Dr. Wallenberg's research focuses on the spatial by-products of environment, digital culture. Lola was invited to Taubman College to give a talk on Rogue Diplomacy, considering the mission, the hybridization of local ritual and global ideas, and the construction of alternative levels of ownership and inhabitation.

This thesis synthesizes current and historical productions of place through the lens of the city's primary products and producers of place. Together, they elicit various publics for the purpose of event, spectacle, and memory. Ultimately, With the ambition of reacquainting architecture's thesis polemic with the act of making, As_Built sought to challenge a group of 13 thesis students to co-create an exhibition that reveals Los Angeles' possible futures. It recasts Los Angeles through the descriptive technique of film—both in terms of the history of film in the city and film as media. The exhibition and monograph cannot be fully expressed, explored, or known when left on paper, the thesis argues. Instead, the architectural capriccio as a means to emphasize the history of labor movements in North America and to make legible the physical semblance of these movements is a tool for reimagining the city.

Clip, Stamp, Fold: The Radical Architecture of Little Magazines

This exhibition tracks the critical function of independent architectural publications. Known as "little magazines," the periodicals that proliferated in the 1960s and continue to publish today, provide a glimpse into the highly specific combinations of material and form that formed ancient Greek amphitheaters, medieval cathedrals, or contemporary opera halls. They were developed in response to specific acoustic demands of their associated aural performance types. These spaces have, in turn, reciprocally shaped the compositional formats and performance techniques of the aural modes they house. Resonant Chamber explores a dynamic architectural system that has the potential to transform non-purpose built spaces into flexible environments for multiple acoustic performance situations.

Thinking Out of the Big Box: Targeting Urban Public Life

In a time when climate change skepticism is trendy in America and consumer material wealth is the accepted model for measuring success, we need to stop and think about the decisions we are making every day. In a time when the consequences of climate change are becoming more pronounced, it is vital to consider how we can design spaces that are resilient and adaptive. Mother Won't Die is a project that seeks to reframe our relationship to material wealth.
Letter from the Editors

The material assemblage of *Dimensions 26* is a tribute to the diverse and idiosyncratic attitudes orbiting Taubman College. Emboldened by guest contributor Beatriz Colomina’s long-running exhibition *Clip, Stamp, Fold* as testament to the power of things like the “little magazine”, we do not present a yearbook. Much like our studio pin-ups, this volume represents a moment of critical reassessment and projection.

There are purists who believe the greatest moment in a project’s life occurs during the brief episode between completion and opening, much like the collectible action figure or LP sealed safely in cellophane. While the writing of this letter occurs during a similarly liminal state between printing and consumption, this volume does not share that stereotypical architectural ideal of prescription and hermetic control.

With our removable poster/cover, this may be the first edition of *Dimensions* that seeks to engage with the built environment in such a literal fashion. This fragile token of our efforts may very well prove as ephemeral and transient as moments of disciplinary accord—not that those moments are necessary or even desirable. Pursuing precisely the opposite, we aim to capture the network of forces currently shaping spatial culture and making such stasis increasingly rare. We wrap the volume but anticipate the potential loss and damage of the artifact, imparting faith in the user to preserve it as they best see fit.

Accepting such flux and impermanence can result in profound and liberating insights. As the market levels off slightly above what we thought to be the “new normal,” what is our new normal? Will the evolutionary pressures felt during the lean years result in any profound and lasting disciplinary swerve? Is there risk of “finding a new love” as was the case for contributor Evan Roth? Or are these transdisciplinary dalliances as fleeting and impermanent as the contents of this package?

How will we know? We are never completely in control.

*John Hilmes, SJ Kwon, Amanda Levesque, Eric Nelson, Anthony Pins, and Yi Yuan*

14 April 2013
Ann Arbor
Round and Round

...truth, whose mother is history, rival of time, depository of deeds, witness of the past, exemplar and adviser to the present, and the future’s counselor.

—Jorge Luis Borges, “Pierre Menard, Author of the Quixote”

This collected student work of publication is a testament to the efforts of many individuals, students and teachers alike, and to the strong institutional support and legacy of the school. As Dean Monica Ponce de Leon describes in her introductory essay for Dimensions 25, it shows Taubman College in “the diversity that can be found in all its volumes” and acts as a mirror to the school, a “reflecting pool” as it has been described by a previous chair of the architecture program, reflecting the school at a moment in time.

Interestingly, the timeliness of such reflection is challenged by the particularities of the publishing schedule, where, in order to have this book ready to distribute at graduation, the thesis work included is not from this year. While everything eventually makes it into publication, by the time the wider distribution of the issue to the school occurs in the following fall, the work from thesis students of two years prior becomes a model for students beginning to prepare their own thesis in the next term. The reasonable editorial necessity to get the book done in time for graduation creates a loop of time, nominally for this publication, but more significantly for the study of architecture itself, which is in its own way the result of a series of seemingly reasonable accommodations that trap it in its own loop, where enthrallment with its history might distract from the charting of new terrain.

The British architects Alison and Peter Smithson claimed, in the halcyon days of post-war architectural modernism, that anyone sufficiently versed in the culture could place, with an accuracy of a year or two, the date of a contemporary building of Mies van der Rohe simply by looking at the detailing. This anecdote implies a culture of architecture that is worldly and located, consistent but developing, and allows us to ask, as we look at the production of a school, what are the means by which to discern its temporality?
Dimensions has commendably taken on the role of recording angel, and now seems ready to accept an expanded charge of not only recording the efforts of the school, but also advancing them. To that end, and with admiration and acknowledgment of the achievements contained herein, I offer a modest proposal (with full implication for Swift implementation) that, in moving into the next quarter century, the dimensions of Dimensions include not only a depth of commitment to the traditions of the school, but also to the breadth of possibility that animates its future. To quote again the Quixote:

_It is one thing to write as poet and another to write as a historian: the poet can recount or sing about things not as they were, but as they should have been, and the historian must write about them not as they should have been, but as they were, without adding or subtracting anything from the truth._

John McMorrough. Architecture Program Chair
9 April 2013
Ann Arbor
The product of a year-long investigation, thesis occurs in the final semester of the graduate sequence. A self-directed creative project, students engage in the process of research, critique, and synthesis to create works that engage with architectural discourse. A review by outside critics and a weeklong public exhibition of the work caps the studio.

**Featured Projects: Part One**

Spencer Kroll  
*The Duplicitous Enigma*

Anand Amin, Andrew Aulerich, Lauren Bebry, Ashley Goe, Tarlton Long, Justin Mast, Andrew McCarthy, Matt Nickel, Kurt Schleicher, Andrew Stern, Lauren Vasey, Ning Wang, and Brenna Williams  
*As_Built*

Andrew Heathfield  
*UnderLay*

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**2012 Graduate Thesis Awards**

Din Botford Blankenship  
Pik Ling Chong  
Courtney Chin  
Razieh Ghorbani  
Ben Hagenhofer-Daniel  
Julie Janiski  
Se Hee Kim  
Spencer Kroll  
Tarlton Long  
Heidi Swift
The "Make-Belief" thesis studio sought to investigate embedded cultural narratives within architecture, addressing such themes as domesticity, sexuality and authority. With that trajectory, I began my thesis research by investigating the latent hierarchy in the architecture of power organizations and their formal associations. Jean Louis-Cohen’s *Architecture in Uniform* was an initial immersion into the role of design throughout World War II, as well as the role of military aesthetics in twentieth century art and architecture. In what type of exterior does power conceal itself? How does the internalized perception of a power organization reflect its outward behavior and physical design? These initial questions were my reference points for pre-thesis exercises.

The "duplicitous diagram" became a method for visualizing how a space functions or is represented in two different ways—what space appears to do versus what it actually does. Through subsequent research into the architecture of power organizations, I chose to analyze Henry Ford’s Greenfield Village due to the latent cultural associations and complex cultural history of the museum. Greenfield Village maps a portion of the museum as a duplicitous diagram through the aggregation of diverse historical buildings. Transported from their original sites all over the country to their current location in Dearborn, Michigan, the buildings serve as part of Henry Ford’s industrialist storyline of American history. In creating this history, the placement and quality of the buildings is leveraged in order to create a romanticized setting. Many of the buildings are dead relics, and businesses once established within have long since folded. Included in this collection, The Ford and Heinz buildings now represent globalized corporations. The old workshops function as vestigial appendages, once used but now productively useless. Their sole purpose is to present a vision of humble beginnings for what are now globally outsourced companies.

The concept of the vestigial appendage was further developed through exercises and design explorations that sought to understand the behavior and culture of authoritarian space. What exists within architecture that recognizes failure, intrusion, and the false sense of modesty exuded by Greenfield Village’s vestigial appendages? Beyond vestigial appendages, the buildings function to separate the reality of the visitors and that of the corporation. The buildings are cultural airlocks, making sense of the cognitive dissonance.
between threatening realities. Like a gun safety, the cultural airlock recognizes a fear of human fatality. Just as the safety transforms the gun from a deadly weapon to a fetishized object, power organizations use airlocks to separate themselves while amplifying their own internalized perception of power. Exploring the reactive possibilities of these power organizations resulted in the development of a final thesis project that sought to encompass the spirit of such behavior. The dissonance maintained by the airlocks and the spatial shortcomings of the scenarios were combined into a single, enigmatic vessel as a design proposal towards cultural critique.

This thesis seeks to understand the ways in which power organizations spatialize authority, and in doing so, create a culture focused on the influence of the enigmatic. The enigmatic nature of authoritarian space and culture warrants fear from the outsider and respect for those who maintain it. The enigmatic abides by its own ruleset, while those who follow it construct their own guidelines of engagement. The culture of the enigmatic is constructed through propagated spatial archetypes of masculinty, order, and hushed exceptions, while employing aesthetics of weaponry as both seduction and threat.

As the value of centralized, physical authority is lost through increasingly digital and displaced warfare, military and other power organizations seek to re-establish what they perceive as their physical and cultural presence through the use of floating enigmatic vessels. To those that exist outside this world of control, the role of these devices is not entirely known. Neither bad nor good, but certainly ominous, these nautical edifices float and moor in the harbors of major cities throughout the U.S. as part of a collective power campaign.

The vessels function as a retreat for the members of the power organizations, filled with luxuries of high-class living. As part of a downsized culture, however, the programs of these zones have been systematized. Beds are shared and mess halls replace
enigmatic commissioning

Priority based on city population, demographics and political statistics.

zone of detail: New York, NY

sphere of enigmatic influence*

paranoia
comfort
fear
formal dining experiences. These downsized amenities, however, are coupled with the necessary support systems of maintenance. This includes space for the crew of the ship and those working behind the scenes. This systematized ambiguity also applies to the ship’s image. The mission and purpose of the ship can fluctuate from black operations military vessel to disaster relief unit in order to remain elusive. Throughout these fluctuations, however, the luxuries of authoritarian necessity persist.

Much like those that perceive the enigmatic danger of the vessel from ashore, those that occupy the seat of power must also be carefully led to maintain faith in their own authority in the face of this downsizing of authoritarian vestiges into the hull of the ship. Within and around the ship zones, airlocks are established as a means to maintain the experience of power members through the amplification of how power is experienced in adjacent spaces. As one would shed their street clothes for a player’s uniform in the locker room, the airlock creates an experience of transformation in the directional passage from one space to another. These experiences are based on cultural associations with spatial narratives derived from the programmatic zones of the building. These spaces help inhabitants buy into their

Enigmatic Commissioning
Opposite page: U.S. port cities given priority based on city population, demographics and political statistics (Enlarged map: New York City)
own narrative while ignoring their decadent position. For this thesis, four airlocks were developed with functions ranging from the control of certain accessibilities to passages that transform individual perception.

To further propagate this sentimentality, the formal qualities of the ship are meant to create a direct association with the aesthetics of weaponry. The structure employs the tectonics of stealth bomber and submarine construction as well as ballistic weapon forms. The materiality, texture, and color of the structure is seen as a threat by those onshore, while at the immediate scale of the luxury experience onboard, harsh tectonics dissolve into sensual accommodations.

Moving forward, this thesis involves diving deeper into those airlocks which already exist within our built environment. Beyond a clear association with some type of power organization, how do ubiquitous airlock spaces

**Section and Plan of Airlock No.3**
1. Hollow descent
2. Grid reflection / attitude projection
3. Gym entry threshold
4. Secondary grid reflection
5. Athlete amplification chamber
6. To locker room
7. Projection tubes

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**Airlock No. 3: The Glory of Conformity**

Airlock No. 3 consists of procession passages that react directly to the 'power' culture. The Glory of Conformity attaches to the fitness center, a gauntlet that transforms the visitor into an athlete, a player or a number in the name of masculine prowess. Sanctified and humiliating, this sequence alluded to cultural association or questions kept quiet and blind faith. The airlock is transformative.
affect our social relationships, and what type of power structure do they promote or evoke? Looking back towards initial research, Foucault’s heterotopia concept alludes to environments of non-space and cultural exception. This type of heterotopia can be considered an airlock, a place suspended between spaces, time or an internalized reality. What devices or social conventions can be distilled from the heterotopic airlock?

Beyond contemplation and analysis, the distilled airlock warrants being designed, constructed, and implemented. It is a recognition that we hide behind our fears, insecurities and prejudices by providing an architectural medium for cognitive dissonance—the space of the airlock. Whether through an installation, greater research, or architecture itself, the reality of the cultural airlock will be further explored.

Airlock No. 2 Separative Distance Tank
The Separative Distance Tank is a functional means of accessing spaces of adjacency safely within the hull of the vessel. Considering the threat of insidious program, this airlock also amplifies the perceived distance between spaces that authority maintains apart. Airlock No. 2 makes sure that the thought of one does not contaminate the other. The airlock is connective/distancing.

1. Hollow descent
2. Grid reflection / attitude projection
3. Gym entry threshold
4. Secondary grid reflection
5. Athlete amplification chamber
6. To locker room
7. Projection tubes

Vessel Displacement

| Length: 574' |
| Beam: 91' |
| Draft: 15'-40' |
Section of the Enigmatic Vessel
Cross section of the ship with callouts to certain zones of conflicting culture; menacing or luxurious

Axonometric Mapping of the Vessel
Opposite page, bottom: Axonometric mapping the fluctuating behavior of the ship in order to maintain an enigmatic presence, from black operations military vessel to fema relief ship. The ship changes its appearance between each stage.
The Enigmatic Vessel
A view of the vessel seen from shore

Section of the Enigmatic Vessel
Cross section of the ship with callouts to certain zones of conflicting culture; menacing or luxurious

A1. Propaganda airlock
A2. Accessibility airlock
A3. Transformative airlock
A4. Entry airlock
Airlock No. 4: Blooming Panopticon
Airlock No. 4 serves as the principal entry to the enigmatic vessel. Reacting to the behavior of the ship, Airlock No. 4 alters its position and tectonic appearance so as to intimidate, confuse or invite. The many faces of Airlock No. 4 create a microcosm of the vessel itself, behavior that is perceived as elusive from an external populace is linked to semantic airlock gestures. The airlock is autonomous.
Systematic Power Downsize

The reality of cramped ship quarters are concealed and "overlooked" within seemingly luxurious space. Three men inhabit a hotel suite, however their individual use is systematized to maintain maximum spatial efficiency.
With the ambition of reacquainting architecture’s thesis polemic with the act of making, As_Built sought to challenge a group of 13 thesis students to collectively develop a full-scale installation through a process of design iteration and site negotiation. Building on the University of Michigan’s fabrication lab resources, this project translates design from digital space to material tectonics, then takes it a step further by siting the work in an existing building—in this case, a vacated auto body shop in Detroit’s North Corktown neighborhood.

Actualizing and Intelligent Agility
Acknowledging and embracing that there are aspects of architecture that cannot be fully expressed, explored, or known when left on paper, the thesis seminar embraced hands-on making as well as the iterative prototyping necessary to expose and actively utilize such effects, atmosphere, material behavior, and physical occupation. Through actualization—to make actual, or real—the project was often met with unforeseen consequences that needed to be addressed quickly, on-the-spot, and/or through improvisation. As a result, the group adopted and practiced intelligent agility—to deftly problem-solve under pressure. Through the course of the project, a working dialogue emerged between the unpredictable nuance of site, material properties, design agenda, and resultants. The thesis group learned to recognize and exploit the potential accidents and mishaps that were created by complex constraints which included: practical considerations, client desires, construction sequence, structural capacity, material economy, budget concerns, bureaucracy, component transportation, and on-site adjustments. The built intervention enforced an active discussion on the role of installation work within the context of architecture and community development. Furthermore, beyond the built output, the theoretical underpinnings sought to empower students to embrace creative and alternative modes of making.

Working Teams and Teamwork
To launch the project, the students were provided a client, site, contractor, and a modest budget. Aware that their design would be tested in-field, the students eagerly met the...
challenge. Initially the 13 students were broken into specialty groups of their interest: overall atmospherics and geometrics, material metal sheeting, material acrylic, and overall structure. Each of these working teams developed a schematic design which prioritized their topic, while addressing the other components of the design. Through multiple pinups and discussion a single parti developed that addressed the constraints of each component of the design.

With everyone onboard with the concept and direction of the design, the project moved into rapid prototyping. While each working team developed their own prototypes, during classtime teams discussion and resolved how to unify their components. It was during these moments that team members would mix and “working teams became just simple “teamwork” towards a mutual end. As the design moved from prototypes and construction to installation and final production—the group coordinated on-site installation teams and off-site shop teams. However, the realities of making dissolved the notion of working teams again to teamwork. Every student learned skills in all areas of the process as time and deadlines pressed.

The final design is a five-bay full-scale façade that shapes light and opens up the interior for renewed habitation. Alternating between pushing and pulling bays, the design allows users to observe the layers of the skin and occupy the newly created space between bays. The metal façade is finely articulated to open up views to the courtyard of the site, the entry of the building, and the historic Michigan Central Station. The client’s concern for safety was also addressed in the geometry of the skin by closing off and orienting parts of the metal pattern away from direct street exposure. The construction sequence of the design progressed bay by bay, creating a feedback loop (build, analyze, repeat) that pushed back on the design of the subsequent bays. The team learned through the installation the limits of the geometric pattern and its ability to adjust on-site. Through this process, the complexity of the metal pattern was toned-down and normalized on the three finals bays.

Opening
The installation was publically unveiled on January 22, 2012. The work was recognized in online blogs and local Michigan media outlets. The fervor behind the project has shaped conversation concerning the overwhelming presence of existing (though ailing) material conditions in post-industrial landscapes. At a moment when building anew is complicated by ethics and economy, the process of actualizing exposes the crucial and timely concerns of the discipline: the hierarchies of decision making as tied to physical constraints, the resulting intangibles of built spaces, and the conceptual position of the discourse—interrogating architecture’s projective capacity in the reevaluation and reconstruction of the built environment.
Iterative Prototyping
The project initially developed through the rapid prototyping in order to explore effects, atmosphere, material behavior, and physical occupation.
Partial Completion of the Façade
The metal façade is finely articulated to open up views to the courtyard of the site, the entry of the building, and the historic Michigan Central Station.

Welding During Installation
Opposite page: The construction sequence of the design progressed bay by bay, creating a feedback loop of build, analyze and repeat.
Detail of Metal Pattern

Through the feedback process of design and construction, the complexity of the metal pattern was normalized toward the completion of installation.
As_Built Kaczynski | Newell

Interior View of Installation
Above: Interior surface of the installation allows users to observe the layers of the skin and occupy the newly created space between bays.

Detail Views
Middle and bottom: Rigid connections on the installation’s interior provide dynamic structure.
Reflecting on the project’s progress, there is a critical inquiry on the relationship between architectural education and emergence of technology in the discipline. Greater effort should now be made inside academia to provide the setting for such critical models of making and consequentially prepare graduates for alternatives to conventional practice. An awareness of actualizing in a living site would further enable the young architects to act independently and could breed a new form of inventive practice.
This is the city; Los Angeles, California. They make movies here.
—Thom Andersen

The Los Angeles River is the single most powerful space in Southern California: our Golden Gate Bridge, our Yosemite.
—Kazys Varnelis

This thesis synthesizes current and historical productions of place through the use of narrative constructs in architecture and media. Located in Los Angeles, California, this work interrogates the capacity of film and video to house explicit, authored perspectives of the city. This line of inquiry implicates two recognizable yet ambiguous elements—the Los Angeles River and Hollywood cinema—as the city’s primary products and producers of place. Together, they elicit various publics for the purpose of event, spectacle, and memory. Ultimately, UnderLAY evaluates embedded, apparent, and fictionalized histories in order to reveal Los Angeles’ possible futures.

Cinema, the city’s iconic representational medium, only illustrates one small portion of Los Angles’ greater whole. The thesis negotiates cinematic techniques and spatial indexing to integrate a broader range of filmic representation, aside from the notable body of cinematic work on the city. Previous attempts to negotiate this region’s sprawling characteristics, specifically Reyner Banham’s Los Angeles: The Architecture of Four Ecologies, worked to develop a descriptive framework for linking urban elements. Banham, for example, described the city in terms of Surfurbia, Foothills, Plains, and Autopia. While this quasi-scientific approach attempts to create analytical categories as a way of understanding sprawl, a different methodology combining two partial, yet specific, descriptive systems is more practical and productive in this case—the ecologies of the Los Angeles River and Hollywood cinema.

In many ways, this thesis is interested in recasting Los Angeles through the descriptive technique of film—both in terms of the history of film in the city and film as an active agent—in addition to the techniques of film itself. Like Banham’s descriptors, these techniques might continually produce new identities for the city. These include but are not limited to framing, cropping, and perspectival manipulation. Taking
cues from Martha Rosler’s *The Bowery in Two Inadequate Descriptive Systems*, a photography installation documenting Manhattan’s Bowery district, one comes to understand that what Rosler excludes from the frame of her photos is in fact the subject of the work, rather than what is included. What is left out quite literally refers to the spaces of infrastructure, marginalized populations, and the space beyond the frame or behind the cameraman. Similarly, this thesis uses the Sixth Street Viaduct as an appropriate testing ground for the methodological outcomes of character tracking, camera angles, and architectural recall.

A wealth of cinematic precedents showcase how this might be done. Sourcing from a wide range of genres and eras, including *Point Blank* (1967), *Grease* (1978) and *Repo Man* (1984), the thesis utilizes film for its executions of iconic scenes of the river. From the filmic perspective, the Sixth Street Viaduct is depicted at both an infrastructural and human scale. The camera’s ability to distance the viewer from physical space by framing or cropping, sometimes repositioning the scene altogether, becomes conspicuous.

It’s this very abstraction that describes so well the history of Los Angeles at large. While the city—like any other—does maintain a factual existence, it is infinitely better known through its cinematic chronicling. For instance, it’s more realistic to assume one will recognize the Bradbury Building at 304 South Broadway and Third Street, not as an early twentieth century work of architecture commissioned by the mining magnate Lewis Bradbury, but rather a twenty-first century apartment building in *Blade
On the Viaduct Facing East

Tower Visualization

The tower serves as another background element in films to come, and the tower then expands to document these.

Ultimately, this research into both cinematic and infrastructural elements of Los Angeles informs an ephemeral architecture of deployable, cloth projection surfaces. These screens transcend previously recorded cinematic history, physically denoting the human or automotive processions which commonly traverse the site in films. Rail-anchored, protracting elements line the site to enable public viewings of digital projections, including legendary films, obscure shorts, or live YouTube feeds. These rails provide other deployable assets, such as seating and vending, during community screenings or Hollywood premieres. At the center of this activity, an observation tower just north of the Sixth Street Bridge highlights the physical infrastructure of the
river as cinematic backdrop. It chronologically records new films shot in the area within its darkened interior; apertures in the façade register the specific character movement of each scene in real time. The river is no longer abstracted. Rather, it is portrayed in a physical, tangible way while still correlating to the film it stages.

Physically intervening in the space of the river creates a new mode of interaction—an instant feedback loop. The tower becomes another background element in films to come, prompting it to incorporate these new narratives in turn. The space becomes spectacle—an unending evolution of time and place, forwards and backwards. Architectural intervention instigates an ongoing experiential event, combining cultural commemoration and social outlet.

Through these interventions, UnderLAy capitalizes on the city's best-known representational medium to provoke human infiltration of the normally overlooked Los Angeles river canal. In addition, it works to adjust our assumptions of externalized space through the compression of infrastructure, cinema, and public event. While Los Angeles may never be fully described through its Hollywood films, the integration of a broader social cinema will promote perspectival realignment with the seemingly known externality of the Los Angeles River.
The City is the Cinema
The River is the Cinema

Selected Films Within Section

- Them! (1954)
- Point Blank (1967)
- Grease (1978)
- Chinatown (1974)
- Repo Man (1984)
- To Live and Die in L.A. (1985)

Approx. 1 mi. river section between 1st St. and 7th St. Bridges.

Ecological Convergence

Reyner Banham
Los Angeles: The Architecture of Four Ecologies
Published 1971

1. Surfurbia
2. Foothills
3. Plains of Id
4. Autopia

Martha Rosler
The Bowery in Two Inadequate Descriptive Systems
Completed 1974-75
45 gelatin-silver prints of text and images.
Poetic interrogation of urban blight in Manhattan.
What is excluded is in fact the subject.

Los Angeles County
The Bowery
2 Miles

Heathfield Velikov

Thesis
Convergence at 4th Street
Perspective of installation facing west
Taubman College of Architecture and Urban Planning awards undergraduate scholarships every year in honor of alumnus Raoul Wallenberg (B.S. Architecture ‘35). Following his formative years at the University of Michigan, Wallenberg rescued over 100,000 Jews from Nazi persecution in Budapest, Hungary, during World War II. The Wallenberg Scholarships offered in his name fund exemplary undergraduate students wishing to pursue humanitarian work anywhere in the world. Established by the Bernard L. Maas Foundation in 1986, the award commemorates Wallenberg’s lifelong concern for the human condition.

**Featured Projects**

Vittorio Lovato  
*Rogue Diplomacy: The Policy of Skin*

Hannah Hunt Moeller  
*Res Publica: Re-establishing Public Forum*

Christopher Reznich  
*Mother Won’t Die*

**2012 Wallenberg Scholarship Recipients**

Andrew Frame  
*Open Secrets*

Sheena Shah  
*SPA: Spaces of Perceptual Ambiguity*

**Honorable Mentions**

Patrick Brinnehl  
*[Active] Graphic*

Whitney Hansley  
*1:1 Vertical Equality*
As in Roman times, participation in the
res publica today is most often a matter of
going along, and the forums of for this pub-
lic life, like the city, are in a state of decay. —Richard Sennett

In January 2011, Cairo’s Tahrir Square
became a focal point for public square turned
protest surface. The revolutionary spark car-
rried across the globe, inspiring the Tunisia
Revolution, Occupy Wall Street, and the stu-
dent protests in Chile, to name a few. Pearl
Square in Bahrain, Zuccotti Park in New
York City, and Plaza de Las Armas in San-
tiago lent themselves as public platforms for
activists to congregate and voice concerns.

In Russia, revolutionary rumblings are not a
novelty. Anti-Kremlin sentiments link back
several decades, yet the renewal of Vladimir Pu-
tin’s presidency in September 2011 heightened
resistance. Middle class protestors took to the
streets. A contemporary revolutionary climate
is on the rise. It originates in collective memo-
ries and latent dissidence, sparked by common
contenders in public domains. This necessitates
a new type of space—a new res publica—for
vocalizing and projecting such thought. The
timing is critically relevant for a new proposal of
space that seeks to dignify the human quotidian
above the hegemonic powers of the day.

The phrase res publica is Latin in ori-
gin, the root of our contemporary terms
“republic” and “commonwealth.” In conjunc-
tion, res (a thing, matter, affair, event, oc-
currence) paired with publica (of the people,
public, common) combine to signify a phrase
engendering public conditions and com-
munal affairs. During the Roman Empire,
res publica was used as a term to distinguish
public property from that of private own-
ership. Roman philosopher Cicero’s text De
Res Publica uses the term to speak of “public
affairs and politics.” Res publica, in essence,
constitutes a public, political space ripe for
social encounter.

This historical and spatial context for this
work is located in the Palace Square of St.
Petersburg, Russia. The Palace Square is
remarkable in its vastness, measuring 230
meters by 280 meters. The scale of the square
lends itself well to its capacity to contain the
masses. It is the site of Bloody Sunday where
Russian monarchy massacred demonstrators
protesting for worker rights. This marked
beginning of Russian Revolution of 1905,
changing autocracy to constitutional mon-
archy. In 1917, the square swelled again with
the Bolshevik Red Guards, overthrowing the
provisional government and installing Sovi-
Such actions mark the square permanently as a site of social upheaval and political unrest.

A series of architectural interventions propose reclamation of this public forum from forces of Russian government, nostalgia, museumification, and complicity with Soviet Russia (i.e. fetishized tourism and sentimental leanings to Soviet powers, Putin’s dictatorial powers). The proposal seeks to activate a contemporary res publica, one that dignifies quotidian voices and elevates public consciousness to latent murmurs of new revolutionary potentialities.

A New Space

"Change life! Change society!" These precepts mean nothing without the production of an appropriate space.

—Henri Lefebvre

The new space proposed borrows energies from the nearby Palace Square. It leverages the existing site condition strategies (e.g. axial hierarchy, staging, sequencing) and reappropriates for the new spatial encounter that pushes social engagement. While formal arrangements cannot directly influence social change, the work takes into account Lefebvre’s triad dialectic of perceived, conceived, and lived space. Instead, new spatiality and sequenced architectural interventions promote bodily engagement. Staging such public space as a "lived project" elicits spatiality ripe for public participation with rumblings of revolutionary potential.

Architectural Sequencing

Approaching

The images curated in the exhibition articulate the sequence of one trajectory through the space. This emphasizes the axial hierarchy established by the Palace Square through the archways of Carlo Rossi’s General Staffing Building. The multiple archways on this axis decentralize the entry points into the space for using a multitude of constituents: back alley smokers on break, public restroom patrons, or the inquisitive tourist.
Venerating Voices

The archways serve a double purpose. Beyond informal thresholds into the assembly space, they exist as murmur chambers. Programmed to collect aural projections of passers-through, the murmurs chambers accumulate words, thoughts, and conversation fragments of the visitors to the space. Formally the chambers reference Roman aedicules, small human-scaled shrines used to venerate objects within. Here this typology is appropriated to celebrate everyday narratives as an access point to elevating public consciousness to underlying conversations present in Russian psyche.

Palace Square, St. Petersburg

This image sites the revolutionary movements that have taken place on Palace Square, noting the historical importance and gravity of the site. The 2013 proposal enables another revolutionary movement to take place. It is also the overlay for the Palace Square on the Construct Model.

1905 - Bloody Sunday
1917 - Bolshevik Revolution
2013 - Murmur Chamber

Construct Diagram Pages

Transparency overlays used in making construct show process and elemental programming thinking finalized in construct total.
Series of Spatial Diagrams
These speak to staging of views, circulation strategies, and theatrical viewports. The codes of number/letter are linked to particular places in the section images.
Informal Assembling
The assembly space proposed is not prescriptive, but rather irreverently makes use of adjacent programs for activation. The gridded surface of the proximate Palace Square is mimicked and skewed, formally appropriating and reframing the surface treatment of this unconventional forum. Public washrooms and a coin laundry back up against and push into the proposal, forcing daily routine events into the assembly space. The programmatic juxtapositions question the reverence of civic infrastructure, privileging day-to-day occurrences as intrinsic to the social gathering of the assembly space.8

Section Details
The section is iterative, diagrammatic, spatial. This marks the transition from spatial diagramming toward formal decision as the work progressed. The sections link the spatial diagrams through text coding printed on the diagrams and linked to same indexes marked on the section. This is about entry into the site and whimsy of staged encounters.
Anecdotal Archiving

Public infrastructure of murmur chambers and forum for assembly necessitate another infrastructure development—the database. The input of whispers on the street is collected and archived here. The amassed anonymous anecdotes are archived and stored. The digital archives are stored and distributed to the clandestine holding facilities beneath the adjacent Palace Square. The physical location of database suggests potentials within charged historical location, layering a new set of revolutionary voices under the site. Thus, the site is charged and primed, awaiting the activation of the public. The only question remains—will you engage?

In summary, Res Publica is both spatial and social. As with the Occupy Wall Street movements of 2011, the proposal seeks to link spatial occupation with social engagement. Leveraging the digital interface, this architectural proposal seeks to move beyond the conventional modes of representation within the discipline. Interactive mapping linked to site-specific aerials allow for the viewer to engage in a more full sense with the proposed new space. The architectural interventions proposed formulate and provoke the multiplicity of representation (word plays, render images, and construct sequencing). This proposal seeks to realize the potentials of the proposal itself—digitally disseminating the ideas of daily life murmurings to make visible the revolutionary potential latent in daily life.
Informal Assembly

The multiple archways on this axis decentralize the entry points into the space for using a multitude of constituents: back alley smokers on break, public restroom patrons, or the inquisitive tourist.

Anecdotal Archive

The input of whispers on the street is collected, archived, and distributed to the clandestine holding facilities beneath the adjacent Palace Square. The location of the database layers a new set of revolutionary voices under the site. Thus, the site is primed for the activation of the public.
Project:

Rogue Diplomacy

Designer:

Vittorio Lovato

Critic:

Perry Kulper

Through the lens of architectural taxidermy, Rogue Diplomacy considers the political implications and architectural ramifications of a U.S. embassy situated in present-day Lhasa, Tibet. The envelope of the structure is reinterpreted as a thickened skin with political, religious, and urban inflections. It is a design study that seeks to make spatial the political climate surrounding the diplomatic mission, the hybridization of local ritual and global ideas, and the construction of alternative levels of ownership and inhabitation.

A History of Violence in the “Place of the Gods”

Tibet is a self-sufficient region located in the remote reaches of the Himalayas. It is characterized by ancient practices, severe geographic isolation, and—most notably—political and religious conflict. Lhasa (meaning “Place of the Gods”) is the political and religious capital city of Tibet and home to 500,000 people. Since the invasion of the Chinese People’s Liberation Army in the 1940s, Tibet, and more specifically Lhasa, has struggled for national sovereignty and religious freedom. Hidden under the guise of peace, the Chinese Military entered the region to lay claim to the land. The invasion led to the destruction of temples, the slaughter of countless Tibetans, and the incorporation of the region into the People’s Republic of China. The Tibetan people’s belief in non-violence has forced them to protest in vain primarily through self-sacrifice and public protest. As a result, the position of the Dalai Lama, the holy leader of Tibet, is currently in jeopardy. To avoid Chinese confrontation, the Dalai Lama fled Lhasa’s Potala Palace to find refuge in India. Taking advantage of this schism, the Chinese government has since claimed the power to approve the naming of the Dalai Lama, ensuring control over Tibetan leadership. The Dalai Lama’s stoic refusal to submit to Chinese aggression and subsequent escape has thus resulted in severe suppression of the region’s personal beliefs and religious practices. In each passing generation, Tibet’s culture is slowly being washed away; thus, their assimilation into Chinese rule is but a matter of time.

An Embassy of Secrets

A diplomatic mission is defined as a group of representatives of one state or governmental body that is present in another. These missions have two very important roles. They seek to promote open relations between nations by developing economic, political, scientific, and cultural synergies, but they must simultaneously ensure the safety and security of their respective nation. Acting as perma-
nent agents for the originating countries, embassies must cooperate, negotiate, and build strong relationships amongst multiple regimes. It is a mutually organized collaborative where parties seek continued positive relations while also maintaining key political positioning. Thus producing a double identity—one focused on global dominance, the other on localized integration.

A chancery is the structure that houses the embassy delegation. Such structures are the product of a carefully articulated image of strength, control, and national pride. For example, the Russian chancery in Havana, resembles a sword stabbing the earth, as if claiming the area by force. The U.S. chancery in Rome was formerly the palace of Julius Caesar.

The Foreign Relations Authorization Act Fiscal Year 2012 passed by the committee said:

*The secretary shall seek to establish a United States consulate in Lhasa, Tibet, to provide services to United States citizens traveling in Tibet and to monitor political, economic, and cultural developments in Tibet, including Tibetan areas of Qinghai, Sichuan, Gansu, and Yunnan provinces and, until such consulate is established, shall not permit the establishment in the United States of any additional consulate of the People's Republic of China.*

The construction of a United States embassy in Lhasa has the potential to cause either global unrest or grant regional political stability. An embassy opens up avenues for communication by increasing the number of interested parties. As such, it can ultimately contribute to ending conflicts by virtue of its presence alone. The allegiances forged between nations have the potential to free Tibet.

**Going Rogue**

This embassy leverages the benevolent act of aiding Tibet and the subsequent media spectacle to hide its true intentions of keeping an eye on China. The global political climate is such that, as China rises in power, the United States is losing its positioning as the global leader. To capitalize on the current political turmoil in Tibet, the U.S. embellishes the act of freeing Tibet to create a spectacle that masks the embassy’s selfish ulterior goals.

The harsh disconnect between the local and global ambitions of this embassy is mediated by its envelope. Thus, the project studies how the embassy can begin to materialize the intensified identities of the diplomatic mission through the façade. Conceived
as a series of taxidermic mechanisms the political relationship between Tibet and the United States is expressed physically in the continual processes of creation, destruction, and manipulation of the building envelope. The discipline of taxidermy acts as a surrogate tool for examining the effects of careful skin and ground manipulations. When the relationship is strong, the mechanisms will integrate the embassy with Lhasa; when the relationship is weak, the mechanisms will begin to close the embassy down, disconnecting it from the urban environment. In this way, skin can begin to leverage the heavy burden that the embassy has been given.

Typical taxidermy is simply the preparation of skin, but the processes of taxidermy are quite complex—stitching, skinning, poisoning, stuffing, mounting. New art forms of taxidermy have sprung from this ancient tradition. One such form, rogue taxidermy, deals with the hybridization of multiple animal breeds and forms to create unique species. Through the hybridization of the United States and Tibet via the skin, the relationships between nations and the identities of the embassy itself are made physical and remain in a constant state of flux. The continued processes of peeling, splicing, and stitching expose the superficiality of
Proto-Architectural Construct

The conceptual mechanisms of the diplomatic mission and the notions of stitching are spatially studied in this model through the use of found objects and constructed grounds.

Skin and allow for the existence of multiple spatial settings throughout the thickness of the exterior envelope.

The Main Mechanism

The office of the Ambassador resides away from the city, distinct from the site, atop of the public embassy. The isolated machine coordinates the other taxidermic processes and connects the embassy to the secret underground research facility that gathers intelligence.

The Stitchers

As a meditation on impermanence, after days or weeks of creating the intricate pattern of a mandala, the sand is brushed together and placed in a body of running water to spread the blessings of the mandala. This act is repeated.

The Wrinklers

The Wrinklers take part in the everyday Tibetan rituals. The skin is wrinkled according to the precisely coordinated effort of the series of wrinkling rods. The rods receive their data from a main mechanism. Seven vessels are filled every morning as an offering to Buddha. Known as Yonchap, the wrinkled wall performs this ceremony by channeling water from the roof into seven small pools.

The Peelers

The Peelers take part in Tibetan ritual of circumambulation. The series of peelers operate the front skin gills to either allow people to pass through, following the newly shifted Ling-kor Path of Veneration, or close tight to protect the embassy based upon the information from the main mechanism.

The main portion of the spectacle centers on the Press Room. As event space, the Press Room is where the hybridization of the United States and Tibet is experienced. As a symbolic gesture of goodwill, an American animal—a piece of the White House—was hunted and transported to Tibet, where crane-like mechanisms called The Stitchers use Tibetan techniques of mandala-making to graft the American animal into the skin of the Press Room.

The making of offerings is an antidote to the pattern of attachment and greed.

—Khenpo Karthar Rinpoche

The Wrinklers

An insincere and evil friend is more to be feared than a wild beast; a wild beast may wound your body, but an evil friend will wound your mind.

—Buddha

The Peelers
Skin Model
This conceptual model unfolds the envelope of the embassy and stretches out the skin.
The Taxidermist

In the vein of exploring issues of ownership and inhabitation, the project inserts a fervent taxidermist, acting as a neutral figure, to add tension to the conventional roles of an embassy. Inhabiting the skin, the home of the taxidermist offers a third space—a mysterious space. Its ad hoc qualities allow the taxidermist to take advantage of both ends of the constantly changing dermic political spectrum.

Through the occupation and viewing of the skin, the envelope acts as a thickened median between Tibet and the embassy base within. This intensified hybrid condition is exploited as a means of foregrounding the benevolent identity of the embassy, subduing its true intentions—protecting itself and ensuring global dominance. Through the processes of rogue taxidermy, the skin or façades of the embassy begin to integrate by creating a spectacle of national genetic splicing—a mixture of American and Tibetan tradition. Internally, however, the embassy is focused on a far less benevolent endeavor. As such, the skin reacts to both conditions simultaneously, modulating its thickness. In effect, the mechanisms allow the embassy to spatially shift between the benevolent spectacle of diplomacy and the secretive brutality of intelligence gathering to frame this recursive political dialogue.
Site Plan
Left: The construction of a United States embassy in Lhasa has the potential to cause either global unrest or grant regional political stability. An embassy opens up avenues for communication by increasing the number of interested parties.

View of Entry
Bottom: The series of peelers operate the front skin gills to either allow people to pass through and follow the newly shifted Ling-kor Path of Veneration or close tight to protect the embassy based upon the information from the main mechanism.
**Project:**

**Mother Won’t Die**

**Designer:**

Christopher Reznich

**Critic:**

Mireille Rodier

In a time when climate change skepticism is trendy in America and consumer material wealth is the accepted model for measuring success, we need to stop and think about the decisions we are making every day. *Mother Won’t Die* reconsiders the certainty of Homo sapien survival by interrogating the way humans live, inhabit, and participate in the biotic communities of our planet; maybe Mother won’t die, but our species might.

The project’s theoretical grounds offer the idea that we—the human race—cannot do anything terrible enough to destroy all life on Earth, even as we desecrate the land that supports us, displace the animals that feed us, pollute the air we breathe, and contaminate the water that quenches our thirsts.

To that end, the motivations behind this investigation are wholeheartedly positive. As philosopher Edgar Morin writes:

*The closer we get to catastrophe, the more possible the transformation becomes. Hope can emerge from despair. The transformation can appear while the solution is still invisible, impossible within the existing system, and exceeding its logic. When loss and excess are simultaneous is when the impossible becomes possible.*

*Mother Won’t Die* works on the oppositional global issues of climate change and population growth using the untapped potency of agriculture’s effect on America’s economic, cultural, political, and physical landscapes. This conflict between the anthropogenic and the ecological is played out through two distinct lenses of human subjectivity—long-term human survival and the immediate recovery from economic collapse. Situated in the future ruin of the U.S. pavilion in the Venice Biennale, this project investigates immediate and distant futures of American production with ears to the past and eyes to the horizon. We are, apparently, a climax civilization unraveling.

Rather than lament this position, the pavilion presents a diverse arena for optimistic strategies of production to the Biennale’s global audience. It praises American ingenuity and dexterity in times of turmoil, but it questions our forceful posture in international affairs. It offers strategies that provide healthy food for the urban poor, medicines that alleviate suffering, crops that feed the world, and fuel that preemptively sequesters the CO₂ emissions of its own production. But this set of tactical interventions, presented with optimism and urgency, also contains paradoxes that question the very core of the American

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*Perspective of Superthrive’s courtyard*

Situated in the future ruin of the U.S. pavilion in the Venice Giardini, Superthrive is an investigation into the immediate and distant futures with ears to the past and eyes to the horizon.
value system. We, Americans, overcome—but at what cost? The U.S. industrial sector is unlikely to recover its international strength; this truth leaves the near futures of many people and places immensely uncertain.

The following vignettes consider this uncertainty in spatial terms. Each exposes a human population inevitably under extreme stress from massive flooding and population growth. This static set of perversions follows the trajectory of Thomas Cole’s *Course of Empire* series, a body of work that suggests the inescapable cycle of growth and decline in human societies. *Mother Won’t Die* reinterprets the themes from each of Cole’s paintings as artifacts from a future history. Taken together, the set curates the intentions and intrusions of human occupation ranging from temporary, subsistence strategies to anthropocentric, artificial worlds.

**The Lawn**

*Occupation: Suburbanite/Survivalist*

The Lawn provides a didactic metaphor which admits the impotence of certain American norms. As a cultural symbol that actively drains the planet’s intrinsic energies, The Lawn offers nothing but a place to sit and absorb. Above the lawn’s imported American sod, a softly buzzing grow light hangs from the dome of an otherwise unlit room. The light is wrapped in an illustration of Mother’s not-so-distant future. It depicts the earth after global warming has melted all remaining land-based and sea-based ice—water levels have risen by 100 meters.

**The Canteen**

*Occupation: Urban Farmer/Hipster*

The Canteen celebrates the joys and potentials of urban farming. Patrons can prepare bounties of whole foods for themselves and
others in a luxuriously full kitchen, stocked with chickens for slaughter, an immense variety of heirloom vegetables, the highest quality oils, and exotic spices. Though the tables are adorned with lo-tech hydroponic growing systems and burlap mini-gardens, one question remains to be asked—who does the intense labor to make this possible? Who stocks the towering wall of fresh vegetables? To those who slow down and notice, urban farming’s agency as a route to community sustenance clearly relies on the luxury of spare time. An army of flush hipsters is more likely to maintain this garden than a single mother of four.

The Farm
*Occupation: Caregiver/Crimelord*
Concealed behind the hops that grow on The Canteen’s back wall, The Farm is a hidden grow room for a stash of marijuana. The ceiling is comprised of a tensioned grid from which the caregiver has gently strung pot plants on lines of hemp to maximize phototrophic activity for each strain and stage of growth. Because of the charged political restrictions on the valuable crop, a watchful belvedere towers high over the array. Its presence announces the heightened security to patrons outside.

The Lab
*Occupation: Technician/Tycoon*
In The Lab, the machine is in control. Rows of high-intensity grow lights flood the space with a harsh, pink light. A layered stack of massive glass tanks—each just over a foot and a half in diameter while spanning the length of the room—whirs and hums peacefully. The tanks are filled to the brim with a mix of CO₂ water, nutrients, and a single strain of *Botryococcus braunii* algae. There is just enough room in the space for the lab technician to monitor the reactor’s production of both pharmaceuticals and biofuel. He is the only witness to this entirely automated process.

The Temple
*Occupation: Theologian/Geneticist*
In the southwest corner of the courtyard, where the wall is broken to a pile of rubble, two types of plants thrive. Both are grossly overgrown and unkempt. The first is teosinte, the earliest known ancestor of modern corn, and the second is a strain of Monsanto’s genetically modified corn-product. One path cuts through the teosinte, and another passes through the GMO. At the end of each path stands an identical fountain shrine—eight feet tall and flowing with lustrous torrents of corn syrup and crude oil, respectively. After being seduced to mistakenly touch or taste the fluid, the patron walks the path and witnesses the shift from origin to creation. The corn’s selective breeding is visible to the patron, but evidence of its genetic tampering is not.

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*Thomas Cole’s *Course of Empire* series*
Top to bottom: The Savage State, 1934; The Arcadian or Pastoral State, 1934; The Consummation of Empire, 1936; Destruction, 1936; Desolation, 1936*
The closer we get to catastrophe, the more possible the transformation becomes. Hope can emerge from despair. The transformation can appear while the solution is still invisible, impossible within the existing system, and exceeding its logic.
The Farm as Caregiver and Crimelord
Accessed only by finding the gap behind the hops growing on the back wall of the canteen, the Farm is a hidden grow-room for a stash of marijuana.

The Canteen as Urban Farmer / Hipster
The Canteen celebrates the joys and potentials of urban farming—offers bountiful whole food patrons can prepare for themselves and others in the luxurious full kitchen.
The Temple as Theologian / Genetecist
After being seduced to mistakenly touch or taste the fluid under the shrines, the patron walks the back path and witnesses the shift from origin to creation.

The LAB as Technician / Tycoon
There is only space in the room for the lab technician to monitor the reactor’s production—the results being both pharmaceutical products and algal biofuel. The patron need only observe the automatic process.
Saarinen/Swanson Essay Competition

Established in 1994, the Saarinen/Swanson Essay Competition writing fund at Taubman College of Architecture and Urban Planning encourages strong writing as a medium to foster critical thinking and exposition among future professionals in architecture and planning. The competition seeks 1000–1500 word essays addressing contemporary critical discourse in design and/or urbanism.

2012 Winners
Andrew Frame
Jordan Hicks
Michael McCulloch
Conor Wood

Featured Essay: Part One
Dread: Or Who’s Afraid of Modern Architecture?
An Interview with Roger Sherman

Roger Sherman is Director of Roger Sherman Architecture and Urban Design. His projects have been exhibited at the 2010 Venice Biennale, the 2009 Rotterdam Biennale, the Victoria and Albert Museum, London and MAXXI in Rome, amongst other venues. Sherman is Co-Director of citylab, a think tank on contemporary urban issues at UCLA, where he is an Adjunct Associate Professor. He is the author of Re-American Dream: Six Housing Prototypes for Los Angeles (Princeton Architectural Press, 1995); L.A. Under the Influence: The Hidden Logic of Urban Property (University of Minnesota Press, 2010); and most recently, with Dana Cuff, Fast Forward Urbanism: Rethinking Architecture’s Engagement with the City (Princeton Architectural Press, 2011). His work and writing has appeared in numerous other publications, most recently On Farming (Actar, 2010), and The Infrastructural City (Actar, 2010). A graduate with Distinction from the Harvard Graduate School of Design, Sherman was a recipient of the SOM and Wheelwright traveling fellowships.

Sherman was invited to Taubman College to give a lecture titled “Architecture as Agent” and to lead the four-day “Experts in Studio” charrette with the Networks studio.
Dimensions 26:
You opened your lecture on Tuesday by introducing us to the research methodology that drives your practice. How do use your interdisciplinary interests to expose an architectural project?

Roger Sherman:
I’m very dedicated to what may more properly be called the transdisciplinary. More than a matter of merely working collaboratively, the value of the transdisciplinary is in enabling the discipline of architecture to be responsive to changes in the world at large by using design team members from other fields of endeavor to exert a kind of exterior gravitational pull on it, in directions that, on account of its innately conservative nature, architecture tends to resist. Because of the amount of capital and commitment that buildings require, we tend—in practice vs. in theorizing—to follow at the tail end of larger trends, rather than to precipitate them.

I’m also not entirely convinced that the techniques of architecture can ever be anything but architectural. In other words, I don’t think that you could use legal or scientific principles or methods to solve architectural problems, but I think you can use their strategies to guide the deployment of architectural tactics or techniques. This seems far more preferable to me than biomimicry, where you’re dealing with the rhetoric of biology and not actually engaging biology as a discipline. You’re simply making the design a metaphor. It is essential to understand how other disciplines operate, what their values are, so that we can use them to lead us to supersede the conventional ways that we use our own “native” knowledge. In doing so, architecture becomes new again.

D26:
That sounds like it could be the foreword to L.A. Under the Influence.

RS:
The foreword that Bob Somol contributed is a really important companion piece to that book. He saw something that I was so close to articulating, but was hidden in plain sight—namely that although the architect operates as an interlocutor, the role of architecture as a discipline is not entirely transparent. That is to say, the architect is not merely a facilitator at a negotiation with no agenda of his/her own. He or she, in effect, is also a stakeholder—even a double agent of sorts—necessarily different things to different people, in order to effectively elicit their desires. But in order for architecture to emerge above the din of compromise to competing demands, the design proposal itself has to be employed as a kind of stalking horse, that is used to draw out these desires, without quite representing them in formal terms. Over the process of eliciting these various responses (“I really need
my easement to cross through,” or “I like the color blue,” and the like, it becomes inflected and acquires complexity over time.

At the same time, architecture cannot be meaningful as purely an index, so there needs to develop a series of techniques by which you translate those desires in ways that advance the singularity of the project as opposed to its dissolution. In the book, I argue for utter and complete transparency throughout this translation, which is exactly what the case studies illustrate in their hodge podge of elements. But in fact, the role of the architect needs to be asserted. The singularity we achieve in the built artifact is how you understand that it’s architecture doing the work. That’s the kind of substance the discipline can and must work towards.

**D26:**
To that end, how do you start to use the project you articulate in *L.A Under the Influence* as a launching point for your design work? Based on your lecture, the *Thinking Outside the Big Box* project you did for Target seems to be the most closely aligned with the book.

**RS:**
The design approach that the book suggests is yet to be tested to some extent; the subject is as yet unexcavated by my design work. The Target project can’t be seen as a true manifestation of the research because it’s really driven from the inside out. While the proposal is informed by the surrounding context in a general way through its scripting, it doesn’t deal head on with issues of property law—who’s immediately next door, and so on. What I’m interested in is the formal complexity that evolves with respect to these forces, creating spaces that are inexplicably odd but undeniably new. Fenway Park’s “Green Monster” is a great example of this kind of space, where externalities pushing inwards impact how baseball is played there in a way that fundamentally affects the nature of the sport. Fenway is not a piece of high architecture, but I think it’s illustrative of the logics that can produce it.

**D26:**
After reading *L.A. Under the Influence*, we were particularly intrigued by the representational choices you made for the project. The diagrams and photographs you use to expose and unpack the eccentricities of Los Angeles seem to parallel the work of Robert Venturi and the 1968 Yale studio. How do you position your book in relation to *Learning From Las Vegas*?

**RS:**
I’ve been very interested over the last year in issues of representation, specifically urban representation, because I feel as though our limited pal-
ate of tools by which to communicate persuasively has resulted in a certain cognitive dissonance both on the part of our audience, but perhaps as importantly ourselves as authors. Our ability to creatively frame a design problem has been impaired by the still conventional means by which we visually describe what we choose to see and what we don’t in the situations we are working with. For instance, Rem’s use of data to in truth retroactively argue for the intelligence of what may have early on simply been a design hunch, has led to the wide misuse of data—as in the case of the datascape—as the literal basis of projects themselves. These don’t seem satisfying because the analysis is foregrounded at the expense of the real repercussions of such facts. And then, on the other hand, you have the ubiquitous rendering-at-dusk, an image that persuades only on the basis of affect—quite intentionally, as if to say “don’t bother with its effect or what it might unleash.” It seems to me that most architects working today seem to fall within these two paradigms. We can do better.

I’m sorry for the long digression, but it was necessary to preface the answer to your question, which is that the diagrams that I do are Venturi-like in the sense that I’m trying to develop design techniques by which to imagine new things out of a more inventive, illuminating way of describing how things work already—whether they actually operate that way, or as I might deliberately misinterpret a situation. The game theory diagrams in my book are a good example—are they conveying the truth, or a fiction? The exact line is unclear, and perhaps less important than what it might give rise to, that will acquire its own self-evident value. Whether its true or not is beside the point—to Corbusier, the temples were white, when in fact originally they were polychromatic. I’ve taught my students that the goal should be to develop a certain seamlessness between front of house and back of house techniques to learn to string everything together.

D26:
So what alternate forms of representation are you looking at to help mediate this collapse between front and back of house? Is this a moment where the “pull” of transdisciplinarity you described earlier might come into play?

RS:
Quite possibly. Living in Los Angeles has really piqued my interest in the many compelling ways that filmmakers pitch their ideas and address their audiences, and I think we might find some strategies there. Just recently at UCLA, Ron Frankel taught a film seminar on his work in augmented reality. He’s done several movies that I’m sure you know, but his visual effects for Stranger than Fiction with Will Ferrell best illustrate what I mean. There are certain scenes where Will’s character counts to himself as he brushes his teeth or crosses the street, and Ron overlays the character’s mental space
An Interview with Evan Roth

Evan Roth is an American artist based in Paris who visualizes, subverts and archives transient and often unseen moments in public space, popular culture and the Internet. He applies a hacker philosophy to an art practice that often involves technology, humor and activism. Roth’s work is in the permanent collection of the Museum of Modern Art in New York City and has been exhibited widely in the Americas, Europe and Asia, and the front page of Youtube. He is co-founder of the Graffiti Research Lab and the Free Art & Technology Lab (F.A.T. Lab), a web based, open source research and development lab. Roth and his work have been featured in multiple outlets, including NPR, the New York Times, Liberation, Time, CNN, the Guardian, ABC News, Esquire and Juxtapoz. He holds a Bachelor of Science in Architecture from the University of Maryland, College Park.

Roth was invited to Taubman College to give a lecture titled “Art & Hacking” as part of the Aesthetic lecture series.

Dimensions 26:
You recently won the Smithsonian’s Cooper Hewitt Design Award in the category of interaction design. Do you consider architecture a form of interaction design? Are these professional definitions outdated? Either way, what elements or practices could each field benefit from borrowing from the other?

Evan Roth:
I’ve never done anything as hard as undergraduate architecture. I’ve never had as many sleepless nights as that period. Everything seemed easy after that. I did a four year program in architecture at Maryland and then worked for two years in Washington, D.C., at a fairly progressive place that mostly focused on interiors. But they did some cool work and I was into it. I was totally absorbed in architecture. When I would travel it was all I looked at. Then I ended up moving to Los Angeles, because at the time there was a lot going on with Morphosis and Gehry’s office and Eric Owen Moss—all these cool firms that were really hip at the time. So I decided I was going to go out there and intern for them. I was super young. I had my portfolio printed out and ended up getting a job with a guy who was the project architect on Bilbao. He was the architect that lived there during the whole time it was being built and then struck out to start his own practice. It was just he and I basically, working for a year.

But the whole time, I was coming home at night and experimenting with Flash. It had just been released and people are talking about. I never got comfortable answering the question of what is art or design. I think those questions get to be very loaded very quickly depending on who you’re speaking with. So while I understand them, some mornings I wake up and feel I’m a designer and others, I feel I’m an artist. I definitely think of myself as an artist for practical reasons. I forget who had that description of what makes someone an artist, but I think it was that if you have a studio, you’re an artist. If you pay the rent by making art, maybe you’re an artist. But I think the part about architecture being interactive is a no-brainer. But they already give the architects a whole category. It’s okay to keep interactivity separate.

Dimensions 26:
So what lead you to pursue an MFA instead of Masters of Architecture?

Evan Roth:
Great question. I would definitely say yes. First of all, I think architecture is inherently interactive. It reminds me of a question I was getting a lot, for which I still don’t have a good answer. It’s an even broader one, which is “what is design?” I self identify as an artist, and in winning a national design award, I think I may have been one of the only artists ever to be in that camp. I also think the category is relatively new.

So what is interactivity? You could argue that a painting is interactive. It just depends on what level of interaction and physical space in these moments. The audience can simultaneously glimpse what the character is thinking and how he sees things, almost like a wrinkle in the fabric of the film. The insertion of the new into the context of the normal seems so totally plausible. That’s what I’m most interested in. I think architectural representation might begin to co-opt such techniques— which seek, unlike special effects and animation—not to supplant reality, but rather to extend it into something “hyper” or beyond what it is now. That’s what I’m exploring my own work right now, and it’s a question I’ve posed to your Networks studio in this week. With any luck, we’ll see some interesting things in the review today.
it was the first time visual programming had a really friendly interface. So there were a lot of people doing Flash experimentation, which was really inspiring. I was coming home and doing that in my off hours, and then it started to creep into all the architecture proposals—especially when my boss realized that I knew how to do it. He was like, “Oh man! We can pitch this to clients and get interactive installations.” And that was pretty early in that scene. People were doing way more advanced stuff than I was doing, but it was still really new, especially to clients and outsiders. We had some big clients like the California Academy of Science. I was finding ways to sneak in the stuff I was staying up late to do into the work, and then at some point, the realization came that I should be doing that. It wasn’t that I didn’t like the architecture, but I’d fallen in love with this other thing that was different. They’re connected for sure, but it was—it is—a different scene. And that was the decision to go to Parsons. It wasn’t a decision to go to Parsons as much as a decision to get an MFA to focus on code and art, basically.

Evan Roth: I think the limitations of those kinds of festivals are that for a certain public space work, setting it up on a pedestal removes a lot of potential power and influence. A lot of the Graffiti Research Lab work I don’t do any more, especially at festivals. It’s the same as street art. If you just come across a graffiti piece or a piece of street art that is really good, it can have this effect because it’s reaching you in a moment where you’re not expecting to have a creative experience. And when I started doing projections, that’s how it all was. I was just going out in New York, borrowing equipment from the university and renting cars, driving around, and doing it. And it was really powerful to people because they weren’t going out to a festival. They were just trying to get to the bar and they came across this thing and that’s a really cool moment to hit people with a political message or interactive street piece or whatever it is.

But I think when you start telling people on Facebook to show up on this street corner at 9:00 PM... what I was interested in doesn’t work that way. And especially as a lot of projection mapping pieces are getting really popular and people are expecting these light shows—and I don’t make light shows. I don’t do it very well. It’s not what I set out to do with a lot of pieces of the Graffiti Analysis. The first one I was doing as a projection piece is boring as hell. If you’re going to show up at a street corner at 9:00 PM and expect to be entertained for an hour, you’re going to be really disappointed. If you’re just walking through Brooklyn and you happen to see this piece, you’ll remember that night. At least for the next week or so. And so I think the downfall of some of these festivals is that I think people are experiencing a subpar version of a certain kind of projection work. It’s not as if all public space projection pieces are aiming to be that though. I think D-lectricity was focused in a smart way. Working with them was actually cool for me too because everybody else really wants Laser Tag and a lot of the more interactive, really punchy, entertaining pieces that I’ve done in the past. When I explained this to them, even though the audience would have loved it, they were cool and willing to work with me to do a piece that I think fit that venue better.

But it’s a tough sell. Part of what I do now is when I get an invitation from festivals, I try to explain to them some of these things and tell them that if we just went and did it renegade style it would be awesome. But if we just sit there and do it, all night long, it’s just gonna turn into kids drawing penises on the wall. No one’s gonna be happy and it was cool for them to hear that and they let me do a piece that I know is less interactive. I know it’s less of a crowd pleaser, but I think they got a better piece out of it.

Dimensions 26: Was it easy to give up that mantle of “architect”?

Evan Roth: Yes and it actually was almost scary to me because I was so into architecture, living and breathing it, totally geeking out on it. It was a little bit scary to me that I could find another lover and so quickly forget the last one because it’s not really part of my nature to be that way. It’s not that I don’t think about architecture or that I’m no longer inspired by it. But it’s just a little bit scary that you can be so far into something that you think is all consuming and then you take a little bit of a right turn. All that faded really quickly for me. I don’t look at architecture the same way I used to. Maybe in another five or ten years from now, I’ll be the same way with code. Maybe I’ll just be so bored of it, I’ll be making rap albums or something.

Dimensions 26: Do you have an MC name?

Evan Roth: No comment, no comment! There may be several, none of which I’d be happy to have written down.

Dimensions 26: So, the projects and installations we saw this weekend at D-lectricity drew some people into parts of the city they don’t normally visit. What do you consider the limitations of those sort of interventions, and are they a sustainable practice for rejuvenating parts of the city?
Evan Roth: If you release this into the wild or not? Would you even consider releasing open source solutions or a new company? Is there a moment where you ask yourself about the potential application of that work towards spectacles of gentrification, or how it could get co-opted by an advertising company? What are some potential institutions, technologies or practices you would see other young designers take on today?

Hmm. I'm sure the answer to that is yes. The open source community is going through a big debate internally with the Makerbot community. I don’t know if you’ve been following that, but there’s a really interesting conversation going on surrounding just that. What happens when you’re developing something with that community that then all of a sudden gets locked down? I think part of the answer to that question will be whatever happens with Makerbot. There are some people that are of the opinion that the community supporting that open source hardware movement was the reason that they were selling units. So it’s a big gamble for them to turn their backs on that community of developers. But they did it. I think that their answer to that question would be yes. It can be harmful. I think the reason they made the decision is that they started to see competitive models being released to the market based on their research. Which is really not “the” as an individual company, but “they” as this community that was competing with those models financially and that had all this backing. It’s one of these hard questions to answer though because you never know the answer until you go all the way through it. It’s still a very new phenomenon, especially for companies that are making money. The open hardware movement is relatively young.

I think for artists such as myself, I deal with it to some degree too in the sense that I give away everything digitally that I possibly can. Mostly because I can. I wouldn’t feel comfortable living in a world if that wasn’t the case. I feel digital content is like water flowing down a mountain. You can put a dam up if you want, but the water definitely wants to go downhill. But I make a living with the art—I try to pay rent through art and it’s an old institution that doesn’t know what to do with open source either. The arts reward the opposite of openness. The arts reward limited editions, unique editions. It rewards very specific things that are devalued when they are shared and so it’s a hard question to answer ‘cause I’m sure I’ve lost financially on a lot of things by opening them up. Laser Tag is a big example of that. If I was just trying to make money, I could have made a lot more money by doing different things with Laser Tag, by making it proprietary and using it with advertising. But at the same time, I wouldn’t have been able to work with the people I was working with, both in the graffiti and hacker communities. And so for me, it’s just a decision of determining which one’s more valuable.

Evan Roth: I don’t go through that as much anymore. But when I first started working on Graffiti Research Lab with James Powderly, we went through this together, and there were “Oh Shit!” moments left and right. It was because part of our mission statement was that we were trying to make tools that were leveling the playing field between the visual culture of advertising and the visual culture of city inhabitants. The first project was immediately used in MTV campaigns, Coke campaigns, everywhere. And then there was that whole debacle that happened in Boston. Do you remember the Aqua Teen Hunger Force movie? There was a whole shit storm where they took Throwies and turned it into a marketing campaign for this pretty crappy movie, but everybody in Boston thought they were bombs and the whole city shut down and the FBI was calling us. It was a really crazy story, but it was at a time when that viral phenomenon was new to me. Making this work I thought had a political message through the way we were releasing it and then seeing it being co-opted was really a hard pill to swallow. It hurt the first time. It hurt the second time. It hurt the third time and then slowly—the reason it doesn’t bother me quite as much anymore is that I’ve become more comfortable with the fact that when these pieces get co-opted, especially by the advertising industry, they lose so much of the punch because it’s their second time around. We’ve already released something that they’re usually just copying. There’s not a lot of innovation happening. The second thing is that, whether as artists or ordinary people, people who make things because they want to make them with no ulterior motives—that honesty plays really well on the internet. I think most people online have developed really honed radars for finding honest content because they’re saturated with so much bullshit, especially growing up through TV culture. It’s that you’re taught to sit through all these advertisements and this consumer message. Now we have trained ourselves to notice those Reese’s Pieces as product placement. I get that now. You’ve tricked us once, but it’s not gonna happen anymore. So I think the reason I don’t worry about it quite as much anymore is because I see it failing when they rip off these pieces. I see it reflected in the view counts. From when we released Laser Tag, there are now videos on Youtube with several millions or at least a couple million, if not one anyway. You see the corporate rip-offs getting two or three hundred, and I think that’s happening because nobody wants to sit down and seek out content that’s selling them stuff or lying to them. You don’t want to watch bullshit in your free time. Even though Lucky Strike Cigarettes did a Laser Tag campaign in Vienna—which was a horrible, horrible mistreatment of a technology that had a political slant towards activism and against advertising—I see it failing for them in so many cases that it’s easier to sleep at night.

Dimensions 26: That reminds me of the Laser Tag projection on the Verizon Building in Lower Manhattan with “NSA” inscribed in green. What are some potential institutions, technologies or practices you would see other young designers take on today?

Evan Roth: The kinds of things technologies I’m interested in are typically ones that have an empowering aspect to them, and are typically ones that are easy to reproduce—
for me what’s interesting about making things, even if it’s
This is just such a big part of culture and society now, and
something now, how you can’t be addressing the web in
for me, I don’t understand, how if you’re an artist making
50 years from now, it won’t be that way. That’s why
uncontrolled as it is right now. I’m worried that 20
All of a sudden we have a pretty big voice and
in comparison to how much of a say we have in culture
right now. All of a sudden we have a pretty big voice and
so far that isn’t changing. There’s been legislation that’s
been threatening it, and long term I’m actually pessimistic
that we’ll have this much freedom, but while we have it,
I feel we should be playing hard with it. We’re lucky that
it’s as uncontrolled as it is right now. I’m worried that 20
to 50 years from now, it won’t be that way. That’s why
for me, I don’t understand, how if you’re an artist making
something now, how you can’t be addressing the web in
some way.

This is just such a big part of culture and society now, and
for me what’s interesting about making things, even if it’s
not art that’s meant to natively live online, is how work
can be documented online and filter that to new audi-
ences. To me, this is the whole game.

Dimensions 26:
Besides SOPA and PIPA, what do you see as other forms
of infringement upon the free speech and open culture
of the internet?

Evan Roth:
Facebook. The ones that won’t be thrust upon us, we’ll
walk into with open arms. I’m 34. I feel lucky to have
been on the trailing edge of the people that grew up with
a really nice, raw internet. I think now the problem is that
as young people, their relationship with the web is going
to be more as a user than as an admin. People are grow-
ing up and they’re used to getting a Facebook account,
and a YouTube account, and a Twitter account, but they’re
not used to having their own server. And the sad thing
is that in owning and running your own server, you have
a lot of power in that case to do whatever you want. It’s
not about what were the small color changes you can
make in your Facebook profile, or that you can change a
Twitter background to an animated GIF. It isn’t that cool.
It’s having this realization when you run your own server,
you can do whatever the fuck you want to a certain point.
And especially depending on in what country your actual
server is located, you can really do anything you want.
And this isn’t the fault of any generation, but just that
people are growing up with fancier toys. These iPods and
iPhones and these computers aren’t really quite comput-
ers. Johnathan Zittrain refers to them as appliances
because we don’t have the right to run code on it. We can
download apps and that’s about it and it’s going to be a
different future for young people that grow up with that.
So I think probably it’s not SOPA and PIPA as much as it
is the products getting so nice that no one learns how to
write HTML anymore.

Dimensions 26:
Yeah, it is the subtle difference between choosing and
deciding.

Evan Roth:
Yeah. It’s the old open-source convenience versus free-
dom argument. There’s always this continuum between
convenience and freedom with technology and the con-
vienience is getting sexy as hell. I have an iPhone in my
pocket too. They’re made really, really well, and I’m con-
flicted on a lot of these issues. But as things get sexier
and the glass doesn’t break as much, people just... look at
Apple stock. The Apple stock graph is why I get nervous
about our relationship with technology. Everyone’s buying
it up and it’s just getting better and better and better, but
we lose control with every iteration of iOS that comes
out. We lose control with every iteration of iTunes that
comes out and they’re selling it to us in such a way that
we all love it so much that we’re gonna forget that we
don’t have to have DRM in all of our music.

A piece I’m gonna show tonight is joking about this in-
ability to change even our ringtones. I’ve been working
on this piece called “Marimba” which is the default
iPhone ring tone. And if you play that in public, you realize
everyone turns around and looks to see if it is their phone.
We all have the exact same ringtone. We don’t even have enough control over our own technology to change a ringtone anymore without buying from the iStore. We’re just losing all these freedoms and I think that’s gonna be the bigger problem. If regulation fails to ruin the internet, it’ll be that.

**Dimensions 26:**
So is that what keeps you going at 3 in the morning? Or do you still have those sleepless nights?

**Evan Roth:** No, I still do. Anybody who’s making a living as an artist I think is doing it because of their passion. There are easier ways to make a buck. So you’re not doing it because you have to and I think there’s some truth to that for me. I felt this with architecture too—that there’s just something about making. It feels like alchemy. You have these moments where even if it’s not gold and you could never sell it, and it’s just this little whimsical piece that exists for free on the streets or on the internet, I get that feeling when I make something. That’s what keeps me making things.

**Dimensions 26:**
Can you talk about last spring at Eastern Michigan University as the McCandless Scholar there? As a design educator, what is the most important lesson you impart to your students, and how has teaching changed your creative process or practice?

**Evan Roth:** Since I stopped teaching full-time, when these opportunities come up to do condensed master classes, the one I keep coming back to is this urban hacking workshop which embodies my practice and combines hacking and applying these hacker philosophies to other parts of making—in this case, making street art. But the thing that I hope people come away with has nothing to do with what they had made at the end of the semester, but rather a new way to see their surroundings. I’ve gone through this process with skateboarding. I’ve gone through it with architecture. I’ve gone through it with street art. When you start to get really passionate about something, it affects the way you walk around the city. I remember when I first started getting into street art, I was the worst person to travel with because I wondered what was down every alley. I think it’s exciting though, when you have those moments and you realize that just by changing the way you think about something slightly, the street that you walk down a hundred times all of a sudden is totally different and totally new and I think that’s what I’ve been thinking about as the inspiring function of art that art can aspire to reach. And so I think that more than any project that comes out of those classes I teach. When I’m introducing people to both the worlds of hacking and the worlds of street art, I’ve had the students have that reaction. If that can happen, I think that’s a good reason to justify running a class.

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**Dread: Or Who’s Afraid of Modern Architecture?**

By Jordan Hicks, M.Arch ’13

Saarinen/Swanson Essay Competition Winner

For the past decade, architectural discourse has foregrounded questions of affect and atmosphere. What impressions and sensations does a building invoke in its visitors? What is the tone or emotional resonance of a particular space? Such questions are compelling and productive, in that they locate the meaning of an architectural work in a new place—somewhere between physical fact, human perception, and cultural association. However, the dialogues around atmosphere and affect are curiously incomplete. They generally focus upon awe, beauty, humor, and pleasure—all “positive” emotions, and all perfectly in sync with the bright, cheerful milieu forwarded by contemporary architectural representations, photoshopped and rendered to depict maximum civic glee for each new project.
Canadian art and architecture critic Esther Choi questions this predilection:

“The emphasis on architecture’s responsibility to produce pleasure risks losing sight of the limitations posed by immediate aesthetic gratification [...] Unlike other disciplines intimately connected to the affective realm—such as music or art—the architectural discipline has yet to acknowledge the full gamut of experience ranging from delight to disturbance.”

In the essay that follows (entitled “How Does it Feel?” after a song by British psychedelic rock band The Creation, who spliced rock and roll melodicism with bracing passages of feedback and noise) Choi explores the productive capacities for physical discomfort in buildings and installations. Choi hypothesizes that embracing discomfort in architecture may have some political efficacy. She examines conceptual artist Hans Haacke’s 2009 piece “Whether or Not.” Haacke juxtaposed works addressing the disparity of wealth and power, in the aftermath of the global economic meltdown, with bitter cold. He simply opened the windows, allowing the New York winter to permeate the Chelsea gallery space.

Choi’s argument is compelling, and opens up exciting new avenues for affect and atmosphere. However, in the Haacke piece described above, affect is wielded in a didactic way, reinforcing an already legible message in an overtly political artwork. Is there another type of sensation which could fulfill Choi’s call to embrace “the full gamut of experience,” but in a way that is less didactic and more visceral, operating on an almost subliminal level? It is plausible that such an affect would have greater efficacy, since it would creep into a subject’s perceptions, coloring her or his impressions, instead of acting in such an overt and instructive way?

This type of affect would be less obvious than the discomfort that Choi describes. It might be a vague form of fear, menace or dread. How can architecture inspire such feelings? Could certain formal elements or procedures render a building ominous, dreadful? Simply put, can we scare people with architecture?

Of course, there are myriad examples of architecture commonly perceived as menacing. Sometimes, as in the case of ruins or damaged buildings, architecture is representative of a breakdown in social or economic order. Sometimes, a building may have associations with threatening political ideologies—more powerful when its form seems emblematic of those ideologies. Sometimes, certain building types have long-standing cultural associations passed down to us through media, myth, or fiction—old Gothic estates look like lairs of fairy tale villains and sites of horror movies. All of
these examples, however, are dependent upon circumstances and perceptions wholly outside of the architecture in question. Is there a way that the building itself, as form, material, physical fact, can inspire dread?

A handful of historical and theoretical texts focus upon the relationship between architecture and fear. Chief among them is Anthony Vidler’s 1992 work *The Architectural Uncanny*. Throughout the book, Vidler seeks out different incarnations of the defamiliarized and derealized in (then) contemporary architecture. He is insistent, though, that the uncanny is not an innate or absolute quality of any particular architecture:

The uncanny is not a property of space itself nor can it be provoked by any particular spatial conformation [...] Certainly no one building can be guaranteed to provoke an uncanny feeling. But in each moment of the history of the representation of the uncanny, the buildings and spaces that have acted as the sites for uncanny experiences have been invested with recognizable characteristics.³

Despite Vidler’s analysis, whether or not a building may have innately uncanny (or, less specifically, dreadful) properties is an open question. Ongoing debates in music theory center on whether certain chord progressions or dissonance are innately dark or frightening, or just culturally coded as such. The logics of that debate could easily be applied to architecture. However, if one takes Vidler’s assertion at face value, the question becomes, “What recognizable architectural characteristics provoke a feeling of dread now?”

Among the many concepts that Vidler explores in *The Architectural Uncanny*, one stands out as particularly relevant to contemporary architecture, and overtly ominous: blankness. Vidler turns to Étienne-Louis Boullée’s formulations of an “architecture of death.” Boullée suggested an architecture that was compressed in its proportions, with blank walls devoid of fenestration or ornamentation. The walls were to be “articulated only by shadows.”⁴ Vidler posits that in its blankness, Boullée’s Temple of Death acts as a skeleton, a morbid double for its human inhabitant—and was, by virtue, the first self-consciously uncanny architecture.⁵

While the associations of blankness and death are powerfully articulated by Boullée, blankness remains ominous outside of the mortuary. A heavy, opaque, visually impenetrable and uncommunicative envelope immediately defamiliarizes a building. The blank building does not fit any pre-existing conception of type. It has few to no innate registers of scale. It does not clearly reflect its use, and begs the question “what goes on in there?” It obfuscates the building’s function, and gives no cues for interaction. Some
things about the building are evident—material and possibly tectonics—while others are concealed. This ambiguity heightens the tension. On one hand, such a building is deliberate—even fetishized—in its construction. On the other, it is ambiguous, mysterious in its function and occupation.

Why would such an ambiguous and disorienting opacity be the contemporary mark of architectural dread? While it warrants more exploration, my initial suspicion is that opacity stalks our era. Covert financial market manipulations precipitated global economic disaster. Extralegal prisoners are detained and interrogated at countless unknown locations. The production of our day to day consumer goods is a mysterious process, lost in tangled and inhumane networks of global logistics. Simply put, we cannot see and no longer know how our political and economic systems work. So behind every blank wall is a new, threatening machination.
The product of a year-long investigation, thesis occurs in the final semester of the graduate sequence. A self-directed creative project, students engage in the process of research, critique, and synthesis to create works that engage with architectural discourse. Capping the studio is a review by outside critics and a weeklong public exhibition of the work.

**Featured Projects: Part Two**

Din Botsford Blankenship  
*Disembodied*

Julie Janiski  
*Center for the Unbuilt Environment (CUbE)*

Catharine Pyenson  
*Tropein Menageries: Designing the Wild Blue Yonder*
Human existence is situated in a complex atmosphere of waves and radiation, a reality witnessable only as the appearance of certain indirect effects, but that is not immediately perceivable.

—Peter Sloterdijk

This thesis explores the relationship between human invention and the human body, recognizing that the product of the human brain often exceeds the performative capability of a fragile body. Man’s innovations alter landscapes, cultures, ecosystems, and political climates in ways that place our material bodies at risk—a clear disembodiment between mind and matter. This uncoupling of cognitive ambition from physical wellbeing is traced here through the lens of nuclear technology and its resultant radioactive decay. Initially developed as a strategic instrument of war, nuclear technology has consequently surrendered the human body to the debilitating effects of radiation. The invisible force invades and assumes the medium of its unknown host, manifesting itself as cancerous mutation. Can architecture expose the pervasive toxicity of this radioactivity while reconciling the fragile human body with the lethal offspring of the human mind?

Sited about 800 miles southwest of Honolulu, this thesis intervenes in the radioactive coral reefs of a man-made island, Johnston Atoll. The island exists due to a 30-year dredging process performed by the U.S. military beginning in 1942. As part of Operation Dominic, Johnston Atoll hosted numerous atomic experiments, which exposed the island and its reefs to large amounts of radioactive plutonium. The lethal plutonium is undetectable as it interacts with human and ecological bodies, only revealing itself years later in the form of cancer. This thesis proposes a nuclear medicine facility within this radioactive landscape through three scales of intervention—an infrastructure, an architecture of the body, and an architecture of a vessel. This layered, multi-scalar approach leverages the radiation’s pervasive and intangible toxicity into a tool by which the body is healed. Paired with the high technology of nuclear medicine, architecture might re-embody the innovative capacity of the human mind within the body’s physical form.

Like the medical technology this project implements, architecture operates precisely at the collision of human invention and human frailty. Architecture can become an extension of the human anatomy, partaking in the same complex network of material and
information exchange. As a layered and redundant system, it can assume the robust but soft logic of the body. In his book *Fashioning Apollo*, Nicolas De Monchaux describes human tissue as “the fragile, layered membranes that are life’s greatest strength.” This thesis expands on De Monchaux’s provocation by interrogating architecture’s ability to do more than simply encase the body and protect it from hostile environmental conditions.
Disembodiment Drawing
The project explores the strange relationship between invention, the ecological body, and the human body. A nuclear bomb is detonated, obliterating everything in its path. What slowly returns is a resilient, if not thriving ecological body, one in which the radiation, much like a parasite, assumes the medium of its unknowing hosts: animal tissue, plant tissue, and floating in the ocean and sand. This landscape is or should be absent of man. But if people are present in this site, the radiation is made physical in the form of cancerous cell mutation. There is a disconnect of time and space between the human invention and the human body.
The dredge channels and man-made islands are the only indications of man’s creation of and former inhabitation of the atoll. Its radioactivity remains imperceptible, intangible, and lethal. This project seeks to reveal, give medium to, and leverage the otherwise lethal and undetectable toxin.
Radiation Treatment of Cancer
Radioactive isotopes are used to treat various types of cancer. Cancer cells are destroyed by exposing them to DNA-damaging radiation. Once the cancer cells are destroyed, they are broken down and disposed of by the different infrastructures of the human body. Radiation treatment is one example of the healing relationship between radiation, the human body, and medical technology.

MRI Imaging Technology
Opposite page, top: Because the human body is composed primarily of water, MRI images can use magnetic fields to generate images of the body. When the protons in hydrogen atoms are exposed to a magnetic field, their natural orbit aligns with the field; when the magnetic field is stopped, the protons return to their natural state, and as they do, they emit radio waves. These radio waves are detected by sensors, which then generate the images of the body.
As patients travel around the islands, their suits are made for them while they relax and receive treatment. Upon arriving at Johnston Atoll, the boat is anchored and the recovery membrane is unraveled. A network of bladders are inflated and become a system of recovery pools.
Radiation Body Suit
A descendant of the space suit, this ten-layer scuba suit allows its inhabitant to safely occupy the radioactive reefs of Johnston Atoll while generating MRI images of their body. Different layers of this suit are responsible for buoyancy, radiation protection, comfort, propulsion, and imaging. Doctors are able to navigate the patient through the reef's newly magnetized structure by pulsing small electromagnets lining the jellyfish-like outer membrane—each magnetic burst propels the patient through the water as the outer membrane contracts. The body architecture of the suit re-images the human body while also playing a central role in its prognosis and diagnosis. The doctor is now the architect as he determines the patient's inhabitation of space.
MRI Body Suit
This body architecture facilitates radiation treatment when worn by a patient as they swim through the magnetic infrastructure in the reefs of Johnston Atoll. Akin to the MRI suit, this 8-layered scuba suit enables its inhabitant to safely occupy the radioactive reefs of Johnston Atoll while receiving radiation treatment. The doctors are able to navigate the patient through the infrastructure by pulsing small electromagnets near the patient’s wrists in the sting-ray-like outer membrane. The patient’s arms are moved through the water, propelling the patient forward. This body architecture actually heals the human body using radiation. It leverages the toxin and transforms it into a healing mechanism.
Medical Facility and Vessel Drawing

Similar to the human body, the vessel is composed of a skeletal system that supports tissues and membranes. Together these systems allow the vessel to operate as the Medical lab, patient rooms, and recovery spaces.

Magnetic Infrastructure

Opposite page: The magnetic infrastructure occupying the reefs of Johnston Atoll serves several functions. First, its magnetic fields disable navigational devices, preventing the island from being unintentionally discovered. This protects unknowing people from being exposed to the invisible toxin of radiation. Secondly, the magnetic infrastructure facilitates MRI imaging and radiation treatment for the proposed nuclear medicine facility.
INTEGRATION OF INFRASTRUCTURAL NETWORKS OF MEDICAL MACHINES

CORAL REEF AS MEDICAL FACILITY

MAGNETIC INFRASTRUCTURE

NETWORK OF RADIATION + MRI MACHINES

PATIENT IN MRI IMAGING SUIT

INFORMATION SENT TO MEDICAL DIVING BOAT WHERE IMAGES ARE GENERATED

Blankenship Velikov

Thesis
In the interest of safeguarding an architectural commitment to the built environment, the Center for the Unbuilt Environment (CUbE) is leading an ongoing project to expand its operations into new territories. One of the Center’s spokespeople, David Gissen, has recently promoted and defended its expansion with the argument that "...we have the power to create the territory of our own existence through the things (and territories) we conceptualize," and CUbE has just the right capacity for that conceptualization.

In its mission statement, the Center dedicates itself to the concept of an imaginational un-built in terms of the unknown, the unknowable, and the yet to be known. However, citing the problem of a world surrounded by the physically-present real and the data-augmented hyper-real, CUbE increasingly questions our capacities for an imaginational anything. For example, the contemporary visitor to any place seems to be ever more amenable to—if not dependent on—the type of data and information that we are inundated with in order to know and understand the thing or the territory that we are visiting.

The Center therefore questions our willingness to receive information as the only means of understanding and knowing, and asserts that we are losing our capacity for an imaginational construction of knowledge. We should be just as willing, they contend, to imagine the possibilities and perhaps continue to not really know in a factual way. The character of the visitor and their as-yet-unknowing viewpoint has become deeply important to the Center as they are potentially the architectural actor most poised to recognize an imaginational unbuilt.

As part of its ongoing operational expansion to promote the imaginational, CUbE put out a request for proposals late in the Fall of 2011 for a project they dubbed The Island Series. With the intent that this request would be the first of many, the Center selected a single site—an uninhabited island—as the location of its newest field office and the site for the first design investigation in the series. Building on its curiosity for visiting and the role of the visitor, CUbE asked designers to submit proposals for architectural devices that both engender and reflect the tendencies of imaginational visitation within and about the territory of its newest field office.
submit proposals for architectural devices that both engender and reflect the tendencies of imaginational visitation within and about the territory of its newest field office. When announcing The Island Series project, Spokesperson David Gissen further insisted that these devices must have the “ability to enable a deeper understanding of the possible realities lurking in the world.”

Designers showing interest in responding to the request for proposals were given a portfolio of 21 photographs of the uninhabited island, carefully collected and archived by one of the Center’s partners, the Institute of Critical Zoologists (ICZ). These photographs and personal accounts from staff at the ICZ make up the extent of the site information available. Designers were also asked to include research on and analysis of the typology of visitation, as they saw fit.

The work shown here represents a single proposal submitted for The Island Series, and includes six of a total of nine architectural devices for imaginational visitation as well as a number of postcards proposed to support the marketing efforts for the new field office. The development of the proposed devices was three-fold. First, a number of the ICZ photographs were set into diptychs in order to create relational qualities of visitation inherent in the territory of the new field office. The resulting qualities of the territory, its visitation, and its visitor were then recorded as a basis of design for each device. Second, existing architectural devices that support visitation—like water fountains and picnic tables—were closely examined as documented in various U.S. National Parks. These existing devices and the qualities of visitation that they employ onto their territories became important points of reference and negotiation. Finally, as the devices were developed, the language of standard scaffolding was deployed as an architectural form that specifically supports the unbuilt.

This proposal asks you to see the lurking possibilities within imaginational scenarios of visiting in order to discover, stage and anticipate the unbuilt capacities of a new territory. D

Image from Postcard “Pulau Pejantan”
Top: The Island Series includes a number of postcards proposed to support the marketing efforts for the new field office; it reads the quote about “the territory of our own existence” from David Gissen on the backside.

Ditch Testing
Bottom: Ditch Testing is one of nine architectural devices submitted to CUBE for imaginational visitation.

A Stranger Station
A Stranger Station has been designed for “ability to enable a deeper understanding of the possible realities lurking in the world” as Spokesperson David Gissen insisted.
Skin Model

This conceptual model unfolds the envelope of the embassy and stretches it out the skin.

Janiski Trandafirescu

Thesis
The Significant Other Forest
These existing devices and the qualities of visitation that they employ onto their territories became important points of reference and negotiation.
The Island Series

This proposal asks participants to see the lurking possibilities within imaginational scenarios of visiting in order to discover, stage and anticipate the unbuilt capacities of a new territory.
Plan of Re-Spectacle

As the devices were developed, the language of standard scaffolding was deployed as an architectural form that specifically supports the unbuilt.

Plan of The Significant Other Forest

Existing architectural devices that support visitation – like water fountains and picnic tables – were closely examined as documented in various U.S. National Parks.

Plan of Re-Spectacle

The resulting qualities of the territory, its visitation, and its visitor were recorded as a basis of design for each device.
Over the next century and beyond, with an expected acceleration in sea-level rise, the potential for coastal change is likely to be greater than has been observed in historic past...Some portions of the U.S. coast will be subject primarily to inundation from sea-level rise over the next century...—United States Geological Survey

Rising sea levels and diminishing coastlines beget a single body of water that reappropriates the ground and forces built forms up into the skies. A territory once uninhabitable and dominated by flight suddenly becomes the only occupiable space. Resources running scant amidst the deluge, science will proffer solutions, spinning silk from genetically engineered creatures into new building materials. Structures made of silken fibers will waver with the wind currents and protrude up into the heavens. In its more mature state, the fibers will create a cocoon-like structure around the earth and a new horizon line from which to build.

The silk worm is the only wholly domesticated insect, purposeless except for the production of a commodity. This organism has been adapted to serve our wants and desires—the shedding of its outer skin accommodates our need for luxury. We have taken advantage of its disabilities, though its blindness and flightlessness have not been an evolutionary handicap. Natural selection has curiously passed it by, and the silk worm prevails as both one of the most ancient textile producers and one of the most genetically modified organisms to date. Sigfried Giedion points out that it is through the processes of silk weaving that the beginnings of mechanization and the modern factory emerge. As might be obvious, the strands alone are not much use—their fibers are too fine. However, once woven together, the threads become a material of substance. Creating massive looms large enough to fill the ground plans of buildings means weaving elements large enough for building purposes. Semper’s Four Elements of Architecture posits the weaving process within the architectural discipline. The fence, originally constructed from woven materials, hangs from the more structural elements—like a curtain wall clipping onto a floor plate. Here we see woven form replacing structure.

Modifying the silk worm or genetically altering larger creatures like spiders, goats, cows, hamsters, and crustaceans to produce silk, functions as a catalyst to create new methods of production. The new building material is a
Microview Model
The silk worms occupy a landscape of ground mulberry leaves. One worm’s cocoon falls from the tree into Lady Huang-Ti’s tea cup and within moments the blind and flightless creatures happen upon a purpose.
scientifically altered variation of ancient silk. Stronger than steel, pound for pound, and resistant to time and the power of the elements, it is a rot-proof material. It is a protein so pure that the risk of irritation inside the human body is slight. Stitch by stitch, we use its natural fibers to sew up openings into the body; biodegradable sutures prove that the fibers are the most hypoallergenic of all materials. The body welcomes the substance, saving its antibodies of attack for more lethal invaders.

Silk functions as an insulator when worn, keeping a body warm in the winter and cool in the summer. It can absorb up to 30 percent of its weight in moisture without feeling damp. The material is largely used for aesthetic purposes, though the military has discovered its strength when made into a bullet-proof vests. This thesis proffers its use in the building industry. Only structures made of silk accommodate these creatures of various needs and temperatures. Walls of the material encase the different creatures and provide them with variable climatic zones—a zoo of silk-producing creatures cascading high into the sun, each immune to the variable external temperatures.

The thesis anchors circular looms into the ground, below a site of intense silk production. The anchored limbs spread out as the subterranean network crawls underground. The silk structures grow up from the central looms anchored in the networks, blossoming into the upper troposphere where the extreme cold (-60°C) will render the fibers 64 percent stronger. This will allow the struc-
The Silken Fibers
Left: The silken fibers act as insulation and maintain comfortable conditions within, while the atmosphere without drops to near cryogenic temperatures.

Earth encased in Silk
Right: The earth encased in a robe of silk; tropein wonders emerging from anchored looms into the sky.
ture to extend out into the atmosphere and hook out onto satellites, orbiting around the earth, weaving and shaping the constructs into the wild blue yonder. The large-scale, silk-woven structures will occupy the skies with pockets and pillows of space for the producers of the substance. In this region of intense atmospheric instability, the transgenic creatures—now with augmented physical traits due to increased pressures—will inhabit the structures in order to stave off frigid conditions and continue production.

A trope implies a turning and twisting of form such that the end-product is dissimilar from its origination. The apparatus of a trope anchors into sites across the globe, manifested into woven, flexible constructs within the futuristic material culture of construction. The constant fluctuation of light and air dictate their forms, creating an ever-changing and growing architecture along new horizons. In a world where changing the weather is no longer fiction, we begin to figure out how to manipulate built forms to rise up beyond the limits of yore. In a future where climate is no longer foe, we use its strength as a benefit to architecture, lifting and shaping with great force. With creatures big and small, the zoomorphic refuge floats above, like a Noah’s Ark of the sky.
Research Through Making

Historically, research and creative practice have been constructed as “opposites.” This is not an unusual struggle in architecture schools, particularly in the context of a research university. This perceived tension between design and research is indicative of age-old anxieties within the architecture field to understand its nature as an “applied art.” Design can be a purely creative activity not unlike creative practices in music and art. In other cases, design can be a purely problem solving activity, not unlike research in engineering and industrial production.

Initiated by Dean Ponce de Leon in 2009, the Research Through Making (RTM) program at the University of Michigan, Taubman College of Architecture and Urban Planning provides funding for faculty research worked on by faculty, students, and interdisciplinary experts. Five grants of $20,000 are competitively awarded for the production of a research or creative project that is predicated on making. Funds can be used for project materials, student assistance, and other expenses.

Entries to the 2011–2012 competition were anonymously evaluated by a distinguished jury from outside Taubman College. Judges included Eva Franch i Gilabert, Director, Storefront for Art and Architecture; Michael Meredith, Principal, MOS, Assistant Professor, Princeton School of Architecture; Joe Valerio, Principal, Valerio Dewalt Train Associates.

**Featured Projects**

Geoffrey Thün, Kathy Velikov, and Wes McGee  
*Resonant Chamber*

Wes McGee and Catie Newell  
*Glass Cast and Specimen*

**2011–2012 Grant Recipients**

Catie Newell and Wes McGee  
Mary-Ann Ray and Robert Mangurian  
Neal Robinson  
Steven Mankouche, Josh Bard, and Matthew Schulte  
Geoff Thün, Kathy Velikov, and Wes McGee
Distort Windows utilizes the performance of a digitally controlled, reconfigurable pin-mold embedded into a kiln.
Project:

Glass Cast + Specimen

Faculty:

Catie Newell
Wes McGee

Specified as a component within nearly every building envelope and abundant in the built environment, glass is an ever-present and easily overlooked aspect of our surroundings. Glass Cast, and its most recent iteration as Specimen, is a research project that seeks to characterize and advance the formal capabilities of this ubiquitous material through the investigation of two methods of working—traditional glass blowing and digitally controlled glass slumping. The project challenges existing modes of working with glass across a range of applications and scales, interrogating the connections between craft and the explicit control offered by custom developed manufacturing processes and tooling.

The Setting
This research began by questioning the de facto application of glass as flat pane that reinforces the ubiquity of sheet materials throughout contemporary building tectonic systems. Such ubiquity remains a reflection of the industrialization of architectural products, whereby traditional materials have been modified and compressed into standard sheet goods and then fabricated using subtractive technologies. Arguably this has both driven—and been driven by—a lack of feedback between material properties and the design process. Glass Cast demonstrates an alternative methodology whereby material and process constraints are integrated into the design process through experimental and computational techniques, developing a feedback loop between design intent and materialized formal attributes. The project represents a multimodal approach to design research, encompassing the latent materiality of glass as an amorphous solid, overlaid with an explicitly controlled, empirically verified process which seeks to advance the performative capabilities of the material both spatially and visually.

Two Angles of Attack
After extensive research dedicated to the forming and shaping of glass, experiments were carried out through two distinct methods:

Distort Windows
Part of a larger body of work on explicitly controlled doubly curved façade systems, the work conducted as Distort Windows utilizes the performance of a digitally controlled, reconfigurable pin-mold embedded into a kiln. Articulated with 99 pins and hexagonal tiles, the kiln facilitates the formal alteration of flat sheet stock into geometrically defined curvatures. Developed and integrated with a parametric modeling plug-in to provide
Diffuse Globes alters a fixed globe form through custom forming tools to control the dispersion of light.
manufacturing constraint feedback directly into the design process, the equipment and software developed for Glass Cast ties very specifically to particular material attributes and modifications, providing the potential for continuously variable formal output, while reducing the waste associated with dedicated molds. The fully integrated methodology includes feedback on the formability of specific geometries, material properties, and direct machine control of both the forming kiln and the post-form robotic abrasive waterjet trimming of panels.

**Diffuse Globes**

Aiming to inflict directionality and variation into generic light bulb forms, Diffuse Globes alters a fixed globe form through custom forming tools to control the dispersion of light. Encasing a low wattage bulb, the medium of the globe diffuses the light source, diminishing the perceived glow at the outer edge of the globe. To control the directionality of the light, the globe is deformed during its fabrication by traditional glass blowing techniques. Internal depressions allow for the concentration of light while protrusions increase the scatter, locally attenuating it. Manual forming tools were developed in relationship to the physical attributes of the glass at forming temperatures and the resultant formal relationships to the illumination effects. In order to allow for the variability produced by the manual process of glass blowing, the caps, which feature an innovative internal external strain relief, are parametrically designed and digitally manufactured to fit each individual globe.

**Onward**

The above work was composed into a larger installation for the annual Research Through Making exhibition. The exhibition setting prompted the opportunity to configure and suspended a cohesive output from the two trajectories of research and to push the spatial intentions and resultants.

**Exhibition at the Liberty Research Annex**

Top: The exhibition setting prompted the opportunity to configure and suspended a cohesive output from the two trajectories of research and to push the spatial intentions and resultants.

**Detail of Installation**

Next: The work presented attributes that ranged between bold implications of space, the disappearance implied through its transparency, the fleet lighting effects throughout the day, and the jarring relationship between suspension and delicacy.
tions of space, the disappearance implied through its transparency, the fleet lighting effects throughout the day, and the jarring relationship between suspension and delicacy.

The continued interests in the impact of combining these qualities led to the continuation of the research in the form of a second installation, Specimen. The work is placed in the Nature’s Medley Hall of the former Public Museum in Grand Rapids, surrounded by encased specimens of insects and plants abandoned in the museum’s relocation. Responding to this venue, Specimen evokes a peculiar creature of irregular origins—suspended in air, curious in its natural form, and artificial in its existence. Projecting the work further, the major driver in this installation was spatial enclosure and amplification of inherent light effects. Embracing the observed light reflections from our previous research, the curvatures of the glass and the curated lights overhead were used to produce suspended light effects. Lit from above, the curvatures of each piece reflect the fluorescent lights embedded in the ceiling overhead. The resultant is a kaleidoscope-like effect of its surrounds, daring light to move around the space in two layers of reflection, each with a different grain. The glass cases of the abandoned specimens reflect the work as a whole, multiplying the presence of Specimen within the space. Hovering, the visitor can walk around the work.

Position in the Field
Deeply intertwining the design to production loop with material behavior and the construction of its respective tools, the resultants of Glass Cast and Specimen establish the groundwork for further formal and performance driven applications of glass within our building system and domestic surroundings. By integrating material, fabrication, and design constraints into a streamlined computational methodology, the process also serves as a model for a more intuitive production workflow, as well as expanding the understanding of glass as a material with wide ranging possibilities for a more performative architecture.

Glass Cast Process
Glass Cast demonstrates an alternative methodology whereby material and process constraints are integrated into the design process through experimental and computational techniques, developing a feedback loop between design intent and materialized formal attributes.
The work is placed in the Nature’s Medley Hall of the former Public Museum in Grand Rapids, surrounded by encased specimens of insects and plants abandoned in the museum’s relocation.
Detail
Resonant Chamber’s exposed surface consists of rigid origami-based flexural hinge panelization
Faculty:
Geoffrey Thün
Kathy Velikov
Wes McGee

Project:
Resonant Chamber

Our personal experience is the only way we can understand acoustic space. That is why acoustic experimentation is so important. Empirical investigations will eventually make us hear forms, materials and perspectives.
—Bernhard Leitner, 1985

Resonant Chamber aims to develop dynamic and acoustically responsive environments that vary radically from traditional, static acoustic spaces. The highly specific combinations of material and form that describe the ancient Greek amphitheatre, medieval cathedrals, or the contemporary opera house were developed in response to the acoustic demands of the aural and performance types. They have also informed and shaped the compositional formats and performance techniques of the aural modes they house. Resonant Chamber integrates a kinetic and materially specific structure with sensing and actuation technologies into a smart material assembly. The design and prototyping process mobilizes computational and parametric tools for spatial and acoustic simulation as well as digital design and fabrication techniques towards the development of highly customizable and geometrically precise artifacts. The Resonant Chamber system consists of a continuous origami-based kinetic surface composed of reflective, absorptive, and electro-acoustic elements that will enable the transformation of non-purpose-built architectural spaces into acoustically specific environments. We anticipate that its capabilities for dynamic formal and material variation, as well as embedded electro-acoustic sound control and production, will be able to produce multiple spatial, sonic, and performative outcomes.

Resonant Chamber is designed as a thick, suspended, kinetic surface, transformable through the geometric properties of rigid origami into variable spatial configurations. Distributed linear actuators that transform folding geometry and orientation drive the surficial modification of the system. A track-mounted system of stepper motors from which the surface is suspended allows adjustment to the overall spatial positioning of the system. This kinetic performance is predicated upon the behavior of forces distributed through the fold lines of the origami pattern’s organizing geometry. Synchronized actuation transforms the surface height, location, and curvature in space in order
to control early acoustic reflections (ambience) and also alters its material exposure for control of late acoustic reflections (diffusion and reverberation). The flexible system is comprised of triangular composite panels with three primary types of acoustic properties: solid plywood panels (reflective), perforated panels with porous polypropylene inserts to optimize (absorptive), and hollow panels containing distributed mode loudspeakers (DML) which transform the panel face into a directional electro-acoustically enhanced sound source (speaker). The integration of a DML system into a kinetic surface has not been previously executed and opens up an array of possibilities for using the system in a variety of applications such as active reverberation control, interactive sound art, sound reinforcement, and immersive audio reproduction for virtual reality systems.

Central to the development of the prototype was the use of computational tools for integrated geometric, material, and acoustic performance simulation that refined the project design. Customized definitions for Rhinoceros 4.0, with Grasshopper and Kangaroo plug-ins, have been developed to simulate the relationship between geometries and applied forces. These same files were then utilized during acoustic simulation consisting of both ray-tracing tests and CATT-Acoustical sound pressure level analysis to assess the system’s capability of performing as both an acoustic sound distribution and focusing device. Computational tools and digital fabrication equipment were also used to produce ont-to-one physical prototypes for acoustic verification. The entire system of components, including plywood panels, polypropylene inserts, flexural membrane hinges, and embedded computational and electronic components, were prototyped by the design team. Three- and five-axis milling machines and digital knife cutters enabled production with a high degree of dimensional precision, and vacuum lamination ensured stability of the composite panels and membrane hinges.
**ELECTRONICS PANEL**
contains arduino io for wireless communication
to sensors and actuators and bluetooth digital
amplifier to distribute sound to dml exciters

**REFLECTOR PANEL**
receives solid infill panel to create an
acoustically reflective surface and comprises
the majority of the surface

**ELECTRO ACOUSTIC PANEL**
houses an individually addressable dml exciter
which can provide distributed audio amplification
or multiple channels for the development of
original compositions

**ABSORPTIVE COMPOSITE PANEL**
porous expanded polypropylene panels combined
with perforated plyboo face plates compose the
absorptive acoustic surface; these cells also
house the linear actuators which drive
geometric shifts the surface

*Resonant Chamber componentry*
Composite panel design, component assembly and
system aggregation.
Systems mapping
The organization and logics of interrelated real-time sensing, acoustic control and actuation logics are diagrammed relative to listeners, the environment, and assembly manipulation.

Responsive surficial movement
Stop motion imaging of alterations in the ceiling composition as the relative exposure of acoustically reflective and absorptive surfaces is modified.
Section drawing
Illustrates the flat-folding geometry and translation of the origami pattern during actuation to evaluate degrees of freedom and material exposure configurations

Modular assembly
The panel system is rationalized to allow component substitution with the logics of a standardized form.
The prototype system forms an intelligent infrastructural platform for a variety of sensing and control technologies for acoustic and interactive responsiveness. Microphone-based systems can prioritize sound level samples to an average decibel range and inform the sound dampening cells to adjust accordingly, allowing more or less reverberation and optimizing aural conditions for listening to specific types of music or performance. Multi-modal sensors such as the Kinect can dynamically track locations of sources and receivers and may be utilized to re-calibrate performance spaces relative to audience position, size and spatial distribution. Alternatively, in service of universal accessibility, individual occupants’ hearing requirements can be addressed through the use of customized identifying receivers, providing location information to the system, which in turn adjusts local aural conditions to suit individual capacities. These variations in controls logic combined with the system’s formal flexibility enable a range of potential architectural acoustic applications. 

System Prototyping and Assembly
An iterative process of making, testing and system refinement was central to the project.
Interviews

Featured Interviews: Part Two
- Lola Sheppard, University of Waterloo
- Lateral Office
- Beatriz Colomina, Princeton University
  Chief Curator, Clip, Stamp, Fold: The Radical Architecture of Little Magazines 196X-197X

Saarinen/ Swanson
Essay Competition

Featured Essay: Part Two
- Leisurama: Framing Architecture as Narrative
  Conor Wood
Coffee Talk with Lola Sheppard

Lola Sheppard is an architect and educator based in Toronto. She is a founding partner of Lateral Office (2003) with Mason White, a firm dedicated to the productive overlap of architecture, landscape, infrastructure and urbanism. She is also a co-director of InfraNet Lab, a research laboratory dedicated to probing the spatial by-products of contemporary resource logistics (2008). InfraNet Lab is an editor of the journal Bracket: Architecture, Environment, Digital Culture. Her work examines the production of “fourth natures”—landscapes and ecologies that exist as mutant products of politics and technological enhancement. Lola Sheppard has been pursuing ongoing design research entitled Next North: Infrastructures for a Shifting Terrain, which examines infrastructures’ capacity to sustain local ecosystems and cultures in the Canadian North. Lola is co-editor of Bracket [Goes Soft] (2013) and Bracket [at Extremes] (2011). She was awarded the Royal Architecture Institute of Canada 2012 Young Architect Award. Lateral Office was awarded the Pamphlet Architecture no. 30, published by Princeton Architectural Press (2011), the Emerging Voices Award from the Architectural League of New York (2011), and the Canadian Prix de Rome (2010).

Lola was invited to Taubman College to give a lecture titled, “Post Natures: Architecture in an Expanded Territory” as part of the Aesthetic lecture series. In addition, she sat down with Dimensions 26 in an open forum event, “Coffee Talk with Lola Sheppard.” Students were invited to participate as part of this interview.
Dimensions 26:
Many of the members of our student body were first introduced to your work through Pamphlet Architecture 30, Coupling: Strategies for Infrastructural Opportunism. How did you approach Pamphlet as a medium to curate your research and how has it affected the development of Lateral Office since its publication?

Lola Sheppard:
It’s a very good question. In a way, producing an issue of Pamphlet is akin, in a sense, to doing one’s portfolio. It’s a moment of introspection about what you’ve done and how it aggregates into a larger argument, rather than just individual projects. It becomes a way to think about where you want to move forward. Also, it became a forum for us to invite several people whose work and thinking we admire to contribute essays. So in a way, we treated it as a dialogue with people that are thinking about issues that overlap or run parallel to what we’re doing in order to fully articulate a set of ideas. We wanted to cover a range of projects and scales.

D26:
Pamphlet is coauthored with Infranet Lab, which you describe as a research collective, whereas Lateral Office is more of an experimental design practice. As a founding member of both organizations, how do the two collaborate? To what extent are they two limbs working together or separate studios working in parallel?

LS:
This is a question that we grappled with in the past. But I would say the distinction is that Lateral’s output is largely design-based and Infranet is more of a vehicle for curation and dissemination. Sometimes the research that begins in Infranet will get co-opted by one or many of its members. As you may know, Mason [White] and I run Lateral, Maya Przybylski has a practice that’s more interested in computation, and Neeraj Bhatia has his own practice, too. So Infranet works a bit like a mix tape where people can bring their interests, find points of intersection, and then go back to other venues where the research is developed through various modes, including essays or projects or... whatever it might be.

D26:
On that note, the work that comes out of Lateral always has a certain rigor to it that stems from the deep ties to research you just described. But the projects never feel constrained by the data. Many of them manage to be both lighthearted and provocative while remaining a product of reality in some way. How do you consistently find this balance between the projective and the pragmatic?
We have become convinced that, in most cases, the reality of a context is stranger and more interesting than any fiction one might invent or imagine. Part of our work is really about looking for the gaps, the missing information, the strange and surprising moments in a system. Sometimes it’s very obvious and sometimes it’s the more unique things that render a place... I don’t want to say surreal, but slightly beyond real. We’re interested in projects that can sit between the real and the not quite real. We’re not interested in fantasy in which one authors a completely constructed condition, but we recognize that there’s a way to anchor speculative work into a very real set of issues. We try to push the limit for a while and then take a step back to see if we’ve crossed the line into fiction. That line is always shifting, which is what makes the design process so interesting.

Jared Heming (M.Arch ’13):
Speaking of the real and the not quite real, I’m curious if there are any plans in the works to get some of these unsolicited or speculative projects built. Could you speak to that a bit?

It’s an interesting juncture that the firm finds itself at right now. I think we’ve always been interested in implementation, but we’ve simply decided that maybe we might have to work backwards from traditional practices. For instance, the Next North projects began speculatively. With one of them, we sought out a potential client or partner to help push the project forward by prototyping its components. Part of the problem is figuring out what scale to implement our work. I would love to implement something like the Salton Sea project, but given that it’s forty-two square kilometers of sea, it’s probably less likely than a smaller project in the Arctic. But even that has its own challenges. So there’s a degree of entrepreneurialism where we have to be strategic about the kinds of projects we do and the partners that can see them through.

I would add that one of our most vindicating moments thus far came, rather inconspicuously, in the form of an invitation to a large round table discussion up in the capital of Nunavut regarding food security, which we address in the Artic Food Network project. This conference had politicians and economists and nutritionists, and there was Mason on the list of presenters even though it had nothing to do with architecture. For me, it was very powerful to think that finally architects had been brought back to the table in a way that transcends discipline. We had been asked there because design was understood as having intrinsic value as a mechanism to address larger cultural and economic issues, rather than the traditional model of including the architect specifically for a commission.
I think as a discipline, we have the unique ability to look both strategically and synthetically at a range of issues. We research and locate opportunities, and then we start to visualize and spatialize what those opportunities could become. This would be in contrast to how a social scientist might observe a particular cultural challenge but may not be able to translate the issue into something actionable. For example, at Waterloo, we often bring in experts from outside of architecture for thesis reviews, particularly if the research has been focused on social or ecological issues. Recently, we brought in an ecologist and he was astounded that the student had made a proposition. He said, “You know, we just never do this. We never propose.” I think that the inclination to propose is a unique skill that stems from our lineage as a commission-based system where we wait for the clients to find us.

Will Martin (M.Arch ’15):
Along the lines of the real and the nonreal, I’m wondering how your office approaches representation. Do you use it as an operative tool for imagining the outcome of a project in the design process? Or is it more of a strictly communicative tool, like in the case of an infographic?

LS:
Our hope is that the representation is instrumental in terms of synthesizing information and also projecting forward. I’ll talk briefly tonight about Gregory Bateson, who discusses the difference between the map and the territory. Particularly, he describes the map as unknowable, and in a sense the territory is also unknowable. And at the moment at which they converge, the map takes on the structural logic of the territory, which is quite interesting in terms of the critical and projective quality of mapping. James Corner calls this “the agency of mapping” in his work. So I would say that on the one hand, representation is significant because it is still our best tool for advocating for a project. Actually, not only for advocating for the project to others, but also for ourselves to figure out what this thing is. I’m glad that you differentiated between infographics and other more process-based drawings. I think that infographics are actually incredibly powerful and eloquent when they’re done right. But I would say that we try to avoid simply representing the data. We may do that as a first phase just for ourselves, but it quickly becomes more about phrasing an argument than visualizing data, particularly when you’re dealing with territories and large-scale systems which are very hard to pin down.

D26:
Speaking of the relationship between the map and the territory, how does Lateral plan to collapse this distance and establish a presence in the Arctic in a long term way?
Much to my mother’s horror, Mason and I both have sabbaticals coming up, and we’ve been talking about going up there for a period of time. We’ve traveled there several times now, but to fly in for a week is very different than living there, particularly in the context of the North. There’s a whole set of complex cultural challenges in terms of being a Southerner projecting onto the North, and I think it would be hugely helpful for us, both to build knowledge and to build trust, to spend a significant amount of time there. We keep joking that we’ll open an outpost of Lateral in Iqaluit, but we haven’t figured out the logistics of that yet!

It’s funny that someone from Toronto is considered a southerner of Canada.

I know, I know. Americans always laugh at this, but they literally use the term “Southerner” up there. That dynamic is very interesting. I know people that have been in the North for ten years, and they’re still referred to as a Southerner because it’s as much a cultural distinction as a geographic distinction. We know that one can never understand someone’s culture fully, and there’s a fairly large gap between growing up in a city like Toronto and trying to envision everything from social dynamics to cultural dynamics and so forth from a Northerner’s perspective. Projects like the Arctic Food Network very much engage questions of culture by recognizing that food harvesting, food sharing, etcetera, is central to the Inuit way of life because that’s their means of survival. So we have to deal with these issues in a very conscious way within our work. It’s like any thesis, really. You’re trying to invent the project, which means figuring out where architecture has a role and where it doesn’t.

How do you select the territories that you work on in the projects? What sort of process gets you into these places?

It usually starts with a very broad hunch, if I were to be totally honest. Often, there’s an element of accident followed by rigorous research at different resolutions, and we pick up productive leads along the way. Slowly, places like the American Southwest, and particularly the Salton, emerge as a condenser and a litmus test of so many issues related to water infrastructure—and all happening essentially in our backyard, yet rarely rendered obvious in the design disciplines. Similarly, for Next North, we began very broadly and then would happen upon interesting intersections. And we find, for example, that the caribou are diminishing in a certain region, and
it corresponds to an area where many research stations are based. So we begin to wonder how these seemingly unrelated stakeholders and effects might be leveraged against each other and how architecture might become the mediator in that process.

D26:
As a final note this afternoon, are there any particularly formative experiences you had as a student that shape the work you are doing today?

LS:
That’s an interesting question. I want to say idealism. I think the profession is a hugely powerful one, and I remain hopeful that if we are better, smarter, and more nimble advocates for the range of things that we can do, that will only help the profession and perhaps help reclaim our role in shaping the immediate and larger contexts in which we operate. I think there were a range of people, particularly in grad school, that raised questions of this sort. I took one studio in particular that interrogated what the limit of architecture is. The question resonated with me at the time and long after, though maybe without my full awareness. The premise of the studio was the condition of disaster. The studio sought to ask, “What is the least architecture can do before the project becomes purely technical or engineered?” This may seem odd, given the very large scale of Lateral’s projects, but I think we’re very much interested in what is the least you can do. That’s what we try to accomplish, while maintaining a certain instrumentality from a social, cultural, and aesthetic perspective.
Beatriz Colomina:
When the exhibition opened in New York, many of the original editors of these magazines came to Storefront and the sight of all of these publications together actually surprised them, even shocked them. Bernard Tschumi said he had goose bumps. Walking through the gallery, he felt as if he were watching a movie of his life, which he went on to say is what people experience when they are about to die! None of them—Hans Hollein, Rem Koolhaas, Peter Eisenman, Bernard Tschumi, et al—had realized the global intensity of this moment in the 60s and 70s. But in fact, these little magazines had an enormous impact in architectural culture, and that’s precisely what the exhibition is about. It’s impossible to think about the avant-garde in art, in literature, or in architecture without thinking about the avant-garde magazines. Take L’Esprit Nouveau, for example. Within its pages, Charles Jeanneret adopted the pseudonym “Le Corbusier” to write about architecture. He established himself with L’Esprit Nouveau, a magazine he edited with Amadée Ozenfant. In a sense, the magazine became the construction site for his work and his persona.

Even Mies became known in the history of architecture through what we could call “paper architecture”—a series of five projects that he couldn’t construct even if he had been given the opportunity. Nobody knew how to do a glass skyscraper in 1920, but Mies created a haunting image of what it could be. It’s precisely through these projects, published in the pages of little magazines such as G, Frühlich, or Merz that Mies came to be considered one of the leaders of the modern movement in architecture. The houses that he was building for real clients during the very same years were extremely conservative. They don’t have anything to do with the energy and the innovation that he was able to produce on the page. For a long time, Mies was trying to catch up with himself—try to match the caliber of his experimental projects in the magazines with his built work. This gap between the dream and the reality is fascinating to me.

Beatriz Colomina:
As I understand now, continue to gather? What did you include, what did you leave out, and why?

John McMorrough:
One of the most intriguing things about the Clip, Stamp, Fold book is the use of facsimile printing, with substantial portions of some of the journals represented with sufficient fidelity that one can actually read these little magazines in the book. How did you make editorial decisions to situate this wealth of material you gathered, and as I understand now, continue to gather? What did you include, what did you leave out, and why?

Beatriz Colomina:
The utopian space of little magazines acted as the real building site for the production of a whole new Mies. Even entire groups from De Stijl to Archigram became an effect of their journals. Reyner Banham used to tell a story about a limousine full of Japanese architects that one day stopped on his street in London and asked directions for the office of Archigram. Banham was completely perplexed because Archigram was just a little leaflet, produced in the kitchen of Peter Cook, who lived across the street from him. It was only later that this very loose group of young architects (Peter Cook, Mike Webb, Dennis Crompton, Ron Herron and David Greene) realized what they had unleashed and decided to call themselves Archigram, after their magazine. And the name Archigram comes from architecture and telegram, or architecture as a communication system. The goal of the exhibition was to recover this incredible moment of the little magazines of the 1960s and 70s. We seem to have such amnesia about it that even the protagonists don’t remember how crucial this moment really was.
MoMA and we would check magazines such as *Pasmo* or *Red* that are not so well known. The Princeton PhD students I was teaching when I started this project happen to be all working on the 60s and 70s. I wanted to engage them in a collective project that could simultaneously accommodate all of their individual research interests. And then it occurred to me to do a seminar on little magazines as a lens through that period. The idea was a pedagogical experiment as well, in the sense that I’m thinking about new ways of teaching doctoral students. PhD programs, in the way we understand them today, go back to the 1970s. These programs were preceded by long and elaborate discussions on the need for history and theory in schools of architecture. At that point, history classes were being taught by art historians, and students didn’t care very much about it. Sybil Moholy-Nagy talked about the glazed eyes and chronic absenteeism of the students. So PhD programs were conceived as a service to the schools of architecture. Instead of having art historians, the reasoning went, we should have architect-trained historians able to engage the students. In a way, PhDs were seen as a service to the service since architecture has always been understood as a service profession. That’s the kind of thinking that brought us PhD programs.

Since Storefront didn’t have much money for the exhibition, there was a lot of invention going on. The bubbles, for example, are skylights that the students found on Canal Street. Everything was very inexpensive. The design and even the installation of the exhibition was part of our work. We put up the wallpaper and screwed every little bolt in there. I think having the PhD students work outside of the library, with hammers and electric drills, is a great experience—good therapy for writer’s block and other disorders of scholars!

**John McMorrough:**
There is a certain timeliness, or perhaps even prescience, to the *Clip, Stamp, Fold* effort. It addresses both a lack of contemporary publication models as well as the thematic issues unfolding in the 70s that have come to the fore again. As you’re formulating the exhibition, how do you reflect on the relevance of this moment?

**Beatriz Colomina:**
These are the kinds of things that one finds out from both doing the research and from the reception of the work. When we first opened in New York, we realized that a lot of the people coming to the exhibit were not only from ar-

**Claire Zimmerman (Assistant Professor):**
In what ways do blogs provide contemporary analogs for the little magazine of previous decades, and how have they changed the game for publishing, either digital or text-based?

**Beatriz Colomina:**
This exhibition was conceived as a provocation for architects to use publishing in a more compelling way, so the question of the blog becomes a very important one. Over the course of this exhibition, we discussed the future of publishing amongst a vast range of generations and perspectives, and everyone said the same thing—the
Leisurama: Framing Architecture as Narrative

By Conor Wood, M.Arch ’12
Saarinen/Swanson Essay Competition Winner

Nixon: I want to show you this kitchen. It is like those of our houses in California [pointing to dishwasher]. This is our newest model. This is the kind which is built in thousands of units for direct installations in the houses. In America, we like to make life easier for women...

Khrushchev: Your capitalistic attitude toward women does not occur under Communism.

Nixon: To us, diversity, or the right to choose, is the most important thing... We don’t have one decision made at the top by one government official... We have many different manufacturers and many different kinds of washing machines so that the housewife has a choice.

—Excerpt from “The Kitchen Debate,” Moscow, 1959

It wouldn’t have been a “cold” war if a fist fight had erupted between Nixon and Khrushchev at the American National Exhibition in 1959. That summer, Sokolniki Park in Moscow was transformed into the sole bastion of consumerist capitalism in the Soviet Union. The highlight of the show was the proclaimed “house that every American could afford.” This house, built by Sadkin, served as the site of the now infamous “Kitchen Debate” between Vice President Nixon and Soviet Premier Nikita Khrushchev. The house, representing American domestic standards, was used as a tactical weapon...
by Nixon as he provoked Khrushchev into defending socialist living conditions. While Khrushchev declared that every Soviet had a birth right to housing, Nixon pounced with the assertion that “diversity, the right to choose, the fact that we have 1,000 builders building 1,000 different houses is the most important thing. We don’t have one decision made at the top by one government official.” The house thus became a weapon of political commentary, eventually becoming the Leisurama house. Drawing from this historical moment, architecture as a practice is not innocent to such power shifts, struggles, and the lives lived between walls. Architecture should be guided by a reflective discipline, one that acknowledges its inevitable lack of autonomy and seeks to encourage the narratives appropriated by space.

Identification is central to the operations of a discipline that concedes to narratives. Neil Leach relates identification to a mirroring of experience, where “the recognition of the self in the other” occurs. The mirror is described as not only reflecting what is immediately conveyed, but what narrative can also be repeated or reshaped—an operative nostalgia. The qualitative functions of space support a conceptual frame of memories. Leach points out that identification also requires a level of perception. One must not simply look, but specifically gaze into the mirror to comprehend reflection. This kind of performativity acts as the interactive frame of our work, which engages the conscious memory to trigger nostalgia. According to Leach, “mirrorings not only occur between the self and the environment, but also between that engagement and memories of previous engagements.” Thus, the double mirroring of the gaze exhibits the potential of the nostalgic narrative and accommodates multiple meanings dependent upon the individual.

The ready-made object is a manifestation of such operative nostalgia. As outlined by Marcel Duchamp, the ready-made has specific qualifications. First the object must be “a kind of rendezvous.” In order to be understood as a rendezvous, one must already be familiar with the object through a previous encounter (i.e. I know what a urinal is, and how to use it!). Secondly, the object must be inscribed with information. This implies a signature of some sort, marked by a time of encounter (R. Mutt). Finally, Duchamp insisted that “the object chooses you.” Here the object is an abstraction of what it was, presenting itself consciously in a new light (It looks like a urinal, but it is art, titled Fountain).

Accordingly, narrative architecture can be understood as the production of ready-made objects. The architectural ready-made must be an intentional abstraction of its own physicality, misread as an object embedded with much greater meaning. Sadkin was aware of this commercial potential for housing, and following the international press his house in
Moscow received, sought to market this ready-made house concept as the *Leisurama*.

The first *Leisurama* houses were built in Montauk, New York. Sadkin was able to lure famous industrial designer Raymond Loewy onto the project, who was very intrigued by the all-inclusive design ideal. Loewy passed off the architectural work to in-house architect Andrew Geller. Summed up in the all-too-clever name for the product, the *Leisurama* introduced the American public to the abundance of leisure time in the post-war lifestyle. You no longer had to be wealthy to have a vacation home with the *Leisurama*, which had a base cost of $12,990 (roughly $95,000 today).\(^7\)

A full-scale house was built on the ninth floor of the Macy’s department store in New York City, where it was noted that one woman had gone shopping for a bra, only to return home having purchased a *Leisurama* house. Macy’s was crucial to the success of the concept and teamed up with Loewy and Geller to create an inventory list of furnishings that would be in the house upon moving in. The ads claimed that all you needed were “your clothes and a six-pack!” with even towels and toothbrushes provided by Macy’s.\(^8\) It couldn’t be any easier to make the *Leisurama* part of your life, indicative of the ease associated with anything qualified as leisurely.

It is not coincident that Loewy and Geller were the designers chosen for the house, as two of the champions of streamline-moderne design. Though there were aerodynamic considerations for automobiles and planes, the technique of streamlining was primarily used as an aesthetic operation, making objects seem more progressive and forward-looking, from a train to a pencil sharpener. Streamline-moderne pursued the narrative of modernity in all objects. A theory of *Critical Distance*, as proposed by Hal Foster, is central to understanding the objectives of streamline-moderne.\(^9\) Such theory emphasizes that restraint (withholding expression) will push the discipline in the right direction, away from capitalist monumentality and towards the advocacy of the contemporary individual. Michael Speaks, on the other hand, has argued for his theory of design intelligence, where the discipline accumulates intelligence to find revelation through modes of innovative technique.\(^10\) Such techniques can be applied to several design problems, allowing the designer to create much more than buildings. Loewy’s practice engaged multiple facets of design, utilizing a sort of “design intelligence” in the technique of streamlining. All the same, this streamlining operates at a critical distance to the capitalist market, only serving the market to further its own agenda of progressive aesthetics. The built environment here takes a role in elevating the existence of the individual to the modern being.
This American being possessed the luxury of leisure, with the need for a supplementary environment that could accommodate weekend memories. It wasn’t long before many Leisurama owners began to live in Montauk year-round, perhaps finding that the lifestyle of modern leisure was the only story that they really desired. Over time, the original Leisuramas have become hardly recognizable, as owners customized the houses to fit their identities. In a way, the streamline-moderne design of the houses did serve the objectives of the concept—to elevate the lifestyle of the contemporary individual. Maybe unintentionally so, the houses now convey the narratives built into their frames over the years, reading as a kind of story far removed from a universal streamline aesthetic. Every change in the houses register a moment of the owner’s identification, whether acknowledging the growth of one’s family, a change in domestic fashion, or an acute consideration of economic sustainability.

Identification is at the core of the architectural discipline where lifestyle bridges the gap between art and architecture. The single-family home is not merely a place of shelter; it is a representation of domestic ideals in a post-industrial society. The narrative of prescribed lifestyle emanates from the house-object. As such, domesticity is programmed into the notions of what a house’s architecture should be—it is a ready-made for the single-family lifestyle. In architecture, identification and function are not just constraints, but they can actually be design problems within themselves. Exterior disciplinary standards are always introduced to the architectural project. The discipline must acknowledge its role in determining such parameters for future design implications.

The ready-made architectural object has the power to reflect such cultural definitions. In her book, *Architecture and Narrative*, Sophia Psarra suggests:

> Narrative enters architecture in many ways, from the conceptual ‘messages’ it is made to stand for to the illustration of a design. . . this aspect of architectural expression, what design speaks of, is relevant to narrative as representation. It concerns the semiotics of buildings and places, and the contribution of architecture to the expression of social and cultural messages.\(^{11}\)

As a discipline, architecture can mirror such cultural identifications to cultivate multiple narratives of space. Architecture will always explicate the nature of memory, and our built work can speak to the future, the present, and the past as part of the continually developing story of our existence.
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Fellows

Taubman College of Architecture and Urban Planning offers three fellowships in the areas of architectural research and instruction. Fellows spend a year at Taubman College, teaching three classes as they pursue their fellowship interests.

Research / Sanders Fellowship
The Sanders Fellowship supports individuals with significant, compelling and timely research dealing with architectural issues. Research could dwell within architectural, urban, landscape, or cultural history or theory; architectural or environmental technology; or design studies. These agendas could emerge from recently-completed doctoral dissertations or other intense and rigorous research format. The fellowship will support both research and the development of research-related curriculum.

Project / Oberdick Fellowship
The Oberdick Project Fellowship facilitates the development and realization of a significant exploration into some aspect of architectural speculation 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 may range from the exploration of emergent building, fabrication, and environmental technologies to the realization of architectural works and endeavors typically unsupported within conventional models of practice.

Design / Muschenheim Fellowship
The Muschenheim Fellowship offers design instructors early in their career the opportunity to develop a body of work in the context of teaching. Muschenheim fellows play a significant role in the definition of studio culture while pursuing their own creative endeavors. Proposals for the Muschenheim Fellowship focus upon the development of a specific project individually or with students, outside of teaching or center upon a particular set of pedagogical themes to be engaged in the studio context.

Etienne Turpin
2011–12 Walter B. Sanders Fellow
Stainlessness

Kyle Reynolds
2011–12 Willard A. Oberdick Fellow
Symptomatic

James Macgillivray
2011–12 William Muschenheim Fellow
Film to Wit: A Menagerie
Rival of the potent agents of the internal world, man undoes what nature has done. Nature has worked for centuries at agglomerating in the bowels of the earth oxides and metallic salts; and man, tearing them out of the earth, reduces them to native metals in the heat of his furnaces.

—Antonio Stoppani

Our major cultural artifacts—or at least those endorsed by dominant culture, such as museums, monuments, statues, and the like—suggest through their surfaces a paradoxical commitment to both permanence and progress. Not unlike their iron predecessors in the late-nineteenth century, whose Jugendstil organicism created the metallic imaginary that provided Charles Baudelaire with the title for his most well known collection of verse, Les Fleurs du Mal, the evils of our shiny, contemporary wish images remain obscure, not least because their capacity to reflect cultural values is necessarily distorted. Whether one is eagerly enrolling in the U.S. military at ARO’s recruitment center in New York’s Times Square, rejuvenating one’s commute under the wave-like paneling of FOA’s Birmingham “New Street, New Start” Station in the UK, at or finding one’s bearings among the gluttonous consumption of Michigan Avenue beneath Anish Kapoor’s Cloud Gate in Chicago’s Millennium Park by Frank Gehry, we witness how our current epoch reiterates a pernicious but pervasive value—metallic surfaces are synonymous with progress. The more polished, refined, expansive, and contiguous these metallic surfaces, the greater the representational carrying capacity for our most lauded but least considered civilizational value—stainlessness.

What force compels this aesthetic of mineralization? How did our proliferation of stainlessness take place so rapidly, reaching an almost unthinkable ascendency in its contemporary ubiquitous dispersion? How have architects facilitated this cultural entrainment and convinced the public these shiny metal shapes are culturally meaningful, or even politically progressive? Most importantly, what precedents within a materialist history of the anthropocene could help orient our attempt to think the force of the human species, which has proven itself more than capable of antagonizing the vast scale of the earth through the mineralization of its surface? To answer these
Historical Images of Industrial Cities in America
The project recuperates the tradition of the architectural ‘capriccio’ as a means to emphasize the history of labor movements in North America and to make legible the physical semblance of these movements in cities including Sudbury, Chicago, Pittsburgh, and Detroit. (Images courtesy of the Albert Kahn Collection of the Bentley Historical Library, University of Michigan)
questions, the book and attendant exhibition *Stainlessness* advance a tendentious history of architecture, extraction, and cultural memory as they persist in Sudbury, Chicago, Pittsburgh and Detroit.

In the book, I first develop a tendentious history of the Sudbury Basin, where the world’s most strategic nickel deposit is mined along the irruptive rim of a massive astrobleme to be converted into an additive for the production stainless steel. Through a reading of the denuded landscape of the Basin and its toxicosis, as well as the surface level dispersion of steel that it permits by way of mineralization processes in Chicago, Pittsburgh, and Detroit, we encounter questions of cosmic contingency, labor unrest, and aesthetic meditation (in the sense Georges Bataille, following Nietzsche, gives to the term). As we become entangled in these questions, we can begin to reconsider the legacy of labor in the Anthropocene and its modulation of our most pernicious cultural value—*stainlessness*—by reading both the remainders and erasures of refinement. In order to do so, the book suggests that we first locate the site of our inquiry within the broader logic of modern industrial activity.

The pseudonymously named force most commonly known as *Homo sapiens* is expanding its territory of influence, or—perhaps more correctly—that force is beginning to recognize its reflection within the expanded field of its operations. No longer confined to the organic register of biology—although by no means freed from it as a limit condition—humans are a geologic force with an impact comparable to that caused by the bolide (i.e. a fireball-asteroid) that struck the earth nearly two billion years ago during the Paleoproterozoic era and created the footprint of the Sudbury Basin astrobleme. To understand the Anthropocene, we must first begin to grasp the force of the human. We must begin to think the magnitude of human impact and the oblique but undeniable consequences for our biological species-being as it manifests a geological reformation; in order to do so, several problematic assumptions must be laid to rest.

First, despite the frequent knowledge claims of architects regarding reasonability or rationality, the overall activity of the human species is entirely acephalic; that is, the aggregate impact of human actions on
March 7, 1932: Detroit’s Ford Hunger March
No doubt surprisingly, the commission issued by Edsel Ford and William Valentiner, Director of the Detroit Institute of Arts, for Diego Rivera to paint the Detroit Industrial Murals follows the massacre, ordered by Henry Ford, of laid off autoworkers who marched on the Rouge River plant in Dearborn, Michigan.

July 6, 1892: Pittsburgh’s Homestead Strike
Emma Goldman and Alexander Berkman’s plot to assassinate Henry Clay Frick, the junior industrialist whom Andrew Carnegie charged with breaking the resolve of the Amalgamated Association of Iron and Steel Workers union, followed Frick’s arming hundreds of strike-breaking Pinkerton agents with Winchester rifles. His sole intention was destroying, at all costs, the union in Homestead.

May 4, 1886: Chicago’s Haymarket Riot
Questions the role of memorialization of labor history by examining the signs of its erasure in Chicago following the implementation of the 1909 Burnham Plan. The Plan was commissioned by the Commercial Club following, indirectly, the events of May, 1886, and subsequent struggles for workers rights, especially the eight hour work day.

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Prehistory: The Sudbury Basin and Cosmic Contingency
Upon discovery of the etymological and mineralogical meanings of the term 'astroblème,' the subject is led to consider how these definitions accord with the social and environmental consequences of 'exo-skeletal mineralization' — a practice more commonly known in the Sudbury Basin as mining.
The Printing Process
Top-bottom: Detail of printing Sudbury plate on Vandercook 325G Proof Press; Detail of Chicago plate
the surface of the earth is without direction, creating positive catalytic feedbacks that increase the force of the human without the requirement of a unified program, or the necessity of direction or leadership in the broad sense of the term. Second, the force of mineralization on the tellurian surface suggests the need for a significant reappraisal of concepts like environment and ecology; necessary, then, is a concept of environment that would include not only our urgent biospheric interests, but would also allow the human species to be located within a general economy that is not even indifferent to its superficial planetary interests, concerns, and afflictions. Finally, if we want to begin to think the operational character of the human species not merely as a form of intentionality or vehicle of teleology, but as a force, we must avoid assuming any pre-ordained purpose for this force—as if, for example, the human was meant to realize some broader destiny or to operate indexically to some imaginary criteria of progress—that would imperil our analysis. To borrow a key distinction from the philosopher of science Manuel DeLanda, the force of the human carries with it numerous contingent obligations while it eschews any logical necessity. By precisely locating those aspects of our current geological reformation that unfold obligatory contingencies, and by determining the means by which these contingencies become and un-become obligatory in relation to technical, social, environmental,
and political-economic apparatuses, our apprenticeship to the material and cultural history of the anthropocene demands a tendentious, partisan history that encourages a reassessment of relations among labor, power, waste, and utility.

As a final note regarding the book title, and as a means to consider stainlessness as the cultural value that operates as an index to our imagined progress in the anthropocene, it is worthwhile to recall that, in the English language at least, the use of ‘-ness’ as a suffix—occurring when it is attached to adjectives in order to transform them into abstract nouns that indicate a quality or state, and frequently, through an emphatic form, something exemplifying a quality or state—is a linguistic operation analogous to an earlier Scholastic argument that considered the metaphysical construction of the quiddity, or essence, of a thing. In a swerve that retains some philosophical continuity with these Scholastics, our interest in the abstract noun stainlessness will depart from a strict material consideration of that ‘thing’ called stainless steel, evoking instead a conceptual imperative that considers the wish-image of a being ‘not-stained’ as a persistent cultural value associated with the catalytic material processes of mineralization, or, that tendency within the spectrum of human activity that most dramatically characterizes the world of the anthropocene.
Symptomatic

Kyle Reynolds

Stemming from an interest in how architecture presents itself to the public, Symptomatic investigates a renewed potential of indexical techniques of design. Rather than simply making legible the traces of indexical processes, the goal is to instrumentalize signification as a generative tool. To do so, this project approaches representation with the understanding that meaning is multi-variant and hardly ever stable.

The theoretical grounds for Symptomatic stem from Charles Sanders Peirce and his second typology of signs—the icon, the symbol, and the index. Architecture has dealt with both iconography and symbology quite extensively, and we see many contemporary projects that attempt to produce iconic metaphors which evolve into symbols of the institutions they represent. The index, on the other hand, has been largely untapped for its architectural potential.

The index has three subsets that further define it—the trace, the symptom, and the designation. An indexical trace indicates a condition that has passed and is characterized by a separation between time, space, and object. Footsteps in the sand are indices of a person. There is no need to see the person making the footsteps, nor does one need to be near the mark to understand that a human made it. The clarity of the trace in artwork is indebted to Rosalind Krauss’s seminal essay “Notes on the Index,” which sought to relate a range of work, from sketches to land art, that were stylistically dissimilar but shared the commonality of indexical processes or representation. While the term index is deployed generally in this piece, it almost exclusively refers to projects that are traces.

In the discipline of architecture, Peter Eisenman elaborated upon the techniques of the indexical trace. His design for the Wexner Center for the Arts uses traces of existing city street grids as generators to produce the building form. For Eisenman, the index stimulated a new method of working and produced an architecture that differed significantly from the iconic and symbolic work that preceded it. The index offered a process, a relationship to history, and a novel formalism that influenced the processes and formal preoccupations of countless architects. However, through its repetition, dissemination, and institutionalization, the index came to symbolize the critical project and became bound to its critique. The index has thus largely been
abandoned due to its inherently derivative nature, its references to past conditions, and its inability to enact new worlds.

This project challenges those notions and suggests that there is no reason to bind the index to the critical project. The index need not be referential to past conditions or trace previous states of existence. Instead, the index should be renewed as a design technique within the discipline. It can be projective in its output.

If all previous studies of the index dealt with the trace, which separated in time and space the thing being indicated from its object, the research for this project looked to the other types of indices as a means to collapse time and space into its referent. The indexical symptom, a type of index that can indicate something at the same time that it is happening, proved promising. A common example of a symptom is smoke and fire. Smoke almost exclusively indicates there is fire; seeing fire indicates the presence of smoke. These conditions happen at the same time, in the same place, can interchange their references, and are therefore bound to the present.

The symptom, of course, is nothing new outside the realm of the architectural discipline. In fact, it has become a major participant in contemporary life. We have attempted to collapse the time between an event and its referent in many extreme ways. For example,
it is now common for Election Day media coverage to take place within ballot counting rooms across the country in an attempt to make projections as close to real time as possible. Similarly, high frequency trading takes advantage of fractions of a second to make decisions and influence markets in a time frame outside the comprehension of typical human reaction times. The symptom as witnessed in contemporary society, science, and art generally takes three forms—the temporal, the ritual, and the formal.

The temporal is the most fluid and flexible of the categories. A readily evident example is in the cultural propagation that surrounds internet based micro-blogging. Here, collective consciousness—or perhaps the public’s pop culture obsessions—is tracked in real time through trends that frequently take on a life of their own, spawning new realities with new characters.

The ritual is more predictable and in many ways creates or capitalizes on patterns. An example of the ritual can be found in an experiment performed by physicist Yves Couder using silicon droplets in a vibrating pool of water. Once the vibrating particle is activated, it produces waves. The waves then start to guide the particle into a set of predictable patterns.

Lastly, the formal is the most static and fixed of the categories. An example of the formal can be found in the painting *P.S.1 Paint* by Lucio Pozzi referenced in “Notes on the Index.” Here, an existing painted wall is overlaid with a canvas painted to match and reproduce the condition below. Krauss deems this a trace, yet there is no physical separation in time and space between the object and its referent, making it a symptom. This example is quite intriguing in that it suggests that two or more objects can begin to index one another and produce a condition in which they develop their own context. In this instance, the objects need not be referential to outside contextual forces, nor do they need to be referential to a singular process of autonomic production. The symptom opens up the door to formally index other
Proposed City Plan
Plan of Cincinnati illustrates locations of proposed indexical techniques of design. The symptomatic techniques proposed for Cincinnati attempt to address the nature of the public realm in select areas within the city.
iconographies and symbols that are bound to themselves and, as such, can produce contexts outside of existing processes.

Previous attempts at deploying indexical techniques in architecture have suggested that the index must be read to encourage close inspection of the signifiers imbedded within. However, of the three types of signs in Peirce’s second typology, the index is the only one that need not be legible at all. A bullet hole in a car door is a bullet hole in a car door whether someone is there to read it or not. With legibility set aside, the goal of this research was to produce projects that in many ways borrow from diagrammatic practices. The introduction of the diagram into architecture was not a new methodology working outside of signification, but rather the instrumentalization of signification as a generative process. The diagram is itself a type of iconography but one concerned with relationships rather than aesthetics. The symptom shares similar traits. Its role is not to produce legibility or singularity of reading in an architectural product. Rather, its benefit is as a strategy or technique that can produce multiple different results.

The results of this project were tested on Cincinnati, a city that has experienced a shrinking of its downtown population similar
to other rust belt cities in the Midwest. However, Cincinnati was not formerly a predominantly industrial city, making it an ideal test case for this project. In the near future, there will be a spur added to regional rail shipping that will connect Cincinnati more directly with the East Coast, exponentially increasing the amount of freight traffic coming through the city. This increase in freight leaves Cincinnati poised to increase both the amount of warehouses in its freight corridor as well as expand its central business district office space to accommodate the increase in office jobs associated with that shipping.

The symptomatic techniques proposed for Cincinnati attempt to address the nature of the public realm in select areas within the city. The proposals follow a similar categorization to the three types of existing symptoms laid out above, two of which are renamed to reflect the nature of their architectural impact.

Proposed Diagrams
Clockwise from Top Left: Grid Glow; Stadium Stencil; Pine Tree Parasol; Traffic Zone; Projection Plaza; Heights Hill.
For this project, diagram's benefit is as a strategy or technique that can produce multiple different results.
The atmospheric is mobile and flexible in its production and manipulation of the public realm. An example of an atmospheric proposal is Grid Glow, which manipulates the city light grid to change lighting schemes both to highlight existing pockets of activity as well as project new potentials for zones that are underused.

The decorative is less mobile and ephemeral, and attempts to produce patterns and alter the appearance of spaces that are the product of certain rituals or reoccurring events. Stadium Stencil, for example, is located in the parking lot at Paul Brown stadium, home to the Cincinnati Bengals. Here, parking is redistributed to form patterns that emanate from the stadium, growing and filling in during game days to produce a decorative mane that would appear every fall Sunday.

Lastly, the formal is the most static and takes its shape in a tower proposal for a new Proctor and Gamble world headquarters, one of the many Fortune 500 companies that call Cincinnati home. Here, the collision of two distinct forms, one curvilinear and the other orthogonal, produces a building that creates its own context. The tower is curvy and orthogonal, reactive to itself and its own formal types, but also productive in the way it divides office space into a collection of units. These units are individually articulated in the building form and also part of a larger whole in the same way that Proctor and Gamble’s many companies are unique yet under a larger corporate umbrella.

These symptomatic techniques offer a range of potential output and can deal with everything from ephemera to built form while maintaining a projective relationship to signification. This flexibility makes the symptom, and by association the index, an ideal tool to be renewed within the discipline.
Mix Mass Tower (Building)
A new central city office tower
Since this project concerns film, death comes up a lot. We are now in the last throes of film as an artistic medium. As digital distribution expands, the last reason to use film—the 35mm screen print—will be extinguished.

The odd thing about film is that the end of its material production is really only the most recent pose in a prolonged death scene that has lasted even since its birth in the late nineteenth century. Film is like one of those cowboys in a western, slowly coming to rest in the dust after a long drawn out dance of worsening paroxysms. Auguste Lumière, one of the inventors of film, and his strange aphorism that “the cinematograph is an invention without a future” tells us that the prognosis wasn’t too good even at the outset. Ed Halter, the film critic of the Village Voice, puts a much finer point on it when he says, “Film might be seen centuries from now as a really long slow piece of performance art that just took a century, and then it was over. That’s the last performance.” A performance—in other words, a sequence of actions at whose very beginning is the seed of obsolescence. In the case of film, a medium that defies any attempt of archival preservation, this intrinsic expiration date has been ever present. It’s just a matter of opinion as to when the time of death actually occurs. For the filmmaker Hollis Frampton, it occurred with the advent of radar:

>Cinema is the Last Machine. It is probably the last art that will reach the mind through the senses. It is customary to mark the end of the Age of Machines at the advent of video. The point in time is imprecise: I prefer radar, which replaced the mechanical reconnaissance aircraft with a static, anonymous black box. Its introduction coincides quite closely with the making of Maya Deren’s Meshes of the Afternoon and Willard Maas’s Geography of the Body.

Frampton’s point being that film’s “end of an age” status has to do with the unlocking of the medium’s artistic potential and consequently the existence of Deren and Maas’ films: “As one era slowly dissolves into the next, some individuals metabolize the former means for physical survival into new means for psychic survival. These latter we call art.” Much the way that painting becomes an art when it is not called upon, in the dim light of a cave, to illuminate the delicacies of bison hunting, so too can film pursue its own essential tectonics when it is no longer needed as a tool to instruct us.
Film still
Scenes from Ingmar Bergman’s *Persona*, 1966
**Double Exposure Diagrams**

The diagram looks at Ingmar Bergman’s *Persona*. When the images of two women’s faces in a conversation are brought together in double exposure, the two lit halves cancel out the halves in shadow and a bizarre mixture of the two faces is created.

---

**Shoot the Master**


In two separate scenes of the film, after we had drawn the plan, we saw that the 180 degree rule had the consequence of consistently bifurcating space into two parts either in front of or behind the axis.
about new technologies, social arrangements, urbanization and war.

For the purposes of Film to Wit, the time of death should be Lumière’s and not Framp-ton’s; our post-mortem films can and do occur at any time along film’s lifespan. That is to say that film dies when it is born and the living film (that is not art) coexists with the dead film (that is art). Film to Wit is concerned with the latter. Furthermore, Film to Wit looks at film selectively. It is only concerned with films that instantiate a model of filmic space. Film to Wit arranges a number of these instances of filmic space in a menagerie of sorts.

To begin with however, Film to Wit needed to define what it would not include. An example from Classical Cinema served to define what filmic space wasn’t. In Classic Cinema, there is an orthodox editing technique called the 180 degree rule which posits that once an axis is defined in a scene, by an eye line, a movement (such as a car coming across the scene), or a conversation between two people, the camera cannot cross that axis without disturbing the spatial legibility of the scene to the viewer. We looked at an example of this method in use—the 1959 Howard Hawks film, Rio Bravo. In two separate scenes, after we had drawn the plan, we saw that the 180 degree rule had the consequence of consistently bifurcating space into two parts either in front of or behind the axis. There is nothing in the medium or the apparatus of film that leads to the 180 degree rule; it is a holdover, a trope taken from the proscenium stage of the theater. Thus, in order to maintain the clarity of its message, the directors of Classical Cinema saw fit to assume a spatial model from another medium entirely. We are not concerned with the message of Classical Cinema, but we are now certain that it is conveying that message through non-filmic space, which is paradoxically the space of living film.

In the menagerie collected for Film to Wit, we looked at films that leave Hollywood orthodoxy behind or never stopped there in the first place—films that set up their own spatial models. These models were loosely divided into two overarching patterns. The first conceived of film as a liminal space, a somewhat flat translucent medium floating between things. Not unlike the fleeting registrations of orthographic projection, these films come closest to the etymology of the medium—a skin, a thin membrane. They are retinal. The second paradigm went further and made use of these fleeting liminal projections over time to construct virtual geometries and spaces in the mind.

Two of the liminal films are Ingmar Bergman’s Persona and Hollis Frampton’s (nostalgia). The diagram at the left looks at the most famous shot in Persona—a conversation between two women, Alma and Elisabet. They are both lit from the same side, but since they are facing opposite directions, the light falls on the opposite side of their faces. When the images are brought together in double exposure, the two lit halves cancel out the halves in shadow and a bizarre mixture of the two faces is created. Where does this film exist but in the space between the two faces? The film hovers to catch the registration of the light in much the same way that architectural drawings move through space but can’t contain it. This model for filmic space is reiterated throughout the film, to the point where the actual material of the film is shown to be torn by the apparatus of the projector or burnt by its bulb.

Hollis Frampton’s film (nostalgia) also involves the impression of a projected image, but this time it is on the picture plane of a
Wavelength Diagram

The diagram is an attempt to know what the shape of viewing range looks like, precisely what geometry the film has been chiseling at for 45 minutes of zooming at New York loft apartment.
The film shows a succession of photographs that are eventually revealed to be resting on a hot plate. As the film progresses, the photographs slowly burn and are destroyed by the spiral shape of the hot plate. Thus, beginning with the photograph, we have the classic model of Alberti’s window—the photograph is a picture plane, a section of the pyramid proceeding from the world into the camera. The window addresses the viewer upright. As the photographs burn, the arrangement changes. We slowly rotate down to a horizontal view of the scene, a plan view of the hot plate, and the ashes of the photograph. This is not unlike the horizontality of some of Jackson Pollock’s paintings, but with the distinction of time passing through the rotational operation. Other films in the study took the liminal film model as a pretext for the construction of virtual geometries. Using duration, these films string flat impressions of images together along the contours of a shape or volume that is assembled in the viewer’s mind. Two films by Michael Snow, Wavelength and La Région Centrale will illustrate how this filmic space exists.

Wavelength consists of a 45-minute zoom of a New York loft apartment. In a zoom, as the space inside the zoom lens gets larger, the space outside—or the space we inhabit when we watch the film—gets smaller. The

Scenes from Dancer in the Dark
During the recording, 100 cameras are aimed at the dance scenes.

Diagrams of Dancer in the Dark
The technique for the filming allows the dancers and actors complete freedom, because the entire space should be covered.
La Région Centrale Model
The project reconstructed an episode of the film in order to register that loose fit of the virtual and the real. And it was modelled as a turbulent surface gathered around an empty center similar to a torus, created by the central axis of the camera mount.

Nostalghia Model
In opposition to a film that would make architecture legible, Tarkovsky gives us a totally synthetic suture of architectural space. What were once absolutes in the architecture (the apse, the altar, the eastern direction) become relative conditions depending upon the contingencies of the camera’s field of view.
Macgillivray Fellowships

100 Cameras Model from Dancer in the Dark

The unmanned cameras leads to loads of random effects throughout the film.

Wavelength Model

The schematic version of this relationship of space to focal length can be seen in the model. The result is this vaguely funnel-like shape that the viewer is going into.

Models at Exhibition

Film to Wit looks at film selectively. It is only concerned with films that instantiate a model of filmic space. It arranges a number of these instances of filmic space in a menagerie of sorts.
schematic version of this relationship of space to focal length is a vaguely funnel-like shape that the viewer is going into. But we were suspicious of this diagram and of its simplicity, so we diagrammed it again and included all of the inconsistencies of the film. This included the moment at which the initial zoom wouldn’t quite work; Snow had to move his camera right in front of the photograph to get the last ten minutes or so. The diagram is an attempt to know what that shape of duration looks like, precisely what geometry the film has been chiseling at for 45 minutes.

*La Région Centrale* is a three-hour film that was made on a custom camera mount in the wilderness of northern Quebec. The camera mount’s movements are such that the camera theoretically occupies all points of a sphere going outwards. The film presents itself as a pure sphere when reconstructed from images. In Snow’s words, “If you become completely involved in the reality of these circular movements, it’s you who is spinning surrounded by everything, or conversely you are a stationary centre and it’s all revolving around you.” However, in this example we were again curious as to what the difference was between the geometry of the space created by the film and the geometry it actually used to create it. So we looked into the machine that was used to make it and found that it has three axes of rotation. The base, a counterweighted arm, and the camera itself can turn around in its own direction. Using those parameters, and knowing something about the film, we reconstructed an episode of the film in order to register that loose fit of the virtual and the real. And what we found was not a sphere at all but a turbulent surface gathered around an empty center similar to a torus, created by the central axis of the camera mount.

These films are obviously not just about space. Even the most overtly spatial of them has a narrative. However each of them houses that narrative in a spatial system that is custom made, in a sense tailored to the site or the story.

*Scenes from La Région Centrale*  
Opposite page: In *La Région Centrale*, a 3 hour film that was made on a custom camera mount in the wilderness of northern Quebec, the camera mount’s movements are such that the camera theoretically occupies all points of a sphere going outwards.

*Camera Mount for La Région Centrale*  
Top: The base, a counterweighted arm, and the camera itself can turn around in its own direction.  
*Mechanism of the Camera Mount*  
Right: The project studied the mechanism behind the camera mount that was used to make the film and found that it has three axes of rotation.
“We are never completely in control.”

The staff of Dimensions 26 signed off at the beginning of this journal with this straightforward observation. To which I add: Thank goodness.

As the long winter closes out an even quicker year, they have created a stunning artifact that reworks this year and last, remixed and reordered. Soft, folded, flat, intense.

As the faculty advisor, I have the honor of writing something each year at the end. It’s a postscript in the fullest sense of the word. For it doesn’t seem right to write it until their work is done, they’ve pulled it off, sent it in, and sent it back. These last few words join the others and punctuate their effort, neatly closing the loop, if only temporarily until it opens up again.

Despite the many meetings and mock-ups, specs and swatch books, proofs and press checks, it won’t be seen fully until it is complete and finally in hand. The work is done and we all anxiously await its arrival. At least we now know: We are never completely in control.

Christian Unverzagt, Faculty Advisor
16 April 2013
Detroit
Credits:

As Built

Text credits:
Anand Amin, Lauren Bebry, Justin Mast, Catie Newell, and Maciej Kaczynski

Res Publica
2 Marcus Tullius Cicero, De Re Publica
5 Roy A. Adkins, Dictionary of Roman Religion (2006), 99–120.

Mother Won’t Die

Dread: Or Who’s Afraid of Modern Architecture?
2 Ibid. 13.
4 Ibid, 16B.
5 Ibid, 168-169, 1.

Center for the Unbuilt Environment

Image Credits:
Photographs by Renhui Zhao, Courtesy of the Institute of Critical Zoologists

Glass Cast

Project Team: Wes McGee and Catie Newell with Aaron Willette, Lucy Olechowski, Brandon Clifford

Fabrication Team:
Grant Weaver, Simon Rolka, Patrick Ethen, Maciej Kaczynski, Etienne Turpin, Andrew Stern, Brian Muscat, Chuck Newell, Jason Psa, Mark Meier

Resonant Chamber

Project Team: Geoffrey Thun, Kathy Velikov, Wes McGee, Lisa Sauve, Mary O’Malley, Colin Ripley, Adam Smith, Katie Wirtz, David Lieberman, Ian Ting, Lief Millar

Wireless Telemetry and Sensing:
Dr. Jerome Lynch, Devki Desai, Mike Kane

Acoustic Consulting Engineers: ARUP

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Leisurama: Framing Architecture as Narrative
4 Ibid.
5 Ibid.
6 Ibid.
8 Ibid.

Symptomatic

Project Team:
Dorimar del Río Velez, Ryan Fiebing, Jordan Johnson, Landry Root, Sameer Sharif, Sasha Topolnytska

Film to Wit

Research Assistants:
Angela Burke, Ryan Goold, Justin Kollar

Design and Fabrication Assistants:
Patrick Ethen, Vivian Lee

3 Ibid, 136.

Stainliness

Image Credits:
Catie Newell, Jesse Wetzel, Lisa Hirmer, Albert Kahn Papers

Research Team:
Jessica Hester, Keith Peiffer, Lucas Bartosiewicz, Valeria Federighi

Fabrication Team:
Aaron Willette, Catie Newell, Chuck Newell, John Hilmes

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Amy Norris, Clint Langevin

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Sara Dean

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And, of course, Christian Unverzagt

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And, of course, Christian Unverzagt

**As Built**

With the ambition of reacquainting architecture’s thesis polemic with the act of making, As_Built sought to challenge a group of 13 thesis students to collectively develop a full-scale installation through a process of design iteration and site negotiation. Building on the University of Michigan’s fabrication lab resources, this project translates design from digital space to material tactonics, then takes it a step further by situating the work in an existing building—in this case, a vacated auto body shop in Detroit’s North Corktown neighborhood. Acknowledging and embracing that there are aspects of architecture that cannot be fully expressed, explored, or known when left on paper, the thesis seminar embraced hands-on making as well as the iterative prototyping necessary to expose and actively utilize such effects atmospherically, material behavior, and physical occupation.

**Beatriz Colominas**

**Clip, Stamp, Fold: The Radical Architecture of Little Magazines**

This exhibition tracks the critical function of independent architectural publications. Known as “little magazines,” the periodicals that proliferated in the late 1950s and 1960s appeared in response to the political, social, and artistic climate. The show includes manifestos, pamphlets, building instructions, and interviews with editors and designers of these publications.

**Catharine Pyenson**

**Tropein Menageries**

Rising sea levels and diminishing coastlines beset a single body of water that reappropriates the ground and forces built forms up into the skies. A territory once untroubled and dominated by flight suddenly becomes the only option.

**Geoffrey Thün & Kathy Velikov**

**Resonant Chamber**

Resonant Chamber is part of an ongoing design research program examining kinetic and interactive envelope systems. The work emerges from an interest in the hybridization of local ritual and global ideas, and the construction of alternative levels of ownership and inhabitation.