UM CATALOGUE

07

CON-TENTS

AUM Exhibition 2007 – *Dedale Studio, Patrick Harrop*

Nat Chard

HEAD, DEPARTMENT OF ARCHITECTURE

IN-TRO

Amid a series of changes to significantly enrich the teaching at the University of Manitoba's Department of Architecture, this catalogue documents the first year of a new studio structure. There are twelve studios altogether, one of which is for the pre-masters qualifying students. In the other eleven, the students elect to work with the professor of their choice, based on a series of presentations at the start of the year. A studio lasts two terms and takes students from the last year of their undergraduate degree and above. This mixture of students has worked well; the Masters students mentor the undergraduates, who encourage the Masters students to make a clear distinction in their level of work.

At the start of each section of this document there is a brief description of the studio's content or program, followed by examples of the work done in that studio. There are not enough pages to do justice to each student's work.

One advantage of the studios lasting two terms is that it gives the students time to research their work thoroughly. In many cases the first term is taken up with (mostly propositional) research projects and the second term with a consequent building proposal. Given the space available it is only possible to show the research projects or the building for any student, or when parts of each are shown there is not room to make full sense of their connection. Instead we are showing a range of work that gives a picture of the school. If you would like to see the depth of work undertaken by each student, come to the Architecture Department's Summer Exhibition where much more of the work can be displayed.

After the section on studios there is a selection of work from some of the school's technology courses, where students experiment directly with materials and processes. Some of this work relies heavily on abstract computing, for instance in Patrick Harrop and Peter Hasdell's courses, where advanced fabrication technologies are manipulated to find new manufacturing possibilities for making architecture. In Mark West's course the calculations are partly made by the fabric that forms the concrete or plaster building elements, where the form work also works as an analogue computer. In all cases the students learn the conventions of the processes they are using and then develop ways to take possession of the technology.

While this document holds work that can be shown pictorially, the department has a lively range of courses in History and Theory, Law, Ethics, Professional Practice and Structures that are not covered here.

We have exposed the despair of architecture in today's city.

Ping Hsieh – Helicopolis

Eduardo Aquino

STUDIO: *Yu Ping Hsieh, Anna Ingebrigtsen, Karolina Jastrzebska, Afsaneh Karamzadeh, Maciej Kudrycki, Duane Liang, Nilton Neves, Adam Robinson, Amanda Wormsbecker, Jia Yao* **THESIS:** *Sylvia Alves, Cecelia Moon, Chris Roszell, Josh Rudd*

+15

DENCITY TO SUPERCITY: INVESTIGATING SÃO PAULOSCAPE

The poverty of much urbanist thought can be reduced to a central fallacy: that the city, or Metropolis, expresses itself fully in its physical form, that as a finite concrete object alone it is amenable to analysis and intervention. The city, however, is not this, but rather a perpetually organizing field of forces in movement, each city a specific and unique combination of historical modalities in dynamic composition. – Sanford Kwinter & Daniela Fabricius

Studio +15 (i.e. 15 million and plus) started from the premise that urbanism is at a dead end. However, there is a growing urgency if we consider the fast expansion of cities today. Some time during this or next year the world population living in cities will surpass 50% for the first time. The planet will have 33 megalopolises in 2015 – 27 located in the least developed countries, 19 only in Asia. In 2025 five billion people will be living in cities. 9 of the 10 largest cities will be poor. We don't need to go much further to characterise a terrifying, catastrophic scenario. As architects how do we start to redefine our role in sustaining urban life? How can we address the complex urban dilemma affecting large cities at the beginning of the new century? Studio +15 didn't intend to solve the problems of large cities but instead used this context and scale to investigate possibilities for this current, specific urban condition.

We have engaged in the exploration of dense urban settings through various modes of research and process including fictionalisation, game roles, unconscious acts, juxtapositions, mapping, observation, datascaping, critical assessment, inverted analysis, creating a sense of experimentation and pushing critical imagination, political positioning and social responsibility as simultaneous acts of invention. Starting with *denCity* – a collective, make-believe effort analogous to a dense urban condition – we exercised a range of different simulations, to create the core zone of a made-up large city. The process opened possibilities for undetermined moves, driving intentions away from controlled, self-conscious, and expected positions: a dynamics comparable to the rapid growth of large cities. From the simulacra/speculation of *denCity*, we moved to São Paulo, Brazil, testing derivations of the previous process. São Paulo is a city that grew from 200,000 to 18,000,000 people in the span of a lifetime (80 years) to become one of the largest in the world. Like many other cities São Paulo moves towards the *total city | the any city | the generic city*. Diametrically opposed from the urban conditions of the Canadian prairies, São Paulo offered the necessary radical deviation to motivate compelling learning.

There is a growing urgency if we consider the fast expansion of cities today.

The large city as a *totality* and the limited techniques to consider its complexity makes urbanism dissipate under overwhelmed eyes. Rem Koolhaas says in *Junkspace*, "When we think about space, we have only looked at its containers. As if space itself is invisible, all theory for the production of space is based on an obsessive preoccupation with its opposite: substance and objects, i.e., architecture. Architects could never explain space; *Junkspace* is our punishment for their mystifications." Instead of following the modern paradigm of urbanism, which *only looked at its containers*, we have exposed the despair of architecture in today's city. The efforts developed here responded to the challenge through moves of hybrid programming and engagement of local policies (Jastrzebska); strategies that considered social and physical conditions concurrently (Robinson, Ingebrigtsen); hyperbole as a critical tool (Hsieh, Liang); camouflage against architecture isolationism (Wormsbecker); architecture as infrastructure (Karamzadeh, Rudd); compressed history as a generator of program/form (Roszell); and the city as a system of systems (Robinson, Jastrzebska). Maybe urbanism could be redefined not by what it is, but through *modalities in dynamic composition*, detected in the astonishment that only the critical re-evaluation of *methods* can sustain architecture's participation in the complex growth of our cities.
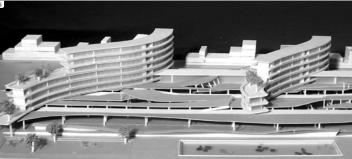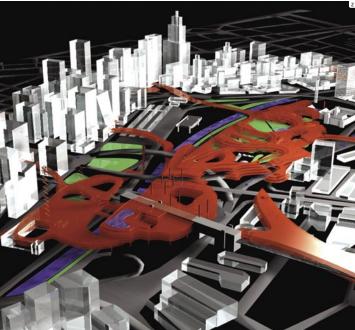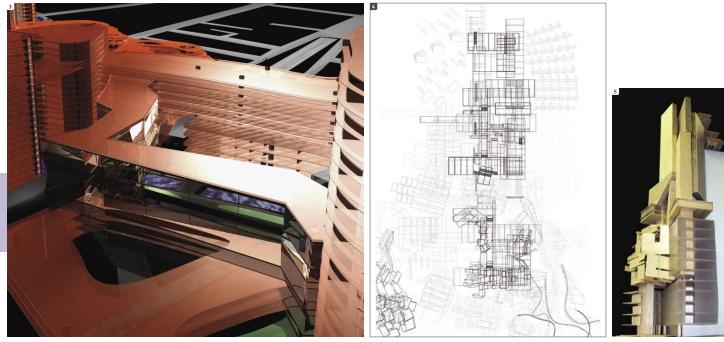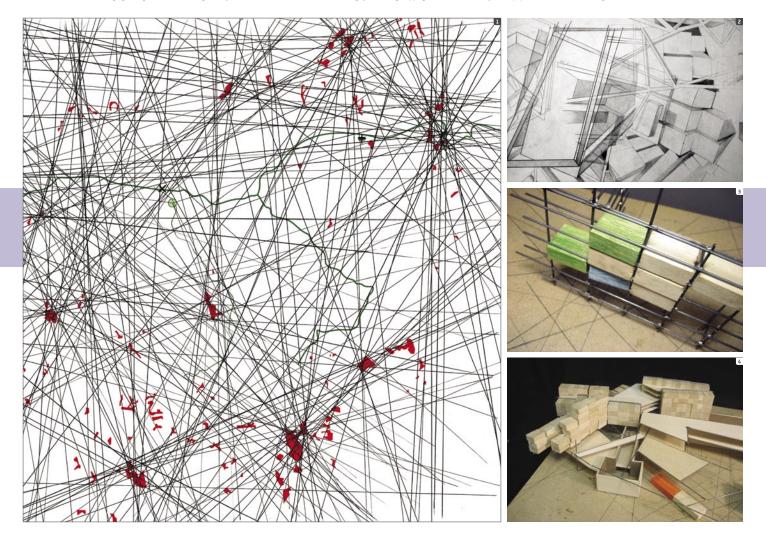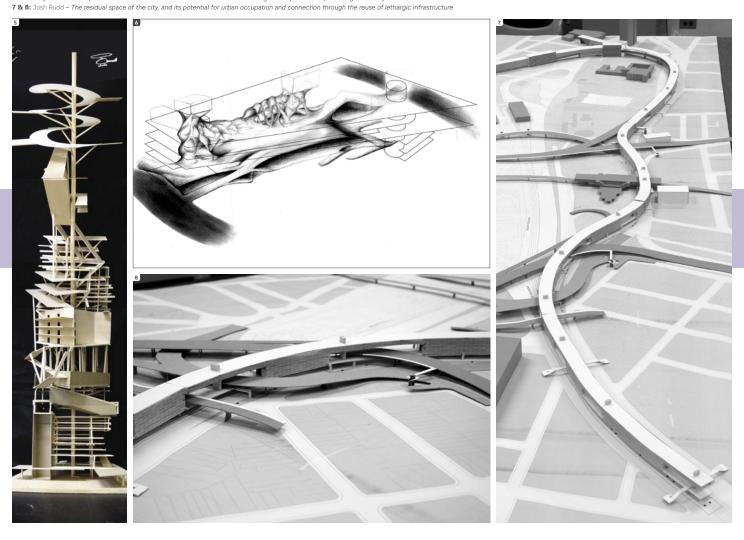
3: Duane Liang – *Hypercity: the use of hyperbole as a critical tool* **4 & 5:** Chris Roszell – *The transformation of the city through compressed historical time is mapped as a new mode of program and form generation*
6: Amanda Wormsbecker – *Writing the city/the city as a text*

5 & 6: Ping Hsieh – *Helicopolis: the downtown is transformed to accommodate the high helicopter traffic producing a new city within a new socio-economic structure*
7 & 8: Josh Rudd – *The residual space of the city, and its potential for urban occupation and connection through the reuse of lethargic infrastructure*

Experimental Practice ...

Jeppe Jensen – *Projectors and screen to study relationships between an Osprey, a Scientist and a Manager*

Nat Chard

STUDIO: *Cedric Boulet, Jason Campbell, Jordy Craddock, Vance Fok, Charity Lepage, Esther Li, Rebecca Loewen, Samantha Lynch, Kyle Martens, Matthew Mcfetrick, Lorna Parashin, Jason Robbins, Rachel Tennenhouse* **THESIS:** *Jeppe Jensen, Gudrun Krabbe*

EXPERI-MENTAL STUDIO

The studio develops experimental practice both as a way to understand the possibility of architecture and as a teaching method. It helps students to develop a critical practice that probes beyond convention. It aims to keep the subject and the culture of architecture alive and relevant while trying to avoid complacency. As a didactic method it proposes that by learning through direct research a student gathers a deeper understanding than they might by being told, even if the thing they discover has been discovered many times before. A concentration on the particularity of the medium of study and the medium of building encourages students to think through the work and not only in advance of it.

Given that architecture is too complex a subject and touches too many disciplines to be resolved simply through logic or rationality, the studio pursues studies that also develop and value intuitive thoughts and skills. The emphasis is on individual research that helps students to value their own positions. A collective site and narratives that touch many projects bring these private conversations into a more social context. This year each student started with a short animated film where the architecture developed around the actions of imagined characters who would later become key occupants of the building projects. The important issues from these films were then developed in research projects. These are particular to each student's fascinations and allow them to develop

Architecture is too complex a subject and touches too many disciplines to be resolved simply through logic or rationality …

research methods particular to their ideas. Typically this work is instrumental, discuss the issue in hand rather than demonstrate or represent something. As a consequence they are made full size (and as real working things) and provide a range of practical and theoretical resistance.

From this research each student developed a proposal for a building on a collective research campus in Beausejour, North East of Winnipeg. Most of the projects are research institutes or their support infrastructure, where the programs are vehicles to test the earlier research. The projects are related through a series of collective narratives.
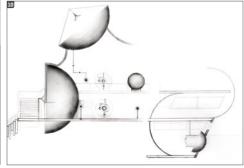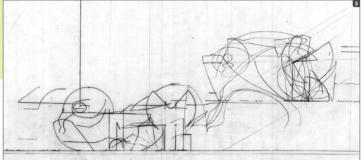
1 & 3: Lorna Parashin – *Choreographic drawing instruments (1); Choreographic driven space; sectional study drawn with instruments above (3)* **2 & 4:** Matthew Mcfetrick – *Formal and pictorial transparency in fish research centre (2); Fish research centre model (4)* **5:** Cedric Boulet – *Non-reciprocal space study*
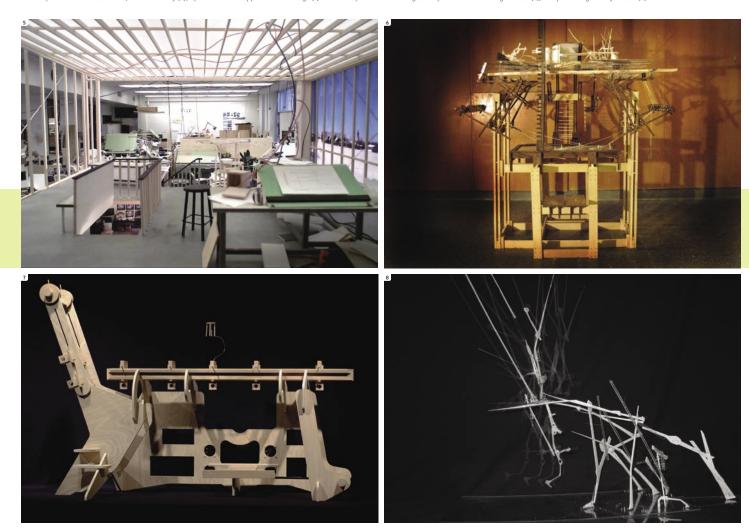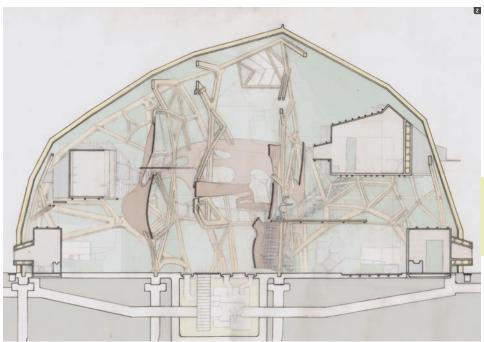
Is architecture ... a human subject any more?

Joel Letkemann – *Shadow Space*

Jae-Sung Chon

STUDIO: *Crystal Arnold, Bobbie Braun, Gillian Brennen, Marnie Gartrell, Joel Letkemann, Debra Ohayon, Laura Smith, Eric Tranquada, Tim Winstanley, Bofei Zhang* **THESIS:** *Krista Bobinski, Andrea Braun, Michael Ferber, Evan Hunter, Catherine Scanlan, Lidan Xu,*
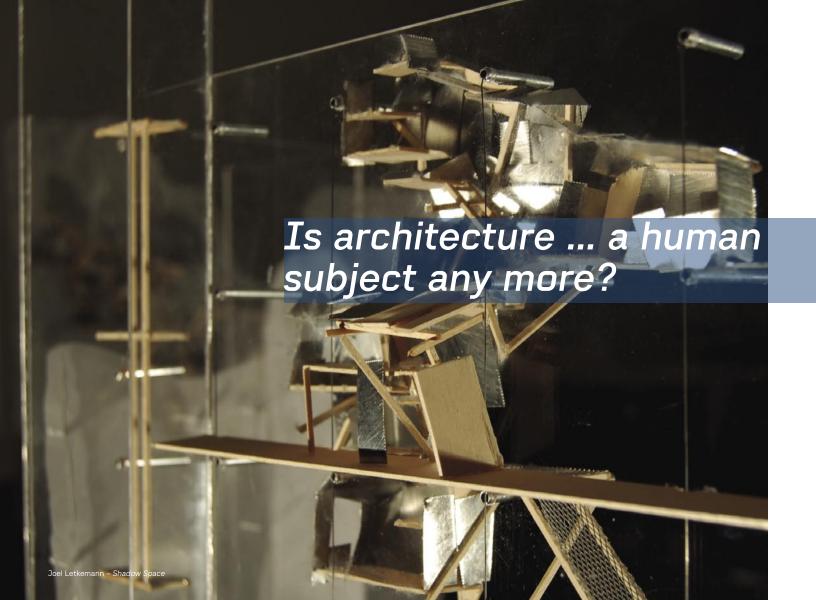
QUASI-STUDIO

Is architecture/city a human subject any more? Was it ever? Temples, libraries, museums, and factories are spatio-temporal dealings of 'others' in the context of socio-political circulations.

In cities, we live with 'others' – organic, systematic, material, and immaterial. This 'living with others', domestic and public, is the art of contemporary urbanism. Architecture, then, is the interface of such living/art.

Human/non-human, such distinction may even be futile. In our making-dos of urban living we constantly incorporate (network) with 'others' expanding and augmenting ourselves. Such situational assemblages are our urban history.

We are then hybrid subjects (cyborgs). As hybrids, we modulate our sense of space and time. Normalized (or idealized) processes may still be pervasive, conforming to our known conventions, but the hybrids among us are actively, perhaps subversively, mutating our conventional practices of space-time.

This mutant practice of space and form, in turn posit skewed relationships with 'nature'. Nature is no longer what it used to be. We can no longer define/claim its 'pure state'. Far from a simple cause-n-effect dynamics, complex negotiations re-organize both human and nature towards a state of 'quasi-subject/object'.
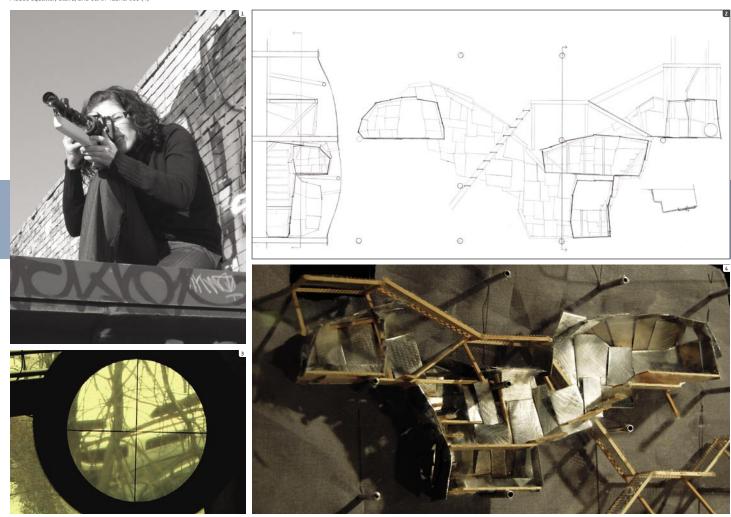
New forms of energy, materiality, spatiality, and temporality emerge out of 'quasi' subjects offering new architectural/urban opportunities.
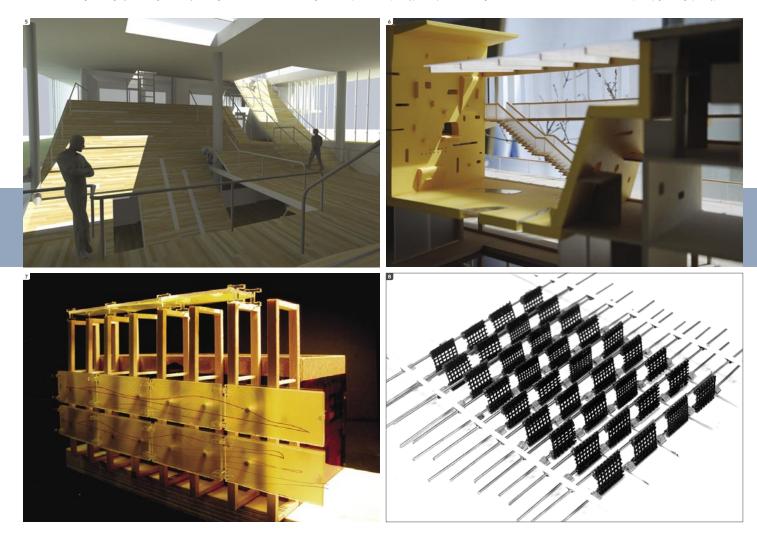
As hybrids, we modulate our sense of space and time ... the hybrids among us are actively, perhaps subversively, mutating our conventional practices of space-time.
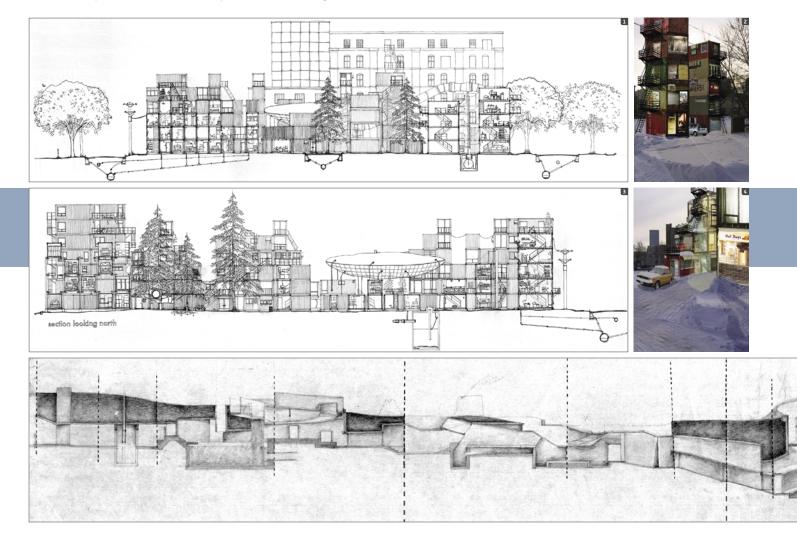
This studio examines such opportunities resulting from the hybridity. Our interest is in decommissioning human as central subject of architecture, and city. Through de-composition, de-identification, and de-colonization of architecture and its central subject (human), we attempt to establish a post (or trans) humanist perspective on architecture and city: *a cyborg urbanism.*

1 & 3: Krista Bobinski – *Urban Surveillance and Appearance of Middle Grounds; Camera-gun (1); Scope-shot test (3)* **2 & 4:** Joel Letkemann – *Shadow Space; Cross section through the squatters on the earth-wall (2); Model; squatter, stairs, and earth-fabric/ties (4)*
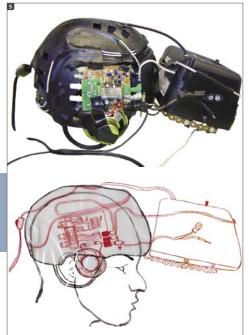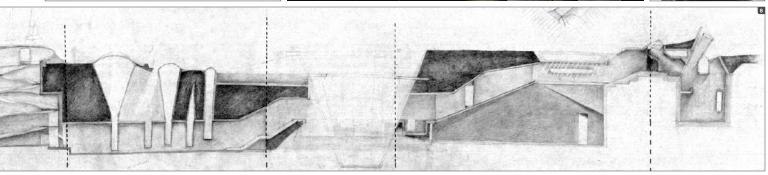
section looking north

5: Eric Tranquada – *Confusion; Confusion machine, light and sound gear* **6:** Tim Winstanley – *Light Housing; light-massing and space* **7:** Bofei Zhang – *Urban Farm; Farm tower archeology*
8: Bobbie Braun – *Collective Spaces; spaces for sound – light, and air thresholds unfolded section journey*

Survivalism as it pervades our imaginations.

Scott McCullough – *Body and Suit, frontal*

Terri Fuglem

STUDIO: Christopher Bretcher, Bianca Hilbert, Andrew Lewthwaite, Scott Mccullough, Lindsay Neal, Karen Nelson, Gerrie Senff, Andrew Slinko, Jocelyn Tanner, Paul Van Ellenberg, Marla Wirasinghe **THESIS:** Aaron Lam, Maria-Josée Lopez
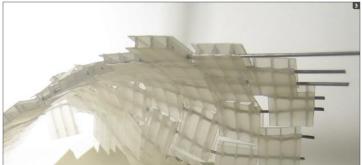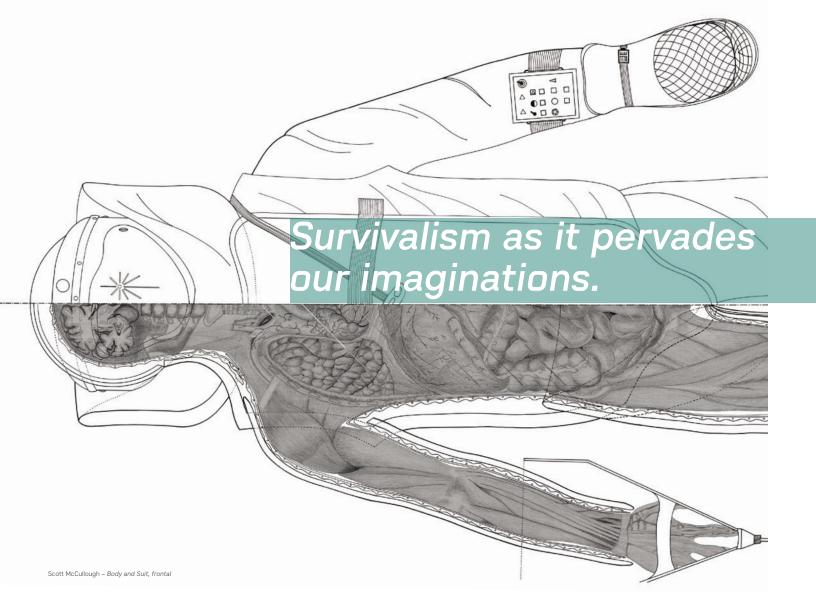
SURVIVAL STUDIO

The theme for this studio derives from an abiding fascination that Canadians share in wilderness survival. Europeans initially admired and learned from First Nations peoples because they helped the Europeans to survive in an inhospitable terrain and climate. For many Canadians it was only three or four generations ago that our forebears were pioneers in this new and difficult frontier. Even today a considerable land mass is still wilderness, and it is equally possible to risk a deadly encounter with a bear in the Rockies as it is to freeze to death on the Perimeter Highway in Winnipeg.

The desire of this studio was to explore deeply-held cultural notions of survivalism as it pervades our imaginations and informs our actions. Survivalism, at first glance, implies the endurance (whether partial or entire) of some aspect of the physical properties of an entity. Prior to the eighteenth century, most cultures believed that spiritual redemption is more important than physical survival. In western culture creation occurred at the hand of an all-knowing creator – for the Greeks, this was a Master Craftsman, and for Christianity, this was the

"What few people reckoned on was that global climate systems are booby-trapped with tipping points and feedback loops, thresholds past which the slow creep of environmental decay gives way to sudden and self-perpetuating collapse."
– Jeffry Kluger

Geometer God. This studio will probe the roots away from this notion of a Designer-God, to a secular notion of creation.

This studio interrogated the historical and theoretical underpinnings of contemporary architectural production with respect to notions of evolution and survivalism. Secular, progressivist notions of time and causality (telos) began to replace the Christian narrative in the 18th century, and Darwin's The Origins of the Species, which competes even today with creationist theories, has irrevocably changed our notions of what it means to be human, and what our place in the universe is. Against this backdrop, this studio investigated survival as it pertains to architecture in its physical, social and transcendental aspects with themes, such as fears of disasters and climate change.
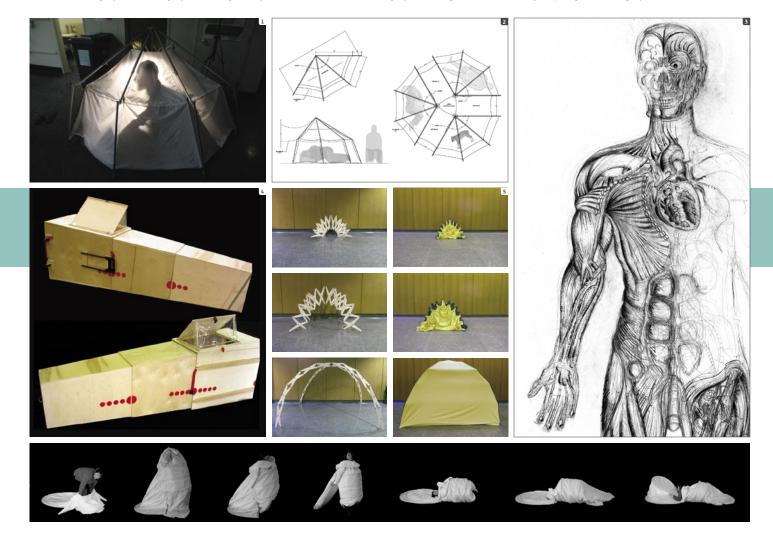
The Body and Survival: Term One emphasized the physical aspects of survival with three projects: an exploration of the body's anatomy; the research of "high-tech"
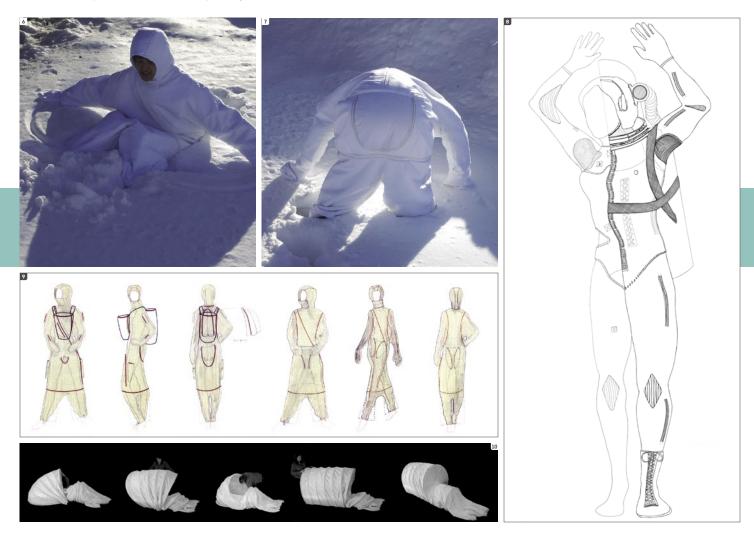
survival suits for extreme conditions; and the design of a survival suit/shelter for cold weather conditions.
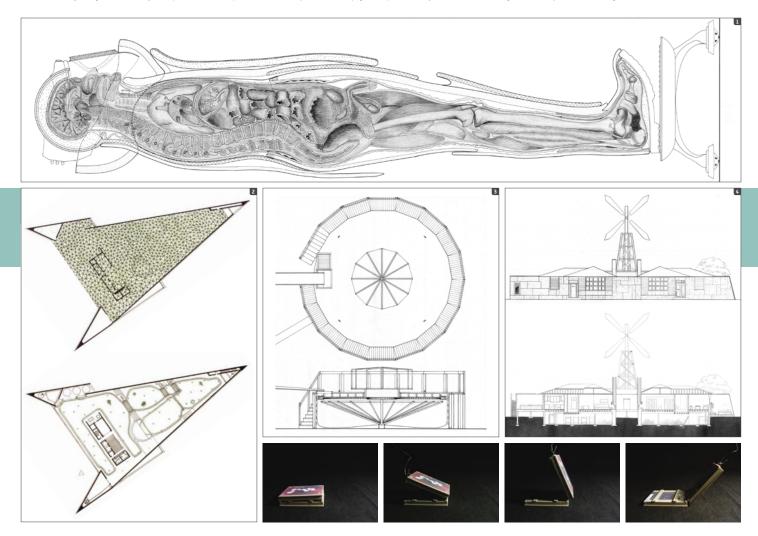
Future Shock (again): the 2030 Project: The scenario of the 2030 Project assumes that our society does little to either mitigate the known human causes of climate change or to adapt to its potential effects. Due to various complex factors, climate change accelerates at a rate greater than the worst predictions; by 2030 temperatures are rising, violent swings in weather patterns are frequent, fossil fuels are prohibitively expensive, and agriculture is now difficult.
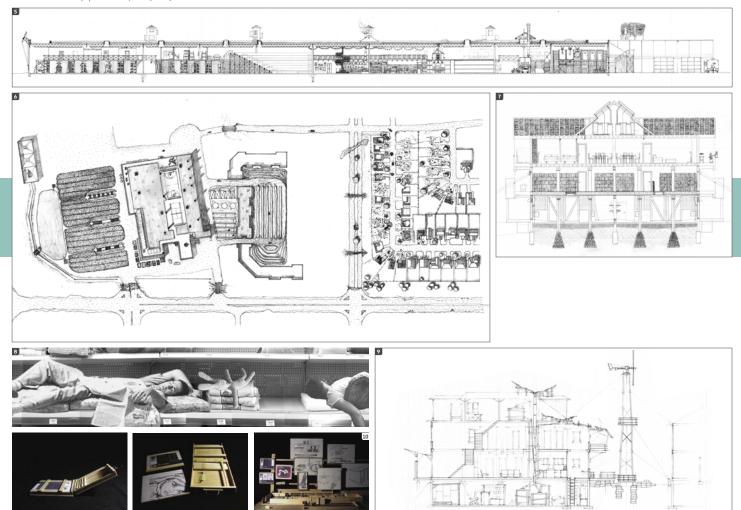
For the 2030 project, each student chose an existing building in the Winnipeg area to adapt to these new circumstances. Urban farms, water collection, passive heating and cooling, transportation, recycling, are some of the issues the students addressed in their projects. As much as addressing the technical aspects of surviving in our given infrastructure with scant availability of fossil fuels, these projects are intended to provoke us out of our complacency.
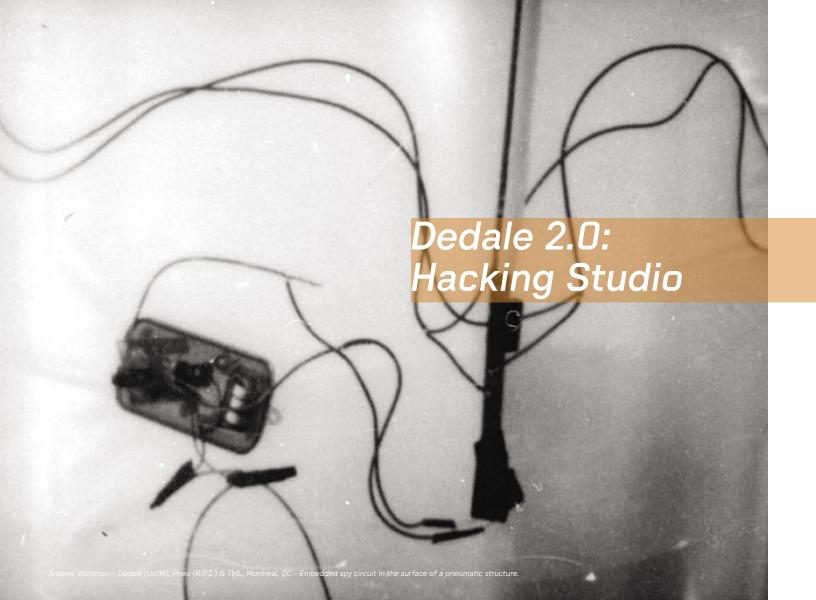
1–3: Aaron Lam – *Emergency shelter (1); Emergency shelter drawings (2); Body-frontal section (3)* **4:** Karen Nelson – *Emergency shelter (Intragut 7000)* **5:** Scott McCullough – *Expanding structure, Emergency shelter*

1: Scott McCullough – *Sagittal section: Body and explosive ordnance disposal suit* **2 & 3:** Jocelyn Tanner – *Winnipeg Arthrospirulina Factory, 2030, Plans (2); Centrifuge (3)* **4:** Lindsay Neal – *Suburban Agricultural Commune in 2030*

5, 6 & 8: Andrew Lewthwaite – *Walmart in 2030: "Big Box - Small World", Section (5); Site Plan (6); Collage of Shelf Shelter (8)* **7:** Gerri Senff – *Tudor Village in 2030, Section* **9:** Paul van Ellenberg – *Building Section: the 2030 Project*
10: Karen Nelson – *Walipops in Walmart, 2030 (Series)*

Dedale 2.0:
Hacking Studio

Andrew Workman - Dedale (UofM), Pneu (R.P.I.) & TML, Montreal, QC - Embedded spy circuit in the surface of a pneumatic structure.

Patrick Harrop

STUDIO: *Spencer Cutten, Carl Drohomereski, Chelsea Grant, Faton Ispahiu, Kyle Janzen, Mia Layco, Darcy Fraser Macdonald, Przemek Pyszczek, Dana Robins, Andrew Workman* **THESIS:** *Ken Borton, Steve Isfeld*

DEDALE STUDIO

And all those other things which, in accordance with theatrical means of machinery. Herein the requisites are careful foresight and the resources of a highly trained intelligence. For nothing of this sort is done without mechanical contrivance to which an alert and masterly attention has been applied. – Vitruvius (Marcus V. Pollio) from Preface to Book X, On Architecture, Granger edition.

"As beautiful as the unexpected meeting, on a dissection table, of a sewing machine and an umbrella" – Compte de Lautreamont, from Les Chants de Maldorer

As a practice long intertwined with the history of technology, architecture finds itself in the odd position of being a shadow of royal science. In truth, our technology resides in the realm of nomadic science; that is the craft of everyday life found in blacksmithing or even making bread. As a point of origin, techne the etymological root of technology, describes more than a craft of material application. Indeed, as personified by Daedalus, techne emphasizes craft as mitigated by metis or magic. Daidala, the resulting genus of inventions synthesized from the most unlikely of programs have the reputation of being animate or even alive.

As a contemporary practice, making architecture with technology needs to carry the implication of making work with both a conscientious (ie: critical) and poetic intention. The cultural urgency is even more apparent now when we are seriously questioning both the viability of how we make with technology as well as its physical and economic sustainability. Architecture has always been a projection and borne witness to every evolution of technology from mass industrialization, mass transportation, electricity and even modern physics. How do we architecturally strategize a critical contemporary practice engaged in the technologies of interactivity, robotics and fabrication? The re-appropriation of abandoned technology is a longstanding practice with a deep history. This is particularly the case when deprived cultures overlap with privileged. Often associated with the underside of emergent technologies, hacker or maker culture provides us with an alternative approach to engaging technology.
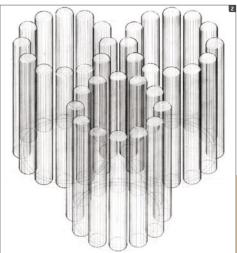
Much like the surrealist project of the mid century, the intentional purpose of an average everyday object can transcend and transform an engineered desire into a poetic, and ultimately public intentionality. This is especially promising when the object is embedded with a temporal and dynamic use. Reverse engineering uncovers the dermal image of purpose, while vivisection emphasizes and preserves its schema.

A daidala device is a projection of such a schema extended into programmatic system. In an urban context it provokes larger public questions of engagement: What can be brought from the ideas generated by the device into this new more complex condition? How will this device engage with the environment? How will it engage with the residents? What will it change? What will it record? Architecturally speaking, rather than behaving as a discreet apparatus, the device could be considered as part of a larger system or, more accurately, a fabricated ARRAY of behavioral interactive systems.

1–3 & 5: Dedale (UofM), Pneu (R.P.I.), TML, Montreal, QC – *Poetry Writing Whale: pneumatic interactive structure (1 & 3); embedded "brain" circuit (5)* 2: Andrew Workman – *Pneumatic structure axonometric*
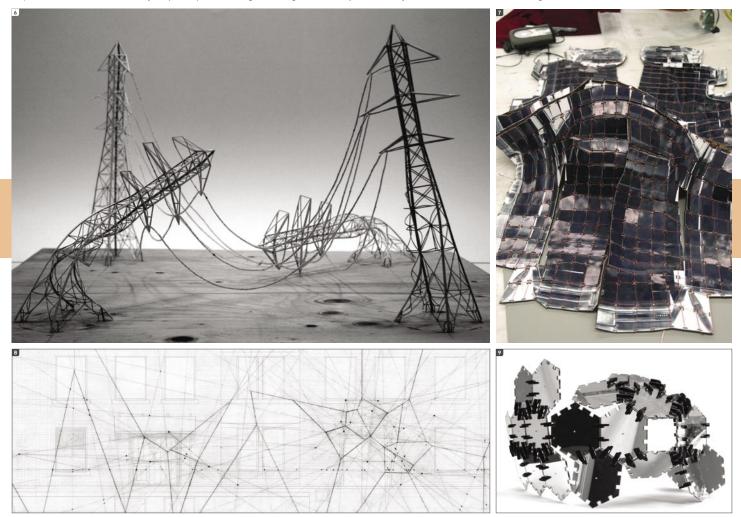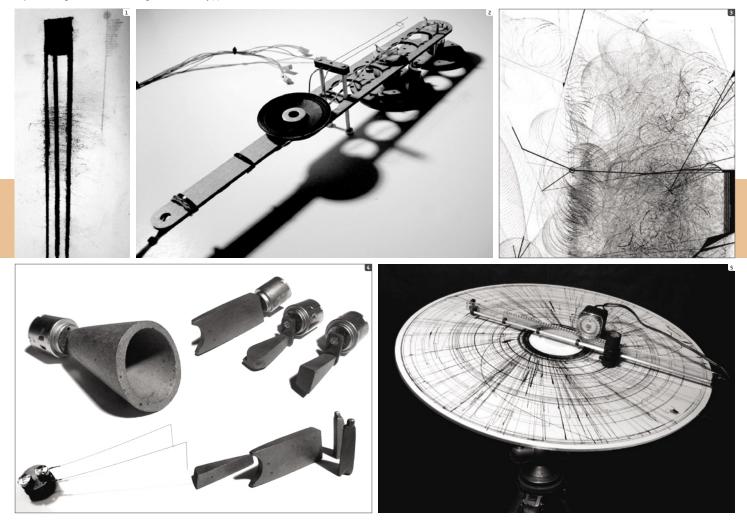4: Przemek Pyszczek – *Inflatable sound generating machine, Polyethelene and harmonica reeds*

6 & 7: Darcy Fraser Macdonald – *Lost Transmissions: analysis and reconstruction of the structural failure of a series of hydro electric towers (6); Cadillac Pelt: splaying and reconfiguration of a 68 Cadillac Fleetwood into flexible photo pelt (7)*
8: Spencer Cutten – *A Voronoi Tessilation Analysis of potential points of anchorage on a building face* **9:** Goretti Layco – *Mirrored acrylic tessilation structure for a reflective building skin*
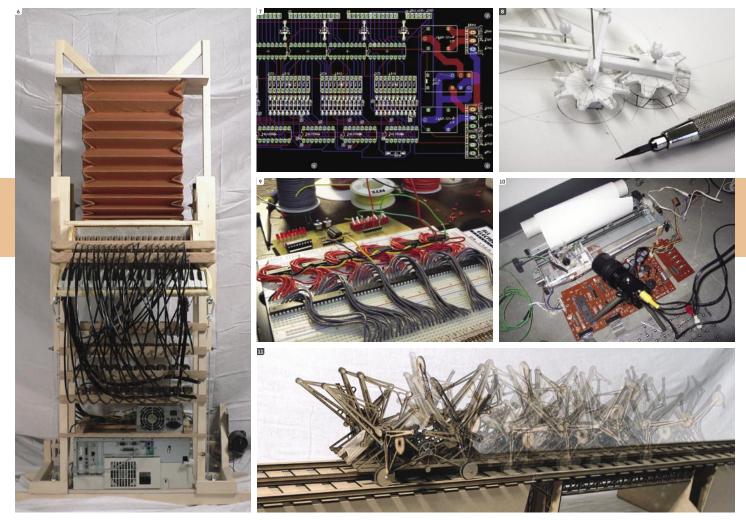
1–5: Kyle Janzen – *Graphite sound circuit (1); Perpetual Drawing Machine v2.0 (2); Automatic drawings from the Perpetual Drawing Machine (3); Motorized cast graphite drawing heads (4); Perpetual Drawing Machine v3.0 for recording the demise of a city (5)*
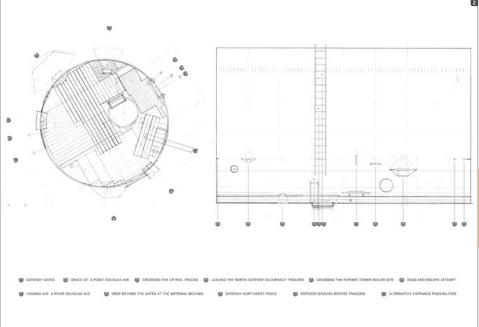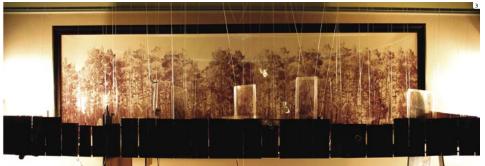
1, 3 & 4: Chelsea Grant – *The reckless abandonment of young Sheldon at age 3 1/2: forgotten playthings – from "Filling in the Blank (1); "Filling in the blank – Mechanized discovery of unknown substrate", the mechanized junkyard, completed (3); Sheldon's Mechanized Cradle, for putting the child to sleep (4)* 2: Ken Borton – *Sheldon's Tower, a scrapyard owner defends his loot reappropriating a scrapped brewery into a guard tower overlooking the neighborhood of Point Douglas*
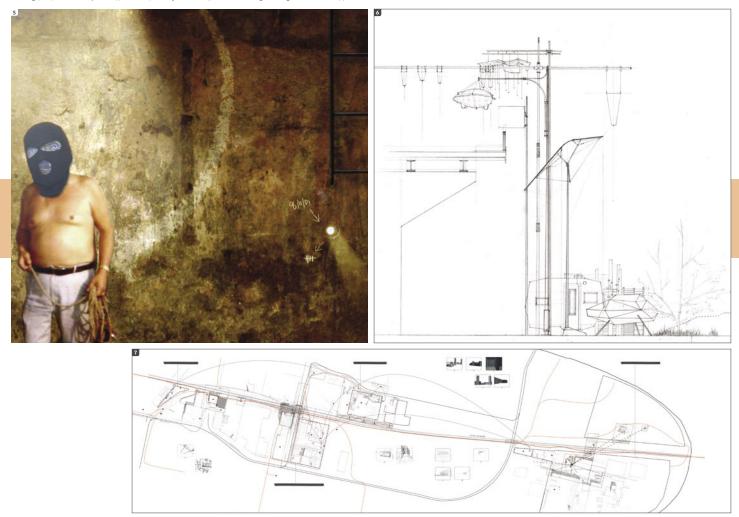
*The slow decay…
the traces of time
through a building.*

Peter Hasdell

STUDIO: Dirk Blouw, Jill Chinna, Maya Cochrane, Candace Fempel, Leif Friggstad, Ryan Gorrie, Colin Herperger, Jie Hong, Byung-hee Kang, Natalie Lovetri, Zach Pauls
THESIS: Michael Banman, Birgitta Bjornsson, Steve Boulton, Justin Dyck, Marshall Kirton, Melissa Mcalister, Jon Reid, Anjali Talwar, Paige Wilson, Jiameng Zeng, Geng Zhang

STUDIO 115

The invisible fields of energy (thermal, light, pressure, sound etc) and the physical issues of form, material and physical space connect through architecture. Architecture in this way mediates energy flows between inside and out. As architecture has developed in parallel with energy, it has allowed settlement in places that would otherwise be inhospitable (too hot, too cold, too wet, too windy etc). This linkage of architecture and energy is a kind of pact with the devil. Because it disconnects the external environment from the internal, heating systems, insulation, air conditioning, humidifiers, dehumidifiers all modulate external environments. At its extreme this displaces architecture from its surroundings and from the idea of place itself. This is a potential to understand Architecture not as pure form and space but as the continual mediation of all types of energy, both within the material of the building but also within the continual inputs of energy which maintain a building. Through this we can start to imagine inert material, inanimate structures as if they are alive and always in the process of changing.

Entropy is a state of matter that tends to the condition of lowest energy. A building will fall down and come to rest at a lower state of energy, the weathering and cracking of timber siding does likewise, eventually decomposing into cellulose and fibres.

As Galiano writes:
"The irruption of energy in the universe of architecture smashes its crystalline images, shakes its mute silhouette and gives it a definitive place in the field of processes and life. Architecture can then be thought of as a transformation of the material environment by changing living beings, an artefact continuously altered by use and circumstance, in constant degradation and repair before the aggression of time, permanently perishing and renewing itself."
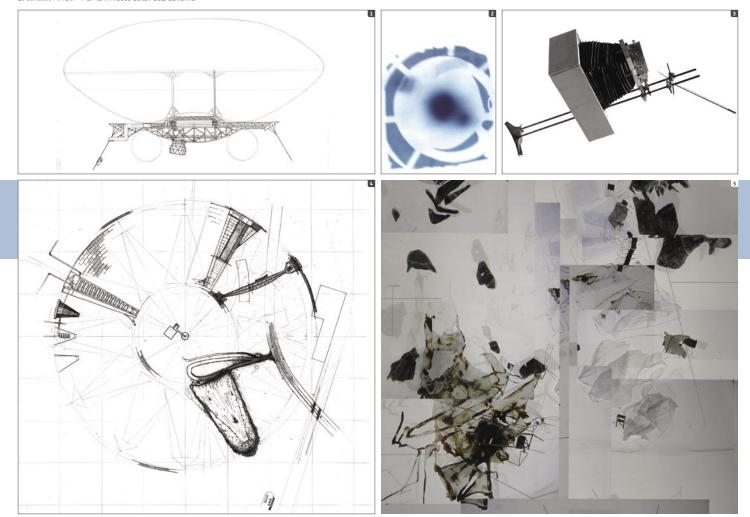
What is the opposite of architectures desire for order? Disorder? Is entropy just form becoming waste? A state of abandonment, decay, decomposition, weathering, dereliction, decline, life cycle, inbuilt redundancy or neglect? The slow decay or wearing away of something the traces of time through a building which includes the traces of the inhabitant's existence?
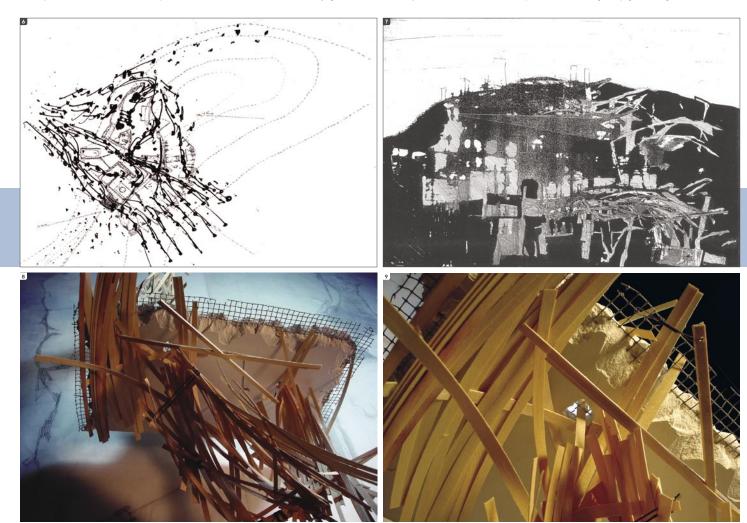
Entropy is a state of matter that tends to the condition of lowest energy. A building will fall down and come to rest at a lower state of energy, the weathering and cracking of timber siding does likewise, eventually decomposing into cellulose and fibres. The thermal gradients through our walls are there to postpone or perhaps delay the inevitability of entropy. The energy content of our materials (embodied energy) requires more energy to be put in to make, transport and erect our architectures.

Can we consider the materials we build with not as static entities but as if all matter is alive, changing and in processes of transformation? A house or a building not as a stable form (which is a moment of relative stability against entropy) but as a series of thermal or energy gradients which are tending towards other configurations? There is a need to critically, playfully and inventively explore these issues. The studio considered a playful, imaginative side to entropic architecture, of the life (and death) of forms, through time and through change.
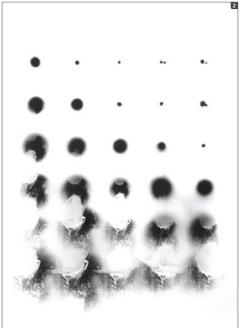
1–4: Dirk Blouw – *Radio telescope airship receiver section (1); Cyanotype print from ice lens camera (2); Ice lens camera (3); Ice Radio Telescope and transhumanist centre plan, Winnipeg (4)*
5: Candace Fempel – *Fish farm model, Salton Sea, California*
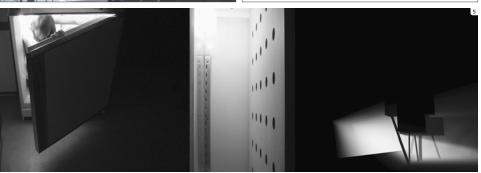
1,2 & 5: Colin Herperger – *Apartment complex model and camera apparatus, Tijuana Border, Mexico (1); Pin-hole camera test sheet (2); a. Living in the fridge b. 30 aperture pin hole camera c. Apartment complex Tijuana (3)*
3 & 4: Byung-hee Kang – *Articulated public space screen, Tijuana, Mexico (3); Unfolding curtain model (4)* **6:** Leif Friggstad – *Subterranean Hydro complex*
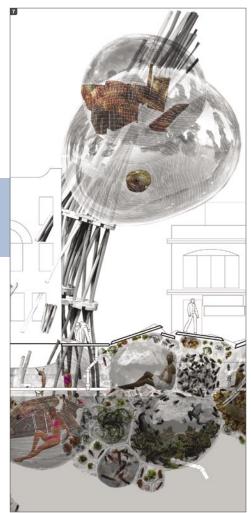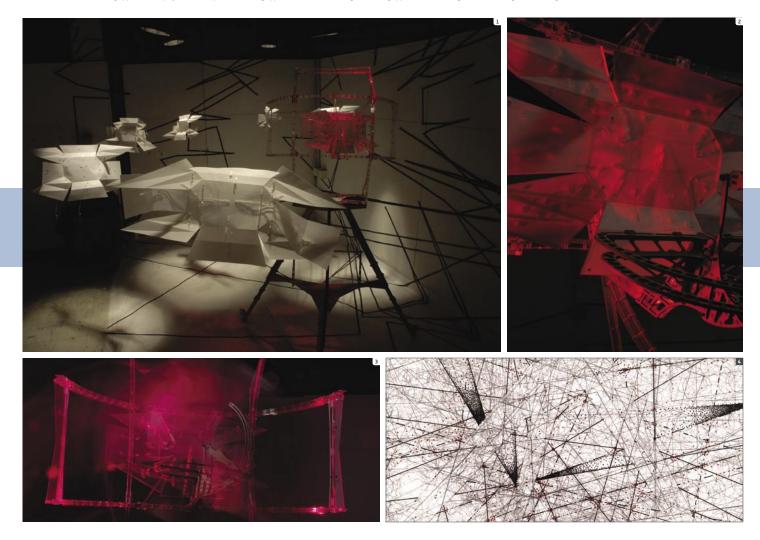
7: Birgitta Bjornsson – *Lost properties complex, Winnipeg* **8–10:** Zach Pauls – *Life and Death in Paradise: utopic and dystopic visions explored within Bombay Beach, California (8); Bombay Beach site model, scenographic viewing instrument (9); Moonlight view: The airstream trailer as a vessel for both life and death (10)*
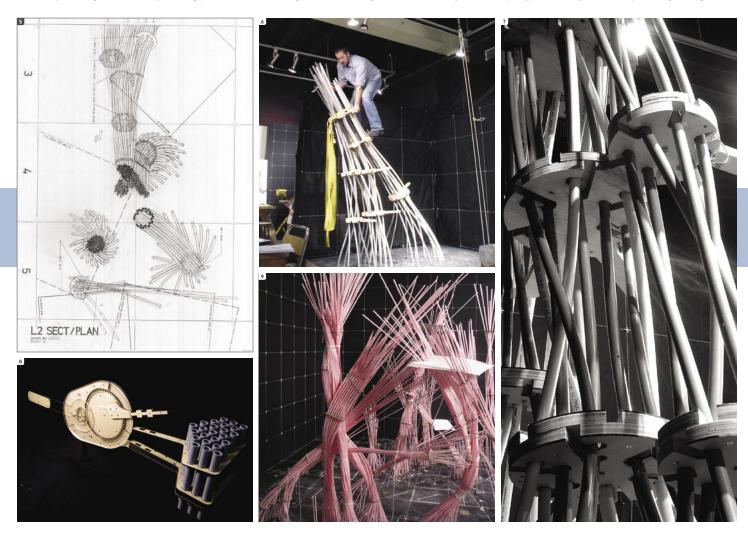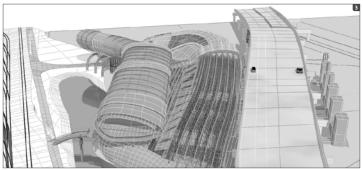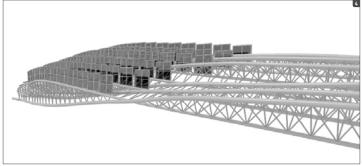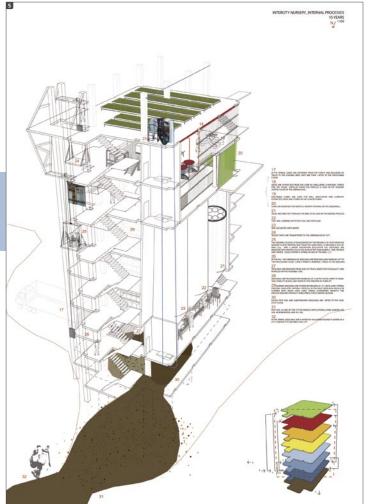
Zero to infinity. Something exceptional from nothing.

Neil Minuk

STUDIO: *Lauren Hauser, Larraine Henning, Lyssa Hulsebosch, Sara Mack, Matthew Norman, Spencer Trombley, Mike Von Tiesenhausen, Mengchun Yang*
THESIS: *Rachel Alpern, Chris Belisle, Jamie Edwardson, Mike Johnson, Lisa Kasprick, Heidi Phillips*
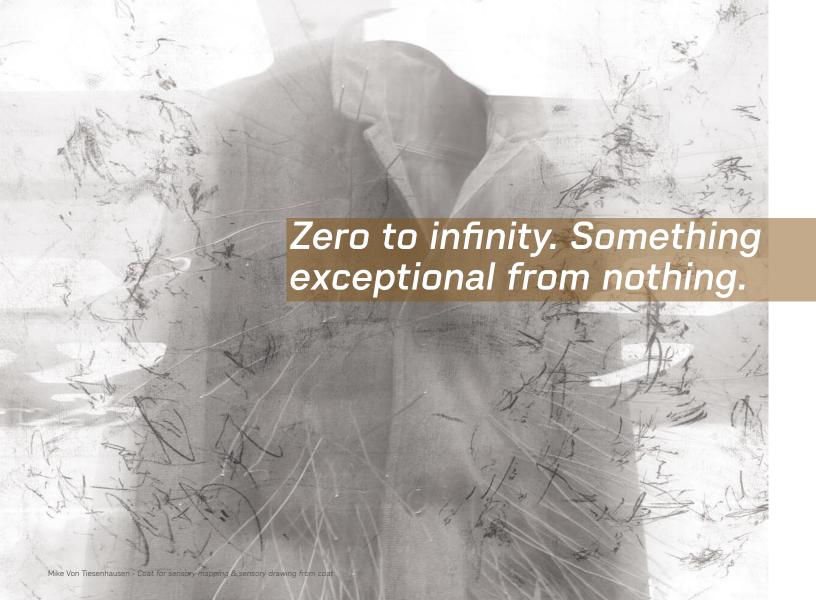
ARCHE POVERA

Building Simply

"Minimalist tendencies resurface at regular intervals in architecture, bringing with them a return to the simple form. Today, in a time of pluralistic diversity, these tendencies are confronted with other, sometimes contradictory movements, stances and approaches, which exist together in parallel. The exuberant sculptures of a Frank Gehry or a Zaha Hadid, or the numerous blobs inspired by biology, stand in contrast to the retrospective consideration of the simple form, as it expresses itself everywhere at present in the shape of the reduced box." [1]

3 Biases

1. *Poetic connection to site*
2. *Meaning from construction, act of constructing with materials*
3. *Phenomenal realm; favouring the experiential dimension*

A shift to a focus on sufficiency, a concentration on the essential and renunciation of any unnecessary miscellany stands in contrast to the present conspicuously loud and ostentatiously pretentious time that we are in. Too many practicing architects in our world make excuses for poor

Too many practicing architects in our world make excuses for poor work based on banality of context and lack of exotic budgets and materials.

work based on banality of context and lack of exotic budgets and materials. Arche Povera Studio makes no excuses. Instead it embraces the mundane and everyday and affirms this location as a fertile site for invention and distillation of intentions.
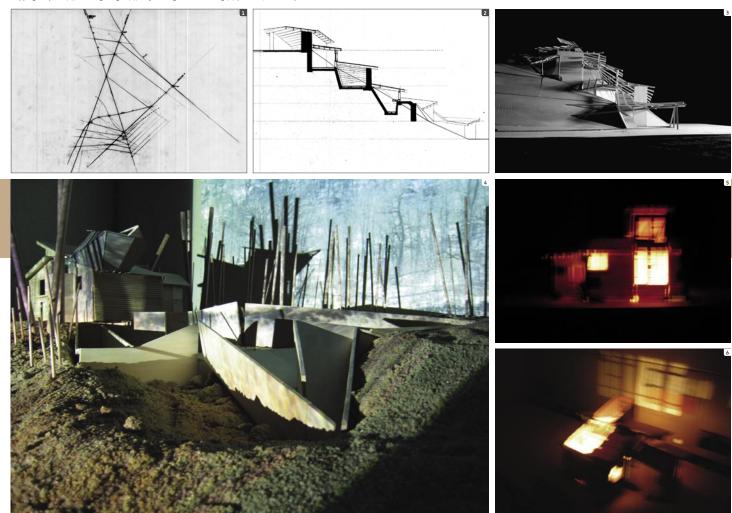
Arche Povera is named after the Arte Povera group of Italian artists so named in the 1960's by curator Germano Celant. All artists shared a crystalline understanding of the marriage of concept and materials. They were engaged by the banality and necessity of events in everyday life. The artists worked in a free and speculative manner, with an insatiable appetite for new materials and discovering new processes. Zero to infinity can refer to art made without preconceptions [zero] and without the limitations of ideological systems [infinity]. In this way, history is not denied but rather re-negotiated. Artists of the Arte Povera group believed in Duchamp's adage, **"Ce sont les regardeurs qui font la pienture"** (It is the viewers who make the painting).

2 Sites

1. **Lewycville,** *Roseisle, Manitoba*
2. **Sukanen,** *Val Marie, Saskatchewan*

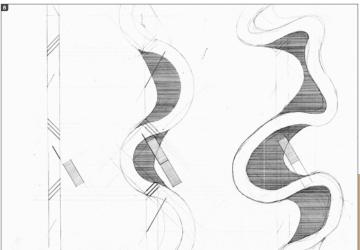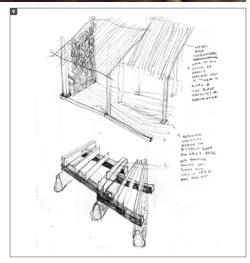### 3 Projects

1. **LOCATING – Finding something:** *Subjective Site mapping.*
2. **EXPERIENCING – Locating oneself experientially:** *Contructing*
3. **BUILDING – Constructing a site laboratory / residence:** *Designing a material construction, innovating a building technology system based on previous two projects.*

1 Schittich, Christian. Building Simply, Basel: Birkhauser. 2005.: p. 9.
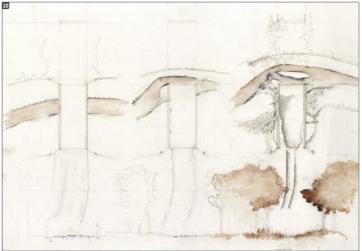
1–3: Mike Von Tiesenhausen – *Body-measured site elevation plan (1); Section of shale and timber dwelling (2); Model (3) [Roseisle, Manitoba]* **4–6:** Larraine Henning – *Existing bricolage dwelling with extensions developed from subjective mapping of spirits (4); Bleeding of light (5); Projected light from dwelling (6) [Roseisle, Manitoba]*

a mobile machine which examines the perception of time

"Making money is art ... and good business is the best art." – Andy Warhol

Tom Monteyne

STUDIO: Geoffrey Bennell, Kayla Browne, Kevin Fawley, Alexandra Johnson, Christopher Knight, Judith Martin, Reheanne Phaneuf
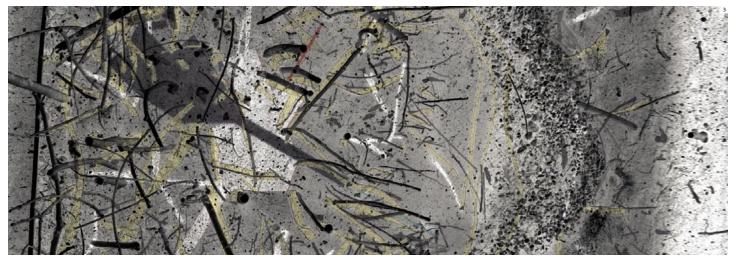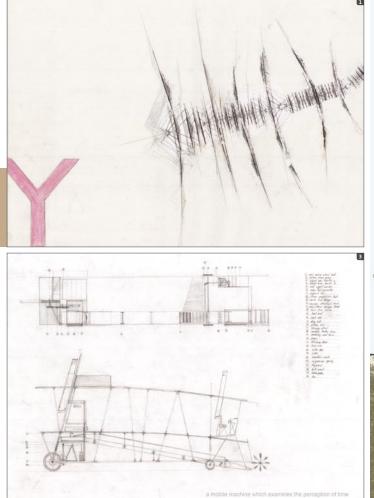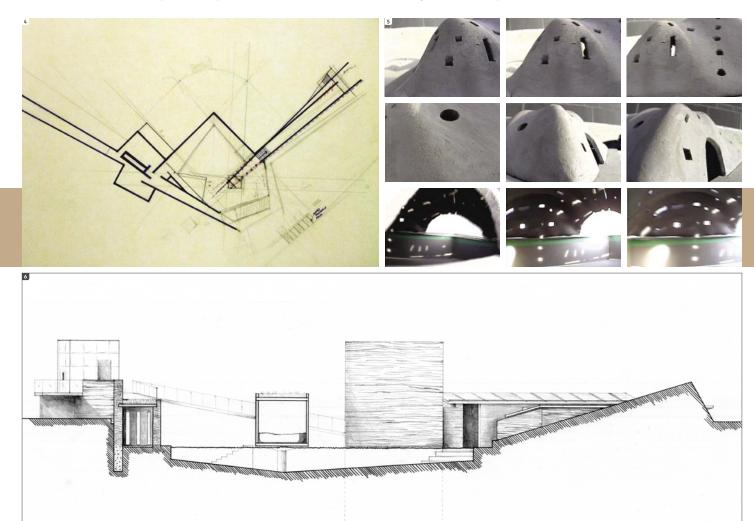*THESIS:* Erin Ames, Layne Arthur, James Field – dearly departed, Scott Field, Greg Porth, Benjamin Thompson

BUSI- NESS STUDIO 1

Architecture is the business of constructing culture.

The trick to learn is how to sell your products without selling your soul along with them. The trick is difficult but not impossible. Though rare, there are some examples of excellent design that is also good business. It is similar to that rare phenomenon of the popular song that does not suck. To be successful in the Business Studio, the students were required to invent a product that could be popular while manifesting a critical idea. In other words, it is never enough to simply make money. Nor, is appropriate to give it away.

A critical distinction was made between two worlds; the laboratory (academia), and the marketplace (everywhere else). While thinking, experimenting, and speculating about architecture can happen in either world, cultural products are bought and sold in the marketplace. Speculative architecture is usually called for in the Laboratory. The verb 'speculate' has two meanings that are useful for architects: to theorize, and to

The trick to learn is how to sell your products without selling your soul along with them. The trick is difficult but not impossible.

consider possibilities and probabilities; and, to engage in commercial activity involving serious risk in hope of gaining large profits. Both meanings of the word are useful for architects.

What was/is at stake?
The investment of time, energy, and money in one's education. A lifelong exposure to professional liability for one's work. A career marred by disempowerment, dissolution, apathy, and cynicism.

What can be gained?
Empowerment. Upper middle class or higher income. Increased dexterity in an unpredictable market. A satisfying career.

Targets
The first goal of the studio was to nurture entrepreneurial skills in future architects.

The second goal was to align the aesthetic and mercenary values of architecture.

Design inquiry sought to uncover good design / business opportunities for future architects.
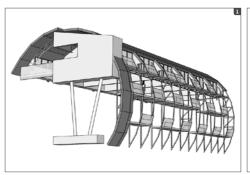
Design Research attempted to analyze the methods used by design enterprises that are successful both aesthetically and economically. The most evident example of this analysis, was the trip to Toronto to visit leading Canadian architects, in order to learn their business secrets. Design research was directed towards channeling and optimizing existing systems of production. Design research was also directed towards inventing new systems for producing things.

The studio attempted to conjure architectural products that could optimize the architect's skill set. The products ranged from buildings and building systems, to things, experiences, and/or services.
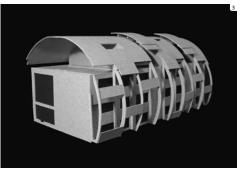
The products of the studio were aimed at the marketplace – a space that contains the Department of Architecture, but which is much, much scarier.
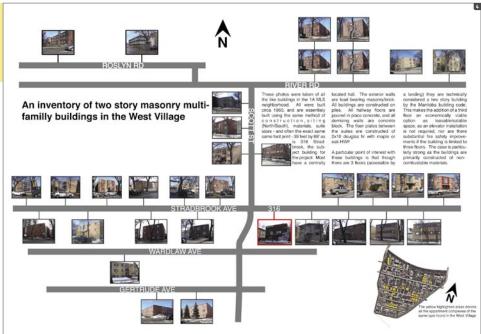
1–4: Christopher Knight – *Building Conversion Strategy; through rigorous research into the size and cost of housing units already available in the marketplace, a strategy was developed for expanding and converting existing buildings.*
5 & 6: Benjamin Thompson – *PAL Therapy Environment Device; a therapeutic device to aid special needs children in learning environments with an endlessly variable environment contained between flexible floor and ceiling membranes.*
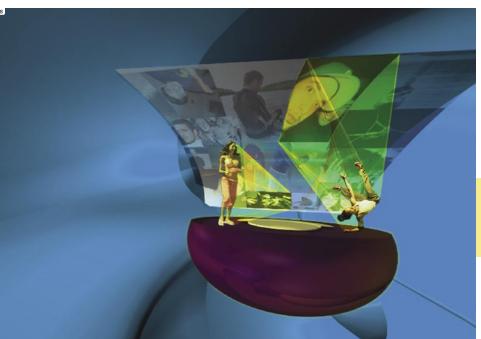

An inventory of two story masonry multi-familly buildings in the West Village

These photos were taken of all the like buildings in the 1A MLS neighborhood. All were built circa 1960, and are essentially built using the same method of construction, siting (North/South), materials, suite sizes - and often the exact same foot print - 39 feet by 88' as is 316 Stradbrook, the subject building for the project. Most have a centrally

located hall. The exterior walls are load bearing masonry/brick. All buildings are constructed on piles. All hallway floors are poured in place concrete, and all demising walls are concrete block. The floor plates between the suites are constructed of 2x10 douglas fir with maple or oak HWF.

A particular point of interest with these buildings is that though there are 3 floors (accessible by

a landing) they are technically considered a two story building by the Manitoba building code. This makes the addition of a third floor an economically viable option as leasable/salable space, as an elevator installation is not required, nor are there substantial fire safety improvements if the building is limited to three floors. The case is particularly strong as the buildings are primarily constructed of non-combustable materials.

7: Benjamin Thompson – *PAL Therapy Environment Device* **8:** Judith Martin – *M.I.S.C. Virtual Concert Facility;* virtual foundation for an online community centered around the enjoyment of musical art pieces.
9 & 10: Alexandra Johnson – *Aqualav All-in-one Bathroom Fixture; the Aqualav all-in-one bathroom fixture seeks to provide a stylish and cost-effective alternative to the traditional method of installing individual fixtures.*
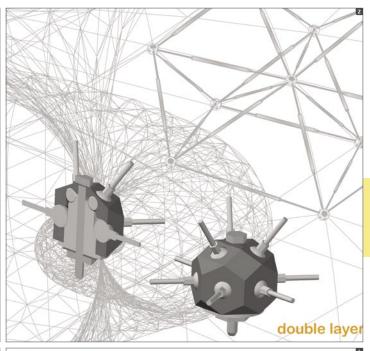
1 & 2: Layne Arthur – *Advanced Geometry; A modular building structure system designed to allow flexibility in the joints, capable of producing the extreme formal complexity favored by some contemporary architects.*
3 & 4: Greg Porth – *House Plant; In response to the entrenched market forces that produce the single family house on winding sidewalk-less streets, House Plant posits a covert approach to utopia, one environmentally-improved house at a time.*

AG-26L1300
1300-1450s

AG-26L1150
1150-1300s

AG-26L1000
1000-1150s

AG-26L0850
850-1000s

1300

150

1000

850

single layer triangular joint

double layer rectilnear joint

double layer triangular joint

Advanced Geometry components

double layer

the ivy - phase 1

the ivy - phase 2 & 3

5 & 6: Kevin Fawley – *HUT (Habitat for the Urban Tribe); furniture System inspired by the study of the tribal relations of the single never-marrieds, HUT "facilitates and ritualizes the nomadic nature of the urban tribe".*
7: Greg Porth – *House Plant* **8:** Geoffrey Bennell – *Vallo Architectural Defense Solutions; Scared of terrorists? Vallo's got the solution, with its comprehensive system of leg traps, blast shields, sacrificial wall cladding, and barricaded doors.*
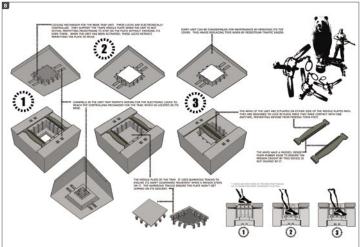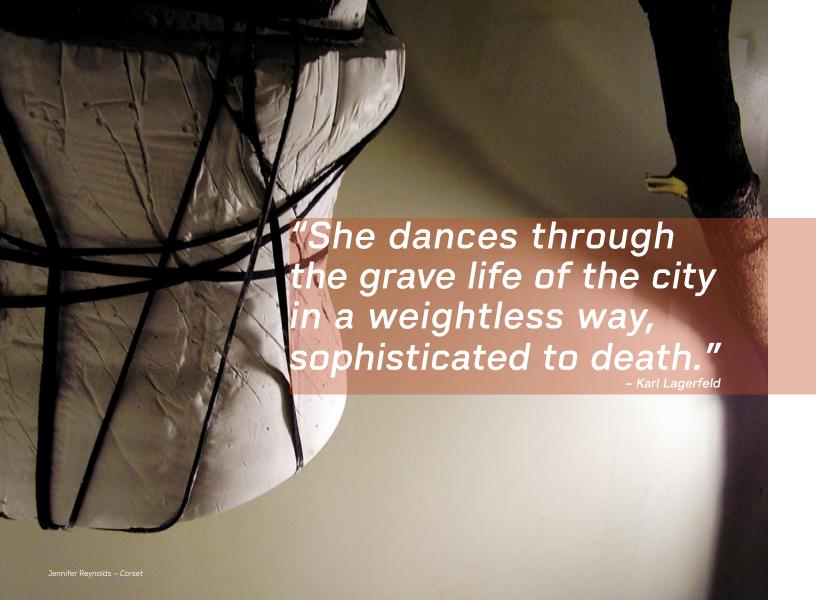
"She dances through the grave life of the city in a weightless way, sophisticated to death."
– Karl Lagerfeld

Jennifer Reynolds – *Corset*

Marc J Neveu, PhD **STUDIO:** Liuba Apostolova, Kristi Bain, Candace Barton, Pia Buus, Anastasia Derksen, B J Fehr, Andrea Moroz, Michael Murray, Jennifer Reynolds, Bradley van Schie, Yi Xiao **THESIS:** Jason Herzog, Esther Link

STUDIA/ MODA

How might one make an architecture that is appropriate, meaningful?

A hat-maker had ordered the latest and most fashionable hat from Paris for a wealthy client. When the hat arrived, his wife fell in love with it and begged her husband to make a copy of it to send to the client, who, at this point, was on holiday in the country. After a bit of discussion he agreed, sending his client the replica and giving his wife the original to wear. That night, while wearing the hat, she was very well received all over Venice and her hat was praised. The next morning, after hearing what an amazing reception his wife had received at the casini the previous night, the hat-maker decided to wear his wife's hat to the Rialto while he made his morning errands. Strangers snickered as he walked by; others could barely stop themselves from bursting with laughter while they spoke with him. Confused, he asked a friend why everyone was mocking him. His friend suggested that he might want to go home and give his wife her hat back. Still a bit confused, the hat-maker asked, "But why, my wife received so many compliments last night?" The friend responded, "Sure, the hat is wonderful and lovely, on your wife. But, on you, a serious man doing business at the Rialto, it is ridiculous!"

The questions of this studio come out of a shift that occurs somewhere between the 17th and 18th c., understood as the split between the representation and the production of a building. In other words, the meaning of a façade, and indeed the meaning of a building, changes. Recognizing that we are still dealing with this shift, how might one make an architecture that is appropriate, meaningful? This studio will begin where production and representation have split and will explore making through the analogic pairing of architecture and clothing.

Projects were developed from initial given studies. Work began with students making the pattern of a given set of clothes. They then remade the clothing to fit themselves. Next, a translation was made between the reconfigured article of clothing and a façade for the Maison Do-mi-no. These exercises generated questions that each student then developed into their own project. The studio was as much about exploring the relationships between architecture and clothing, as it was a way for students to develop a personal and critical mode of working and thinking. Each of the projects were located on the sunset Strip in Los Angeles.

1: Esther Link – *Jack and Jill Skirt (lumberjack shirt and negligee)* **2:** BJ Fehr – *Hockey Jersey (wedding dress)* **3:** Jennifer Reynolds – *Corset (male Military Jacket)* **4:** Candace Barton – *Decorative Top (satin blouse and corduroy pants)*
5: Kristi Bain – *Architecture School Uniform (scout uniform)* **6:** Pia Buus – *Drafting Uniform (Looney Tunes overalls, golf shirt, trucker hat)* **7:** Yi Xiao – *Pattern for Existing Topcoat* **8:** Andrea Moroz – *Used/Worn Jacket Study*
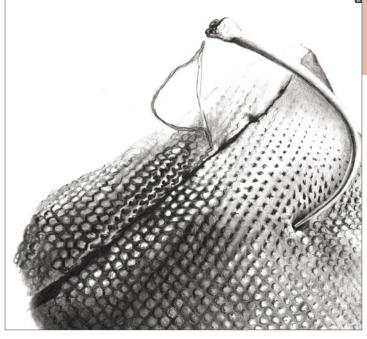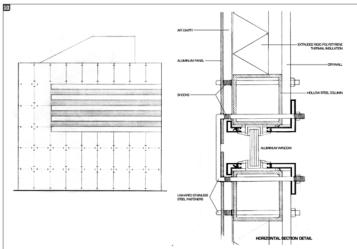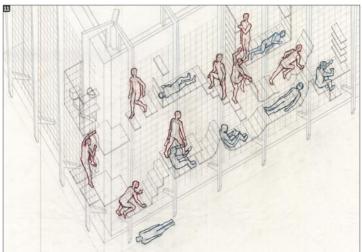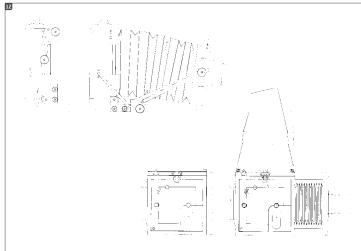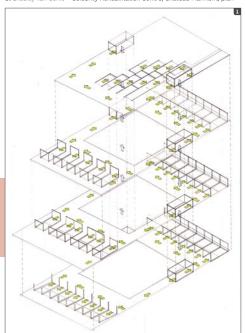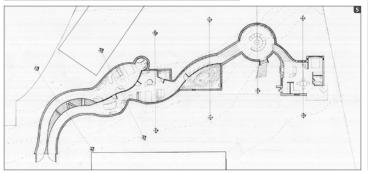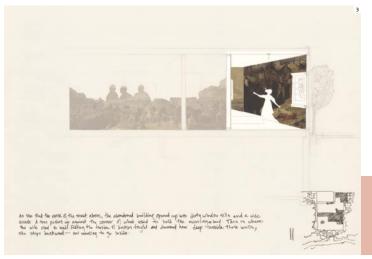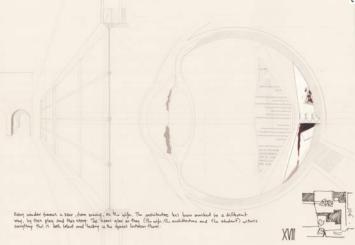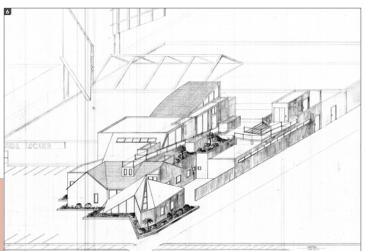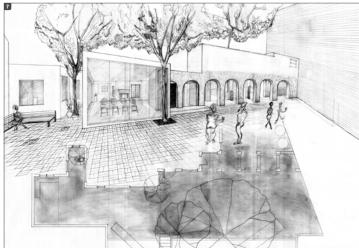
6: Andrea Moroz – *Museum for Joseph Cornell, isometric* **7:** Liuba Apostolova – *Ceramics Studio, exterior perspective* **8 & 9:** BJ Fehr – *Surveillance Study, reconfigured recycling bin (8); Iconographic and Anamorphic Billboard Projection (9)*
10: Yi Xiao – *Photographer's Studio and Gallery Space, entry*

We inherently know the human body because we live within one.

Gordon Chan – *Building Body Anatomy*

Natalija Subotincic

STUDIO: Gordon Chan, Shaun Cummings, Derrick Finch, Fariborz Hashemian, Jenni Joorisity, Kory Kaspersion, Michael Maksymiuk, Dave Saxton, Amy Schroeder
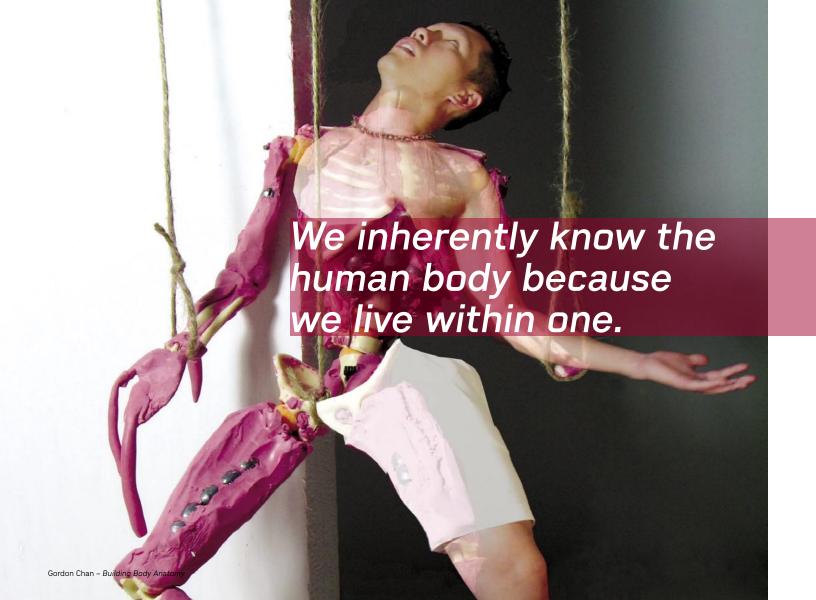
WITHIN, WITHOUT & PASSING THROUGH

Our environments pass through us just as we pass through them. Both leave an indelible impression upon the other. This studio set about to explore these impressions by examining the role Architecture plays in mediating our body and the environments we inhabit.

We inherently know the human body because we live within one. The body is our first and last house. We are never without a body. Frederick Kiesler suggests "Himself a being which does not consist only of muscle, bone and fluid — an architect should conceive of a new house not as mere walls and roof with a heating and cooling system, but as a living organism with the reactivity of a full-blooded creature." If we can begin to comprehend the subtle workings of the human body including examining how we inhabit our environments, then perhaps we may create more vibrant living architecture that makes sense of our place in the world.

This first year studio is designed to introduce students from non-design backgrounds to the field of Architecture. The studio began with a rigorous study of the "musclemen" from De Humani Corporis Fabrica

If we can begin to comprehend the subtle workings of the human body including examining how we inhabit our environments, then perhaps we may create more vibrant living architecture that makes sense of our place in the world.

byAndrea Vesalius, published in 1543. These images were selected becausethey combined a sequential anatomizing of the human body with acontinuous, and as we discovered, responsive landscape. Investigations grappled with ways of representing a variety of individual interpretations of these images. Research included trips to the Gross Anatomy Labs in the Faculty of Medicine and to Gunther von Hagens' "Body Worlds" exhibition in Minneapolis. The first term concluded with the proposition for a "Box in a Valise" with Frontispiece. Each individual built a 1:1 valise containing a portfolio of his or her findings, which then transformed into a 1:20 frontispiece that acted as an entry/exit-way for an exhibition of the work. The valise/frontispiece hovered between two scales of engagement, where relationships between the body and landscape were explored.
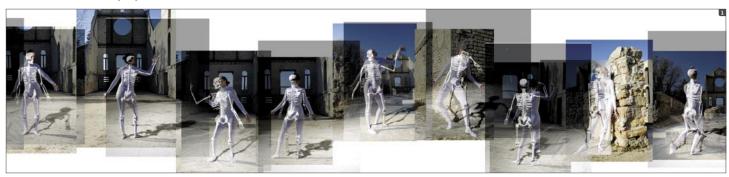
The second term began with a Building Body Anatomy. The intention of this study was to further our understanding of the human body and its relations to the built bodies it both creates and inhabits. Our Building Body Anatomies were performed on the

Bate Block, a 19th century commercial building located at 221 McDermot Avenue in downtown Winnipeg.

Individuals were asked to develop a series of anatomizing procedures for examining the life/s of this building body. These Building Body Anatomies revealed physical, spatial and experiential relationships between the building body, its inhabitants and its extended environment, through a series of critical drawing explorations, which identified potential themes and areas for further architectural incarnations.

The year concluded with a proposition entitled Ream, Rum, Rus, which involved the exploration of a sequence of experiences that would unfurl, implicate and ground an encounter between the building body and its roofscape. The roofscape provided an ideal site to explore the architectural mediation of a series of rooms and an extended urban landscape. The content of the Building Body Anatomy guided developing design decisions, which focused on finding and clarifying an essential program of inhabitation.

1 & 3: Amy Schroeder – *New anatomical sequence combining Anterior and Posterior views in the St. Norbert ruins (1); Frontispiece: Mezzo–Light occupies the shadows (3)* **2:** Dave Saxton – *View from the eyes of Vesalius' Anterior position four*
4: Gordon Chan – *Vesalius Monsters: symetry studies*

4–7: Fariborz Hashemian – *New dissection: Anterior, Posterior (4); New anatomy light projection (5); Box in a valise / Frontis piece: the operating table/door (6); Vesalius' sequence overlayed: Movements of the dead body during dissection (7)*
8 & 9: Michael Maksymiuk – *Devices for supporting the anatomized body (8); Devices for hanging the anatomized body (9)*
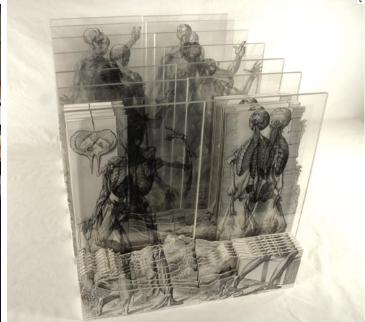
1–3: Jenni Joorisity – *Frontispiece to the Disabling Dance (1); Dancing Vesalius' poses (2); The disabling apparati (3)* 4 & 5: Derrick Finch – *The boundaries between life and death slip through Vesalius' window (4); Dissecting the Box in the Valise to find the Frontispiece (5)*
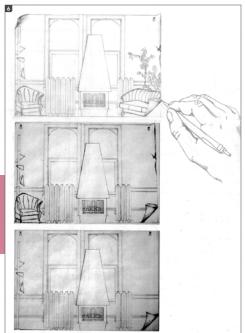
6: Dave Saxton – *Building Body Anatomy; A building's consciousness exerts its will* **7 & 8:** Fariborz Hashemian – *Building Body Anatomy, elevational study of building movement (7); Sectional study of building movement (8);*
9 & 10: Jenni Joorisity – *Tactile rendering of nightscape from building body roofscape (9); The evening mediation between the building body and roofscape (10)*
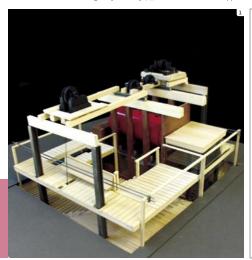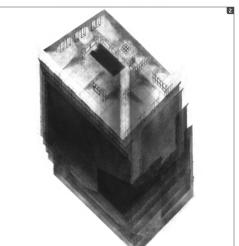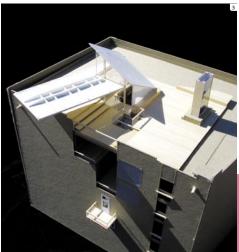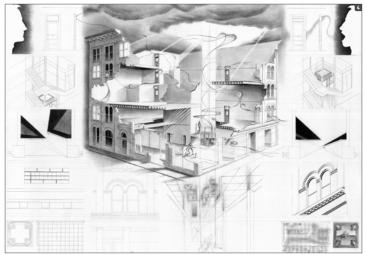
1: Michael Maksymiuk – *Urban tide, a mobile roof deck which registers volume of rainfall* **2 & 3:** Derrick Finch – *Shadow projections onto the building body (2); New articulated morning facade with roof terrace (3)*
4 & 5: Gordon Chan – *Building Body Anatomy (4); East and West rooms supported by solar chimney core (5)*

Design and
Making...

Dean Syverson & Keith Millan

STUDENTS: Tom Alston, Kyle Bradshaw, Michael Enns, Kim Frohwerk, Melanie Gagnon, Corinne Gonen, Stacie Hooper, Johnathan Kindrachuk, Mandi Lau, Jamie Marshall, Christiane Pham, Kristin Reischek, Candice Wong **THESIS:** Dylan Elliott
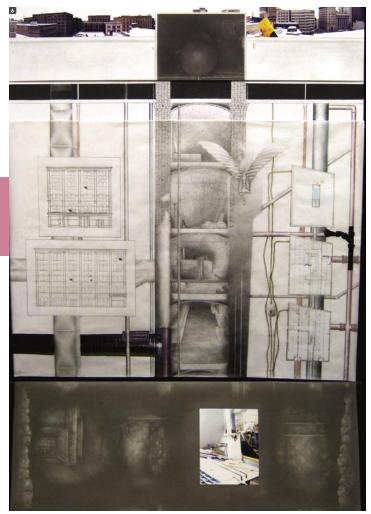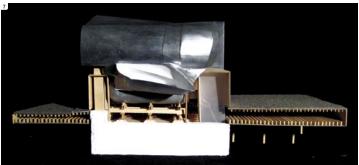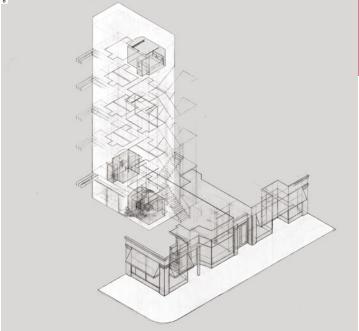
DB4

In DB4, we designed and built. The Studio offered an opportunity to participate in a unique, hands-on learning experience, and instilled in its participants a method of design that responds to how built form is made, particularly in the local context. Emphasis was placed on the relationship between design and making, and as a result, on the relationship between theoretical knowledge and practical knowledge.

Ideas were explored and tested through experimentation at full scale. The focus of the architectural inquiry was conducted through applied research, and students learned construction skills necessary to create built form that is intellectually challenging, physically sound, and safe.

In DB4, two distinct projects were undertaken. One group designed and constructed a weekend retreat, straw bale home, for a young professional couple (soon to be parents), on the bank of the Brokenhead River, on

While it is appreciated that design school must include a certain amount of individual pursuit, solitary work is typically at odds with constructing even the most modest of built form.

her family farm in Beasejour, Mb.. These students were affectionately known as the "Straw Balers. " They were a hearty lot. Oddly enough, they developed a relationship with the cold which approached what some might refer to as a 'fondness.' As long as a winter day on the site was accompanied by an open fire, they could withstand all that mother nature had to give. And build well too?

The other group worked at the Assiniboine Park Zoo in Winnipeg, and were affectionately known as the "Zoo Crew." They completed interior renovations to the Zoo Education Centre classroom, and a new detached shed / greenhouse / outdoor classroom, adjacent to the Education Centre building. They worked at a modest pace for most of the year and then towards the end, successfully completed a crash course in designing and building 'on the fly.' Adhocism is a concept crew members now both use and understand.

Various construction techniques were examined through the course of the studio, with focus on techniques of assembly. As much construction work as possible was completed 'off site,' in a sheltered, controlled work environment, while on-site work was focused more on assembly, or putting the pieces together.

Each participant brought a different skill set to the group. All worked to develop an awareness of each others' existing abilities, and then worked to achieve academic and professional aspirations as articulated by each studio member at the start of the year.

Teamwork was extremely important in realizing the built work. We achieved more as a group or team than we ever could have, individually. While it is appreciated that design school must include a certain amount of individual pursuit, solitary work is typically at odds with constructing even the most modest of built form. In our increasingly complex local, regional, and global environments, teamwork is absolutely essential in virtually every context.

1: *Framing model of final design.* **2:** *Site context. On property of owners' family farm.* **3:** *Construction sequence.*

4: *Larson truss frame to accommodate straw bales between.* **5:** *Box beam installation.* **6:** *Corner detail with generous overhang.* **7:** *The 'Straw Balers.'* **8:** *Straw.*

1: *Early conceptual model 'in situ.'* **2:** *Design development study model.* **3:** *Construction sequence.*

Design methodology, teaching, and research.

Richard Kwiatkowski – *Game of "Derelict Development"*

THESIS: Todd Blackman (**Herb Enns**), Cassandra Hryniw (**Herb Enns**), Richard Kwiatkowski (**Terri Fuglem**), Willie Dean Leith (**Herb Enns**), Joseph Orobia (**Herb Enns**), Melissa Sarrasin (**Herb Enns**), Jeremy Schneider (**Herb Enns**), David Thomas (**Natalija Subotincic**)

M +

The M+ section is made up entirely of thesis students who were continuing from the previous year. Their work covers a wide range of largely self-motivated interests.

Research and design proposals in Uganda, Kenya, and the Phillipines open the school to global culture. Dense developing world urban infrastructure, the complex socio/economic issues affecting the spread of HIV / Aids in Africa, and rapid expansion in the population centres of Asia point to opportunities beyond the scope of traditional architectural education and practice.

Abstract studies into an architecture that try to establish a perceptual depth in time raise another question. Understanding perception requires a scientific approach. Recent discoveries in Neurology reveal that we have distinctive biological biases and affinities based on personalized euralnetworks. These affect the way we see, what we believe, and how we interact with the world. Gaining an appreciation for how we see — the apolitical function of vision — becomes a fundamental aspect of architectural production, criticism, and appreciation — at least as important as ideology, and without which ideologies will inevitably be misdirected.

Other projects look at issues such as Canadian identity abroad, or how we might engage the public lending library amidst the somewhat surprising phenomenon of the surge of book publication in a digital age. Like face-to-face contact, the tactile confrontation of new knowledge by physical means continues to fascinate us — we read by touch.

These topics require a reconfiguration of design methodology, teaching, and research. It becomes ever more apparent that architects understand and engage political, social, scientific, information technology, and economic inputs, and that they are prepared — through their education — to:
1. *Negotiate intensely with external participants as members of a broad intellectual community,*
2. *Engage in cross-disciplinary practices,*
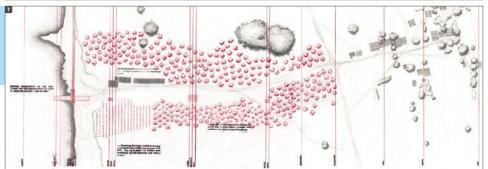3. *Address knowledge and ideals external to them (our) selves.*

A wide range of largely self-motivated interests.

6: Cassandra Hryniw – *NYC is defined by the Canadian, re-evaluating the base conditions of the site; E 42nd St., Grand Central to The UN* **7:** Richard Kwiatkowski – *Thesis; resistance is not futile – toward an architecture of delay (game of "Derelict Development", house section and peephole view)* **8:** David Thomas – *Site of Resistance; section through main hall showing interior transition between arrival and outdoor gathering space to the north (right)*

Patrick Harrop

STUDENTS: Spencer Cutten, Andrew Lewthwaite, Darcy Fraser Macdonald

DIGITAL MAKING: PNEUMA

Digital Making: Pneuma. An experimental installation project loosely based on a hybrid of influences from R. Buckminster Fuller's geodesic tessilations, Frei Otto's Pneu research and Ernst Haeckel's Kunst in Natureform. The research examined the potential of developing a revised approach to manufacturing pneumatic structures based on the contemporary influences in technology such as Object Oriented Programming, Parametric Modeling and CNC (laser) prototyping. A potentially infinite set of prototypes were developed using inexpensive polyethylene vapour barrier.

Peter Hasdell

STUDENTS: Tom Alston, Bradley Fehr, Marnie Gartrell, Lauren Hauser, Colin Herperger, Byung-hee Kang, Matt McFetrick, Karen Nelson, Zach Pauls, Jason Robbins, Mengchun Yang

RESPONSIVE MATERIALS: ELASTOMERS

This elective work was part of ongoing research into responsive structures. It explored systems of fabrication, assembly and component design through prototyping and manufacture of reactive structures. It generated concepts through 3-D and physical modeling, designed variable and re-usable plexi-molds, developed tests and combined parts into larger assemblies. The trajectory went from material investigation to a actual components on the one hand. From the abstract digital world to the empirical on the other, and considered aspects of parametric modeling and design and material behavior. Emphasis was placed on developing an understanding of material, detail and connection.
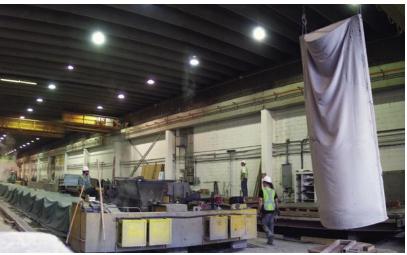
Mark West

STUDENTS: *Krista Bobinski, Kai Chang, Bianca Hilbert, Afsaneh Karamizadeh, Rebecca Loewen, Kyle Martens, Jennifer Reynolds, Anjali Talwar, Jocelyn Tanner*
GRADUATE RESEARCH ASSISTANTS: *Aynslee Hurdal, Kyle Martens, Leif Friggstad, Mike Johnson, Tom Alston*

HEAVY LIGHT: NEXT TO NOTHING

This hands-on technical research and design class explored and developed a new method of producing thin-shell architectural wall panels, and thin-shell structural floor panel formworks. This exploration was done through a series of physical models using hanging cloth and spray plaster to model full-scale constructions using suspended geotextiles and fibre-reinforced shotcrete (spray concrete). Our work was oriented towards portions of a collaborative building design project at the la Ciudad Abierta (The Open City) in Ritoque Chile, with Architects David Jolly, Miguel Equem, and post-graduate architecture student Victoria Jolly.

Neil Minuk

STUDENTS: *Andrea Moroz, Spencer Trombley, Judith Martin, Sara Mack, Goretti Layco, Jordy Cradock* **(1)** *Kyle Bradshaw, Ping Hsieh, Przemek Pyszczek, Mandi Lau* **(2)** *Liuba Apostolova, Karolina Jastrzebska, Matthew Norman, Maya Cochrane, Mike Murray* **(3)** *Carl Drohomereski, Ryan Gorrie, Leif Friggstad, Samantha Lynch, Jason Campbell* **(4 & 5)** *Spencer Cutten, Chris Knight, Mike von Tiesenhausen, Dirk Blouw, Vance Fok* **(6 & 7)**

TECHNICAL PROJECT: STUDIO WORK TABLE

"A piece of furniture can not be conceived on a drawing board." – *Jean Prouve*

"I hate to draw things unless I'm going to build them." – *Jean Prouve*

"Form does not follow function, function follows vision. Vision follows reality." – *Friedrich Kiesler*

"Furniture can be used to simulate edifices. A chair is made with four legs and a roof, It suffices to changes in its dimensions, hence the parallel between the compass base and the kickstand at the refreshment bar in Evian. This symmetry between furniture and buildings is unique and induces a comprehensive approach. Actually, when Prouve begins to think furniture, he thinks structure and therefore architecture, breaking down the frontier between furniture and building which gives him the opportunity to conceive portable houses, dismountable modules, marking the start of nomadism in architecture." – *Philippe Jousse writing on Prouve*

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