

Dimensions Twenty-One

Dimensions is the annual, student produced journal of the A. Alfred Taubman College of Architecture + Urban Planning that seeks to contribute to the critical discourse of architecture and architectural education by documenting the most compelling work produced by its students, faculty, fellows and visiting lecturers.

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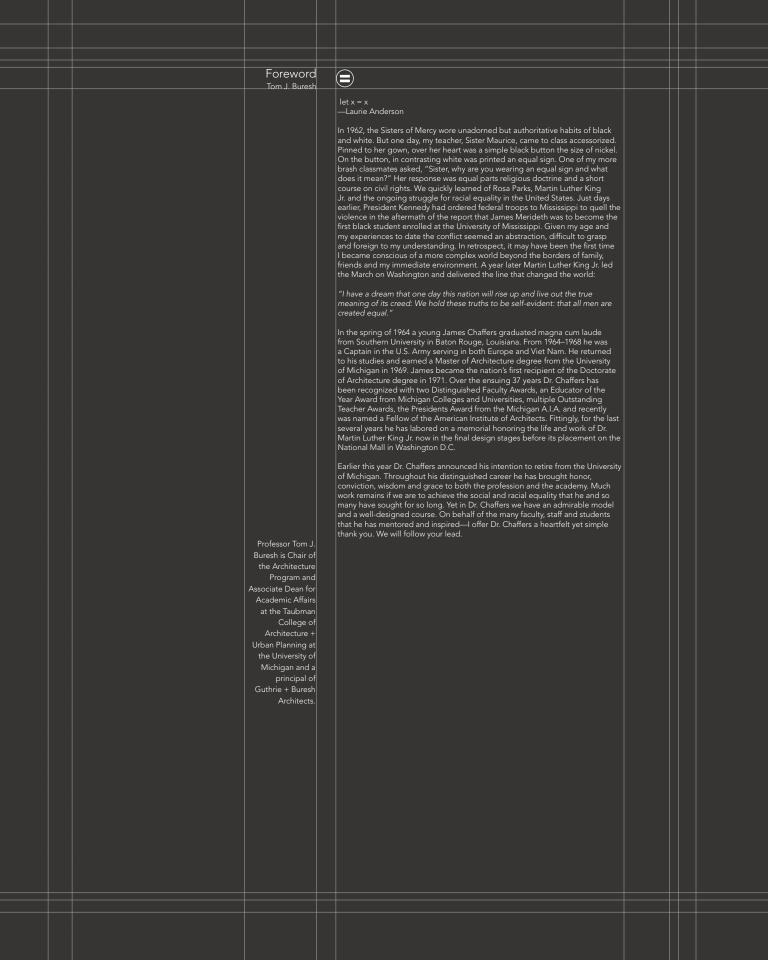
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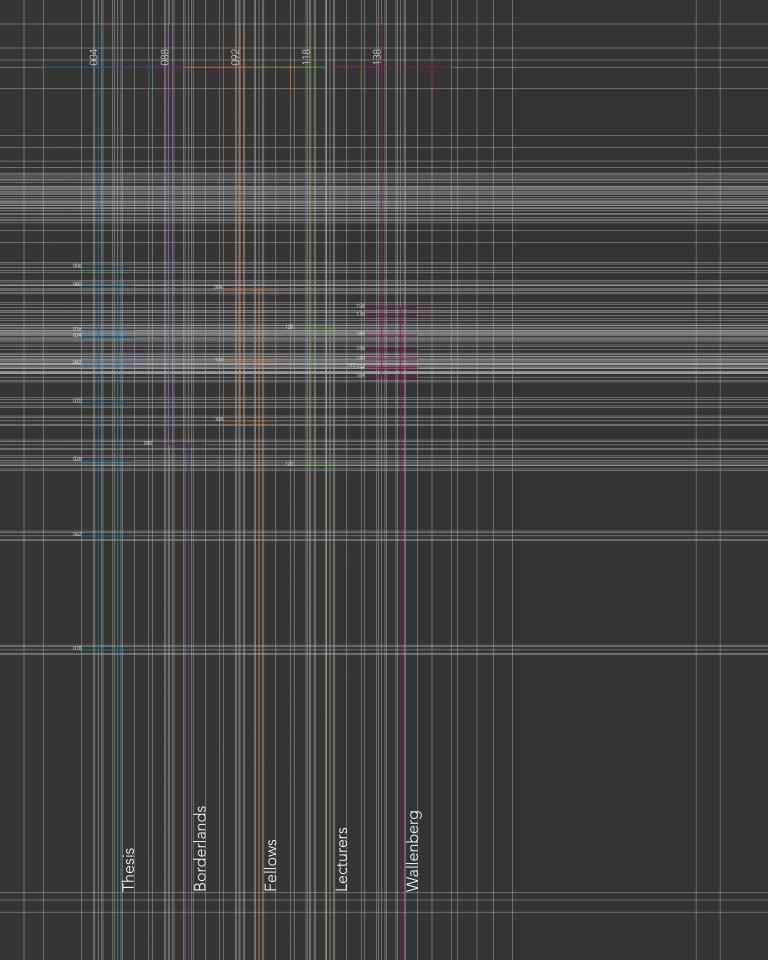
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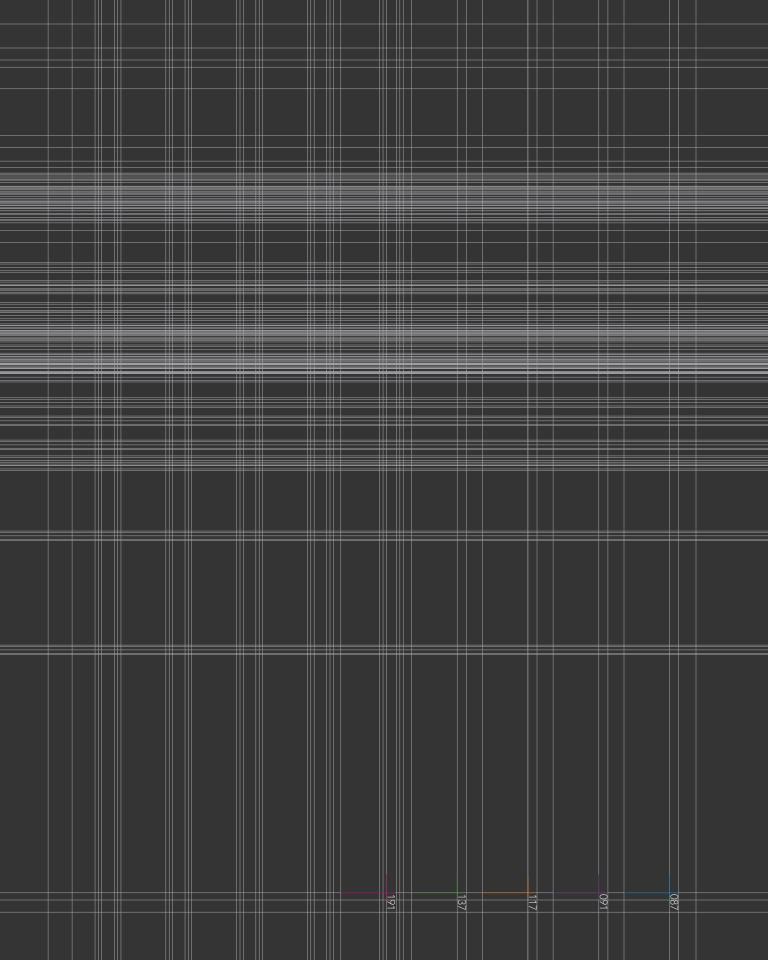
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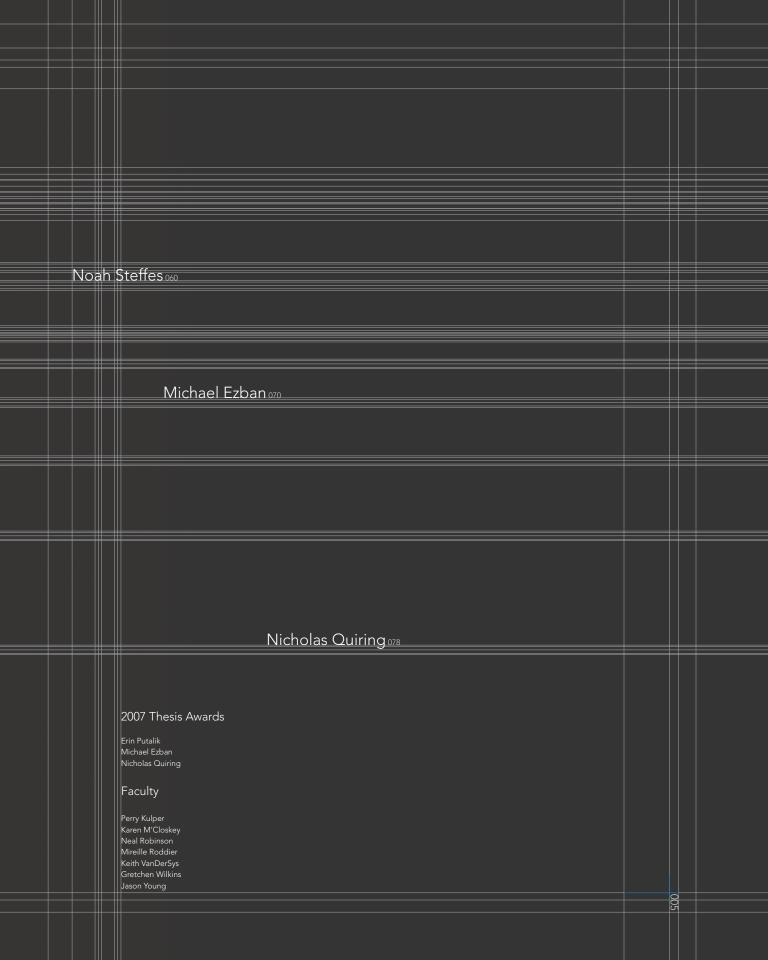
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		Lots of ways to launch it revisiting letters of intent; recurrent patterns in one's work; something totally outside; one, three, five and ten year plans; identifying what it isn't—the reverse manifesto	
		trick; current cultural debates and eternal questions; learning from adjacent disciplines; a series of what ifs? Could one make a thesis	
		out of interests in bio-morphism and the construction document, or, from a critical exposé of a drawing type, or, from curiosities about generic magic realism?	
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		re-thinking perception, experience and forms of embodiment; sustainability, the environment and ethical positioning; skins, surfaces and envelopes; materiality, in its varied forms—from craft	
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This is This

When walking down my street I notice the rock wedged between two concrete barriers. I could not describe the building behind it; but this rock pricks my interest and consumes my whole memory of that block. There is no symbolic or coded meaning behind it. This is This. Similarly, there are many houses in my neighborhood but only one Home. My own house operates on two scales—as part of a larger set of houses (1:1000) and as a group of rooms specific to me (1:1). Spaces and objects that collapse the familiar and the other simultaneously assert This is This and This is That. This project redesigns my dwelling recognizing that architecture resides in the space between the building and the occupant. It simultaneously explores representations that serve as signifiers—This is That—while firmly asserting their own status—This is This.

This architecture

My home is a This to me but an Other space to someone else. How can we as designers capitalize on the familiarity of the objects and places we design recognizing that the object or place must be part of a larger set of Thats (a "sidewalk", a "wall", a "seat") but also a This (a specific uncanny object that resonates with the user)? A sidewalk designed to be a



This is This sidewalk, collapsing its familiarity and foreignness, does not resonate with just one user but with multiple users.

This dweller

Almost every day for three years this author has walked the same walk to her school. This walk defines a wider circle of dwelling beyond the Home. It is familiar and forgetful, a shared space and a private one. The author sketched a map of this walk and compared it to photographs taken at regular intervals along the way. Surprisingly, there were enormous gaps that were unaccounted for—parking lots and rows of buildings. But for some places, seemingly incidental objects pricked her interest and encapsulated an entire block. In the neighborhood map, the unfolded planes of building façades, streets and sidewalks form a network of abstract lines.

Moments of This is This are drawn in heightened color.

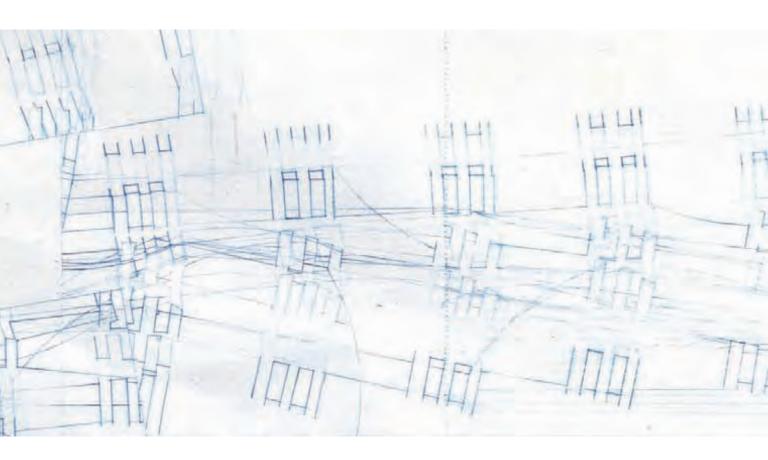
The neighborhood drawing illustrates the importance of the creative user. Our perceptions are merely hypotheses. The space created through dwelling is an active space—one based on our imaginations and preconceptions but also one based on movement. We must use space—mentally and/or physically to occupy it. Architecture is an extension of our perceptions and the body in dynamic relations with the space.

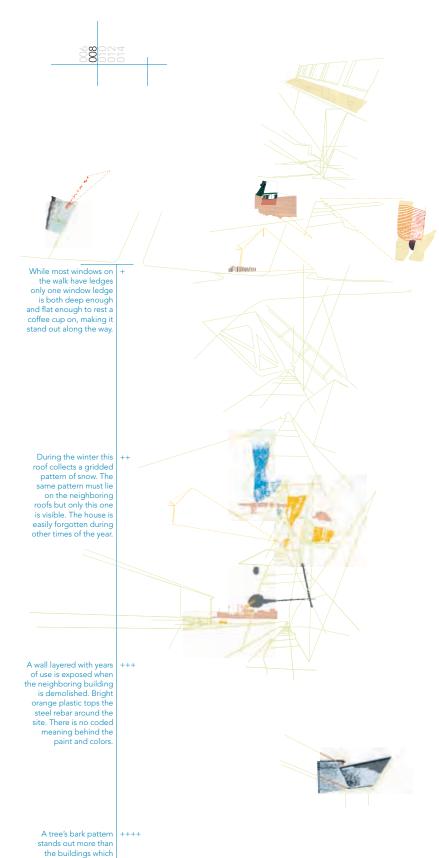
This drawing

The architectural representations we use to design, conjure and create space usually do not hold the same status as the thing itself. They do not carry meaning as distinct entities when separated from the signified. They are placeholders.

What happens when the drawing has an identity of its own? It is not merely a placeholder or go-between. Could an architectural representation assert both This is This and This is That, maintaining its own identity while suggesting and designing a second, or even third?

When a drawing represents another object or place and maintains its own identity, the imaginary and the real collapse. Its role as signifier draws attention to its fragile status as mere illusion; it is less real than what it represents. But its material qualities assert its status as real—what is being designed is the imaginary. The simultaneous existence (even collapse) of the real and the imaginary only draws attention to each world, creating a hyper-reality. Fact and fiction are intertwined.





surround it.

Rather than reality, I propose hyper-reality. A heightened reality, corresponding with heightened fantasy.

This Letter

Objects that simultaneously assert This Is This and This Is That collapse the real with the imaginary, content with form and signifier with signified. The artifact on the right is a letter on ordinary 8.5x11 paper with embroidered x's In place of text. It is immediately recognizable as a letter through its indents and blocks of gray lines but it is also unfamiliar. The intangible content of the ordinary-extraordinary letter finally tangible. It Is simultaneously hyper-materialized and hyper-imaginary, collapsing the fictive with the familiar.

This home

Our homes serve as shells or a roomier second layer of clothing—providing shelter while maintaining a safe view of the Outside. We can occupy two places at once—our home's interior and a safely separated outer world which we are connected to through windows, televisions, computers, letters and books. We are both Here and There.

It is not surprising that dwelling is the key metaphor that Freud used to describe the uncanny.² According to Freud, uncanny experiences occur in the place most familiar to us as a result of the simultaneous existence of the foreign and the familiar. The home allows us to safely be Here (in my bed reading the newest novel by Michael Chabon) while also There (freezing in an unfamiliar Alaska).

"The art would be to feel homesick, even though one is at home. Expertness in the use of illusion is required for this."

—Sämtliche Werke Kierkegaard, 1914 cited by Benjamin, 1940

"This is the formula for the interior." $^{\rm 3}$

- Walter Benjamin

This co-presence of our immediate surroundings and an unfamiliar world characterizes objects that firmly assert both This is This and This is That. It is the little detail that stays with you. While seemingly benign and familiar (This is That); it also grates as different (This is This)—consuming your entire memory of the place. Another way to describe the dual relationship of This is This and This is That, or the simultaneous existence of the foreign and the familiar, is through scale. Our homes are generally ordinary; looking like its neighbors and your neighbors' neighbors. Your home is generic, part of a larger set of homes and 1:1,000,000. But your home is also extraordinary and specific to you. It is your outer shell and 1:1.

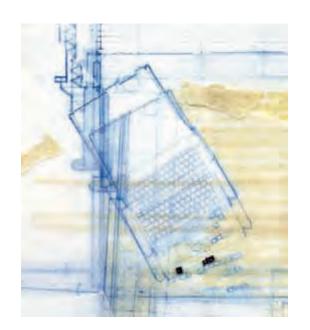


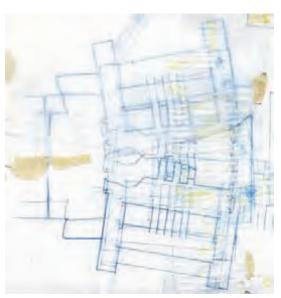


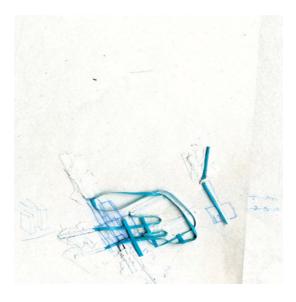


The author unfolded her living room—her second skin—in a drawing treating the walls, floor, ceiling and all their contents as a single surface. Every surface is treated equally—from the remote control, to the bookshelves, to the floor. Surfaces which are imperceptible and unimportant to the occupant (the back of the television) are not represented. Since the Home is directly related to the body, the drawing is scalar unlike the cinematic perspectival unfolding of the neighborhood drawing. Its scale enforces its role as a signifier that represents a measurable space.

The drawing also records the act of dwelling. Where the occupant simultaneously inhabits both the Interior world and the world Outside her windows by watching TV, e-mailing or reading a book, there is heightened activity in the drawing. These lines representing occupancy are not measurable; the drawing's role as a signifier is fragile. This fragility is further threatened when the drawing itself is occupied. As the drawing is built as a layered, constructed object, it forms its own rules distinct from representing a room. Drafting tape and tracing paper overlay the blue pencil lines. The 1:1 scale of the tape







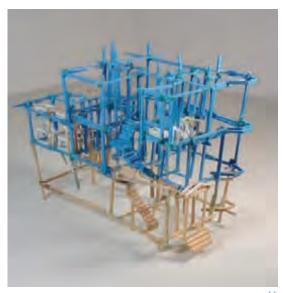
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The line is drawn directly on the living room furniture and walls. It is both the drawing and another place outside of the drawing. The blue tape line/ plane represents the original home-site—a new home extrapolated from the site—and a site unto itself.



Upstairs apartment: My home is a This to me but a That to someone else.

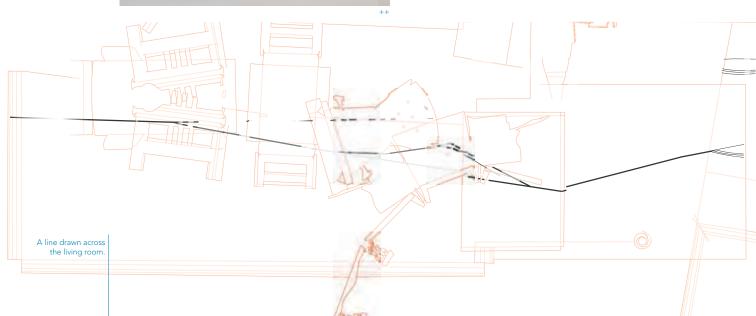
The drawing refolded into a re-imagined home. Cut and fold decisions based on all the lines.

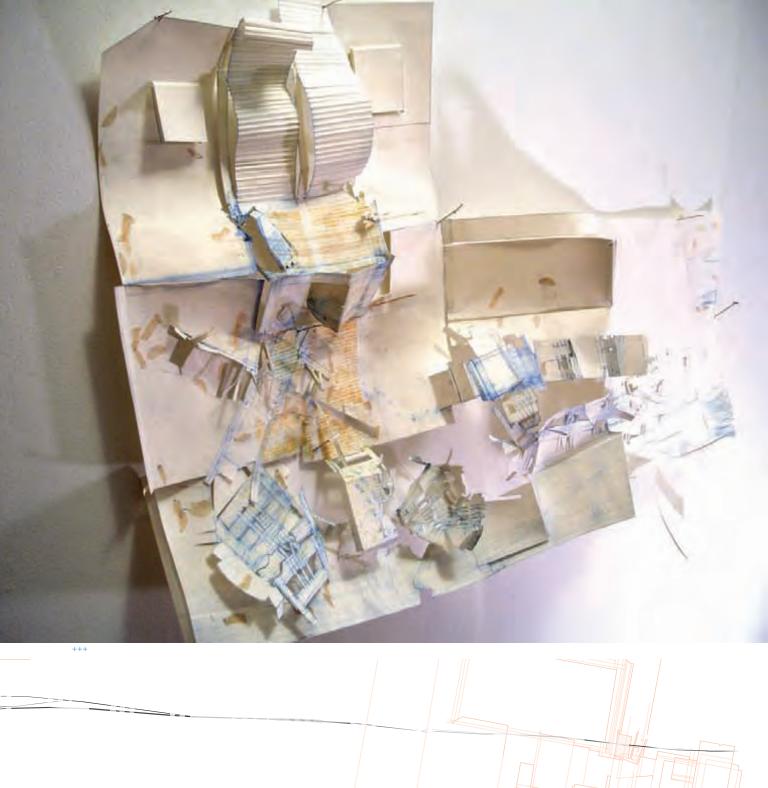


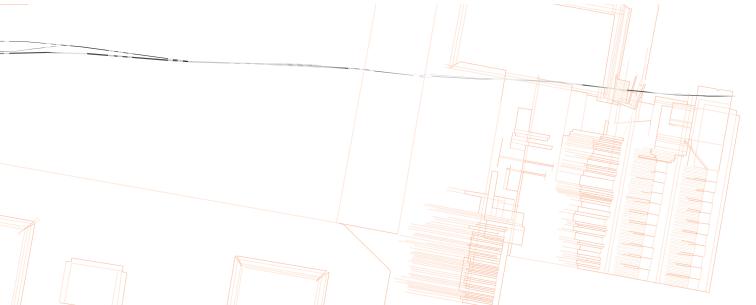
and trace enforce the Thisness of the drawing, reminding the viewer of its objectness. It is as real as the space and occupation it represents. The drawing is then refolded into a re-imagined home, using all the lines as instructions for cuts and folds. No distinction is made between lines originally signifying cuts and folds, occupation or dwelling in the drawing. The re-imagined home is both recognizable and completely foreign.

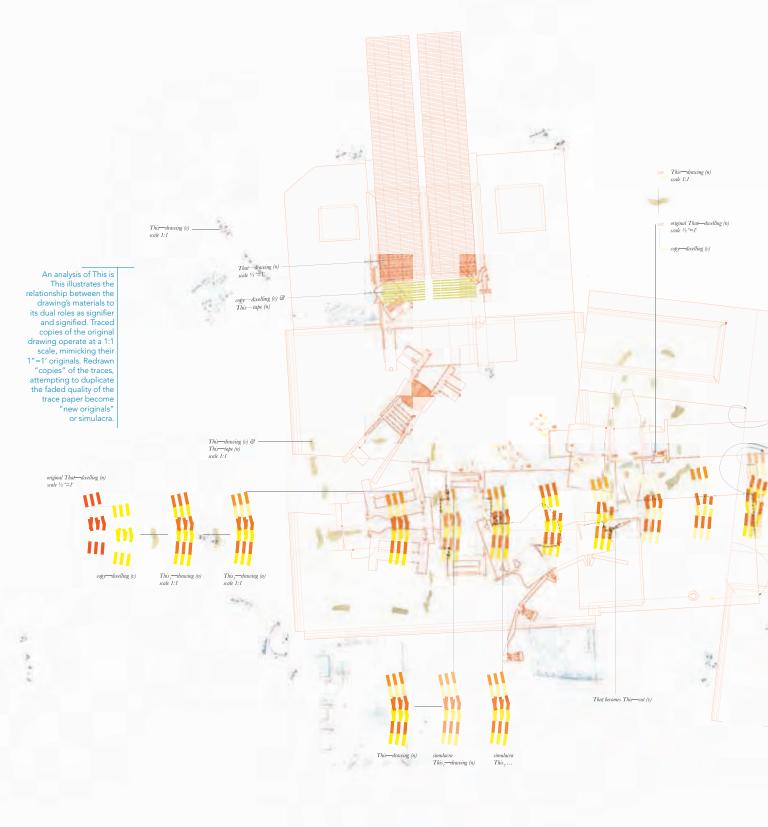
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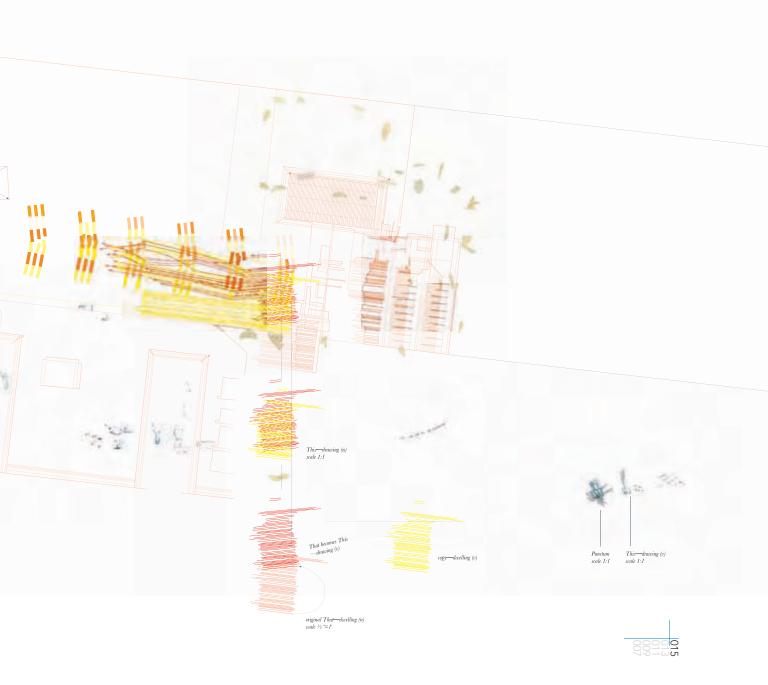
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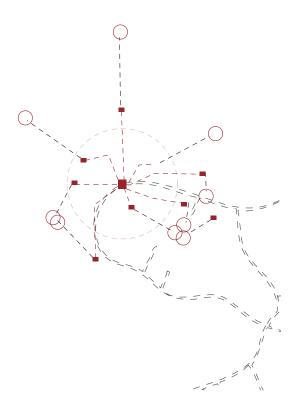












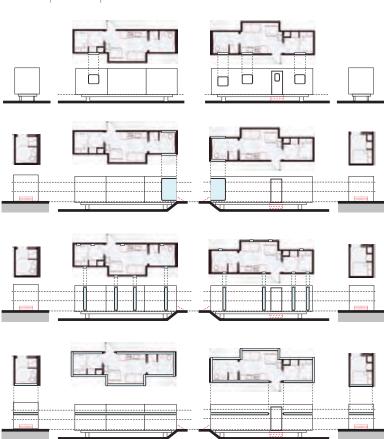
"I am for portable houses and nomadic furniture. Anything you can't fold up and take with you is a blight on the environment, and an insult to one's liberty. I believe in the tent, the card table, and the trailer. The past two decades have witnessed a huge increase in nomadicism. For every housing development that carves up the land, a flock of houses on wheels and pontoons takes off somewhere else. Where is the great literature on the mobile home, the trailer park?

American society has become mobile, yet it still depends, for the most part, on stationary dwellings. But while stationary, most new American houses are impermanent. Although a house in a subdivision is not portable, it is certainly interchangeable with any other house in any other subdivision—and the subdivisions themselves often evaporate. Nearly every American house I've lived in has long ago been demolished to make room for some other building. There is a delicious (though painful) paradox here. Americans long for stability, but all they get is stationary impermanence. No wonder, then, that many of us long to become permanent nomads, snails with houses on our backs. The nuclear family has long ago scattered, buying new houses every few years, always putting down shallow roots. Paradoxically again, then, a moving house becomes more permanent than a stationary house, and a better means of keeping connections between family members and thus a sense of rooted-ness: In your mobile dwelling you can visit your family all the time."1

—Andrei Codrescu







Fifteen percent of America's population lives in some kind of mobile or manufactured home. Over 800,000 FEMA "travel trailer and mobile home" units are currently occupying America's landscapes—most deployed after national disasters—however in time, the possibility exists that the units may become people's permanent homes. While the term mobile is becoming incredibly popular and increasingly thought of as the ultimate in fashion and technologies (mobile phone, mobile computers) this craving for flexibility has halted at the doorstep of mobile homes—with their attached stigma and the stigma of their inhabitants. Current FEMA communities overlook interaction with neighbors, landscape, and weather conditions. Many FEMA inhabitants have been diagnosed with depression and crime often runs rampant throughout the uninviting communities.

Deployment of materials

Within one square mile of land in Ann Arbor, MI, many different types of housing exist—condos, apartments, mobile homes, low-income housing. From these market-rate housing areas, a taxonomy was created. This taxonomy compared materials,

windows, parking, green space, square footage, cost per month and boundary. Surprisingly, it was found that there is no direct link between square footage and cost per month. However, there is a link between the cost per month and the amount of closet space and glass. Given these correlations, can the social stigma surrounding these FEMA units be changed if these units appearance paralleled that of a "modern home?"

Exploring and altering the standard 49 sq. ft. total of glass in a standard FEMA trailer, has different architectural and social influences. Given the compact nature of a mobile home, there is little room to hide and the lack of storage puts the inhabitant's possessions on display. The deployment of a singular large window creates perverse views into and out of the units.

Rethinking the site

The typical notion of the mobile home—detached 1'-6" from the ground—residing on a flat plane is questioned. Manipulation of this allows for both "permanent" and "temporary" living. The site, surrounded by the researched housing types of Ann Arbor, has a sloping terrain and varying water levels. These topographical changes of the land cause the water to rise and recede at different parts of the year, causing changes to the trailer layouts and increasing the need for mobility of the units. This movement allows for continuous changing of view corridors outward and into mobile home units. These changes create a dynamic and unpredictable environment.

The site's user will vary. After a period of time following a national disaster, a home "rebuilt" using a FEMA unit, can be purchased by the resident of the mobile home for anywhere between \$1,000 to \$6,000 dollars. For some the residence becomes a permanent one, for others it becomes a cheap option as a getaway trailer. FEMA communities can then begin to house "vacatees" (people fleeing from disaster) and "vacationers" (people on vacation). The vacationers would presumably only use their homes during the summer—storing the homes on the site throughout the winter. These stored units become winter wind blocks for the vacatees, increasing the protection of the units from cold weather, given FEMA units lack of proper insulation. The view corridors change depending on density of units and season. Pathways of circulation around the units also change, resulting in new spatial experiences.

Electrical distribution influences the layout.

Stalkers Unit distribution allows for surveillance of specific people within the landscape.

Walkers Units arrange picturesque views into the distant landscape.

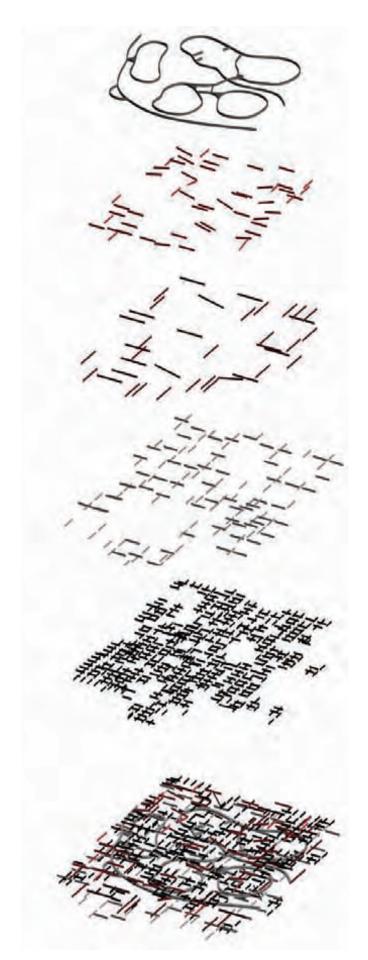
Watchers

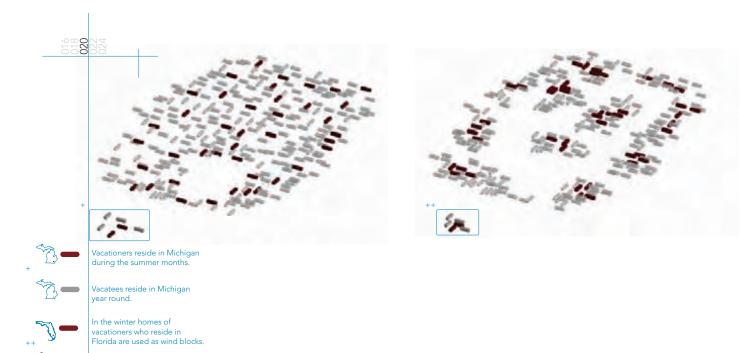
Views are created to specifically monitor the weather.

Blockers Views are directed towards the television.

Convergence

Layering of each view produces moments of overlap and intersection. These moments allow for the possible joining of homes into multifamily homes, increasing the density on the site to fulfill 288 unit minimum requirement.





Views outward and into mobile home

Vacatees reside in Michigan

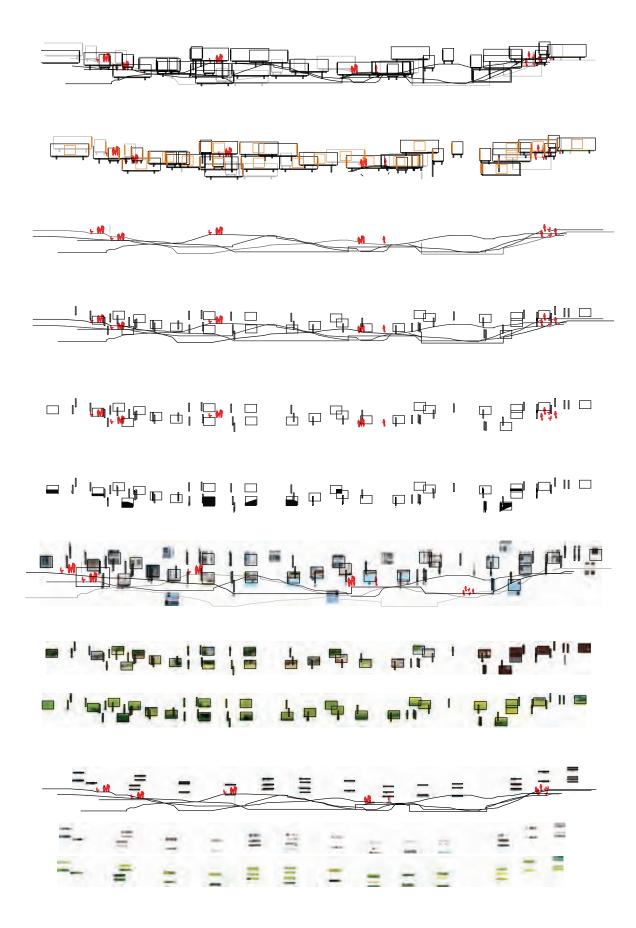
year round.

units.

Generation of views

The small size of FEMA units and unimaginative design leads to highly regimented and very bland views to the outside world for residents. Providing improved views to the surrounding landscape is essential to promoting positive physical, emotional and psychological health of FEMA community residents. Because people have different and unique desires for interaction, new types of FEMA units can generate preferential views. Blocker units exist on grade where the resident can be content sitting on their couch watching TV in their family room. Watcher units are for the resident who feels easily confined and cramped. These units provide views to the weather and growing vegetation surrounding the unit, but avoid views of neighbors. Walker units are picturesque allowing the resident to gaze out into the landscape. Stalker units are for the vigilante or people watching residents who want to observe noisy neighbors or help increase the surveillance of the community. Each of these unit groups has a different relation to the ground, other units and viewing goals.





Summer view layout of electrical hook-ups.

Winter view layout of electrical hook-ups.



Electrical hook-up stations.



56' max. electrical wire from hook-up stations.



FEMA units in relation to wire hook-ups.



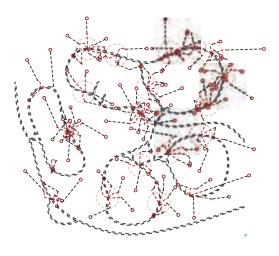
Deployment of windows to provide specific views.



Views directed towards specific destination, point-generating interactions.



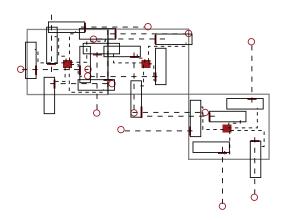
Points of visual, physical and social interactions.

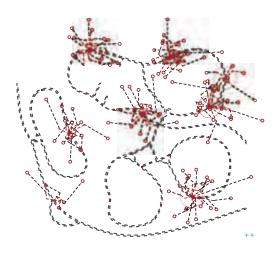


Activity

Daily activities and interactions from night-life to seasonal changes allow for new types of FEMA communities. Winter can provide a huddling of units by forming large open spaces for sledding, ice fishing and ice skating. Moving the vacated vacationer trailers into wind blocking positions increases the comfort level of the permanent residents throughout the winter. In the spring and summer, units can exist more freely providing each unit with increased personal property—a yard or garden. Larger communal spaces in the spring or summer can become ball fields and play grounds, places of energy and activity.

Ultimately, the project aims to stretch the boundaries of what we have always known as mobile homes. A rethinking of site, ground plane, interaction, and activity provide options to what has always been a very regimented housing type. Or as Andrei Codrescu questioned, what exactly is mobile? And what is truly permanent housing anyway?





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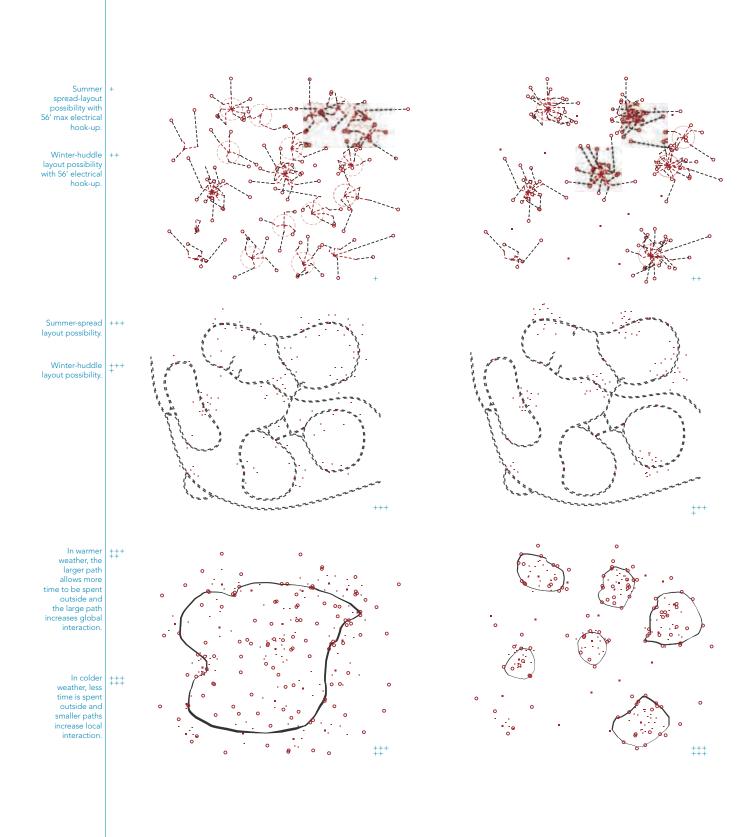
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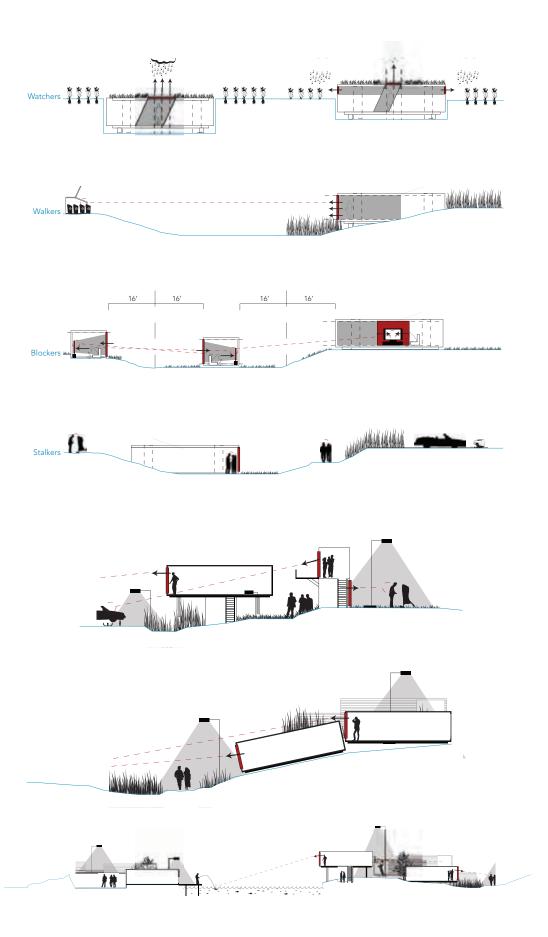
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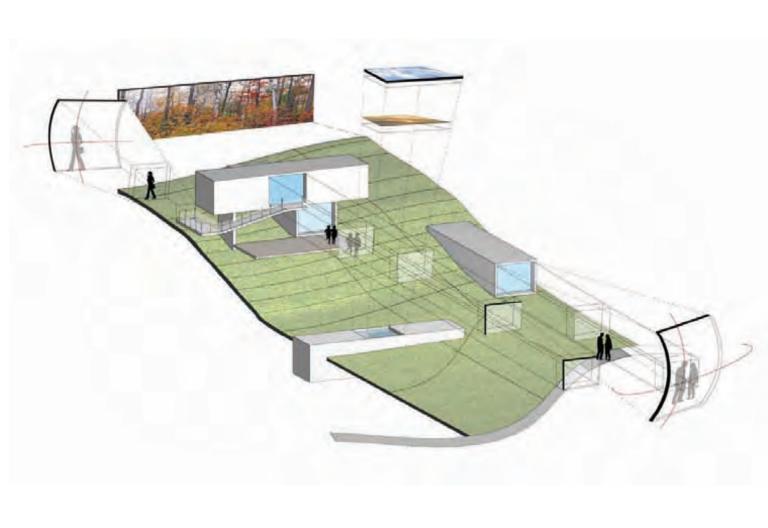
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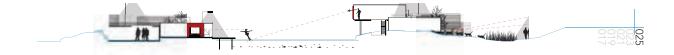
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Control Joints for the Perpetual Breach

In an urban flooding scenario, our most basic assumptions about the constructed environment are overwritten by a new spatial model in which the city is functionally de-territorialized,3 and literally ungrounded. The so-called urban flood upends the very strengths and safeties of the built environment and calls for an architectural reaction that will oversee a new condition of shifting foundations and terrestrial instability.

The city of New York was recently mapped according to the likelihood of flooding in a Category Three hurricane, with low coastal areas in red and central high areas in white.4 Whether or not the ground is literally covered by water, in the cultural acumen of the myth, we are increasingly sensitive to its figurative threat; these flood maps are just the newest materials of an old mythological fear. Our footprints have always been faintly diluted by the rising potential of a flood, a sort of warning that we superimpose on our geographical present. On the streets of lower Manhattan, we are perpetually suspended between a supposed future of environmental calamity and a daily reality lived upon dry, solid hardscape.

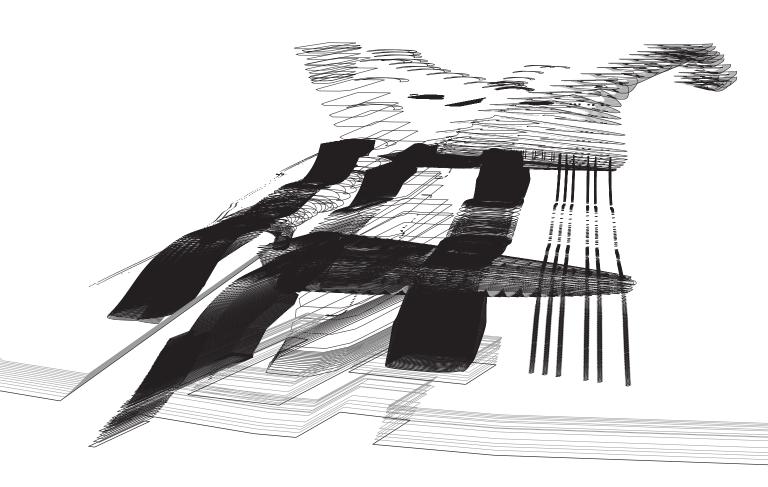
This project is sited in Red Hook, Brooklyn, on the corner of a man-made harbor that looks out to the Atlantic through the New York and Raritan Bays. This stretch of coastline typifies the sort of artificial threshold between the land and the water that defines nearly every port city in the world. Their geometries can be easily recognized from a simple aerial photograph; and yet, these lines of intersection are uniquely complicated by the cultural and industrial will of the city. These are severely unnatural lines, harbors that are driven by use, by function, by economies ... and sometimes even by symbolism.5 They represent a sort of disregard for the natural shape of the water's edge, preferring instead a geometry that has been optimized for its use. But while usefulness relies heavily upon geometry, the geometry in turn relies heavily on the stability of the water level. A reliable elevation is the axiom of harbor geometry; an unreliable water elevation is a total disaster.

Because these lines of intersection can be seen to transform with the ebb and flow of cultural and industrial demands, the initial action of this project was to excise it from linear time and to consider all previously mapped formations as existing simultaneously or preferentially at the discretion of the designer. This introduction of a "flickering time code" helps to further differentiate the discipline of the coastline from the temper of the ocean. As expected, the history of the site revealed the primary movement of its water-bound edge to be determined by human constructive/destructive forces. This project sought to invert⁷ that situation by imagining the built objects as static through time and the water as moving up (and down) through the site. Thus, the line of intersection between the water and the built form could still be intentionally designed, but would have

Amid the cultural fallout of Hurricane Katrina and the dire forecasts of global climate change, the flood has become a deeply contemporary allegory. It is also a deeply troubling paradox in which we find ourselves, simultaneously inured to and alarmed by the incessant rhetoric of calamity that suffuses our present relationship to the natural world. The extent to which we acknowledge our threat to the environment is the same extent to which we are profoundly intimidated by the possibility of its retribution.1

We resurrect the myth of the flood as a "necessary monster"² of sorts that helps us to examine our anxieties about the uncontrollability of the environment and our increasingly critical relationship with it. And yet, we have already begun to question what this myth should mean to us and to look for creative and productive responses. As authors and designers, we are provoked to move beyond our environmental fears in order to shape and to suggest the next generation of our built (and unbuilt) mythologies.







to anticipate the vertical movement of the water such that all previous and potential intersections would exist simultaneously, stacked on top of each other.

The forecasting center imagined on this Brooklyn pier, the "Whether Station", reflects the deep ambivalence of its occupants towards the events they predict. The center anticipates an episodic storm surge of enormous proportions and yet it is constructed to respond in a highly specific way to the turbulence of such an event. The program is divided into two general categories, those that are grounded and those that are mobile—or buoyant. The grounded program is locked to three heavy piers that support the weight of the superstructure. During stable weather conditions and low water levels, there is a free range of movement between the two types of program and spaces are shared between the lower buildings and the superstructure. However, as the water level rises, barriers between spaces of different relative stabilities are initiated, eventually plugging these exchanges and fundamentally reorganizing the character of the spatial/social inhabitation.

The speed at which this occurs is immaterial; rather, the reconfigurations of the building are initiated solely by the elevation of the water surface. The strategically weak details, or "control joints," give way at specific water levels in order to sacrifice certain parts of the building for the preservation of the greatest amount of the remaining whole. The degree of this sacrifice shifts according to the severity of the surge. As such, the unmaking of the building is highly choreographed. At the apex of its transformation, the superstructure completely detaches and is cast afloat, along with its annex, the Catamaran. The remaining grounded buildings either completely seals off during submersion or they implode according to a prescribed

sequence. These control joints ensure that even the most catastrophic event follows a predetermined event structure⁸ and that this procedure is built into the very details of the Whether Station.

Although the inhabitants of the station live every moment in a space embedded with its own unmaking, it is imagined that they do so with full awareness of which parts will seal off, flood, implode, launch or sink ... and in which order. A foreboding lends these spaces an experiential instability. Even in the calmest weather, Building 3 is spooky, as if already missing ... or never absolutely there. It implodes at eight meters above sea level. In this way, the stability (or instability) of the spaces during an anticipated event begins to affect their stability in the present. It is as if the event is perpetually happening; the water always rising, the spaces always filling and the station's inhabitants perpetually fearful and smug at the correctness of their projection.

Water cube studies of physical forms that control linear events.

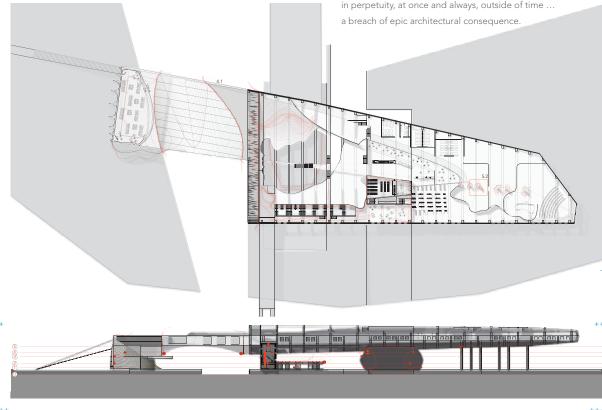






A method of drawing an anticipated event was developed in conjunction with the building and its program. These "water drawings" sample the intersection of the Whether Station and the surface of the water every two inches as the water rises. Similar to a time-lapse photograph, with time replaced by elevation, these drawings unfold the building's response throughout the event into a single figure. The only variable is the storm surge itself. Hurricane Isabel was chosen as a

test case and its severity was amplified for effect. This method collapses the interpretive/activating medium (i.e., the surface of water) with the form that is being interpreted/activated (i.e., the building) over the course of the storm. The flattened image of the oceanic plane's journey up through the building unlinks the represented event from any specific time code. It has been rendered in the drawing as we experience it today, as the experience would be for the inhabitants of the Whether Station, as an ongoing psychological catastrophe that occurs, in perpetuity, at once and always, outside of time ...

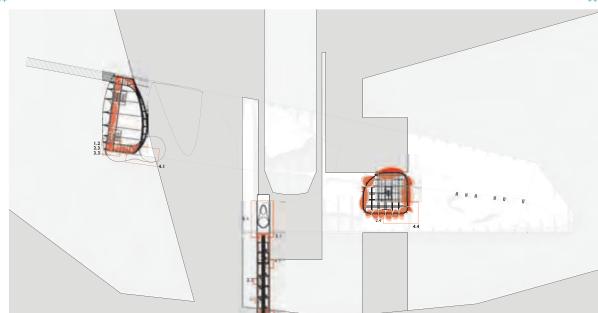


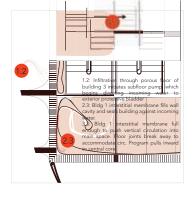
Elevation of the event scale.

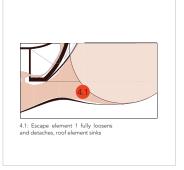
Event Structure/ Anticipatory Architecture:

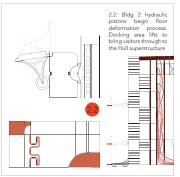
Plan of the upper level strath.

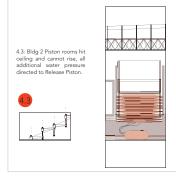
Plan of the lower level strath.



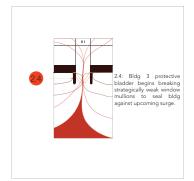


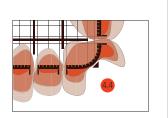




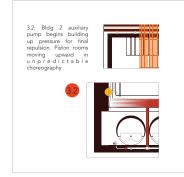


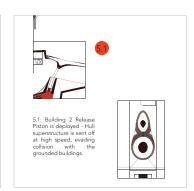
- 5.1 | Bldg 2 Release Piston is deployed—Hull superstructure is sent off at high speed, evading collision with the grounded buildings. Stabilizing columns tear out, infiltration is loosely contained around column bases.
- Escape element 1 fully loosens and detaches, roof 4.1
- 42
- Bldg 1 flexible lookout program moves to roof deck. 4.3 Bldg 2 Piston rooms hit ceiling and cannot rise, all
- additional water pressure directed to Release Piston. Bldg 3 finally implodes from the external pressure of the
- protective bladder. Central structural core still supports weight of Hull superstructure.
- Seal off of Bldg 3 from Hull superstructure initiates (internal walls in Hull body activated).
- Bldg 2 auxiliary pump begins building up pressure for final repulsion. Piston rooms moving upward in unpredictable choreography.
- Bldg 1 interstitial membrane full enough to push vertical circulation into main space. Floor joints break away to accommodate circ. Program pulls inward to central core.
- Barge undocks and floats backwards from forecasting
- Bldg 2 hydraulic pistons begin floor deformation process. Docking area lifts to bring visitors through to the Hull
- Bldg 1 interstitial membrane fills wall cavity and seals building against incoming water.
- Bldg 3 protective bladder begins breaking strategically weak window mullions to seal bldg against upcoming
- Barge lifts to be accessed from interior garden.
- 1.2 Infiltration through porous floors of building 3 and 1 initiates subfloor pumps, which begins directing incoming water to exterior protective bladders.
- 0.0 Average water level. Whether station waits.



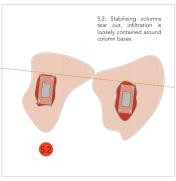


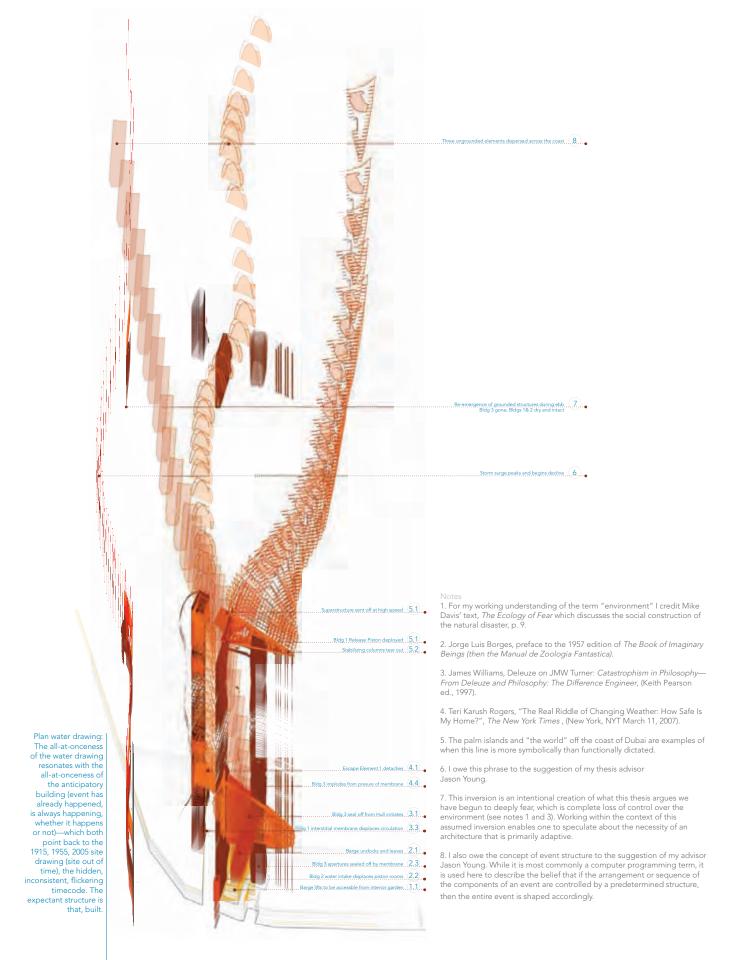
4.4: Building 3 finally implodes from the external pressure of the protective bladder. Central structural core still supports weight of Hull superstructure.

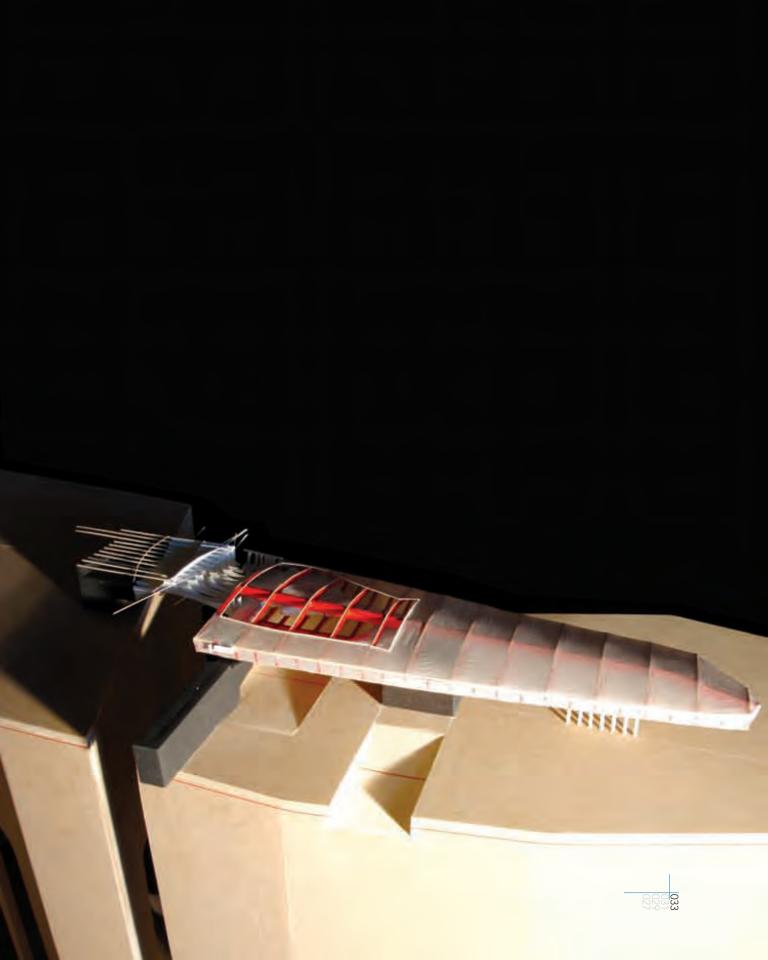


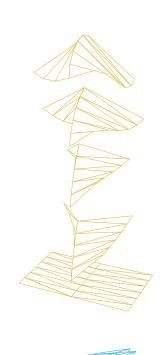


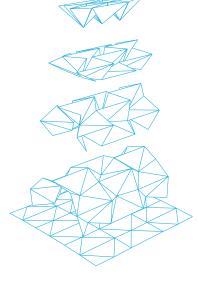


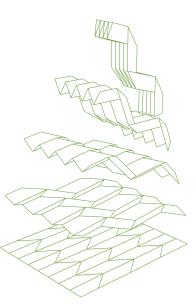












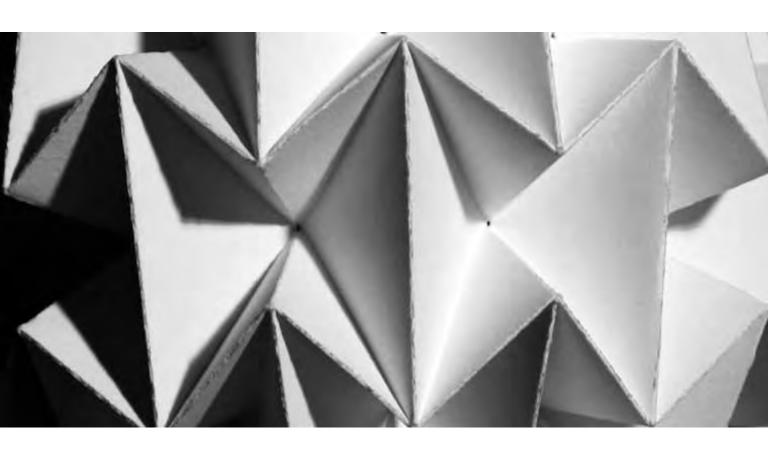
The ancient practice of origami habituates the hand, cultivating formal sensibility and material intuition; but much more than a literal collection of miniature architecture-like artifacts, origami sponsors methods of modeling and diagramming which begin to delineate new territories within contemporary design practice. In contrast to discourses dominated by technique, performance, or process; design is located in learned sensibilities which are acquired through making ... through tacit knowledge.

Architecture has proffered the biological dictum, "form follows function" and we have nearly all imbibed the proverbial bait.

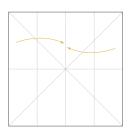
Enter parametric, circumscribing architectural discourse in logics of performance, efficiency, optimization ... in short, a continuation of functional tactics, humming like a well-oiled machine.

Consider Walter Netsch functionalism on speed, exhibiting a perverse logic history seems to have dismissed as an architectural aberration. Around 1965 Walter Netsch, then Principal at SOM, completed design and construction of UIC's circle campus. The campus—renovated in 1996—affords an opportunity to reflect about Netsch's potential influence on the discipline.

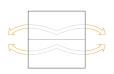
To accomplish this, one must situate Netsch's UIC campus squarely in the hyper modern factory that was Chicago—Chicago, the city that inherited Mies and turned his rational, sparse, functional sensibility into a slick corporate machine.



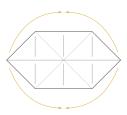


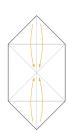


































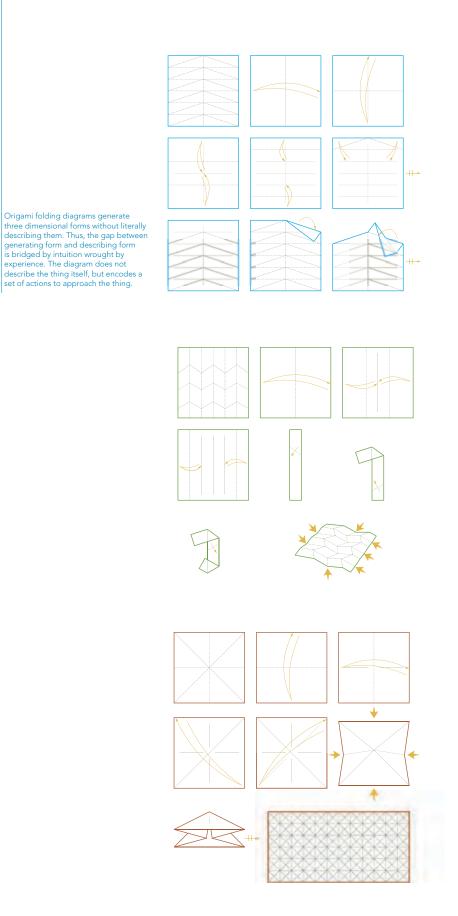








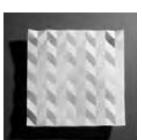


























The rules of origami are simple: no cutting, no adhesive. Taxonomy of folds reveal the underlying structure, preliminary folds combine to construct the model base. From the base any number of figural models can be derived. In polyhedral origami, a angle unit is repeated to form a constellation of interlocking parts—simple rules; endlessly complex form.

the metaphysics of extrusion

The evacuated box constitutes a moment of poise, tempting many toward rebellious formal deformations.

Field theory:

Mies in a box: structural permutations and spatial variations

UIC the onion reconsidered

One gets a sense of grotesque functionalism when you hear Netsch's guiding dictums for his UIC design: use minimal reinforcing in concrete so that it expresses its structural load with integrity; fenestration should block enough sunlight to eliminate the need for mechanical blinds; only use materials that are indestructible (i.e. concrete, granite, and brick). Like many projects with modern proclivities, Netsch maintained grand ambitions for the campus, considering it a microcosm of the city - an urban onion where program was organized concentrically around a dense core. Netsch also fostered metaphysical ambitions based upon a form of rotated geometry at play, which he called field theory, evidenced in the architecture and behavioral science buildings. Field theory, according to Netsch, participated in the vast order of the cosmos on multiple scales from the atom to architecture to galaxies. Netsch's hopes for UIC were largely unrealized, and the 96 renovation was an effort to ameliorate the cold logic of the original design.

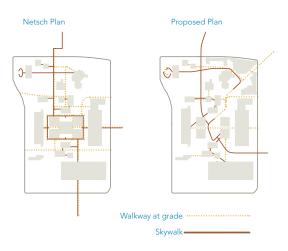
In an effort to pick up a different trajectory from the UIC renovation, a proposed restoration of Netsch's original design re-imagines the system of skywalks and rooftop courtyards removed in the 1996 renovation, which were of central importance to Netsch's initial plan. The restoration of Netsch's UIC campus design affords an opportunity to investigate unorthodox functional logics encouraged as a reaction to Mies' pure modern box. The Miesian box, a type that Colin Rowe rightly associates with highly classical tendencies begins as an elegant articulation of column and slab; the rarefied surface of the slab and the manipulation of the column compound in a number of spatial conditions (free plan, limitless grid etc.). The column itself becomes charged with implied spatial potency. Mies' early cruciform column implies a continuous grid disinclined to align with interior partitions. Mies' later use of the I-beam alters this condition and induces a state of receptive neutrality. Eventually superstructure evacuates the box and it becomes pure, rarefied surface—two planes hovering expectantly above each other.

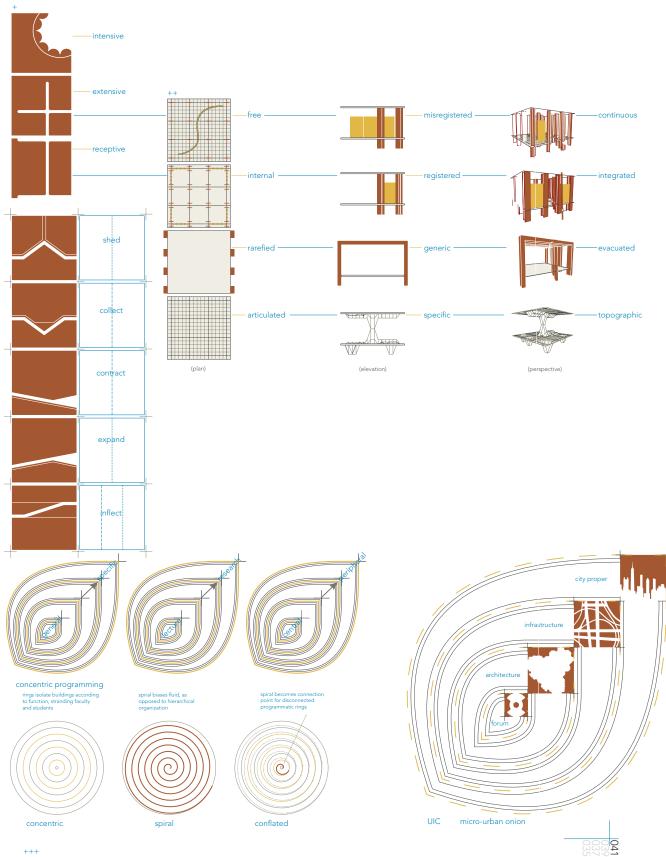
Origami provides a set of operations (different from the logics of rotation, symmetry and extrusion which diagrammatically sponsored Netsch's rebellion) in order to begin to enable the surface to become expressive, structural and spatially compelling. Form is not merely embodied in efficiency. Rather, design must situate itself in learned sensibilities through making. A body of tacit knowledge via the practice of origami habituates the hand, cultivating sensibilities which interrogate Netsch's functional grotesqueness and indirectly questions parametric tactics latent with Miesian functionalism—in favor of developing something akin to spatial tact. Much more than a literal collection of miniature architecture-like artifacts, origami sponsors methods of behavioral modeling and diagramming which begin to delineate territories within design practice. Origami situates the parametric in a larger, more layered territory of concern.

I would like to dedicate this work to Nelson C. Spahr whose passing last spring both cut this investigation shot, but also left a productive question mark hanging for the future. I will miss you Grandpa.

1. Louis Sullivan, The Tall Office Building Artistically Considered, (Philadelphia: Lippincott's Magazine, March 1896).

2. Ronald D. Resch





Slaughterhouse Event

"Program is to be distinguished from 'event'. A program is a determinate set of expected occurrences, a list of required utilities, often based on social behavior, habit, or custom. In contrast, events occur as an indeterminate set of unexpected outcomes. Revealing hidden potentialities or contradictions in a program, and relating them to a particularly appropriate (or possibly exceptional) spatial configuration, may create conditions for unexpected events to occur. For example, one may combine or assemble programmed activities so that they charge a spatial configuration in such a way that, by mixing otherwise common or predictable programmatic items."



Conventional and functional programmatic structure in architecture has ignored users. The user has been reduced to the expected and predictable and this has often turned architecture into a passive "object" where the space conflicts with its use.

To challenge this condition, users become the primary consideration in understanding space. Users themselves are conceived to have certain characteristics of actions and spatial effects. This allows for an exploration in the representation of the invisible field in terms of spatial conditions or effects which are formed by users' occupation of a space.

A developed mode of representation focused on exploring users, suggests possible spatial ramifications. Eventually, the emerging spatial quality developed through the notation of users is aimed at broadening possibilities of programmatic structure and formal elaborations.

Event vs. program notation

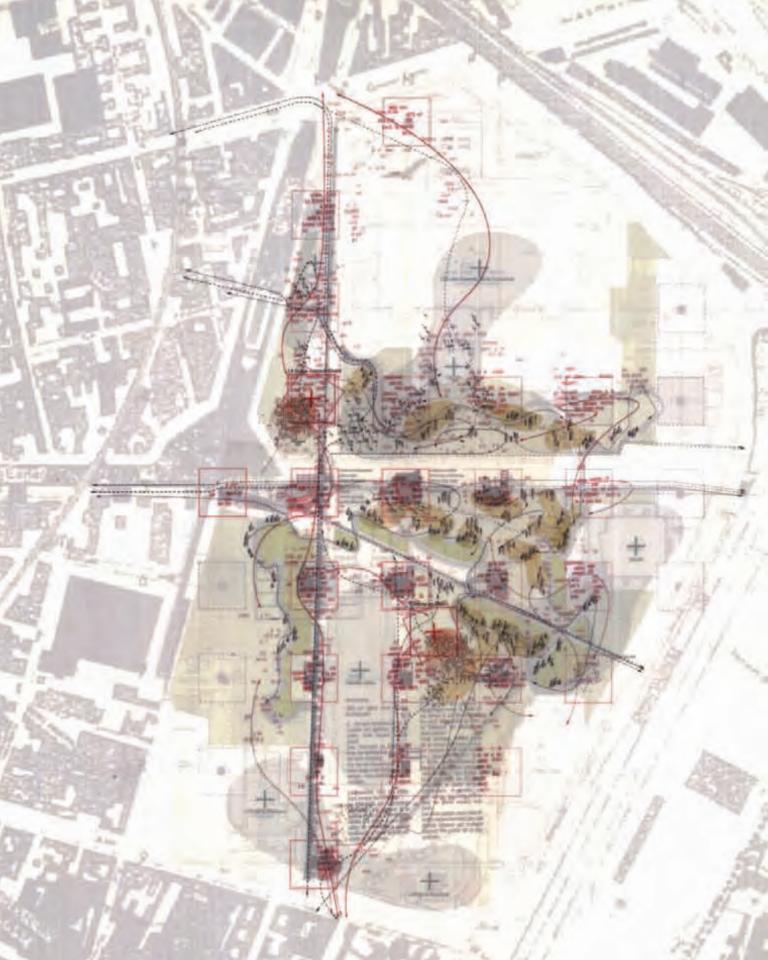
As an exploration into the disjunction between expected form and expected use, Bernard Tschumi opposed the expected program and the form generated by the programmatic structure which often conflicts with users. To include the Event (vs. program) in architecture, the notation method became necessary as shown in his projects—*Manhattan Transcript* and *Ritual*, which both trace movements and interactions of users in a space.

Tschumi's first realization of theory, Parc de la Villette, was chosen as the site to utilize not only its context for specifying users, but also Tschumi's concepts as supportive logic for expanding the notion of programmatic structure. The notation method is revisited as a tool for exploring the users of the park.

As a way of specifying users and unveiling patterns—children, bongo drummers, sunbathers in the park—initiate the notation drawing with information of each user's spatial occupation and existing patterns of use.

Representation of spatial effect: gestural drawing

After visualizing patterns of use in the overall park through the notation method, another set of drawings is investigates the spatial effects informed by modes of occupation. The notation method begins to concentrate on the characteristics of each user in order to visualize their spatial effects, which have barely appeared in architectural representation.



The chaotic movement of children, the atmospheric music environment created by the bongo drummer and the slow movement of a sunbather searching for a good spot on the grass are notated based on their context in the park. Especially for the bongo drummers, the production of spatial effect by bongo music enriches their representation. The marks are simply produced by listening to bongo music, and several marks from different music are overlaid onto the drawing which already indicates the drummer's usual playing spot based on the park's context.



Notational interpretation

Studying the characteristics of users as a subject of drawing produced sets of marks which have more gestural qualities and require another level of interpretation to be formalized as architectural interventions.

The marks of bongo drummers were filtered and translated to have more notational qualities by being specific about the information each mark conveys. This notation starts to build up the spatial qualities of each user's characteristics and unique voices. Finally, the developing notation drawing begins to suggest a series of fields which display fluctuating architectural qualities such as intensity vs. porosity and fast vs. slow.

Event territories: decoded drawing

The series of surface qualities created through notating spatial effects of users are understood as event territories which would accommodate different types of events. This begins to suggest architectural forms and interventions which have the potential to stimulate and reconfigure the existing event conditions in the park created by Tschumi's design.

Rather than formalizing the individual notation itself—which requires significant translation into architectural forms and space, the sets of marks from outside the drawing were created and borrowed to augment the emerging event territories. This provides the field for developing another set of decoded marks by allowing the notation drawing to react to the emergent event territories. The resulting decoded marks are perceived as the infrastructure for events to propose the new event condition into the park.

Spatial sequence of the slaughterhouse

For formalizing languages of the event structure, the study of users is expanded to include historical context—the old slaughterhouse on the site that was erased in designing the park. By applying the same method, re-notating and re-cording the old site of the slaughterhouse. The representation deals with double sites including interests in both the new—Tschumi's Parc de la Villette and the slaughterhouse.

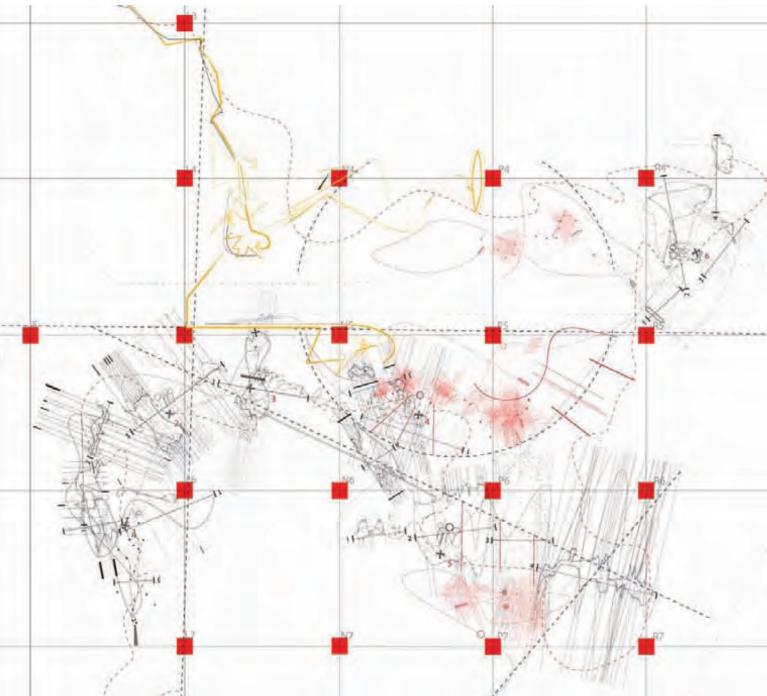
Finally, the notation of the slaughterhouse's spatial sequence is expected to build up a formalization language and draw out the new event condition of the park. Tschumi designed the "cinematic promenade" to amplify the event conditions incorporated with other elements of his design. Ten sequences through the cinematic promenade were set up, and each sequence has its own garden and boundaries defined by other paths and trees.

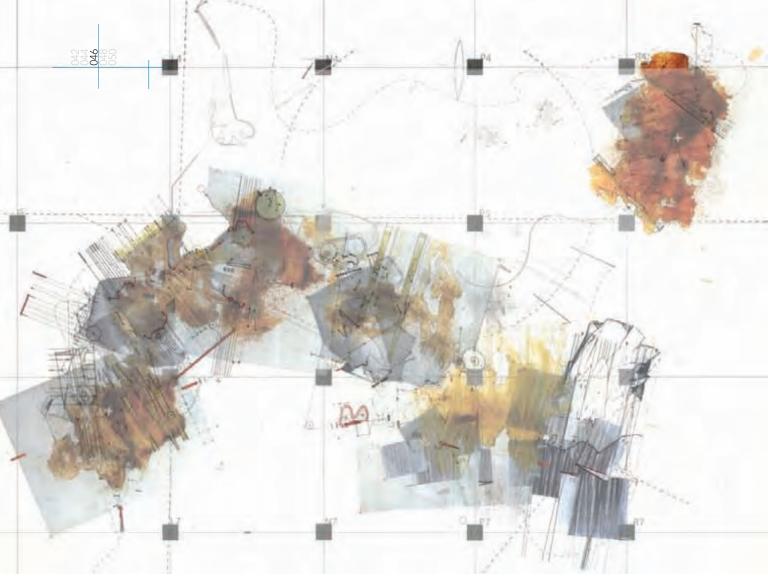
Previous spread Existing user patterns of children, bongo drummer and sunbathers at Parc de la Villette.





The bongo drummer's music is chosen to be the most dominant subject of notation. Marks created by listening to bongo music are placed on Tschumi's site drawing .





Gestural Formalization: slaughterhouse event structure

Relating the spatial sequence of the old slaughterhouse to the cinematic promenade—which consists of ten frames as Tschumi's design intent for event—the notation drawing started to be formalized in terms of the spatial characteristics of the slaughter house. Spatial characteristics and the sequence of slaughterhouse are implicated through the cinematic promenade in terms of spatial sequences. Gestural formalization is drawn out from a double site (current and past) and double users (Parc users and animals) by interacting with each other and reacting to the set of representations.

At the entrance of the slaughterhouse is a linear, wooden counting barrier. The linear marks in the notation drawing implicate the counting barrier and beginning of sequences. The market's roof structure in the slaughterhouse is referenced as a large surface form in the drawing. These series of surfaces and objects have the potential to create a new "event". Therefore, the slaughterhouse is reconfigured by notating a spatial sequence and reintroduced as series of interventions to the

park through the cinematic promenade.

The series of gestural interventions react to existing elements (follies) of the park and have dialogues with Tschumi's design intent. By projecting onto each other, elements exchange their color code and reconfigure the forms, creating interesting tensions. These tensions can inform intervention to attract users to establish new event conditions. Dealing with the color code of red follies, the follies themselves and the colors and forms of the formalized intervention interact with each other and create a tension of intervention.

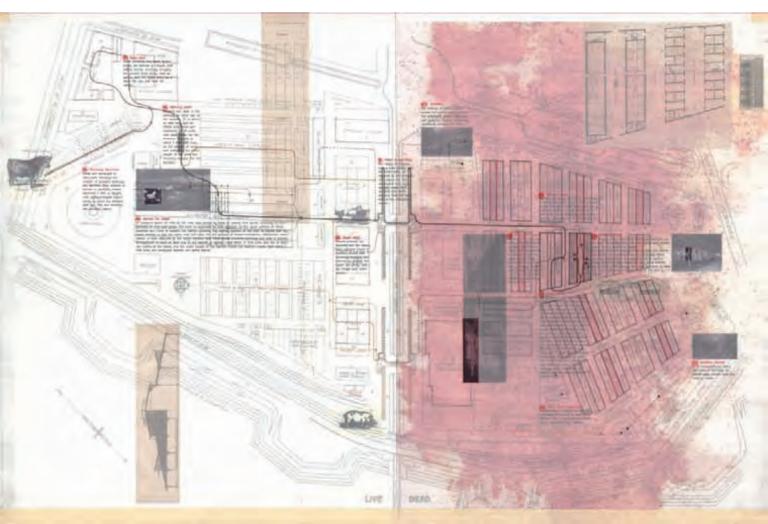
Formalization of interventions: new event condition

In order to regain the notational quality of drawing for formalization while maintaining the invisible spatial effect of the user (bongo drummer), the gestural forms (by implementing spatial sequence of the slaughterhouse) react to an "invisible field" (suggested by the ramification of drawing) and is agitated by the drummer's spatial effect. This technique of integrating notation quality from double sites and users finally produces emergent forms of surface for events in the park.

Surface qualities were overlaid onto an analytical drawing, decoding the notational quality of the drawing and context of Parc de la Villette.

The sequence of slaughtering the beast describes the process from the main entrance, to market and across the canal to the building complex where the slaughtering occurs.









In contrast to the conventional programmatic structure, which deals with expected occurrences based on social behavior or user habits—the event structure of the intervention invented through the development of notation drawings of users, attempts to build up potential for new event conditions by providing interventions that allow a dialogue with existing elements in the park.

While challenging ignorance of users in programmatic structure, the development of representation from an expanded interest in the users of double sites proposes a possible form generation process by establishing a process of developing representation for formalization.

The interventions have the potential for breaking up the accustomed event conditions of the park and reveal hidden possibilities for events in context of Tschumi's design element by restructuring and reconfiguring the existing spatial sequence forms by users. This would create new event conditions or stimulate unexpected events to occur.

Notes

1. BernardTschumi, *Event-cities 2*, (Cambridge: MIT Press, 2000). Bernard Tschumi, *Cinégram foile*, (New Jersey: Princeton Architectural Press, 1987).

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Isabelle Auricoste, Parc-Ville Villette: architectures, (Paris: Champ Vallon, 1987)

Oscar Schwarz, Public abattoirs and cattle markets—From the German of Oscar Schwarz, (London: "Ice and cold storage" publishing company, ltd., 1903).

Formalization at folly L6:

Vertically projected gestural forms onto the fluctuating surface, created by notating bongo drummers creates an event structure in-between the current ground of the site and surfaces of the old slaughterhouse.





Construction of intervention at folly L6



The Hotel for Intercontinental Time Travelers

Just south of the Arctic Circle, between the extremes of Russia and the United States, two small islands rise from the Bering Strait. Known as the Diomedes, these two islands stand as the most visible reminder of the strip of land that once bridged the intercontinental divide between Asia and North America. Big Diomede to the west, today abandoned, is part of the political territory of Russia and once served as a



naval outpost during World War II. Little Diomede to the East belongs to the United States. The small indigenous Eskimo village of Ignaluk occupies the southern shore of the smaller of the two territories. The village's 146 residents thrive via a largely subsistence lifestyle.

The Diomedes islands are politically and chronologically contentious. The islands straddle the International Date Line which bisects the Pacific Ocean from the North Pole to Antarctica. In essence, one can see across the straight, from today to tomorrow or from today to yesterday, depending on which island one finds them self on. Sited along the date line, directly between the two islands, is the Hotel for Intercontinental Time Travelers. At 486 feet and 416 feet above sea level, helicopter landing pads provide entry for visitors from the two sides of the Straight. At these precise heights, the opposite coastline is just visible before the earth's surface curves out of view. Peering into tomorrow or yesterday and across political territory provides an immediate reminder of the visitor's place within the bordered territory.

Big and Little Diomede belong to different nations, different histories, and literally different times. If the site is imagined strictly in terms of its politics and chronology, it might be considered intensely bordered. However, the extreme remoteness and always volatile weather and atmospheric conditions render the site equally unbordered. By inserting the hotel into this unique situation and environment, notions of border rigidity and validity are called into question. Cantilevered halfway down the arrival tower to the hotel is the hotel bar. The bar floats back and forth with the wind across the political and chronological divide. Hovering within Russian territory, the bar is stocked with an assortment of fine Russian vodkas. However, when the bar swings into American territory, the bar menu goes non-alcoholic, for the Ignaluk of Little Diomede cannot handle their liquor. In an environment of wind, fog, darkness and shadow, borders seem to evaporate into thin air, leaving only the experience of such phenomena. Taking advantage of the nearly 'round-the-clock sunlight during the summer months, shallow evaporation pools at the base of the tower are utilized to harvest salt from seawater on site. The salt is swept into hanging casts at the base of the tower structure. In winter the hotel sleeping pods, cast in salt, are released from the molds and become lodged in the ice sheets that freeze over the Straight. Once secure in the ice sheet, the pods are ready to be occupied by winter hotel guests.





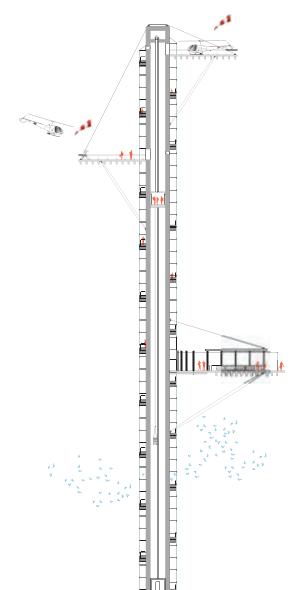








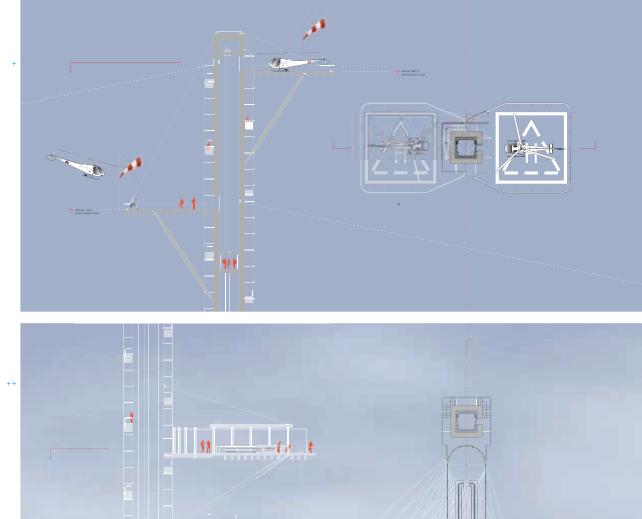


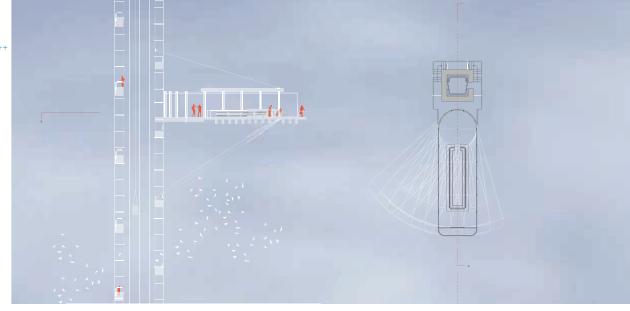


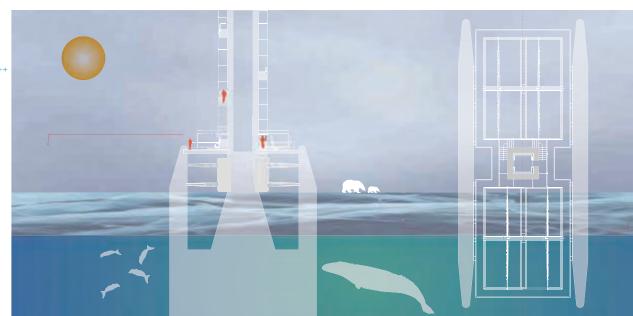
Helicopter landing pads well above sea level, are the entrances to the extreme remoteness of the Diomedes.

The hotel's bar showcases the volatile movement of the changing winds.

Casts at the base of the tower, harvest salt from swept-in seawater and create sleeping pods.















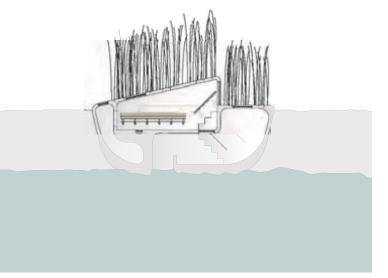


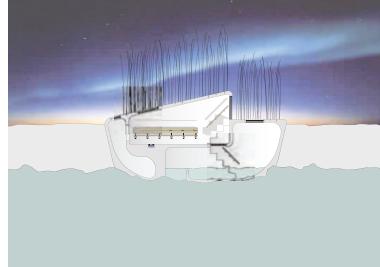


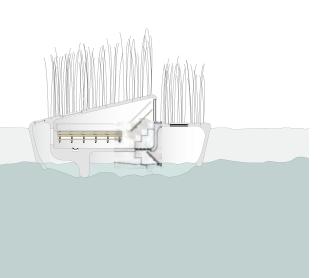
The hotel bar floats back and forth across the political and chronological divide between U.S. and Russian territory.

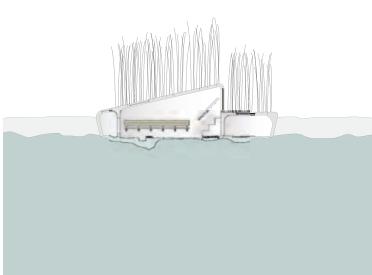
The hotel sleeping pods, lodged in the intercontinental ice sheet, drift slowly south along the straight. At the mercy of the winds and tides, hotel guests pass unconsciously across political and chronological territories. Steel rods cast into the pod roofs provide a local positioning system, attracting the electromagnetic energy so prevalent in the arctic air and creating local aurora borealis effects. Without the steel rods the stark white of the salt-cast pods would render them almost invisible within the landscape of ice, snow, and perpetual darkness. Inside the pods, boundaries between the public realms of nature collapse into the private realms of the hotel rooms, creating an intimate relationship between visitor, ocean and all the life contained within. After the visitors depart for home, the ice recedes, the pods dissolve and the salt returns to

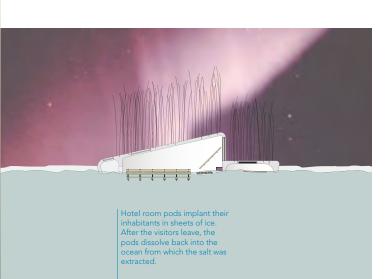


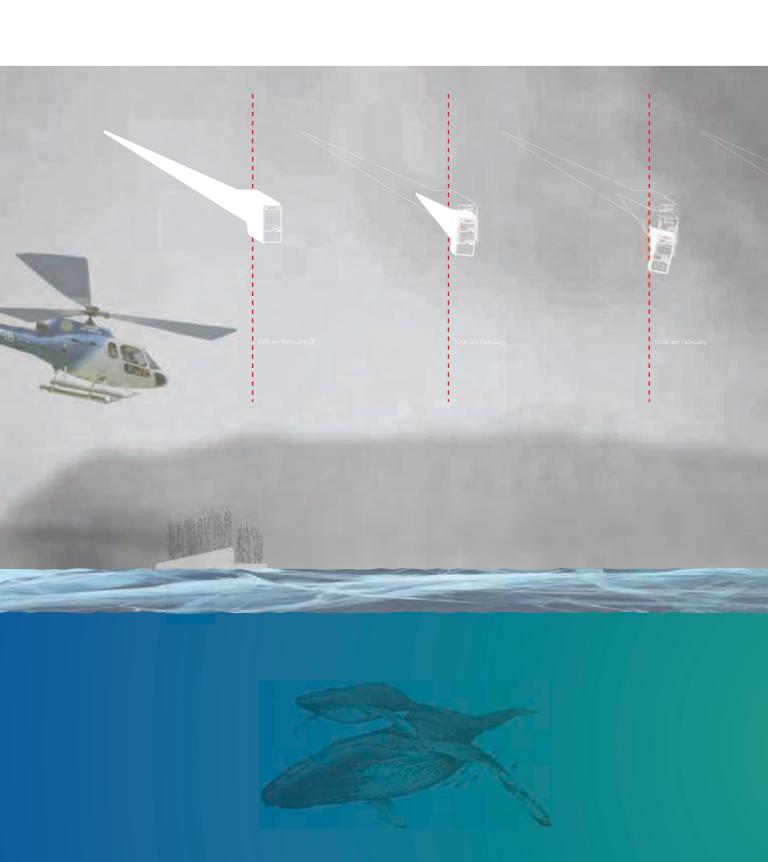




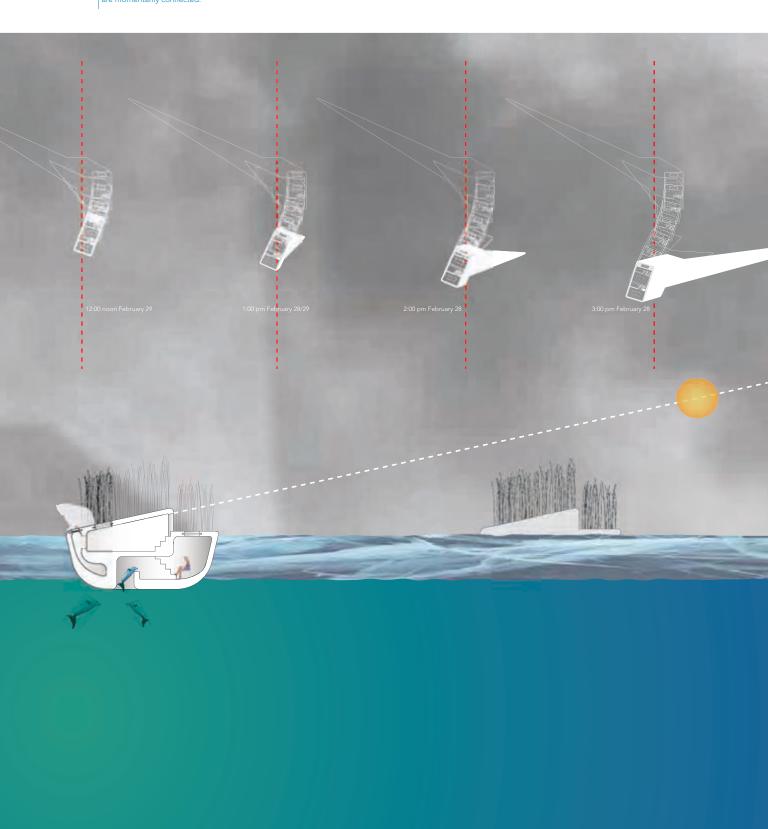








As the pods float out on the open sea, The public realm of nature is collapsed into the private realm of the hotel. Life within the pods and the sea life below are momentarily connected.

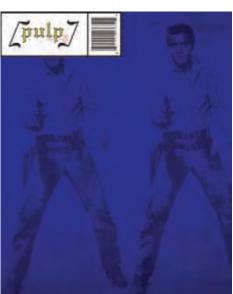


Detail Fetish

"Stay Up Late. Strange things happen when you've gone too far, been up too long, worked too hard, and you're separated from the rest of the world."

—Bruce Mau

This project is a first attempt at formulating a "new" way of working on architecture. The scope of the work should be considered an initial investigation, or rather a first pass at trying to reconcile the agendas of current, contemporary notions of pop cultural currency and mass consumerism, with an aspiration to discover some kind of trans-disciplinary, cross cultural ideas of architectural production that are supposed to enable architects to assume different authorial roles in the production of the built environment, art, graphic design, theoretical discourse, etc. To misappropriate an idea from Beatrice Colomina, this project is primarily concerned with envisioning architecture as a type of media, rather than trying to study its various relationships with media. Whether or not these interests are necessarily aligned with each other (or even anything besides disparate elements), is certainly debatable; but the importance of these desires within the work itself is that they allow (or try to allow) a kind of disembodiment of architecture from the hermetic environment of the institution.



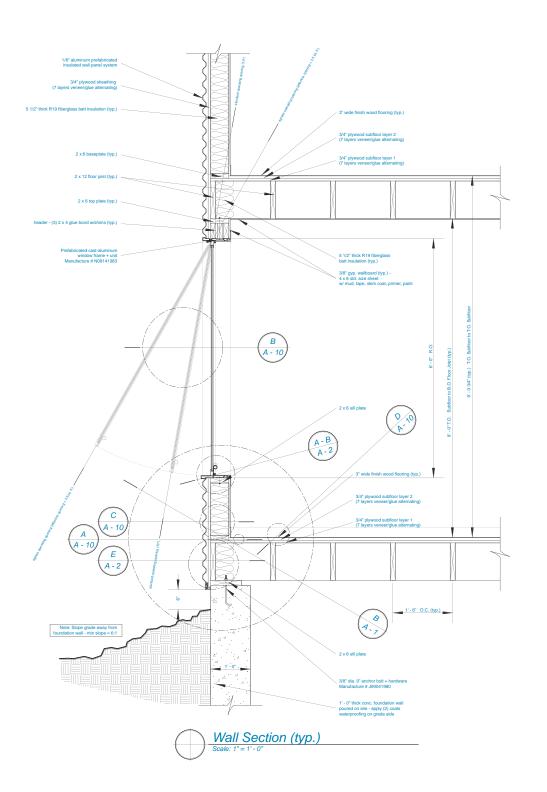
Operating as a media, architecture is allowed to borrow, steal and misuse graphical and technical operations that the nominal "rules" of architecture do not necessarily allow. In order to avoid an anything goes mode of operation within work that has the capacity to produce an infinitely diverse and undefined body of work, certain resistances were introduced to keep the project aligned with a kind of tangible, accessible language and aesthetic.

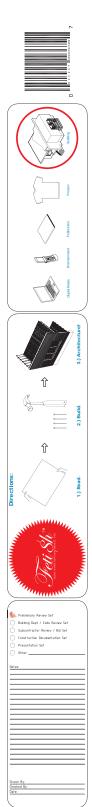
The main working agenda of this project is to redefine the use value of architecture and architectural production by transferring the inherent properties of accessories (mainly temporality and disposability) found in artifacts of mass-culture consumerism (specifically the t-shirt and the pulp magazine) to the standard Construction Document Set. By "fetishizing" the Document Set at the level of the Construction Detail, the project questions traditional architectural production (by manipulation of conventional architectural graphic standards and conventions as well as co-opting trans-disciplinary methodologies of graphic and information design) in order to give the Document Set both practical and aesthetic use values as an artifact of architectural production and consumption.

The Document Set is intended to serve as a means to produce some kind (or more ambitiously multiple kinds) of architecture or architectural construct; but for the purposes of keeping the scope of the thesis work manageable, that aspect of the production has been suspended in favor of exploring the potentials of the Document Set itself. In other words, the Document Set is the architecture.

The Document Set should attain a specific level of seduction that is routed through readily accessible architectural conventions. For the purposes of the work presented, seduction has been defined as an aesthetic and graphic quality that creates a desire for ownership or possession of the object and elicits recognition of and an appreciation for that quality of seduction in the work.

The main working methodology for the Construction Document Set is fetish—specifically a fetish at the level of the detail sheet. Using fetish as an overarching methodology, the work is then routed through a series of working operations that define ways of working on the Document Set.



























The fetishization of the detail—specifically the detail of one piece of hardware is considered within the conventions of the standard Construction Document Set. This operation is important because it sets a baseline graphic standard and drawing language that limits the scope of the work in terms of what is allowed, while simultaneously providing opportunities to exploit these conventions.

The implementation of the graphic diagram into the Document Set is important in the way that it introduces a new set of graphic conventions and operations into the work. These diagrams are necessarily limited by the conventions established in the first operation but add to the scope of the Document Set by detailing processes, as opposed to inventorying parts (this operation also adds dynamism to the Document Set by showing the processes as opposed to the end result typically shown in standard Document Sets). The operation has the language of the do-it-yourself, which makes construction and building information more readily accessible. The diagrams also takes on a storyboard aesthetic allowing an aggregate reading of a "narrative" over multiple sheets, providing the opportunity for fragmenting the traditional linear narrative of

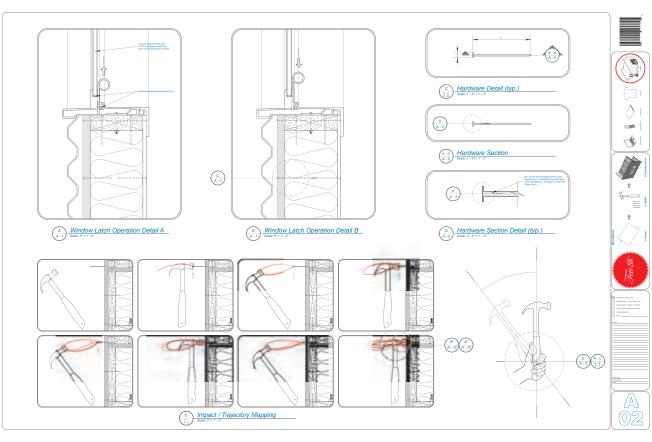
The idea of quantifying and aestheticizing intangible aspects of building construction forces the architect to work as a visual researcher. In most cases the architect must develop a new notational system in order to work through a series of operations that are derivations of architectural study not traditionally included in the document set. This operation has the potential to work both purely as a device for the production of formal derivatives, and as a point of departure for the development of a new architectural notational system.

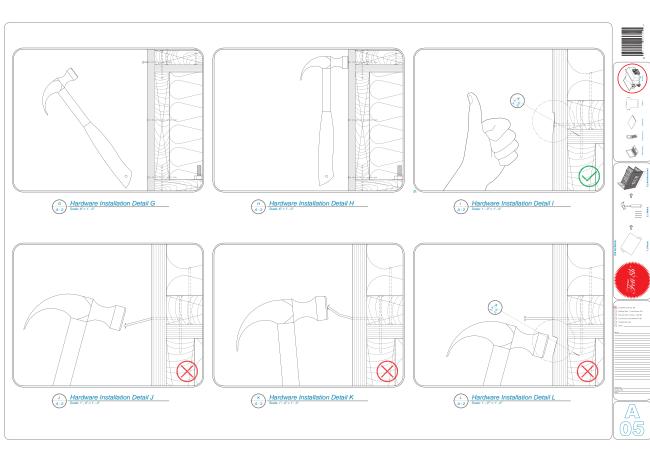
The format of the Document Set charges it as an artifact in a unique way. Bound traditionally, the Document Set enables

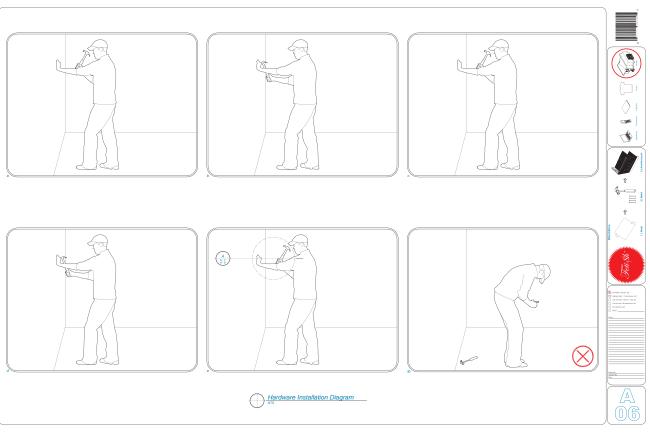
a manual social interaction, where a dynamism is created by flipping through the pages and engaging the set one singular sheet at a time. By incorporating ideas of simultaneous narrative, circular reference and forcing redundancies, the Document Set circumvents a linear progression in favor of a more dynamic exploration of the space of the page. It should be noted that this discussion intentionally ignores the criticism that this type of construction document set loses a certain value as a set of contract documents in order to focus on the fetishization of the object of the Document Set itself. Unbound, however, the Document Set enables a different spatial interaction, one in which a dynamism is created by physically moving in and around a display surface in order to "read" the document narrative.

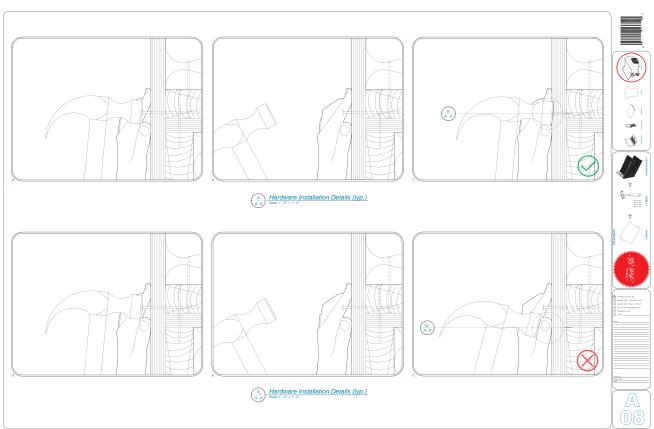
By treating architecture as a media and removing the normative operations traditionally embedded within the work of architectural production, the work is allowed to preoccupy itself with a more aesthetic and cultural study of production. This enables an alternative mode of space making, ultimately extending the impact and influence of the architect as social and cultural producer.

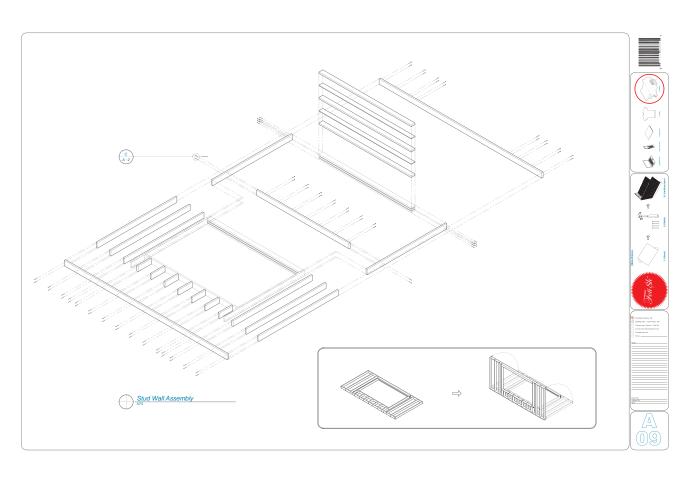


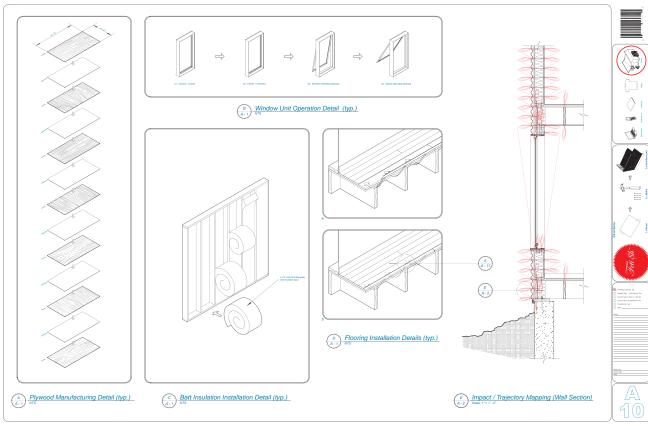


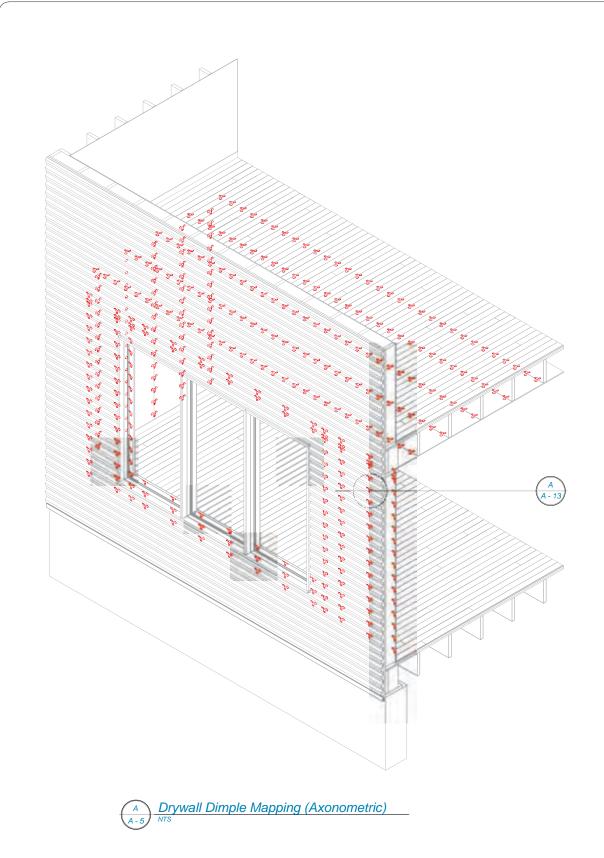


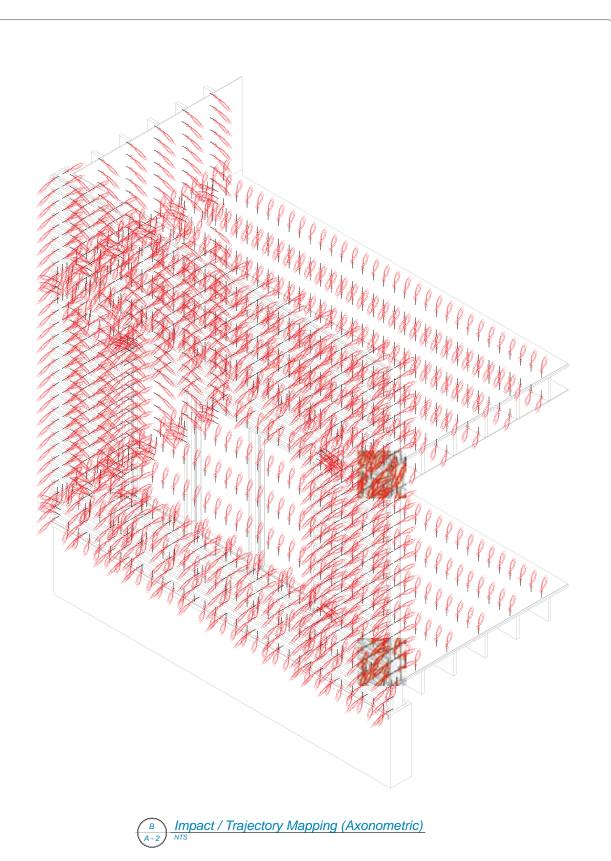


















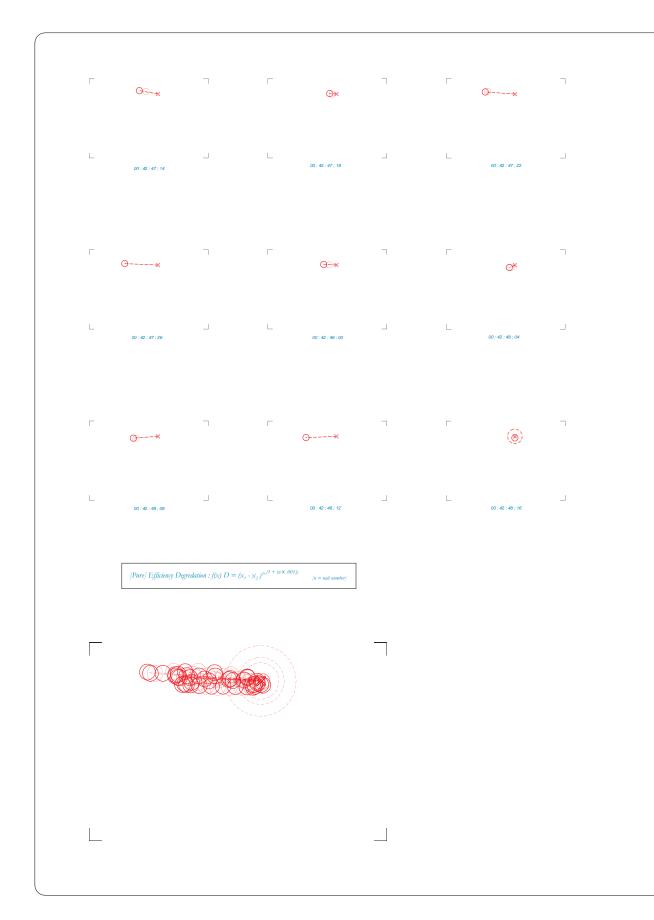


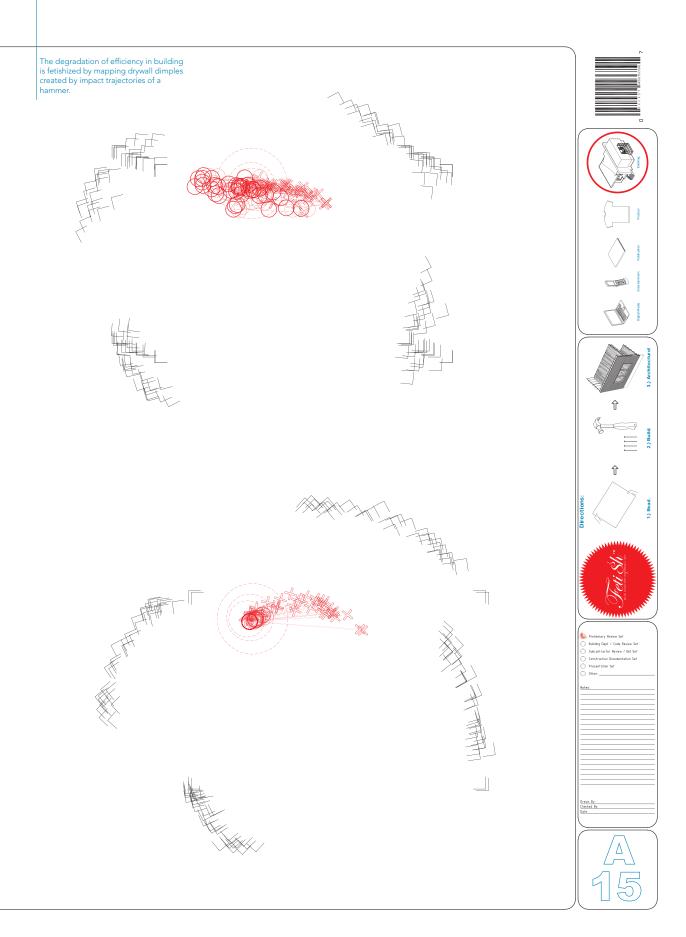




6	Preliminary Review Set
0	Building Dept / Code Review Set
0	Subcontractor Review / Bid Set
0	Construction Documentation Set







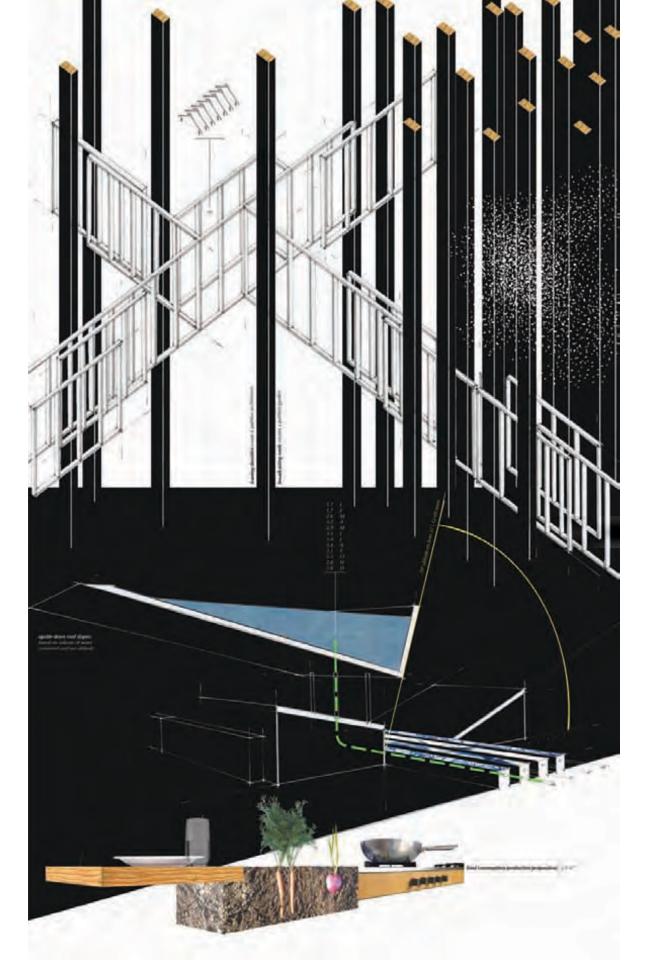
The act of gardening is animated by an evocative lexicon of terminology and time-honored techniques; it is a world of whip and tongue grafting, double digging, trap cropping and "maypoling." Alongside these established techniques, a new set of ad hoc, creative gardening practices is emerging.

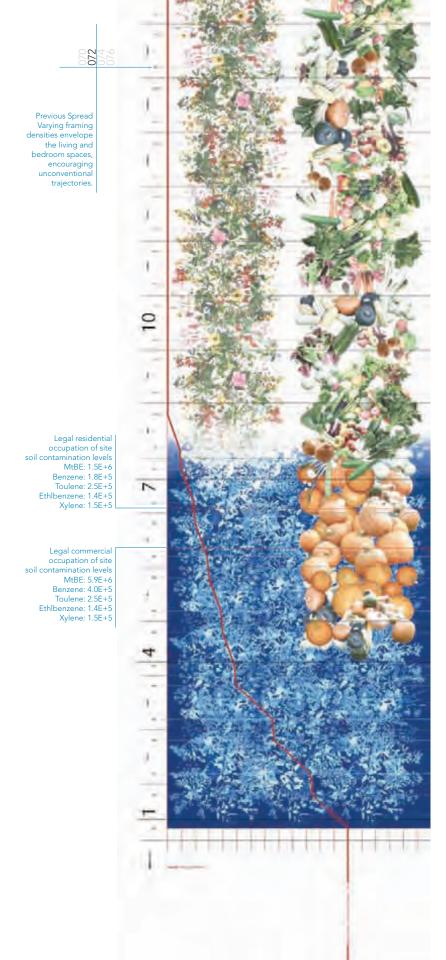
The gardening section of local newspapers, blogs and magazines increasingly encourage gardeners to reconfigure and modify familiar domestic objects for use in the garden; a strategy of misusing the 'familiar' towards unintended ends. As a result, the conventional taxonomy of gardening tools should be broadened to include coat hangers, salvaged windows and telephone books; the contemporary garden should now be viewed as a landscape cultivated with plastic milk jugs, dinner plates and panty hose. Gardening as the "domestication of nature" has never seemed so literal. Thus, a particular dialogue now exists between the domestic realm and the garden, but this has been a one-way conversation. Gardening techniques and acts of gardening can be co-opted by architects in an attempt to critically examine the domestic realm and to transform domestic architectural conventions.



An abandoned gas station in Ypsilanti, MI serves as a brownfield site on which to explore the design of a domestic architecture that emerges over time through acts of gardening. Four distinct gardens types will be cultivated on this site over the course of seven growing seasons: a remediation garden, a community pumpkin patch, a potager and a native wildflower garden. During this time, various domestic architectural and programmatic elements will be erected on the site in such a way that they are compliant with gardening operations. Roofs, bathrooms, kitchens, windows, crawlspaces and wall framing will all multifunction; serving for years as gardening "tools" before they coalesce into a dwelling. This collection of architectural elements and program is considered a domestic scaffold, a temporal armature for gardening and living.

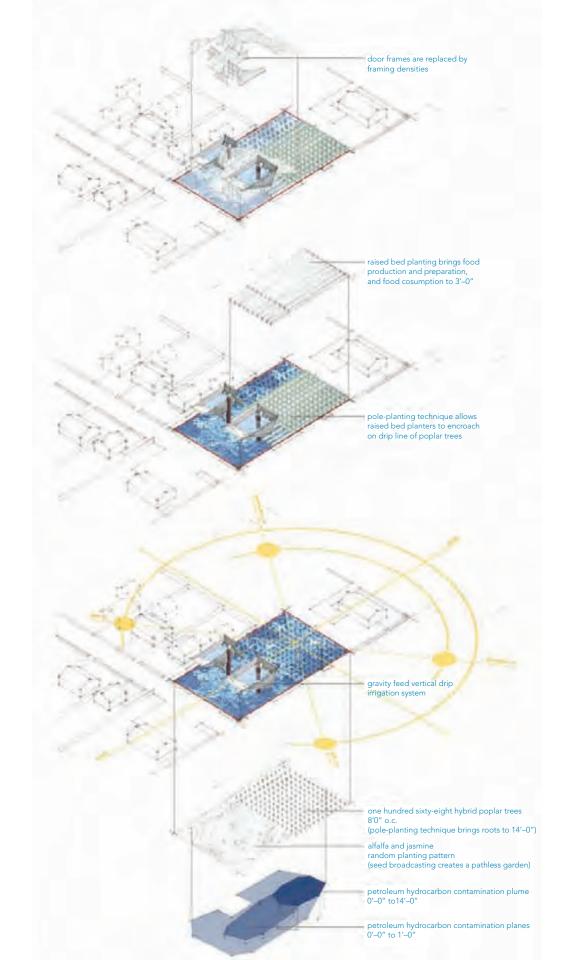
The soils of this site are saturated with petroleum hydrocarbon toxins, requiring remediation prior to legal occupation of the land for domestic purposes. Thus the first garden on the site is "toxic" and will leach contaminants from the ground for over seven growing seasons. For remediation to occur effectively, the roots of fescue, alfalfa and hybrid poplar trees must extend to the petroleum plumes suspended at various depths in the soils below. In this "upside-down" garden plants are encouraged to grow downwards rather than upwards and the gardener cultivates the unseen the root zone. The roots will naturally follow moisture downward, necessitating a vertical irrigation technique as opposed to a conventional horizontal system deployed at the soil surface. Iconic gable roofs are inverted to become the water reservoirs of a vertical gravity-fed drip irrigation system. These roofs float above the site, but shadow casting on the plants below is minimized by coordinating the inverted roof pitches with the highest sun altitude angles of the year and by perforating the roofs with skylights and dormers. Typically a roof is the last aspect of a residence to be framed; here it becomes the first element of domestic architecture on the site, preceding the walls by several years. The roofs are supported by 30 ft. long gas station fuel tanks that have been excavated and are now cantilevered out of the ground, serving as a conduit for water between the "attic" and the garden. These water channels are the logical location for future bathrooms. Sinks, toilets and shower heads are distributed vertically within the tanks. Far from static water closets, these bathrooms are positioned as spatially dynamic lynch pins between a suspended water reservoir and gardening operations below.

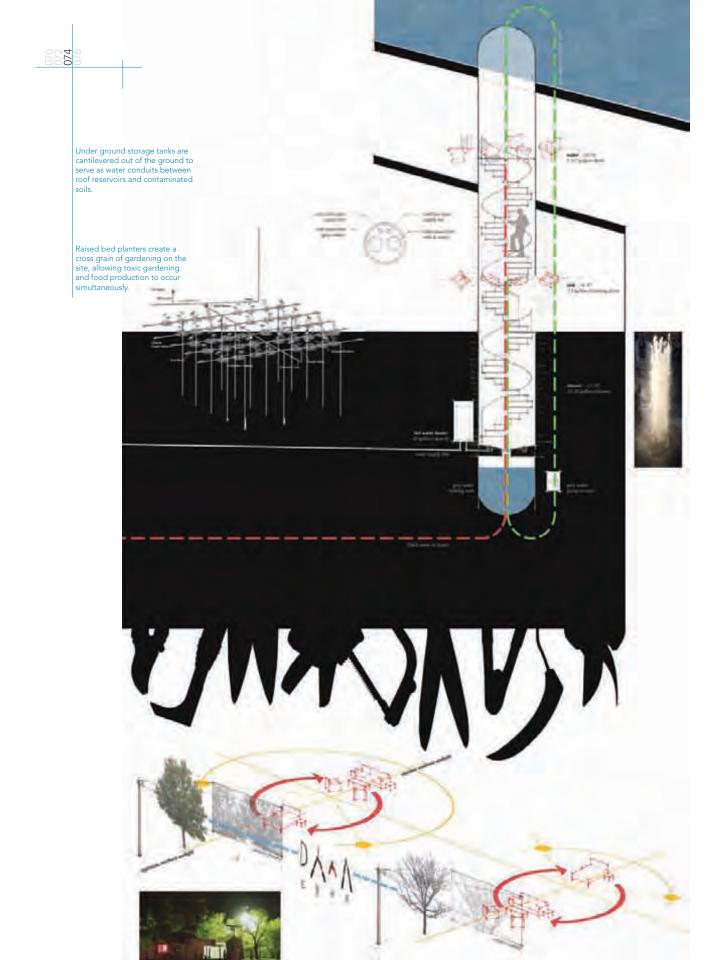


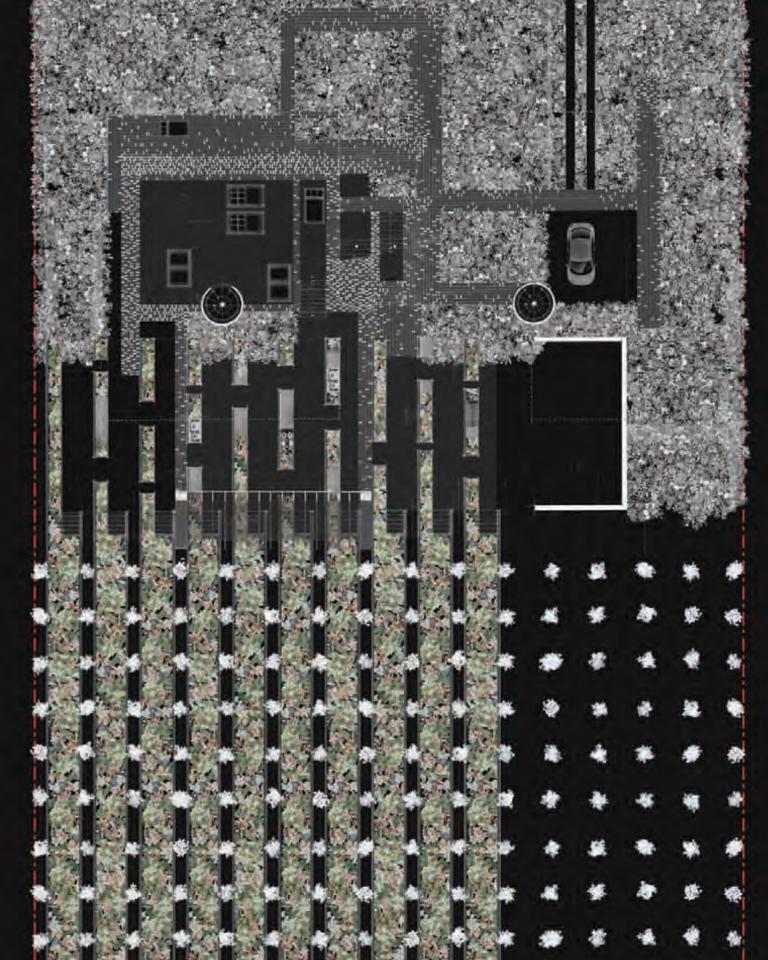


In the fourth growing season, a second topography, hosting a community pumpkin patch, is layered in six foot wide rows over half of the site, its soils isolated from the toxins using raised bed planting techniques. Toxic garden and community garden commingle for three seasons. Each October families arrive on site to pick the fattest of the pumpkins that they had been tending since early April, after a few seasons, the raised beds are replanted to serve as a domestic potager—or kitchen vegetable garden. The planting beds are raised to 3'-0", which aligns the soil surface with table-tops, cooking surfaces and appliances to create a direct relationship between food production, food preparation and food consumption. The "kitchen work triangle" which dictates the plan relationships of nearly all American domestic kitchens, is replaced by a strategy of appliances and work surfaces dispersed among the rows of the vegetable garden. The family meal may now be influenced by seasonal crop rotations occurring within the residence; a stand of tomatoes planted within arms reach of the stove could inspire the quest to create the perfect marinara. An adjacent composting area completes the domestic food cycle—the waste of meals becomes nutrient-rich humus, which in turn lines the planting beds.

In the sixth growing season, the alfalfa and fescue that had been planted at the north end of the site have brought the toxicity levels in the soils down to a level where the land can legally be occupied. At this point the walls of the residence are erected, providing the opportunity to reconsider the doorway and the window as domestic apertures. The paths one can take to move through a typical residence are limited and unchanging, determined by wall and doorway placements. Similarly, the garden, in which seeds are sown in rows, anticipates a fixed, linear circulation once the plants have grown. The seed broadcasting technique, on the other hand, creates random planting densities—a garden where any number of paths can be forged in any direction. This technique and the resulting circulation, inform the design of this dwelling's walls. Variable stud frame densities challenge the convention of framing at 2'-0" on center and the singular door frame is usurped as the primary enabler of circulation. Here, one moves between spaces the way one moves through any house under construction—slipping between the studs with a freedom that evaporates once the drywall is hung. These studs however, will never be clad, allowing for a multiplicity of spatial sequences and encouraging random trajectories. The layers of framing are stacked to provide variable degrees of visual privacy and enclosure. At times this framing is stacked so thick that the only occupiable space occurs within the hollows of the walls themselves, creating further spatial ambiguity.

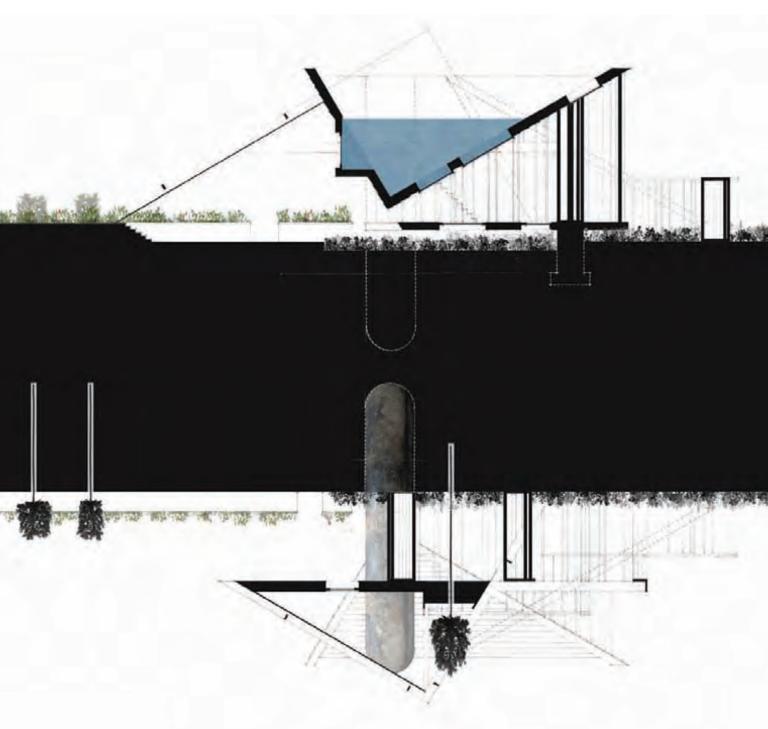




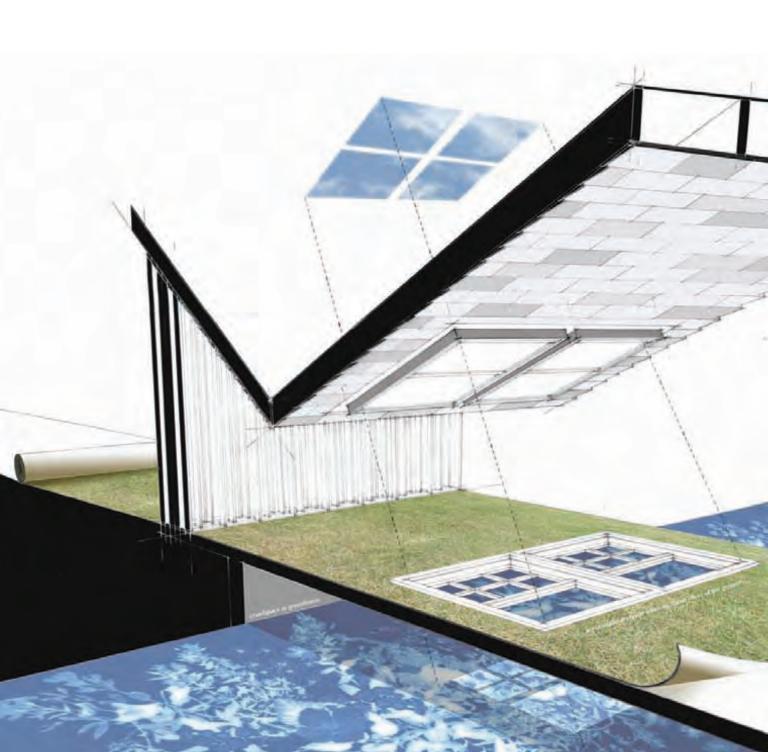


For instance, there could be a moment upon entering the house that a visitor is unsure whether they are standing in a hall closet, on the front porch, within an exterior wall, or in the middle of a wildflower garden. Just as the walls are not framed for any singular door aperture, the walls also do not accommodate windows. Instead, windows are set only in the floors, providing access and light to gardens under the house. This approach, derived from the cold frame gardening technique in which gardeners use salvaged residential windows

to create low slung, miniature greenhouses, creates a pattern of double hung sashes and divided lites across the living room floor. Rather than directing views to the street or to a neighbor's property, these apertures privilege vertical views down into crawlspace gardens and up into the inverted, water-filled attics. The typically marginalized spaces of a residence become evident, and the eye is carried directly to the raw elements of gardening: soils, plants, water, and light.



Windows are not accommodated by walls and are set within the floor, providing access and light to the gardens below.



Scale experienced through body movement and memory

The body measures the world as it relates to its surroundings using immediate perception and memory perception, between which it can be difficult to find a boundary. Our reading of scale might be thought of as a continuity that acts to ground us within our surroundings.

Immediate perception

In 1960 when Joseph Kittinger fell from the edge of space (102,000 feet) into the earths atmosphere, he physically realized one of Einstein's theories. Due to the ambiguity of scale in relation to the body, the only way Kittenger could perceive that he was falling (moving) was to turn and look back at the balloon from which he jumped to see his relative scale change. The immediate perception is one of growth, reduction, rate of change, and is always relative to a perceptive source.

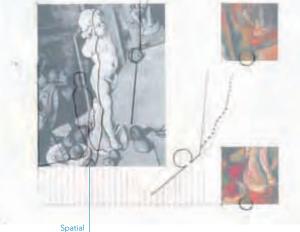
Memory perception

When a figure is seen in a space our memory affords us a sense of scale. As Alvaro Siza draws, the human is morphologically connected to its surroundings and provides a scale in flux, able to occupy multiple scales at once. For Siza, the figure is a tool to generate multiple scales in drawn space. This transformative sense of scale is elastic, almost enigmatic. One wonders about the potential for this sense of scale to be studied and utilized in the production of architecture. Sense memory recalls from past experience and also draws comparisons.

Advisor: Perry Kulper







From here I see a bird at rest on a masthead. I have seen this kind of bird before and I am able to compare this one with that one. Gradually I gain a sense of the depth of space between me and the bird as well as the quantities of its immediate surroundings. Our memory perception taps into our experience, compares and reduces, and ultimately becomes an instinctive act.

experience through the suggestion of simultaneous scales. Paul Cezanne, Cupid with Apples, 1893.

It is clear that as we change, so does our sense of scale. Simply revisit a once familiar place—a home, a school, a street—to observe the collision of experience and memory abstraction.

To what do we refer in order to deepen our scale perception?

Do we each have a unique sense for scale which can be studied and tuned? Can it be stretched, abstracted, and re-imagined?

The lear

Architects take perceptive leaps between how scale is perceived and how it is represented—between measured scale and intuited scale. The scale-less, simultaneous scales, scale flux and scale derived spaces, to table a few, are used frequently in architecture but hardly understood relationally. While paintings can be the final one to one production, architecture fumbles between what it finally becomes and how it is expressed, limited by its own conventions of representation and discovery.

Like the experience of figure ground, the perception of scale relationships is an ambition, an aspiration—not a given.

Our habits have dulled our sensitivity to the profundity of what it means to perceive scale. To the extreme end, Chip Lord's poem says it well:

I'd like to say
A few words about scale
In architecture and other places.
Look at a postage stamp
Like a branch bank
And you begin to grasp
The infinite vastness of the universe.4

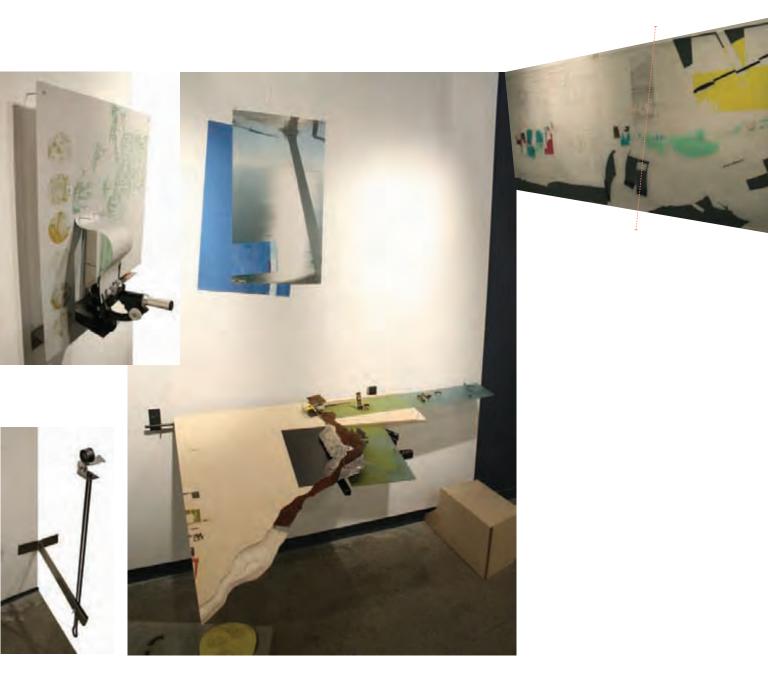
Piero della Francesco's painting, Adoration of the Child, 14 provides a more measured and scaled experience among constantly moving relationships of relative scale. The notion of scale perception in architecture is in the bedrock of the discipline and is intrinsic to the distance that lies between any representation and the object it seeks to represent. Josef Albers' notion of "actual and factual" in art might help frame the way scale is intuitively measured relative to how it is factually measured. The French sculptor Marino Marini once held his hand out to me with a minute plaster sculpture in his palm and said, "This building is a kilometer tall."

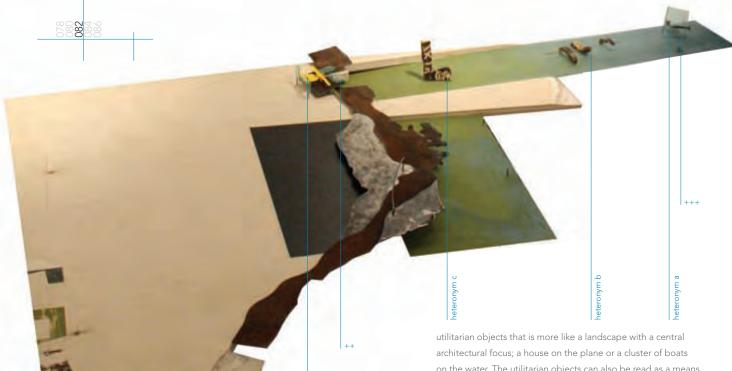
Scale and painting: visual intuition and measurement

As Stan Allen contends, the architect is always at a distance from the architecture, producing scaled representations but never the final product.³ The painting, on the contrary, is the final product—to scale. It is only when entered through the visual imagination that alternative scales might be discovered and navigated from the inside out.

A claim of Euclidean space is that all things are quantifiable, an idea that cannot be true for the painter. The painter denies fixity and contributes a sensibility that can provide viable tools for the design of an architecture of multiple scales. One moment to the next is a reconciliation of changing visual quantities. Nearly every morning for the second half of his life, Le Corbusier was in his studio painting, most often from a still life, developing a sensibility for scale relationships built out of form and color. While an architect may conventionally work within the parameters of measured scale, a painter may forward the thinking of intuitive scale as visually perceived in the production of the painted space, working from the inside out. Cezanne's painting Cupid with Apples represents a spatial experience through the suggestion of simultaneous scales. The cupid's cheeks bubble out as though it has just eaten the beach ball sized apple in the background and the legs of the figure painting deep in the background proportionally contest the legs of the sculpture in the foreground. The far is suddenly near. This painting demands the viewer to engage everything in the space, constantly moving between relationships of relative scale—one can hardly think "nice apples" before having to visually reconcile a tilted plane. To counter, when the composition is fragmented from the whole into independent parts, all that is realized is a series of mistakes that bring you in visually, only to force you out just as quickly.







Piero della Francesca provides similar scale experiences to Cezzane's work but in a much more measured and narrative manner, most notably in his painting Adoration of the Child. Some of those findings can be seen in the geometric breakdown of the composition; notice the relative dimensions of the two birds with the head of Mary and the head of the baby Christ. The weeds in the foreground are precisely the height and shape of the enormous trees in the background. Lines of vision also become significant, tying one scale to another.

For Albers, measurement and precise scale relationships allow color boundaries to speak more clearly and directly, as in the works of Homage to the Square. The grid structure simultaneously acts to modulate the two-dimensional surface and quantify color relations. The movement through this painted surface is constantly shifting between the emphasized flatness of the canvas and the color quantities. In this case, scale is numbed by the two dimensional grid then freed for movement by visual depth-relationships of figure ground that speak clearly through this scale modulation.

Morandi's still life

The back edge of the tabletop acts as the horizon line, which, from painting to painting, subtly shifts on the vertical axis while remaining perfectly level. He thus generates a still life of

architectural focus; a house on the plane or a cluster of boats on the water. The utilitarian objects can also be read as a means of drawing in the hand, pulling in the body along with the eye. His canvases jump from the grandeur of the horizon and the landscape to the tactility of the hand. While we may not be able to touch the horizon, Morandi asks that we see it in relation to the body.

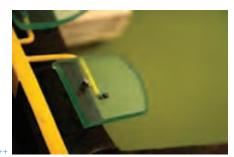
The heteronym as an architect's tool

het·er·o·nym [het-er-uh-nim] – noun, a word spelled the same as another but having a different sound and meaning, as lead (to conduct) and lead (a metal).

Fernando Pessoa, Portugal's most revered poet of the last century, used the notion of the heteronym as a means of locating and relating multiple contradictory perceptions and accepting them all as valid truths. His body cast many shadows, to which he gave privilege over the common place. Heteronyms may contradict each other in opinion, style and voice; this contradiction is the source of conversation, between heteronyms, to generate a view that does not synthesize contradictions, but rather allows them to exist simultaneously. In his lifetime, he authored seventy—two different authors—the four predominant being Ricardo Reis, Alberto Caiero, Alvaro de Campos and Fernando Pessoa himself. The plot of his only play, The Mariner, details the encounter of these authors and their multiple interpretations of the ocean's horizon.

The shedding of the single author in favor of multiple authors is preceded by a need for being many people and in many places at a single time. Somewhere between the Renaissance architect and Rem Koolhaas's schizophrenic architect, heteronymous authorship foregrounds the triumph of disunity over unity. Imaginative potential is expanded through multiplying the



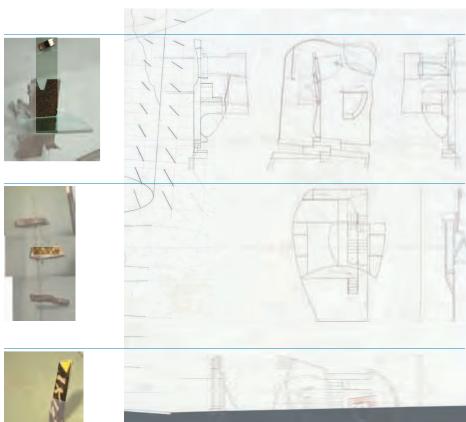




heteronym a: a central wall, the vertical spine of the shoreline, folds in and out to become the framing architectural edge of the horizon.

heteronym b:
the horizon is followed on a
path, a map links three distinct
reference points that align
the horizon with a specific
elevation. The crows nest of
the ship, the mental map of
the city.

heteronym c: nested scales, the false horizon is followed to zero degrees, the architecture registers the descent below the horizon.



Eakins, the false horizon is produced by an altered vanishing point leading deep into the water, slicing a cut through the earth instead of the atmosphere.

The false horizon in heteronym c is produced by a ridgeline of trees that front the site; one of a series of anticipatory scales derived from landscape.

Representation of the utilitarian object impresses the surface of the paper, making it's physical presence nearly one to one.

Early world maps depict the body in measure with the world. Over time one observes the disappearance of the human until only bare facts remain.





single author, through living both here and there and occupying more space than skin permits. While the process may be critical in its own right, the work that is produced through each heteronym can be evaluated apart from its means of production and in the context of architectural discourse.

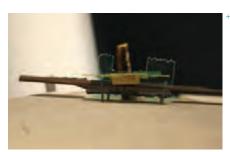
Site strate

Site: coastline of Lisbon, Portugal

Program one: the marine

At some time when sea travel was an act of wandering into the unknown, the word "saudade" emerged in Lisbon. It expresses the longing felt for not knowing what lies beyond the horizon, the homesickness or nostalgia that plagues the wandering traveler. The world discoverers put down the first "western" map lines of continents and sometimes returned home with never before seen objects from beyond the horizon. Representation, somewhere between the scale of the daily activity and the horizon induced emotion of saudade, always pointing to the existence of something else.

At the edge of the setting for Pessoa's four characters in *The*Mariner, the architecture and each occupant burn their
presence into the shoreline. Between the scale of the hand





and the scale of the horizon, there is an opportunity to densify the quality of scale perception. Drawing from their horizon generated obsessions, each heteronym is spatialized.

Program two: fishing

The act of looking mandates the casting out of ones view and the retrieving of information. Focusing on the transition from the city to the horizon, Fishing falls between as an activity that mitigates the scale of the hand and the scale of the horizon.

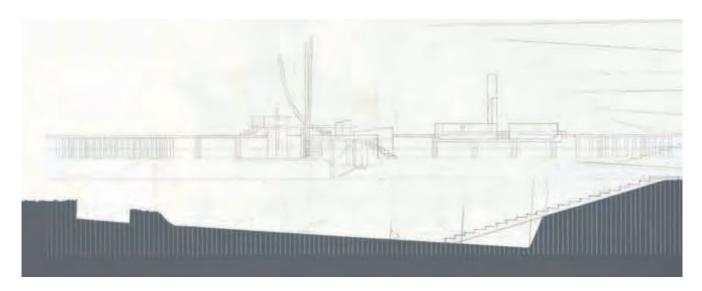
Architectural strategy

Scales collapse and nest; the city transitions into the landscape, landscape anticipates false horizons and casting stitches the shoreline. The near future of architecture mandates a new sensitivity to scale perception.

Urbanization and the transition from the rural landscape to the context of the city, as one of many issues, calls forth our ability to adapt living habits and psychological needs to a more dense, interwoven environment that must relate the miniscule, the haptic, the gargantuan and the infinite in a sensitive, intentional manner. We still depend on age-old methods to design scale relationships—dependencies that must be reconsidered. Scale perception is an ambition, not a given.

Architectural strategy at multiple scales, the three heteronyms take on the space of the folded shoreline, set between the approach toward the horizon and the horizon itself. Retired conceptions of scale are stored and discovered below ground.





"On the table before me sit a number of common instruments useful in measuring—useful in evaluating the environment. On the table before me sit a tape, a yardstick, a stopwatch, a watch, a goniometer and an arm protractor, a clinometer, a map measure, a compass, a wall thermometer, a pocket thermometer, a percentage protractor, a level, a plumb, a light meter, a camera, a pocket scale, a postage scale, a barometer, a measuring cup, a set of measuring spoons, a pedometer, a stud finder and a passle of questionnaires ... All of them have told me, or promised to tell me, about my world, and since this I would know of, I am not eager to part with these instruments ... There is another instrument in this room and I am it."5



Notes

- 1. Wallace Stevens, *The Collected Poems: Six Significant Landscapes* (London: Faber, 1955).
- 2. G.I.Gurdjieff, *Beelzebub's Tales To His Grandson* (London: Routledge & K. Paul, 1950).
- 3. Stan Allen, *Points + Lines: Diagrams and Projects for the City* (New York: Princeton Architectural Press, 1999).
- 4. Frank Orr, Scale In Architecture (New York, Van Nostrand Reinhold, 1985).
- 5. Denis Wood, The Student Publication of the School of Design, North Carolina State University—Moving: An Interaction Analysis of Man-Environment Relations (New York: Wittenborn and Company, 1977. 38–49).

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Charles Olson, Selected Writings (New York: New Directions, 1967).



Thank you Perry







Borderlands students: Borderlands faculty: Melbourne, Australia Australia Nicholas Agius Paul Minifie, RMIT University, Minifie Nixon Architects Jacqui Alexander Jan van Schaik, RMIT University, Minifie Nixon Architects Charlotte Algie Andre Bonnice Montpellier, France Jacques Brion, École Nationale Supérieure d'Architecture de Grace Hung Montpellier (ENSAM), NB Architects Anna Jankovic Matthew McDonnell Elodie Nourrigat, École Nationale Supérieure d'Architecture de Montpellier (ENSAM), NB Architects Steve McKay Melissa Thong Suby Ziao Sendai, Japan Tohru Horiguchi, Tohoku University Masashige Motoe, Tohoku University Senhiko Nanada, Miyagi University France Mélanie Brunel Cédric Druetta Yasuaki Onoda, Tohoku University Valerie Hoareau Jérôme Koswoski Barcelona, Spain Coralie Labbe Ignasi Pérez Arnal, Director, Sustainability and Architecture Thibault Machu Department, EsArq_UIC, Universtitat Internacional de Catalunya Silvestre Castellani, ese studio Julien Moillet Clément Pascal Josep Cargol, Architectural Design Studios, EsArq_UIC, Clément Rabourdin Universitat Internacional de Catalunya Stéphane Robiquet Ann Arbor, U.S. (host) Gretchen Wilkins, Taubman College of Architecture + Urban Atsushi Abe Planning at the University of Michigan Tomofumi Abe Invited guests: Shingo Eno Pernilla Matilde Hagbert Introductory Lecture: November 26, 2007 Kazuya Hamanura Jason Young, Associate Professor of Architecture, University of Michigan and co-editor, Stalking Detroit) Roma Ishinabe Takeshi Kawakami Jerry Herron (Professor of English, Director of the American Studies Program, Wayne State University and Author, After Culture: Detroit and the Humiliation of History) Dan Pitera (Associate Professor of Architecture. University of Akihiro Kawamura Saki Koida Hiroaki KoikeJir Byoung Moon Detroit, Mercy and Director: Detroit Collaborative Nozomu Onodera Design Center) Maja Helena Peterson Eric Dueweke, TCAUP Outreach Coordinator, Tomoaki Todome Lecturer in Urban Planning, University of Michigan Final symposium: Rafaél Parga Guille Santomà December 8, 2007 Museum of Contemporary Art, Detroit: Andreas Ruby, Textbild, Berlin, Germany Michael Speaks, writer and consultant, Los Angeles, CA Charles Alwakeel **Emily Corbett** Kristen Dotson Sean Goodemote Emmett Harrison Denise Huang Julie Kim Megan McBride Scottie McDaniel Juan Mercado Obiamaka Ofodile Amanda Olczak Heon Ju Seo

Detroit is both an anomaly and a paradigm. The extreme clarity through which it demonstrates the reciprocal conditions of ubiquitous suburban growth and post-industrial vacancy is unmatched by other cities along the American "Rust Belt"—the strip of industrial cities stretching from Buffalo to Chicago. The radical demographic transformations effecting

Detroit over the past 100 years have produced equally radical re-configurations of its physical and organizational structures. As people migrate outward to the periphery space within the city is continually re-territorialized through processes of abandonment, appropriation, development or reclamation. As the city simultaneously shrinks (in terms of population) and expands (more open space), it does not do so evenly. Rather, strange and incongruous urban patterns emerge; small discrete parcels mutate into large, vague tracts, cohesive blocks disintegrate into island-buildings and landscape becomes the dominant form of urbanization. The boundaries that once existed between architecture and landscape or city and citizen, for example, are increasingly challenged, erased or redefined.

A particularly contested and complex example of this erasure and territorial re-configuration exists within a two-square-kilometer tract of land in southwest Detroit. It is bound on the east by the tree lined Rosa Parks Boulevard, on the west by Detroit's historical city limit—West Grand Boulevard, on the south by the Detroit River and on the north by Michigan Avenue—one of the original central radial streets which extends all the way through downtown Chicago. The site includes both active and obsolete industrial facilities, new low-density suburban housing, an abandoned railway depot and the entrance/exit to the Ambassador Bridge—a privately owned international border crossing and the busiest commercial link between the U.S. and Canada. It also includes Mexican Town, one of the few neighborhoods experiencing a population growth within the city, and St. Anne's Church, a historic landmark. Filling in the gaps between these pockets of development are large expanses of abandoned property and under-utilized infrastructure.

Only one kilometer from the downtown center and immediately adjacent to the Detroit River and Canada, the Borderlands site is both prominently emerging and impossibly contested. The multiplicity of border conditions which regulate land in this area, including international, national, state and city jurisdiction—sometimes all on one lot, preclude the possibility or relevance of a single all-encompassing "master" plan. Rather, the form of urbanism implied here is about architectural resiliency on "multiple distributed sites that are both collectively and individually adjustable."

The goal of the Borderlands workshop was to posit new architectural and urban practices which acknowledge the strange and unique urbanism of Detroit at this moment without wholly replacing it for something "imageable" and complete. What is the shadow-brand to Detroit's recently unveiled brand? What form of urbanism is suggested in a city of such contested territorial organization? And how might alternative design practices account for the exception as a rule? Further, as the city moves beyond the singular form of production that created it (and, ironically, destroyed it), what mode of production replaces it?

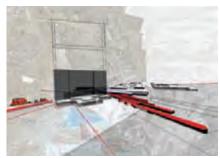
Assorted work produced during the Borderlands studio.

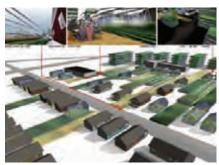






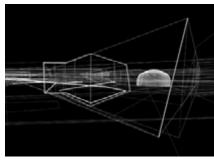


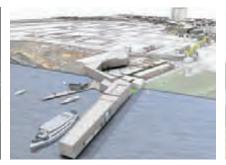






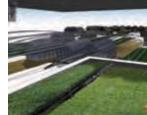














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			Architecture Fellows		
			Fellows spend one academic year at the University of Michigan. Appointed as lecturers in architecture, they are given teaching responsibilities and time to devote to other creative activities, scholarship and design work. Fellows present the result of their activities to the College at the end of their tenure.		
env fe cont to	Eric Olsen The William A. Muschenheim Design Fellowship offers design instructors early in their career the opportunity to develop a ody of work in the context of, or in relation to teaching. Design fellows play a significant role in the definition of studio culture while pursuing their own creative endeavors to be presented and exhibited in the school gallery at the end of the year. Proposals for the Design Fellowship may focus either upon the development of a specific project ther individually or with students outside of teaching, or center upon a particular set of pedagogical themes to be engaged in the studio context. Despina Stratigakos The Walter B. Sanders Research Fellowship supports individuals with significant, compelling and timely research agendas dealing with architectural issues. Research agendas could be based in such fields as architectural, urban, landscape or cultural history or theory; architectural or invironmental technology; or design studies. These agendas could emerge from recently-completed doctoral dissertations or any other intense and rigorous research ormat. The fellowship will support both the tinuation of research and the development of research-related curriculum. Kathy Velikov The William A. Oberdick Project Fellowship facilitates the development and realization of a repitation and production. Fellows are provided with resources for the execution of a project that may take the form of an exhibit, publication, installation or any other material construction. Projects hay range from the exploration of emergent building, fabrication and environmental chnologies to the realization of architectural works and endeavors typically unsupported within conventional models of practice.				

Surface Tension

In physics, surface tension describes the affinity of a liquid to assume the shape with the least surface area. It is the physical property that causes water to bead on waxed surfaces and allows insects like the water strider to stand on the surface of a pond. It is a behavior that resists the mixing of materially different substances and privileges the continuity of the surface.

Surface Tension, a collection of work created under the 2006–07 Muschenheim Fellowship, represents a focused investigation into the possibility of material invention as a function of re-imagined manufacturing processes. It engages contemporary manufacturing practice as a point of departure and seeks to explore the performative and transformative potential of new and recombinant material strategies.



New materials have tremendous capacity to augment the way we inhabit and interact with buildings. From the luminous and phenomenal qualities of emerging material effects to reconceptualized structural and infrastructural components, material innovations allow us to question anew the perfunctory nature of our collective "architectural standards."

Contemporary manufacturing paradigms play a significant role in shaping the design and construction of our built environment.

One need only walk down the aisles of a local home improvement store to understand the totalizing nature of uniform building practices in the United States.

The construction and building material

industries have defined the dominant standard for material practice; luminosity, materiality, and geometry are scripted by the standardized construction materials as defined by these industries.

Is it possible to imagine an architecture that is more materially opportunistic? Can we transform or strategically intervene in

current manufacturing processes to produce materials that are more intelligent and adaptable?

Digi-Lath

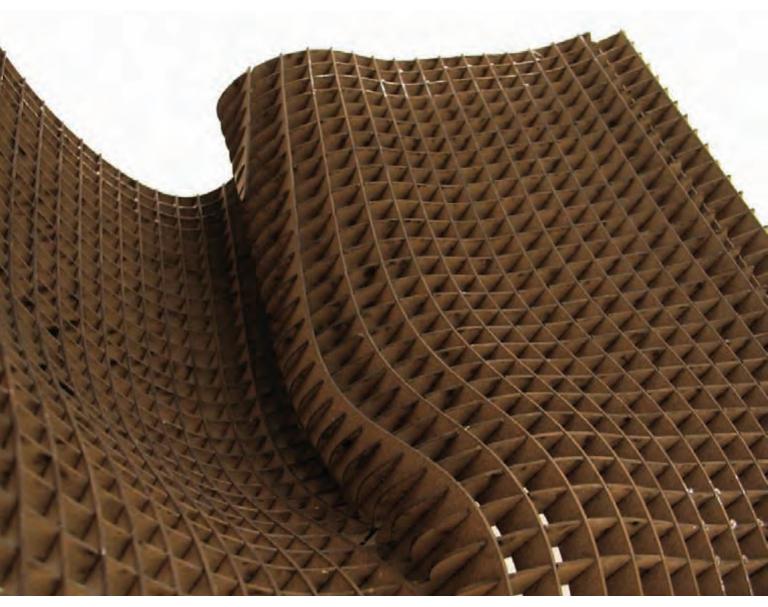
The currency of mass-variation, the tool path, has reordered our understanding of standardization and modularity. Using digitally designed lath, formal properties usually assigned to intense processes like casting and carving can be fabricated with a high degree of precision and thinness in the context of gypsum wallboard surfaces.

With Digi-Lath, CNC manufactured framing systems fit into typically framed drywall construction. They may be deployed only where needed, offering optimal economy. A digitally designed form can be seamlessly incorporated into conventional drywall system and maintain continuity of surface and finish. Like standard wallboard construction, Digi-Lath can be easily installed, replaced and blended.

Digi-Lath transposes the material constituent parts of typical gypsum wallboard. Rather than a paper laminate on the exterior, paper is fabricated as a lath using CAD/CAM techniques. The lath acts as an armature for the plaster and allows non-uniform geometry to be seamlessly blended into typical gypsum wallboard assemblies.



Digi-Lath allows for an infinitely variable wall surface.



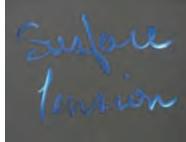
Digitally designed and CNC manufactured framing system.

Light switches have been a part our built surroundings since electrical infrastructure was first introduced in buildings. Essentially unchanged, they are ubiquitous to the point that they are rendered invisible. Is it possible to imagine evolving this infrastructure? By incorporating capacitance switch technology, materials like gypsum wallboard can be manufactured with latent switching capabilities fully integrated into the material—one need only touch the wall and the switch is activated.

The hollow space of the wall is often ignored yet this residual space represents a significant portion of a building's total volume. It is possible to grant new status to this overlooked space.

Emerging fabrication technologies necessitate a new ethic of material intelligence. By manufacturing light transmitting material into gypsum wallboard, digitally controlled equipment can be used to strategically reveal embedded material.



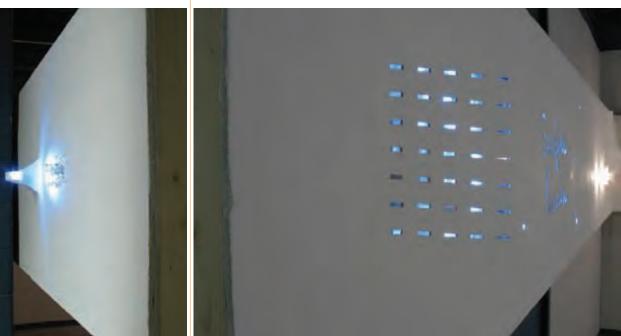


LED integrated plaster illuminates a field of light transmitting material. This material is reordered within the hollow space of the wall assembly and arranged on the opposite wallboard surface in an anamorphic pattern. Movement on one side of the wall is communicated to the other side of the wall as a varying

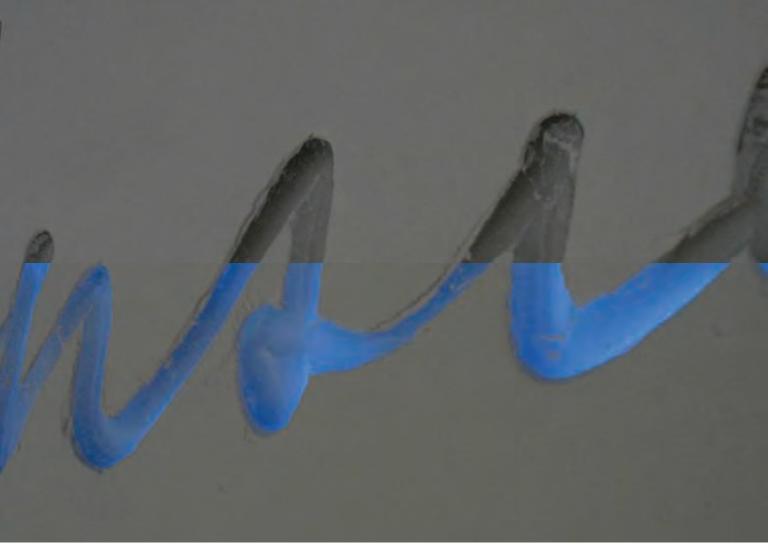
Voids in the wall reveal hidden poché, emit light and air, and expose the depth of

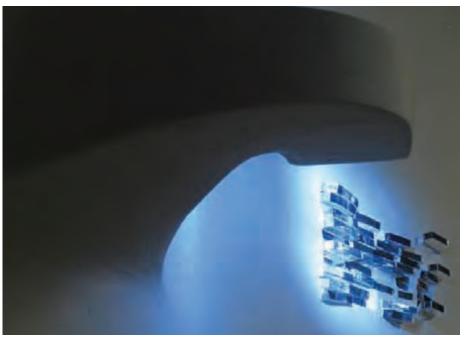
> as a purely superficial condition.

an assembly often perceived









New solid-state lighting technologies approach the same useful lifespan of many building materials. LED integrated building materials radically alter the way we think about architectural lighting strategies and render obsolete conventional notions of the light fixture.

Electro-conductive avosum wallboard

It's time to rethink the wall outlet.
For as long as electricity has been part of the built environment, electrical outlets have been the primary means of accessing power in buildings. Appliances large and small aggregate around the plastic outlet, sixteen inches above the surface of the floor. While revolutionary changes have occurred among the other categories of building infrastructure, the outlet, originally invented by Hubbell in 1904, remains little changed.

Let's move toward a shared standard.

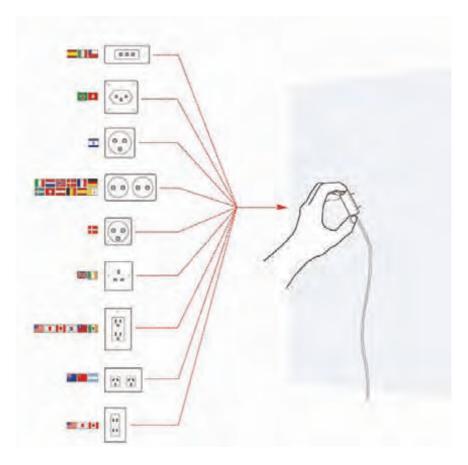
Political distinctions currently script access
to electrical infrastructure.



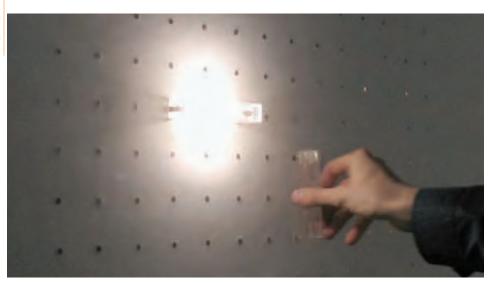
As global manufacturing practice continues to consolidate and unify our power requirements, new universal paradigms for building infrastructure must emerge.

Change the wrapper. Intervening in conventional gypsum wall board manufacturing processes through the utilization of new role-to-role manufacturing paradigms and emerging flat membrane technologies endows the modern wallboard surface with new possibilities. From our personal technology accessories to the shrinking profile of our entertainment devices, electro-conductive gypsum wallboard changes our relationship to the wall. The surface is free to be appropriated by all manner of electrical device at any location.

Re-imagine the wall. Much of our energy requirement comes in the form of low-demand low voltage appliances; the majority of these appliances rely on point-of-use voltage transformers. Electrified wallboard consolidates direct current transformers creating considerable energy savings. The flexibility of the conductive surface means that the arrangement and deployment of light and power are no longer predicated on fixed relationships. Mobile phones and iPods need not cluster near power strips, lights need not gang on articulated tracks; they are liberated from a predetermined infrastructure.



Electricity is transferred from the wall to lights via magnets.





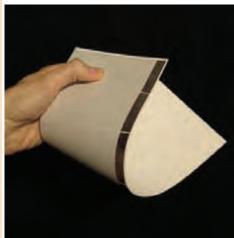


Seamlessness is possible. With conductive wallboard, design and building practice move closer to the modern ideal of the uninterrupted, uniform surface. Electrified wallboard condenses fire resistant cladding and electrical infrastructure in a single product without compromising gypsum wallboard's considerable economic efficiencies both in manufacturing and end-use assembly.

The transmissive surface is full of possibilities. Users are invited to arrange a field of light fixtures in any configuration imaginable. Illumination can be concentrated in an area to provide task lighting or evenly distributed to create an ambient effect. Like the revolution in wireless data infrastructure, the conductive surface can change the way we live in buildings.

+ Lights can be arranged in any number of configurations and illuminated by simply pushing them into the conductive wallboard.

Electrical infrastructure is condensed into a flexible surface.





Architect Barbie

Barbies rarely appear amidst the models, drawings and other props of an architectural studio. Teaching architecture is a serious business, and although we may "toy" with buildings, we generally do not play with dolls. Hoping to spark discussion about the role of gender in the formation of professional self-identities Architect Barbie was chosen as the theme for the Sanders Fellowship exhibition. Students and faculty of Taubman College's T-Square Society developed prototypes of Architect Barbie based on their own experiences, fantasies and perhaps frustrations. Making and displaying the dolls created a space within the college (both conceptually and spatially) to address the crucial issue of diversity from an unexpected and playful angle. "I am grateful to the students and faculty of Taubman College for helping to create new blueprints for Barbie."1

Mattel, Inc. first introduced the "I Can Be" career series in 2001, in which Barbie® went to work for the first time as "Baby Doctor," subsequently followed by "Baby Photographer."



Given the dolls power to nurture professional self-images, the announcement in 2002 of a voting competition to determine Barbie's next career move aroused enormous public interest. Parents and children were encouraged to visit barbie.com and vote on one of three possible career choices for Barbie: architect, librarian and policewoman. After weeks of a fierce electronic voting war, Architect Barbie won with an overwhelming majority of the vote. However, much to the disappointment of women architects who had voted for "their" Barbie, Mattel announced that it would not produce an architect in the"I Can Be" series.

Mattel spokesperson Julia Jensen, interviewed by construction.com editor Judy Schriener, claimed that Barbie's target audience (girls aged three to eleven) could not understand the complexities of an architect's career. When they imagine Mommy going to work, they think "she drinks coffee; she wears a dress to work; she is on the phone all day." A professional architect "is not in their lexicon," which is also the reason why Mattel's first "I Can Be" Barbie was a Baby Doctor, not a pediatrician.

As a scholar and educator deeply concerned with making architecture not only relevant to little girls, but also relevant to women in architecture, I hope to persuade Mattel to reconsider the viability of Architect Barbie. Perhaps the limitations here lie more with the company's marketing strategies than with the imaginative capacities of their clientele. Would Mattel sell more Barbie doll houses, for example, if it encouraged little girls to build them? There are no stereotypical images of the woman architect to build upon, despite Hollywood movies having provided a stable of male "architypes." 2 But the absence of a female Howard Roark may prove to be advantageous in imagining new professional identities.

When women began to enter the field of architecture a hundred years ago, the profession responded by articulating an image of the architect defined by traits culturally coded as masculine. The ideal architect possessed a will and body of steel, a heroic sense of individuality and a creative genius that shunned cooperation. So strong was this insistence on masculinity that cultural authorities warned women who aspired to become architects that their minds and bodies would mutate if they pursued their dreams, transforming them into hermaphrodites.³

Today, we cannot comfortably claim that a professional history of exclusion lies behind us. Although the number of female students averages about 40 percent in Bachelor of Architecture and Master of Architecture programs, these women have not found their way into licensed practice, which remains about 87 percent male, according to recent statistics from the AIA.4 A 2003 report issued by the Royal Institute of British Architects on the difficulty of retaining women in the field cited the continuing "macho" culture of the profession as one of the factors contributing to job dissatisfaction.⁵ As we confront these complex issues, we might well begin by examining our own stereotypes about the people who we think make "good" architects.

Notes

- 1. I would like to thank Tom Buresh, Caroline Constant, Paige Hammerschmidt and Caryn Schadegg for their help with the exhibition, as well as the Architect Barbie makers.
- 2. Nancy Levinson, Tall Buildings, Tall Tales: On Architects in the Movies, Architecture and Film, (New York: Princeton Architectural Press, 2000), p. 11–48.
- 3. Despina Stratigakos, The Uncanny Architect: Fears of Lesbian Builders and Deviant Homes in Modern Germany, in Negotiating Domesticity: Spatial Productions of Gender in Modern Architecture, (London and New York: Routledge, 2005).
- 4. Suzanne Stephens, Not Only Zaha; What Is It Like to Be a Female Architect with a Solely Owned Firm in the U.S. Today?, (New York: Architectural Record 194.12, 2006), p. 58.
- 5. Ann de Graft-Johnson, Sandra Manley, and Clara Greed, *Why Do Women Leave Architecture* (Bristol: University of the West of England, Bristol; London: Royal Institute of British Architects, 2003), p. 20–21.



Previous spread Barbie by: Mashawnta Armstrong





Barbies by: Gera Feigon Enesh Eastlick Kristen Murphy Carrie Genualdi and Winnie Lam



Barbies also by: Jen Hermsen, Lauren Rock, Mallory Scholl, Taylor Stein and Anca Trandafirescu.



Kathy Velikov

Office Project | Project Office

Office project | project office is an installation concerned with the way in which the nature of space is transformed as a result of its production, re-materialization and displacement. The work is a meta-project reflecting on the intellectual positioning of process and project within academia.













Site: hos

The site for office project | project office is the generic academic office space, specifically the fellowship project office itself. The architectural characteristics of the office are entirely the result of other decisions related to the building. It is the space produced from the simple acts of allocation and equal division of available space and resources.

Architectural documentary

The office corridor is on the third floor of the art and architecture building, it is approximately 4' wide and 200' long. Thirty-five offices are distributed on either side along its length—each of the offices measures approximately 9'-6" x 9'-8" and each is 9'-2" high. Office 3127, the project office, has a 2' deep alcove for half the space of the north wall, coinciding with the end of the service cavity along that wall; this occurs in several of the other offices as well. The east, west and south walls of the office are homosote, painted white with 4" brown vinyl baseboard and brown aluminum trim at the ceiling. The north wall is concrete masonry block, also painted white. The floor is oatmeal colored vinyl tile, the ceiling is acoustical panels hung from a t-bar grid, with four 2'x1' florescent lights. Even though only one of the lights is functioning, the light is too bright. The door is wood veneer with a rectangular viewing window; most of the windows along the corridor have been blocked. Above the door is a 2' high transom light; natural light may penetrate the office through the transom window in the office across the hall. Across from the door, on the masonry wall, are the outlets for power and data. A data cable emerges from the northwest corner and plugs into one of the data sockets; it is unclear what



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it is connected to. This office contains the thermostat for the northwest wing of offices. Air constantly blows from the strip grille in the ceiling; however, if one remains in the office with the door closed for too long, one often develops a headache and a sense of fatigue. On weekends, the air shuts off at approximately 10:00 p.m. in the evening; it is unadvisable to remain after that. Furniture consists of a desk made from a plastic laminate solid core door spanning two cream colored filing cabinets; three 9' long wood veneer shelves, supported by steel brackets hung from steel mounting strips screwed to the wall; a grey metal shelving unit 7' high, an office chair, upholstered in lavender fabric; and a garbage/recycling can. A maple chair is later acquired for meetings with students. A cream colored telephone is located on the desk; its message light does not stop flashing, even when there are no messages. An aluminum coat hook is located behind the door and previous occupants have left several coat hangers in the room. There are also a number of filing trays, three tape dispensers and a number of thumb tacks on the walls. Eventually, a computer will be provided.

Facsimile: cast

Latex is deployed to form a facsimile of the walls of the project office. The use of latex allows for the entire surface to be replicated in one continuous and seamless material. Nine coats of a low ammonia cream latex create the cast. The ammonia latex remains off-white and opaque as it vulcanizes. It reacts with some of the metals, causing local discoloration. After it has cured, it is slowly peeled off the wall.

Material translations:

osses and effectual gains

While still maintaining the exact dimensions, proportions and texture of the space, the project office is now completely transformed by the method of its re-materialization through casting and register. An assembly of generic materials is now a monolithic seamless surface, a soft space, whose enclosing walls stretch with gravity and droop on the floor.

Displacement: translation

The solid surfaces of the walls become a fabric, a thin formless skin. Every physical surface detail is recorded; previously unseen spaces such as the depth of the pinholes and the detail of the masonry wall are exposed and can now be enjoyed. The latex facsimile of the project office is transposed to the site of the project gallery and hung within the space, in a spatial displacement of 35′–10″ north, 33′–0″ east and 12′–0″ down. The desktop, cabinets and wooden chair are also relocated, still encased in latex. The lower height of the gallery creates a mis-registration of the height of the office project.

A generic fluorescent fixture illuminates the space and its light penetrates through the thinness of the latex. The interior surfaces are now an exterior facade; interior space and surface are no longer experienced simultaneously. The formed has become formless, displaced from its context, its surfaces become absurd. The quotidian useful is now useless and has slipped from the mundane to the uncanny. The generic surfaces of CMU (concrete masonry unit) and wallboard seem like some sort of fetish. The overall effect borders between the sublime and the mildly unpleasant.

Reader

The office project | project office reader is located on the office project desk.

Presented as a course reader, it is a collection of essays, literature and other text

Latex skin is removed from its host site.











fragments which create a constellation of cultural contexts within which the project is situated. These range from cultural critiques of institutional space, to parallel practices in art and architecture.

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The generic is transformed into the fetish through re-materialization and displacement.



The project is displaced and installed.

Luminous experience of the project surface. +





Thank you: Geoffrey Thün, Andrew Herscher, Despina Stratigakos, Eric Olsen, Mirr eille Roddier, Mason White and Julianna Lieu ... for critical input, support and advice.

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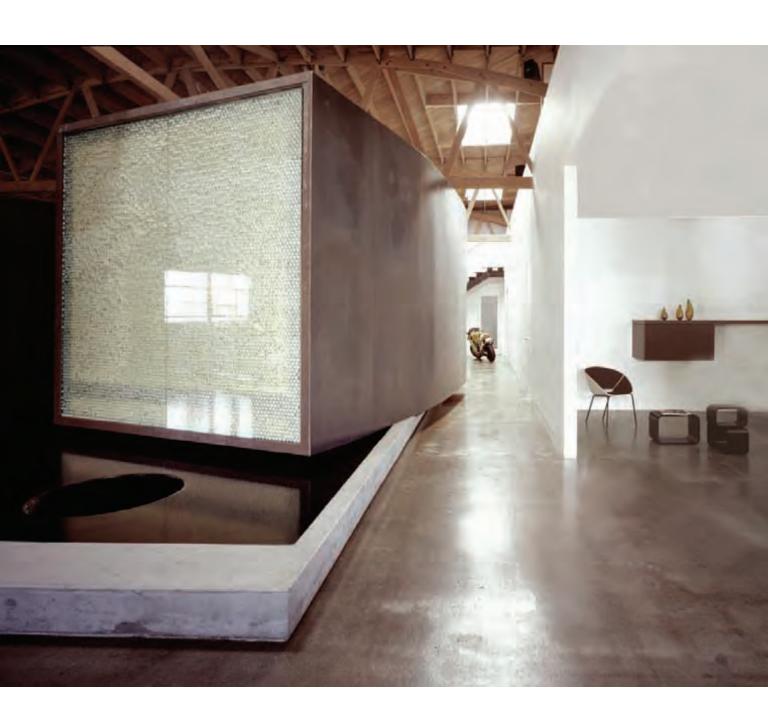
Pugh + Scarpa

The Material Inquiry of Construction

Pugh + Scarpa of Santa Monica is an architecture, engineering, interior design and planning firm founded in 1991. Pugh + Scarpa has grown to include over 20 professionals and is currently working on a variety of commissions for public, private and institutional clients. Pugh + Scarpa maintains offices in Santa Monica, CA and Charlotte, NC where Gwynne Pugh, AIA, ASCE, LEED AP, Lawrence Scarpa, AIA, and Angela Brooks, AIA, LEED AP, are the sole principals. Lawrence Scarpa was a jury member in the Wallenberg competition studio and the Eliel Saarinen Visiting Professor in 2007.

This article was composed by Lawrence Scarpa and Christopher Ghatak specifically for "Dimensions."

"As we are first and foremost involved with the daily practice of architecture, the invitation to consider the results of our labors after the fact presents an opportunity for which we are grateful."



Jigsaw's lobby, presents a pair of luminous textured façades, that bathe the room in light diffused by double glazed panels filled with ping-pong balls and acrylic beads.





When a job came into the office in our formative years, its completion would occur so rapidly, that the energy of the design was naturally sustained through the end of construction, buoyed by the adrenaline that came from producing at a blistering pace and through direct physical contact with the actual materials involved. The present day situation is quite different; the size, number and complexity of projects we handle have all increased. As the duration of these projects frequently spans three to four years from inception to completion, our operative words are now "vigilance" or "diligence" and certainly "tenacity."

Our work emphasizes the experience of making things. The building is treated like a drawing at full scale. This means not only making models in the studio but also learning something about the "What happens when I do this?" The object is important but the experience also has a profound impact, leaving something that lasts beyond the physical existence of the object. We are acutely aware not only of materials, but in particular also the making both in design and in the field. Our approach to each project is open. We protect our interest in not only learning something about design but also about ourselves.

The social climate and business environment we work in is much altered from that of earlier days, and yet we are in some ways much the same. We remain dedicated to the investigation and transformation of the processes and materials shaping the construction. John Dewey described our preoccupation (and that of most architects) as "controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the situation into a unified whole." What we engage as "materials of construction" are only sometimes tangible. The projects presented here demonstrate a kind of continuity in the core values of our work when, over the span of a decade the scale, "materials" and programs all changed. Where in the earlier project the materials are literally physical, later work is more deeply involved with social and environmental conditions and financial models for affordable development. As always, the matter of building and the expressive potential of its materials is open for inquiry.

Early on, we discovered it was possible to bring a kind of electricity to fairly generic spaces through the use of common materials transformed beyond immediate recognition in the service of a practical, usually programmatic goal. These projects operate primarily from the principle that the quality of a design is more closely correlated with one's ability to identify viable materials and deploy them dynamically than it is related to the available budget. Insistence on simplicity and the confidence to maintain that the best solution is available only in the course of the experiment yields opportunities for expression and invention.

An existing 1940s bow-trussed structure (ubiquitous in Los Angeles) was transformed into a space fit for invention and creation for the film editing company Jigsaw. Their work requires small, dark environments free from distraction and light reflection.



A photovoltaic array of 199 solar panels on the building's façade and roof capture sunlight that provides most of the peak-load energy demand while the living units capture prevailing breezes, using a disposition functionally equivalent to that of a wind scoop.





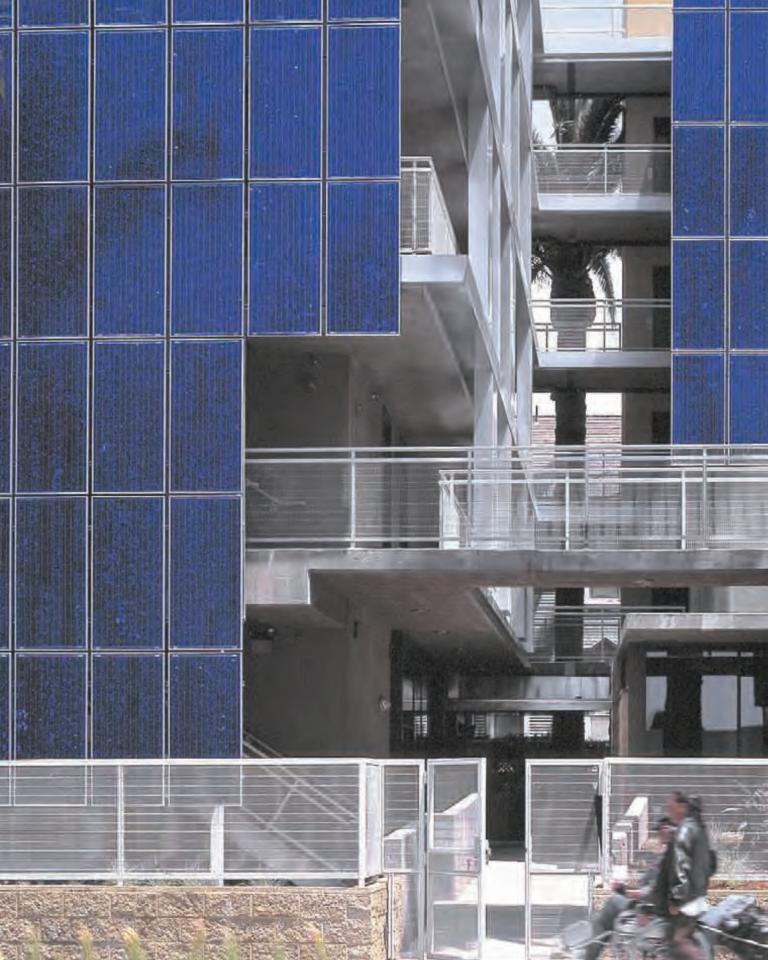
The building's warehouse shell is a horizon or envelope within which to locate a large interior public area containing two enigmatic work spaces. The design uses discrete forms and reinvents their immediate context to mediate inventively between public and private spaces. Part sculpture, part envelope, oblong skewed boxes hover over a placid reflecting pool enclosing the editing studios and offices. Facing the lobby, they present a pair of luminous textured façades, which upon closer inspection reveal themselves as double glazed panels filled with ping-pong balls and acrylic beads. Bathing the rooms in a soft and diffused light, they afford privacy and minimize distractions while allowing glimpses of the space beyond. The volumes undulate above the shimmering plane of water while a sunken circular fountain fills the space with the sound of moving water.

It is possible to generate a building of any size or type simply by adhering to the guidelines set forth by state and municipal regulatory agencies, and with specific knowledge of common construction practices. Evidence of this is all around us of course. This is not to say that the making of a building is ever a simple process, only that the bigger and more publicly sited the building, the simpler it is to arrive at a foregone conclusion as the rules of engagement with regulatory agencies and by extension the public are spelled out that much more clearly.

With Colorado Court it was our objective to synthesize environmental pro-activity with aesthetic intent within the scope of a design for low-income housing. By incorporating passive and active strategies for sustainability, and far exceeding standard building practices to optimize building performance and reduce energy consumption at all times, it was the first building of its type in the United States to be one hundred percent energy independent.

The building's shape and disposition of living units capture prevailing breezes like a wind scoop, cooling the building and eliminating the need for air conditioning. One hundred percent of storm water runoff of not only the project but of the entire block is retained on site. A natural gas powered micro-turbine/heat recovery system generates the base electrical load for the building while the solar electric panel system integrated into the façade and roof meet most of the peak electrical load. The cogeneration system also captures waste heat to produce hot water for the building throughout the year as well as space heating needs in winter.

The return of excess power from the solar panel and micro-turbine systems to the electrical grid during daytime hours requires the inclusion of a "net-metering" system—an electrical meter that runs both backward and forward. Net-metering unfortunately, was at the time prohibited by public utility regulations. Through public process, and energized by a fight for project viability, Colorado Court momentarily became a central figure in the policy making of the California legislature.







Notes

- 1. John Dewey, Logic: The Theory of Inquiry. (New York: Holt, 1938) p.108.
- 2. Hashim Sarkis, "On the Line Between Procedures and Aesthetics," in The Pragmatist Imagination: Thinking About Things in the Making. (New York: Princeton Architectural Press, 2000), p.103.
- 3. Ed Dimendberg, Excluded Middle: Toward a Reflective Architecture and Urbanism. (Houston: Rice School of Architecture, 2002), p.39.
- 4. Lewis Mumford, Sticks and Stones: A Study of Architecture and Civilization. (New York, 1924).

All images provided courtesy of Pugh + Scarpa.

In drawing on the principle that the material of the situation is always raw at the outset, the design of a building serving the public at times requires that even regulations be "cooked" to taste. "If architecture is completely overwhelmed by politics and absorbed into its processes, it cannot transform them." writes Hashim Sarkis in his essay *On the Line Between Procedures and Aesthetics*, "In order to become engaged effectively, architects must maintain the strategic possibility of remaining partly disengaged." One must have the material in hand, which is to say—be intimately informed. The design lies in the transformation of the material. It takes a special sort of client to entertain the risk of pursuing zoning variances, let alone challenge the practices of the major utility companies in the pursuit of maximum sustainability, however the benefits to a community and benchmarks established can be significant.

To take the idea of partial disengagement one step further, consider the legacy of our own discipline, for a moment, as both fundamentally required working knowledge and also knowledge that may be usefully "suspended" in the effort to manifest and support our needs as a culture. As Ed Dimendberg writes:

"From the single-family home with its elaborate codings of public and private to museums with their implicit and explicit relations to notions of heritage and tradition, architecture can never escape the fate of cultural significance. Acknowledging the radically historicist character of architectural knowledge, that our spatial understandings and predilections have a history, that they ceaselessly change, and that the absolute truth remains elusive constitutes [a] requirement for a culturally reflective practice." 3

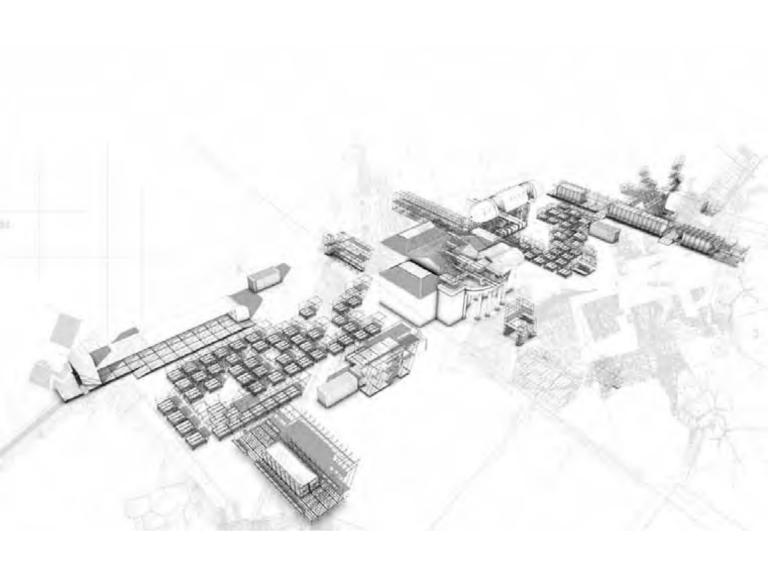
The temporary suspension of our architectural inheritance is fundamental to the process of re-envisioning an improved environment for ourselves particularly as the forces shaping change in the world's major metropolitan centers reach well beyond the discipline of architecture and out into the worlds of public policy, transportation, education and so on. In this light it even seems useful to initially suspend our claim to disciplinary autonomy, and to forego efforts at aesthetic expression in order to engage the full scope of the "material" at hand knowing that both historical knowledge and authorship in the present inevitably return to inform the built work in the end.

As Lewis Mumford wrote, "Our Architectural development is bound up with the course of our civilization. To the extent that we permit our institutions and organizations to function blindly as our bed is made, so must we lie in it. The future of our civilization depends on our ability to select and control our heritage from the past, to alter our present attitudes and habits, and to project fresh form into which our energies may be freely poured." The statement affirms so much of what we identify as our own disciplinary responsibility; fully riddled with multiple and conflicting forces, bound together and driven forth by our own optimism.



The collective project EXYZT is a non-profit organization that showcases a platform of multidisciplinary ideas, creations and actions. Through this project the members defend the idea of manufacturing together as a vehicle to deliver a strong message to the society in which we live and act. Within this objective, the EXYZT project must incarnate and marinate the richness of the individual ingredients in order to serve a coherent message.

Philippe Rizzotti and François Wunschel of EXYZT were invited to give the Alpha Rho Chi lecture in Winter 2007.



—Cedric Price

"Unitary Urbanism envisages the urban environment as the terrain of a participatory game."
—Constant Nieuwenhuys and Guy Debord

"The whole complex—in both the activity it enables and the resultant structure it provides—is in effect a short-term toy to enable people, for once, to use a building with the same degree of meaningful personal immediacy that they are forced normally to reserve for a limited range of traditional pleasures."



Manifesto

Be utopian. We want to build new worlds where fiction is reality and games are new rules for democracy. We want to encourage creativity, reflection and renew social behaviors. If space is made by dynamics of exchange, then everybody can be the architects of our world.

Experiment. Architecture can expand into a transdisciplinary field, where new tools can be explored. Our current recipe: marinate construction with video, music, graphic design, photography and gastronomy, without forgetting to leave space for interaction, freedom, informality and unpredictability. Our projects result in spatial video games, architectural buildings, musical environments and/or thematic food feasts.

Even if we refuse to enter the current architectural practice (which is under economical and political constraints) we do deal with the reality of construction. We design and build ourselves, live in our constructions and leave freedom for visitors to appropriate our designs.

What we produce is open source architecture. We collaborate to give free access to a structured living program and an interface for exchange. We only offer a framework for a direct and immediate emulation between people and space.

Our projects are always in motion. It is this dynamic process based on interactions between people and their environment that really make our projects. We exist to incite you—be conscience of your environment.

React and act.







"The most significant application of mobile architecture. A spatial structure raised up on piles which contains inhabited volumes, fitted inside some of the voids, alternating with other unused volumes. This structure may span certain unavailable sites and areas where building is not possible or permitted (expanses of water, marshland) or areas that have already been built upon." —Yona Friedman

Site detection. We usually choose sites that are not regulated by real estate economy or social control. Among them: wasteland, leftover spaces and abandoned spaces. We also work on flexible/neutral spaces offered by events like festivals or exhibitions.

In situ action. Even if we usually use identical materials like scaffolding, textiles, photo, video and sound material, our projects are non reproducible product; they are designed and built in the context of location, place and participants.

Temporary intervention. Architecture is an adventure in time. We like it short and dense so as to focus more on the project (and also because we want to create multiple projects around the world).

Explore new media tools. We experiment with endlessly different tools for our interventions like video games, short (video) cuts and video jockeys. We attempt to translate media into physical space. A video projection can constitute a façade, a video game becomes a spatial interactive game and films exists as memories of our constructions.



Metavilla, Venice, Italy September 2006-November 2006





"A Home is not a House."
—Reyner Banham



Un ieu

A game. An open invitation to create a dialogue about the collective, within the collective. The result: a conversation pieced together from the contributions of three of the collective's members: Roland Gerbier, Julien Beller and Philippe Rizzotti.

"To look for pleasure, to avoid pain, is the general act, others would say law, of the organic world. It's the essence of life itself. Without this quest for the agreeable, life itself would be impossible. The organism would disintegrate, life would stop."

—Pierre Kropotkine

EXYZT is a collective that has a varying definition.

EXYZT is a sequence of actions in an urban context, built environment or inhabited territories.

EXYZT is a series of ephemeral landscapes, of intertwined arts, of constructed contexts and unlikely encounters.

EXYZT is a means of action.

EXYZT proposes alternative projects.

EXYZT tries to develop a proposal on the city.

EXYZT is alive only during projects and should not exist in between acts.

EXYZT is the possibility of gathering a group of people together in order to intervene.

EXYZT can die because it consists of human relationships above all. EXYZT is friends.

The concept of EXYZT's architecture is festive—an architecture of emergency and an interaction of proximity.

EXYZT is a spectrum of diversity and abilities that form short-term and mid-term diffracted architecture, without consuming space.

The EXYZT projects are situated between the proposal and the event, between the experiment of a new way of inhabiting the city and the image of an architectural act of a group of human beings.

The collective has explored a multitude of modes of simultaneous creation and habitats. The self-construction, self-management and self-structuring of each project welcomes individuals to walk through a temporary installation—an expression of and compliment to the diversity of its inhabitants.

One missions of the EXYZT collective is to invent the fireworks of tomorrow. The fireworks market represents roughly one third of the cultural expenses of municipalities. Why not re-inject all of the money that goes up in smoke into huge collective gatherings? Gatherings based on fireworks of images staged by hordes of graphic designers so that they might project themselves onto the façades of all the cities in a 360 degree outdoor danced cinema.







"Architecture is maybe the best media to join Art Fields together."
—Yona Friedman

Bibliography

All quotes copyright Swiss Architecture Museum: Instant Urbanism, Exhibition, (Basel: Swiss Architecture Museum, 2007).

All images provided courtesy of EXYZT.

Thank you:

Yona Friedman, Archigram, Dada, Fluxus, hybrid architecture of the world (observed on our trips to Vietnam, Japan, Eastern Europe, Africa). We owe you.

EXYZT must stay autonomous and democratic. The heterogeneous expectations of the members allows for complexity in the projects.

We are well on our way to witnessing an increase in the number of homeless people, illegal immigrants and political and economical refugees. What Don Quixote accomplished with his tents, the EXYZT collective must attempt to do with its scaffoldings.

The Multidisciplinarity of the collective always allows for new discoveries. In every field, each person's skills can express itself and nourish the proposal. Rather than a city sketched by architects, it is one sketched by its inhabitants. In the meantime, let's start by gathering all of the skills available in order to create a lively city.

Architect-Carpenter, Plumber-Woodsman, Electro-Musician,
Mechanic-Drafter, Video-Driver, Idiots-Geniuses—they all cultivate
multitasking and reinvent and recreate their world daily. The experiences of
each multiply and become linked to one another, either in small groups
or all at once

Today, the city is a mark of temporary construction, which most of the time serves in restoration of existing buildings or in the construction of new edifices. The infrastructures of these constructions and events constitute another species of ephemeral landscapes. It is within the temporality of spatial interstices that the collective's interventions exist.

I sense behind the collective the potential of the Royal de Luxe Company of French street theatre, but in a more high-tech dimension ...

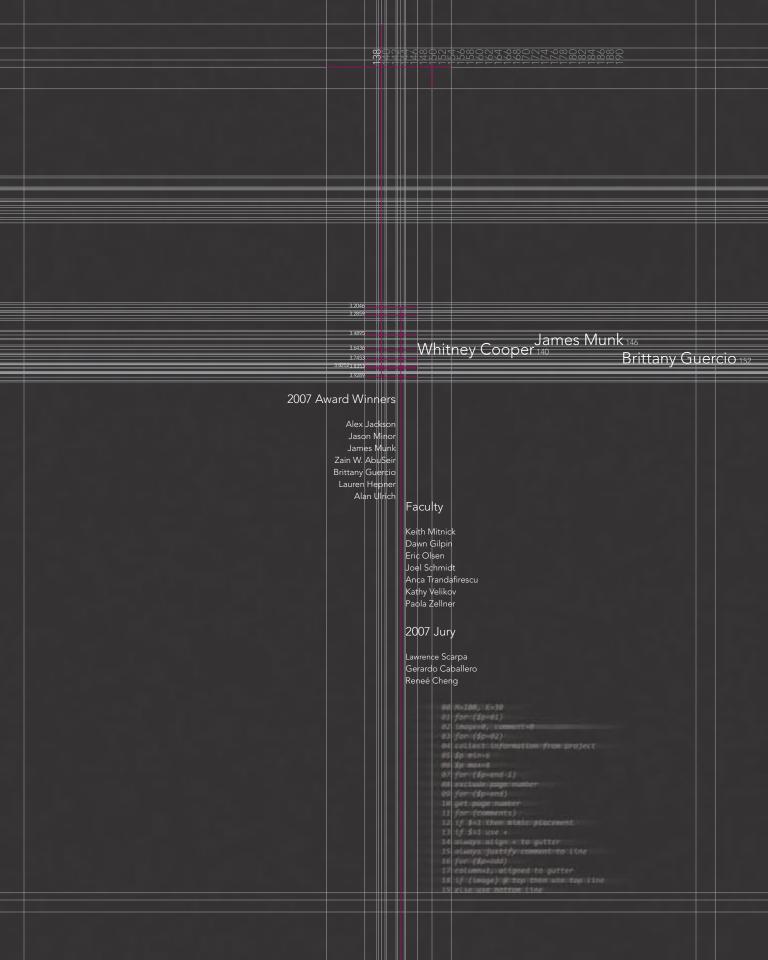
Maybe it is not the role of the EXYZT collective to initiate the movement by being the Abbés Pierre of the twenty-first century; but EXYZT needs to at least suggest the idea to one or two listening ears.

Our action as the EXYZT collective is an invitation into the exploration of investing and occupying of spaces under-exploited times, artistically, legally economically and humanly ...

It's not easy getting old, especially for a collective. Aging implies following a certain path and along the way some will abandon that path. Aging implies the implementation of a sort of hierarchy, more or less assumed, more or less accepted. The hierarchy implies the implementation of an administrative and financial management system, which can easily asphyxiate and dry-out the beauty taken from the past. This is why it is important to find the right people who will know how to be both strong and limber at the same time.

It is necessary to take the implied route of aging in order to continue to create a path through the immense possibilities that you have. The EXYZT collective has already made people dream and will continue to make us dream. All we need to accept is, growing old.



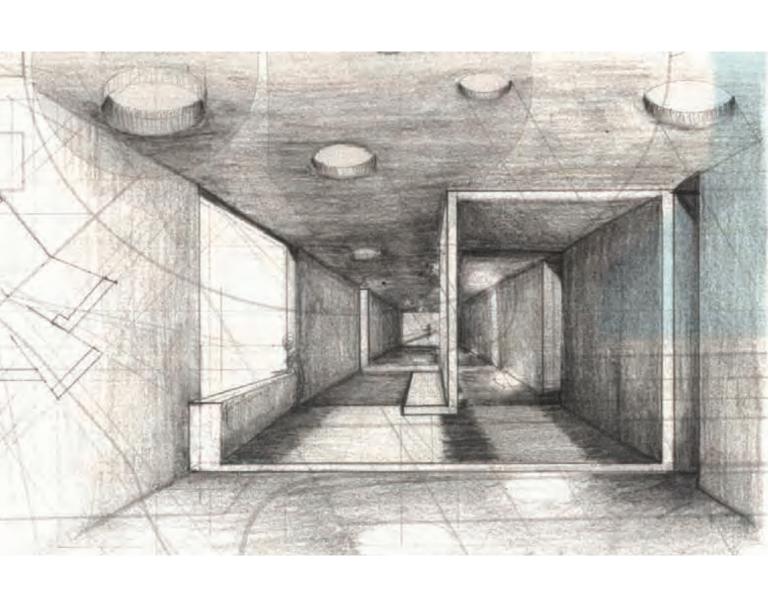


Sean Billy Kizy 158 Zain W. AbuSeir 176 Jason Minor 184 Rachel Villalta 170 Michelle E.Mille Raoul Wallenberg Studio Raoul Wallenberg, a 1935 graduate of the University of Michigan College of Architecture and Design, has been called one of the 20th century's most outstanding heroes. In 1944, as First Secretary of the Swedish delegation in Budapest, he is credited with saving more than 100,000 jews from death at the hands of the Nazis. In Wallenberg Endowment was established by the Benard Maas Foundation. At the college, Wallenberg's legacy lives through our aspirations for architecture as a humane social art. Each year the architecture program exhibits and juries the best work from the final undergraduate design studio. Awards, funded by the Raoul Wallenberg Endowment are offered in the form of a stipend for international travel. It is expected that students would return with a broadened understanding of the world and an appreciation and feeling for the people they encountered. Architecture + Deceit by Keith Mitnick Deceit has long been associated with architecture in many forms, ranging from perceptual musings upon the optical mechanics of sight, distance, things appear visually to the way we know them to be intellectually), to more politically charged mis-directions and representations of dominant political ideology (in the guise of "truth"). Sometimes deceit can be value-free, that is, it befuddles ones expectations as a source of pleasure rather than manipulating appearance towards explicit interests. Other times architectural deceits are concocted to uphold a biased view of things, people and values that enforce a particular outlook without appearing to do so. In all cases, buildings are predicated upon a provisional set of truth-based beliefs, or assumptions, that it serves to reify and validate. From ideas about the "nature of materials" to claims about the stand to revamp, reveal and prescribe new natures for materials and the changing cultural sensibilities through which significance is projected upon the sensory, spatial, and political realm. In different ways, each of the Wallenberg Studios took on the notion of deceit as it pertained to ideas, design processes, new terms and propositions for architecture in our ever-changing world.

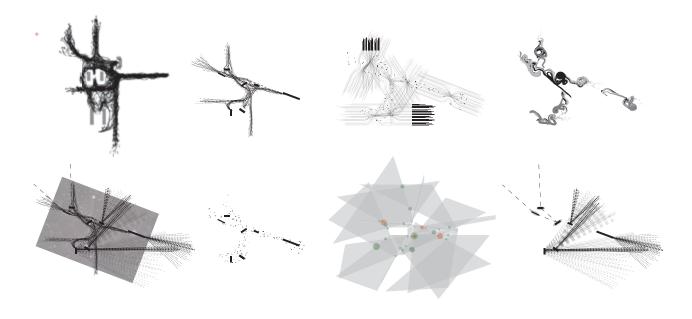
The spectacle is defined not by what it is, but by its moments of non-existence—the moments of boundary and edge that produce realities. The realities of starvation, war and disease can be considered amongst the most "real" pockets within the spectacle. These realities are recorded through those affected by the spectacle—those who do not benefit from it, but become a consequence of it.

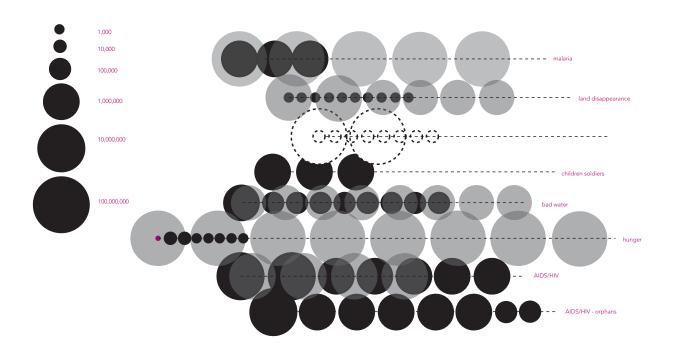
The Memorial of Reality with its seven sites of consciousness was formed to provide a space in which an awakening of the mind can be undertaken. The memorial is not intended to record and express these specific realities in a literal way, but aims to create slow space and stillness of mind which is obtainable in a heightened state of consciousness.

These seven sites—created by "hiccups" within the pedestrian flow of the landscape at Museum Park in Chicago, IL.—are embedded in close proximity to existing paths, increasing the opportunities for free engagement and spontaneous experience. These "hiccups" can be visited without a predetermined narrative or sequence, allowing for multiple readings through time.



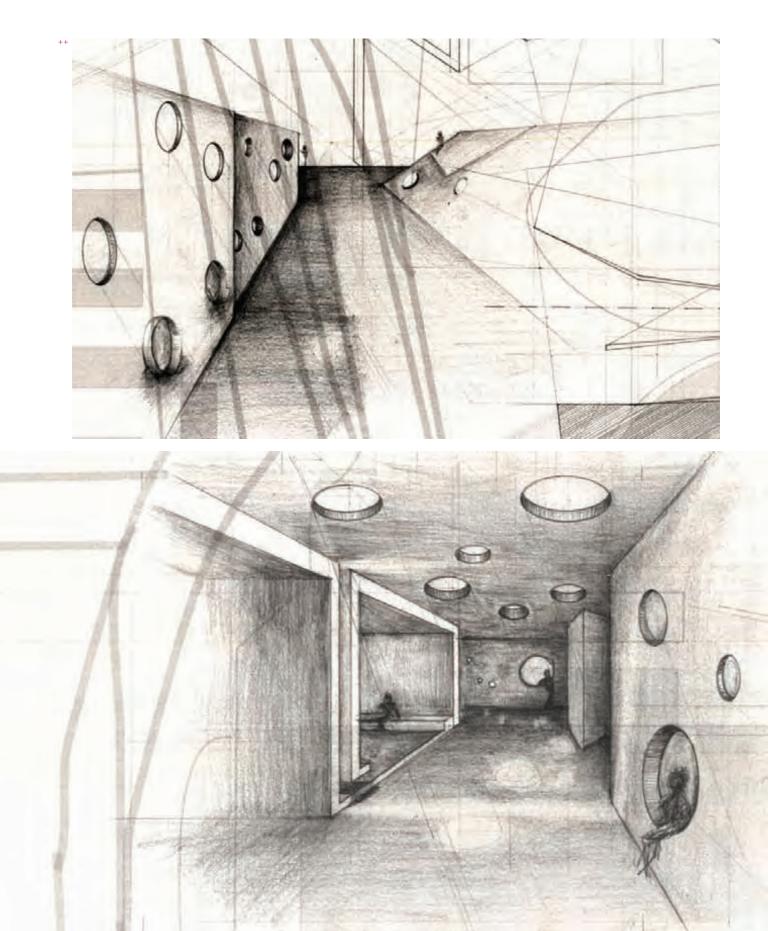






Pedestrian flow within Chicago's Museum Park provides opportunities for free engagement and spontaneous experience.

++ Moments of non-existence created by starvation, war and disease are recorded through those affected by the spectacle.







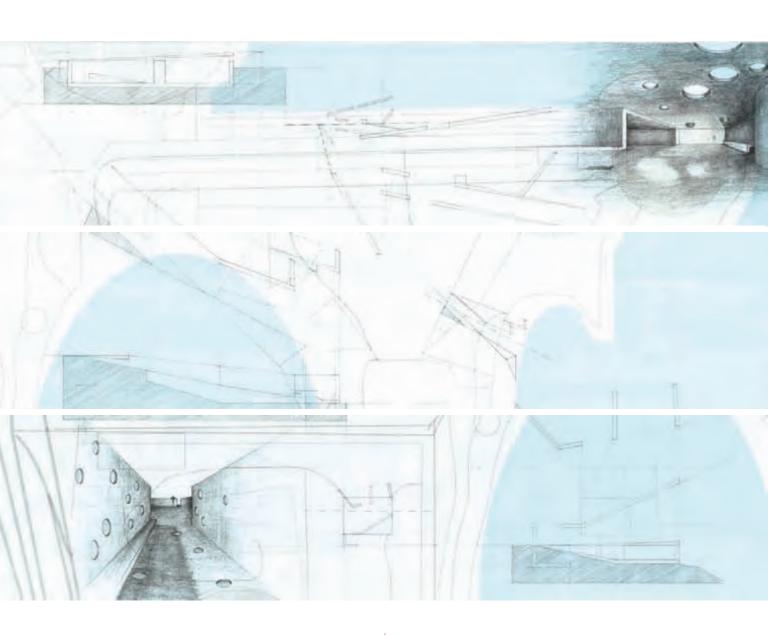
The seven "hiccups" are independent of meaning, with directed views to the sky, the body of water and the horizon, they intend to evoke a sensorial experience in which one is able to embark on a cosmological and phenomenological journey through contemplation and reflection. The spaces become significant through the experience of the individual and their own ability to tap into a state of self-awareness within the cosmic realm.

In linking consciousness with cosmological and archetypal elements such as water and the sky, the sites of consciousness are able to transcend their context and their form. This enables the possibility for an existential experience in which individual realities connect to the whole.



The seven "hiccups" direct views to the sky evoking a sensorial experience.

The seven "hiccups" transcend their context and become significant through the experience of the individual.



Borders are interesting illusions; they gain their power by virtue of their believers and the extent to which we physically and architecturally reinforce them. They are a lie incarnated by concrete, cameras, guards and guns. Borders attempt an absolute divide where none exists. They separate economies, nations and entire bodies of people; they divide us from them ... good from evil.

Studying borders in general and the border crossing at the Detroit, MI and Windsor, ON port of entry led to early mapping studies. Maps have a strong power to propagate notions of delineation. Mapping studies of the site dealt with recording variable information through mathematical functions; designing equations that through Microsoft Excel™ enumerated lines of integers. As integers increase in numerical value their graphic size also grows, allowing for information to be modeled simultaneously though numeric and graphic means, creating linear functions that reveal information through their densities.

Lines were used as recorders and lines of sight as a tool to obscure and reveal information. Lines were deformed to indicate densities proportional to the distance from their original trajectories. This became a way to model the urban fabric of the project's site in Detroit.

From these linear studies the theme of gradation emerged as paramount to the project as well as a vocabulary of informative densities, deformation as indication and visual reveal. Furthermore, these studies informed design aspirations of a linear building that changes by virtue of its use; in this case, vehicular immigration. Information was to be revealed and hidden, pushed out or allowed in.

These changes were allowed to manifest on the surface and to be experienced by the user.

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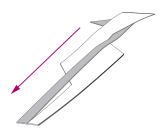


Using the linear language previously defined, the final design concerns the American side of the Ambassador Bridge. Traveling South to North, three major nodes of program—immigration check point, Duty Free shop and gas station—reveal themselves through structural and architectural densities. These major program nodes are the pregnant sectors of the linear function that allow access to and from Detroit. Likewise, lines of traffic are deformed by these densities becoming a fluid homage to the programs they pass.

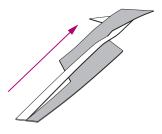
Through perspective manipulation and simple fins, a "welcome" sign and the feigned wall of an absolute border are presented to those attempting to enter the U.S. With movement, this wall—and welcome—fades and becomes individual security carrels. After passing through the security carrels, the traveler is able to look back and gain a more complete understanding of the complexity of the U.S. border.

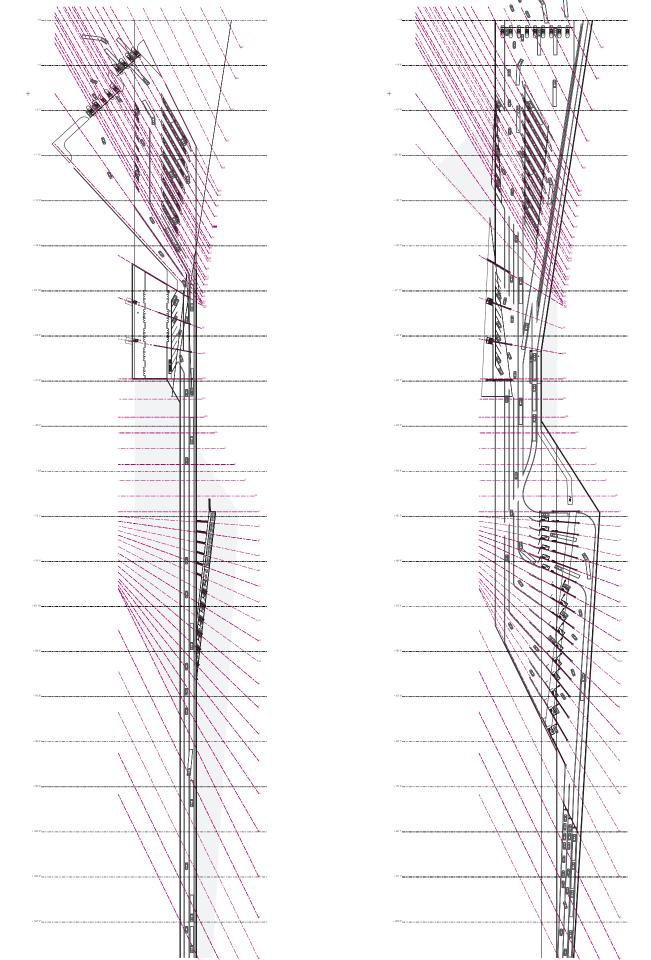
In this proposal, entrance to the U.S. is obscured, alluded to, then finally realized by traversing the construct—a gradient architectural response to the definiteness of our borders. Rejecting the current condition as outright deceit, this proposal reveals the gradient in a zone that feigns absolutes. Rather than the current condition of a perpendicular barrier, this design functions parallel to the crosser's direction of travel. Whereas crossing a perpendicular line allows for the exclusion of all but one point, traversing along a line reveals complexity, ambiguity and gradation.

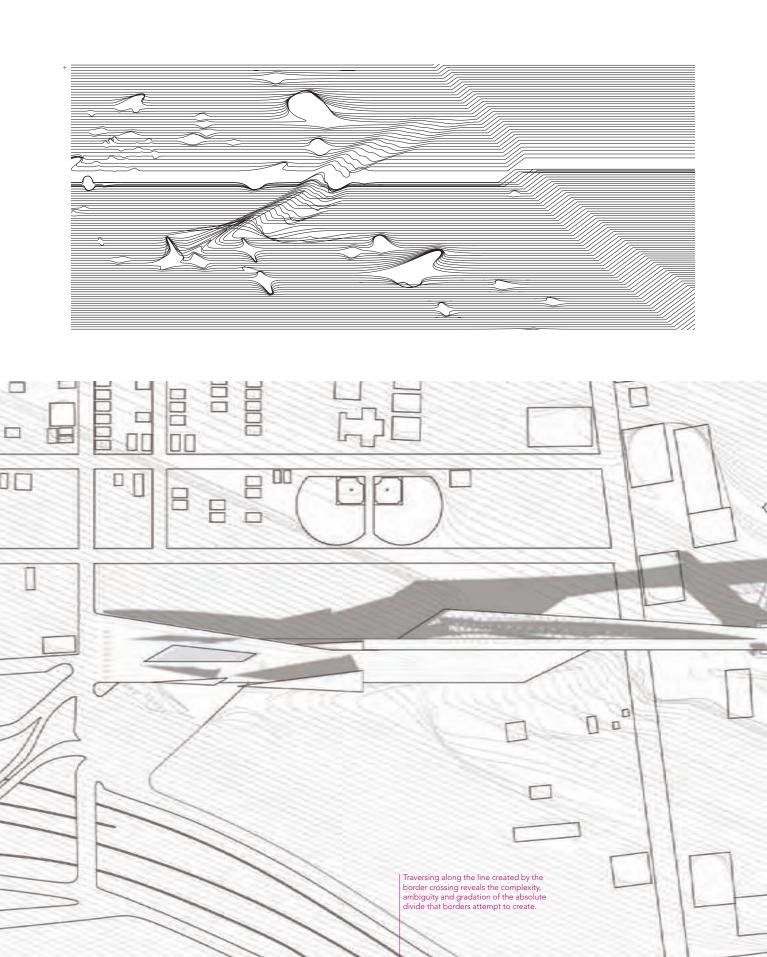
+ Rolling Floor Plan One Exiting to Canada



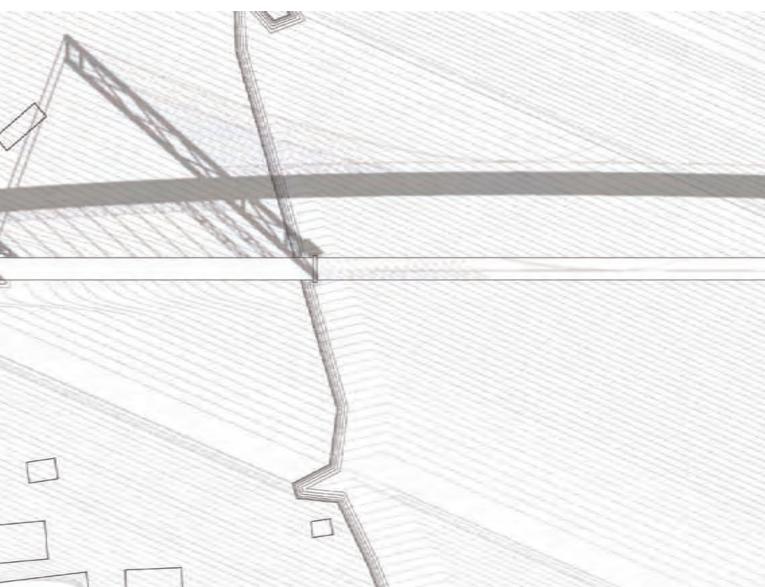
++ Rolling Floor Plan Two Entering the U.S.







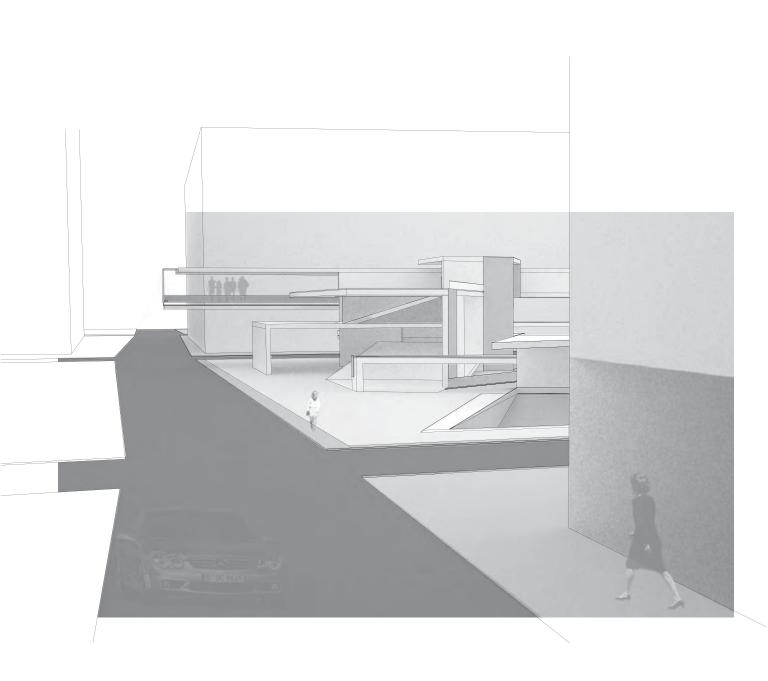


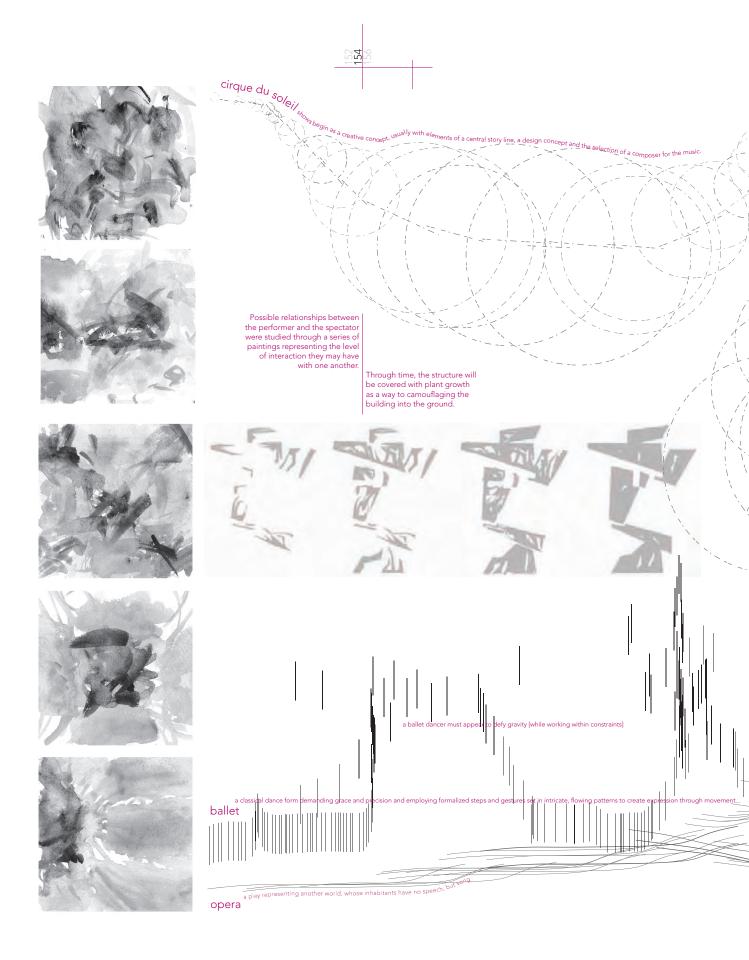


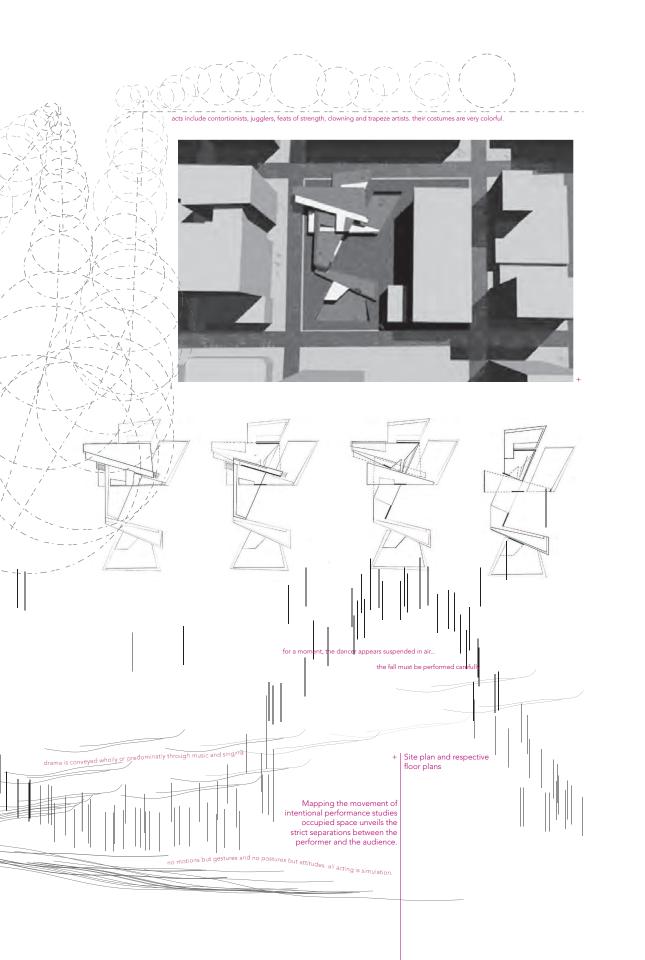
By definition, the spectacle is a sight or show—something of an impressive kind. The spectacle of society is the power that uses imagery and false representation to influence an idea or product. We, as society fuel its existence as we become insatiable consumers.

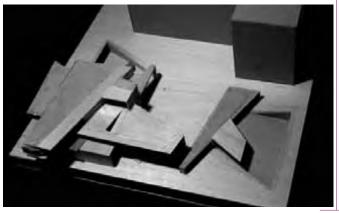
Through movement and sound, actors simulate society. Society "acts" and portrays its appearance in a particular way, in an attempt to survive the spectacle. If all acting is a simulation of society and society performs every day, why are the two architecturally separate?

The existing typology of a theater that represents society is no longer accurate. Blurring the relationship between the performer and the spectator creates a space that allows the occupants to simultaneously observe and perform within the spectacle; to see and to be seen. Rather than defining a program, flexible and continuous spaces have been created combining large urban and human scale moves that invoke moments of spontaneity and allow for variety in performance and "spectatorial" experience.











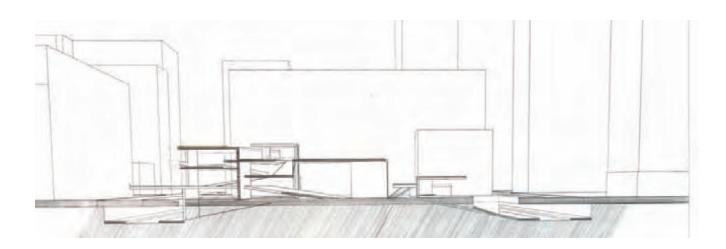
Slipping the structure into the ground creates an entrance/
exit from the subway, while also providing a space of
spectatorship. Cantilevering parts of the structure engage
the city with the site through views. Within the structure
itself flexible space can be molded by human activity. As in
a score or a script, the occupants activate the structure as
they become aware of their role in the spectacle.

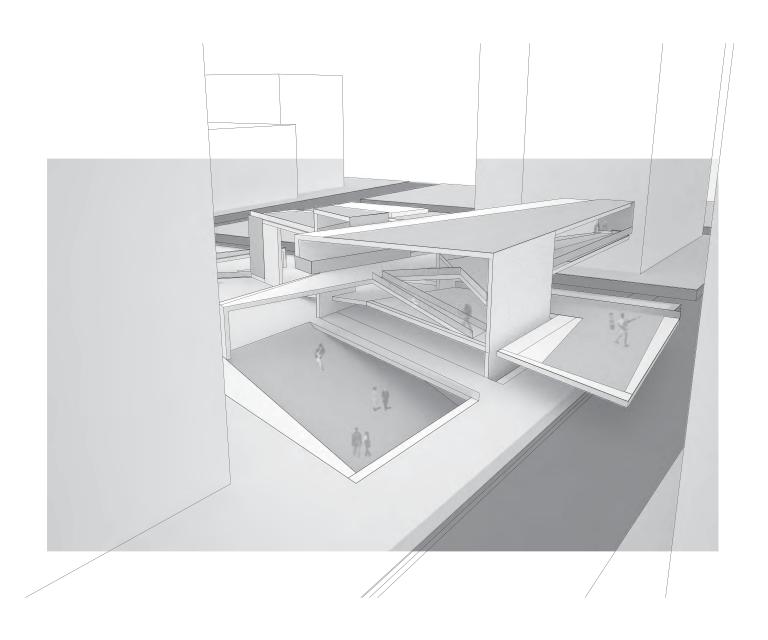
The concrete structure is layered and wrapped with a mesh ground cover on some areas that allows plant growth, blending in time with the existing grass landscape of the site. Wood slats run horizontally through spaces and alternate between wrapping the floors, walls and ceilings.

Each skin slips past the other, allowing not only the material to blur, but the sight through the spaces as well.

The proposed urban landscape weaves itself into the city questioning the distinction between public and social space, city and building, modeled by the desire of limiting without enclosing. When there is no longer a distinction between these relationships, camouflage is engaged.

The concrete structure is wrapped with horizontal wood slats that transition from floor to wall and in some cases fold to become seating. Similarly, the ground cover folds down creating another layer of transparency that one can observe as they look out.





Studio Critic: Keith Mitnick

Parallax Player is played similar to both playing cards and tarot cards. Tarot cards arrange a series of characters that help someone begin to analyze their own concerns and interests, while playing cards incorporate strategy that builds on probability within a set number of categories.

Parallax Player acts as an instrument to help develop design within a framework that constantly propositions the player to make decisions at predicted intervals.

Directions

Draw a hand of seven cards composed of one Value Card, one Profile Card, one Image Card, one Narrative Card and three Program Cards. Flip over the Value Card immediately. Pick both a PIN Card and Program Card to be played as a single combination. Issue remaining PIN and Program Cards to build combinations as required.

Pure difference

Conducting different projects of parallax with the overlapping of truth and deceit, exercises demonstrated parallax perceptions of truth and deceit both conceptually and formally. By studying truth and deceit through the human body a supposedly true and objective view of the body is juxtaposed against society's false and narcissistic perception. Factual medical documents depicting the human body were manipulated to give a new perception of the body as a generated physical form different from the abstract metaphysical understanding of a person's mind. Both perceptions of the body can be described as truthful or deceitful. Parallax player attempts to characterize a new understanding of the body by positioning both ideas together, forming an understanding of the body with the reasoning of pure difference. Pure difference is not the difference between one element from other elements, but the difference of the element from itself. By comparing the immediate narcissistic understanding of the body and the



PROFILE 259

Three elements organize multiple views through to and from one another. Individually the elements have separate orientations but their relationships to one another create multiple intersections and angled perspectives their conservations are synthetic toyperic toyperic and their conservations are made visually and align momentarily when crossing through thresholds.



Previous spread 5 sets of 9 cards: 9 Values 9 Profiles 9 Images 9 Narratives 9 Programs

1 hand of 7 cards: 1 Value 1 Profile 1 Image 1 Narrative 3 Programs understanding of the body as a physical element, a new understanding develops of the body different from itself.

The projects of parallax give new understanding to these anatomical documents. Architectural form is negotiated from them, resulting in generic diagrams of architectural moves. The medical documents take on a new understanding in narrative form as both an event and image and a truth. Embedded in the writing are parallax perspectives of the documents. Three cards developed that are the same element. The cards are each other and different from themselves—event, object and truth become the profile, image and narrative cards.

Proposition

Architecture is traditionally discussed in different canons that are latent in work. We tend to talk about architecture as ambient or natural, but architecture and design can be dissected to create an external context for discussion. Parallax Player attempts to withdraw from the presumed intentionality and implicit value-driven approaches of design and set up multiple ideologies as a game in itself.

Cards imply organization, probability and sequence.

Design is a personal process where your own thoughts and ideas are materialized. Parallax Player describes a physical organization for an assumed process of design. These assumptions provide a forum for architectural discourse and develop an exchange between setting up a process and allowing it to produce what is not calculated.

With the Profile, Narrative and Image Cards, Parallax Player assumes a finite number of moves and descriptions of how one plays their hand. The value cards are critical in engaging the player to make decisions. By playing a value, the player begins to understand how a single move translates differently when looking through a specified lens. Program Cards provide the necessary medium.





Bibliograph

Johannes W. Rohen, Color Atlas of Anatomy: A Photographic Study of the Human Body, (Philadelphia: Lippincott Williams & Wilkins, 2002).

Slovaj Zizek, *Parallax View*, (Cambridge: MIT Press, 2006). Matthew Ritchie, Proposition Player, New York: Distributed Art Publishers, 2003).

A supposedly true and objective view of the body is used to negotiate architectural form.





Studio Critic: Keith Mitnick

For the moviegoer, the theater erases context to facilitate raptness in the alternate reality projected on screen. Here, the mechanism of erasure acts in two directions: the black box of the theater erases all outside context; the outside context works to erase the movie theater. The project is not only to question an architecture that provides viewing spaces, but to re-imagine the multiplex—the massive, cheaply constructed conglomeration of theaters that is only at home between the Wal-Mart® and Burger King®, near an exit from the main highway and in the center of a sea of parking lot lines.

Premis

In order to challenge an architectural institution, the established order must be deconstructed. This demands a reevaluation of how we perceive architecture and more fundamentally, how our preconceived notions of the physical world manipulate our understanding of it. The movie screen—hiding in the dark with two dimensions and four defined edges—is honest about its deceit—that what it presents is fictitious. The physical objects that populate the built environment have no such edges. Is our reading of them any truer? Can an investigation of how the current episteme defines the physical object inform alternative ideas for designing conventional building typologies?

Site

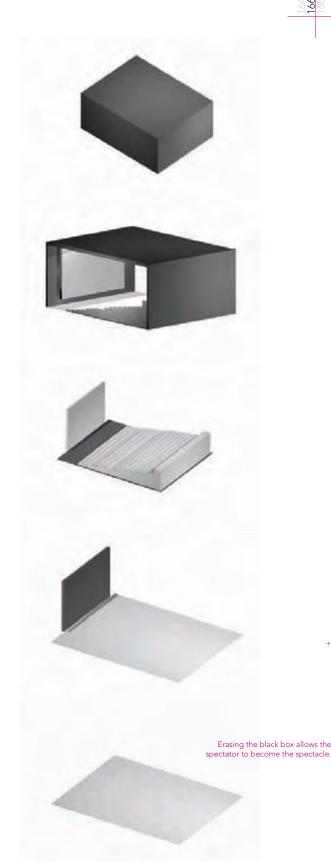
The multiplex is an institution ingrained in the banal suburban construct. With an almost unbroken boundary between interior and exterior, the typical multiplex sits as an object placed upon the site. These typical conditions are erased, the site (located on Washtenaw Avenue outside the downtown campus center situated among strips













of shopping plazas) is developed in opposition to the hegemony of the "big box" and the basic elements of the suburban landscape—grass and pavement define the building itself.

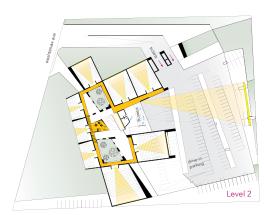
The diagram of the ha-ha facilitates a staged experience of the site. Viewed from the street, the multiplex makes no strong formal statement. Instead, it appears as a sloping, grass covered ground plane punctuated by large screens and voids. The parking lots, a lower level for standard parking and an upper level that serves the drive-in theater, hide behind the crest of the slope. Only upon entering the site is the building experienced as such. Views from the covered parking into the social spaces and from within the lobby spaces to outside courtyards disrupt the standard relationship between interior and exterior.

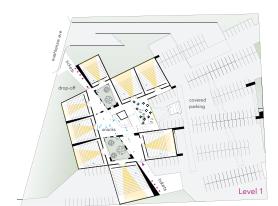
In creating an alternative to the big box structure, the building becomes part of the suburban landscape of sod and asphalt. Taking advantage of the slight downward slope of the site, the roof begins at the level of the sidewalk and slopes gradually upwards. The "roof" is accessible from the street and becomes a public space for viewing films or other social activities.

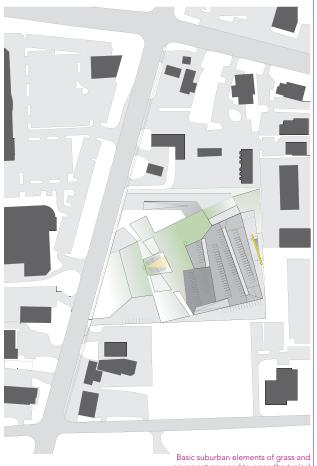
+ ha-ha n. (hähä) -a type of boundary to a garden or park, designed not to interrupt the view and to be invisible until closely approached.



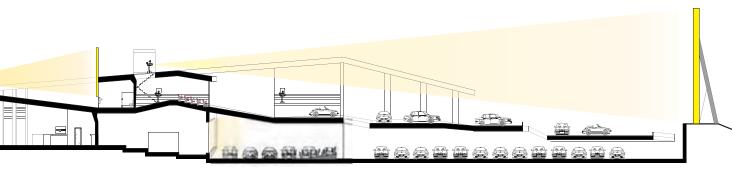






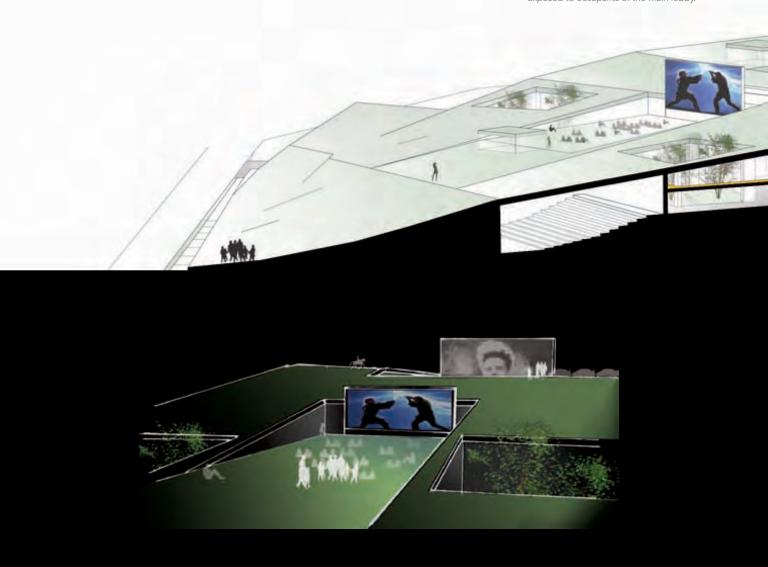


Basic suburban elements of grass and pavement are used to erase the typical conditions, creating an alternative to the big box.



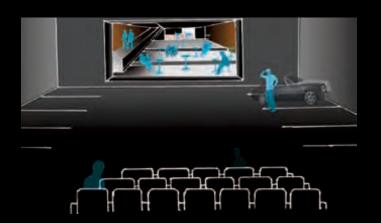
Organization

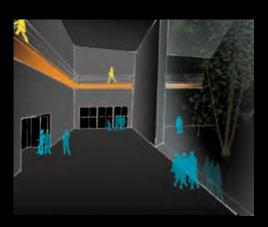
The idea of erasure also guides the treatment of program and internal organization. The expansion of the program arises from erasing the "black box" of the theater. A theater without walls becomes an open viewing area—here, a rooftop pavilion. A theater without walls and lacking the experience of sitting near strangers is interpreted as a drive-in movie theater. Viewing on the upper level of the lobby allows patrons within the multiplex to view the drive-in theater's screen. When the projected image is not present, the social interactions of the café's patrons become the spectacle. Additionally, the distinct separation between public and support spaces is blurred. The support spaces leading to projection rooms, normally running unperceived above the public circulation, are now exposed to occupants of the main lobby.



Support spaces that usually run unperceived are exposed revealing workers moving in between theaters. Similarly, the café patrons are exposed in between movies, making the occupant of the multiplex the spectacle.

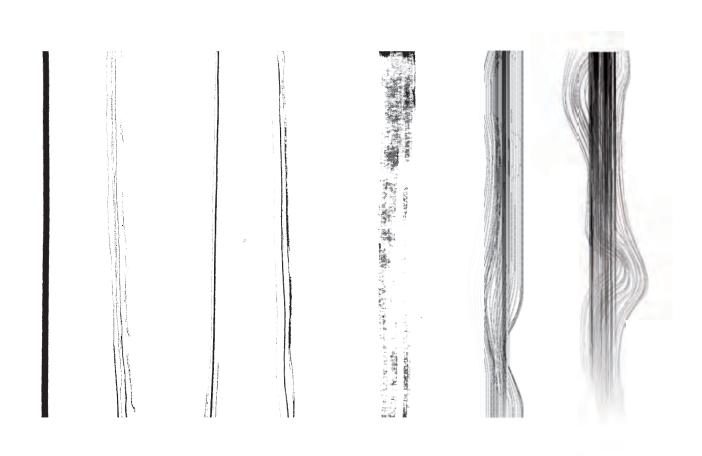






The line is a fundamental component of any complex construction. A straight line is the shortest distance between two points of travel. A single line is the essence of a boundary, a separator and mediator between two worlds. A border crossing in Detroit, MI seeks to unravel a simple line, the passage between Canada and the United States, in order to reflect the complexities and complications that arise when one crosses from one world into the next.

The Detroit River is just one of the territorial lines that separate the two countries that define North America. As it stands presently, the subterranean border crossing between Windsor, Ontario into Detroit, MI does not reflect a strong association with either city. One's first sight of Detroit upon exiting the current crossing is dictated by the imposing Renaissance Center Towers. This initial orienting view does little to impress the entrant with the rich history of the city. This problem of initial orientation is remedied by actually pulling the new border entrance in line with Woodward Avenue, the main artery of the city.



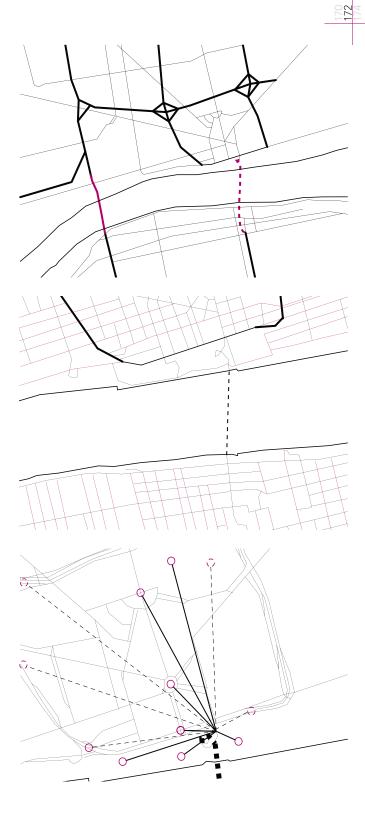
Woodward Avenue is the centerpiece of the Radial Plan constructed by Detroit's Augustus Woodward in the early 19th century and currently runs from the suburbs of Detroit into the heart of the city. Like a piece of thread, Woodward has many strands and layers, that when pulled apart, would better serve the experience of unraveling that occurs at the

border crossing.

The new proposed crossing, relocated to the upper west side of Hart plaza, continues the linearity started from Woodward Avenue and carries the passenger through one unraveling subterranean path. The main building is nestled into an urban ha-ha: a crossing which in the larger understanding of hart plaza allows for the landscape to remain unchanged in perspective, while cars pass through the tunnel just out of immediate sight. Pedestrians may cross the slightly triangulated roof of the tunnel and still utilize Hart Plaza as a civic and public space, while encountering the contrast of fast paced vehicles racing under their feet on the series of unraveling roads.

The roads are expressed as a series of elevated highways under a controlled body of water. The water is carried into the urban ha-ha from the River as a means of completing the connection between the underwater passage and the land above; a transition which the existing site tends to neglect. The elevated roads also allow for multiple views into the city of Detroit. Before the passenger was focused on one grandiose piece of architecture, now the passenger can experience multiple views of the city skyline while





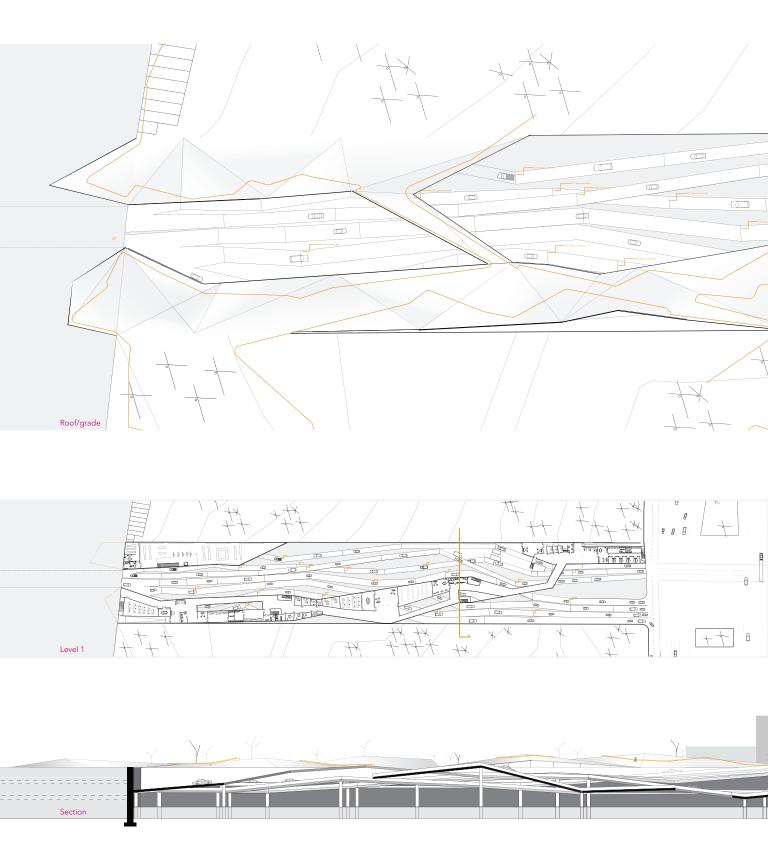
Highways, bridges, tunnels and roads create transportation and event conditions that make up the unraveled strands that form the border crossing.

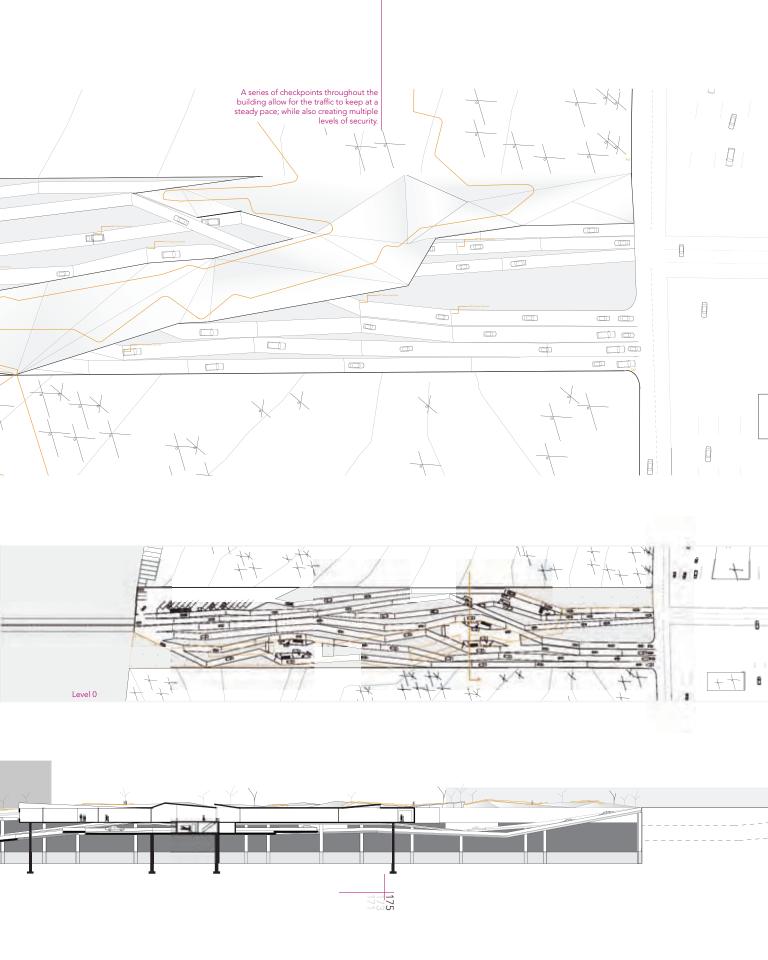
Elevated roads unravel the singular view created by the existing border crossing into multiple views of the city.











Studio Critic: Kathy Velikov

The Vei

A rigid sequence of nails becomes the beginning and departure of the vertical elements (threads) in the "veil" construct. The Veil is a strung object—a start to the exploration of the use of sequences. However rigid the nail sequence is, the density and patterns of the layers of the vertical elements still vary randomly. In the "veil" construct, a fixed equally spaced sequence is used as a first layer in order to ensure the balance of filtration amount of light and view information. Patterns and colors of thread are then overlaid changing the quality of the veil. They play with depth perception, colors and the qualities of light. As a result, a closer look was taken at the use of sequences in design. "We move towards finding the magic of numbers and that special point, which though full of movement itself, remains unmoving and stationary; just as a fixed point in the wind." 1 Research from Cecil Balmond's book on magical numerical sequences, Number 9 influenced this work.

Cecil Balmond is a structural engineer, who studied the history and mysteries of the magical Number 9. Number 9 has religious associations and, it appears in sequences, and mathematical applications resulting in the appearance and vanishing of code and symmetry. Balmond believes the Number 9 controls the fate of the other numbers.



The Mask is a cube where information is both filtered and encoded in the sequence of strings. The balance in the cube is of the encoded information and connection of the string sequences on the cube sides. The sequences used are the sigma sequences, where the multiples of a number are simplified to the secret code, the sigma value, which is always a one digit number between one and nine. Here, the nails are arranged using the sigma sequences and numerical values of the Arabic alphabets are used to spell out the Arabic words. The numeric value of each letter is simplified to its sigma value, and then translated into a series of lines. The words on each of the sides form a phrase. One letter from each word is taken to form the second word in the phrase, so the sides of the cube are connected by the meaning of words as well as numerically.

ibrary pavilions

The Number 9 and the sigma sequences are used as a method of design, mapping and form generation. Layers of effect are no longer random, but actually have hidden meaning which can be easily decoded. Sigma sequences from the *Number 9* are used as a reference, setting up varied conditions throughout the site.

The site is green space caught in the middle of Huron River and a small lake in Huron Park, MI. The site receives a lot of light, and is surrounded by beautiful trees. The sequences are not taken as is, but are edited in order to respond to program and site conditions. The previously fixed sigma sequences become responsive and specific to the program and the site. Here, lines from the sequences are filtered. The three library pavilions are peeled off of the landscape, their walkable roofs acting as a continuation of the park.

200 300 ر ش ت 400 ٹ 500 خ ذ 600 700 800 ض ظ 900 غ 1000 10 ي ك 20 J 30 م ن 40 50 60 س 70 ع ف 80 90 ص 1 2 ب ح 4 د 5 6 و 7 ز 8 ح ط 9

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ق

Numerical values of the Arabic alphabets.

The Veil





Multiplication Table

	x1	x2	x3	x4	x5	x6	x7	x8	x9
1	1	2	3	4	5	6	7	8	9
2	2	4	6	8	10	12	14	16	18
3	3	6	9	12	25	18	21	24	27
4	4	8	12	16	20	24	28	32	36
5	5	10	15	20	25	30	35	40	45
6	6	12	18	24	30	36	43	48	54
7	7	14	21	28	35	42	49	56	63
8	8	16	24	32	40	48	56	64	72
9	9	18	27	36	45	54	72	72	81

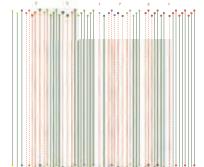
The multiples of a number are simplified to the secret code—the sigma value, which is always a one digit number between one and nine.

"The sigma value of a number is the ultimate essence of a number. It is the hidden mark which lurks within the greater construction; in this sense it is a primary code, a blueprint."²
—Cecil Balmond

Sigma code values of the multiplication table

1		2	3	4	5	6	/	8	9
2	2	4	6		1	3	5	7	9
3	3	6	9	3	6	9	3	6	9
4							1		
5	5	1	6	2	7	3	8	4	9
6	6	3	9	6	3	9	6	3	9
7	7	5	3	1	8	6	4	2	9
8	8	7	6	5	4	3		1	9
9	9	9	9	9	9	9	9	9	9

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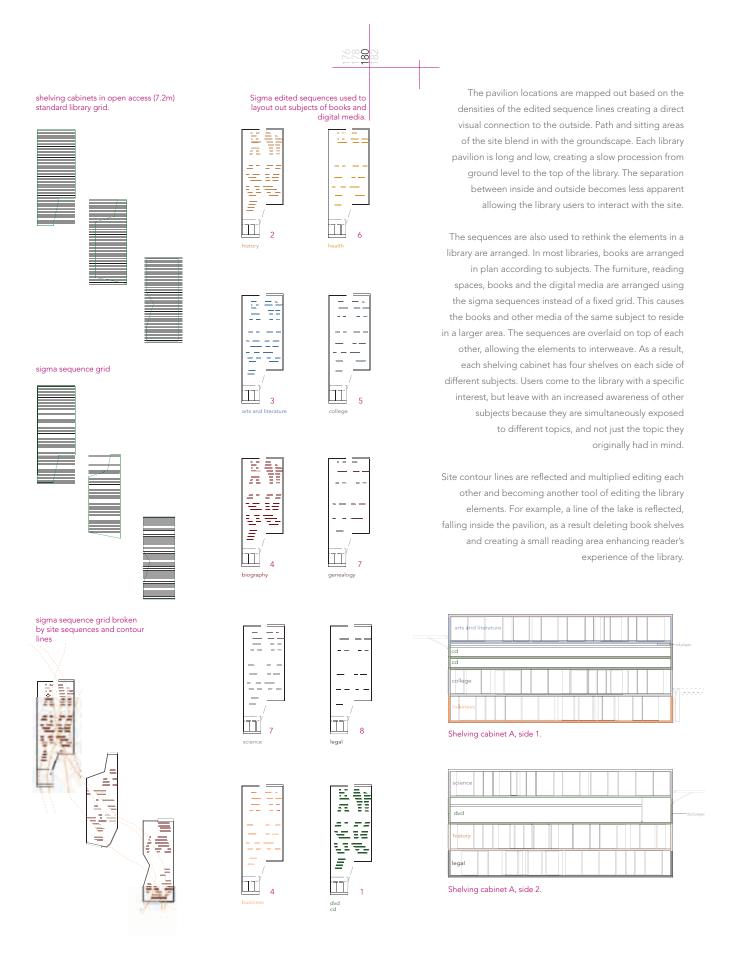
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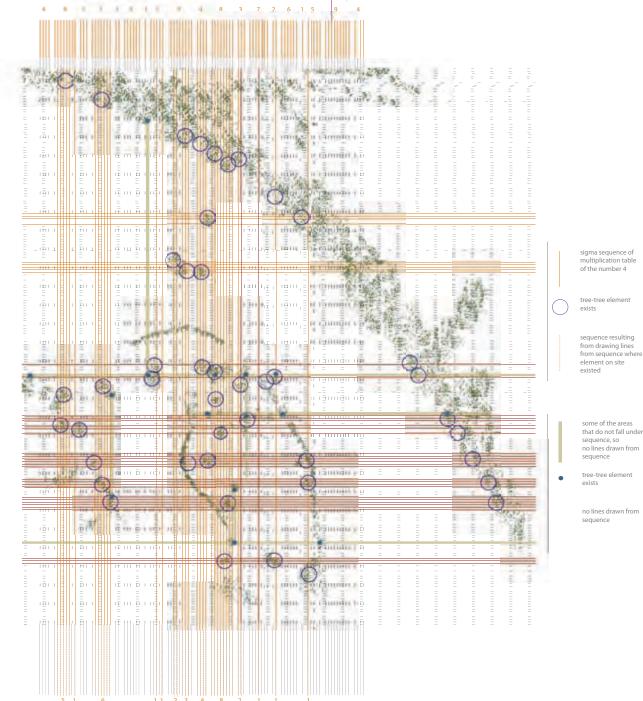
5 4 2 4 5 2 2 2







Signa sequences of the numbers one through nine are assigned to site characteristics. The line is deleted if the assigned characteristic of the sequence does not fall or apply to it (as a physical line and line of sight). After the elimination process, new sequences result.





The three library pavilions "deceive" visitors in a literal, experiential and physical sense through the use of veils. The veils inside the pavilions are similar to the initial veil construct. They are made of thick metal rods of varying alloys. They filter information by altering one's depth perception and their view of the image behind the veil. They divide the space by creating privacy without blocking out the light and view completely. The deception is a quality of a coded space which alters and enhances the experience and organization of the space.

Three pavilions peel off the landscape, minimally disrupting the nature of the park.

Notes
1. Cecil Balmond, *Number 9*, (Munich and New York: Prestel, 1998), p. 23.

2. Ibid., p. 66.



The walkable roof is a continuation of the greenscape of the park. Each library pavilion is long low, allowing a slow procession from the ground level to the roof. The roof folds in slightly forming protective edges and surrounds the users with greenery.

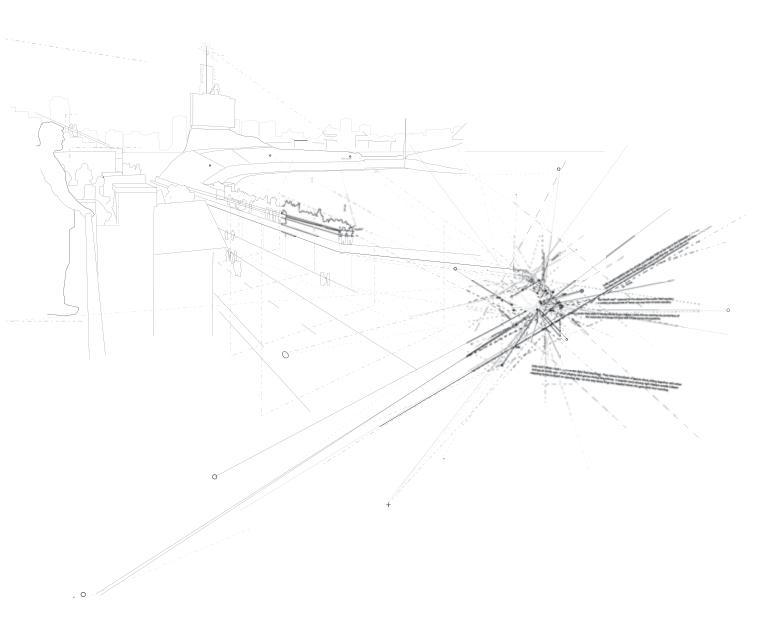


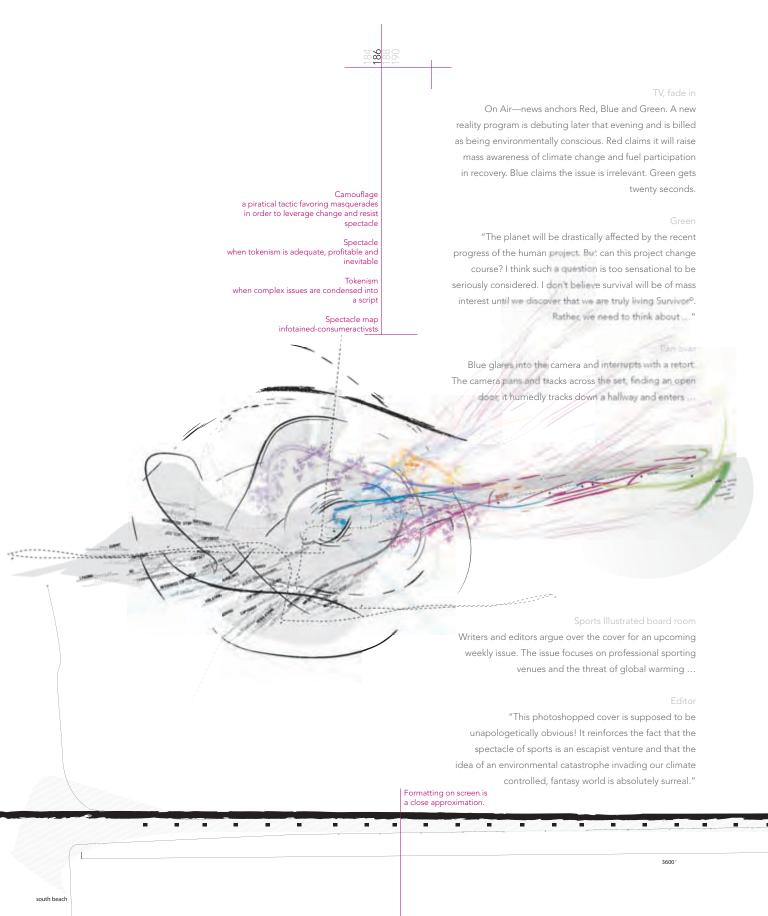


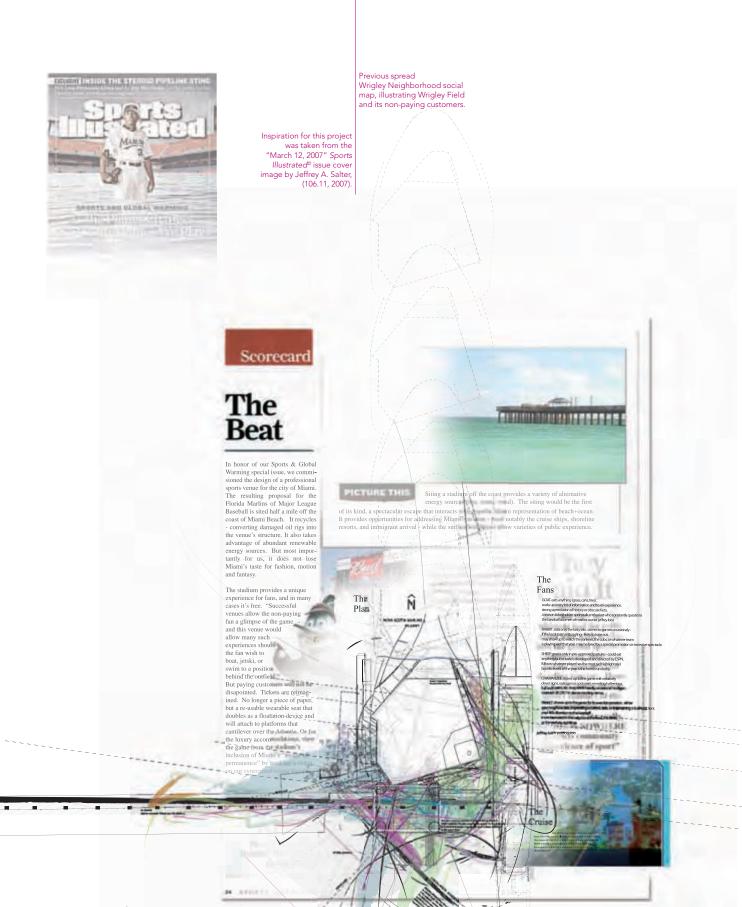
The new baseball stadium for the Florida Marlins sits half a mile off the coast of Miami Beach. The new stadium is highly aware of its environmental impact. It recycles by converting damaged oil rigs into the venue's structure and takes full advantage of abundant renewable energy sources, while maintaining Miami's taste for fashion, motion and fantasy.

The stadium provides a unique experience for fans; in many cases a free one. Successful venues allow the non-paying fan a glimpse of the game. This venue allows multiple opportunities for free glimpses of the game—should the fan wish to boat, raft, jetski or swim to a position behind the outfield. However, paying customers will not be disappointed. Tickets are re-imagined, no longer a piece of paper, they are reusable, wearable seats that double as flotation devices and attach to the seating platforms that cantilever over the Atlantic. Customers paying for luxury accommodations can view the game in ultimate comfort, style and mobility by booking a luxury box or ticket on a synergized cruise line.

Fueled entirely by solar, wind, tidal and surface-wave power, the stadium recognizes and measures larger climate changes. The fact is not ignored that catastrophe is just around the corner. Right-field slopes into the ocean and the boundary is demarcated not by an outfield wall, but by where water meets field. This line may fluctuate through the venues lifetime, providing a visual measure of water levels. Assuming that water levels will rise significantly in the future, and Miami is threatened by flooding, baseball becomes all the more spectacular as home runs are easier to hit and water becomes an increasing obstacle for outfielders.

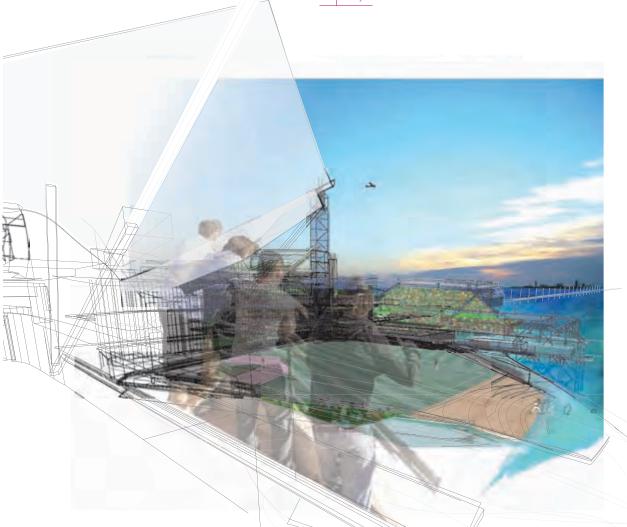


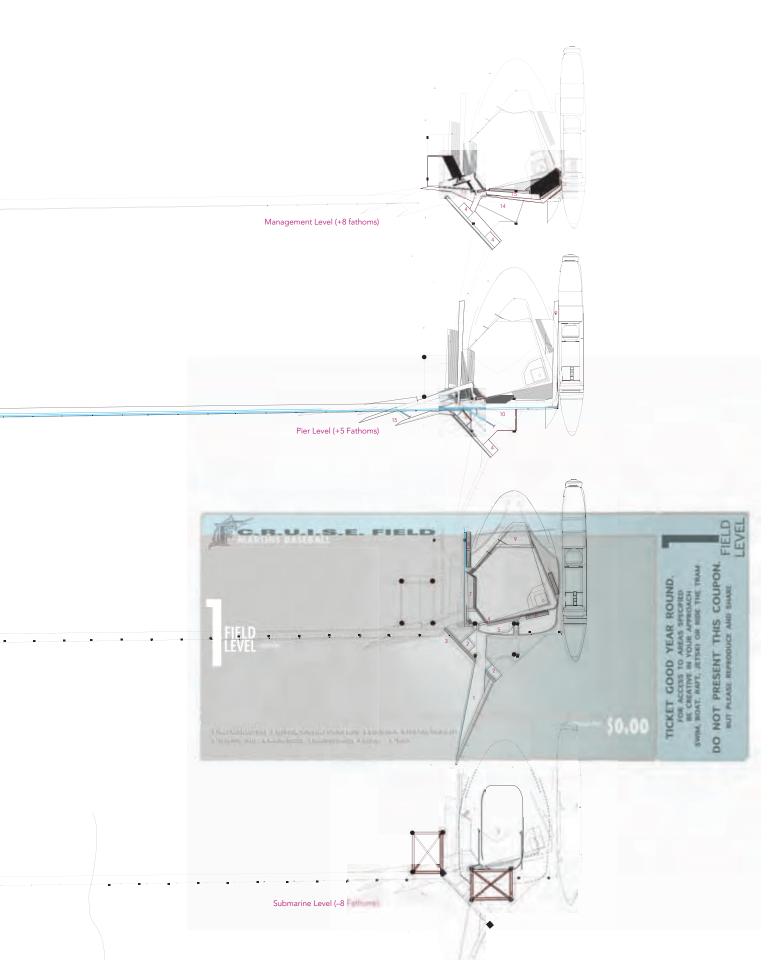


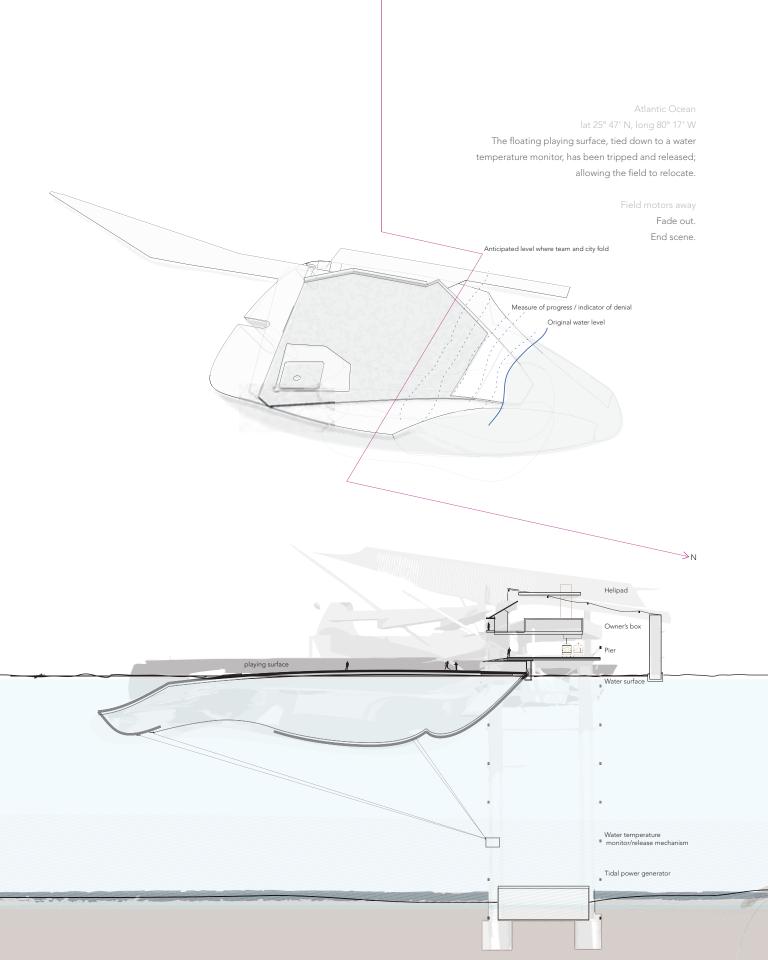


- - Tidal wave power turbines
 Electrical storage / mechanical systems control
 Jetski / small boat / raft marina
 Restroom / scoreboard control booth

 - 4 Restroom / scoreboard control booth
 5 Godzillatron
 6 Foul pole / vertical lift
 7 Marlins dugout
 8 Away dugout
 9 Cruise ship dock
 10 Concessions concourse
 11 Tram connection to Miami
 12 Restaurants & retail / post-game fan collectors
 13 Coaching offices Tram connection to Miami
 Restaurants & retail / post-gr
 Coaching offices
 Owner / corporate lounges
 Luxury suites









With stadium view accommodations, ocean view is no longer the top priority.



Spectators swim, paddle and motor to catch the game on the Godzillatron.





			Postscript Christian Unverzagt		
	Lasting Impressions				
	"Derive happiness in oneself from a good day's work, from illuminating the fog that surrounds us." —Henri Matisse				
	Sitting down to write the closing remarks for Dimensions, I asked myself how a few hundred words could possibly do justice to the immeasurable effort put forth by the six editors and designers that worked to produce this journal.				
	The fact is they can't.				
	After twenty years it may be taken for granted that the journal just happens; but this is anything but the case. As each new year dawns, I never know if any students are going to appear having perhaps witnessed the never ending frenzy in the tiny third floor "green space." And if they do show up, there's the potential issue of their group interests and abilities. Nonetheless, a handful of energetic and talented students always emerge, and bring with them the desire and resolve to figure out this thing called Dimensions, fill in their gaps and get it done.				
	The process of design then produces a vicious cycle: the more time the staff invests, the more they realize they need to do—or want to do—in order to make the journal as good as it can be. All on top of schedule conflicts, technical glitches, overflowing in-boxes, a full load of course work and the glaring eyes of the many instructors that also want to know when it will all be over.				
	As they find their voice they inevitably question their role as editors and what makes Dimensions what it is. In order to find the threshold between contributor and editor or the individual submissions and a cohesive collection of works they must test the limits—to reach the point where a contributor pushes back. It is never pretty and always appears at the last possible moment: calls of overstepping the line bringing out a frustrated sigh or an exasperated throwing				
	up of arms—before digging back in and renegotiating the line's position. As an undergraduate, I was also involved in Dimensions: first as an all around assistant on vol. 7, and then as one of the managing editors for vol. 8. The process completely consumed me. It was demanding and intense—at times				
	overwhelming. Some of my other work suffered, as did relationships with friends who were working on the journal alongside me. In fact, the shakeout strained the relationship between myself and a good friend so much that by the end we were no longer speaking to one another. Other issues were ultimately at the root of our silence, but Dimensions was the immense hurdle that prevented us				
	from properly addressing it (just as it prevented me from properly addressing my Structures homework). We worked through it later that summer and fifteen years on, she is one of my few friends from that time, and a dear friend.				
	Editing Dimensions is a thankless task and perhaps even a cruel one. Year after year, they emerge again at the end: tired and strained; a little less energetic but all the more talented. Dimensions 21: Thank you for entering the fog and spending some time there so that you could illuminate it for us all.				
	Thank you Caitlin Thank you Luis Thank you Stephen Thank you Kamana				
	Thank you Jason Thank you Zain	CI is	Christian Unverzagt s the principal of M1/dtw, an		
		av m sti in	ward winning nultidisciplinary tudio based n Detroit. He		
		Di fa	nas been the Dimensions' aculty advisor ince volume 17.		

Acknowledgments

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—D21 Editors

