is the stair, the stair wall. An application of overbearing contouring gives the stair wall a great array of paths and pauses, providing a playground-type environment. The stair becomes a building and thus a building within a building.
On December 2, 2010 FIFA awarded the right to host the 2022 World Cup to Qatar, the first Middle Eastern state to have earned this rare opportunity. At once local and global, secular and religious, ancient and technocratic, colonizer and colonized, Eastern and Western, Qatar manifests perfectly the conflicted zeitgeist of the epoch in which we live.

Located in Al-Rayyan, a municipality on the outskirts of the Doha urban area, the planned Education City Stadium and Training Center is located within the so-called “Education City,” an initiative of the nonprofit “Qatar Foundation for Education, Science and Community Development.” The stadium itself will seat approximately 45,000 and is planned to host group matches—as well as round of 16 matches—during the June 2022 World Cup.

The ‘mat-building,’ as an architectural typology, was initially intended to represent the free, flexible and sympathetic spaces of a particular political ideology in a particular political and architectural era.

‘Mat-building,’ as an organizational genealogy, is primarily characterized by the twin considerations of form and growth; form, tied to traditions of production representative of a specific point in industrial history, and growth, existing along a spectrum between formal and programmatic flexibility.

The contemporary ‘mat-building’ seeks a more synthetic integration of these two considerations—whereby the form of the ‘mat’ and its capacity for organizational growth are linked. This signals the possibility of an integrated ‘mat,’ with dimensional capabilities beyond Stan Allen’s ‘thick 2D’ and growth potentials beyond Reiser + Umemoto’s matted ‘event spaces.’

In this project, form and growth are thus representative of not only the fluidity of social and architectural ideals but also of changing political and economic realities. These specific techniques of ‘mat-building’ are employed and exploited in order to reveal and subvert the form and growth of the emerging 21st century world.


ADVISOR Eric Kahn
Cedric Price didn’t use traditional architecture or fantasy in his design of famed project the Fun Palace, rather he developed a radically new concept of improvisational architecture which was capable of negotiating an uncertain social terrain.

As socially interactive architecture, the Fun Palace integrated concepts of technological interchangeability with social participation and improvisation as innovative and egalitarian alternatives to traditional free time and education, giving back to the working classes a sense of agency and creativity.

In Fun Palace, Price broke the hierarchy of the norm, putting spectators and theatrical performers on the same level. Spectators needed to participate in the environment and the architecture would change and interact with them based on their inputs and needs.

The design of the Bank of London is following the same principle of a improvisational, interchangeable, inverse hierarchical environment where managing directors, bankers, and secretaries enjoy similar views and comfort levels as one another in their work environment. Also there is a higher level of transparency between the bank and the clients, which is what the design of the bank tries to portray as the objective and value of the bank itself.

The security measures that require certain parts be more guarded and less transparent will be designed as non-exposed vs. exposed nature offices, meeting rooms, and the trading floor. Even though the core concept of Fun Palace’s interchangeability is vivid in the design, it does not completely follow the concept of a non-solid/loose structure that has no sense of confinement. Here the focus is on shape shifting of the interior and exterior spaces based on the individual improvisations, but with certain restriction and some predetermined rules. The goal is to recapture Price’s use of technology to non-monumentalize a structure by constant movement and change in its interior and exterior spaces, and different forms that follows such changes.
Are We There Yet? Elongated Building Entrances

An investigation of the design of a building entrance informs understanding about how a building negotiates its threshold boundary between inside and outside, how it engages the ground, and how it sites itself in relation to the public streets. These questions are critical as they carry specific values that represent the institution of that building.

Are We There Yet? attempts to shift the perception of entrances from a two-dimensional surface condition where a door is dressed onto a façade, to a three-dimensional spatial condition where the entrance is staged by a sequence of processional spaces in the hope of asking questions regarding inside or outside, figure or ground, and private or public spaces as part of the conversation.

Are We There Yet? intends to elongate a building entrance to the extent where the primary space of a building exists as an entrance condition to allow the thresholds between inside-outside, figure-ground, building–city to coexist simultaneously. This creates an ambivalent spatial effect that may bring about new meanings to the institution that this architecture hosts.

ADVISOR Andrew Zago
THE EXTRUSION AND ITS OUTCOMES  Circles, squares, and triangles—when extruded—are highly legible forms. However, through specific strategies of editing, rotating, and offsetting, the inherent legibility of these three-dimensional forms can be subverted, minimized, and therefore controlled. Primary geometries when extruded create different relationships with one another.

This thesis re-examines primary geometry by extrusion and the novel effects it creates of in-between spaces, complex intersections, and questions of legibility. Circles, squares, and triangles when given a particular editing, rotation, and offset, begin to take on their own character. By investigating simple geometry, one can understand how to distort the basic principles of curvature and form, and ultimately to obscure its reading.
This thesis is about the space produced by egg and box. The two-dimensional oval and rectangle are in sharp contrast for one is curve, fluid and convex, while the other is lineal, rigid, and flat. This thesis aims to find relative relationships between these two opposite forms and connect them together. Through the process of transformation, complicated space would be produced. Most of the egg and box buildings are theaters and concert halls because of their functions. Egg is always the leading character to do this functional duty. Box is more like the assistant to do the unimportant job. Sometimes it acts as the base for the egg, sometimes as protective boundary. It could be explained in a way that box is always made of glass, which might reduce its sense of being. This thesis is more interested in balancing these two geometries. Neither is dominant and they are all indispensable.

Sphere and cube are the extreme form of egg and box. These two simple forms have been brought into architecture for a long time. They are added or deducted to each other to define certain types. But through different methods, more sophisticated space would be created to make the simple form not simple any more. The skill of Boolean and loft are introduced to this process. The former helps to maintain the volume geometry, while the later contributes to soften the transformation.

The final pure geometry form is a cube with a sphere inside. They are connected at the corner of the cube. Inside the sphere, six small spheres representing six programs divide the big sphere. The programs are connected at the aid of lofted surface defined by projected curves derived from the cube and sphere. The outside of the building implies a sphere in the cubic while the inside of the building demonstrates how complicated the most simple volumes can produce.
MISORIENTATION

This thesis explores the non-orientable architectural object as a means of disestablishing a dominance of viewpoint and its associated political problems. More specifically, this goal is endeavored through the formal language of a warped form of one continuous non-intersecting corner, which, through its looping and dodging departures, seeks to eliminate a directional anchoring of object to site.

Allied with a contemporary disciplinary lineage of breaks with, or subversions of power structures and their associated organizations, this thesis works to further these intents in the development of an indifferent architectural object, and to engage the possibilities within the role of the corner as an organizing device. The link between corner and orientability is firmly embedded in the architectural concerns of our historic narrative. From wood to stone, from Greek space to Roman space, the corner problem is one of orientation. And while this thesis is not a direct engagement of the corner problem, this lineage is important for its role in establishing associations of form and viewpoint.

Indifference to orientation and the attempt to disrupt the dominance and certainty of viewpoint seems suited to operating within urban and programmatic contexts of residual political and social strife. Where the embedded organization of site carries the memory of violence and suffering, a different means of organizing the world - one which occupies space in a manner contrary to the normative - seems opportune.

KAINOA WESTERMARK

ADVISOR Ramiro Diaz-Granados
Crossing disciplinary boundaries is a phenomenon that persists to this day. The advent of digital technologies has allowed contemporary architects to use the same tools to create buildings and small objects alike, further breaking the barriers between architecture and design.

In my thesis, I will explore the transformation of a single form into multiple scales with the use of digital tools. From a building to a small product, each scale will be developed through specific techniques, which will blur the characteristics of the initial form. The transformation in scale will influence design, materiality, tectonics, production, and the iconicity of each prototype. My goal is to exploit digital technology in order to create a fusion between architecture and design, and to fulfill my desire to design both buildings and their contents.
THE CUT This thesis examines the cut in architecture and new material effects. The cut becomes a device to reveal new materiality and volumetric complexity, which further heightens sensation. It is crucial as a procedure to project a surface that has depth and thickness. In addition, the thickness becomes a zone to explore the operation as it relates to materiality that is cut through. The cut is specifically explored as a way to combine material exploration with urban strategies of massing and zoning.

The architectural cut is not new to contemporary architecture. Over the past fifteen years we have seen the use of the cut in the realm of digital architecture, primarily addressing opening and aperture in projects by Zaha Hadid, UN Studio, and countless others. It has commonly been used similar to an incision through a canvas, where it reveals the thinness of the surface. The interest of this thesis relates to the relationship between the cut as a geometrical operation and the thickness of the volume, unlike single-surface models of architecture.

Jason Payne and Heather Robege argue this is the time of advanced modeling and visualization applications that allow for increasingly realistic simulation and exploration of material effects and behavior. It is now possible to create entirely new materiality no longer confined by the limited set of behavioral characteristics embodied in traditional building materials. My aim is to investigate coloration, pattern, texture, transparency, and all gradients in between as they relate to the material thickness of a volume. This is where surface effects mix gradients between physical material and geometrical induced properties to create new material effects. This is where real and virtual become so intertwined that one perceives a new materiality, therefore new sensations.
KYD KITCHAIYA

**PRIMAL PARTS** The ideal figure is no longer portrayed as wholesome in contemporary culture. Today we romanticize the ideal body as augmented, cut, pierced, and drawn.

At the same juncture, interior architecture is gaining a new disciplinary of autonomy. It has the ability to produce a particular feel and affect that disconnects itself from the exterior. Unlike modern architecture, what you see outside isn’t what you necessarily get inside.

This thesis explores possible affects and spatial conditions from investigating and analyzing the heterogeneous composition of biological parts such as muscle, bone, fat, and organs. Similar to butchering, the concept of breaking down a whole is used to harvest different conditions based on the necessity of parts. These parts yield certain spatial conditions that are then applied to the program. The characteristics of these biological parts create an immersive environment - an intensive exchange between architecture and product - a cut in the exterior; a hint of something beyond; the mystery entices people inside.

**ADVISOR** Ramiro Diaz-Granados
As resources diminish, what else will we use? The Venus chair by Tokujin Yoshioka is an example of a chair made of natural crystals. The chair is grown in a tank as crystals form on a sponge-like substrate. Now is it possible to grow in an architectural way? This thesis explores the issue of growing architectural space, physical shape, and the environment needed for growth.

What is the desired affect here? How can this be achieved? This thesis uses the Salton Sea located in California’s Imperial Valley. The site was selected for its waters, which are 25 percent more salty than the Pacific Ocean and increasing by 1 percent annually. In 2002 Diller & Scofidio built the Blur Building which is about architectural atmosphere; a fog mass that is half manmade and half natural forces. Water is supplied by Lake Neuchatel and shot out into a fine fog like mist over a simple tensegrity structure. In a similar way, this thesis is composed of a system of scaffolds that will act in combination with a salt based misting or submerging system. The proposition is a slowly evolving and shifting mineral form.

The making of the place evolves from and with the local salt, producing salt incrustations in layers over time. Interest in temporality and change are the main drivers in this evolutionary project. Embedded Aesthetics is a metaphysical reality that utilizes the conventions of the surrounding landscape as a vehicle for creation of spaces. It provides a nomadic environment for animals, sparse nature and researches to co-inhabit. This thesis creates an affective environment by combining disparate systems together in a way that the combination harvests the already existing minerals into a usable material.

**MATTHEW NOE**

**ADVISOR** Jean Michel Crettaz
THICK POLYCHROMY FOR THE CONTEMPORARY CHROMOPHILIAC

In the past, color was employed in architecture either as a pigment applied onto a surface or through the exploitation of the natural color of materials such as stone, wood, clay, or glass. In general, Modernism used color to clarify the formal and technical aspects of its kit of parts. Marked by its “thin,” one-dimensional character, color used in this way served merely to decorate, index, codify, or symbolize.

However, in contemporary architecture, the choice of color and technique seems infinite. In addition to the enormous variety of natural materials and pigments, designers now have at hand a variety of synthetic materials; they can use layers of transparent and opaque materials, perforated and solid materials, printed materials, or even colored light to create new dimensions in the appearance of façades. The object of color is no longer about expressing the architecture itself. Through multi-layering in three dimensions, “thick” color works through the field of effects and affects and engages architecture in a “culture of interactive receptivity instead of imposed signification,” as Sylvia Lavin explains in her publication, *Kissing Architecture*.

This thesis exploits the idea of thick color, generating an aqueous materiality effect in a façade. This effect aims to provoke a synaesthetic response in the viewer, to create images that produce material impressions rather than analytic thought. In so doing, the exterior transforms from a plane of representation into an affective surface.

The project operates upon Richard Meier’s Atheneum, which is a white, monolithic, indexical building, charging it with thick color in order to lavish it with a range of new effects and impressions and to transform it into an atmospheric, affective experience. The project will provide the Atheneum with multiple alternate fictions, liberating it from its eternal canon, and thus usher it into the now.
THE FIGURAL STITCH Today’s culture has no style, it is confused by the over abundance of information that is thrown from every sized screen it looks at. Time periods have merged and all places seem to stand directly next to one another. This situation has had a great impact in the clothes one wears and the music people listen to, suddenly everything seems to fit together, time periods cross, and places exist simultaneously. How does this situation relate to architecture, a profession that is ingrained in the same concepts of style, that of arrangement? At first glance it could seem that we are simply speaking of collage formalism, but it’s not, it’s more, it’s a mash-up.

This thesis is an attempt to create an architectural response to the idea of mash-up by way of ‘Figural Stitching.’ It is a search for a relationship between parts where old and new, simple and complex, and order and accident come together to produce wholes. This search creates a diagram that sits somewhere in-between topics of atmosphere and the collage of post modernism, a model that is encouraged by the art of David Salle and the work of Peter Eisenman, where a third figure acts as an intermediate element between two ontologies.

Peter Eisenman’s approach was to abstract the historical figure by cutting it with the grid. This thesis instead uses the cube and grid as the figure that is abstracted and thus tied together by a tertiary figural form. This third element becomes the stitching that ties these two ontologies together both formally and programmatically. On one end the tectonic assembly becomes the victim of the figure through subtraction, whereas the exterior tectonic becomes the aggressor by way of pulling upon the figure.

Thus, a stitch is created between two ontologies without exaggerating their discontinuity, where atmospheric conditions become a result of the interaction between the figural mass and the tectonic assembly.

ADVISOR Herman Diaz Alonso
MILIFORM: FIELDS & FIGURATION

This thesis explores combining design operations between computation and composition, using non-linear, animation processes to generate field gradients from which figuration can emerge. By re-designing the grid, animation sequences allow for variation and compositional control over an aggregated field. Developing forms of many, to layer and combine together, resulting in an edited articulation of its greater whole.

In cinematic terms this tectonic approach is similar to that of the Montage; a non-linear/non-narrative film sequence composed of a collection of shorter shot sequences, juxtaposed against each other, allowing the viewer to interpret its content. In parallel the montage can also have an effect on the architectural composition. This investigation is also defined by methods of juxtaposition between a series of aggregations derived from time and space, allowing for a Frankenstein like design composed of collections of figural sequences. This process breaks modernist traditions, and their rigid use of the Cartesian grid, through the incorporation of fields and figurations.

In the lineage of using the grid as a compositional tool, this thesis investigates the translation of the Cartesian grid systems to one that is fluid. This notion of fluidity from which architectural forms can emerge, was examined in the early 90’s. As part of that continuation and discourse, the aim was to adapt its usage and embrace the cinematic tools and methodologies.

By using the montage to drive design, this approach allows for an unusual seeming of the Frankenstein. One that is more fluid, and not continuous. It is a contiguous sequence that can be edited and recomposed, resulting in an in-between state of the Frankenstein monster.

ADVISOR Florencia Pita
The autonomy of the sphere offers an immense opportunity to reflect on architecture today in a context that is clearly not the topic du jour, pure utopian thinking through form. Not an emergent form, nor a parametrically derived form, nor a discussion starting with sustainability or stewardship, just a look at pure form as determined by an architect.

Platonic diffusion looks at the notion of architectural autonomy using the properties of a sphere as a case study. Known to represent the most perfect expression of the sublime, a sphere form represents perfection through its symmetry. Étienne-Louis Boullée’s Cenotaph for Newton used the pure form of the sphere to illustrate physics’ concept of space and time by creating the illusion of night during the day, and day during the night. Rem Koolhaas also used the form to redefine the idea of monumentality within the 21st century’s highly formal landscape discussion. In addition, Buckminster Fuller used the sphere’s continuity principles to create structural efficiency in his geodesic domes.

This thesis looks to the works of Buckminster Fuller not to reproduce or revisit the driving forces of his argument of structural efficiency, but to examine the side effects unintentionally produced by his inherent designs, for example the aesthetic surface qualities and monumental effects of the Epcot Center and Expo ’67.

This thesis looks to amplify the inadvertent subtle qualities in the works of Fuller by altering the perceptions of the spherical autonomy by manipulating the surface treatment to redefine its pure form and rational from the perceived attachments to form. With elements of geometrical decay, formal deformation, and moiré patterning this thesis proposes to create a new perspective on pure form based on surface effects.
CANDYLAND CANDYLAND explores a highly artificial environment through the articulation of objects on a game board. The fundamental premise of this thesis is centered around an alternative microcosmic shift for the city of Los Angeles by way of sub-municipality to not only a raging metropolis, but to an extensive history of local antiquity.

Taking cues from Tschumi’s Parc de la Villette and Sloterdijk’s “Foam City,” this is not a mild attempt at de-urbanizing or upsetting an existing ‘grid,’ but rather, it suggests an auxiliary, hyper-artificial condition that is realized through enclosed environments, where specific scenes are played out, encapsulating, in miniature, spatial and urban junctures.

This thesis chronicles the ongoing colloquy in architecture surrounding narrative; fiction replaces meaning and ritual replaces program by way of classifying them into a taxonomy of architectural objects, each containing a world of their own.

Through the ‘object in the landscape,’ the articulation of figure/ground, and the dichotomy of two disparate but not altogether different landscape-gardens, as well as formal typologies, the transition between these builds up layers of artificial conditions, resulting in a series of setups and movements that become the game play. Artificial will, with artificial, be resolved.
INSIDE OUT! OUTSIDE IN There exists countless ways of perceiving, and it is a joy to indicate their direction. It is an adventure of the mind, an expedition and a voyage of difficulty and delight, setting out after hidden knowledge, discovering it, and sharing it through a rigorous personal practice. It is an exploration in multiple worlds, and it is the viewer’s opportunity to discern where one world ends and another begins.
It is often said that Los Angeles has no culture. No one from Los Angeles says this. For generations, this city has been the destination for non-conformists, creatives, independents, REBELS. It’s the last stop west. A place where you can be whoever you are, or whoever you want to be. The weirdos come here, and, as a result, we are a city of weird. It has been the birthplace of so many counter cultures that they have become the culture. Surfers, hot rodders, hippies, cholos, and starlets. So why, in a city of artists and rebels, do we expand the suburban sprawl of generic sameness, intended for average people with average families and average lifestyles? We are not average. We love our suburban houses, we love our backyard barbecues and our driveways, but must they be so average? Los Angeles deserves a new model of suburbia designed for the Los Angeleno.

What is the role of the architect in the single family house? It cannot be denied that people identify with their homes. We live in them and somehow we become a part of them and they of us. The house stands as it is and we take from it. But the desire to affect it is there. Half a century since the GI Bill, suburbanites have proven that individuality will show through. But options are limited to whatever can be obtained from Home Depot or a more aggressive re-model. So they paint, they garden, they buy lawn ornaments, they build bar-b-ques. The architect gave them very few options. What would a different option look like? A different skeleton for a different lifestyle, a platform for customization. A built-in (re)model… New models have been attempted, but they are based on a belief that privacy is the key ingredient. What about the people who aren’t hiding? Who aren’t afraid to show who they are and what they stand for? Those bold creative rebels, the kind of people who choose to live in Los Angeles could be the very models that offer something different.

**SAVOR** Peter Zellner
"The shortest distance between two points is often unbearable." - Charles Bukowski

Architecture does not offer or create spaces for movement outside of linear efficiency; spaces to move and navigate through without a clear understanding of where we are going; spaces and opportunities to get lost in. Easily navigable spaces foster a complacent relationship between architecture and user.

The navigation of architecture occurs as a continuous sequence of discrete moments. This project investigates the optical means and mechanisms of problematizing the perception of the architecture within these moments. Spatial Inebriation seeks to disorient, exhilarate and stupefy within an uncomfortable ambiguity.

Shakkei, the technique of “borrowed landscapes” typically deployed in Japanese Zen Gardens—in which elements from the background are collapsed with elements in the foreground through framing, distorting, obscuring, extending, and mirroring—is here applied to the architectural concept of creating a framing apparatus. This collapsing of perspective creates confusing, indecipherable, and almost cubist space. In addition to collapsing singular views, passage reveals further spatial contradictions. Within this realm of neither-here-nor-there-ness, the kaleidoscopic experience encourages false and strange perceptions and challenges the complacency within spatial interaction.

The project is not simply a labyrinth of circuitous courses and physical barriers; nor does it rely on a scale or complexity of integrated networks to overwhelm its participant. Thoughtful subversion of the reliability of perceptual information challenges navigation by attacking the primary perceptual tool—the optical understanding of the space.
Historically, ideas of ornamentation in architecture have generally resided in two camps. In Ornament & Crime, Adolf Loos argues for ornamentation to be subservient to functional and structural needs, while Gottfried Semper argues for artistic ideals to supersede the functional. This thesis converges the two; it is about spatializing ornament. It will pose the question of how big ornament can be. When a woman wears an earring three times her body size, the relationship becomes inverted where it is now the body which ornaments the earring. The thesis will use the plinth as the device to be ornamented, inducing a delicate balance between the two, the armament and the ornament. Subverting the classical treatment of the plinth, the project will truly make a superficial spectacle of it by creating a “fake” plinth. The fake plinth will retain the surface, removing all program from within and placing them into the ornament, elevating the highly articulated paper-thin plane onto a field of columns within a public plaza.

The project will be a redo of François Mitterrand’s 1986 competition for Paris’s Bibliothèque Nationale de France expansion in the VIIIth Arrondissement. Utilizing the site, situated near the Périphérique, between the RER station and the Seine, the new library will maximize public space, above and below the fake plinth, housing the library program into a series of distinct buildings, a veritable jewel box in itself.

ADVISOR: Florencia Pita
A SUBLIMATED MONUMENT

Scene: The United States, as we know it no longer exists. Canada, Mexico, and United States merged to become the North American Union, and are connected by the NAFTA super highway. An influx of regional relocation reshaped geographical identities, and increased the density and status of the “super city” across the continent. The Federal Government was dissolved and the Union is now run by localized state rule.

As part of the mass migration, a community of “foreigners” arrived, and led society down a dramatic path of advanced future-technologies. This trend was met with increasing skepticism by parts of the Union, and new parties have emerged on both sides of the issue.

Due to increased obsolescence and abandon, the pentagon’s rings have antagonistically been reclaimed by nature. Meanwhile, in the pentagon’s interior courtyard, a strange protective force is growing...

This thesis is a manifesto on monumentality.

Reappropriating the pentagon’s purpose from a military industrial complex, to a more formal, archetypal monument, this project will create a new kind of monument, one in which two forms are dynamically engaged in conflict. These two forms grow within the aesthetic effects of opposing sublimes, the natural versus the technical, as competing visions of utopia, while attacking and defending the pentagon, paralleling the change in order supported and illustrated by the narrative.

This monument will serve to architecturally translate and define ideas of the sublime and a new monumentality, and explore the role of narrative in architectural discourse and design.
In 1977, Walter De Maria filled a New York apartment with twenty-two inches of earth. The initial experience of this installation was sensed from outside where a stench of damp soil filled the staircase leading up to the apartment. Bringing the body closer to the earth creates a more intimate experience of scents and odors. Modern man has since evolved to a vertical stance than one more ground-oriented; consequently altering this experience by shifting spatial perception from the nose to the eyes.

Architecture has developed in many ways to enhance the visual experience of a space – the heightened sense of color, textures, lighting, and media. Movement through space has greatly become choreography of visual cues. We use our eyes to navigate through space, yet smell evokes emotional memories almost instantaneously. This thesis explores the body’s experience of space by redirecting that focus back to olfactory imagery.

**OSMOMANIA**

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**ADVISOR** Coy Howard
Architecture’s affiliation with the thick, the heavy, and the permanent has a deep seeded pedagogical history. The advents of modernism and modernist architects, such as Mies Van der Rohe, flatten the façade into a thin and blank surface; the building’s mass was reduced to a generic sameness, which caused the delineation between the exterior and interior to disappear.

In “The Cunning of Cosmetics,” Jeffery Kipnis states that Herzog & de Meuron architecture is interesting because “it derives its critical edge from an assumption of architecture’s basic adequacy and an ease with the controversial proposition that architecture has no other more profound project than to fabricate a new sensibility from its own palate.”

By documenting, analyzing, and applying how certain techniques have successfully or unsuccessfully created “sensibility from its own palate” via an atmosphere of absence, this thesis will propose how buildings might regain profundity without losing grasp through current technological advances. More specifically examining techniques of profundity applied to degraded information and representation to represent the façade, this thesis will propose how buildings can recuperate the loss of mass and meaning.

**ADVISOR** Peter Zellner
UNLIKELY THINGS IN A LIKELY WORLD: A PHENOMENOLOGICAL NARRATIVE OF THE UNFINISHED

Architecture is spatial storytelling. It has a unique capacity to uncover as well as tell stories. As a language it can negotiate the threshold between matter-of-fact reality and mysterious spatial happenings. Drawing on the literary genre and aesthetic style of magical realism, in which the real and the fantastic are accepted in the same stream of thought, this thesis employs a narrative model that weaves together a bevy of oppositions: fact/fiction, objective/subjective, technological/natural, rational and magical, to offer alternatives to the autonomous presumptions of architecture.

Locating itself in the liminal territory between fiction and architecture, this thesis uses the unfinished and abandoned Sathorn Unique Tower in Bangkok as a skeleton for dreams. Incomplete architecture, or that which is otherwise unfinished, opens up to the realm of imagination. It exists in a suspended state that creates tension for the viewer and a desire for completion. The Sathorn Unique Tower, which combines just the proper mix of glitzy and gritty, offers the perfect framework in which to realize this potential.

Recent trends have seen architecture turned into an art form of the instant visual image, where flatness of surfaces and materials and uniformity of illumination cause architecture to exist only in a single moment in time. Perfection and completeness further detaches the architectural object from the reality of time. To return to a multi-sensory experience of architecture, this thesis takes an artistic approach from outside the discipline to design a series of scenes, rather than a building, that investigate spatial and sensorial experiences that are independent of function. For example, a scene describing how light filters through a cavernous shaft or the parallax created when moving through an improbably expansive network of exposed columns and beams.

Whereas the inevitable effects of aging, weathering, and wear are not usually considered as conscious and positive elements of design, here they are used along with light and shadow, weight, gravity, materiality, and color to produce effects that are not based on form. These haptic elements, combined with architecture’s potential as a storytelling language, allow it to go beyond existing in the perpetual present and to instead evoke the experience of a temporal continuum and to create a field of unpredictable potentials.

ADVISOR: Elena Manferdini
Process remains an important element in contemporary architectural design and discussion. As students of students (of students...) of Peter Eisenman, we are immersed in a form of discourse that inherently views each project as an iterative process. Eisenman’s House III, for example, cannot fully be understood without reflecting on the transformative steps that inform the final outcome. Today, we reflexively speak (and design) in terms of procedural verbs: I morphed my building; I twisted, stretched, pulled, and bulged a primitive geometry to make something new.

Invoking the Russian literary critic Viktor Shklovsky, Rosalind Krauss describes Eisenman’s method of working as a “defamiliarization” which acts as an “opaque” screen, diverting attention away from the object toward the “the actual procedures of writing...” This way of designing, Krauss argues, has since become so normative that it itself has become transparent—we no longer notice our pervasive tendency to invent process-based creation myths to accompany our designs...

This thesis attempts to re-impose a defamiliarizing opacity in contemporary architecture by reimagining the Los Angeles Central Library. In a manner akin to the alter egos of popular culture super heroes, the library mutates from banal to superlative. Using lenticular drawings and other representational techniques to discipline my formal operations, I aim to divert attention away from ‘transparent’ diachronic processes toward new, synchronic forms of (fictive) transformation.
“When I sit down to make a sketch from nature, first thing I try to do is to forget that I have ever seen a picture” – John Constable

This thesis is a dialog in between the representation of abstraction and abstract representation. It is the intersection between the exterior landscape (the material world) and the internal landscape (the world of the mind) that coalesce to form a new urban neighbor in the sky over Los Angeles. How they coalesce is my project.

The concept of exterior landscape is not limited to the physical elements of landforms such as mountains, deserts, hills, rivers, lakes, ponds, and sea. It also includes living elements of land cover, including indigenous vegetation, constructed elements including buildings and structures, and transitory elements such as clouds, wind, rain, and sunlight. Interior landscapes are not simply concepts internal to the human mind. They are innerscapes, with obligations as substantial as those of the outerscapes, lacking the conventional constraints of the physical world, but determined by the private dreams, ghosts, and imaginings that belong to the psycho-subjective adventures of the architect.

This is a trip on a route that no one knows, so the project will construct that route as it goes. And it moves as a process of investigation of that inner landscape, and its possible connections with the external landscape. It is a trip without conventional means, without a conventional destination. It is a sequence of self-discovery actions manifest in a chronology of new design techniques new techniques pointing to the prospect of a new city latent within.

Paintings have been representing landscapes through history. In this thesis painting is used as a way of generating and explaining the innerscapes. As Raimund Abraham said, “Ideas have no scale.” This thesis developed a number of painting and modeling techniques that give scale to imagined elements, and ambiguously more conventionally dimensioned elements: personal form to the formless, and personal formlessness to conventional form. Abstractions.

The way of generating architecture is a private translation of the personal world of the author.
FROM UNITY TO DIVISION TO UNITY, AGAIN

In the beginning was light, then came dark. Light, dark. Natural, artificial. Static, moving. Symmetric, asymmetric. Perishable and eternal. It is by the duality of things that we experience life. Parting from this idea, this thesis is built on two different realities which are materialized into two objects. When combined with each other, hopefully they bring about multiple but unique expressions, coming from one single body.

But instead of generating opposite reactions, where two realities contrast each other, the thesis intention is to motivate new possible forms and identities for architecture by the positive distortion, which emerges from the interaction between the two objects. That is, in favor of the less perfect, less self-repeating, or stereotypical.

Through evolution and adaptation, the objects share space and interact with each other and the context. By identifying similarities in the differences, as a method to bring through the paradoxes of reality, new architectural effects become possible. Eventually the appearance gets blurred as boundaries dissolve and they develop in unity becoming a whole of itself with the shape(s) of a blurred creature, mysterious, mythical, yet unseen.

ADVISOR Hernan Diaz Alonso
I have seen a great deal of contemporary architecture that uses “collage.” In my view, in terms of using collage, the most an architect can do with it, is get it and architecture emerging from collage has a sense of “I get it.” This can cause the architecture to become static or two-dimensional.

When I see collage artwork, there is a close parallel to that juxtaposition. In other words, there is such a lack of diversity in the components that I’m able to pay attention to every detail and the moment something doesn’t belong, it becomes static, or collage-like. This is, I think, the problem with collage. It’s a really great medium for two-dimensional practices but its duration is too short for architecture and is why it doesn’t work so well. However, if the architecture has some specific element repeated throughout, this feature could become a new kind of unity. I want to find a new way to maintain a passive interest in the work over a long period of time. The idea of “Hyper-Collage” could potentially achieve that passive interest. When the architectural collage ceases to be a patchwork, it becomes more than a kind of simple contemplative collage.

Hyper-Collage can be considered another dimension of the architecture. The work should engage every scale from micro to macro. That will provide not only interest in small scale but also, one will desire to shift to another scale. They will look at the overall thing but when a few elements catch their interest, then they can decide to look at the smaller scale, and the minute they shift to the small scale, the overwhelming sense of repetition causes one to shift back to the larger scale. I believe that an architectural Hyper-Collage can allow the inhabitant an opportunity to experience the architecture in its multiple scales simultaneously as well as at distinct moments.

**Strategies of Delineation**

**JUN SUN LEE**

**Advisor** Marcelo Spina
NEAR SYMMETRY Historically, the fundamentals of proportions and aesthetics have been grounded in symmetry. Its principles have affected all forms of Art including but not limited to music, sculpture, and obviously classical architecture. In the past, people were using mathematics which includes the golden proportion and symmetry to prove the theocentric values for human body, especially during the Renaissance.

Nature, including the human body, however, does not strictly follow this idealized theory. People feel that symmetry is similarity of shapes and position but that is only an illusion. Take human facial recognition for an example. If one were to divide the face vertically and form two images: one face with the left side mirrored, and another with the right side mirrored, we would inadvertently notice the difference. Hence, the concept of perceived or near-symmetry is logical to investigate in the architecture field.

This thesis will use topology as a tool to demonstrate how near symmetry propagates into architecture: specifically in space, circulation, and form.

ADVISOR Ramiro Diaz-Granados
OUTLAND. The majority of architecture is to concretize a certain idea of form. Almost every attempt of making architecture seems to largely rely on either a near ubiquitous typology of shapes, or a rhetoric of complex geometry. It has become a mechanism of control in contemporary architecture design. No matter how sophisticated the techniques are, the form still exists as an underlying framework, static and rational. In my thesis, I propose a way to allow the entire self rather than the rational architecture ego to govern the design, in order to let the design carry more personal emotion and experience. It abstracts and dilutes the ideas through letting go of the control of the form, but exploits the subconscious and exaggerates it through a paranoid delusion and indulges the absurd feelings and wacky outcomes. Instead of balanced, elegant and skillful, I want to produce disproportionate, absurd and raw. Yet still in a very sentimental context.

The OUTLAND is a border that uses images or illustrations to prove and reflect the real world. It could be scenarios with unnaturally wildness and uncertainty, somewhere in-between reality and imagination, natural and performed, scenario with elements holding strong and ambiguous identities that play with the paradox of places, time. But the actual scene does not determine a certain character and meaning of what it shows. Instead, all the ingredients and details create a spectacle and just frame the story with infinite possibility and extend the space for interpretation and imagination.

ADVISOR: Marcelo Spina
Architecture has become both victim and benefactor of an entirely new formal language. The Euclidean based representational techniques that architects have used for centuries are incapable of accurate representation of this form. Due to the ambiguous spatial and visual nature of this topological form, it is not possible to interpret the formal and spatial qualities. Architects have lost the ability to utilize projective space as a means to both conceive and represent their designs. This has created a disconnect between architects and the spatial relationships and qualities of the forms they are designing. Such form, or geometry is not governed by Euclidean dimensional space, and therefore can not be properly represented through the classical Cartesian projective space. When forced into this space, this architectural form loses the dynamic attributes that define it, becoming flat and void of depth and dimensionality. Drawing hegemony over architectural education and professional practice has not been fairly questioned, and by forcing topological form into classical projective space new understandings of classical representation become apparent.

The line emerges as both a culprit and a catalyst, creating the disconnect between the actual space and the space as perceived through representation. The current understanding and usage of the line in projective space is entirely static, and therefore unable to depict the dynamic qualities that define this form. This static line condition does not relate to, or represent topological forms, which are characterized by biomorphic, dynamic formal conditions. The line as a static element is incapable of a dimensional representation of topology. Topology is n-dimensional; not following the Euclidean geometrical and mathematical principle and therefore can not be represented in a dimensional projective space. A new type of representation, or a n-dimensional projective space needs to emerge, allowing topological form and space to be conceived and represented with a solution as dynamic as the condition it is attempting to describe.
IT PHD(NAS) RIGHT! This thesis is exploring thickness in architecture by bringing the body back to the architectural figure and the figure(s) back to the landscape.

According to Sarte, the building is needed for the body to project it. “The bomb that destroys the house does not destroy a model of the body, but the body itself.” The idea of an architectural monument as an abstract representation of the human body have been a central element in architecture, from the gothic sharpness, tense muscles and precise movements to the faster, flabby and unmobile limbs in the Baroque.

The modernists were more concerned to the rational sheltering of the human body and the body was liberated from architecture itself. Anthony Vidler has discovered a resent return to the body analogy by architects like Coop Himmelb(l)au, Bernard Tschumi, and Daniel Liebenskin. This time the body exists as fragmented pieces as a figurative inspiration or referent.

This thesis is not looking at the dismembered body, rather it is bringing back the body into the architecture as “the body without organs” (Artaud). It is not an organism, the body is nonorganic but completely alive (Worringer). The goal is to produce a sensation of thick, in this project, created by the “body language” and the “skin-like” folds in the structure, but also by the figures interaction with each other and the landscape and the obsession with the landscape it is a part of.

The technique is to look at the the spatial condition produced by invagination: to retract an organ, turning it inside-out in the process were the outer surface becomes the inner surface, folded back upon itself. The folds are creating new spatial condition and zones, forcing you to rethink the relationship between the inside and the outside. The fold also produce “thick lines,” contours of the form that can be used to draw the object back into the landscape and the shore line, or to work as a method for coupling the figures.

Even though landscape is a physical term, it is also regarded as the raw material for the study of human perceptions and our information processes. Denis Cosgrow defined landscape as an outward expression of human perception “ landscape is a cultural image, a pictorial way of representing, structuring or symbolizing surroundings.” “Any landscape is composed not only of what lies before our eyes but what lies within our heads.”

The project is a Chapel located on the shoreline of Bleik, Andøy, on the northwest coast of Norway.

ADVISOR Eric Kahn
In Bibliothèque de France, Bernard Tschumi proposed a large public running track and sports facility on the roof of the building. The track would intersect with upper floors of the library program so that the library and the sports program had to exist in conflict with each other and the occupant could not experience one program without being aware of the impact of the other. Tschumi used this method of “cross-programming” as a tool for challenging and revising social structures and existing cultural narratives.

Rather than placing two relatively unrelated program types adjacent to one another, I propose that these distinct and sometimes even opposing program types attempt to occupy the same space at the same time. The attempted occupation of one space by two or more distinct opposing forces can create harmony or conflict, making it necessary for their behavior to change in order to accommodate one another.

Prisons were once built for the purpose of torture and killing and have over time evolved into educational institutions aimed at rehabilitation. The program type of the prison has evolved as the notion of what a prison should be has evolved. In order to evolve the behavior that is performed by occupants of a space, I propose to reconfigure the original program by borrowing elements from various programs already in existence. The strategic recombination of programmatic elements will result into a program type that has never been inhabited, allowing the occupants to reinterpret institutions with long established histories such as the theater, the opera, and the church.

The tension created by the multiple programs existing simultaneously in one space will perhaps affect the occupants perception, spatial reading, and behavior on this site and propose new ways of occupying and experiencing space that reflects various states of tension that we experience in conflict. Tension is used as a tool to make the occupant more of aware of his surroundings and the space he occupies. This approach will embrace incongruities, contradictions, and moments of harmony and discord in order to uncover a variety of possible spaces co-existing in conflict.

ADVISOR Eric Owen Moss
The idea of the thesis is about life that is constantly re-born, shrugs off whatever is thrown at it, and carries on no matter what.

The site, the city of Prypiat, near Chernobyl provides a highly volatile environment, with seasonal extremes as well as with radiation that affects the DNA of all living creatures.

This project investigates the rebirth of highly contaminated areas of Chernobyl and looks for ways that will help re-inhabit contaminated lands—creating an environment that is beneficial to the new occupants. The project is proposed as a growing organism. It is set up as a static core that contains the entire infrastructure that is necessary for survival in a radioactively contaminated area near the abandoned city of Prypiat, in Ukraine. Its distance from the ground plane creates an oasis suspended above. With time, radiation will subside and in 300 years will drop to normal levels. At the same time, the cultural and scientific colony will slowly adjust to dropping levels of radiation, by adding housing and expanding towards the ground plane. Once it hits the ground, the new city will sprout, taking its roots in the relationship between nature and man.

**ILYA BOURIM**

**РУССКИЙ КОВЧЕГ** The idea of the thesis is about life that is constantly re-born, shrugs off whatever is thrown at it, and carries on no matter what.

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**ADVISOR** Michael Rotondi
DIGESTED PRINCIPLES OR THE BEEF CITY COMPLEX

Digested Principles tells the story of a surreal world within a perimeter block in Berlin as response to the tendency for losing its typological identity. Perhaps it is due to the block’s inertia to adapt to social and political change, that growing population and densification of urban centers are tantamount to a haphazard obstruction of the courtyard and to an experimenting with rigid housing typologies. How a new identity can emerge by modifying fundamental principles of the block is the central topic of the story.

The project takes on the existing substance, tries to identify its qualities and adds a new layer of program related contradictions and juxtapositions in order to strengthen its social and political position. It is a response to most currently accepted strategies, such as reinforcing the perimeter with more contemporary apartment typologies, or replacing the whole block with a new building type. Formal expression as well as metabolic performance of the intervention are central parts of this project.

Berlin is a city with an exceptional dramatic history. It is the city of contradictions, discontinuity, emptiness, temporariness, fragmentation and diversity. The Perimeter Blocks throughout Berlin contribute much of its character, which differs a lot from the ones in other Central European cities. Diameter and therefore the interior courtyard is huge. Street facades have a very strict order whereas buildings within the courtyard almost seem to develop randomly. The perimeter is interrupted by a more narrow gab here and a wider one there. It seems that the qualities of a once strong conceptual idea are non-identifiable anymore. These conditions and the city with its spontaneous and temporary attitude offer an optimal platform to instantiate such a controversial project.

ADVISOR Jean Michel Crettaz
The contemporary city is composed of buildings and constructions built for centuries. There are always spaces and places being forgotten between building and building. Some buildings lost their functionalities and became idle because they don’t fit with the modern trend. I propose “GRAFTSWARM” as a city strategy. This is a renovation project seeking to evoke the forgotten space in the city.

Located on Broadway Boulevard in downtown Los Angeles, the Los Angeles Theatre was a famous and dazzling social spot in the past days. But it became a preserved historical construction because of the changing city plan and because people had started to move out of downtown LA. This thesis project chooses the theatre, a lonely historical building, to develop and expand.

The idea of the project is to try to connect and activate diverse spaces and form a new gathering social space for people around the clock. It redefines the old space and it creates a new connection system by using the manner of “grafting.” The project gives the old building new social functionality that could solve the nighttime public security problem, as well as the idle construction issue in downtown LA. This is a way to mix the functionality of diverse city buildings.

GRAFTSWARM is a construction strategy to solve the problem of people unwilling to live in the business district. It is also a new way to connect building with building. It is a design technique that blurs the boundary between building and building.

GRAFTSWARM redefines the existing contractual element, and connects each to the other.

GRAFTSWARM is a process to transform geometric objects. By using the “grafting” technique, it connects different geometric objects with different contractual elements to create a new construction form. GRAFTSWARM reorganizes the interior functionalities within the building to respond the future changing urban spaces and historical building.
Folding City intends to integrate unrelated urban elements within a compact volume to stimulate and encourage human social activity. The city is not fixed; neither can its conceptualization. The city’s form changes as people’s lives change. The transformations enrich and challenge the city’s appearance and its development. The urbanization movement we are undergoing is new, and outdated theories cannot help us to understand the new urban form. Can our cities, new or old, endure contemporary living conditions and life styles? We cannot answer this question with any existing theories. Therefore, we need to find an original way to think and to be informed about contemporary urban issues.

Folding City is a new critical urban intervention. It encourages urban engagement. It is a moving matrix of interacting parameters (live, work, fun, infrastructure, and landscape). It shifts and unifies urban elements in different directions to map out the intimate experience of urban life. This transfer forms the base for a potential urban framework. Within the confine of this simple rule, different elements of the city could be engaged to form a diversified and elastic urban mixture. The movement of folding not only leads to space transformation, but also folds and changes the human’s behaviors in the city, from horizontal to vertical, from vertical to horizontal. During this process, the private and public spaces start to merge and invade each other in different layer of the city. It converts ordinary programs into active and interactive urban devices that energize urban life. The aim of Folding City is to create a flexible, efficient, sustainable, and feasible model for the future city development.
At first glance, the yin and yang symbol, which is representative of an age-old philosophy in China, brings to mind the imagery of opposites. However, upon further consideration, the symbol does not only signify the contrasts between them, but also embodies the relationship between these two elements and how they complement one another. Yin is defined by yang and vice versa. This coupling, in turn, creates a third entity – the system in balance.

In this digital era, advances in technology have drastically altered our cognition (perception) of space and time. It also appears that architects take measures to either erase the memories of a city or freeze them into freezer, rather than allowing them to intertwine with the present.

This thesis aims to alter the perception of buildings and their surrounding urban environment through a reconfiguration of negative (public) space. The site of this project is in the “Historic Core District” of Downtown Los Angeles. Through perceptual ambience of the spatial sequences in public space from Camillo Sitte’s modern city planning (1889), scenery from Gordon Cullen’s townscapes (1961), and a series of ‘building cuts’ works from Gordon Matta Clark (1970s), this project will explore the different possibilities of creating vivid public space to draw people back into the city, and furthermore, to give a city a chance to give form to desires once again.

The system exists, the memory remains, and above all, the city continues giving their form to desire.
This thesis aims to exemplify a new smart architecture that overcomes the challenges of inhospitable sites through appropriation of self-sustainable adaptable systems that respond specifically to environmental changes, such as wind and water fluctuations. This project explores an alternative relationship between architecture and nature, where the architecture is codependent on the realm that is surrounding it for the establishment of its permanence.

The site is located at the Wave, a sandstone rock formation located in the United States near the Arizona and Utah border, on the slopes of the Coyote Buttes, in the Paria Canyon-Vermilion Cliffs Wilderness. This territorial architecture explores the infusion of architecture with a hostile climate such as that of the desert, in addition to engaging the superimposed matter with the socio-cultural elements of a Buddhist monastery. The intention is to foreshadow and draw out unique spatial and organizational implications that emerge from the existential relationship between the ever-changing matter and its environment. As a result, the emergence of this complex territorial assemblage provides a new opportunity for the creation of new contexts for social interactions.

This project explores the idea of adaptation and growth within the parameters of the desert, and is constructed on a dynamic generative grid of water channels. The aim is to offer inhabitants a new type of interaction with their surrounding nature through the appropriation of material systems. The driving force behind this responsive system is the qanat system that controls the irrigation and wind tunnels that maintain a cool internal atmosphere. The use of adobe brick combined with the unique dome shape of each complex further enhances the maintenance of a constant internal temperature. By capturing both artificial and natural light through manipulation of the quantity and size of the apertures, the designed spaces have a dematerialization sensation. During the daylight hours, the backlit panels glow ethereally, surrounding the interior space with a surreal flow of filtered light with a changing surface pattern that overpowers the massive internal surfaces. At night the interior lighting floods through the massive skin and creates a glowing animated perception of the monastery. The operative and performative qualities of the monastery strive to set forth a differing perception between static and dynamic conditions that change over time, and the effect of dematerialization within the discipline of architecture.
Soft Boundaries examines the effects of an architecture created through build up and overlay of discrete linear elements as opposed to a clear and overt form. It seeks to create spatial conditions that modulate between porosity and solidity as the body and eye move through space. Lines shift into planes and back into lines; boundaries become softened and frayed.

Having generally developed alongside other viewing devices, methods of treating the view in painting, photography, film, aeronautics, computers etc. have had clear impacts on boundaries in the built environment. As the border between the virtual and physical world increasingly blurs, an architecture can emerge that acknowledges this lack of separation and expresses the reality of our multi-subjective present.

Intrinsic to our experience of the world, the treatment of the view in the built environment is as mobile as the world which it pretends to display. A heated argument between Perret and Le Corbusier concerning the placement, proportion, benefit, and social politics of windows/view in architectural space underscores the centrality of this concept in the discipline (Bruno Reichlin, “The Pros and Cons of Horizontal Windows”). Typically the occupant has been kept at a comfortable distance by clear and static borders.

Soft Boundaries seeks to loosen these frames to reflect more accurately the nature of vision and to propose a more fluid connection with our environment. Spaces where borders between built space, virtual content, and environment can soften alter the ways we exist in varied spaces, from the most private to most public. New architectural effects and spatial relationships are created between occupant and environment when rigid borders no longer separate us from the outside, inside, and virtual worlds.
THE SALTON STRIP  The Salton Sea is perversely sublime, shorelines scattered with urban detritus: houses, abandoned motels and golf courses, corroded automobiles, emptied pools, and lingering relics like bottles and tires. It is an aggregation of decay in large scale, fragmentation and breakdown of massive systems. The sea, unknown to most Californians, is the state’s largest body of water located in the poorest area, the flat monochromatic desert-terrain of the Imperial Valley. This ‘artificial’ system, by-product of the 1904 flooding of the Colorado, has become the ignored inevitable, the next ecological and economic disaster. Toxic particulate matter, now left exposed from the dried lake will blanket nearby communities, devastate vast agriculture farmland, kill wildlife and effect urban centers as far away as Los Angeles.

My proposal is a massive environmental transformation, to be exploited, a remediation and economic revival through the symbiotic, open-ended relationship of natural and human systems; cut the sea in two. Create a causeway, a symbolic overlap. Specific natural forces; geography, climate, geology, land and will be scrutinized. Notions for architectural spaces, materiality, and program, observational and representational are used so that the mutability and ethereal ‘nature’ of the site can be exposed and reflected, at moments, in the solidity of the artifacts that spread across the entirety of the causeway (understood as one large system) and in the dichotomy of the two altered systems it created. (North marine lake/South hyper-saline lake). The Salton Strip will be an 8.5 mile study of living contrasts, a compendium of the unexpected, a causeway for collaboration.
This thesis attempts to create form by deploying the vibrant connectivities of the flat-horizontal building in a vertical urban mass.

In *Delirious New York*, Rem Koolhaas observed that “In the Downtown Athletic Club the Skyscraper is used as a Constructivist Social Condenser: a machine to generate and intensify desirable forms of human intercourse.” He applied this “congestion,” or diverse program in one envelope resulting from discrete floors, to other urban types such as the horizontally organized Parc de la Villette.

In contrast, while the flat-horizontal building type provides vibrant connections within, Alejandro Zaero-Polo reminds us of its shortcomings: “The problem of inserting a large shed into an urban fabric is well known. The lack of active frontages turns flat-horizontal envelopes into large-scale obstacles to urban flows, sterilizing their surroundings with a usually forbidding edge.” The vertical building’s smaller footprint interrupts the urban fabric less, provides connections to its context despite potential disconnected space within, and may allow for some open space, but tends to be disconnected within.

It seems then that a vertical building injected with characteristics of the flat-horizontal building could provide a new form for an architecture of vibrant connectivity.

This thesis tests this in a “skyscraper park,” or the inverse of Koolhaas’ “park skyscraper” at La Villette in which the skyscraper’s stacked section becomes the banded plan of a park. Here, the aggressive connectivity found in horizontal typologies engages the city in a vertical envelope of a smaller footprint. Given Los Angeles’ minimal amount of open space per capita compared to most major U.S. cities, the site is a current pocket park in downtown Los Angeles in which the open space can be deployed vertically in a new kind of public space.
Future Initiatives at SCI-Arc (SCIFI) is an intensive research-based, post-professional degree program and think tank dedicated to generating pertinent examinations of contemporary civic design, city formulation, and urban regulation. The SCIFI curriculum takes a sequential approach to understanding and rethinking city making. Students focus on identifying adaptive and holistic—rather than rigid and segmented—responses to economic, social and environmental pressures. As a center for research and discussion, the program connects academics, theorists and architects with public agencies and those in private development to generate debate around the role of cities and urban systems. The SCIFI program promotes and extends its academic mission nationally and internationally via its publications, public forums, exhibitions and competitions.
High Speed Rail, while far from an entirely new technology of travel, is being pursued actively by Federal and State governments. The technology is evolving rapidly, and the potential of the system to affect patterns of urbanism is unprecedented. The notion that an architectural project for High Speed Rail technologies might concentrate only on buildings or stations is anachronistic and short-sighted. Since the nineteenth century, infrastructure has been overtly utilized as a model resulting in the amplification of systems of movement, distribution, and control. While the proliferation of these systems has necessarily been attendant to modernization, they are rarely questioned or seen as anything other than discrete components of a hierarchy no greater than its parts. The great potential of taking on the design implications of new transportation technologies lies in the wider implications and effects of the system. The implementation of high speed rail technologies creates a spectrum of possibilities and effects ranging from the global to the local, from the level of regional planning and development to the local structures that such technologies carry forward and promulgate. Contrary to a more limited view which would understand the introduction of high-speed rail as merely being able to provide a faster connection between point A and point B, these technologies will have unprecedented effects on urban and ex-urban development.

Background
The State of California is committed via an amendment to the State constitution to construct a high speed rail system that will connect San Diego, Los Angeles, San Jose, San Francisco and Sacramento. This project, supplemented by an additional $8 billion federal commitment contained in the 2009 American Reinvestment and Recovery Act, represents the most significant public infrastructure project in California since the construction of the State Water Project in the 1960s. Planning and engineering studies are currently underway to select alignments, station sites and collateral facilities.
SANDY PHOXAY
The MediaSCAPES postgraduate program engages and responds to transforming technological and cultural paradigms addressing the emergence of new ideas and new conceptions of space. Over the three sequential semesters and within the offered program and course framework, students are encouraged to develop individual and focused research topics to serve their professional interests. The third and ultimate semester of the program offers students the opportunity for working at the frontiers of these transformations by defining their own themes. The current set of projects and themes explore questions of user responsive, experiential and immersive environments. The class researched spaces interlacing virtual and physical space. The convergence of the disciplines of architecture and media evokes new complexities of synthetic life systems, i.e., immersive environments that are informative and interactive.
**KEELY COLCLEUGH**

*The Window Seat Panorama as a Model for Participatory Ecologies* Dissecting visual ecologies surrounding aerial photography and air travel in the historical context of the early nineteenth century panorama as a way to understand the relationship between the voyeuristic/synoptic view from the airplane window and the perceived landscape below.

**JESSICA DEVRIES**

*Neuro/Sensorium* A cognitive environment in public space integrating electronic technologies and bio-sensing. The project is aimed at mapping neural activity onto the immediate environment.
NATHAN FRENCH
RON SHVARTSMAN

UNCANNY METABOLISM
Communicating the conflict between environmental urgency and people’s current lack of perception of the environment’s state of health. The conflict is understood through physical computation of re-configurable materials as an interactive system that allows the material to metabolize/evolve and conduct reciprocal non-verbal communication with people in the environment via sensing technologies (proximity and carbon dioxide).

ANA HERRUZO PIERCE

ALIVE_ARCH
The implementation of a ‘site specific’ sonic and visual installation, located in the northern part of the SCI-Arc building results in the creation of a ‘realvirtual’ environment using 3D Projection Mappings and agents that follow the users, and leave traces.
CARLOS MONCADA RIOS

An immersive and interactive environment breathes around its viewers, creating an environment that can sense and transform the intangible limits of the space. Artificial intelligence, synthetic biology, and interactive technology create an environment that is nearly alive generating new networks in terms of adaptation, connectivity, identity, landscapes and aesthetics.

IAN SCHOPA

In early cinematic technique, Henri Bergson observes two categories of image synthesis: space covered (past recordings) and movement (present). The spaces covered “belong to a single, identical, homogeneous space while movements are heterogeneous.” An interactive multi-camera setup along with a system for recording eye movement, provides a reconstruction of the ‘movement image’ indexing activity in local and remote space.
RUEI-SHIANG TZANG

**HYBRIDScope**
HYBRIDScope is a space, light and sound immersive interactive scopic experience; a viewing interface which designs 'hybrid' relationships between installation users and the abstract/recognizable city fragments of sound and image.

FILIPA VALENTE

**ePoint**
An immersive departure experience at Tom Bradley’s International Terminal at Los Angeles International Airport, ePoint is a data architectural public space intervention that allows users to observe the check-in lobby’s activities and aviation weather data within the physical space.
Emerging Systems and Technologies | Media (EST\textsuperscript{m}) is an intensive post-professional degree program. Rigorous and experimental, EST\textsuperscript{m} aims to define new platforms for design innovation, fusing digital and physical research within the rapidly evolving fields of computation, material fabrication, and advanced building systems. Utilizing the SCI-Arc Robot House - the most progressive facility of its kind in the US academic environment, and among one of the world's most advanced facilities - as well as other platforms, EST\textsuperscript{m} faculty and students explore new production paradigms, envisioning the future of synthetic materials, free form assembly, and automated manufacturing. Working with progressive architects, designers, and theorists worldwide, students propose the next generation of architecture in the form of specific projects, structural morphologies, sophisticated material prototypes, and complex construction systems.
ARCHITECTURAL design has always been influenced by new modes of representation, and advances in materials, tools, and technology. In the Vitruvian tradition, the architect as ‘maker’ does not simply assume the limitations of conventional tools as a constraint, but engages in the process of making innovative tools and machines to both conceive of and realize new architectural objectives.

This thesis, Synchronous (Object)ives, aims to expand the discourse of digital design beyond the model of flat Euclidian space underlying three-dimensional digital modeling in the computer. By incorporating synchronous movement and forces this new approach extends the digital paradigm to include protocols that enable design in four-dimensional real-time. A key aspect of this thesis is the development and implementation of a new design interface and toolset dubbed Esperant.0. This synchronous control model is fundamental to the integration of 3D modeling software (Maya) and hardware (six axis industrial robots), opening up new ways of designing and making through collaborative robotics. To demonstrate and test this new design paradigm the thesis research has explored a range of multi-robot fabrication scenarios, both simulations and real-time experiments in material form using combinations of two, three, four, and up to five industrial robots.

With the development of new digital and material design interfaces and control models, architecture is poised to enter a new era with potential to creatively engage new materials and the complexity inherent in the execution of contemporary building projects. The original research and design experimentation inherent in Synchronous (Object)ives does not aim to reconcile fissures between the digital and physical world, rather blur boundaries between the two in the fabrication of new modes of representation and design.

ADVISORS Peter Testa
This project operates at the interregnum of autonomous architecture and unbridled urbanization, recalibrating the relationship between freestanding figures and contiguous tissue. Its primary agent is a circuitous wall loop-network whose architectonics render Los Angeles as a fortified and fortifying city. This massively scaled armature is inspired by Pier Vittorio Aurel’s term “Absolute Architecture.” Importantly, the term absolute is used “not in the conventional sense of ‘pure,’ but to denote something that is resolutely itself after being separated from its other. In the pursuit of the possibility of an absolute architecture, the other is the space of the city, its extensive organization, and its government. Politics is agonism through separation and confrontation; the very condition of architectural form is to separate and be separated. Through its act of separation and being separated, architecture reveals at once the essence of the city and the essence of itself as political form: the city as the composition of (separate) parts.”

The speculation begins when alien, robotic life colonizes an empty construction site - once slated for a Federal Courthouse - to lay down new laws of the land, new measures of artery and boundary, mass and volume, and figure and ground. Before the extra-terrestrial arrival, a group of earth-based collaborators dwellers in the City of Angels first prepare the site, lining its walls with earth retention and circulation infrastructures. Emanating from within the pit immediately on arrival is a “Ding-Bot” workforce, an automaton army of constructors whose synchronized labor flows above, below and through existing morphology to create distinguishing interruptions, obstacles and valves. Their machineous agency - hacking, subverting and re-orienting - untangles the built residue of laissez-faire zoning to create a new circuit and (re)newed components. Once more we are reminded that architecture and the city are distinctive science fictions.

Architecture has always grappled with questions of identity, striving to set itself apart as a discipline from art, engineering, and “mere building.” In its continuing quest for self-definition, architecture has borrowed concepts from semiotics, ecology, biology, always falling short of a satisfactory framework to fully encompass the mixture of cultural phenomena, physical properties, and human experiences which constitute an architectural reality.

SCI-Arc, for its part, has a rich tradition of experimentation in the service of this quest for disciplinary definition, as well as a history of furthering this discussion through full-scale investigation. Central to the school’s identity is a discourse that continually interrogates architecture as a discipline; complimentary to this discourse is the act of physical investigation and material demonstration. Whether through CNC fabrication or meticulously rendered representation, it is written into the culture of the school to question, propose, and equally as importantly, to demonstrate, to do.

For those of us involved, The Solar Decathlon house has been the most relevant expression of this intermingling of discourse and demonstration in our academic careers. We have been privileged to have the opportunity to learn by doing. We have been involved in every level of design and fabrication of this project, from the overall theoretical goals, to the planning and massing, to the unconventional thermal controls, to the cabinetry and furniture, down to the nailing schedules, in addition to every infrastructural detail of keeping a large-scale project organized, funded, supplied, on-schedule, and running smoothly.

Through this experience of a project as a multi-variant process - as theoretical discussion and personnel management, as spreadsheets and renderings, as paper models and steel fabrication - we have found that, rather than look outside the discipline for conceptual inspiration, architecture is able to draw from all of these variables and can be defined instead by their coordination and synthesis. Architecture’s strength lies in its ability to resist a single definition, allowing it the flexibility and freedom to encompass and draw from each of its disparate, constituent elements in order to make a cohesive whole. Through this process of doing we have come to understand that the number of relevant factors in design, realization, and habitation of a piece of architecture are as varied as the human experience itself.

Rachel Bitan, Scott Davis, Valentin Florescu, Hyungbin Im, Joel Ochs, Lana Semel, Harris Silver, Brian Zentmyer
CONCLUSION

Thesis at SCI-Arc has been evolving steadily over the years, until today it represents a significant platform for architectural discourse. With origins in the radical propositions of the eighties and nineties, and an increasing focus on the roles played by technology and evolving cultural values, thesis has come to stand at the crossroads of innovative thinking and critical architectural discourse.

The thesis is designed to liberate students from preconceptions, to challenge and provoke, and to provide an opportunity to engage a wider audience with their own unique position. It is an opportunity to mash together the thoughts, idle speculation, motor skills, life experiences and critical insights which have been maturing, or festering, or simply marinating during the long hours spent in the studio. It’s not a Quixote-like contest which pits their ability to predict the next hot thing against the winds of the critical establishment, any more than it’s a measure of technical prowess.

Periodic visits from SCI-Arc distinguished professor Jeff Kipnis goaded students, with his legendary provocations, to dig deeper in order to understand the relevancy of their work. A vigorous dialogue among visitors and SCI-Arc faculty was guided this year by Elena Manferdini, the new thesis coordinator, whose own work and ideas were added to the mix. Among the expansive interests of students in geometric tactics, formal perception, narrative modalities, and strategies in massing and urban forms, we saw a new area of investigation emerging directly from the new Robot House, focusing on digital and material interfaces at a high level of experimentation with multi-robotic fabrication.

Hsinming Fung
Director of Academic Affairs