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

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Letter from the Editors

Anand Amin, Peggy Pik Ling Chong, Brittany Nicole Gacsy, Andrew Heathfield, Angela Schmidt, Catherine Truong, Nate Van Wylen, Bryant Yee

Each issue of Dimensions captures Taubman College at a specific moment in time, providing a snapshot of the maelstrom of creative and intellectual activity that occurs. Sandwiched between its predecessor and successor, each issue of Dimensions is a Sisyphean endeavor.

A curated entity, Dimensions 24 is shaped by myriad ideological leanings, private agendas, events and personalities. It is not neutral. The publication provides a lens through which to view the discourse that has taken place, laying bare underlying structures of thought. Its method of organization has been the source of countless hours of dialogue and debate between the editorial staff. It is a site of contestation, a dialogue that is ongoing. Resolution is not easily found. A series of organizational systems manifest themselves simultaneously, each competing for primacy.

This journal is a record of the ephemeral nature of ideas. The book is an interface. New connections are yours to make.
Foreword

John McMorrough

Design for the Apocalypse

“Don’t wake me for the end of the world unless it has very good special effects.”
Roger Zelazny

Utopia, that place of high aspirations and lofty ambition, has been the motivating conceit for a society (and an architecture) of achievable perfection for quite a long time, but across the spectrum of culture there has been a recent turn from the utopian to the apocalyptic, in forms both fictional and factual. Invoking the “apocalypse” brings forth connotations of the end of the world - historically imagined as everything from the judgment of God to nuclear Armageddon. In its contemporary manifestation it has taken the form of various global crises; whether environmental, economic, or the unexpected. Of course, the “end of the world” is not a novelty; it has its own history and is itself a genre of expression as a category of pessimism. A recurrent theme within cultural thought, it is the shadow of the progressive ideal of the avant-garde. What we see in this latest manifestation is not merely the conservative position describing a fall from grace, or the entropic decline of systems and the diminishment of quality over time, but a description of a new prevalent condition. With the intermingling of the improbable and the prosaic (think Katrina and ‘The Day After Tomorrow,’ or 9-11 and ‘Children of Men’), the consideration of the apocalyptic is no longer a matter of fantasy, but of policy (one recently referred to as “disaster capitalism”).

The question is, of course, why apocalypse now?

The genre of the apocalyptic always contains within it a means of working through the problematic of its era. The term itself indicates as much: “Apocalypse” from the Greek “ποκάλυψις” literally translates as a “lifting of the veil,” and represents, as a concept, the disclosure to certain privileged persons of something hidden from the mass of humankind. Its occurrence in narrative is a symptomatic response to the larger issues, though it reveals the limits and fears of the society that wrote it. For us, it is a combination of factors, it is both global warming and sub-prime loans, it is nuclear terrorism, and social ills. All are real and all are, to some means, constructs.
The real issue with the various evocations of the “end of the world” has never been about “the end,” but a beginning. Anthony Burgess, author of the dystopian classic *A Clockwork Orange*, once commented that the “warnings” of apocalyptic tales about the end of the world were really a kind of wish-fulfillment. In a world of overwhelming complexity, of zero-sum economics and peak-oil, the apocalypse comes in, not as problem, but as answer. The “end of” also implied a “beginning of” - a chance to re-start and re-think. At the level of fantasy the apocalypse represents the chance to begin anew; the end of the world in film always represents a new start, a chance to have another, unencumbered go at making the world. If Utopia is an unattainable goal, a literal no place, then the apocalypse is an everyplace. In this sense the specter of the apocalypse is another version of the modernist tabula rasa, a leveling of the past to make way for the future.

So the end of the world is but a re-orientation of sensibility. We can already see evidence of this in the new emphasis on the basic conditions of our existence. What unifies these manifestations is their survivalist undertone. The operation of the subject in an environment is not only a thing, but also an action, a mechanism that calibrates itself to need. This mechanism is never in stasis; its needs are never in perfect equilibrium to the available means. Thus, it is *scarcity* (of food, water, safety, resources, amenity or potential) that is the engine of transformation and change in a variety of environments (natural and artificial, economic and ecological – namely architecture, landscape and the city).

Theses impulses, in light of this symbolic (and increasingly real) economy, can be seen as having strange portents for the projects of architecture. How would architecture act in a post-apocalyptic mode? And what is the relation of architecture to capital when there is no capital? One possibility is for architecture’s disciplinary preservation. Here, if we understand architecture as a historically formulated set of rules and guidelines, then the future of architecture looks dim. One could imagine its on-going continuation, but in a material enactment of an increasingly archaic form of thought. Eventually architecture’s status may be that it becomes a fixture of the university - as a testament of the plenitude of an earlier humanism - next to the Classics department, as just another repository of dead languages.

Or, one could imagine the re-description of architecture’s disciplinary legacy in terms of its performance and effectiveness, with an emphasis on the agency of design as a responsive, problem solving effort. If this sounds like an environmental call to arms, with the earnestness of LEED and green design, of responsibility and stewardship, preservation and prevention, it is not. There are issues of responsibility, of course, but that is not the only manifestation, or even the most useful. The new mode would want to address matters of concern; where environmental matters are no more or less important than the social in terms of either cause or need. The coming apocalypse may or may not be a solvable problem, or it may not be a problem at all, but its existence as even an idea demonstrates a shift that is not only practical, but conceptual. To shift from the utopian to the apocalyptic is not merely to set the terms in an opposing relation, but to understand their similarity. Both describe a condition of radical change; turning from one to the other as a privileged mode doesn’t speak to a preponderance of nihilism per se, but to a fundamental recalibration of the imagination (specifically, architectural imagination) from issues of plentitude to those of scarcity. The recent architectural debates regarding criticality and post-criticality can be understood as having changed in light of a shift in cultural imagination away from the progressivism / positivism of late global capital as a preparatory effort to a more apocalyptic framework of environmentalism and peak/zero sum economic models. This would be seen through the survival imperative, as acting on a new understanding of how measures are made.

So: design for the apocalypse, because ready or not, it’s coming...
Taubman College of Architecture and Urban Planning at the University of Michigan offers three fellowships in the areas of architectural research and instruction. Each of the fellowships includes teaching related to the candidate’s area of interest, resources for the development of work, possibilities to interface with scholars and researchers in the wider university context, and the opportunity to share the outcome of the fellowship with the College. Fellows spend one year in residence and teach three classes in addition to pursuing their fellowship interests.

Ellie Abrons, A. Alfred Taubman Fellow
Meredith Miller, A. Alfred Taubman Fellow
Thomas Moran, William Muschenheim Fellow
Cathlyn Newell, Willard A. Oberdick Fellow
Rosalyne Shieh, A. Alfred Taubman Fellow
Taubman College of Architecture and Urban Planning has an extensive program of lectures, exhibitions, and conferences. These events aim to create a setting for students, faculty, and the local public to see and hear about the work of award-winning designers, to discuss and understand building and planning for the environment, and to advocate social and environmental justice. The series includes the Raoul Wallenberg Lecture, the John Dinkeloo Memorial Lecture, the Guido A. Binda Lecture and Exhibit, and the Charles & Ray Eames Lecture.

**Fall 2010**
9.14 Matias Del Campo
9.17 Marcelo Spina
9.28 Kathleen James-Chakraborty
10.1 Thom Mayne
10.5 Hou Hanru
10.12 John Peponis
10.15 Peter Kuttner
10.22 Rick Lowe
11.2 Benjamin Bratton
11.5 Yeohlee Teng
11.12 Jeff Kipnis
11.19 Lisa Iwamoto
11.23 Gary Steffy
11.30 Marcos Cruz
12.3 Michael Meredith

**Winter 2010**
1.12 Gerald Frug
1.21 Christopher Payne
1.22 Amale Andraos and Dan Wood
1.26 Marion Weiss and Michael Manfredi
2.4 Bjarke Ingels
2.9 Adam Yarinsky
2.12 Mark Dorrian
2.18 Michael Kyong-il Kim
2.19 Keller Easterling
2.23 Curtis Moody
3.11 Dayna Baumeister
3.11 Sonit Bafna
3.16 John Ochsendorf
3.23 Sanjeev Vidyarthi
4.1 Zeynep Çelik Alexanderr
4.2 Jefferson Han
4.8 Marcy Kaptur
4.13 Alejandro Aravena
Established in 1994, the Saarinen Swanson Essay Competition writing fund at Taubman College of Architecture and Urban Planning encourages fine writing as a medium to foster critical thinking and exposition among future professionals in architecture and planning. The competition invited students to submit 1000–1500 word essays addressing contemporary critical discourse in design and/or urbanism. The essays were judged anonymously by Professor of Architecture Caroline Constant and Associate Professor of Urban and Regional Planning David Thacher.

Saarinen Swanson Essay Competition Awards

Oana Druta, M.U.P.’11
“Lessons from a Public Participation Session”

Michael McCulloch, Doctoral Candidate
“Michigan Central Station”

Micah Rutenberg, M.Arch.’10
“Heart[h] of Dis.Couse”

Lauren Jones, B.S.’11
“Effecting Social Change: Architecture as Servitude”
The Raoul Wallenberg Scholarship Endowment was established with a generous gift from the Benard L. Maas Foundation in 1986. During the last semester of the undergraduate sequence, all seniors at Taubman College participate in the Wallenberg Studio. Throughout this semester-long competition, the students are challenged to develop proposals that define architecture as a humane and social art and translate their ideas into a physical project. The studio culminates in a review by outside critics who award scholarships for the best conceived and executed efforts.

Wallenberg Studio Awards
Shawn Lettow, “Going Rogue”
Critic: Anca Trandafirescu

Lindsey May, “Second Natures”
Critic: Meredith Miller

De Peter Yi, “Fathom Gotham”
Critic: Vivian Lee
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.

**Graduate Thesis Awards**

Johnathan Sapanara Puff, “Acadian Roadstead: delimiting the Agency of the Proposal”
Advisor: Mireille Roddier

Gavet Douangvichit, “The Anatomy of Anticipation”
Advisor: Jason Young

Tom Lee, “Tapping into the Spirit World: Dead Chickens and Turtle Soup”
Advisor: Perry Kulper

Wiltrud Simbuerger, “cloud cuckoo land (a weather nursery)”
Advisor: Craig Borum
MULTIPLE CONSTITUENCIES

INTERACTIVITY

INVISIBLE INFRASTRUCTURE

EPHEMERAL

GEOGRAPHY

INTERACTIVITY

USER INTERFACE

PILGRIMAGE

PUBLIC SPACE

FLUX

SENSOR

NOMADIC

MAPPING

REENACTMENT

PROTOTYPE

RELATIONSHIP

DATA NETWORKS
Intimate space is that intangible, yet discernible space circumscribing an individual. In public environments, the overlap in personal spaces creates situational relationships between individuals. The digital era has radically altered perceptions of this intimate space, as the ubiquity of personal electronic devices and their connectivity to digital networked pathways has transformed it into something altogether indistinct, a blurry dynamic that wafts between hard physical surfaces and soft virtuality, a push and pull.

The digitally-revised notion of personal space poses a new challenge, while possessing potential for novel spatial configurations. Public interactivity impels the form and strategy of a transportation hub, manifesting itself most clearly in crowded transitional pockets of space. Indistinct intimacy is a continuous and chronologically animated state conditioned by a multiplicity of blurry relationships that provide a strong influence and baseline for generating the dynamic spatial relationships and formal makeup of public structures. In turn, when these public spaces are realized, they further enhance spatial configurations resulting from the fluxes in indistinct intimacy.

**Underpinnings**

Aiming to reconfigure urban space to accommodate the intangible dynamic of users’ daily routines, the initial analysis investigates the changes in individuals’ intimate space throughout the day. The path of train commuters is especially varied...
Abstract rendition of potential programmatic elements
Episode 1: "moving mega-platform" - "daily deja vu/rendez-vous"

Episode 2: "in/f_lux + congestion tract"

Episode 3: "f_loating nebulous rendez-vous"

Episode 4: "rapid coffee pick-up"

Episode 5: "contrasting duration of stay"

5a: brief wait territory

5b: long-term wait territory
in terms of intimacy zones. Their route encompasses a variety of situations, from the home to the automobile, street, parking garage, corridors, elevators, train platforms and train cabins, etcetera. The continuous active repetition of spatial changes, of compression and release, correspondingly influences each individual's space of intimacy. In the pre-digital age, these shifts occurred primarily in the spatial dimension. Virtual accessibility through personal digital devices has made intimate space less lucid. The individual using a mobile device simultaneously occupies the physical space while operating in the digital layer.

Stamford, Connecticut, a heavily commuter-based, finance market-driven city containing the world's largest single trading floor, epitomizes the condition of fluctuating personal space. In many pockets throughout this urban network, a sense of indistinct intimacy can be brought into focus and channeled to directly influence the surrounding architecture, particularly in locales where groupings of people emerge and dissipate, such as the open offices on trading floors, bus stops, sidewalk cafes, and theater lobbies.

Stamford, with its concentration of ground transportation options including a major train station, large bus terminal, taxis, and Interstate 95, is a hub of numerous intersections of arrival and departure. The city is a reactive organism that responds to the large volumes of traffic that come in waves. A needed reconfiguration of urban space receptive to this large-scale flow softens the city's hard surfaces and creates a series of fluid spatial fluctuations with temporally relatable experiences along the path.

**Project_Transportation Hub**

The transportation hub is an urban typology that influences and is manipulated by fluctuating moments of intimacy. The hub houses all modes of travel to and from Stamford—car, train, and bus—layering each in its elevation, creating multiple-scale zones of simultaneous transitions and interactions, generating unexpected associations. Arrivals
and departures, varying human traffic flow rate within the transportation nexus, and cars and trains penetrating the complex, enhance the sense of flux.

The hub sets up a series of separate yet linked “episodes,” or pockets of actions based upon unique programs demonstrating how the amorphous shifts in levels of intimacy can tangibly affect form and structure and vice versa. Throughout these episodes, digital signs are dispersed. As travelers have access to all necessary travel information on their personal devices, these formerly information-driven signs in the hub now serve a different function. Forming a new paradigm, these signs are markers of sites of possible indistinct intimacy.
Episode 1_Moving Mega-Platforms “Daily Déjà Vu/Rendez-vous”

Four massive platforms facilitating vertical movements form the primary method to reach the top-level concourses from the ground level. Unlike the claustrophobic awkwardness occurring in cramped elevators, the platform’s openness encourages the shaping of freeform crowds. Due to the commuters’ schedules, many of the same individuals may be grouped together on a daily basis, resulting in repeated encounters leading to individuals’ greater awareness of each other. Each of the platforms moves at slightly different rates and by eliminating solid walls that block sightlines between each, a visible push-pull relationship develops, expressing the large-scale and fluid nature of indistinct intimacy.

Episode 2_Influx & Congestion Tract

A transitional tract linking together the two concourses on each end at the train station level coupled with the tapering of the floor plan forces a compression of the crowd and generates path turbulence. This change in scale increases density and pushes individuals’ personal zones inward to collapse onto each other, overlap, and adjust, compelling the acknowledgment of others in the crowd.

Episode 3_Floating Nebulous Rendez-vous

With Interstate 95 passing underneath, visual connections from within the building to the highway create concise, meaningful moments of proximity on an urban scale. When cars approach the building, activity behind the facade gains increasing lucidity.

Episode 4_Rapid Coffee Pick-up

Encouraging interaction on both physical and digital planes, the coffee pick-up zone allows commuters to place their orders through their personal devices prior to arriving at the hub. A sense of association with the hub is generated before the commuter’s arrival. At the concourse level, the order is ready to be picked up and for a brief flash, a more
intense situational intimacy takes place, sharply contrasting with the prolonged digital interaction prefacing it.

**Episode 5: Contrasting Duration of Stay**
The two concourses in the hub are tailored for their unique purposes and likewise trigger different varieties of the indistinctly intimate.

Concourse 1 is a brief-wait territory, where commuters congregate on a consistent basis and mix together for short periods of time before departing, a pattern, which brings another potent instance of déjà vu and rendezvous to the surface. Electrical outlets are accessible on a limited number of power stands, encouraging efficient use, which reflects the brevity of interaction. As freedom of movement is important in this active area, higher ceilings convey a comfort and an ease of mobility. Chairs that slide on track channels are repositionable within a range to create controlled yet changing curvilinear zones of indistinct intimacy. Sliding back and forth over time, the chairs mimic the oscillation of commuters’ comings and goings.

Concourse 2 is a long-term wait territory and encourages different behaviors and interactions. After emerging from an area of compression within the mingling tract, people disperse and fill in areas of this wider zone. Free-rolling chairs encourage a continuation of that initial occurrence of dispersion throughout the duration of waiting and act as a medium conveying the users’ psychological states. Abundant and easily accessible electrical outlets are strategically located to accommodate the morphing crowd configurations. An impression of indistinct intimacy is not unnaturally forced in this episode but is encouraged to percolate in some areas and shift in others as people’s zones dynamically intersect and separate over a longer stretch of time.
Episode 4: Rapid Coffee Pick-up
Data Drifting
A Nomadic Interface of Netscapes

Brandon Pence
Thesis Advisors: Robert Adams, Perry Kulper
Bytes of data surround us like air, saturating our physical environment at millions of miles per hour. Seemingly ether-like, these hyper environments formed from intangible packets of data draw upon concealed substructures for their existence. Data Drifting aims to rematerialize the immaterial by mapping the information cloud’s geography to reveal the physicality of this networked infrastructure at a macro and micro scale. The immaterial netscapes that provide access to virtual communication, interaction, and the massive surplus of data that power the slew of interfaces and devices, are part of a complex, networked, and manufactured infrastructural landscape. This continuously nomadic atmospheric system can be touched, smelled, heard, and mapped. This “there” is the increasingly large, the always “on,” and out-of-sight data center; or the deep interior and anchor of this vast wired sea of network architecture. At these key moments of interaction, data has the potential to become spatial, allowing for physical interface with humans. When tapped into, these hyper moments can create and provide a fertile atmosphere for continual evolution.

At the macro scale, the exploration of the internet’s interconnectedness is revealed by the vast number of submarine and subterranean cables that allow for steady streams of data to be shared throughout the world. While the physical highway allowing for data transmission is typically forgotten, each bit of data’s journey from sea to wired sea can be mapped precisely through its infrastructure. A mapping that shows continuous loops of dialogue, reveal moments of disconnect and data shadows in societies that hide, censor, prohibit, firewall, restrict, and supervise the flow of information.

The micro scale, or the deep interior moment of the data center, allows for an intimate view of the inner workings of this interactive architecture. The data center site is one of potentially millions that are invisibly scattered throughout the world referencing other networks at a much larger global scale. The data center and the world that it exchanges and connects to is part of a system that needs to be comprehended through multiple scalar shifts. Within a strong and robust shell, this city of ether sits amongst humming machines containing a sprawling array of servers, routers, firewalls, database machines, fans, and miles of wire and power cabling, which creates a colorful landscape yet sterile environment for data. It is at the point of stepping into this ethereal beast that the sheer physicality of this infrastructure comes into existence.

Data, extracted from the air, takes shape as a tangible and physical machine. Within this machine is a claustrophobic grid of monstrous equipment that control the ebb and flow of data. To keep the data alive, life sustaining systems resembling human functions allow the organism to operate as a self-supporting system. The machine breathes—expelling scalding air and taking cold air into the system, filling the room with sounds akin to that of a never ending freight train. Only if this network is exposed through multi-scale investigations, can the mystery of this data world be examined beyond the revealed static infrastructure.

As data is always in a state of flux and in infinite places at once, its nomadic qualities require a time-based representation method to capture a phenomenon that lives with such ephemerality. As this data is often so short lived, the actors or users that curate this ether also add to the data's transient characteristics. In a world that “socially networks” and shares information, there is a missing connection between data sent and data received. Through these input and output functions, is there a way of tracking and scanning the information and capturing how these actors respond? Using a web interface as a data stage, tracking algorithms can be used to scan the interaction in real
Continuously scanning in plan, section, and elevation, a camera captures the data center as a video landscape and creates an abstract representation of the physicality of this deep interior.
INNER DATA SHADOW:
AWAITING ARCHITECTURAL INTERVENTION
AN INTERVENTION IN THE MICROSPACE THAT
RESPONDS AND INTERACTS WITH DATA

HIBERNIA ATLANTIC CABLE
BRAIN
[control]
NERVOUS SYSTEM
CIRCULATORY SYSTEM
[signals]
TORSO / RIB CAGE
[housing]
LUNG
[respiration]
SERVER RACK
[housing]

PULMONARY SYSTEM
cooling duct
[exhale]
A_air monitoring system
[inhale]
B_xdo ceiling mounted cooling units
[inhale + exhale]

NERVOUS SYSTEM
CIRCULATORY SYSTEM
category 5 cables
[networking]
A_power distribution line
[voltage]
B_optical fiber
[signals]
[communication]

NERVOUS SYSTEM
CIRCULATORY SYSTEM
category 5 cables

UNDERGROUND FUEL TANK
FIBER OPTIC CABLE DUCT BANK
EMERGENCY GENERATOR
DRY COOLER
COMPUTER STACKS / XDO COOLING UNITS
RDU RACK
SURVEILLANCE CAM
Zooming into the physical infrastructure of data, a complex machine is found. This machine lives without human interaction as it breathes, thinks, feels, and sustains life.
A time-based medium passively scans actors as they interact with information. These drawings create a low-resolution landscape that can be reinterpreted at the pixel scale. As these pixels are interpreted, three-dimensional forms can be created from the original interaction.
A low-resolution landscape as a new ground for interaction is scanned, mapped, and regenerated as a new landscape.
As users engage this territory, new data shadows will be cast upon the surface. A camera acting as an input device will scan and compress this new interaction. This interaction is then downloaded, mapped, and created into new landscapes.
time. When multiple actors anonymously engage on this stage, a low resolution articulation of this engagement is artfully recorded. When the interface stage is removed from the background, these abstract articulations can then be read at the scale of a pixel and reinterpreted as landscapes derived from anonymous and passive actors.

Despite the interactivity associated with social networking and information sharing, the interface is passive and static. There is no real interaction between the actors. *Data Drifting* proposes a new ground in which interaction between actors can be actively curated. Utilizing video to continuously scan the data center’s interior in plan, section, and elevation, an abstract representation of the physicality of this deep interior is recreated. Through the constant scanning of this internal landscape, a low-resolution understanding is created. The compressed graphic representing data’s true physicality is extracted from its original environment and transformed into an understandable physical scale.

The newly created landscape, reconfigured as a table, allows for a free zone of operation among a number of actors and serves as a metaphor for exchange, acting as a mediator of temporal and spatial situations. The table also represents the conceptual map of the larger spatial idea of interchange (internet and data center) and as a metaphorical reduction of this larger spatial zone. It is also appropriate to utilize the table in relationship to contemporary information theory, as the idea of tables has taken on new implications. They open the space of examination and distribution among diverse participants—tables constitute a network architecture.

Living organisms, machines, industrial products, and computers are all input and output devices where some material of information is eaten, absorbed, infused, or downloaded, changing the nature of the subject. The table, which has been derived from an interaction source, promotes further interactions with users.
Since this surface represents the larger spatial idea of exchange and is resized down to the familiar scale of a domestic object, the table opens a new ground for planned and unplanned explorations and exchanges between the actors that surround and engage it. As users engage this territory, a camera acting as an input device will scan and compress this interaction, which is then projected onto the surface of the table. A relationship is created between the topography of the surface and the data shadows, which are represented by dark blurs. Slowly drifting in response to whatever engagement the actors take part in above or on this platform, the stronger and more focused the engagement is between users, the darker and more evident the mappings become. This interaction is then downloaded, mapped, and created into new landscapes.

Data Drifting challenges architecture by developing new grounds through immaterial cartographic investigations and geographical losses and implementing them through new material practices. This domestic infrastructural platform encourages a new form of nomadic interaction and interfacing.

Notes
Pneumatic Pilgrims
Technological Compositions

Kendra Byrne
Thesis Advisors: Robert Adams, Perry Kulper
Plan drawing for reconstructed Hagia Sophia
*Pneumatic Pilgrims* launches a critique on monumentality as heavy, grounded, and impermeable, and on the ideal put forth by modernist thinking insisting that architecture maintains programmatic hygiene. Technology, foregrounding the aesthetics of nano and invisibility, has the potential to redistribute temporally, immediate and distant presences of buildings and bodies. The resulting duplicitous conditions of physical and ephemeral presences make apparent the potential for interconnected technologies, including sensors, actuators, and their supporting softwares, to allow for multi-compositional dynamics on the same channel.

*Pneumatic Pilgrims* collaborates with Hagia Sophia to stage multiple performances of “pilgrim” and “pilgrimage” that are afforded by extended modes of spatial occupation and experience. Networked technologies and the bodies they act on are both here and there, at once operating on the present and cataloging the past. Hagia Sophia has a split history as a Byzantine cathedral and later as a mosque. At present, the building is a museum. Its shifting histories are experienced through the display of its artifacts and atmospheres, attracting religious and cultural pilgrims from multiple backgrounds—the vacationing architectural tourist, dedicated followers of various faiths, the culture vulture. Through each of these cultural iterations, the building shifts channels through the addition of lightweight objects and artifacts that in turn renegotiate the programmatic axis and reach of the building.

Technology amplifies the building’s participation in popular culture and vivifies its role in driving history. Actualizing the building’s historical performance through technological means, current participation in the reenactment of past practices is heightened through the framework of embodied engagement and sensational atmospheres prevailing in popular culture. The building becomes an actor through
Exported and networked “weeping pillar.” The high density soft foam used to reconstruct the weeping pillar reproduces the heat and moisture created through touching the authentic weeping pillar.
*Note: Make all cuts prior to stitching. Do not overcut.
which an alternative mode of historic preservation is achieved by the incorporation of invisible infrastructures and networked bodies. As opposed to preserving the edifice to produce the illusion of an untouched condition, which predicates a singular, received history and the building’s significance as a historical and cultural touchstone, Hagia Sophia is given a facelift that supports the simultaneous experience of multiple histories.

The introduction of the hertzian infrastructure to Hagia Sophia and its cultural practices redistributes the presence of the building, forming an interface that allows multiple constituencies to participate in formerly singular experiences. Adopting mobile and networked technologies, the interventions placed within Hagia Sophia proper, as well as their exports to distant places—the black box of Mecca, the Vatican museum, or the Kentucky Fried Chicken on Tiananmen Square—broadcast the presence of the monument. New constituencies in distinct geographies are introduced to Hagia Sophia. The slow but continual structural deformation of Hagia Sophia’s domes are monitored on a sensor network watched by a community of amateur structural enthusiasts. Material advances generate a new cultural practice. Carbon nanotube paste applied over the grout of the mosaics invites distributed modes of structural support. Hackers and networked graffiti artists tap into the nano infrastructure and collapse individual nanotubes, slowly morphing the mosaics. As these technologically amplified forms of pilgrimage are practiced and naturalized,
The reconstructed 'Imperial Step' allows a visitor to relive and interact with past practices. The model scale and 1:1 scale reconstruction are connected through networked infrastructures.
they can be exported to other geographic locations, extending the cultural territory of Hagia Sophia. The experience of place-based rituals are recreated in other locations, while new rituals specific to a place are created and projected from outside locations.

The introduction of technologically-saturated interventions that merge practices latent to the space with imported practices reconfigures Hagia Sophia. As a staged effect, the spiritually transformative motion of pivoting the hand around the thumb inserted into the weeping pillar is reenvisioned through sensors embedded in memory foam, combining technology and mythology. The ancient imperial procession of the Emperor Justinian is recreated via a series of sensors that trace a non sequitur path, rejiggering the steps along the way. A cast silicone hybrid shirt-and-wall section lifts the body, causing the ground plane to shift under the feet of the wearer. The arrangement of networked interventions act in their interconnectedness as an accumulation of actors and triggers. Programmed responses take on greater weight as the distance between triggers changes. Multiple actors shift multiple grounds.

The model serves as both a stage set for simulating effects and as a site model that reimagines the territory of Hagia Sophia in a distributed and interconnected manner. Hagia Sophia itself is literally fragmented and repositioned across the site of the stage set. While suggesting an architectural effect of digitally-linked bodies, the design process puts forth a modality of research that emphasizes making and production as the primary operating structure for design. Framing the prototypes in terms of architectural composites—the worship apparatus as a body/space hybrid, the carbon-nanotube paste as structure/infrastructure—positions the work as a short-order between industries and institutions. The prototypes co-opt and reconsider technologies and materials from numerous disciplines aligned with biological hardware, sensor and actuator technologies, and pervasive computing.

As a theory of space in the third machine age, *Pneumatic Pilgrims* looks towards software as an agent that forms, repositions, and dismantles associations, while allowing for multiple assemblages of cultures and artifacts. These assemblages are based neither on location nor on the ecology of a single artifact, but rather form a discrete and mutable network of associations between otherwise seemingly unrelated actors and artifacts. Hertzian connections render the boundaries of physical objects permeable and in flux. Like spiritual artifacts, the pneumatic aura of computational materials extends the presence of monuments beyond their physical territory.

Notes
Timeless Replica

Boathouse and Time Travel Portal

Katharine Lyons O'Malley
Thesis Advisor: Mireille Roddier
Photograph of the frozen Bering Sea between Little Diomede (Alaska) and Big Diomede (Russia). The image frames the blurry location of the International Date Line.
“There are few of us who have personally verified that the Earth is round... When you think about it, most of us simply believe what we hear. Round or flat, whatever. It’s not a life-or-death matter, unless you happen to live near the edge.”

— Alan Lightman, Time Travel and Papa Joe’s Pipe

During times of year when the sun sits low in the sky, the shadow of Little Diomede is so large that it crosses the two and a half miles between the islands and leaves its mark on Big Diomede. Although visitors are prohibited from stepping foot on Big Diomede, they may position themselves in the frame along the ridge of Little Diomede and project their shadows across the waters.
The viewer is positioned as if returning to port after a week at sea. The north sloping breakwater shows the reflected image of the boat. A helicopter hovers close to the face of the cliff, perhaps preparing to land.

The human experience is one of relativity, of ebb and flow, a constant and literal balancing act. As the Earth rotates, we fall to its surface with varied acceleration due to the positioning and gravitational forces of the moon. Remember the past and imagine the future—the present is fleeting, ungraspable, and here.

Rules of linear perspective cause structures that are perfectly square to appear to slope when viewed from a distance. Atmospheric perspective indicates the blurriness of air—from afar, the invisible (air) becomes visible while familiar objects shrink into invisibility. Widespread belief in illusion governs spatial understanding.

The Diomede Islands function as mirror images—identical and opposite cliffs spanning the International Date Line 52 miles south of the Arctic Circle. Little Diomede, Alaska, occupies the space of yesterday relative to Big Diomede, Russia, which correspondingly exists in relative tomorrow. *Timeless Replica* explores the space between the islands, the expanded and hazy threshold at the edge of the world.

During winter months, the water separating the islands freezes into a two-and-a-half-mile swath of ice, allowing the Diomedes to function not only as reflections of each other, but as conjoined twins. During these months, passage between the islands is simple—the ice is thick enough to easily support the weight of walkers, snow machines, and even airplanes. The whiteness of the frozen landscape blurs the boundary not only between yesterday and tomorrow, but between the rocky cliffs and their liquid divider. A thick layer of snow and ice covers all surfaces, creating a monochrome topography of ice heaves and cracked ground.

Late spring brings warmer weather, causing ice to give way to the rough waters of the Bering Sea. Ships stranded in the frozen landscape, held at awkward angles determined by wind and currents from previous months, slowly right themselves to
float upright on the summer waves. Travelers arrive and ships resume their journeys, heading north into the Arctic Ocean and navigating a tight circle around the North Pole. Some ships travel with the rotation of the Earth, while others move against it. Each voyage lasts one calendar week. Ships heading west experience six sunrises and sunsets, while those heading east experience eight. Each journey offers the opportunity to accelerate or decelerate the passage of time, to use speed and innate conditions of the Earth to manipulate what is generally seen as a fixed condition. How long is a minute, an hour, a day, a week?

The motley fleet of ships navigates this path from late spring to late fall, providing an experience further complicated by extreme seasonal lighting: sometimes days pass when the sun never sets, while others occur in extreme darkness, with the sun barely peeking over the Arctic horizon.

Traveling to either island is not easy. Throughout most of the year, a weekly helicopter delivers mail and occasional passengers. During the coldest months, an ice runway is constructed between the islands allowing for daily flights between Nome and Little Diomede. In contrast, Big Diomede is completely inaccessible to the public. In 1948, the native population was forced to leave to make room for a Russian military base. The military base is now mainly defunct but the island remains closed to all visitors. *Timeless Replica* highlights the contrasting inhabitability of the two islands. Moves made on Big Diomede are subtractive, subversive, or in some way invisible, while construction on Little Diomede is generally additive.

A boathouse, carved into the west side of Little Diomede, is conceived of as two forms mashed together, addressing both the appeal and difficulty of binary conditions. Examples of opposites working in tandem include:
with respect to the earth, the sun appears to travel west

168 hours per week

ship speed: 20–30 miles per hour

so ship is able to travel: 3360–5040 miles per week

Diomede Islands = 1725 miles from North Pole

point of departure = Little Diomede

... travel north 1000 miles

... then along a circular path (with radius of 725 miles)

... then south 1000 miles (to return to Diomedes)

total distance = 1000 + (725)(3.14) + 1000 = 4276.5 miles

north/south: 2000 miles in 58 hours (2.42 days, 24 hours each)

east/west: 2276.5 miles in 110 hours

110 hours...

heading east = 5.58 days (19.7 hours each)

staying still = 4.58 days (24 hours each)

heading west = 3.58 days (30.7 hours each)

irregular path (heading east) = 8 days

constant location = 7 days

irregular path (heading west) = 6 days
above/below, inside/outside, real/fake, single/double, absent/present, add/subtract, submerge/project, freeze/thaw, motion/stillness, land/sea, clear/blurred, solid/void, float/sink, prolonged/fleeting, temporary/permanent, east/west, summer/winter, equinox/solstice, neutral/extreme, default/unusual, fast/slow, sky/ground, earth/moon, carve/build, and sun/shadow.

While the upper form of the boathouse projects out to frame a view of the entrance to a tunnel through Big Diomede, the lower part is submerged underwater. At water level, the boathouse creates dock space to shelter a boat. Below water level, a glass-walled viewing area allows visitors to observe the underside of boats coming into port or the seemingly out-of-scale sea life of the region, such as halibut. The floors of both viewing spaces are sloped slightly down, leading occupants to feel a sense of projection and acceleration.

Two breakwaters—formed by extending the north and south walls from the boathouse—frame a harbor between the two islands. The interior faces of the breakwaters are clad in
The tunnel's sloped walls serve to amplify the rules of perspective, so the tunnel appears longer than its measured length.
reflective panels, creating a sense of infinity within a confined space.

Upon closer inspection, the extended seascape within the reflection appears slightly off. Waves crash seamlessly into themselves and boats sometimes appear upside-down. While the south wall extends from the water at 90 degrees, the north wall tilts down 10 degrees, revealing to viewers that the space of the mirror, while similar, is not identical to space that is traditionally considered occupiable. When crossing the International Date Line, the breakwater is submerged beneath the surface of the sea. Its existence in the space of tomorrow (Russia) is made evident only by waves breaking above the underwater walls.

Ships leaving the Little Diomede boathouse head west toward Big Diomede and pass through a tunnel—a crack carved into its steep shore. Similar to the work of James Turrell, the walls of the tunnel are cut at sharp angles so they are invisible to viewers entering the space. The lack of visual cues to indicate the tunnel’s depth leads to the suggestion that the island is just a facade—the rocky cliff a thin shell, a theatrical front.

After circling the North Pole, ships returning to the Diomedes pass again through the Big Diomede tunnel but this time experience a reversed effect: viewed from the west, the sloped walls serve to amplify the rules of perspective, so the tunnel appears longer than its measured length.

The project encourages subversive occupation of forbidden space. Visitors to Little Diomede may climb a path that snakes up the island’s west side. Standing in a frame perched atop the cliff, sunlight projects the visitor’s shadow onto the Russian shore, creating a figure that spans the gap between the two islands.
Timeless Replica seeks to draw attention to the potential manipulability of conditions that are widely seen as permanent. Spending a week traveling at high speed on the open ocean recalibrates the body. Travelers emerge from the voyage with existential questions: How does the physical numbness that results from extreme cold relate to the mental numbness of extreme familiarity? What seems to be moving and what seems to be fixed?

What is the relationship between architecture and narrative? Does architecture exist in buildings or in the narrative from which they are conceived? Does architecture have a beginning, middle, and end? What is the relationship between an architectural proposition, or a work of fiction, and its chronological context? Einstein is credited with defining insanity as “doing the same thing over and over and expecting different results.” Timeless Replica leads to a different conclusion: that nuanced difference is inevitable and unpredictable, regardless of the similarity of initial conditions.
Section perspective cutting through the boathouse, facing northeast
Out of the Blue

Freshwater Research and Education

Lisa Macfarlane
Wallenberg Studio Critic: Meredith Miller
The artificial segregation of human and wildlife habitats has led to an irreconcilable gulf between the two, promoting the myth of man’s independence from his natural surroundings. Challenging conventional thinking epitomized by the distinct environments simulated in Biosphere 2, *Out of the Blue* recognizes and fosters mutually dependent relationships between species, defusing the man versus nature conflict in an urban environment. The reimagining of vacant sites in Detroit as buffers between human and wildlife populations suggests a new infrastructural strategy for the city. Open sites are conceptually refashioned as opportunities to coexist with native wildlife in a way that benefits both the human and wildlife populations.

**Biosphere 2: Seven Discrete Biomes**

Biosphere 2 was an experiment conducted in the early 1990s by a group of scientists. Aiming to determine if a closed environment could be created to support human life independent of the earth, or Biosphere 1, the scientists remained in a sealed airtight glass-and-steel enclosure, 3.15 acres in size for the next two years. Through this project, designers and scientists hoped to better understand life on earth and aid the development of technology to support future life on other planets.

Seven discrete habitats, or biomes, mimicked their natural counterparts in Biosphere 1. These habitats included five wilderness biomes where the scientists grew crops and raised farm animals. The wilderness biomes consisted of marine, desert, savannah, rainforest, and marsh environments. Each of these biomes was meticulously curated to contain a variety of biological species, many of which had specific purposes within their local environments. Although the wilderness biomes were adjoining, climatic and physical barriers differentiated the various habitats. For instance, bamboo hedges separated the ocean and rainforest biomes, while temperature and humidity differences distinguished the desert and marsh biomes.

Each of the seven biomes provided appropriate habitats for their respective species while inhibiting occupation by other species.

**Out of the Blue**

Although Biosphere 2 aimed to increase human awareness of “the interdependence of all life,” the distinct boundaries solidified the perceived separation between man and other species. Instead of encouraging humans to understand their relationship to the environment, the discrete biomes worked against attempts to portray earth as a singular habitat.

*Out of the Blue* proposes a freshwater research and museum complex where surprising juxtapositions and gradients of habitability encourage visitors to understand their participation in an unified habitat.

**A Series of Surprising Juxtapositions**

Blending city and river habitats through a series of constructed land features, the proposed facility is an extension of the Dequindre Cut, a former railroad line that is now a below-grade greenway in Detroit. The entrance at the north end of the complex allows pedestrians direct access to the museum from the greenway. Near its northwestern border, the complex mimics the existing city fabric with several multi-story structures that house the scientists’ residences, as well as laboratory spaces for freshwater research.

A linear progression of topographic operations connects the city to the river's edge. The strategic manipulation of the ground integrates the Detroit River with the facility, producing a range of aquatic and semi-aquatic spaces where humans and wildlife coexist. Visitors may observe the activities of the freshwater wildlife, or participate in the aquatic display by swimming, snorkeling, or scuba diving through the complex. In turn, the users become the subject of observation, as they are watched by scientists in the laboratories on the opposite side of the aquarium.
A Variable Landscape
A collection of habitats that attract particular species at certain locations within the complex exposes the impact of human and animal activity on their respective environments. Tiny spotted turtles inhabit a muddy swamp and muskrats build their homes in a boggy pond nearby. An island on a sheltered lagoon provides a safe nesting ground for the common loon. White bass occupy the shallow, warmer waters of the complex and walleye lurk in deeper water, cloaked in the shadows of an underwater garden. Between each territory, a gradient of habitability exists, blending the qualities of one habitat with the characteristics of adjoining habitats.

Visitors and scientists are encouraged to experience each of these habitats within the complex, which requires an array of equipment or resources necessary for inhabitation, leading to a heightened sense of awareness that one is a foreign participant in these environments.

The observation building allows visitors who choose not to immerse themselves in the underwater habitat to experience a feeling of submersion. Here, the floor slopes gradually downward while the surface of the water in the surrounding aquariums remains level with the river beyond.

Seasonal shifts and wildlife migration patterns introduce another level of variability within the complex. Wildlife inhabiting Out of the Blue may eventually colonize other suitable habitats in downtown Detroit, resulting in higher wildlife populations in the city. With more than 80,000 abandoned buildings and lots in the city, these populations would enhance the biodiversity found in the urban condition.
A range of aquatic and semi-aquatic spaces provide habitable conditions for five native species.

Notes
6. Ibid.
7. Ibid.
8. Ibid., 51-57.
Faraway/Nearby

The Construction of Reality

Natasha Krol Mauskapf

Thesis Advisors: Mireille Roddier, Neil Robinson
It is a uniquely human ability to envision that which does not exist. Our cognitive maps are selective, and that selectivity, made up of assumptions and expectations, constructs how we see the world. The cognitive map is a collection of experiences filtered and condensed into generalized representations that permit orientation and render in-between space meaningless without its ends. We believe we all share the same sight, while in actuality we reconstruct what we see every minute based on what we have subconsciously mapped before—perception and cognition fluctuate in perpetual exchange. Space is what we think it is. *Faraway/Nearby* challenges the distance between objects, people, things, spaces; the space between here and there, you and me, me and space; yesterday and tomorrow, now and then, while taking into account the discrepancy of measurement: embodied distance through perception versus technical “reality.” Remembered experience or imagined assemblies are reinserted into the construction of physical reality as an integral in-between construction. *Faraway/Nearby* questions the assumptions that form our reference points for traversing this distance. Why do we implicitly trust ground, horizon, precision, specificity, visible versus the invisible? Like the light emitted from a projector, which renders ordinary air visible, can we construct the invisible from the visible, and vice versa?
The thesis begins from a blink—a 450 millisecond halt in brain activity every four seconds, amounts to six seconds per minute, 360 seconds, or six minutes per hour, 144 minutes, or 2.4 hours per day—an increment that compounds to an alarming lapse in consciousness we seldom notice. To make up for the lapse, we rely on memory, familiarity, calibration of difference to allow walking, talking, etcetera, to continue. A simultaneous there/not there experience, which has the potential to be shared—and to hijack what we “see.” Either end of the blink serves as a reference point for the shared experience of emptiness.

*Faraway/Nearby* proposes a cut through the earth—one chord through a portion of the earth’s arc. Sited on a 33 mile continuous strip of urban sidewalk in Toronto, it is a prototype and the shortest distance at which the project is possible. One-tenth of a mile below ground is another ground. The cut begins at the level of the sidewalk ground, tilting into the earth at a 0.6 percent slope, 16.25 miles from either side, meeting at the center. It creates a paradoxical short-circuit between here and there. Disorienting horizon from its normative datum experienced from a three mile distance at sidewalk ground, horizon can now be seen for the expanse of the cut. The aerial perspective is experienced underground. Ground is leaky, shaky, displaced. The force of gravity is just off kilter.
Site plan of proposed cut and associated streets
Top: Detail of section cut through earth at center
Bottom: Scale section of cut through earth
Traversing the cut requires an uncommon measure of focus (approximately 10-13 hours at comfortable walking pace). The long strip of perceptual purity pulses with gradients of light and connection to the street above. Degrees of orientation, compression, and specificity experienced, calibrate relative relationships of self to other, above to below, in front to behind. Losing bearing, space expands and contracts with borrowed light from invisible places. Relationships are visual (haze, light, clouds) and otherwise (light wells double as archives of the present, collecting debris from life above—the rhythm of which speeds and slows in accordance with the pace of movement). When confronted at the center, with the immediate, intimate shock of person-to-person contact, there is a seeming black hole of space.

The space between the ends is experienced as both vivid and imprecise. The cut's constructed precision alters the means of measure and complicates the selectivity of our cognitive maps. The cross-section shifts from the normative sidewalk width of 5.5 feet to an individual 2.5 feet, creates the illusion of an individual experience and perceptually makes the center seem farther away, and the opposite end closer, as one moves through the cut.

Each half of the cut seems to be the mirror image of the other but is differentiated. The intensity of each side is dependent on the movement of individuals within. Light from headlamps provided at the entrance aid movement and make anonymity impossible. One half: a “catwalk,” is suspended above a carved void throughout which light, sound, and air circulate. Below is only visible at moments and in the slight unsteadiness of this ground. The other half is firm in its footing. Trusting one and not the other, when much seems unchanged, is difficult. If the perception of one half is constructed by the other but miles apart, is there even an in between?
As the cut exits the earth, it cantilevers off one end, continuing as a platform above the lake just past Toronto’s harbor. As this new ground angles slightly away from the curvature of the water, the horizon is all-consuming. Glass panels phase the relationship of inside to outside, below to above, rotating to create space contained only through body heat—a temporary, superthin space. What happens in between the edges of perception is indeterminate in duration.

Space is experienced through how our minds calibrate the relationship between us and the rest of the world. We think this distance between into existence. In Faraway/Nearby, distance and its usual determining factors are displaced from their normative datums. Distance between (relativity, relationships, reference points) is recalibrated.

“Reality is a fence with many holes... walk through them slowly. My slowness is deceptively fast.”

—Verlyn Klinkenborg in *Timothy; or, Notes of an Abject Reptile*

Left to right:
1. Filtered orientation: light from headlamps travels varying depths into sides of cut, manipulating perception of thickness
2. Operable fragmented precision: panels are moved by stepping on ground slightly displaced from the bottom of the cut, fragmenting horizon
3. Compressed light: cross-cuts allow light from the adjacent light well to spill over, scattering over reflective light shelves. Openings in walls compress the vertical space in perspective
4. Nonspecific vividness: suspended portion inside of greater cavernous surround
5. Displaced reference: light from below ground travels through gridded light shafts, disoriented from its origin
6. Phased horizontal consumption: section through cantilevered platform with rotating panels sensitive to individual body heat, creating situationally dependent space between self and other
Mayne Gone Electric
A Look at the Many Hands of an Architect

Interview with Thom Mayne
Thom Mayne founded Morphosis in 1972. As design director and thought leader of Morphosis, Mayne provides overall vision, project leadership and direction to the firm. With Morphosis, Mayne has been the recipient of the 2005 Pritzker Architecture Prize, 25 Progressive Architecture Awards, over 100 American Institute of Architecture Awards and numerous other design recognitions. Under Mayne’s direction, the firm has been the subject of various group and solo exhibitions throughout the world.
On October 1, 2010, Dimensions 24 sat down with Thom Mayne and revisited a previous Dimensions 5 interview from 20 years ago. This past conversation served as a guide to gauge the changes in his own career and work, and architecture as a whole.

**Dimensions 24 (D24):** You spoke about the dangers of over-intellectualizing your work saying, “the longer you practice, the more dangerous it becomes because you start believing in your stuff.”

Reflecting on your own career trajectory, has it been difficult to re-define and expand your practice?

**Thom Mayne (TM):** I would say the same thing maybe a little differently. There is always a relationship between language and the work. The public will decide whether the narrative is useful, parallel, provocative, or somehow connected to the work itself. As a teacher and an architect, it is inescapable but it is a conversation you are conscious of. I am going to tell you the work precedes the words. The relationship between the two is complicated but not always. Language has its own terms and demands a certain articulation of the idea. The formal work described in terms of architecture is more interpretive, relaxed and fluid. It is in a state of flux, has its own set of properties and meanings. Architecture and language convey ideas in very different ways. As an architect, you are demanded to explain the work somehow—put what the work means within some rational terms or what the work derives from its context—historically, socially, culturally, politically, ecologically, within the terms of landscape, urban design, and so on.

The process of describing the work is a constant back and forth between the architecture and the narrative. While I am not sure if this dialogue is useful or not, its influence is inescapable. The narrative has to be important because it becomes who you are. It becomes the context by which you work and part of that context is your own articulation. I am trying to simplify and give you an answer, but it is still more complicated. Some of it is personal. This is not going to develop into a theory and it certainly would not develop into a set of rules or a notion of the way you should approach architecture versus the way I approach architecture.

“That is probably one of the differences. Now it is much less about me.”
D24: Do you ever find it difficult to explain your work under certain parameters?

TM: When I was younger it was painful. If you go back to one of my early lectures, I was absolutely struggling to find the terms of what I was doing. I felt very comfortable with the work but was extremely uncomfortable explaining it. It used to be I was absolutely and incredibly insistent that the work speaks for itself. It does not need an interpreter, much less the inventor, the creator. I went to extremes and I would sometimes say nothing—I am not going to talk about it. I am going to show pictures. You tell me what it is about. I have no idea. Or I would make it really clear and say everything I have to say about the project.

In the beginning it was more about me, my own struggles, and my emotional involvement in the work. You can ask me one day and I would be elated and think it is the best thing I did. Ask me the next day and I am ready to commit suicide because the work is absolutely horrible. That is probably one of the differences. Now it is much less about me. I realize I am speaking to a group of people and they want to know why you do certain things, where it comes from, how does it start, and what does it mean. The dialogue has a constituency and an audience. You are trying to find that audience and explain to them what leads you to the things that they are looking at.

D24: You describe the gap between what you say about your work and what it really is. Can you also speak about the gap between the image of the work and the experience of it? When you work with clients on projects, how do you manage to bridge the disparity that emerges?

TM: That is a difficult one. I think I approach it a little differently than that. I will not explain the image in aesthetic terms because I do not believe in beauty as an idea or in a singular idea of aesthetics. It is a cultural phenomenon and it is going to be differentiated by location, ethnicity, the culture you live in and so on. I will present it as something that provokes—if it is interesting, expands you, or takes you some place. With a client I think there has to be a set of rules. There has to be clarity of what each of us brings to the table and you cannot argue aesthetics, it is not a democratic process. What I do, and I think our office has been very successful at it, is that we work with the performance side of the equation—the huge contingencies, functionalities, and requirements relating to the way a building works and operates on multiple levels. My notion is that you have to be absolutely superior in delivery and the methodology, in producing an absolutely superior product that has to do with performances. But the look, that is not my territory.

I am an architect who started very young. I was 27 when I started my practice and started teaching. I can tell many stories about
skirmishes with clients. For example, it may be a small project, a house or commercial project. The client comes in and all of a sudden he or she wants the door blue. That literally would have destroyed the initial idea because the color had no place in the project to start with. If the door had been blue, it would have made the project unworthy and it would no longer have been interesting as an idea. There are hundreds of thousands of similar decisions to be made—the shape, color, and position, on and on and multiply that.

The act of building is singular and you cannot identify a piece of architecture you admire that does not have that singularity. The forces are consistent with each other and it is that consistency, which results in a synthesis that adds up to something with the potential of being extraordinary. Consistency requires a singular leadership. It does not have to come from one person. For instance, I work in a very collective manner but I am still the director. As your office and projects get larger, singularity comes not necessarily from actually moving the line, it comes from directing and keeping people focused on what we are doing on the project. It goes back to the words, which you have to be able to articulate.

“We are products of our environment and it is everybody's struggle to somehow align your work somewhere between your own values and the nature of how the world exists.”
D24: Do you think teaching has helped you develop more clarity or insight into your work?

TM: Absolutely. Teaching is incredibly valuable in terms of practice precisely because it forces you to learn the ability to communicate extremely complicated non-verbal phenomena. You have to find a way to communicate so you can do this kind of stuff and understand each other. Even knowing the threshold of when you do not speak—and that is something much more complicated. There is a kind of in-between ground where you can operate at a deeper level of understanding, which is not necessarily verbal but more through drawings and models, and it requires that to get to singularity.

I cannot separate teaching and practicing as they include a lot of the same people and ideas. My office still feels very much like a studio and my teaching studio is more like my office. We operate in a very rigorous way and try to bring the professional part of it into the studio, while bringing the studio into the office environment and try to make them more and more similar.

D24: Going back to the idea of singularity, in the previous Dimensions interview, you said that “as the scale of an object increases, it becomes increasingly challenging to produce architecture that is completely specific to the nature of the idea.” How you maintain the integrity of the concept from design to construction.

TM: I remember that question, but it has shifted a bit. Twenty years ago, we were involved in the nature of materiality and authenticity, and this notion had to do with the value of architecture. This is perfect timing, because only a few years later I won a competition for the Diamond Ranch High School. At that time, I was aligned with Steven Holl and Tod Williams and Billie Tsien. Just after that interview, it became apparent to me that locating architecture within this territory was going to limit me in terms of my profession and the type of work I was going to be involved in. Also, it was not in synchronization with my political life. Had I continued on that trajectory, I would have done mostly residential work with clients who were on the upper end of the economic spectrum. It is just the reality of the work. It is handmade. It is phenomenal to be able to develop a whole work at that scale but it was limiting.

When I got Diamond Ranch, the school was something I felt very close to as a project. I wanted to be involved in that. It became apparent instantly that we were no longer going to be involved in the ultra articulation of making everything. We realized the architecture had to shift and the broader conceptual organizational idea had to be the focus and the making was somewhat neutralized. Finally, the making was not the subject of architecture, it was the broader idea and clearly the school was a marker that people got immediately. Everybody saw what happened and it was like when
Bob Dylan went electric—everyone went crazy. People would say, “I want you to do the same thing. Thom you have lost it. What is going on? The whole quality of your work is not there anymore.” I go, “No, no, no, it has just shifted. We have relocated architecture and the focus is someplace else.”

Definitely at that point it was a huge strategic and tactical shift in the office. It very much had to do with responding to this question. I was interested in expanding architecture from the visual to a much broader experience. I did not want to totally give up that process and now you will see it located and intensified. You will look at a stair that is part of the entire piece and it represents one of our little construction projects. It represents intensification within a broader project. Instead of seeing the visual as a method, it becomes one of the possibilities that you could produce in a larger matrix and every once in a while, have these areas of intensification that connects to human energy and interest. People somehow respond to the fact that they can feel the energy that you put in this thing, which is inert but alive with energy.

This is nice for me because I forgot there was a huge shift in my practice that coincided with a shift in architecture. Today, very few people can maintain the emphasis on materiality and the hyper-articulated, crafted object. Holl did for quite a while longer and had the same discussion. Tod Williams and Billie Tsien are probably the last of the group that still hang onto that. By the way, that school was my first piece of architecture—meaning the aesthetic act and the social act. It was the connection of the two, which to me, is the definition of architecture.

D24: Now that you have completed these larger projects, what are some instances in which a social idea you had was fulfilled?

TM: I do not enter design with a clear agenda about the role of architecture as a generator of social democratic ideals. While I lean in that direction and there is stuff of that program that is very inspirational or honorable to me, I also live in the real world and do not find it relevant as an operational strategy. It has more to do with the way you start work and the questions you ask that lead to identifying issues that are specific to that project type and location. If you look at the Cooper Union versus Hypo Bank, they have hugely different issues that are not merely within the social realm but shift
from the ecological to the social, the tectonic and the urban. I do not change my values every time I do a project. They are going to be much more tuned to the specificity of the project and there probably you would find consistency. There would have to be consistencies, I think. You would be the one that says yes or no on that.

These are really interesting questions for your generation because I think architecture is much more difficult and it is moving away from broader social, political aspirations and desires into pure economics. Capitalism is finally so dominant and now it is even dominant in so called Communist China, which is kind of hilarious. You might claim that they are actually the most successful capitalist country in the world and it has definitely influenced India without a question. Europe has gone way to the right in the sense that it has moved away from the broader socialist agenda. It is having a harder and harder time maintaining socialist aims in the realities of our economic climate.

We are products of our environment and it is everybody's struggle to somehow align your work somewhere between your own values and the nature of how the world exists. On one end of the spectrum, you find an architect who maintains his values through his work to the level that he develops concepts primarily through drawings and does not engage in the world in the “real sense”. The other end would be architecture as pure business, which basically just services a customer and has nothing or little to do with the art form and I guess, architecture. Architecture's engagement in the world is due to the fact that it requires not just patronage but patronage at a massive scale in terms of the economic investment. You could be a painter and come up with your own materials. In architecture, you absolutely need patronage. You need somebody who supports your vision, supports you economically and is interested in taking risks in your adventure. We live in a tough time and it does not seem like there is much of a constituency for innovation. There seems to be a fear of innovation, which is very detrimental to our economic livelihood and certainly the future. Our culture basically survives on intellectual creative capital and services. That is what we do. We provide intellectual creative capital. If you are not producing new things, someone else will. It may be a boat, motorcycle, car, piece of pottery, steel, you name it, they are all things that are made using various intelligences related to the process of making.
Condemned with Beauty

The Evolving Narrative of a Stalled Construction Site

Chelsea Hyduk
Wallenberg Studio Critic: Cathlyn Newell
Infrastructure is typically perceived as a visibly functioning system, structurally sound and adequate in facilitating the movement of large quantities of people, goods, and services. In assessing the stalled construction sites of Williamsburg in Brooklyn, New York, they seem at first glance, void of infrastructural systems in their desolation and abandonment. The broken architecture provokes an unseen movement of thought like thousands of cars speeding across an overpass.

These deferred sites have desires embedded within them—aspirations that started with New York’s inclusionary zoning plan of 2005, which offered large tax breaks to developers interested in redeveloping the neighborhood’s waterfront. Dreams of wealth through the sale of new “clean and modern lofts” just one subway stop out of Manhattan proved to be an exciting real estate venture in Brooklyn. These visions were quickly deflated by an amendment to the city’s tax abatement program passed in June 2008 that required all new construction residential buildings, including small apartment buildings housing six to eight units, to devote 20 percent of their units to affordable housing. Developers unable to complete construction before the implementation of the amendment lost money in the gamble as their dreams for the site evaporated. To many who walk by these deserted sites today, they are bitter scars of what could have been.
The steel columns seem unsafe: nearing death in their structural abilities, but alive with reactions caused by oxidation. Materials realize acknowledging the prior dismantle is inevitable. Constant material animation results in constant site alteration.
The varying levels of brokenness of the debris found at these sites, poignantly express the state of limbo that every man-made structure and material lingers in, hovering between the states of assemblage and decay. The site at North 4th Street and Bedford Avenue triggers a phantasm—an infrastructural interaction of systems of materials. Transcribing this mirage is critical in suggesting alternative, condo-free possibilities for this site. Millions of lines, used to represent the active interactions occurring on site are translated onto paper, intimating that the space, in a lingering state of brokenness, is still active. In order to assess the future of the stalled construction site, its past had to be reimagined. The now empty pavilion-like structure on the site was once a factory built to last by immigrants seeking to create their new beginnings in the neighborhood. They thought little about the aesthetics of the building and focused instead on the necessity of the space to remain sturdy and facilitate the production of goods.

The site’s abandonment, first with the closing of the factory, then as a consequence of the real estate bust, resulted in a boarded-up, gutted pavilion. Although the space and its lingering materials are currently in a dormant state, the materials are still alive and brimming with latent energy. Contrary to the conventional notion that these sites of arrested construction are stains on their neighborhood’s fabric, Condemned with Beauty proposes the reanimation of these materials through the dismantling of the site. Grounding the ephemeral will resensitize the public of Williamsburg to the beauty of this specific site, with the possibility of recuperating beauty at other similar sites. This will create a new infrastructure, a fundamental shift in perspective that serves to enlighten Williamsburg to a possible lighter future, a future less determined by laws and regulations and more by imagination.
The end product is the drawing and model of a new ground informed by the desires of existing materials.

The future of this narrative lies in its ability to begin a similar narrative for other spaces of the unnoticed, condemned, and normal to receive direct experiences and appreciation for materials in every stage of deterioration. It begins to expose the ever present material states of brokenness that encompass all space.

Notes

The materials have created a new infrastructure, a fundamental system working to enlighten Williamsburg to a continued appreciation of the unnoticed, the condemned, the normal. This new ground will remain animated as to never acquire the weight of the past and to remember the process of its creation.
Michigan Central Station
Reframing the Narrative of Detroit's Grand Past

By: Michael McCulloch
Doctoral Candidate
Prepared in Stephanie Pilat’s The Politics of Reconstruction
Detroit's Michigan Central Station is a powerful icon. Much photographed and discussed, the station acts as a politically charged receiver of the city’s multiple histories. Strong, singular narratives have been mapped onto the building, particularly those of Detroit’s “heroic” growth and its “shameful” decline. This essay examines the narrative of growth as embodied in the station and considers what this narrative reveals about the identities of the station and the city. Revisiting the period of the station’s development, it argues that the growth narrative obscures and hides contradictions present in the siting of the station. Reasserting forgotten aspects of the station’s history can broaden our contemporary discourse and aid in framing the problem of reconstruction. It becomes clear that the city can only seek in vain to remake a mythic past at the station; rather, it offers opportunities to critically reconsider this past. Moreover, the station presents an opportunity to reset the terms for Detroit’s future urban development.

**Narratives of Growth and Elegance**

The terminal building is faced with three monumental arches, framed by Corinthian columns and decorated pediments. It is Detroit’s nod to the great Roman baths. Rising from this antiquarian base is a broad fifteen-storey tower, a three-part composition of careful symmetry and proportion. Its shaft displays a measure of unadorned modernism, though it is topped with a richly ornamented band and strong cornice. The station’s visual singularity, standing alone among one-to-two story structures, the station lends itself to iconic readings. Hundreds of thousands of new arrivals from Europe and the American south passed through the station upon entering the city: becoming Detroiter, industrial workers, Americans. One resident recently interviewed declared the station to be “our Ellis Island.”

Another commentator presented the growth narrative calling the station “a Symbol of a Grander Past,” stating that while some would demolish the structure, “others see it as the industrial age’s most gracious relic, a Beaux-Arts gem turned gothic from neglect.” Since the City Council threatened demolition in 2009, many preservationists have leveraged this rhetoric of Detroit’s “Grander Past”. The aesthetic value of the structure and its association with the Beaux-Arts style is also called upon to justify preservation.

The station as a symbol of Detroit’s bygone better days contains two interconnected themes: industrial economic might, and the image or lifestyle of elegance that industry made possible. Indeed the sorting and shipping of locally produced industrial goods, which boomed in the first decade of the twentieth century, “was the most important factor in the decision to build a new yard in West Detroit.” While industry drove the new construction, the station’s north façade, facing the city, emphasized formal elegance. It embodied the Beaux-Arts spirit found in several of America’s great urban stations.
of the period, which infused many downtowns with the civic monumentality and visual harmony of French neoclassicism. Grand Central Station in New York, for example, opened the same year as Michigan Central and was designed by the same team of architects: Warren and Wentmore of New York. Chicago’s Union Station followed in 1925.

This Beaux-Arts stylistic pedigree was paired with exceptional convenience and luxury. At Michigan Central, a traveling businessperson could stop in the barbershop, finished in white marble, and have a bath in one of eight private rooms of white oak, tile, and terrazzo. These served overnight travelers and “out of town patrons,” who could, “change clothes and dress for evening appointments without going to a hotel.” In a further co-opting of hotel amenities, a light-filled Men’s Reading Room occupied the northwest corner of the station, facing Roosevelt Park. But behind the scenes industry ruled the Detroit station, “As an indication of the amount of freight which originates in Detroit, the Michigan Central requires 95 switching crews every 24 hours to deliver empty cars and pick up loaded ones from the industries along its various lines in the city.” While primarily built for the sorting and shipping of industrial goods, the station and city were presented through elegant spaces and experiences. The siting of the station, however, reveals that this Beaux Arts formality was built in part on injustice to the very people

“It becomes clear that the city can only seek in vain to remake a mythic past at the station; rather, it offers opportunities to critically reconsider this past.”
whose labor made the station possible. Furthermore, this siting did not follow from the civic-minded urbanism that its image may suggest. Rather, it was located by the pragmatic logics of industry, and with a heavy cost.

The Industrial Logic of a West-Side Site
The station’s siting can be described as modern: resembling that of Detroit’s emerging industrial sites, where a distant point well connected by transit could serve distant markets and draw users from across the city. The traditional advantages of physical adjacency are replaced by technology. Michigan Central’s business operations connected materials, goods and passengers between the great markets of Chicago and the port of New York. Following the 1910 construction of a tunnel to Windsor by the Detroit River Tunnel Company, the railroad saw the strategic advantage of a west-side location. It captured traffic from four primary directions, allowing them to converge and switch at the station. In addition, the Detroit Belt Line circled the outlying industrial sites of the city, delivering local products such as stoves and automobiles to this same site. Unlike its contemporaries in New York and elsewhere, the west side siting allowed Michigan Central to operate as a through station, rather than a terminal. Industrial and passenger sorting was therefore accomplished in one place along the main line, rather than gathering passengers separately on a terminal branch in the central city. In this way the station’s siting has pragmatic origins, despite the elegance that it presents with its iconic face. It becomes clear that Michigan Central is an inherently industrial project, despite the grandness of its vaulted interiors. Sited one and a half miles from the city center, the station physically isolated itself from downtown and imposed its modern scale on the west-side residential enclave of Corktown, home to many industrial workers.

A Neighborhood Transformed
The low-rise neighborhood context of the station was historically home to Irish immigrants, many poor, and named Corktown after the south-Irish county. Though ethnically diversifying after 1900, it retained its poor and working-class identity. In 1910 the railroad acquired and condemned three hundred small wood frame houses to make way for the station. An 1897 Sanborn map offers a sense of what was lost when the land was cleared. Along the tracks were lumber and slaughterhouse operations. Worker’s cottages backed up to the mills on narrow lots. Proximity to work, and to institutions such as the Catholic Church of the Most Holy Trinity, was the logic upon which the neighborhood was premised. The constant sensory presence of industry, in sounds and smells, must have dominated the experience of many residents. A public center and needed recreation space was found in the small Macomb Park.

In a second phase of demolition the station’s designers created
a formal greenspace between Michigan Avenue and the station, “The crowning touch that would give [the station] a distinctive, cosmopolitan air.” Despite the power of the railroad and city government at the time, resident lawsuits halted the work until 1918, when the properties were finally acquired and razed. The space was ironically named for the great conservationist President, Theodore Roosevelt, and was carefully groomed and outfitted with a grid of automatic sprinklers. The project replaced the shabbiness of working class poverty with an elegant urban image. It was a newly constructed identity of wealth and growth for the station and the west side of the city.

Iconic readings of the structure served the railroad in 1913 and are leveraged for the cause of preservation today, but they are ultimately untenable. They mask the inelegant industrial logic behind the station’s isolated siting, and the vanity with which its formal greenspace replaced a vibrant neighborhood.

**Conclusion**

Our public discourse on the station’s future can benefit from reflecting on the problematic narrative of a “Grander Past”. Behind the station’s façade of elegance are the logic of industry and the work of tens of thousands of voiceless Detroiters who lived in enclaves such as Corktown. In light of these contradictions a new discourse may emerge, suggesting another way to frame the question of Michigan Central Station. Rather than seeking comfort in restoring the growth narrative, the site may become a critical reconsideration of the city’s identity. The project may be reframed to de-center the iconic tower, considering the site as a primarily industrial one, and one set in the context of two Southwest Detroit residential neighborhoods: Corktown and Mexicantown. In light of this, the closed formality of the site and station must be abandoned. An urban project must be imagined that engages the needs and lives of residents in direct, tactical ways. The rigidity of Roosevelt Park could give way to a new scale that preferences use over image. The site becomes a place to write an expanded, inclusive Detroit narrative, informed by the contradictions in its history of growth, and embracing the city through its citizens in its present.
“Rather than seeking comfort in restoring the growth narrative, the site may become a critical reconsideration of the city’s identity.”
Focused on strategies of realization, FIVE FELLOWS: FULL SCALE offers a disposition towards new ways of working within architecture. This attitude emphasizes situational agility, a willingness to redirect expectations, a preference for operational knowledge collected on the ground, and an inclination towards working collectively while maintaining difference. This disposition was catalyzed by the unique urban condition of Detroit, which required innovations in infrastructure, security, and standard building conventions.

Nimble, promiscuous, expedient, able to negotiate changing circumstances and maneuver unforeseen obstacles, architecture is cast as a means to finding opportunity rather than solving problems. Individually, the outcomes stand alone as designs, and in the simplest terms they are: a room, a staircase, a liner, a door, and many small windows.

To mark the 25-year anniversary of the architecture fellowship program at Taubman College, the architecture program hosted five fellows instead of the usual three. This produced an unusual collaboration whereby the five fellows collectively bought a single-family house in Detroit for the purposes of our research. Purchased with $500 cash at a county auction for foreclosed properties, the house provided a shared format and a joint responsibility that bound and inflected our five individual ambitions. Although the house was a shared venue, each individual fellow contributed one distinct project, or full-scale intervention. The house made it possible, if not exactly easy, to collaborate without requiring the abandonment of our prior agendas. While not allied in architectural ambition, we were allied in a willingness to work together, despite any inevitable differences. There was an agreement to disagree...together.
About Face is a room that cuts diagonally across the house, with a window towards the southern sky. The room cuts a path for light, bringing a spot of brightness into the northern easement corridor during the day and illuminating a volume between the house and its neighbor at night. It opens up two new faces on the house, one looking north along the block and the other out onto the sky, across the rooftops of the neighborhood. The new cross-axis prepares for the removal of the adjacent, fire-damaged property, readying the house to turn away from the street and face down its more distant neighbor. This project anticipates an alternative urbanism by maintaining the axial organization along the classical major-minor city grid. The rotational reorientation of the single house opens a new face onto what was a residual alley, investing in a transformation of the entire block.
Tables and Chairs provides the house with a new staircase that is something between a shelf and a ladder. The stair can serve as a permanent home for plants or a temporary place for a book or a drink. Its bleacher-like quality creates a space to both move through and linger in. Each tread measures 15 inches, large enough to comfortably sit on, use as a surface and maintain a manageable rise and run.

Inspired by Enzo Mari’s Autoprogettazione project, which translates roughly to “self-made” or “self-designed,” the stair was intentionally realized with minimal means. It was designed with a nod to the sensibilities of survivalists, Home Depot and the typical apartment dweller’s toolbox. Constructed solely with cheap 1 by 2 pine boards, it is something anyone can make with a saw, hammer, and nails, for less than 800 dollars.

The design was developed entirely through scale models and full-scale mock ups; no design drawings were ever made. It was built by hand and drawn after for documentation purposes. This frankness and simplicity in making, initially a response to the lack of infrastructure in many Detroit homes, celebrates practicality and an economy of means.
Predominately governed by efficiency, maximization, and building standards, the architectural liner (floor, ceiling, and wall) is most often built as a thin, taut surface. Its standardization produces a blankness, which is then adorned with window dressings, paint colors, and personal artifacts. *Tingle Room* challenges this thin surface by transforming it into a deep volume, unlocking a space within the thickness of the wall, and ultimately moving architecture from blank backdrop to active participant. Each layer in this new material mixture is pulled from the palette of standard building materials and exploited for its latent textural qualities. Materials are carved, painted, smothered or otherwise manipulated in order to extend their possible qualitative effects. The excessive layering of exaggerated textures provokes engagement but this engagement cannot be perceived instantaneously. Instead it unfolds in time, as multiple patterns fade in and out of focus, yielding an experience that vacillates between the realms of the haptic, visual, and conceptual.
This alteration to a single-family house inserts a third space between its private and public domains by reformatting access. The nested perimeters defining a domestic space—property lines, windows and entrances, wall assemblies, infrastructural connections, security systems—form migrating boundaries that are both materially defined and programmatically activated. Amplified by the proliferation of unwanted properties in Detroit, the uncertain status of these boundaries provides an opportunity for an architectural intervention. At the back of the house, an operable room moves between two positions. When closed, the piece blocks access and obscures views toward the interior. Pushed outward from the back plane of the house, the room becomes a passage between the house and the exterior. Each position negotiates territory within this evolving residential landscape, such that its movement tracks the competing desires of openness and security, privacy and access.
Weatherizing
Cathlyn Newell
Oberdick Fellow

As a material study and electrical experimentation, this alteration to a stand-alone garage mutates and activates the barrier between the atmospheres of the interior and the greater surroundings on the exterior. As a replacement of the common flat-pane windows, *Weatherizing* utilizes the typical mediator of glass in an unusual configuration allowing for an altered understanding of volume and exchange. Comprised of nearly one thousand glass tubes, the work spatializes and amplifies light conditions, both natural and artificial, and the flow of air. Varying in length and bends, the aggregation of the glass tubes works as a material substrate upon which energy is captured in the form of a glow and an accumulation of hollow channels conduits for energy, air, and precipitation. Mysterious and moody, reliant on the immediate qualities of the atmospheres, the luminosity becomes an eerie registration of the seemingly intangible surrounds and a foil to the once apathetic barrier.
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This essay is a humble attempt to give new life to the third-floor studios at Taubman College through writing. For those of you who have never had the pleasure of the third floor studio experience, I invite you:

When you enter the building on the ground floor, the weight of the institution may be off-putting at first, but please, continue upward to the second floor where the burden dissipates slightly through moments of light and color, or a flickering of student work. The stairs to the third floor are nondescript, only announcing themselves at a few discreet points. It is at this juncture that many get lost in the sleekness of the media center or banal confusion of classrooms. But onward, dear reader, for the weight is nearly converted to light: proceed upward again with a clear mind.

You are now in the beloved third-floor architecture studios of Taubman College: the heart[h] of our school. The studios occupy a space in the shape of a bar wrapped in glass sitting tenuously atop the floors below. Lightness here pervades to the extent that the third floor seems to float above the concrete anchor of the institution below. When you have passed the threshold of the stairwell into the main space of the studios, you will immediately notice the open floor plan sparingly divided by low, modest walls that only rarely succeed in breaking the ceiling plane. The space is continuous, allowing the senses to move freely across its expanse.

The fulcrum of the third floor is the primary review space lovingly referred to as CMYK. It is a corridor that is flanked on one side by faculty offices and a sea of studio desks on the other. Idiosyncratic voids in the disposable surface of the wall shared with faculty offices denote four bays of pin-up space corresponding to CMYK. It is a
space of wild occupation; at once a hallway, review space, classroom, meeting room, and workshop. It is an artery connecting all systems of the third floor, and a chamber housing them.

Being on the third floor is a unique experience where information literally flows from studio to studio, review to review. On a busy day, the crescendo of a heated discussion in C performs inextricably with a low bass hum in M, mediated by the ethereal pitch of Y, unpredictably punctuated by a crash or sudden static outburst in K. This is the chorus of the third floor: at times chaotic, frustrating, or inhibiting to some, but thrilling and liberating to others. Whatever your take on the flows of a busy day on the third floor might be, whether from the perspective of faculty, staff, student, or other, the fact is, the hub[bub] of the third floor is the heart[h] of this institution.

The third floor (especially CMYK) is not the heart[h] of this institution because it is where the studios are, or where we hold reviews. It is the heart[h] because it is the pedagogical center—its form is the latent message of what the institution has to offer that is sincere beyond the objects that we fill it with. For me, that message is dis.course.

If discourse is defined as a conversation, or thought communicated through speech, or a course of reasoning from premise to outcome, dis.course is situated within this territory while encompassing everything that is the “other”: the realm of possibilities; every path not taken, every tangential line of reasoning, every potential course of action. Dis.course is the gritty, less traveled avenue of discussion; the syncopated messiness of negotiating a critical mass of ideas—resistance to a cleanly sealed, neat argument, and bane of an illusively set course.

It is hard to say whether dis.course defines the third floor, or if the third floor defines dis.course, but regardless, the link between dis.course and the third floor, like the audible flows between CMYK, are inextricable. The third floor is messy and unkempt when it is at its best. Desks and credenzas negotiate an economy of proximity to natural light, climate control, and direct access to the power grid, and the floor has a delightful coating of chipboard, foam core, and a pink, powdery residue. Although unsightly at first, the physical messiness is an illustrative product of a happy interior messiness—the result of productive identity crises, schizophrенийs, and thrilling neuroses.

To think that even through the clean-house paradigm that digital media and advanced digital modes of fabrication facilitate, the messiness of dis.course can be a desirable condition is hopeful. It is not that I have a fetish for scrap, or that I am nostalgic for the X-acto knife but rather the fact that the informality and uncertainty of messy modes of dis.course on the third floor leads me to believe
that there is room for a wider degree of tolerances that digital means cannot easily cope with, and that within this space is the potential to produce some of the most interesting and lively discussions.

Although the third floor is an immediate example of dis-course, it should not be limited to a particular site but rather situated within larger pedagogical and disciplinary questions.

Architecture schools must contend with responsibilities to the profession as well as accreditation requirements, which at times leads to a tidying up, and tightening up, of the workshop quality of the studio experience. These pressures tend to privilege certain kinds of projects over others to represent the institution in the face of these responsibilities. The kind of project that tends to be on the receiving end of this privilege is the one that advances clarity and certainty at its core. It is not to say that these are anything less than highly admirable qualities, but from my naïve perspective there is a larger institutional issue at stake: that by preferencing this type of project as a measure of success for an institution, we run the risk of undermining sincere dis-course.

It is also about a general questioning of clarity and certainty as the only model of logic for the discipline. While desirable on one level, clarity and certainty tend to ignore a whole set of potential lines of discussion. They are facile communicators, but also exclusive and reliant on closed loop logics. Dis/course, on the other hand, uses messiness and uncertainty as a viable logic—the same logic that allows one to imagine the multiple uses of architecture and the possibility of multiple readings. This messiness and uncertainty of dis/course is about a more permissive legibility of architecture—one that has the potential to direct the discipline toward unexpected and unforeseen territories of discussion. It is also a means of exploration and research that unabashedly seeks out the latent qualities and potentials of space. Once sought out, latency and potential can be brought to the surface, engaging in productive oppositional play with the logics of clarity and uncertainty.

"It is hard to say whether dis.course defines the third floor, or if the third floor defines dis.course."
Engaging messiness and bringing it to the forefront for its integral role in the discipline of architecture is a method of operating through the agency of disourse that reinforms the work of the institution; the institution as a place where we seek out the difficult, ill-defined situation and manage or curate it, not through the reductive logic of clarity and certainty, but through playful engagements that prod the foundations of architecture as a way of reinscribing our knowledge onto the discipline.

According to Mark Wigley, schools work hard to hide the fact that at the heart of the discipline is doubt, enigma, and uncertainty. There are varying degrees to which institutions fall into this habit, but here we benefit greatly from the rich moments when doubt, enigma, and uncertainty reveal themselves. We should embrace these exuberant moments not as signs of weakness or sources of concern but as opportune moments to learn and to teach, and moments that can create genuine disourse that have the possibility of resonating beyond these walls. They are these moments of exuberance that define this institution and make it unique—these are the moments that are the fire at the heart[he] of this institution.
Tricks
Techniques to Subvert Power

Interview with Jeffrey Kipnis
Jeffrey Kipnis is professor of architectural design and theory at the Knowlton School of Architecture of The Ohio State University. His writings on art and architecture have appeared in such publications as Log, Hunch, Harvard Design Magazine, Quaderns, 2G, El Croquis, Art Forum, Assemblage, and his books include Chora & Work: Jacques Derrida and Peter Eisenman, Perfect Acts of Architecture, and Philip Johnson’s Glass House. As architecture/design curator for the Wexner Center for the Arts, he organized the design survey, Mood River, and Suite Fantastique, a compilation of four exhibitions woven together as one installation: Imaginary Forces – Motion Graphics; The Furniture of Scott Burton, and Perfect Acts of Architecture and the Predator, a collaboration between Fabian Marcaccio and Greg Lynn. He curated the retrospective of the work of Coop Himmelb(l)au organized by the MAK in Vienna entitled, Beyond the Blue. His film, A Constructive Madness, produced in collaboration with Tom Ball and Brian Neff, looks at Frank Gehry’s work on the unbuilt but seminal Peter Lewis house project. His most recent study of Stephen Holl’s Bloch Addition to the Nelson Atkins Museum appears in his latest book, Stone and Feather.
Jeffrey Kipnis, engages with the practice and pedagogy of architecture via multiple avenues, providing new insights into the discipline in an unorthodox fashion. On November 12, 2010, we sat down to ask Kipnis a few questions and quickly received a lesson on the magic of architecture.

Dimensions 24 (D24): You have contributed to the field of architecture as a critic, film maker, designer and teacher. What draws you to these different fields and which approach, in your opinion, has the greatest influence on the discipline?

Jeffrey Kipnis (JK): Clearly, I think my teaching has the biggest effect; writing second. Design does not really suit me well. I have a short attention span. When we were in competitions and got to the final rounds, I hoped we would not win them because I did not want to stay with a project for ten years. So I do not have the patience for design in the sense of private practice. In film making, I was trying to find another way to write a book that would be more fun for me and easier for other people. I wish it were my writing that was the most influential. I am pretty sure it is my teaching.

D24: In reference to one of your essays from 1992, *Forms of Irrationality*, you wrote about how “architecture is constitutionally unable to exceed forces of appropriation by external, economic, and political conditions that appropriate and trivialize architecture. The trivialization is merely the symptom not the cause of the decline” Could you discuss that statement in light of our present economic and political condition?

JK: Was that 18 years ago? I think it sounds like an interesting guy. I would like to meet that guy, whoever wrote that. Since that time I learned that other people said similar things before me and better. There is a long history of philosophical skepticism about architecture. Particularly in philosophies that are interested in increasing freedom and democracy because architecture seems to only serve power and does its best work when it serves instantiated power. The problem with modernism was, for example, to try to find the architecture that could serve a different kind of constituency. It tried to be revolutionary and it was almost revolutionary. But that was pointless since only people in power have enough money to pay for architecture and can have it paid for. Since that time, the architects I am most interested in have learned to make the work trickier, so that as it serves power, which it always does, it can also work to alleviate the oppressiveness of it.

D24: In your opinion, what are some of the examples of that?

JK: Probably the most obviously successful is Koolhaas' work. If you go to Prada in New York, everybody that walks in the door is rich and famous and wants to spend a lot of money on becoming more visible in their wealth and fame. So it is not a critical architecture, it is not
criticizing that. But the devices he utilizes increase the degree of self-consciousness and self-awareness. Everybody goes in there to buy stuff and be looked at, but the store makes you feel so looked at, it is almost impossible to buy anything. By intensifying precisely the effect that the institution wants to achieve, he causes discomfort with it.

At a library, you are supposed to go in, behave, be quiet, and pay attention to the books. At the Seattle Public Library, Koolhaas successfully encourages a much more relaxed atmosphere by changing the character of the visitor. He creates an atmosphere of informality so you do not feel that you are burdened by the expectations of the institution.

Eisenman does something very different. He causes you to stop and think about a building every time you walk in. If you think about a building consciously, then it cannot do unconscious work on you. For example, when you go to a movie, the soundtrack cues your feelings about a movie. If the composer wrote the soundtrack in such a way that caused you to pay close attention to it, it would not work. It might be interesting music but it would not have the power it has in relationship to the movie to affect the audience.

There are a lot of techniques and I think we are extremely successful now in negotiating the fact that we always serve power. Not every discipline does so as ostentatiously as we do. So when you walk in the Supreme Court, if the Supreme Court had lava lamps instead of Greek columns, it would be a little hard to take it seriously. You cannot quite do that, but I think we are pretty good at it.

However, I do not believe architecture and its affects are for everybody. I, for example, love movies and have been to thousands of

“There are a lot of techniques and I think we are extremely successful now in negotiating the fact that we always serve power.”
“Most of architecture’s best affects are like magic affects and you have to study really hard to learn how to do them.”
The minute something affects the world of building at that level, it immediately becomes standard practice. So you do not know the first architect to use electricity, insulation or plumbing because you take these systems for granted. You assume they would be a part of a building but you do not associate their effects with architectural affects. So either there is something wrong with the architectural education system and they teach it completely wrong or there is something right about it and the confusion between the life of buildings and architecture is more profound than people understand. It is a big difference. Anybody can go build a building.

D24: What is the most important thing to gain coming out of school? As a teacher, what do you try to instill in your students?

JK: You have to try to find something that you take personal pleasure in. It has got nothing to do with being a star. No one that is a star, not one star, ever wanted to be a star. Really good architects who do really good jobs, whom no one knows about, just love making clients happy. It is fun. Like a dentist or plumber. They like fooling around with stuff. They have skills and they perform a valuable service. Their life is enriched financially and by self-respect. If you are not driven to do something unusual because you just have to, then just have a nice life. Make sure you get some work and do a good job and that is a damn good thing to do. But I do not think service architecture is a good model for organizational education.

D24: What do you think the role of education is in architecture?

JK: You have to make certain assumptions. People tend to be drawn to the disciplines where they are very sensitive to the affects that the discipline produces, whether it is painting, music, law, chemistry, or whatever. They are drawn to it. It is lucky, if what you like to do is also what you are good at.

I think the role of architectural education is to take advantage of the intuitive relationship between the students and what the field can actually do. Basically, I think going to study architecture is like studying magic. A magic trick is not a magic trick, if you know how to do it. But the affect is fantastic. Most of architecture's best affects are like magic affects and you have to study really hard to learn how to do them. Once you know how to do them, then they are pretty easy. So I think that is the role of architecture school.

D24: I agree that architecture is about creating a certain affects and experiences but to reduce it to a bag of tricks makes it sounds as if design were a formulaic process.

JK: Let me put it this way—acting is technique and technique is doing tricks. The difference between an architectural and a scientific trick is once you have learned a scientific trick it is infinitely reproducible and easy to understand. Architectural tricks are not like that. Like making a building stand up is not an architecture trick. It is not a big
deal at all. It is easy. The affect is difficult to learn and reproduce but once you know it, you will be able to apply it. If you have been taught that inspiration and intuition produces architecture, then you have not been taught. You have just been mystified.

For instance, are you for sustainability?

D24: Yes.

JK: In a few years, environmentally friendly building strategies will be fully worked out and will become code. At that point, every architect will have to do it. The ones who can actually make architectural affects in relation to the sustainability requirements are going to create something new.

D24: Do you push your students to learn new tricks?

JK: I say tricks because it jars people. In Scientific America this month [November 2010] there are 20 neurologists studying the world’s greatest pickpocket to try to figure out how he tricks the brain. They know all about the brain and how his tricks deceive the brain but they still cannot catch him. While he was showing them his tricks, he pickpocketed everybody in the audience. Additionally, he pickpocketed the President’s Secret Service and got all of their secret codes. He was hired by their bosses to see if it could be done and he did it without trouble.

So I teach a lot of tricks. The question is, do you know any tricks? If I were to ask you about your architectural education, what tricks are you confident in performing? For example, let us say you walk into a neighborhood and your client wants a building that fits into the context. Do you know how to do that?

D24: I guess I would first look at the neighboring buildings, the existing proportions, composition, color, material etcetera.

JK: Yeah. Those are tricks. Those are everyday tricks. I would say, did Corbusier add any tricks to that? Did Mies, Gehry, or Koolhaas add any tricks to that? I would think about the history of architecture and somebody who would take that problem and advance it past the obvious. You are talking about stuff you can go to Lowe’s and buy in a book. Match the brick, match the height, maintain the string coursing—and by the way it is a good thing to do that, but it is also incredibly easy. Speaking of proportions for example, did you learn proportional systems? What is the first proportional system you can think of in history?

D24: The Golden Section.

JK: The Golden Section, harmonic ratios, the Corbusier modular in 1935. What happened to proportional systems? A 400-year history where architecture is devoted to proportional systems, is gone. Is that a mistake? Did we just forget about them? Did we get bored? You have no idea really do you?
“The question is, do you know any tricks? If I were to ask you about your architectural education, what tricks are you confident in performing?”
After showing me the lab and its equipment, Thom asked whether I wanted to see the animals. I said I'd love to and Thom asked me to leave my camera in the lab. No cameras around the animals. I left my camera and followed Thom through a door leading to a restricted area (that required both a badge swipe and a code entry), down a hallway, and through another door with a code entry requirement.

The rat room. Rats lined the walls, most having a cage to themselves though some sharing cages (for breeding purposes, I assume). The cages were all carefully labelled, the color of the label indicating the project that the rat in the cage belongs to and the written information on the card being a quantitative summary of the rat’s entire life, past, present, and future. The cages that the rats live in are plastic containers with lids. The lids have air filters to maintain the sterile air for the animals, and the room contained a sterile air hood so that the rats could be taken out of their containers in there. I asked how the rats are transported to the lab, since the rat room and the lab are fairly far from each other, and Thom told me that the rats can be transported in their cages, but not without something to cloak them. It is not in their best interest to walk through public hallways with visible animals. In fact, the animals are only seen by the lab technicians. The rat room does not have anything close to any permeability to the outside world.
After showing me the lab and its equipment, Thom asked whether I wanted to see the animals. I said I'd love to and Thom asked me to leave my camera in the lab. No cameras around the animals. I left my camera and followed Thom through a door leading to a restricted area (that required both a badge swipe and a code entry), down a hallway, and through another door with a code entry requirement. The rat room. Rats lined the walls, most having a cage to themselves though some sharing cages (for breeding purposes, I assume). The cages were all carefully labelled, the color of the label indicating the project that the rat in the cage belongs to and the written information on the card being a quantitative summary of the rat's entire life, past, present, and future. The cages that the rats live in are plastic containers with lids. The lids have air filters to maintain the sterile air for the animals, and the room contained a sterile air hood so that the rats could be taken out of their containers in there. I asked how the rats are transported to the lab, since the rat room and the lab are fairly far from each other, and Thom told me that the rats can be transported in their cages, but not without something to cloak them. It is not in their best interest to walk through public hallways with visible animals. In fact, the animals are only seen by the lab technicians. The rat room does not have anything close to any permeability to the outside world.
After the rat room, Thom took me to the mouse room. The mouse room is pretty similar to the rat room, but the cages (and the animals) are smaller. The mice also have more babies, there were lots and lots of babies, usually piled on top of each other. The mouse cages held many mice, not just one or two like the rats. While the rats were all white in fur color, there was more variety in the mice. There were white mice (which Thom said were albinos), black mice, and mice with both black and white on their fur. The mice that had duotone fur were embryonic stem cell chimeras. The chimeras are genetically engineered, born from the unnatural combination of different sets of genes that were never intended to be combined.
Every space and object has life-like qualities, whether latent or apparent. Employing xenotransplantation as program, behavior, scale, and siting strategy, objects are treated as alive, and are dissected and rebuilt. Using a technique transplanted from the medical discipline, architecture plays a vital role in the control and dissection of the experientially taboo spaces of medical research.

Architecture of medical research facilities is heavily institutionalized, controlled and sterile, while the practice of medical research is questionable. Bioethical issues linked to medical research practices raise eyebrows, arouse polemical opinions, and intimidate non-participants. If the field of bioethics is defined as the philosophical study of the ethical controversies brought about by advances in biology and medicine, and if spaces and objects all possess life-like qualities, what then are the bioethical issues of architecture? Privileging human-centered design over design that accounts for all animals and objects is potentially unethical. *Xenotransplantation of the [In]Animate* explores the ethical implications of space for animate and inanimate life forms. Rather than providing a solution, the work explores the nature and implications of the argument, suggesting new methods of design, dealing with core issues of the human psyche with respect to acknowledging the existence of sentient thought in inanimate objects.

In the introduction of the Neoplasmatic issue of Architectural Design (2008), Marcos Cruz discusses architecture and fusing the live and the un-live. Cruz suggests that the un-live could be alive, once cells are grown onto it. *Xenotransplantation of the [In]Animate* argues that the un-live does not need biological material to exhibit life-like qualities.

The center for research in xenotransplantation is to be sited on a vacated 30-acre pharmaceutical research and development complex, left empty of human
Designer and building embark on a conversation to decide the building’s siting. Drawings show the building’s dérive on the site, exploring different locations for siting.

Habitation for 18 months. A map of the site from the perspective of deer shows the deer acting as security guards in the absence of a consistent human presence. The deer protect space on the site, and stop to gaze and intimidate while circulating.

Coop Himme(l)blau describes their Blazing Wing Installation project as “a building that does not want to be a building anymore.” The potentially ethically unsound practice of xenotransplantation located at the site of a vacated pharmaceutical research and development complex, suggests a similarly contentious relationship between the building and its designer. The building, represented by short black and green specks, each a potential landing ground, depicts the complex’s search for the best place to site itself. Psychogeographic maps detail the building’s dérive across the complex. Drawings examine both daytime and nighttime site conditions resulting in the siting of the building. Not relying exclusively on considering vacant space and topography, the building’s dérive takes into account other life on the site, such as circulation of deer or the activity of surrounding buildings, and speculates how these characteristics would interact with the potential building.

The research center nestles itself into a hallway of space between a mechanical building and a three-story laboratory with a vivarium in the basement. Building 26 is empty, but suggestive. Building 80 sits on a busy street and operates non-stop. Daylight shows Building 80 as a reflective box with...
The animals that provide the most suitable organs and tissue for human use are baboons and pigs. Accordingly, the center for xenotransplantation needs to accommodate differing scales of inhabitation by the two species, while catering to human usage.

In addition to interacting with humans, baboons, and pigs, the center interacts with deer and other species on the existing site. The building becomes an organism that is part of the ecosystem and helps to govern interactions among species. Exploring the different relationships that assorted species can take on helps to examine the role of the building in the system. While the building is the mechanism that separates the captive and free animals, is the architecture itself

constant noise, while nighttime reveals a transparent three-story box with visible moving parts. The xenotransplantation facility wants to be in plain sight but is somewhat hidden and censored, to allow visitors the choice to ignore or address the bioethical controversies that the building spatializes.

The research facility, while nestled behind a constantly breathing and moving building, is opportunistic and lurks in the shadows of movement. The questionable ethics that go on within are not closed off to passers-by, and in fact, arouse curiosity. However, the mystery of the program in addition to the artifacts contained within often intimidate human pedestrians.
Dissection, cleansing, and repair of a second-hand gurney forms part of the conversation between object and maker, seeking to evaluate where the gurney has been, what its strengths are and what it could become based on the given parts.
Sensitive to the sentient consciousness inherent in all living and non-living beings, life and death cycle issues are brought to the forefront.
The model sets the stage for the operating theater. Test tubes with building parts, pills, and entrails surround the built form and other material palettes for objects linger close by. The operating theater teaches surgery on the inanimate, but calls to attention the life present in any object on the table.

Xenotransplantation presents a non-institutional method of design to be imposed upon institutions. There exists life in every object, animate or inanimate, and further, design of all spaces should take this life and activity into account. Efficient, effective, and appropriate design is not merely human-centered, but life-centered.

Notes
Effecting Social Change

Architecture as Servitude

By: Lauren Jones

Bachelor of Science Candidate, 2011
Prepared in Mireille Roddier’s Design Fundamentals II

We have learned from the modernist movement, which privileged form in architecture as a way of supporting an ideal version of life, that architectural form cannot transform human attitudes or processes. Idealized social processes and interactions cannot be brought to fruition through a particular arrangement of inanimate forms and materials. Yet, architecture must provide the spatial conditions for social processes to play out. How do we design for dynamic human interactions and movements? How do we put forth a definite form to house these without imposing a set of defined parameters that didactically regulate human interaction? I do not presume to possess a solution but intend to suggest an initial approach that may serve as a starting point for an architecture that seeks to support social change.

The demolition of Pruitt-Igoe is often cited as evidence of the failure of the modernist movement’s attempts at public service. While the architects of these projects may have intended to benefit their low-income residents, the process was one of imposition rather than collaboration. In Walter Benjamin’s terms, the architects produced according to the existing methods of production, rather than seeking to provide the recipients of the architecture with access to the process of production at some level. Social architecture is not about steering social outcomes toward an ideal through architectural composition but instead aims to provide the conditions to allow social factors and processes to guide and define the architecture. It does not operate in the elitist, conceptual realm that is comprised mainly by intellectuals and members of the field but focuses on serving the public. In the experiment that social architecture will necessarily begin as, the architect must not be interested in advancing architecture for conceptual reintegration into the
aesthetic or formal aspirations of architecture itself, viewing the client (or user) as the dependent variable that is effected. Instead, the user is the independent variable, defining and affecting the architecture. Architects should seek innovative solutions to pressing social issues as evaluated through the input and criticism of the public, conforming to the needs of specific users rather than existing to satisfy intellectual discourse and architectural critics.

This architecture of public service would be inherently humanist, site and user specific, integrated into the larger social network and responsive to potentially changing conditions. The architecture that is concerned with formal autonomy, proliferated by the Greys, exists only in the realm of conceptual and intellectual. While the formal approach is valuable as a tool for furthering the study of architecture and the language in which it is expressed, it is oriented toward the intellectual rather than the user. The architect is the detached viewer described by Michel de Certeau in “Walking in the City,” not the occupant or user of the building, who must deal with the realities of spatial and material composition. The user must then reorient her movements to conform to the ideal manifested in the building. Architects interested in serving the user rather than the study of architecture would need to become reacquainted with the physical realities of construction and the urban environment. The practice would move away from the purely conceptual toward the practical, thereby placing the designer—she who possesses the tools of production—nearer to the requirements of design and its implications in the real world.

In an architecture of public service, the architect would seek to serve the user, indexing the specific concerns and ideals of the person or group of people who will occupy the architecture and formulate the architecture accordingly. Design-build programs could be an integral

“This architecture of public service would be inherently humanist, site and user specific.”
part of reorienting the focus of the architect and understanding the physical realities of design. Under former director Sam Mockbee, the Rural Studio of Auburn University provided low-income residents of Greensboro, Alabama with innovative solutions to a lack of housing. In one instance, the architecture students used old carpet tiles to construct a house for the Williams family and built a tower above one of the resident's bedrooms to allow her a view of the stars from her bed, which she had specifically requested. The architects did not only hear the requests of the residents before construction, but returned to reevaluate and refurbish the carpet tile system after years of compression, turning the process from one characterized by a definitive end or deposit to one concerned with long-term investment and return.

In this way, architecture could be responsive to changing conditions over time. It would be optimistic without being didactic, creating an environment for potential social interactions rather than a priori, intentional ones. This might mean providing a varied set of spatial elements or conditions to be manipulated and exploited for different uses by changing users over time. Reyner Banham posited this approach with his conceptual design for the Clip-On City in the early 1960s, envisioning “a zone of total probability, in which the possibility of participating in practically anything could be caused to exist.” This concept of a built environment that could provide space for any number of activities or uses was essentially visualized by Banham as a blank space containing theoretical potential, but would in reality require physical form. The idea has recently been reinterpreted in the context of landscape urbanism as an urban surface that could be layered in such a way as to provide varied conditions for varied uses. James Corner describes the form that may result, offering a physical precipitation of the concepts posed by Banham decades earlier. The urban surface would create a continuous, interconnected environment that would simultaneously create private spaces and varied conditions. Similarly, social architecture would address the concerns of specific users, creating particular or custom environments but would place these buildings in direct connection with the larger community or global whole. Unlike the public housing projects of American modernism, which sought to create enclosed communities according to an idealized way of life envisioned by authorities for the residents, the architect would not only open the immediate environment to the control of the user but would place that environment within the larger whole.

Unlike architecture, which consumes the potential of a site in order to project, Corner distinguishes, “urban infrastructure sows the seeds of future possibility, staging the ground for both uncertainty and promise.” Socially-minded architecture would aim to dissolve this distinction. The architect would address the immediate concerns
of the users while providing the conditions to support changing processes over time. In describing an approach to programming the urban condition for future potential, James Corner reacts to David Harvey's call for “a more socially just, politically emancipatory, ecologically sane mix of spatio-temporal production processes,” noting, “the projection of new possibilities...must derive less from an understanding of form and more from an understanding of process—how things work in space and time.” For the architect, this would mean surrendering control of the design to the trampling of the architecture, literally and figuratively, over time relinquishing rigidity to the decisions of the user.

In the end, architecture interested in social servitude would mean a democratized architecture, making design available to a needy public, not as a product presented to the user from a top-down system but as a system placed in the hands of the user. In this model, the architect might act as facilitator, providing the means and materials for production according to the demands and ideals of the client. Walter Benjamin referenced Brecht in requiring that socially responsible art did not “supply the apparatus of production without, to the utmost extent possible, changing it in accordance with socialism.” In other words, “the [architect] as producer,” that is, an architect concerned with effecting positive social change, would need to place the means of production in the hands of the user rather than simply producing according to the existing, top-down system of production in order to deposit the indifferent product in the user's hands. “The more completely [the architect] can orient his activity towards this task,” declares Benjamin, “the more correct will be the political tendency, and necessarily also the higher the technical quality, of his work.” The quality of social architecture rests in its ability to provide the user with the essential conditions to support current social processes while allowing the user the freedom to manipulate the architecture over time according to changing needs.

Notes
Reykjavik Waterwall
An Infrastructure of Shoreline Erosion Protection, Recreation, and Transportation

Lizzie Yarina
Wallenberg Studio Critic: Jennifer Maigret
As global temperatures rise, populations are expected to shift northward from North America to the coasts of Canada, Greenland, and Iceland. Melting polar ice caps will cause shipping routes to shift north, towards the top of the Arctic, thus making Iceland a significant trading port.

In addition to rising water levels, the coast of Reykjavik is made up of soft bedrock eroding at a rate of up to 1.5 meters per year. The boundaries of this young volcanic island are in flux with areas of the country rising, falling, and pulling apart at rapid rates. Threatened by the confluence of these environmental changes, Reykjavik, comprising a medium density downtown area surrounded by suburban sprawl, is a city of 120,000 people with a rising population and vulnerable shoreline.

Currently the southern coast of Reykjavik is protected by a constructed stone and concrete edge. In contrast, the northern coast's soft bedrock is left relatively exposed. The proposed Reykjavik Waterwall proposes an inhabitable sea wall that prevents the city's valuable shoreline from being washed away by the strong currents of the Arctic Ocean. The barrier’s geometry buffers currents, while retaining permeability so that other systems, such as marine organisms, tides, or recreational boats, may continue to pass through.

Implemented incrementally, with a projected timeframe over the next hundred years, the most vulnerable parts of the shoreline are protected first. The phasing plan allows flexibility in the system, as portions can be reconsidered over time and provisions can be made for the creation of new zones for infill or ports. Iceland’s current port, on the northern edge of the city, currently functions near capacity, particularly during the peak of the fishing season. The waterwall allows for the production of a coast, anticipating the addition of new harbors for a changing global shipping network.
Swimming pathways occur either on the wall or adjacent to it, looping the entire city. A series of nodes provide points of entry into the wall system, serving as mediators between the city and the ocean, allowing the waterwall to link to residential neighborhoods, bus routes, and existing road networks. “Wet” nodes contain a series of geothermally heated bathing areas that flow seamlessly into linear pools forming swim paths adjacent to or embedded in the sea wall. “Dry” nodes, containing amenities such as lockers and showers, are integrated into the biking and walking paths and are located in half mile proximity of existing public pools.

A prototypical node located at the delaminated portion of the wall is defined by a series of folding planes that form the terraced entrance landscape, roofscape of the node, and exterior poolscape.

The waterwall is an infrastructural project that combines long-term protection of the city’s shoreline with immediately habitable public space. As the waterwall only protects the city proper, it augments the real estate value of the sheltered area. With the increase in the city’s population, higher-density projects will occur within this zone, reversing current tendencies to sprawl.

Depending on the geography and conditions of the surrounding neighborhood, the wall takes on different properties. Three wall types include a freestanding option that is built in open water where the dropoff of the bedrock is near shore; a delaminated version that allows the path to connect into existing transportation routes while the protecting underwater bedrock offshore; and a floating variety that is situated further offshore where the path can rise and fall in response to tides while remaining a stable element. Proposed mixed-use walking, biking and swimming pathways occur either on the wall or adjacent to it, looping the entire city.
The waterwall comprising elongated pillars running perpendicular to the current deflects the forces eroding Reykjavik's shoreline while simultaneously allowing ecological systems (such as tides, people and fish) to pass through. Valuable shoreline real estate is protected, preventing the attrition of new infill.
Nodes placed along the walk/bike/swim paths embedded in the wall serve as points of connection into the city, as well as entry into the system. One node has been designed as a prototype which can be modified to fit different coastal conditions.
Public pools are a prominent social institution in Iceland, and the use of spaces unfolds according to a linear, sequential ritual. One enters, circulates through the locker rooms, the showers, and a series of increasingly hotter pools, before going into the lap pool. Sequencing is explicit in the node prototype but allows for reinterpretation as well. The linear pool embedded in the waterwall replaces the lap pool, and a landscape of geothermally-heated tidal pools and terracing allows for a direct connection to the sea. While each node considers the specificities of its site, they can be reconfigured to fit any site along the proposed system.

An experiential infrastructure, the waterwall allows one to encounter Iceland’s extreme climate from a new vantage point. How one might move through and interface with the waterwall is crucial to its design,
allowing users to encounter more vividly the intensity of a brewing storm while walking upon the floating path over deep waters. The magical stillness of a break pool during aurora borealis, the refreshing chill of dipping one's toes in an ocean-side tidal pool, or the excitement of a child playing in a geothermal pool during a winter snowstorm.

Bringing awareness to the impact of climate change on architectural design, the Reykavik Waterwall defines a flexible infrastructure which provides an immediate public amenity to the city, while also considering the city's long-term needs for protection and densification.

Notes

Farm-Ecology
Transforming the Riverscape

Westley Josiah Burger
Wallenberg Studio Critic: Ellie Abrons
The site for the project lies on the north bank of the river, adjacent to a large residential area. The location of the project affords the community easy access due to an existing infrastructure of roads, sidewalks, and hardscapes.
Amidst the wasteland of pollution and barrenness, a strange new ecosystem is formed in the Los Angeles River. Dubbed a freakology by David Fletcher, the river sustains a symbiotic relationship between garbage, native and non-native species of wildlife. Nourished by the city’s effluence, the river—known as “Mother Ditch” to the original Native American inhabitants of the basin—is the unlikely site for regeneration.

Since the transformation of the river from a natural waterway to an artificial flood-control mechanism, the number of species inhabiting the river has risen. When floods occur, the discharge causes the migration of large amounts of garbage, as well as non-native plant and animal species from the city streets and storm drains to the river. The introduction of new species to the river’s ecosystem via the city’s runoff, results in a unique opportunity for new ecological relationships to form.

Native inhabitants of the river include the steelhead trout, carp, various species of herons and egrets, mallard ducks, cottonwood, black walnut, cattails, and elderberries. Newly introduced species of flora and fauna include tilapia, Amazon sail-fin catfish, mustard, tamarisk, fennel and others. Together, they form a diverse, vibrant ecology, coexisting side-by-side with pollutants.

Currently, the majority of Los Angeles’ inhabitants are ignorant of the rich ecosystem flowing through the middle of their city. The most frequent users of the river are the people who live along its banks, performing various daily activities such as walking their pets, picnicking, or even fishing for dinner. Other residents utilize the long sidewalks stretching for miles on either side of the river for cycling and rollerblading.

Until now, the freakology of the river is primarily accidental, composed of unedited influxes to the ecosystem. By engineering purposeful additions, Farm-Ecology injects new elements that enhance the river’s existing ecosystem, expanding its territorial reach, appropriating the environs of the trash-filled trench and populating it with...
Terraces provide space for community gardens, allowing people to reengage with the river.
public program. Community gardens, stores, and restaurants allow the citizens of adjacent neighborhoods to reengage with the river on a personal level. Over time, the newly introduced plant and animal species and program activities will spread from the site to other areas of the river.

*Farm-Ecology* reenvisions the existing boundary between the community and the river by creating a permeable border and allowing residents unrestricted access to the river. The site was chosen for its lush vegetation, adjacency to an existing residential community, as well as pedestrian and vehicular access. Proposed programmatic elements include crop plots; a dairy farm; cafe and restaurant; cheesery and creamery; and farmers’ market. Terraces are cut into the bank of the river, making them accessible to gardeners, allowing for crop cultivation in the river itself. The terraces also create space for temporary program to move into the river.

The building’s orientation facilitates the maximization of crop growth, as the warm climate of Los Angeles allows for the continuous cultivation of the gardens. Where possible, the building hugs the river so that the crop plots can bleed into the neighborhood. The linear wooden structure of the building becomes dense and enclosed at certain places to create cover for the various programs. Between these areas, the structure disperses to allow more sunlight to the plants, cross-grain movement through the project and to create outdoor seating areas.

A secondary skin lines the structure to form poché space in enclosed areas and furniture in the outdoor spaces. This space allows appliances, electrical, and plumbing systems to be set into wall. The building’s rotation also creates a crawl space for the storage of gardening tools and equipment. The angled roof prevents it from casting a shadow on the plants.

Notes
Landfill Urbanism
Managing the Crisis of Waste

Dan Weissman
Thesis Advisors: Geoffrey Thün, Craig Borum
As a child, my father would take my brother and me to the local junkyard. We would watch, amazed, as the compressor squashed our waste into a dumpster, then scavenge through piles of scrap metal and climb gigantic wheeled Caterpillar earth-movers.

For better or worse, this archetypal junkyard has given way to massively controlled spaces of waste disposal.

Today, continuously increasing demand for material fueled by the consumer economy has perpetuated a culture of disposability. Meanwhile, a thoughtful but shortsighted set of policy measures restricted landfill development, forcing the closure of municipal landfills, while spiraling the growth of individual landfills able to accept material at the regional scale. We have a crisis of waste.

Meanwhile, as landfilling has grown from a localized phenomenon into a regional set of distribution networks, neo-industrialization is emerging throughout the Great Lakes megaregion, suggesting opportunities for landscapes of waste. This project posits that extraction of existing landfill sites for material, energy and airspace is inevitable.

Landfill Urbanism suggests that the act of landfill mining, a contentious and stinky proposition, has the capacity to foster a localized, robust industrial ecology, while also recasting the public’s relationship with our waste through tactical deployment of architecture and urban space-making.

Directed Robotic Trash Extractors (DRT-E) exhume and cultivate material, as the project’s conveyor-belt infrastructure allows individuals, cooperatives and corporations to safely sort and collect based on their needs: a novel approach to accessing our 21st century resource. By allowing complete engagement with the public, Landfill Urbanism fosters productive interdependent relationships between consumers, as well as offering to its users a series of spectacular didactic, practical, and recreational experiences.
Municipal Waste
Hazardous Waste
Another whole Ballgame...

Government Landfill
organic waste
Inorganic Waste
Collection + Piping System
Landfill Gas
Reuse Center
Recycling Facility
Composter
Transportation Costs
Vehicles
Transport Vehicles
Leverage
Vehicles
Compactors
Tipper
Off-Road Dumping
Refuse Trucks
Rolling

Labor
Fuel
Road-Use
Vehicle Construction
Refuse Trucks
Rolling

Unusable demolished car material
'Waste-to-energy'
Incineration

~75%
Transfer Station
Composter
Reuse Center
Recycling Facility

Paper
Plastics
Ferrous

Policy Decisions

Landfill
Cap height
Accepted Volume
Environmental Remediation

Waste Management Companies

Waste Management
National Waste Associates
[Formerly Allied]
Veolia Environmental Services

Alternative Waste Treatment Technologies

Anaerobic digestion
Alcohol/ethanol production
Biodrying
Gasification
In-vessel composting
Mechanical biological treatment
Mechanical heat treatment
Plasma arc waste disposal
Pyrolysis
Sewage treatment
Tunnel composting
UASB (applied to solid wastes)
Waste autoclave

Veolia Environmental Services

Paper
Plastics
Ferrous
Where the public of today consumes, the public of *Landfill Urbanism* harvests.

**Landscapes of Obsolescence**

Alan Berger connotes wasted land as Drosscape, illustrating in his text a categorical set of distinct dross territories visible throughout North America. Of these, the Landscapes of Obsolescence (LOO's) render visible the open loop in material and energy flows.

The landfill, out of the public consciousness, is neglected. Due to the lack of strong governmental oversight, landfill operations have historically been a breeding ground for corruption, excess, and sluggish-to-backward environmental stewardship, its owners focused on waste quantity as income. Recent shifts, due to a more enlightened public and stringent policy decisions following 1990s 'Subtitle D' Federal mandates, have served to increase awareness of the waste management process. Or at least increase the marketing campaigns by the largest waste management corporations expounding their environmental stewardship.

Regardless, the generation of waste is clear. We Americans produce on average some 4.39 pounds of waste per day. However, for much of human history, waste collection and disposal was a purely local process dealing primarily with organic matter, generally relying on natural processes to ultimately renew waste into usable material. The proliferation of inorganic materials into the 20–21st century waste stream has exacerbated traditional waste handling procedures of in-ground disposal or incineration. While costs incurred extracting virgin resources continue to mount, recycling programs have yet to make a significant impact on waste reduction.

**Global Logistics Networks**

The landfill is, by all accounts, the end node of global flows of capital, giving physical form to the inefficiencies in our systems of civilization. According to the first law of
thermodynamics, energy within a system is neither created nor destroyed. What if the landfill is merely a bottleneck inhibiting flow? Landfill extraction removes the bottleneck, injecting currently excluded material back into circulation.

The nascent potential of landfill extraction taps back into the markets and flows from which landfill originated. Landfill mining, when linked with the global supply lines, could bypass the local scale. However, as Pierre Bélanger notes in his essay *Landscape as Infrastructure*, a shift is occurring “from conventionally large, centralized industries of mass production to a decentralized pattern of production.” Global networks require a coarse level of granularity to maintain efficiency, such as seen in standard recycling facilities that sort material by major commodities. This method of sorting does not account for any of the non-standard or finer grained elements in the system, thus classifying them as waste. Landfill Urbanism offers an alternative to perform at both global and local scales. Engage global networks while also offering direct public access unmediated by such networks, allowing for fine-grained economies to fill the gap. Fostering emergent localized networks that complement global flows may facilitate interdependent industrial networks at multiple scales, projecting completely unforeseen growth patterns.

**SEMLDI**

In 2012, the newly formed Federal Agency for Waste Reclamation (FAWR), seeds funds to the State of Michigan to develop a pilot program. Michigan’s Department of Natural Resources and Environment, the agency responsible for landfill development, management and oversight, partners with the Department of Energy, Labor and Economic Growth to form the Southeast Michigan Landfill Development Initiative (SEMLDI). Charged with developing programs to productively utilize the state’s growing resources found within landfills, the Woodland Meadows Landfill constellation has been chosen for this historic pilot project.

Twenty miles from Detroit near the industrial community of Wayne, Waste Management owns and operates the more than 200 acres of active Woodland Meadows landfill adjacent to two capped landfills, as well an additional landfill in excess of 200 acres operated by Republic Waste Services across Interstate 275. These two active fills represent almost a third of the airspace available in the southeast Michigan Region.

**Site Exploration On the Fill**

Directed Robotic Trash Extractors, or DRTE’s, and other mining equipment extract material, as recreational activities such as ATVs or mountain bike riding, snowmobile or even DRTE rides take advantage of the constantly remolded landscape.

**The Power Station**

Directly adjacent to the mound harnesses energy from multiple sources: landfill gas, methane, waste material and biomass incineration.
The Remediation Pond
The remediation pond and living machines handle runoff from the surrounding landfills, and serves to clean and recycle water from both the sorting facility and power station for reuse as cleaning and coolant in both facilities.

The Head House
Three head houses serve as transition points from primary sorting to the line conveyor belts, carrying material into the backlot. The head houses also serve as central locations for public interaction through an interpretive center featuring dynamic viewing experiences of the facility. Here, a convection chimney functions to suck putrid air from the recently exhumed material, generating electricity from a turbine when conditions allow and serving as a dramatic backdrop to the moment of revelation witnessed below. Workers stationed in the pit watch for materials specific to their operations, radioing back to their colleagues stationed along the line. The public is welcome at any time to view or participate in the experience. The structure predicts its own obsolescence and therefore is designed for disassembly.

The Line
Along the 800-foot long conveyor-belt line, lots are rented at rates based on proximity. The closer to the head house, the higher the rent. Although nothing would prevent a single company from removing all of the material on the belt, a significant cross section of material exists on each conveyor belt to serve multiple interests. Cree pulls aluminum and zinc for recycling into their LED heat-sinks, while the Glad company
contracts workers and robotic armatures to capture spent plastic bag material, computer repair specialists collect E-waste, or an artist collective will rent space as a testing ground for multi-media work. While typical sorting facilities of today will only sort what is economically productive to their networks, the line allows any material to be productive again: rusty rebar, eight ounce Styrofoam cups or electric scissors.

The Backlot (Industrial Market)
The backlot’s zoning accommodates any configuration of structure within each 6000 square feet lot—tenants may build any structure they wish within general guidelines to facilitate their own agenda, subdividing or accumulating additional lots as needed. As tenants move in, cross-pollination occurs. Independent harvesters may begin working together, creating new material networks and economies unavailable to traditional recycling practices.

Export Logistics
Unclaimed material is either entered into the global supply lines to buyers via train or truck. If the economy does not exist for particular materials, those materials may be re-deposited in the landfill for future extraction.

The Dirt Farm
As a significant portion of the landfill consists of soil, which is generally used as daily cover, any reclaimed dirt may be remediated and sold to customers.

Conveyor-belt Infrastructure
The junkyard lacks apparent form—an underlying logic exists, but it does not present itself formally to the visitor, making accessibility of materials difficult. Conversely, the traditional recycling facility is logistics based but one-dimensional, seeking specific materials for particular destinations. The Sorted Project proposes that a third, hybrid solution may be the mechanism needed at this newly opened node in material flows.
An emergent market-based urbanism of reuse suggests that on-the-ground access to the flow is critical in fostering novel material industries. Adjacency could allow for disparate tenants to expand their networks in wholly unique and emergent ways, a phenomenon untenable in the drosscape. As previously unproductive material finds meaning and purpose, a new economy emerges.

**Projecting Forward: The Industrial Ecology**

Beyond the scale of the site, the project suggests that re-territorialization of the regional urban ecology is imminent as new industrial, commercial and agricultural spheres grow in the landfill’s shadow, taking advantage of the potential material opportunities. This intensification could adversely affect local residents of the area, as low-density residential development is not a productive adjacency. Rezoning (or un-zoning) of landfill adjacencies will be inevitable to facilitate this industrial ecology.

Projecting beyond the site of the landfill, *Landfill Urbanism* suggests potentials for pre-cycling. Instead of merely digging up the past, the urban and emergent sorting techniques presented could provide the needed filter to redirect material flows before the landfill. Sites and potentials for future work could include denser urban contexts, commercial/light industrial districts, transfer stations and transportation hubs.

**Closure**

Although technological advancement will no doubt attempt to minimize the impacts of increased environmental degradation, alternatives (or augmentations) to existing social practices are critical to maintaining our way of life. *Landfill Urbanism* operates within today’s reality that global capital drives contemporary urbanization and is not seen as a long-term solution, nor does it seek to fix past wrongs. In a perfect world, we as a species would realize that completing the cycle is not a matter of choice, but a critical element of sustaining our very existence. In the mean time, and under the constraints of our current socio-economic reality, the project seeks to take advantage of every possible material and economic opportunity, and therefore is unforgiving in its operations. Yet it projects hope that through a reconditioning of our relationship to waste, the project’s very existence will cease to be relevant at some sought-after moment in the future.

On the landscape of the landfill, entrepreneurs, corporations, artists and consumers collectively struggle to control the energy flow, where closing the cycle is the key to power.
Postscript

Christian Unverzagt
Dimensions 24 Faculty Advisor

Christian Unverzagt is a Lecturer IV in architecture at Taubman College, where his teaching focuses on visual communication and interdisciplinary design methodologies. Unverzagt received his Bachelor of Science (in architecture) from the University of Michigan and his M.Arch with distinction from the Southern California Institute of Architecture (SCI-Arc) in Los Angeles. Unverzagt’s focuses his professional work as the design director at M1/DTW LLC, a nationally recognized, multidisciplinary studio operating at the intersection of design and cultural production.

I was once an editor for Dimensions—and to this day don’t quite know how we did it.

A lone Macintosh inside a windowless ground floor room struggling to keep pace with our ambitions. Along with a modest grayscale display well-suited to the monochromatic work carefully arranged on screen using Quark (or was it PageMaker?) desktop publishing software. Bootlegged fonts passed along from art school friends on so-called ‘floppy’ disks, a bulky never used CD-ROM drive, and an ever growing stack of SyQuest cartridges, each capable of holding a whopping 44 megabytes of our precious data.

These may have been the technical means, but what we were really trying to figure out was what actually binds a book together. How do we gather, order, and shape a collection of disparate contributions into a cohesive and legible whole through the commingled acts of editing and design? We were making it up as we went along, and believed ours an all-important task. Plus, we weren’t the first to take this on—in fact seven other groups had done so ahead of us, so how difficult could it really be?

We were cut off from most of the world, especially by today’s standards, (I’ve probably checked my email more during the writing of this piece than I did that entire year) but we did have a dedicated telephone in the Dimensions ‘office’ in addition to the two pay phones
on the third floor. Yet we were connected to one another working on a collaborative project with an actual budget and a very real deadline, designing something to be made by others. It was a rare opportunity in architecture school to be working with peers, assuming the roles necessary to develop and argue for our ideas. The realization that the responsibility to see it through was entirely upon us was both burdensome and liberating—reaching out to others for guidance, working shoulder to shoulder and face to face, except for the classmate who was no longer speaking with me.5

By the end, and as difficulties mounted6, we nearly lost sight of why we were doing it, and when we finally emerged from that darkened room in the spring, the world outside didn’t look the same7. However, when the boxes of completed books arrived, and we held them in our hands, we remembered why.

It isn’t any easier to give shape to a book today—the computers still can’t keep up and there are even more demands on our time and attention. Walter Benjamin describes architecture as the work of art collectively experienced in a state of distraction. It seems fitting that a book about architecture is produced in an environment with severe competition for one’s time and focus.

The editors of Dimensions 24 recognize these demands and have designed a book aware of this condition while simultaneously attempting to both gather and hone the content while recognizing the multitudinous connections and themes available to the reader.

They have done a tremendous job in stewarding this work and produced a lasting record for this time. I want them to know that in the end, I do know how, but more importantly I do know why they did it too.

18 April 2011
Detroit

Notes
1. A ‘wicked fast’ Macintosh IIx with a 40Mhz processor running System 7.
2. The ‘Dimensions’ office was in a closet-sized room shared with several computers used by the ‘Building Technology Laboratory’ in an area that is now 1227 where it abuts the 3D printing lab.
3. Dimensions currently licenses all typefaces it uses in print.
4. The ‘world wide web’ was in its infancy and e-mail (hyphen used for emphasis) was not a routine form of communication and required the use of a special email client and a computer located inside a computing lab.
5. We eventually resumed speaking to one another and remain dear friends.
6. None of the network printers could handle the output file, so the final proof was sent to the printer in the Dean’s Office, coughing up one sheet every few minutes and barring anyone in the front office from printing for most of the day.
Sandy and Mary Anne: I’m forever indebted!
7. A partial lunar eclipse took place in May 1994 on a clear, blue sky afternoon, and without anyone tweeting about it, I didn’t immediately realize that it was the reason why the light outside wasn’t as intense as it ordinarily would be and feared my eyesight had been forever damaged.
Acknowledgements

We thank the Victor Gondos, Jr. Archives Fund for their support. This fund was established as a memorial to Dr. Gondos ('25) by his widow, Dorothy Gondos Beers. Dr. Gondos was a distinguished archivist and historian who served twenty-three years with the National Archives in Washington, D.C. Mrs. Gondos Beers' intention was that the fund be used to assist architecture students in exercising and improving their writing skills. Since its inception, the fund has supported the publication of this journal for many years. When she died, Mrs. Gondos Beers left a substantial bequest for the Victor Gondos, Jr. Archives Fund, which generously funds writing projects like Dimensions.

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