

**Jesse Colin Jackson**

**Curriculum Vitae**

**September 30, 2016**

BASc, MArch, MRAIC, Assoc. AIA, LEED AP

Assistant Professor of Electronic Art and Design  
Department of Art  
Claire Trevor School of the Arts  
University of California, Irvine  
3229 Art Culture and Technology  
Irvine, California 92697-2775  
j.c.jackson@uci.edu

83 Whitman Court  
Irvine, California  
jesse.colin.jackson@gmail.com  
+1 (949) 536-6515

jessecolinjackson.com

Born:	Burnaby, British Columbia, Canada
Lives and works:	Irvine, California, USA
Languages spoken:	English and French (fluently)

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### **Academic: Post–Secondary Education**

- 2005 – 09: Master of Architecture  
John H. Daniels Faculty of Architecture, Landscape, and Design, University of Toronto
- 2007: Postgraduate summer intensive program  
Beijing Architecture Studio Enterprise
- 2004: Postgraduate summer intensive program  
Southern California Institute of Architecture
- 2003 – 04: Bachelor of Fine Arts coursework  
Audain Faculty of Visual Art and Material Practice, Emily Carr University of Art and Design
- 1996 – 99, 2002 – 04: Bachelor of Applied Science  
Department of Civil Engineering, Faculty of Applied Science, University of British Columbia

### **Academic: Faculty Appointments**

- 2013 – present: Assistant Professor of Electronic Art and Design  
Department of Art, Claire Trevor School of the Arts, University of California, Irvine
- Committees: Matthew Warner-Davies (Master of Fine Arts, 2014)
- Courses: ART 399: *University Teaching*  
Supervision of graduate student teaching. Spring 2016 (1 student).
- IN4MATX 282: *Design and Prototyping*  
Graduate studio course; original curriculum; online. Fall 2016 (forthcoming).
- ART 262: *Graduate Thesis Independent Study*  
Winter 2016 (4 students), Spring 2015 (1 student), Fall 2014 (1 student).
- ART 251: *Special Topics Seminar: Space, Time and Orange County*  
Graduate seminar. Course creator; original curriculum. Spring 2016.
- ART 240: *Graduate Interdisciplinary Projects*  
Fall 2014.
- ART 230: *Graduate Critique*  
Winter 2014.
- ART 199: *Independent Study*  
Winter 2016 (2 students), Spring 2016 (1 student)
- ART 95: *Special Topics in Basic Media*  
Lower division studio course. Course creator; original curriculum. Winter 2015, Winter 2016.
- ART 65A: *Foundations of Media Design*  
Lower division studio course. Fall 2013.

*ART 12A: Art, Design, and Electronic Culture*

General education lecture course. Course creator; original curriculum. Winter 2015, Winter 2016.

*ARTS 12: Digital Media: Current Directions*

General education lecture course. Spring 2014.

*ARTS 11: Digital Media: History and Foundations*

General education lecture course. Winter 2014.

*ART 1C: Sculpture, Space, and Cyberspace*

General education lecture course. Spring 2016.

*US3: The Architecture and Landscape of UCI*

Freshman seminar course. Fall 2014.

2010 – 13:

Assistant Professor

Faculty of Design, OCAD University

Committees:

Alexandra Haagaard (Interdisciplinary Master's in Art, Media and Design, 2013)

Courses:

ENVR 4C04: *Environmental Design Advanced Studio II*

Capstone project course. Course creator; original curriculum. Winter 2012.

ENVR 4C03: *Environmental Design Advanced Studio I*

Capstone project course. Course creator; original curriculum. Fall 2011.

ENVR 4C02: *Environmental Design Thesis II*

Capstone project course. Original curriculum. Winter 2013.

ENVR 4C01: *Environmental Design Thesis I*

Capstone project course. Original curriculum. Fall 2012.

GDES 3B78: *Small Object Design: Virtual to Reality II*

Upper division studio course. Course creator; original curriculum. Winter 2012, Winter 2013.

GDES 3B20: *Small Object Design: Virtual to Reality I*

Upper division studio course. Course creator; original curriculum. Fall 2013, Fall 2012, Summer 2012, Fall 2011, Summer 2011, Winter 2011.

ENVR 2B12: *Research Studio: Social Space*

Lower division studio course. Original curriculum. Fall 2010.

GDES 1B26: *Introduction to Experience Design*

Lower division studio course. Coordinator of multiple sections; original curriculum. Winter 2011 (2 sections).

GDES 1B25: *Form and Structure*

Lower division studio course. Original curriculum. Fall 2010 (2 sections).

ENVR 1B02: *Environmental Design II*

Lower division studio course. Course creator; coordinator of multiple sections; original curriculum. Winter 2012.

ENVR 1B01: *Environmental Design I*

Lower division studio course. Course creator; coordinator of multiple sections; original curriculum. Fall 2011 (2 sections).

2010: Sessional Lecturer  
John H. Daniels Faculty of Architecture, Landscape, and Design, University of Toronto

Course: *ARC 1022: Visual Communication II*  
Graduate studio course. Original curriculum. Winter 2010. With Dieter Janssen.

2009 – 10: Mentor for Bachelor of Architectural Science capstone projects, Ryerson University

2006 – 10: Sessional Instructor  
Faculty of Design, OCAD University

Courses: *GDES 3B20: Small Object Design: Virtual to Reality I*  
Upper division studio course. Course creator; original curriculum. Winter 2010.

*ENVR 2B12: Research Studio: Social Space*  
Lower division studio course. Original curriculum. Fall 2009, Fall 2008.

*GDES 1B26: Introduction to Experience Design*  
Lower division studio course. Coordinator of multiple sections; original curriculum.  
Winter 2010 (2 sections), Winter 2009 (2 sections), Winter 2008 (2 sections).

*GDES 1B26: Principles of Interaction Design*  
Lower division studio course. Winter 2007.

*GDES 1B25: Form and Structure*  
Lower division studio course. Original curriculum. Fall 2009, Fall 2007, Fall 2006.

2005 – 07: Teaching Assistant  
John H. Daniels Faculty of Architecture, Landscape, and Design, University of Toronto  
*ARC 2046: Structures II*  
*ARC 2044: Structures I (2 sections)*  
*CIV 352: Bridge Design*

2006: Class Assistant  
Faculty of Design, OCAD University  
*GDES 1B26: Principles of Interaction Design (2 sections)*

2003: Teaching Assistant  
Faculty of Applied Science, University of British Columbia  
*APSC 150: Engineering Case Studies (2 sections)*

### **Academic: External Affiliations**

- 2016 – present: Associate Member, American Institute of Architects
- 2014 – present: Member, International Committee for the Documentation and Preservation of Buildings and Sites of the Modern Movement
- 2012 – present: Advisory Board Member, Sustainable Design Awards
- 2010 – present: Member, Royal Architectural Institute of Canada **36**
- 2012 – 13: Member, Greening Greater Toronto Task Force
- 2010 – 12: Jury member, CANstruction design competition fundraiser

### **Academic: Internal Affiliations**

- 2016 – present: Courtesy appointment, UCI Department of Informatics  
Affiliated faculty, UCI Architecture and Urban Studies Research Cluster
- 2015 – present: Director, Speculative Design Lab, University of California, Irvine  
Founding faculty member, UCI Master of Human Computer Interaction and Design program
- 2013 – present: Affiliated Faculty, UCI Institute for Virtual Environments and Computer Games
- 2012 – 13: Director, Spandrel Lab, OCAD University  
Fellow, Partnership for Academic Leadership on Sustainability  
Affiliated faculty, OCAD University Digital Media Research and Innovation Institute
- 2009: Research Assistant, Ted Kesik, University of Toronto
- 2005 – 06: Research Assistant, An Te Liu, University of Toronto

### **Academic: Leadership**

- 2014 – present: Head, Electronic Art and Design area, UCI Department of Art
- 2013 – present: Director, UCI Minor in Digital Arts program
- 2011 – 13: Director, Sustainability Office, OCAD University

### **Academic: Committees**

- 2016 – present: Space Utilization Committee, UCI Claire Trevor School of the Arts
- 2015 – present: Chair, Space Utilization Committee, UCI Department of Art

- 2014 – present: UCI Task Force on Sustainability Education
- 2014 – present: Technology Committee, UCI Claire Trevor School of the Arts
- 2015 – 2016: Executive Committee, Casa Del Sol, Team Orange County's entry in the United States Department of Energy Solar Decathlon solar powered house competition
- 2015 – 2016: Hiring Committee, Sculpture tenure-track search, UCI Department of Art
- 2015 – 2016: Subcommittee of the University of California Global Climate Leadership Council
- 2014 – 2016: Undergraduate Committee, UCI Department of Art
- 2014 – 2016: UCI Educational Technology Initiative Advisory Committee (alternate member)
- 2014: Faculty Service Award Committee, UCI Claire Trevor School of the Arts
- 2010 – 2013: Curriculum Committee, Environmental Design program, OCAD University
- 2010: Hiring Committee, First Year sessional instructor search, OCAD University

#### **Academic: Awards and Honors**

- 2016: UCI *Dean's Honoree for Teaching Excellence* for the Claire Trevor School of the Arts **37**
- 2012: Nominee, OCAD University *Non-Tenured Faculty Teaching Award*  
Graduate Architecture, Landscape, and Design Student Union *Peer Recognition Award*
- 2007: Selected to participate in a graduate summer program in Beijing, Hangzhou, and Shanghai
- 2005: Declined a major scholarship to attend the Southern California Institute of Architecture
- 2004: Graduate Record Exam scores: verbal 690/800, quantitative 800/800, analytical writing 6/6

### Funding: External Grants and Competitions

- 2016: Canada Council for the Arts *New Media Production Grant* (\$40,000) for *Marching Cubes* **39**
- 2015: *The Green Initiative Fund* project funding for the *Speculative Prototyping Lab* (\$1500)  
*New Matter Educate and Inspire Grant* for the *Speculative Prototyping Lab* (\$1500)
- 2014: Hellman Fellows Fund *Hellman Fellowship* (\$38,500) for *Marching Cubes* **41**
- 2013: Social Sciences and Humanities Research Council of Canada *Insight Development Grant* for *Visualizing Canada's Urban North* (\$74,000 with two collaborators)  
Centre for Innovation in Information Visualization and Data-Driven Design project funding *Grant for Visualizing Canada's Urban North* (\$10,000 with one collaborator)  
Ontario Arts Council *Exhibition Assistance Grant* for *Iterations* (\$500)
- 2012: FedDev Ontario *Applied Research and Commercialization Initiative* for the *Spandrel Lab* (\$44,000)  
Centre for Innovation in Information Visualization and Data-Driven Design project funding (\$9,000) for *Visualizing Canada's Urban North* **42**
- 2010: Ontario Arts Council *Exhibition Assistance Grant* for *Usonia Road* (\$500)

### Funding: External Project Support

- 2016: Printrbot in-kind support for the *Speculative Prototyping Lab* (\$5000)
- 2015: Airwolf 3D in-kind support for the *Speculative Prototyping Lab* (\$12,000)  
Robert Bosch Tool Corporation in-kind support for the *Speculative Prototyping Lab* (\$2000)
- 2013: Waterfront Toronto monetary support for *Urban Ecologies 2013* (\$25,000)  
Mercedes-Benz Canada monetary support for *Urban Ecologies 2013* (\$20,000)  
Art Gallery of Ontario monetary support for *Urban Ecologies 2013* (\$2000)  
Cimetrix in-kind support for *Making it Real* (\$3000)  
Agile Manufacturing in-kind support for *Making it Real* (\$2000)  
3DPhactory in-kind support for *Making it Real* (\$1000)

### Funding: Internal Grants and Competitions

- 2016: UCI Claire Trevor School of the Arts *Arts Computing Replacement Initiative* (\$4500)  
California Institute for Telecommunications and Information Technology *Summer Undergraduate Research Fellowship in the Internet of Things* for *Marching Cubes* (\$2000)

UCI *Summer Undergraduate Research Program* for the *Speculative Prototyping Lab* (\$2000)

UCI Claire Trevor School of the Arts *Faculty Research and Travel Grant* for *Visualizing Canada's Urban North* (\$1000)

UCI *Undergraduate Research Opportunities Program* for the *Speculative Prototyping Lab* (\$750)

2015: UCI Council on Research, Computing and Libraries *Multi-Investigator Research Grant* for *Marching Cubes* (\$20,000 with three collaborators) **43**

California Institute for Telecommunications and Information Technology *Multidisciplinary Design Program* project funding for the *Speculative Prototyping Lab* (\$3000)

UCI *Illuminations* funding for pedagogical activity (\$2500)

UCI *Undergraduate Research Opportunities Program* for the *Speculative Prototyping Lab* (\$1250)

UCI Claire Trevor School of the Arts *Faculty Research and Travel Grant* for *Radiant City* (\$1000)

2014: UCI Claire Trevor School of the Arts *Faculty Research and Travel Grant* for *The Ragged Edge* (\$2000)

2010: OCAD University *Curriculum Innovation Fund* funding for pedagogical activity (\$5000) **45**

2008: University of Toronto *Howarth-Wright Graduate Fellowship* for *Automatic* (\$18,000) **46**

### **Funding: Internal Project Support**

2016: UCI Master of Human-Computer Interaction and Design research stipend (\$30,000)

California Institute for Telecommunications and Information Technology support for the *Speculative Prototyping Lab* (\$5000 for One 3D Printer Per Student) **47**

UCI Claire Trevor School of the Arts monetary support for the *Speculative Prototyping Lab* (\$5000 for One 3D Printer Per Student) **47**

UCI Donald Bren School of Information and Computer Sciences monetary support for the *Speculative Prototyping Lab* (\$5000 for One 3D Printer Per Student) **47**

UCI Division of Teaching and Learning monetary support for the *Speculative Prototyping Lab* (\$5000 for One 3D Printer Per Student) **47**

UCI Henry Samueli School of Engineering monetary support for the *Speculative Prototyping Lab* (\$5000 for One 3D Printer Per Student) **47**

UCI Sustainability Initiative research stipend (\$1000)

2015: UCI Henry Samueli School of Engineering research stipend (summer salary, value \$8000)

UCI Claire Trevor School of the Arts monetary support for the *Speculative Prototyping Lab* (\$4500)

UCI School of Humanities research stipend (\$3000)

2014: UCI Division of Undergraduate Education research stipend (\$1500)

2013: UCI Claire Trevor School of the Arts start-up research stipend (\$23,000)  
OCAD University Digital Media Research and Innovation Institute monetary support for *Making it Real* (\$12,000)

2012: OCAD University Faculty of Design research stipend (course release, value \$6000)

OCAD University Research Office monetary support for the *Spandrel Lab* (\$2000)

### Creation: Representation

2013 – present: **Pari Nadimi Gallery, Toronto**  
**[parinadimigallery.com/jesse-colin-jackson](http://parinadimigallery.com/jesse-colin-jackson) 51**

### Creation: Website

2007 – present: **[jessecolinjackson.com](http://jessecolinjackson.com) 52**

### Creation: Independent Projects

2016 – present: ***Arctic Passage***  
**An interactive installation depicting five international locations above the Arctic Circle.**  
**Eight channel video, fabricated enclosure. Forthcoming. Collaboration with Tori Foster. 53**

2014 – present: *Mackenzie Place*  
An interactive installation depicting Hay River as experienced from an arctic landmark.  
Four channel video, fabricated enclosure. Forthcoming. Collaboration with Tori Foster.

2013 – present: ***Marching Cubes***  
**An interactive installation of modular units derived from a historic graphics algorithm.**  
**3D printed polylactic acid, neodymium magnets, dimensions variable. 60**

2013 – present: ***Radiant City***  
**Images of Toronto's tower apartment neighborhoods. Chromogenic prints, 48" x 60". 75**

2013 – present: *The Ragged Edge*  
Panoramic composite images depicting the collisions and conflicts of life on the coast.  
Chromogenic prints, 30" x 90".

2016: *Turning Fifty*  
A chronological trajectory of architectural space. Single channel video, 8:40. Collaboration with Catherine Liu.

2009 – 2016: *Iterations*  
Panoramic composite images of familiar built forms and their surrounding environments.  
Chromogenic prints, 24"x 96" and 30" x 90".

2009 – 2013: *Automatic Revisited*  
An installation exploring the implications of unit-based construction. Laser-cut birch plywood, CNC-milled lightweight concrete, steel hardware, dimensions variable.

2007 – 2012: *Timespace*  
Composite images that collapse the occupation of architectural spaces over time.  
Chromogenic prints, dimensions variable.

- 2008 – 2011: *Parkdale Tower Renewal*  
Maps, images, and proposals for a tower neighborhood. Inkjet prints, dimensions variable.
- 2009 – 2010: *Figure Ground*  
Images of Toronto's tower apartment neighborhoods. Chromogenic prints, 36" x 36".
- 2008 – 2009: *Automatic*  
The reinterpretation of Automatic, a mid-century Frank Lloyd Wright architectural concept. Plywood molds, concrete units, dimensions variable. Collaboration with Luke Stern.
- 2008 – 2009: *West Lodge*  
Depictions of an infamous example of a Toronto tower apartment. Duratrans print, single channel video, 30" x 20" x 10" enclosures. Collaboration with Gene Mastrangeli.
- 2008 – 2009: *Usonia Road: Frank Lloyd Wright in the Post-Fordist City*  
Images of Frank Lloyd Wright's iconic mid-century residential homes, paired with images of their vernacular neighbors. Diptychs of chromogenic prints, each 8" x 12".
- 2008 – 2009: *Assembling a Molecular Architecture*  
A mobile community kitchen for Mount Dennis. Welded steel, hot-dip galvanizing, reclaimed hardwood, bicycle parts. Dimensions variable. Collaboration with thirteen others.
- 2006 – 2007: *Landmarks and Monuments*  
Images of Toronto's tower apartment neighborhoods. Chromogenic prints, 16" high, 21" – 72" wide.
- 2003 – 2004: *Like, Furniture*  
Ambiguously modular furniture-like forms. Birch plywood. Dimensions variable.

### **Creation: Research Initiatives**

- 2015 – present: *Speculative Prototyping Lab*  
Social practice and pedagogy at the intersection of media art and speculative design.
- 2012 – present: *Visualizing Canada's Urban North*  
Social science research at the intersection of media art and anthropology. Collaboration with Tori Foster and Lindsay Bell.
- 2011 – 2013: *Spandrel Lab*  
Research into the commercialization potential of digitally fabricated objects designed with generative algorithms. Collaboration with Greg Philips.

### **Creation: Commissioned Projects**

- 2002 – present: **Jesse Colin Jackson photography 96**
- Clients: Architects + Research + Knowledge  
Adrian Blackwell Urban Projects

Baird Sampson Neuert Architects  
Bird Construction  
Blackthorn Management  
Blackwell Bowick Partnership  
Boszko and Verity  
Centre for Contemporary Canadian Art  
Claude Cormier + Associés  
Dan Briker  
David Lieberman Architect  
Denegri Bessai Studio  
Department of Unusual Certainties  
Dorie Smith  
Drew Mandel Design  
EllisDon  
Engineered Assemblies  
ERA Architects  
Garwood–Jones & Hanham Architects  
Geoffrey Turnbull  
Hamilton General Hospital  
Harvard University  
Hayden Cyr  
Integral Group  
INVIZIJ Architects  
Jonathan Reed and Christina Gray  
Kuwabara Payne McKenna Blumberg  
Landmark Building Company  
Lateral Office  
Levitt Goodman Architects  
McCallum Sather Architects  
Michael Prokopow and Christine Elson  
Motherbrand  
Nicko Elliot  
Shore Tilbe Perkins+Will  
Perkins+Will Canada  
The Practice of Everyday Design  
Tomer Diamant  
Tori Foster  
Two Designers Architecture and Design  
University of British Columbia  
University of California, Irvine  
University of Toronto  
The Ventin Group  
Vermeulen Hind Architects  
Vesna Jovic and Jennifer Davis  
Wellwood Resource Centre

2002 – present: Jesse Colin Jackson design

Architectural design: *Madrona House*  
10774 Madrona Drive, North Saanich, British Columbia  
2250 sqft. residential new construction, \$800,000 budget. Reached schematic design phase.  
2007 – 2014.

*Jarvis Apartment*  
412 Jarvis Street, Toronto, Ontario  
1000 sqft. residential renovation, \$50,000 budget. Reached schematic design phase.  
2011 – 2013.

*Fernwood House*  
2615 Fernwood Road, Victoria, British Columbia  
800 sqft. residential renovation and addition, \$100,000 budget. Reached schematic design phase. 2011 – 2013.

*Panorama House*  
433 Panorama Crescent, Okanagan Falls, British Columbia  
1750 sqft. residential new construction, \$500,000 budget. Reached construction documents phase. 2009 – 2013. **111**

Competition entries: *Constellation*  
Prepared for Sukkah City, 2010. With Luke Stern.

*BlocKit*  
Prepared for Open Source House, 2010. With Gavin Berman, Geoffrey Turnbull, and Vesna Jovic. **124**

Graphic design: Boreal Pacific Enterprises (logo)  
Erica Mah (album cover)  
McGill University (poster design)  
Motherbrand (poster design)  
Pop By Post (album cover)  
University of British Columbia (book cover)  
University of California, Irvine (poster design)  
University of Toronto (book cover)

### Creation: Awards and Honors

2016: Invited to propose an installation for the forthcoming exhibition *Frank Lloyd Wright at 150: Unpacking the Archive* at the Museum of Modern Art, New York **134**

2014: Shortlisted for the main exhibition at the 21<sup>st</sup> *International Symposium on Electronic Art* **142**

2009: One of ten national nominees for the *Canada Council for the Arts Prix de Rome for Emerging Practitioners* **143**

One of 35 national nominees for the Canadian Architect magazine *Award of Excellence*

### Exhibitions: Solo

- 2017: Mackenzie Place  
Pari Nadimi Gallery, Toronto. Forthcoming.
- 2016: *Marching Cubes*  
Pari Nadimi Gallery, Toronto, November 17, 2016 – January 14, 2017. Installation component of a two-part exhibition. Forthcoming.
- Marching Cubes*  
Experimental Media Performance Lab, Irvine, October 15 – 22, 2016. Performance component of a two-part exhibition. Forthcoming.
- 2014: *Radiant City*  
Pari Nadimi Gallery, Toronto, September 18 – November 1, 2014. **147**
- 2013: *Automatic/Revisited*  
Latitude 44 Gallery, Toronto, January 18 – February 28, 2013. Part of Toronto Design Offsite 2013. **151**
- 2009: *Usonia Road: Frank Lloyd Wright in the Post-Fordist City*  
Larry Wayne Richards Gallery, Toronto, May 10 – 31, 2009. Part of CONTACT 2009.
- West Lodge*  
Convenience Gallery, Toronto, February 25 – March 25, 2009.
- Automatic*  
Larry Wayne Richards Gallery, Toronto, January 12 – 23, 2009. **157**
- 2007: *Landmarks and Monuments: Residential Complexes in Toronto's Urban Periphery*  
Larry Wayne Richards Gallery, Toronto, May 10 – 31, 2007. Part of CONTACT 2007.

### Exhibitions: Group

- 2016: *Traces of Being(s)*  
Esplanade Arts and Heritage Centre, Medicine Hat, September 3 – October 22, 2016. Two images from *Iterations*.
- Bold and Independent: UCI's 50<sup>th</sup> Anniversary Exhibition*  
Viewpoint Gallery, Irvine, April 18 – 25, 2016. Screening of *Turning Fifty*. **161**
- 2015: *Toronto 2020*  
WORKShop, Toronto, July 28 – November 28, 2015. One image from *Radiant City*, and one image from *Figure Ground*. **165**
- 2014: *Pari Nadimi Gallery*  
Metro Convention Centre, Toronto, October 23 – 27, 2014. Part of Art Toronto 2014. One image from *Radiant City*.

*Digital Promises*

Artscape Triangle Gallery, Toronto, January 20 – 26, 2014. Part of Toronto Design Offsite 2014. One object from *Marching Cubes*. **167**

2013:

*Exhibition as Residency—Art, Anthropology, Collaboration*

Arts Incubator in Washington Park, Chicago, November 22, 2013. Seven image and video products from *Visualizing Canada's Urban North*.

*Making it Real: A Juried Exhibition of Digitally Fabricated Objects*

Musagetes Architecture Library, University of Waterloo, Cambridge, October 21 – November 12, 2013. Part of the Association for Computer Aided Design in Architecture annual conference. One object from *Marching Cubes*.

*Pari Nadimi Gallery*

Metro Convention Centre, Toronto, October 20 – 24, 2013. Part of Art Toronto 2013. Two images from *Iterations*.

*Making it Real: A Juried Exhibition of Digitally Fabricated Objects*

Open Gallery, OCAD University, Toronto, May 14 – 28, 2013. Part of the Society of North American Goldsmiths annual conference, and the Toronto International Jewelry Festival. One object from *Marching Cubes*.

*Project 31*

Great Hall, OCAD University, Toronto. March 25 – 29, 2013. One image from *Iterations*.

*Simplexity*

Great Hall, OCAD University, Toronto. January 19, 2013. Part of TEDxOCADU 2013. One image from *Timespace*, and one image from *Iterations*.

2012:

*Photorama 2012*

Gallery TPW, Toronto, November 30 – December 8, 2012. One image from *Figure Ground*.

*OCAD University Faculty Exhibition*

President's Office, OCAD University, Toronto, September 19, 2012 – July 1, 2013. Two images from *Iterations*.

*Doors Open Toronto*

Cannon Design, Toronto, May 26 – 27, 2012. One image from *Iterations*.

2011:

*Photorama 2011*

Gallery TPW, Toronto, November 24 – December 3, 2011. One image from *Iterations*.

*Figure Ground*

Gladstone Gallery, Toronto, May 5 – 22, 2011. Part of Exposed: Figure and Ground and CONTACT 2011. With Derek Flack.

2010:

*Photorama 2010*

Gallery TPW, Toronto, November 26 – December 4, 2010. One image from *Iterations*.

*Iterations*

Arepa Café, Toronto, May 1 – 31, 2010. Part of Exhibit Along Queen Street West at CONTACT 2010. Four images from *Iterations*. **168**

*Ming Modern*

WORKShop, Toronto, January 23 – April 30, 2010. Two images from *Timespace*. **169**

2009:

*Photorama 2009*

Gallery TPW, November 27 – December 5, 2009. One image from *Iterations*.

*Master of Architecture Exemplary Thesis Exhibition*

Larry Wayne Richards Gallery, Toronto, September 10 – 19, 2009. 55 objects from *Automatic/Revisited*.

*Exposed: Innovation, Transformation, Revolution*

Gladstone Gallery, Toronto, May 8 – 31, 2009. Part of CONTACT 2009. One image from *Timespace*.

*Carrot City: Designing for Urban Agriculture*

Design Exchange, Toronto, February 25 – April 30, 2009. 39 subsequent exhibitions in Canada, the United States, and Europe. Poster presentation of *Assembling a Molecular Architecture*.

2008:

*In the Spirit of Nuit Blanche*

John H. Daniels Faculty of Architecture, Landscape, and Design, University of Toronto, Toronto, October 4, 2008. Part of *Nuit Blanche Toronto 2008*. One image from *Timespace*.

*OCAD University Faculty Exhibition*

President's Office, OCAD University, Toronto, September 9, 2008 – July 27, 2009. One image from *Timespace*.

*Cao Chang Di*

Gladstone Gallery, Toronto, May 1 – 25, 2008. Part of *Exposed: Depictions, Discoveries, Discussions & Debate*, and CONTACT 2008. Three images from *Timespace*. **170**

*China Global Architecture*

Larry Wayne Richards Gallery, Toronto, January 21 – February 1, 2008. Screening of *Timespace*.

2003:

*Value-added Living in Design*

Emily Carr University of Art and Design, Vancouver, September 4 – 14, 2003. One object from *Like, Furniture*.

**Exhibitions: Commissioned Projects**

2016:

*Bold and Independent: UCI's 50<sup>th</sup> Anniversary Exhibition*

Viewpoint Gallery, Irvine, April 18 – 25, 2016. Seven images.

2010:

*Water: Caochangdi Photospring*

Pékin Fine Arts, Beijing, April 17 – June 21, 2010. Six images.

*Hang With the Best*

Toronto Image Works Gallery, Toronto, February 4 – 27, 2010. One image.

2007: Café 059, Toronto, February 1 – September 1, 2007. Eight images.

**Exhibitions: Curation of Professional Work**

2014: *Making it Real: A Juried Exhibition of Digitally Fabricated Objects*  
Artscape Triangle Gallery, Toronto, January 20 – 26, 2014. Part of Digital Promises and  
Toronto Design Offsite 2014. **171**

2013: *Making it Real: A Juried Exhibition of Digitally Fabricated Objects*  
Musagetes Architecture Library, University of Waterloo, Cambridge, October 21 – November  
12, 2013. Part of the Association for Computer Aided Design in Architecture annual  
conference. **171**

*Making it Real: A Juried Exhibition of Digitally Fabricated Objects*  
Open Gallery, OCAD University, Toronto, May 14 – 28, 2013. Part of the Society of North  
American Goldsmiths annual conference, and the Toronto International Jewelry Festival. **171**

**Exhibitions: Curation of Student Work**

2016: *FAB/ART*  
Beall Center for Art + Technology, Irvine, June 4 – 9, 2016. Part of Return Liveliness.

2011: *Environmental Design*  
OCAD University, May 5 – 8, 2011. Part of the 96<sup>th</sup> Annual Graduate Exhibition.

## Publications: Authored

- 2016: Jackson, Jesse. "Speculative Prototyping: Making Plastic Printing Playful and Sustainable Fabrication." In *The 3D Additivist Cookbook*, edited by Morehshin Allahyari and Daniel Rourke. Article. Amsterdam: Institute of Network Cultures, 2016. Article. Forthcoming. **172**
- 2015: Jackson, Jesse, Roderick Grant, and Patricio Davila, eds. *Urban Ecologies 2013*. Toronto: OCAD University, 2015. Edited anthology. **175**
- Jackson, Jesse. "What Are Urban Ecologies?" In *Urban Ecologies 2013*, edited by Jesse Jackson, Roderick Grant, and Patricio Davila. Toronto: OCAD University, 2015. 4 – 7. Introduction. **177**
- Jackson, Jesse, and Lindsay Bell. "Visualizing Canada's Urban North." In *Urban Ecologies 2013*, edited by Jesse Jackson, Roderick Grant, and Patricio Davila. Toronto: OCAD University, 2015. 114 – 117. Article. **183**
- 2014: Jackson, Jesse and Tori Foster. "Iterations: Layers of the City." *Spacing 30* (Winter 2014). 38 – 41. Visual essay. **192**
- Jackson, Jesse, Tori Foster, and Lindsay Bell. "Visualizing Arts and Public Life." In *Ethnographic Terminalia 2013: Exhibition as Residency – Art, Anthropology, Collaboration*, edited by Craig Campbell, Kate Hennessy, Fiona McDonald, Trudi Smith, and Stephanie Takaragawa. Arlington: Society for Visual Anthropology, 2014. 56 – 61. Visual essay.
- 2013: Jackson, Jesse, and Greg Sims, eds. *Making it Real: A Juried Exhibition of Digitally Fabricated Objects*. Toronto: OCAD University, 2013. Exhibition catalogue. **197**
- Jackson, Jesse and Greg Sims. "Curatorial Statement." In *Making it Real: A Juried Exhibition of Digitally Fabricated Objects*, edited by Jesse Jackson and Greg Sims. Toronto: OCAD University, 2013. 3. Introduction. **199**
- Jackson, Jesse, and Lindsay Bell. "Arctic Rising." *Spacing 29* (Fall 2013). 66 – 69. Essay. **217**
- Jackson, Jesse, and Greg Phillips. "Shift/Craft." *FedDev Ontario's Applied Research & Commercialization (ARC) Initiatives*. ocadu.ca. Report to government.
- 2012: Jackson, Jesse, and Luke Stern. "Fabricating Sustainable Concrete Elements: A Physical Instantiation of the Marching Cubes Algorithm." In *Synthetic Digital Ecologies: Proceedings of the 32nd Annual Conference of the Association for Computer Aided Design in Architecture*, edited by Mark Cabrinha, Jason Johnson, and Kyle Steinfeld. San Francisco: ACADIA, 2012. 239 – 247. Conference proceedings. **222**
- Jackson, Jesse. "Experiencing Experience: Six Years of Introduction to Experience Design." In *End of/in the Beginning: Realizing the Sustainable Imagination: Proceedings of the 28<sup>th</sup> National Conference on the Beginning Design Student*, edited by Jodi La Coe. University Park: The Pennsylvania State University, 2012. 179 – 183. Conference proceedings.
- Jackson, Jesse. "Materials of Canadiana: Exposing Aggregate for What it Really Is." *Spacing 23* (Winter 2012). 20 – 21. Essay.

- 2010: Jackson, Jesse and Luke Stern. "Automatic/Revisited: Fabricating Sustainable Concrete Elements." In *MAS Context: University Works*, edited by Iker Gil and Andrew Clark. Chicago: MAS Studio, 2010. 138 – 141. Visual essay.
- Jackson, Jesse and Luke Stern. "Automatic/Revisited: Fabricating Sustainable Concrete Elements." In *Crisis as Catalyst: Architecture, Landscape, and Design Annual 2008 – 2009*, edited by Nelson Cheng, Ya'el Santopinto, and Shannon Wiley. Toronto: University of Toronto, 2010. 26 – 27. Article.
- Jackson, Jesse. "Jane-Exbury Towers – Toronto, Canada." *The Canadian Design Resource*. March 2010. [canadiandesignresource.ca](http://canadiandesignresource.ca). Article.
- Jackson, Jesse. "BC Place"; "Forum de Montréal"; "Olympic Saddledome"; "The Olympic Oval"; "The Richmond Olympic Oval"; "Stade Olympique"; "Vélodrome Olympique." *The Canadian Design Resource*. February 2010. [canadiandesignresource.ca](http://canadiandesignresource.ca). Seven articles.
- 2009: Jackson, Jesse. "Cao Chang Di." In *Architecture, Landscape, and Design Annual 2007 – 2008*, edited by Antoine Morris and Maier Yagod. Toronto: University of Toronto, 2009. 50 – 51. Visual essay.
- 2006: Jackson, Jesse. "The Diskettes CD." *The Canadian Design Resource*. March 2006. [canadiandesignresource.ca](http://canadiandesignresource.ca). Article.

### **Publications: Independent Projects Referenced**

- 2017: Marching Cubes. Toronto: Pari Nadimi Gallery, 2017. Exhibition catalogue for Marching Cubes. Forthcoming.
- 2016: *Radiant City*. Toronto: Pari Nadimi Gallery, 2016. Exhibition catalogue for *Radiant City*. Forthcoming.
- 2014: *Lines and Nodes: Media, Infrastructures, and Aesthetics*. New York: New York University, 2014. 26 – 27. Two pages on, and two images from, *Visualizing Canada's Urban North*. **240**
- 2013: "Jesse Colin Jackson and Tori Foster." In Project 31. Toronto: OCAD University, 2013. 38. One page on, and one image from, *Iterations*. **242**
- "Jesse Jackson and Luke Stern." In *Making it Real: A Juried Exhibition of Digitally Fabricated Objects*, edited by Jesse Jackson and Greg Sims. Toronto: OCAD University, 2013. 32 – 33. Two pages on, and one image of, *Marching Cubes*.
- 2011: Gorgolewski, Mark, June Komisar, and Joe Nasr. *Carrot City: Creating Places for Urban Agriculture*. New York: Monacelli Press, 2011. 196 – 197. One paragraph on, and three images of, *Assembling a Molecular Architecture*.
- North, Alissa. *Putting the Park Back in Parkdale*. Toronto: University of Toronto, 2010. 120 – 129. Ten pages on *Parkdale Tower Renewal*.
- 2010: *Ming Modern*. Toronto: WORKshop, 2010. 9, 24 – 25. One paragraph on, and one image of, *Timespace*. **244**

## Publications: Independent Projects Appear

- 2016: Thorpe, Joshua. "How to Rethink the Suburbs: A Lesson From Toronto." *Doggerel*. March 30, 2016. doggerel.arup.com. Six images from *Radiant City*.
- Bell, Lindsay. "Life in Hay River's High Rise." *Northern Public Affairs* 4, no. 1 (February 2016). 27 – 31. Also published online October 23, 2015. Five images from *Visualizing Canada's Urban North*. **248**
- 2014: "Pari Nadimi Gallery." In *Art Toronto 2014*. Toronto: Informa, 2014. 181. One image from *Iterations*. **255**
- 2015: Birch, Eugenie et al. "The World's Most Livable Cities." *Metropolis* (July – August 2015). Front cover, 104 – 105. Three images from *Radiant City*. **258**
- Cizek, Katarina. *HIGHRISE: Universe Within*. Multi-media documentary. National Film Board of Canada, 2015. highrise.nfb.ca. Five images from *Figure Ground* and *Radiant City*.
- Jackson, Jesse, Roderick Grant, and Patricio Davila, eds. *Urban Ecologies 2013*. Toronto: OCAD University, 2015. 2 – 3, 360 – 361. One image from *Radiant City*.
- 2014: Pari Nadimi Gallery. "Pari Nadimi Gallery." Advertisement. *Canadian Art* (Spring 2014). 52. One image from *Iterations*.
- 2013: "Backyard Courtyard." *The Globe and Mail* (Toronto, Canada), April 19, 2013. G1. One image from *Timespace*. **261**
- 2012: Petricone, Pina, ed. *Concrete Ideas: Material to Shape a City*. Philadelphia: Oscar Riera Ojeda, 2012. 158 – 159. One image from *Landmarks and Monuments*. **262**
- Stewart, Graeme et al. *Towards Healthier Apartment Neighbourhoods*. Toronto: City of Toronto, 2012. 2 – 3. Two images from *Landmarks and Monuments*.
- Bush, Catherine, and Michelle Elleray, eds. *The Parkdale Project 2012*. Toronto: Toronto District School Board, 2012. Front cover. One image from *West Lodge*.
- 2011: *Canadian Housing Observer 2011*. Ottawa: Canada Mortgage and Housing Corporation, 2011. 142. One image from *Landmarks and Monuments*.
- Lorinc, John. "Prioritized: City Hall Has a Responsibility to Help Toronto's Neighbourhoods in Need Succeed." *Spacing 22* (Fall 2011). 35. One image from *Figure Ground*.
- 2010: Cizek, Katarina. *HIGHRISE: One Millionth Tower*. Multi-media documentary. National Film Board of Canada, 2010. highrise.nfb.ca. Two images from *Landmarks and Monuments*.
- Hulchanski, David. *The Three Cities Within Toronto: Income Polarization Among Toronto's Neighbourhoods*. Toronto: University of Toronto, 2010. 13. One image from *West Lodge*. **264**
- Stewart, Graeme, and Jason Thorne. *Tower Neighbourhood Renewal in the Greater Golden Horseshoe*. Toronto: Queen's Printer for Ontario, 2010. 1, 2, 5. Three images from *Landmarks and Monuments*.

- 2009: Malczewski, Ian. "Towers of Power: Can New Thinking for High Rises Revitalize a Priority Neighbourhood?" *Spacing* 15 (Fall 2009). 56 – 57. One image from *Landmarks and Monuments*.
- Out and About Wright: New York*. Chicago: The Frank Lloyd Wright Building Conservancy, 2009. 3. One image from *Usonia Road*.
- 2009: Kesik, Ted, and Ivan Saleff. *Tower Renewal Guidelines: Comprehensive Retrofit of Multi-Unit Residential Buildings in Cold Climates*. Toronto: University of Toronto, 2009. Front cover, vi, 3, 25, 42, 55, 134, 168, A-70, B-4, back cover. Ten images from *Landmarks and Monuments* and *West Lodge*.
- 2008: *Mayor's Tower Renewal: Opportunities Book*. Toronto: City of Toronto, 2008. Front cover, 3, 5, 17, 22 – 23, 42 – 43, 99, 106 – 107, back cover. Nine images from *Landmarks and Monuments*.
- 2007: Stewart, Graeme. "Toronto's Modern Suburbs and the Concrete High-Rise." In *Concrete Toronto: a Guidebook to Concrete Architecture*, edited by Michael McLelland and Graeme Stewart. Toronto: Coach House, 2007. 216 – 217. One image from *Landmarks and Monuments*.
- Stewart, Graeme. "The Suburban Slab: Retrofitting our Concrete Legacy for a Sustainable Future." In *greenTopia: Towards a Sustainable Toronto*, edited by Alanna Wilcox, Christina Palassio, and Jonny Dovercourt. Toronto: Coach House, 2007. 136. One image from *Landmarks and Monuments*.

### **Publications: Commissioned Projects Appear**

- 2016: Field-Lewis, Jane. *My Cool Treehouse: An Inspirational Guide to Stylish Treehouses*. London: Pavillion, 2016. 14 – 15. Four images.
- 2015: Baird, George. "Stoic Splendour." *Blueprint* 337. 194 – 210. Thirteen images. **266**
- Kramer, Sibylle. *Green, Hidden, and Above: The Most Exceptional Treehouses*. Salenstein: Braun, 2015. 176 – 179. Five images.
- 2014: Steiner, David. "Good Neighbour." *Canadian Architect*, July 2014. 14 – 16. Two images.
- Bozikovic, Alex. "Opening New Doors." *The Globe and Mail* (Toronto, Canada), May 24, 2014. M1. One image. **276**
- "Sugar Beach." *Landezine: Landscape Architecture Works*, January 17, 2014. landezine.com. Two images.
- 2013: Breen, Martha. "Elementary Teachers' Federation of Ontario Office." *Award*, June 2013. 57 – 59. Three images.
- Bozikovic, Alex. "A Concrete Solution to A Shady Toronto Backyard." *The Globe and Mail* (Toronto, Canada), April 19, 2013. G4. Four images.

*80 for 80: Celebrated 80 Years of the Architectural Conservancy of Ontario Hamilton City Hall*. Toronto: Architectural Conservancy of Ontario, 2013. 69. One image.

*Kuwabara Payne McKenna Blumberg Architects*. Basel: Birkhäuser, 2013. 243 – 245. Five images. **277**

- 2012: Jodidio, Philip. *Tree Houses: Fairy Castles in the Air*. Cologne: Taschen, 2012. 250 – 253. Five images.
- Binstock, Meaghan. “Big Fix: An Annex Hodgepodge Gets Straightened Out.” *Toronto Life City Home 2012*. 61. Two images.
- Invizij: Architecture for the Real World*. Hamilton: Invizij Architects, 2012. 10, 12 – 14, 30, 32 – 35, 60 – 61. Eleven images.
- 2011: Parker, Kelly. “Hamilton City Hall.” *Precast Imagineering* 5, no. 2 (Fall 2011). Front cover, 5, 10 – 12, 14, 16, 18 – 19. Eleven images.
- Steiner, David. “Civic Pride.” *Canadian Architect*, October 2011. 12 – 16. Nine images.
- Hume, Christopher. “Exuberant Rebirth in ol’ Steeltown.” *The Toronto Star* (Toronto, Canada), July 9, 2011. E8 and online. Two images.
- Bozickovic, Alex. “Longhouse by Levitt Goodman.” *FRAME* 79 (March – April 2011). 68. Three images.
- “Wood Works.” *NUVO*, Spring 2011. 36. One image.
- “ОФИС ДЛЯ АБОРИГЕНОВ.” *Object* 11 (February – March 2011). 32 – 33. Two images.
- Jones, Will. “Native Pride.” *On Office* 49 (February 2011). 28 – 31. Three images.
- “Noble House.” *Hinge* 201 (January – February 2011). 40 – 41. Two images.
- 2010: “Playspace, Ontario.” *Plan*, March 2010. 34 – 35. Three images.
- “Seitenware: Kanada.” *Zuschnitt* 37 (March 2010). 30. One image.
- “Tree House: Nicko Björn Elliot.” *C3* 30 (February 2010). 110 – 111. Two images.
- 2009: Kesik, Ted, and Ivan Saleff. *Tower Renewal Guidelines: Comprehensive Retrofit of Multi-Unit Residential Buildings in Cold Climates*. Toronto: University of Toronto, 2009. 27, 29 – 31, 56, 62, 88, 90 – 91, 119 – 120, 132, 159, 168, 171 – 172, B-6, B-8. 25 images.
- Mangurian, Robert, and Ray, Mary-Ann. *Caochangdi: Beijing Inside Out*. Hong Kong: Timezone 8, 2009. 171, 175, 179, 183, 187, 191. Six images.
- 2008: Morris, Antoine, and Maier Yagod, eds. *Architecture, Landscape, and Design Annual 2006 – 2007*. Toronto: GALDSU, 2007. 13 – 14, 86 – 88, 91, 139, 148 – 150, 153, 199 – 205, 207. Eighteen images.
- 2006: Ho-Cespedes, Karen. “Under the Table.” *Canadian Architect*, June 2006. 58. One image.

### Publicity: Reviews of Independent Projects

- 2014: Mays, John Bentley. "The Building, Through a Rose-coloured Lens: A Photographic Show Celebrates the Postwar High-rise in a Way Le Corbusier May Have Envisaged – Verdant, Sunlit, and Full of Promise." *The Globe and Mail* (Toronto, Canada), October 3, 2014. G1 – G2. Also online as "Photos Uncover the Everyday Beauty of Toronto's Post-war High-rises," October 2, 2014. Review of *Radiant City*. **282**
- Scott, Monique. "White Walls, Black City: Reflections on Ethnographic Terminalia 2013." *Visual Anthropology Review* 30, no. 2 (Fall 2014). 190 – 198. Review of *Ethnographic Terminalia 2013 and Visualizing Canada's Urban North*. **288**
- 2013: Snyder, Rob. "ART-THROPOLOGY: Ethnographic Terminalia at the Washington Park Arts Incubator." *South Side Weekly*, November 28, 2013. southsideweekly.com. Review of *Ethnographic Terminalia 2013*.
- 2011: Blackwell, Adrian. "Agencement d'une art moléculaire: construire la cuisine communautaire mobile de Mount Dennis." *Inter art actuel* 108 (2011). 22 – 23. Review of *Assembling a Molecular Architecture*. **297**
- 2010: Smith, Greg. "Essential Urban Form." *Serial Consign: Digital Culture and Information Design*, April 24, 2010. serialconsign.com. Review of *Iterations*.
- 2009: Mays, John Bentley. "Wright's DIY Dreams Continue to Inspire: U of T pair Resurrect Icon's Plan For Concrete Blocks That Buyers Could Use to Assemble Their Own Homes." *The Globe and Mail* (Toronto, Canada), February 6, 2009. G7 and online. Review of *Automatic*.
- 2008: Blackwell, Adrian. "Assembling a Molecular Architecture." *OAA Perspectives*, Fall 2008. 11 – 12. Review of *Assembling a Molecular Architecture*.
- Magwood, Sarah. "A Kitchen Community Centre." *Spacing* 22 (Summer – Fall 2008). 43. Review of *Assembling a Molecular Architecture*.
- Bobette, Adam. "Collaborative Kitchen: A Grassroots Community Endeavor Provides a Collaboratively Based Education for University of Toronto Architecture Students." *Canadian Architect*, July 2008. 42. Review of *Assembling a Molecular Architecture*.

### Publicity: Media Appearances

- 2016: Spitzer, Anna. "Undergrad Wins Brower Youth Award." *UCI Samueli School of Engineering*, September 6, 2016. engineering.uci.edu. Coverage of *Speculative Prototyping Lab*.
- Hughes, Paul. "Built Orange County Tilts Mod Again in Brutalist Surge." *Orange County Business Journal*, July 18, 2016. 18 – 20. Interviewed for, and cited in, magazine article.
- 2015: Lawhon, Cathy. "Zot! Yacht: Beloved Mascot Peter Sets Sail Aboard UCI's Entry in the Newport Beach Christmas Boat Parade." *UCI News*, December 17, 2015. news.uci.edu. Coverage of *Speculative Prototyping Lab*.

Chan, Alex. "Boats Decked in Holiday Finery Sail the Harbor." *Los Angeles Times Daily Pilot*, December 16, 2015. A1 and online. Coverage of *Speculative Prototyping Lab*.

Krunák-Hajagos, Emese. "Interview with Pari Nadimi." *Artoronto.ca*, February 15, 2015. artoronto.ca. Coverage of *Radiant City* and *Iterations*.

*CBC Northbeat*. "The Changing Seasons of Hay River." Canadian Broadcasting Corporation, January 12, 2015. Television. Coverage of *Visualizing Canada's Urban North*.

2014: Blackett, Matthew. "Photo Exhibit opens Thursday on Toronto's Tower Neighbourhoods." *Spacing Toronto*, September 17, 2014. spacing.ca. Coverage of *Radiant City*.

"Photos Uncover the Everyday Beauty of Toronto's Post-War High-Rises." *Docomomo Ontario*, October 2, 2014. docomomo-ontario.ca. Coverage of *Radiant City*.

"Radiant City: Photo Exhibition of Toronto Towers." *Toronto Tower Renewal*, September 16, 2014. towerrenewal.com. Coverage of *Radiant City*.

Kimball, Kelly. "Jesse Jackson: Transforming the Arts." *New University* (Irvine, California), May 20, 2014. 12. Also online as "Professor Jesse Jackson Transforming the Arts." Coverage of University of California, Irvine pedagogical activities.

2013: Dolphin, Myles. "A Fresh Look at the North: Toronto Researchers Hope to Offer Different Perspective." *Hay River Hub* (Hay River, Canada), May 1, 2013. 15. Also online as "New Ways of Looking at the North," May 2, 2013. Coverage of *Visualizing Canada's Urban North*.

*CBC Northbeat*. "The Changing Seasons of Hay River." Canadian Broadcasting Corporation, January 12, 2015. Television broadcast. Coverage of *Visualizing Canada's Urban North*.

*Culture Avenue*. "Toronto Design Offsite." Omni Television, February 2, 2013. Television broadcast. Coverage of *Toronto Design Offsite 2013*, featuring *Automatic/Revisited*.

Fane, Kate. "10 Events to Catch at Toronto Design Offsite 2013." *BlogTO*, January 21, 2013. blogto.com. Coverage of *Toronto Design Offsite 2013*, featuring *Automatic/Revisited*.

Korducki, Kelli. "The Junction: Off the Grid, But on the Art Scene's Radar." *The Globe and Mail* (Toronto, Canada), January 19, 2013. M3. Also online as "The Junction: For Art and Design Types, 'It Still Feels Like Anything is Possible Here'," January 18, 2013. Coverage of the *Toronto Design Offsite 2013*, featuring *Automatic/Revisited*.

2009: "2009 Student Awards of Excellence." *Canadian Architect*, December 2009. 54. Coverage of nomination for a Canadian Architect *Award of Excellence*.

Gamulin, Emina. "West Side Story: A Q&A With Local Artist Gene Mastrangeli on His Latest Project." *The Liberty Gleaner*, May 2009. 11. Coverage of *West Lodge*.

"Must-See Shows." *NOW Magazine*, March 5 – 11, 2009. 48. Coverage of *West Lodge*.

"Gleanings." *The Liberty Gleaner*, March 2009. 10. Coverage of *West Lodge*.

2008: "Meals on Wheels." *U of T Magazine*, Autumn 2008. 4. Coverage of *Assembling a Molecular Architecture*.

Fitzgerald, Sean. "The Opposite of a Drive-thru: Portable Community Kitchen Makes its Debut." *National Post* (Toronto, Canada), May 5, 2008. 4. Coverage of *Assembling a Molecular Architecture*.

2007:

"Questions and Answers: I'll Tell You Mine if You'll Tell Me Yours." *National Post* (Toronto, Canada), April 4, 2007. A11. Coverage of OCAD University pedagogical activities.

## Speaking Engagements: Invited Talks

- 2016: *Marching Cubes Made Tangible*  
Summer Undergraduate Research Fellowship in the Internet of Things Seminar Series, California Institute for Telecommunications and Information Technology, July 19, 2016.
- Pixels in the Material World: From Frank Lloyd Wright to Marching Cubes*  
Multidisciplinary Design Program Seminar Series, California Institute for Telecommunications and Information Technology, March 30, 2016.
- 2015: *Pixels in the Material World: From Frank Lloyd Wright to Marching Cubes*  
Maker Lab in the Humanities, University of Victoria, December 3, 2015. **300**
- Pixels in the Material World: From Frank Lloyd Wright to Marching Cubes*  
Everyday Design Studio, School of Interactive Arts and Technology, Simon Fraser University, November 27, 2015. **301**
- Pixels in the Material World: From Frank Lloyd Wright to Marching Cubes*  
Centre for Critical Making, Emily Carr University of Art and Design, November 24, 2015. **302**
- Pixels in the Material World: From Frank Lloyd Wright to Marching Cubes.*  
Department of Computational Media, University of California, Santa Cruz, May 4, 2015.
- University of California, Irvine Chief Executive Roundtable*  
Sausalito, April 30 – May 3, 2015. *Pixels in the Material World: From Frank Lloyd Wright to Marching Cubes.* **303**
- Radiant City, Twice Removed: Toronto's Tower Neighborhoods, Aesthetically Considered*  
Weatherhead Center for International Affairs, Harvard University, April 22, 2015. **304**
- 2014: *Popular Ethnography and its Publics: Transforming Research for Print and Screen*  
Department of Discourse Studies, University of Jyväskylä, April 16, 2014. With Lindsay Bell.
- The Ragged Edge*  
Department of English, University of Victoria, February 3, 2014. **306**
- 2013: *Desire Lines: Visualizing Place through Art and Anthropology*  
Arts Incubator in Washington Park, Chicago, November 21, 2013. With Lindsay Bell, Tori Foster, and Robert Willim)
- Visualizing Canada's Urban North*  
Centre for Innovation in Information Visualization and Data-Driven Design Brown Bag Seminar Series, OCAD University, April 5, 2013. With Lindsay Bell and Tori Foster.
- Automatic/Revisited*  
Latitude 44 Gallery, February 7, 2013. Part of Toronto Design Offsite 2013.
- Tectonic Echoes in the Age of Information*  
Department of Design, Ohio State University, February 4, 2013.
- Tectonic Echoes in the Age of Information*  
Department of Art, University of California, Irvine, January 24, 2013.

- 2012: *Automatic/Revisited*  
Material Art & Design Faculty Lecture Series, OCAD University, November 28, 2012.
- Current Practice-Based Research*  
Interdisciplinary Master's in Art, Media and Design Pecha Kucha, OCAD University, November 19, 2012.
- Authoring Space: A Dialectic*  
Function Two, OCAD University, March 7, 2012. With Roderick Grant.
- 2011: *Jesse Colin Jackson: Five Slides*  
Interdisciplinary Master's in Art, Media and Design Pecha Kucha, OCAD University, November 2, 2011.
- 2009: *Assembling a Molecular Architecture*  
University of Toronto Celebration of the Arts, March 19, 2009. With Luke Stern.
- Automatic*  
Research Methodologies: Tools and Tactics Lecture Series, University of Toronto, January 20, 2009. With Luke Stern.

### **Speaking Engagements: Invited Course Lectures**

- 2016: *The Question Concerning (Art and) Technology*  
Department of Art, California State University, Northridge. November 23, 2016. For the graduate course *Advanced Studio Problems* with Tori Foster. Forthcoming.
- 2012: *Computational Design*  
School of Interior Design, Ryerson University, December 1, 2012. For the undergraduate course *Advanced Visualization* with Joe Kan.
- Modular Structures*  
Faculty of Design, OCAD University, November 15, 2012. For the undergraduate course *Environmental Design I* with Maya Desai.
- Urban Ecologies: Tower Neighbourhood Renewal in Toronto*  
Department of Anthropology. University of Toronto. November 22, 2012. For the undergraduate course *Political Ecology* with Lindsay Bell.
- Computational Design*  
Faculty of Design, OCAD University, October 1, 2012. For the undergraduate course *Emerging Technologies* with Angelika Veres.
- 2011: *Binning, Erickson and Patkau: The Development of a Critical Regional Style*  
Department of English, University of Victoria, October 6, 2011. For the graduate course *Literatures of the West Coast* with Nicholas Bradley.

*Thesis/Research*

Faculty of Architecture, Landscape, and Design, University of Toronto, February 16, 2011. For the graduate course *Thesis Research and Preparation* with Pina Petricone.

2010:

*Thesis/Research*

Faculty of Architecture, Landscape, and Design, University of Toronto, February 2, 2010. For the graduate course *Thesis Research and Preparation* with Pina Petricone.

2009:

*Frank Lloyd Wright Today: The Usonian Projects*

Faculty of Architecture, Landscape, and Design, University of Toronto, October 19 and November 2, 2009. For the graduate course *Frank Lloyd Wright Today* with Larry Richards.

**Speaking Engagements: Invited Course Critiques**

2016:

Department of Mechanical and Aerospace Engineering, University of California, Irvine, November and December 2016. For the undergraduate course *Engineering Design in Industry* with Vince McDonell. Forthcoming.

2015:

Department of Architecture, California State Polytechnic University, Pomona, June 3, 2015. For the undergraduate course *Architectural Design* with Graham Ferrier.

2013:

Environmental Design program, Faculty of Design, OCAD University, Toronto, March 6, 2013. For the undergraduate course *Environmental Design II* with Dan Briker

2012:

Graphic Design program, Faculty of Design, OCAD University, Toronto, December 10, 2012. For the undergraduate course *Graphic Design Thesis I* with Roderick Grant.

School of Applied Technology, Humber College, December 7, 2012. For the undergraduate course *Interior Design Studio I* with Marcin Kedzior.

School of Interior Design, Ryerson University, December 1, 2012. For the undergraduate course *Advanced Visualization* with Joe Kan.

Department of Architectural Science, Ryerson University, April 16, 2012. For the undergraduate course *Design Studio III* with Michelle Grant.

Graphic Design program, Faculty of Design, OCAD University, Toronto, April 12, 2012. For the undergraduate course *Wayfinding/Information Systems I* with Roderick Grant.

Faculty of Architecture, Landscape, and Design, University of Toronto, April 10, 2012. For the graduate course *Architectural Design Studio II* with Shane Williamson.

Faculty of Architecture, Landscape, and Design, University of Toronto, April 9, 2012. For the graduate course *Architectural Design Studio IV* with Barry Sampson.

Industrial Design program, Faculty of Design, OCAD University, Toronto, April 2, 2012. For the undergraduate course *Furniture I* with Gord Peteran.

2011:

Environmental Design program, Faculty of Design, OCAD University, Toronto, December 8, 2011. For the undergraduate course *Core Project Studio* with Mel Quirt.

Environmental Design program, Faculty of Design, OCAD University, Toronto, December 2, 2011. For the undergraduate course *Architectural Design* with Sabrina Richard.

School of Applied Technology, Humber College, October 22, 2011. For the undergraduate course *Interior Design Studio I* with Marcin Kedzior.

Environmental Design program, Faculty of Design, OCAD University, Toronto, April 15, 2011. For the undergraduate course *Architectural Design* with Jeremy Bowes.

Faculty of Architecture, Landscape, and Design, University of Toronto, April 14, 2011. For the graduate course *Architectural Design Studio VI* with Adrian Blackwell.

Environmental Design program, Faculty of Design, OCAD University, Toronto, April 8, 2011. For the undergraduate course *Objects and Environments* with Marco Jacob.

Faculty of Design, OCAD University, Toronto, January 29, 2011. For the OCAD University *2011 Design Competition*.

2010: Environmental Design program, Faculty of Design, OCAD University, Toronto, October 15, 2010. For the undergraduate course *Form and Structure* with Christine Elson.

2009: Faculty of Architecture, Landscape, and Design, University of Toronto, December 8, 2009. For the graduate course *Architectural Design Studio I* with An Te Liu.

Faculty of Architecture, Landscape, and Design, University of Toronto, September 3, 2009. For the graduate course *Summer Skills Workshop* with Maya Desai and Hayley Imerman.

2008: Faculty of Architecture, Landscape, and Design, University of Toronto, December 5, 2008. For the undergraduate course *Architectural Representation II* with Kristina Ljubanovic.

Environmental Design program, Faculty of Design, OCAD University, Toronto, March 18, 2008. For the undergraduate course *Objects and Environments* with Marco Jacob.

### Conferences: Leadership

- 2016: *A Body of Knowledge: Embodied Cognition and the Arts*  
University of California, Irvine, Dec 8 – 10, 2016. Reviewer.
- Creativity, Cognition, Critique*  
University of California, Irvine, May 20, 2016. Keynote introduction.
- Campus Architecture, City Planning, and the Legacy of William Pereira*  
University of California, Irvine, April 18, 2016. Co-organizer; graphic designer. **309**
- 2015: *Design & the Anthropocene*  
California Institute for Telecommunications and Information Technology, Irvine, December 4, 2015. Co-organizer; lead organizer of design activities; website and graphic designer. **310**
- 2011 – 2013: *Urban Ecologies 2013*  
Art Gallery of Ontario and OCAD University, Toronto, June 19 – 22, 2013. Co-chair of the Urban Ecologies conference series; lead organizer, financial manager, and co-host of the 2013 event. Event budget: \$190,000. **311**

### Conferences: Presentations

- 2016: *Pathways to Possible Worlds: Science Fiction & Sustainability*  
California Institute for Telecommunications and Information Technology, May 27, 2016. *Utopia, Dystopia* (oral presentation and panel discussion).
- Creativity, Cognition, Critique*  
University of California, Irvine, May 20, 2016. *Space, Time and Orange County* (oral presentation).
- Campus Architecture, City Planning, and the Legacy of William Pereira*  
University of California, Irvine, April 18, 2016. *Turning Fifty* (oral presentation and panel discussion).
- Research Cyber-Infrastructure Symposium*  
California Institute for Telecommunications and Information Technology, January 27, 2016. *RCI Challenges from the Arts* (oral presentation and panel discussion).
- 2015: *The 21<sup>st</sup> International Symposium on Electronic Art*  
Vancouver, August 14 – 18, 2015. *Marching Cubes Made Physical* (oral presentation and panel discussion).
- 2014: *Bordersongs: Western Literature Association Conference 2014*  
The University of Victoria, November 5 – 8, 2014. *The Ragged Edge* (poster presentation).
- Lines and Nodes: Media, Infrastructure, and Aesthetics*  
New York University, September 19, 2014. *Infrastructures of a Visualized Arctic* (oral presentation and panel discussion). With Lindsay Bell.

- 2013: *American Anthropological Association 112<sup>th</sup> Annual Meeting*  
Chicago, November 20 – 24, 2013. *Visualizing Canada's Urban North* (oral presentation and panel discussion). With Lindsay Bell.
- Urban Ecologies 2013*  
OCAD University, June 19 – 22, 2013. *Visualizing Canada's Urban North* (oral presentation and panel discussion). With Lindsay Bell.
- Graphics, Animation and New Media National Centre of Excellence Annual Conference*  
Toronto, May 14 – 16, 2013. *Visualizing Canada's Urban North* (poster presentation). With Lindsay Bell and Tori Foster.
- 2012: *Green Education Council Sustainability Symposium*  
Humber College, November 16, 2012. *Partnership in Academic Leadership on Sustainability* (oral presentation and panel discussion)
- Remaking Research: Emerging Research Practices in Art and Design*  
Emily Carr University of Art and Design, November 1 – 3, 2012. *Spandrel* (oral presentation and panel discussion).
- Association for Computer Aided Design in Architecture 2012 Annual Conference*  
California College of the Arts, October 17 – 21, 2012. *Fabricating Sustainable Concrete Elements: A Physical Instantiation of the Marching Cubes Algorithm* (oral presentation and panel discussion). With Luke Stern.
- Association for the Advancement of Sustainability in Higher Education 2012 Conference*  
Los Angeles, October 14 – 17, 2012. *Experiencing Experience: Six Years of Introduction to Experience Design* (poster presentation).
- 28<sup>th</sup> National Conference on the Beginning Design Student*  
Pennsylvania State University, March 29 – 31, 2012. *Experiencing Experience: Six Years of Introduction to Experience Design* (film presentation and panel discussion).
- 2011: *Tower Neighbourhood Renewal Symposium*  
University of Toronto, May 12, 2011. *I Take Photographs of Tower Neighbourhoods* (poster presentation).

### Events: Leadership

- 2014: *Architectural Photography Workshop*  
Hamilton/Burlington Society of Architects, Hamilton, September 6, 2014. Instructor.
- A Lecture by Jiminez Lai*  
University of California, Irvine, February 5, 2015. Organizer and host. **316**
- 2014: *3D Printing Workshop*  
University of California, Irvine, February 13, 2014. Organizer and instructor.
- 2013: *sMarch: Sustainability Month at OCAD U*  
OCAD University, March 1 – 30, 2013. Lead organizer of a month of events. **317**
- 2012: *So You Want to Be An Architect. . .*  
OCAD University, Toronto, November 27, 2012. Organizer and host.
- Sustainability Roundtable with Helen and Newton Harrison*  
OCAD University, Toronto, October 3, 2012. Organizer and host.
- 2011: *So You Want to Be An Architect. . .*  
OCAD University, Toronto, November 15 and 22, 2011. Organizer and host.
- Sustainable Design Awards 2012*  
Design Exchange, Toronto, April 19 – 20, 2012. Host and moderator.
- 2010: *Strategic Construction: The Architect as Agent for Change*  
OCAD University, November 26, 2010. Moderator.
- OCAD University Environmental Design Fall Lecture Series*  
OCAD University, October 28, November 4, and November 11, 2010. Organizer and host. **318**
- Rhino 4.0 Faculty Training Workshop*  
OCAD University, January – April, 2010. Instructor.
- 2009: *Rhino 4.0 Graduate Student Workshop*  
OCAD University, November 17 and 24, 2009. Instructor.
- 2009: *Jane's Walk: Towers on the Ravine*  
Toronto, May 3, 2009. Host, with Graeme Stewart and David Hulchanski.

### Events: Invited Participation

- 2016: *Teaching Climate and Sustainability: A Faculty Skills-Sharing Workshop*  
Steele/Burnand Anza-Borrego Desert Research Center, April 16, 2016. Invited participant.
- 2015: *Formal Play: A Workshop on Ethnographic Design*  
University of California, Irvine, October 23 – 24, 2015. Invited participant.
- Productive Encounters: Workshop in Design Ethnography*  
University of California, Irvine, March 16 – 18, 2015. Invited participant.

- 2013: *Ethnographic Terminalia 2013: Exhibition as Residency—Art, Anthropology, Collaboration*  
Arts Incubator in Washington Park, Chicago, November 18 – 22, 2013. Invited participant.
- 2012: *Partnership in Academic Leadership on Sustainability Summit*  
School of the Art Institute of Chicago, September 26 – 29, 2012. Invited participant.
- Design + Optimization + Fabrication  
McNeel Latin America, Miami, January 12 – 13, 2012. Invited participant.
- 2010: *National Teacher Training Workshop on Rapid Prototyping and Additive Manufacturing*  
University of California Irvine, August 2 – 6, 2010. Invited participant.

### **Professional: Employment**

- 2007 – 08: Architectural Designer  
Architects + Research + Knowledge, Toronto
- 2006 – 07: Structural Engineer  
Blackwell Bowick Partnership, Toronto
- 2005: Project Engineer  
Greater Vancouver Regional District Parks Engineering Services, Vancouver
- 2002 – 04: Bicycle Infrastructure Co–ordinator  
Department of Land and Building Services, University of British Columbia, Vancouver
- 1999, 2002: Assistant Transportation Engineer  
Department of Land and Building Services, University of British Columbia, Vancouver
- 1998 – 99: Assistant Structural Engineer  
Structures and Surveillance Department, BC Hydro and Power Authority, Vancouver

### **Professional: Affiliations**

- 2009 – present: Leadership in Energy and Environmental Design Accredited Professional (LEED AP)
- 2009 – 14: Intern member, Architectural Institute of British Columbia
- 2004 – 06: Intern member, Association of Professional Engineers and Geoscientists of British Columbia
- 2004 – 05: Director, Pedal Energy Development Alternatives, Vancouver
- 2004: Volunteer designer and fabricator, Asociación Maya Pedal, San Andrés Itzapa, Guatemala



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The Royal  
Architectural  
Institute  
of Canada

L'Institut  
royal  
d'architecture  
du Canada

National Office  
Bureau national

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January 20, 2010

**Member ID: 111202**

Jesse Colin Jackson, MRAIC  
10774 Madrona Drive  
North Saanich, BC V8L 5M7

**Welcome to the RAIC!**

Dear Mr. Jackson,

I am pleased to advise that you are now a Member of the Royal Architectural Institute of Canada effective January 1, 2010.

Your membership card is enclosed with this letter. Your membership certificate will be mailed to you shortly.

You are encouraged to use your designation, MRAIC, following your name along with any designations you might already have.

You may now access our Members-Only section of our Web site at <http://members.raic.org/>. This section includes access to your contact information which you can update online if needed plus an access to our online directory. All you need is your Member ID Number 111202 to begin enjoying all of these special features.

If we can be of any assistance, please do not hesitate to contact us.

Sincerely,

Angélique Sauvé  
Membership Coordinator

TO: Jesse Colin Jackson  
School of the Arts

Re: Celebration of Teaching Award - 2016 Dean's Honoree

Congratulations! The Dean of your School has selected you to receive the 2015-2016 Dean's Honoree for Teaching Excellence at the upcoming 23<sup>rd</sup> Celebration of Teaching event.

You will receive an award from your Dean, or appointed faculty member, which is being provided by the Center for Engaged instruction.

Your award will be presented to you at the 23<sup>rd</sup> annual Celebration of Teaching:

Thurs., May 5, 2016  
4:30-6:30 p.m. (Reception to follow w/photo op)  
Student Center, Doheny Beach AB  
**R.S.V.P by April 29, 2016** to [cei@uci.edu](mailto:cei@uci.edu) or contact  
Ms. Brenda Fisher at [blfisher@uci.edu](mailto:blfisher@uci.edu), 824-6060

You will receive a formal invitation in the mail, as well as a copy of this memo.

You will have a reserved seat, so please check in at the desk to get your table number. You are welcome to invite friends and family; please be sure, however, to inform us of who will be coming so that we can be prepared for them.

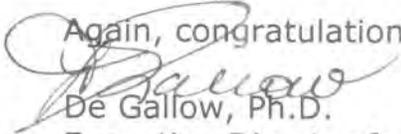
Please confirm with us whether you will be able to receive the award in person. If not, you may designate someone to accept it on your behalf (such as your dean, advisor, or department chair). If someone other than you will be accepting, please be sure to inform us. Hopefully, you will be there for what is a very uplifting and celebratory event.

Please read the following instructions carefully so that you know how the award will be presented to you:

## Instructions for Receiving the Award at the Ceremony

When it comes time to accept your award, the MC will call your Dean to give your award; they will introduce you and then share with the audience excerpts from your nomination letter in order to illustrate why you were selected as the recipient. When completed, I will hand you an engraved award and you will return to your seat. (Unfortunately, due to time constraints, recipients will not have an opportunity to comment.)

Again, congratulations for an honor well deserved!



De Gallow, Ph.D.

Executive Director for Instructional Development  
Office of the Vice Provost  
Center for Engaged Instruction  
Division of Teaching & Learning

cc: Nominators  
Dean  
Associate Dean  
Department Chair



July 8, 2016

Ref. no.: 3215-16-0045

Jesse Jackson  
83 Whitman Court  
Irvine CA 92617  
USA

**PURPOSE: To produce an interactive installation titled "Marching Cubes Made Tangible".**

Dear Jesse Jackson:

The Canada Council for the Arts is pleased to inform you that your application to the *Grants to New Media and Audio Artists - Production Grants* program was successful.

#### **Grant amount and payment**

The peer assessment committee that evaluated your application recommended a grant of **\$40,000**.

#### **Grant payment**

The grant amount will be paid upon receipt of the attached *Grant Acknowledgement Form for Individuals*, **signed and dated**, and after you have satisfied any conditions that are provided with your grant notification letter. As the Canada Council requires your original signature on this form, it must be forwarded by mail. Please make a copy for your records.

#### **Grant conditions**

If you accept the grant, you also agree to meet the following terms and conditions:

We will release the 1<sup>st</sup> installment of your grant in the amount of \$36,000 upon receipt and approval of one copy of the completed Grant Acknowledgement Form.

We will release the 2<sup>nd</sup> installment of your grant in the amount of \$4,000 upon receipt and approval of an interim financial and activity report.

**All modifications to your proposed project as well as any modifications to your financial structure and budget must be submitted to the program officer for approval before proceeding with the project.**

- If there are any modifications to the financial structure and budget of your project, you must provide all necessary documentation concerning the nature of these modifications for approval.

Please note that you must maintain full editorial and creative control over the project at all times.

## Final report

You must submit a final report on your project by **December 29, 2017** at the latest. It must contain the following:

- A short description of the project or activities you completed with the assistance of the grant;
- A short description of the impact the grant had on your art form, your practice and/or your career;
- A comprehensive financial report on your project including financial details on how you used your grant monies; and,
- A DVD with the audiovisual documentation of the artwork including title, complete credits including the logo of the Canada Council for the Arts.

I invite you to contact us before submitting the final report so that we may send you the appropriate template for this process.

**Important: You will not be eligible to apply for future funding from the Canada Council for the Arts until all overdue final reports for previous Canada Council grants have been submitted and approved.**

You must clearly recognize the support of the Canada Council for the Arts in all promotional material associated with your grant. Please ensure that you use the most recent version of the Canada Council logo, which should be downloaded from the About Us section of the Council's website at: <http://www.canadacouncil.ca>.

The names of grant recipients and grant amounts as well as peer assessors' names, city and province of residence are published every 3 months on the Canada Council's website.

As part of its arts advocacy plan, the Canada Council for the Arts would like to share the news of your grant with your federal Member of Parliament and/or senator(s). Please indicate on the attached form if you will allow us to provide your address to them.

The Canada Council is pleased to provide this funding and wishes you success in this and future artistic endeavours.

Sincerely,



*Congratulations!*

Laura Jeanne Lefave  
Program Officer  
Media Arts Section  
1-800-263-5588 or 613-566-4414, ext. 5254

Encl.



Office of the Provost and Executive Vice Chancellor

509 Aldrich Hall  
Irvine, CA 92697-1000  
(949) 824-6296  
(949) 824-2438 Fax

June 19, 2014

ASSISTANT PROFESSOR JESSE COLIN JACKSON  
DEPARTMENT OF ARTS-STUDIO ART  
CLAIRE TREVOR SCHOOL OF THE ARTS

Re: *Hellman Fellowship Award, 2014-15-Award Notification*

Dear Professor Jackson:

It is my pleasure to inform you that you have been awarded a 2014-15 Hellman Fellowship Award. As you are aware, this award was created by a generous gift from Mr. F. Warren Hellman, a distinguished UC Berkeley alumnus and supporter of junior faculty. For your research, I am pleased to award you \$38,500.00, to be used toward your research, as described in your application. These funds are limited to the use of research-related expenses, such as equipment or travel. Expenditures for your summary salary are not permitted.

My office will be contacting you with additional information regarding transfer of funds to your departmental account, as well as reporting requirements associated with the award.

Your selection as a Hellman Fellow at UCI is a tremendous acknowledgment of your achievements, thus far. Please accept my sincere congratulations and best wishes for continued success with your research, and in your academic career.

Sincerely

A handwritten signature in blue ink, appearing to read "Herbert P. Killackey".

Herbert P. Killackey  
Vice Provost

cc: Provost Gillman  
Dean Lewis  
Department Chair Trend  
CPO  
Academic Personnel

September 28, 2012

## CIV/DDD

Jesse Jackson  
Principal Investigator  
OCAD University

Dear Jesse,

On behalf of the CIV/DDD Executive Committee, thank you for submitting your funding request for the Letter of Intent "Urban Information and Representation Initiative," under Theme Area 4: Scientific Visualization in Engineering and Physical Sciences, Lead: Nick Cercone.

We are pleased to offer you 2012 total funding for researcher salaries and benefits in the amount of **\$9,000** until 31 March 2013 with the possibility of renewal upon satisfactory progress. (This amount includes the January 2012 commitment made by CIV/DDD in relation to the December 2011 Letter of Intent submissions.) The ORF-RE grant funds Post-Doctoral Fellows, Graduate Students (York, OCAD U, UofT), and Undergraduate students and Research Assistants at OCAD U. Your allocation provides Graduate student support.

### Benefits

CIV/DDD recipients of research funding are entitled to the following benefits:

1. Research profile on the CIV/DDD website, including summary of research and images
2. Limited access to Travel funding (subject to approval)
3. Limited access to Equipment funding (subject to approval)
4. Activity Code Account for ease of tracking your funding expenditures
5. Research networking events with CIV/DDD institutional and industry partners in the four Thematic Areas:
  - a. Volumetric Visualization for Bioinformatics and Medical Applications  
*Theme Leads: Amir Asif (York University) and Paula Gardner (OCAD University)*
  - b. Mixed Reality/Interactive Visualization of Fine and Performing Arts Data  
*Theme Lead: Caitlin Fisher (York University)*
  - c. Textual Visualization in Social Sciences and Humanities  
*Theme Lead: Sara Diamond (OCAD University)*
  - d. Scientific Visualization in Engineering and Physical Sciences  
*Theme Lead: Nick Cercone (York University)*

### Reporting

CIV/DDD funding to researchers is allocated on a bi-annual basis, with the opportunity for renewal. CIV/DDD funding from ORF-RE is received on a conditional basis (the total grant is not received upfront and drawn down as research proceeds.) This funding is contingent upon quarterly reports of researcher time contributions and industry partner in-kind time contributions. Hence, reporting is required for a given quarter and following forecast quarter, to ensure continued funding by ORF-RE.

Recipients of CIV/DDD funding are to ensure the following conditions are met:

- i) Report researcher time contributions on a quarterly basis (minimum 1 hour per week).
  - a. Q6 Actual & Q7 Forecast: submitted by 1 November 2012
  - b. Q7 Actual & Q8 Forecast: submitted by 1 February 2013
  - c. Q8 Actual & Q9 Forecast: submitted by 1 May 2013
- ii) Secure participation from at least one Industry Partner by 1 November 2012 (support available from Project Manager)
- iii) Report quarterly industry partner cash and in-kind contributions (coordinate with Project Manager)
- iv) Include a team member from one other institutional CIV/DDD partner (York U, OCADU, U of T, University Health Network, Samuel Lunenfeld Research Institute) by 1 November 2012
- v) Submit a progress report by 1 Feb 2013

Please indicate whether you accept or decline this CIV/DDD funding offer and conditions, by replying **by end of day Monday October 1, 2012** to Barbara Whitmer, Project Manager, CIV/DDD at [bwhitmer@cse.yorku.ca](mailto:bwhitmer@cse.yorku.ca). Activity Code Account and additional information (including a progress report template) will be sent the week of October 1, 2012 following receipt of acceptance of funding offer and conditions. Please let me know if you have questions at [asif@cse.yorku.ca](mailto:asif@cse.yorku.ca). Thank you for your interest in CIV/DDD.

Sincerely,

Amir Asif  
Principal Investigator, CIV/DDD

June 8, 2015

PROFESSOR GEOFFREY BOWKER  
DEPARTMENT OF INFORMATICS  
DONALD BREN SCHOOL OF INFORMATION & COMPUTER SCIENCES

PROFESSOR SIMON PENNY  
DEPARTMENT OF ART  
CLAIRE TREVOR SCHOOL OF THE ARTS

PROFESSOR JULIA LUPTON  
DEPARTMENT OF ENGLISH  
SCHOOL OF HUMANITIES

PROFESSOR JESSE JACKSON  
DEPARTMENT OF ART  
CLAIRE TREVOR SCHOOL OF THE ARTS

RE: CORCL Multi-Investigator Research Grant – Proposal #MIIG-2014-2015-1

On behalf of the Academic Senate Council on Research, Computing, and Libraries (CORCL), I am pleased to award \$20,000 in support of your project, entitled “Emergent Design: Structure Precipitates out of Activity”.

Publications resulting from this research project should reference the support received from CORCL. If this project leads to other extramural funding please inform CORCL, as this information helps support the continuation of this grant program. Any major change in the scope of work or budget items should be submitted to CORCL for consideration. Funds must be spent in accordance with UC and campus policies. All funding awarded by CORCL and equipment purchased with CORCL awards are intended for the conduct of research by members of the Irvine Division of the Academic Senate and are not transferable to another campus or university.

To arrange the transfer of funds to your departmental account, please ask your department administrator to contact Rachel Mangold at [rmangold@uci.edu](mailto:rmangold@uci.edu) in the Academic Senate. The funds should be expended between July 1, 2015 and June 30, 2016, and any unexpended funds returned for use by CORCL in future competitions. Requests to carry-forward funds may be sent to Thao Nguyen, CORCL Analyst, via email at [thao.nguyen@uci.edu](mailto:thao.nguyen@uci.edu) with appropriate justification. CORCL requires a final report upon completion of the project; guidelines can be found at <http://senate.uci.edu/committees/councils/council-on-research-computing-and-libraries-corcl/faculty-research-grants-multi-investigator-faculty-research-grants/>.

Congratulations and best wishes for a successful research project.

Sincerely,

A handwritten signature in black ink, appearing to read "Rufus Edwards". The signature is fluid and cursive, with a large initial "R" and "E".

Rufus Edwards, Chair  
Council on Research, Computing, and Libraries

c: Department Chair Andre van der Hoek  
Department Chair David Trend  
Department Chair Martin Harries  
Senate Analyst Rachel Mangold



www.ocad.ca  
100 McCaul Street, Toronto, Ontario, Canada M5T 1W1  
TELEPHONE 416.977.6000 FACSIMILE 416.977.6006

December 9, 2009

TO: Professor Jesse Jackson

Re: Professional Development Curriculum Innovation Fund

Dear Professor Jackson:

As you may know, The Curriculum Innovation Fund is a limited funding project with a budget of 4 awards of \$5000 each per year. The Professional Development Committee met on December 3, 2010 to adjudicate the many Curriculum Innovation Fund applications that were submitted and I am pleased to inform you that OCAD is able to provide \$5000 funding for the expenses associated with your proposal *Integrating Rapid Prototyping Technology into OCAD's 3D Design Curriculum*.

Please find attached electronic copies of the form that you will need to submit along with all receipts/invoices that pertain to the execution of your project. These must be submitted to the Office of the Vice-President, Academic c/o Kanyika Yorke, Assistant, for processing no later than May 31, 2010 because the funds awarded must be spent out in the 2009/10 fiscal year.

On behalf of the Professional Development Committee, I want to thank you for your submission. The University will no doubt benefit from this collaboration.

Sincerely,

A handwritten signature in black ink that reads "Sarah McKinnon".

Sarah McKinnon, PhD.  
Vice-President, Academic

c.c: Bruce Hinds, Chair, Environmental Design  
Doreen Balabanoff, Associate Dean, Faculty of Design  
Mark Jeffrey, Studio Manager

March 26, 2008

Mr. Jesse Jackson  
10774 Madrona Dr.  
North Saanich, BC  
V8L 5M7

**Re: The 2008 Howarth-Wright Graduate Fellowship**

Dear Jesse:

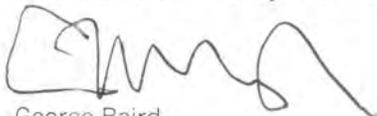
I am pleased to inform you that, jointly with Luke Stern, you have been awarded the Faculty's Howarth-Wright Graduate Fellowship for 2008. This prestigious fellowship allows the two of you to spend four months, as independent scholars, studying the work of Frank Lloyd Wright, followed by a final period of documenting and presenting the results of your research.

You are expected to study and visit the built work of Frank Lloyd Wright in the United States and to become familiar with and use the extensive resources of Taliesin East and Taliesin West – particularly the Frank Lloyd Wright Archive at Taliesin West in Scottsdale, Arizona. As well, there are important Wright resources in other locations such as Chicago, Los Angeles, and Bartlesville, Oklahoma. Professor Richards and I are available to assist you in making arrangements to visit the Frank Lloyd Wright School of Architecture and the Archive, as well as to act in an occasional advisory role during the period that you hold the fellowship.

The 2008 Howarth-Wright Graduate Fellowship carries an award of \$18,000, which will be paid as \$9,000 to each of you (in three instalments): \$3,750 at the start of the fellowship; \$3,750 at the start of July; and \$1,500 at the completion of and presentation of the results of your research. You must make a public presentation at al&d, and you are strongly encouraged to also present and publish your results externally.

Should you have any questions about the payment schedule, please contact Ms. Komala Prabhakar, Assistant Dean (Administration) and Registrar. I also note that you are responsible for obtaining the appropriate visa in support of your travel and studies on Frank Lloyd Wright in the United States. Since obtaining such a visa can be time-consuming, it is important that you give this matter early attention.

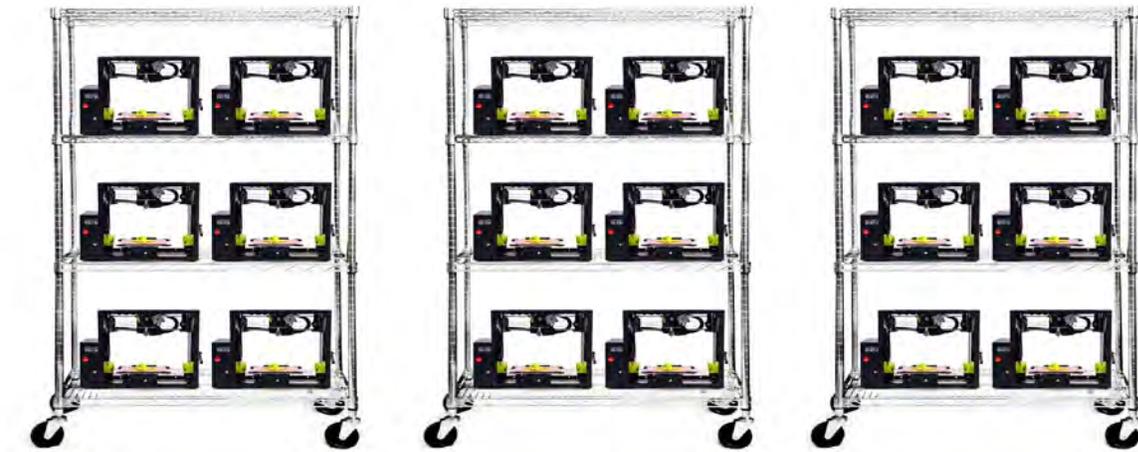
On behalf of the Faculty I extend congratulations and best wishes.



George Baird  
Dean

Cc: Komala Prabhakar  
Larry Richards

# ONE 3D PRINTER PER STUDENT



*An interschool pedagogical innovation proposal by:*

Jesse Jackson (Principal Investigator)  
Assistant Professor, Department of Art  
Claire Trevor School of the Arts

Josh Tanenbaum  
Assistant Professor, Department of Informatics  
Donald Bren School of Information & Computer Sciences

Sarah Hovsepian  
Director, FABWorks  
Henry Samueli School of Engineering and Calit2

*Prepared with the support of:*

Ben Dolan  
Director, Design & Engineering Research Projects, Rapidtech  
Henry Samueli School of Engineering

Mohammad Al Faruque  
Assistant Professor, Department of Electrical Engineering and Computer Science  
Henry Samueli School of Engineering

Simon Penny  
Professor, Department of Art  
Claire Trevor School of the Arts

Mark Walter  
Lecturer, Mechanical and Aerospace Engineering  
Henry Samueli School of Engineering

# This proposal describes a tool for pedagogical innovation to be shared across campus: one 3D printer per student.

A distributed array of 3D printers will provide students in the Schools of the Arts, Information & Computer Sciences, and Engineering with the opportunity to acquire the skills required to operate at the forefront of digital design and fabrication, by eliminating the bottleneck these technologies typically present. Jesse Jackson, Josh Tanenbaum, and Sarah Hovsepian—each of whom teach one or more undergraduate courses in this area—propose to share this asset, which will facilitate innovative pedagogical activity that can only be made possible by a teaching facility that features one 3D printer per student.

## Why one 3D printer per student?

We have been teaching courses in digital design and fabrication for almost ten years<sup>1</sup>. It has become apparent over this time that the largest barrier to greater literacy with these disruptive technologies is the limited feedback loop permitted by restricted access to output devices like 3D printers. The unit cost of 3D printers has recently undergone a dramatic decline, as these devices have become more commonplace in the consumer market. Noting that at this point in the evolution of the personal computer, nearly every student has one, we ask: why don't we create the same level of access to 3D printers, and demonstrate the potential benefits? We know of no other post-secondary institution with comparable capacity.

## Why interschool?

3D printing technologies are becoming pervasive across many disciplines. The future of 3D printing requires collaboration between informatics and computer science, mechanical and materials engineering, and art and design. However, the varying expectations and opportunities within our disciplines can make formal research collaborations challenging. Instead, we propose to establish a collaborative platform on the shared plane of pedagogy. We anticipate further joint projects—pedagogical and otherwise—will emerge as a result.

## What about research?

The distributed array will also support research collaborations, some of which are already underway. For example, for the past year Jackson, Tanenbaum and Mark Walter have been pursuing projects that interrogate the future of 3D printing with students from Calit2's Multidisciplinary Design Program. More recently, Jackson has been working with Simon Penny on a fine art application of Mohammad Al Faruque's recent demonstration of how analyzing a 3D printer's sound can be used to reverse engineer the object being printed<sup>2</sup>.

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<sup>1</sup> For example, Jesse Jackson's ART 65D: Digital Design and Fabrication and its predecessor courses introduces students to the fundamentals of designing and fabricating artworks, products, and other artifacts using three-dimensional computer modeling and associated manufacturing technologies. Students become familiar with the computer-aided design operations required to generate simple three-dimensional computer models and output basic two-dimensional representations of these models. These virtual artifacts are then translated into prototypes and finished objects using computer-aided manufacturing processes—such as laser cutting, additive manufacturing including 3D printing, and computer numeric control machining—as well as conventional fabrication processes. Students begin to understand some of the advantages and limitations of these technologies, and begin to consider the implications these technologies have on the future of creative practice.

<sup>2</sup> "UCI News - Bad Vibrations: UCI Researchers Find Security Breach in 3-D Printing Process." UCI News. Web. 16 June 2016.

### How will the printers be shared?

Contemporary consumer-grade 3D printers are light and portable. The distributed array will be mounted on mobile carts, facilitating transportation to classroom and laboratory spaces across campus. To prevent theft and vibration damage, the printers will be bolted to the carts. Two students who work in Jackson's Speculative Prototyping lab are available this summer to assemble, calibrate, and test the array.

### Who will own the printers?

The printers will be a shared asset between the three schools and Calit2. We propose a three-year trial, permitting each instructor to deliver at least two courses that make use of the array. The printers can be stored in Jackson's Speculative Prototyping Lab when not in service. At the conclusion of the trial period, the printers can either continue as a shared asset, or be divided into independent groups.

### How much will this all cost?

#### **REVENUES**

Claire Trevor School of the Arts					\$5000
Henry Samueli School of Engineering					\$5000
Donald Bren School of Information & Computer Sciences					\$5000
Professor Jesse Jackson research funds					\$5000
Division of Undergraduate Education					\$5000
CALIT2					\$5000
TOTAL					<u>\$30,000</u>

#### **EXPENSES**

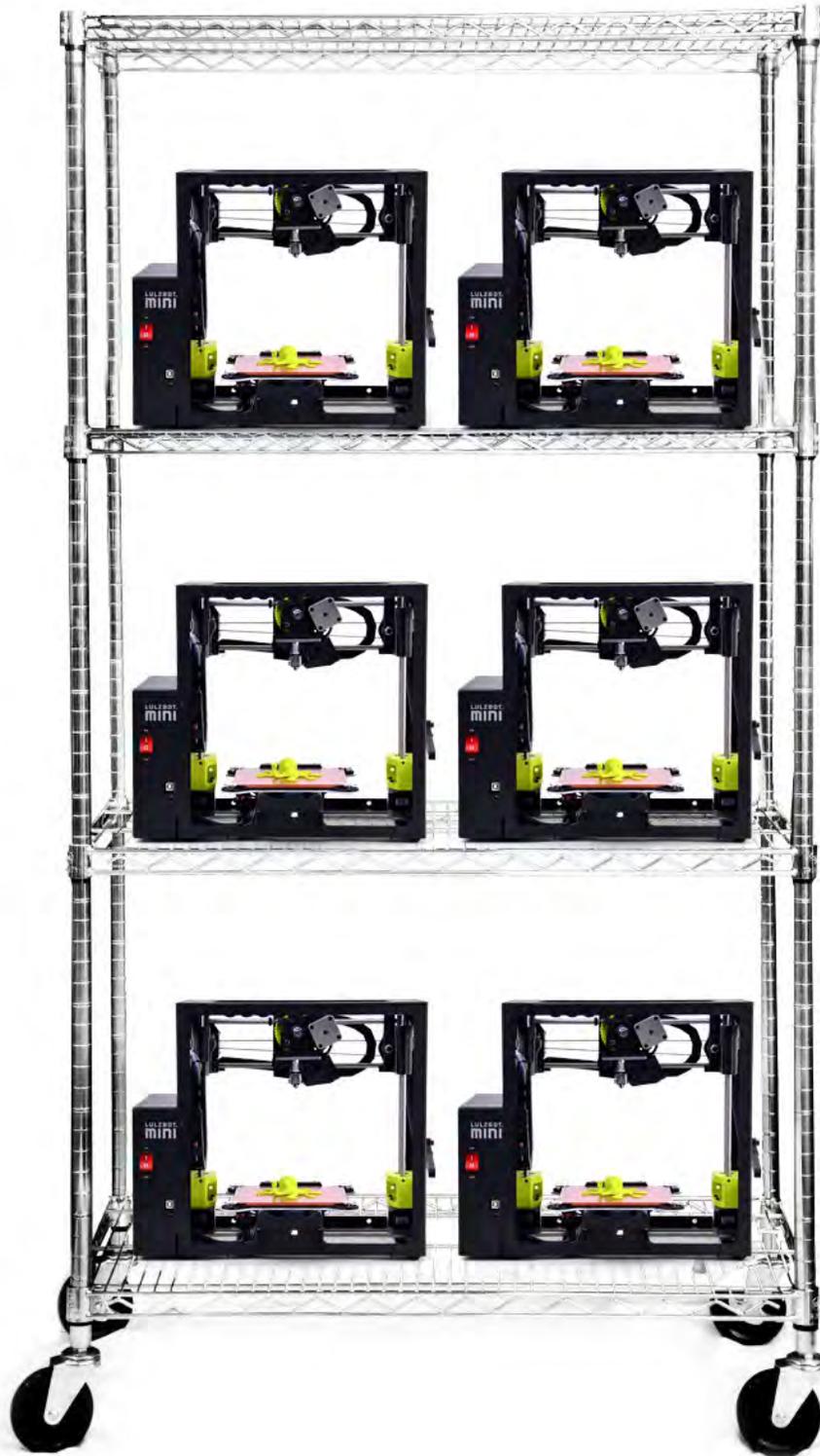
Printrbot Simple <sup>3</sup> :	\$600	x	24	=	\$14,400
Quantity discount:	(\$100)	x	24	=	(\$2400)
1.75mm filament:	\$35	x	120	=	\$4200
Quantity discount:	(\$10)	x	120	=	(\$1200)
InterMetro starter unit:	\$150	x	3	=	\$450
InterMetro extra shelf:	\$25	x	3	=	\$75
InterMetro caster kit:	\$75	x	3	=	\$225
5 outlet power strips :	\$10	x	3	=	\$50
50' extension cords:	\$25	x	3	=	\$60
Mounting hardware:	\$25	x	3	=	\$75
Tool and supply kits:	\$50	x	3	=	\$150
Student employees:	\$2000	x	2	=	\$4000
Contingency @ 10%				=	\$2675
TOTAL				=	<u>\$30,000</u>

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<sup>3</sup> The Printrbot Simple has been selected due to: professor Tanenbaum's positive experience with this manufacturer; Make magazine's recommendation of this unit as the "best portable" option; its optimal balance between printer size and build envelope relative to other options. If this proposal is successful, a comprehensive review of available options will be performed to confirm this selection.

How can I find out more?

Please contact Jesse Jackson at [j.c.jackson@uci.edu](mailto:j.c.jackson@uci.edu) or 949-536-6515.



Jesse Colin Jackson



The Ragged Edge: Inner, Middle, and Outer Harbour, Victoria, 2014, chromogenic print, 30" x 90"

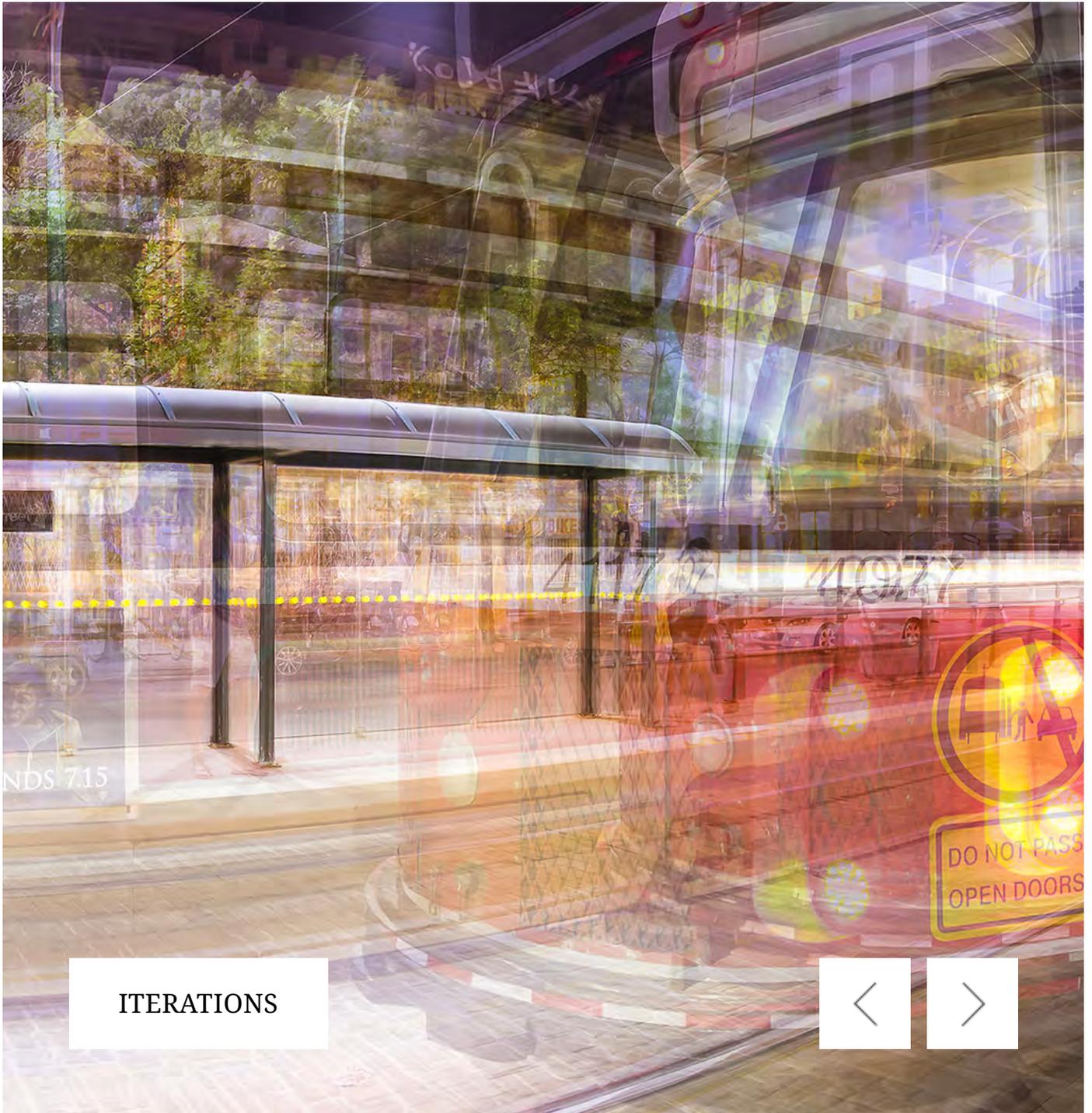
▶ < 1/28 >

## Biography



Jesse Colin Jackson's creative practice is focused on object- and image-making as alternative modes of architectural production, manipulating the forms and ideas found in virtual and built environments through the expressive opportunities provided by digital visualization and fabrication technologies. Jackson seeks to position his work as a rigorous form of knowledge creation, without compromising its ability to register meaning and affect. To this end, his creative process is propelled by collaborative engagement with allied intellectual frameworks, including anthropology, ethnography, informatics, speculative design, and urban studies. The objects and images that result embody knowledge that inhabits the space between disciplines; the work creates opportunities for meaning that could not exist elsewhere.

Jackson's work has been the subject of several solo and two-person exhibitions, including *Marching Cubes* (Pari Nadimi Gallery, 2016), *Radiant City* (Pari Nadimi Gallery, 2014), *Automatic/Revisited* (Toronto Design Offsite Festival, 2013), *Figure Ground* (Gladstone Gallery, 2011), *Usonia Road* (Larry Wayne Richards Gallery, 2009), and *West Lodge* (Convenience Gallery, 2009). Jackson has received project funding from the Canada Council for the Arts, the Ontario Arts Council, the California Institute for Telecommunications and Information Technology, the Social Sciences and Humanities Research Council of Canada, the Centre for Innovation in Information Visualization and Data Driven Design, and the Digital Media Research and Innovation Institute. He was a 2014-2015 Hellman Fellow at the University of California, and a 2008-2010 Howarth-Wright Fellow at the University of Toronto. Jackson is an assistant professor of electronic art and design at the University of California, Irvine. He taught previously at OCAD University and the University of Toronto.



ITERATIONS



# Project Description: *Arctic Passage*

## Interactive video installation

Materials: 8 projectors, 2 continuous circular projection screens, computers, custom user interface

Artists: Tori Foster & Jesse Jackson

## Synopsis

*Arctic Passage* will be an eight-channel interactive video installation depicting life in five international settlements located above the Arctic Circle. The weather, sun, pedestrian, commercial, and industrial patterns of the five cities (Inuvik, Canada; Sisimiut, Greenland; Tromso, Norway; Murmansk, Russia; Barrow, USA) can be observed and manipulated by installation users.

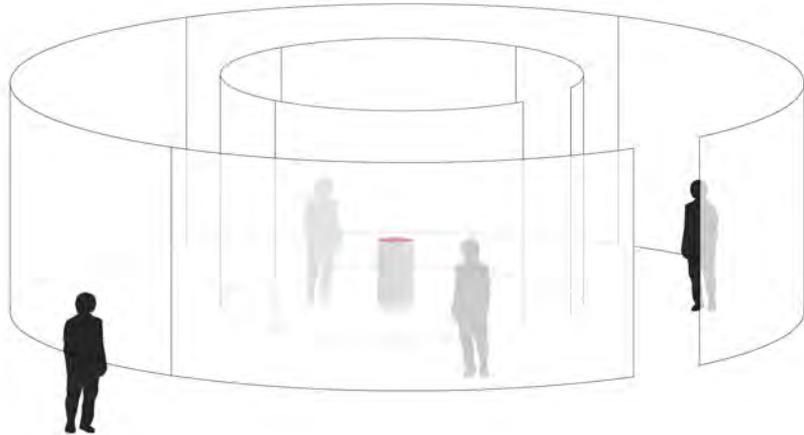


Figure 1: Mockup of *Arctic Passage*

Activity within each settlement will be captured using four cameras directed in the four cardinal directions: due North, South, East and West. Each camera will capture high definition stills at a rate of once per minute for 365 contiguous days. Over the course of the year, a total of 2.1 million images will be captured at each site, and users will have access to nearly 11 million images within the installation.

## Project Description

The goal of the Canada Council’s New Chapter program is to “to strengthen the presence of the arts in conversations about the future of the country, locally, nationally, and internationally.” The Arctic Circle cuts through our nation as well as the political territories of seven others, four of which lay territorial claim to the geography that surrounds the pole. Canada, Russia, the US, Norway, and Denmark (via its colonial territory Greenland) all have extended histories of colonial interest in the North, a focus that only grows in our world of increasingly limited resources and a parallel rise in global temperature.

These nations share the North with Canada, but the lived experience in these places varies widely due to environmental, cultural, economic, and political factors. The myriad issues that concern the North (rapid reduction in polar ice caps, political and territorial land claims, fisheries and wildlife conservation, mining and resource extraction, political boarder protection, and freight passage among them) unite our nations in both dialogue and conflict. How does this fragile yet physically concrete relationship affect our lives both in this moment and in the future?

The defining attribute of the Arctic Circle and any land that resides above it is the existence of 24 hours of daylight for at least one day a year, and a minimum of 24 hours of darkness six months later. How does this extreme environment affect the day-to-day lives of its inhabitants?

As a tool to help answer these questions, participants in our installation are able to wield the power of both time and space, selecting site juxtapositions and time trajectories to be played back on the walls of the installation's two concentric circles (see Figure 1).

On a touch screen interface located at the centre of the inner ring of concentric projection screens, users will have access to tools that assist in selecting footage for playback. Their choices will include: what time intervals they would like the images to be selected from the database (e.g. one image from every minute, or one image from every day at midnight), what sites they would like to see (e.g. only footage from Greenland, or perhaps they would like to see images from all five countries at once), what rate the images will be played back (e.g. slowly at a rate of one every few seconds, or rapidly at a rate of 30 frames per second), as well as a few other parameters.

Participants can therefore compare the lived existence of winter in Greenland with that of fall in Russia, summer in the US, and spring in Canada's Northwest Territories (by standing at the centre of the circle and looking north towards winter in Greenland, east towards fall in Russia, and so on). They can also witness the slow passage of time as it exists in one complete 360° panoramic site in Tromsø, Norway, or they can experience the trajectory of the sun, as it travels across the midnight sky in five different locations around the globe. *Arctic Passage* offers a semi-curated, fully malleable experience of life in the arctic.



Figure 2: Capture sites for *Arctic Passage*

Inuvik, Sisimiut, Tromsø, Murmansk, and Barrow are the five largest cities north of the Arctic Circle in each of the countries who hold a viable political claim on the North Pole. These are the five sites we have chosen to represent life in the Arctic (see Figure 2).

Each holds a long-standing history in the North. These large Arctic centres also reflect several of the dramatic differences exhibited by northern communities: Inuvik and Greenland's Sisimiut are local centres primarily home to indigenous populations; Barrow, USA exists almost solely in support of resource extraction; Tromsø is an integrated and thriving facet of urban Norway; and Russia's Murmansk is a cold-war metropolis with a rapidly declining population. While all of these locations are strongly represented in the discourse of their respective nations, they are physically visited and experienced by very few.

The Great White North consists of imagery and iconography held very near to the hearts of most Canadians: aurora borealis, polar bears, Inukshuks, and virgin snow-covered landscapes among them. These symbols exist and are proliferated through our national and international identity and messaging. One of the most recent and controversial examples was the use of the Inukshuk in the 2010 Vancouver Olympic Games. The logo featured an inunguat (an imitation of a person), not an Inukshuk (an Inuit symbol designed as a directional marker signifying safety, hope, and friendship), though in all official communications the icon was described as an Inukshuk. The southerner's conflation of deeply significant Inuit symbols was an affront to the Inuit population, and is just one such example of the extreme disconnect between southerners and the peoples, landscapes, and experiences of the north that form such a large part of our identity as Canadians.

The majority of Canadians feel a strong connection to, but lack direct experience of, our True North. *Arctic Circle* attempts to bridge this 1,900 km gap for Canadians, while simultaneously offering direct correlations and comparisons of life above 66° in our neighbouring polar countries.

## Artistic Development

*Arctic Passage* emerges directly from an earlier collaborative project between Jackson and I: *Mackenzie Place*. *Mackenzie Place* is an interactive video installation that documents life in Northwest Territories town of Hay River.

*Arctic Passage* will augment the technologies and techniques first developed for *Mackenzie Place* and apply them to a set of interrelated global sites. This project will extend our existing experience and expertise with urban arctic life and the associated questions of identity and sovereignty to a scale and scope that was previously unachievable financially.

*Arctic Passage* pushes the boundaries of what is possible in two ways. The first is that it extends our existing experimental media art collaboration towards unprecedented scope and scale. The ambitious data capture, processing, and playback requirements proposed, while grounded in our areas of expertise, represent a new level of accomplishment both in terms of subject matter and technological sophistication. The second is that it encourages the viewer to understand these places as interconnected locations with shared challenges. Our ability to understand possible futures in the North is contingent on how it is depicted and disseminated in the present; *Arctic Passage* provides the most dense and detailed window into the lived reality of five important arctic settlements ever created.

## Audience

*Arctic Passage* positions Jackson and me as leading experts in large-scale visual information capture and processing for the purpose of interactive installation art. The information is captured at a circumpolar scale, allowing Canadian audiences access to the international relationships the Arctic Circle and its communities represent, as well as international audiences access to Canadian artistic excellence.

Within these audiences, our project is targeted at two distinct groups of viewers. The first audience is the broad and increasingly large group of individuals whose imaginations are captured by the “idea of north.” As the Arctic is sparsely populated and rarely visited by the vast majority of the globe, circulated images of northern life are vital to how its challenges are understood. Through the juxtaposition of the shared conditions and the unique challenges these communities experience, the *Arctic Passage* installation will permit southern audiences to interactively engage with the lived experiences of northern life.

The second and narrower audience are the residents in the places in which we are capturing footage. A project at this scale depends a great deal on the relationships with locals who share their ideas and lives with us, and it is important that the end results be communicated back to their communities. The challenge of doing so, particularly within the smaller communities of Inuvik, Barrow, and Sisimiut, motivates the creation of a web-based platform, described below, which will permit these audiences complete access to our visual products in a mobile format. This application will also permit southern audiences with the opportunity to extend their experience of the physical installation.

Visual technologies produce distinct ways of picturing the North, and define and delimit the terms of debate with respect to environmental, sociopolitical, and economic change. Despite the proliferation of image-making in the 21<sup>st</sup> century, Arctic communities remain comparatively unknown and primarily represented by images of northern lights and desolate landscapes which, while arresting and accurate to a degree, constitute only a narrow view of these places. During our *Mackenzie Place* project we observed that even locals tend to restrict their image-making practices to these visual clichés, perhaps because these are the images for which their communities are most valorized. *Arctic Passage* compiles a more comprehensive set of representations and makes it interactively available to local, national, and international publics, which in turn will expand our global conversation about the Arctic.

# Promotion, Dissemination, & Distribution

## ***Arctic Passage Website***

Unlike the traditional forms of media that produce one-of-a-kind art objects, video has the ability to be viewed and experienced in an infinite number of locations simultaneously. And as interaction and playback technologies evolve, so too do the possibilities for experiencing immersive and interactive video. Jackson and I plan on capitalizing on these technological developments in *Arctic Passage*.

Our proposed project manifests first as a one-of-a-kind immersive installation in which visitors can enter into a microcosm of the Arctic Circle, and walk around and within the concentric projection circles. For users who are unable to experience the installation in person, and for those who can but want to take a piece of the experience home with them, we are creating a sister project that can be accessed online and experience as a navigable 360° environment.

The *Arctic Passage* web-based platform will function nearly identically to the *Arctic Passage* installation: through the online user interface, users will be able to curate their own passages through arctic space and time. The web-based content will respond to the orientation of a user's device without the necessity of a VR headset. The orientation of the user's device (be it a phone or tablet), will determine the content that they see. Much like the physically installed manifestation of the project, if a user turns to the north they will see footage taken from the north-facing camera of the site that they have chosen to view. If they direct themselves east, they will see footage taken from the east-facing camera of their chosen site, and so on.

A passage created and experienced on the website that is particularly beloved by its creator can in turn be saved as a "passage" and shared on social media for other users to navigate at their leisure. Facebook, Twitter, Instagram and other social media users would click on their friend's link and be taken directly to their friend's passage within the online visual environment.

Similarly, any passages that have been generated in the physical installation can also be saved and shared through the *Arctic Passage* website.

## ***Promotion, dissemination and distribution***

The website will serve as a work of art in its own right, as well as a promotional tool for the physical installation. The website could be a user's first introduction to the art work (as recommended by a friend, or discovered while surfing), it could be introduced while experiencing the installation (via soft prompts at the end of the experience to save your passage to the website if you choose), or it could be a user's residual connection to the work: something experienced days after their interaction with the physical installation took place.

Jackson and I plan on exhibiting the installation itself in a variety of public contexts both nationally and internationally. To aid in this process, we have enlisted the assistance of Greg J. Smith, Editor-In-Chief of Holo Magazine: an international magazine about emerging trajectories in art, science, and technology.<sup>1</sup> Smith has his finger on the pulse of all things new media art and is connected to curators and directors of exhibitions, galleries, symposia, and conferences around the world.

Smith has stated that he will engage in negotiations with the following venues (with an emphasis on international sites) on our behalf:

- 1) The 5th edition of the BIAN digital art biennale in Montreal, Canada
- 2) Lighthouse in Brighton, UK
- 3) FACT in Liverpool, UK
- 4) Nome in Berlin, Germany
- 5) SONAR+D festival in Barcelona, Spain
- 6) TodaysArt in Amsterdam, Netherlands
- 7) Gray Area in San Francisco, USA

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<sup>1</sup> Greg J. Smith is listed under marketing and promotion costs in our budget.

<sup>2</sup> Please see letter of exhibition confirmation from Pari Nadimi dated June 28, 2016.

## 8) Transmediale in Berlin, Germany

Additionally, Jackson and I are both represented by Pari Nadimi Gallery in Toronto, and will be showing this work upon completion in 2019. This exhibition is confirmed.<sup>2</sup> Nadimi will also work on our behalves to exhibit the work in venues with which she is connected.

<b>Installation Timeline</b>		
<b>Milestone</b>	<b>Description of activity</b>	<b>Dates</b>
R&D	Fine-tuning existing knowledge and implementation of outdoor housing and camera installation setup	Jan 2017 – Apr 2017
Camera installation	Installation of cameras at five international sites	May 2017 – June 2017
Image capture	Cameras autonomously capturing data on site	June 2017 – June 2018
Phase 1 image retrieval	Initial imagery from cameras retrieved and processed	Oct 2017
Installation interface development	Create queryable database & user interface design	Oct 2017 – Jan 2018
Phase 2 image retrieval	Further imagery from cameras retrieved and processed	Jan 2018
Phase 3 image retrieval	Further imagery from cameras retrieved and processed	Apr 2018
Phase 4 image retrieval	Final imagery from cameras retrieved and processed	July 2018
Installation fabrication	Fabricate physical elements of exhibition installation	Apr 2018 – July 2018

<b>Website Timeline</b>		
<b>Milestone</b>	<b>Description of activity</b>	<b>Dates</b>
Phase 1 image retrieval	Initial imagery from cameras retrieved and processed	Oct 2017
Website development	Server and domain secured	Nov 2017
Website development	Create queryable database & user interface design	Nov 2017 – Mar 2018
Phase 4 image retrieval	Final imagery from cameras retrieved and processed	July 2018
Website	Website launched and promoted through sites like Creative Applications Network	Sept 2018

<b>Promotion and Exhibition Timeline</b>		
<b>Milestone</b>	<b>Description of activity</b>	<b>Dates</b>
Phase 1 image retrieval	Initial imagery from cameras retrieved and processed	Oct 2017
Installation promotion prep	Using initial images retrieved in October 2017 create installation navigation mockup for promotional purposes	Nov 2017
Phase 1 promotion	Greg J. Smith assists in promotion of installation (see “Promotion, Dissemination, & Distribution” section) using mockup created in November 2017	Dec 2017 – Aug 2018
Installation documentation	Document installation	Aug 2018
Phase 2 promotion of installation	Greg J. Smith further assists in promotion of installation using additional documentation resources created in August 2018	Sept 2018 – Dec 2018
Website	Website launched and promoted through sites like Creative Applications Network	Sept 2018
Exhibition	Exhibition at Pari Nadimi Gallery	Jan 2019
Exhibition	Exhibition at national and international galleries	Jan 2019 – ongoing

<sup>2</sup> Please see letter of exhibition confirmation from Pari Nadimi dated June 28, 2016.

## Ability to Complete the Project

As collaborators we have worked on multiple projects over the past 10 years, and each project has dealt with our interest in the lived experience of urban places. Starting in 2007, Jackson and I created the *Iterations* series in which multiple locations of the same infrastructure were photographed and overlaid to highlight shared identities and idiosyncratic attributes.

Our most recent collaboration, *Mackenzie Place*, has been a 3-year project that takes place in Hay River, Northwest Territories, and is still underway. This project is scheduled for completion in 2017. It is the *Mackenzie Place* project that spawned our interest in the lived experience of northerners in regions that extended beyond our nation's borders. Tensions between indigenous and non-indigenous citizens, extreme winter temperatures, and isolation from the cultural and political heavyweights to the south all marked the subarctic life of Hay River as uniquely Canadian, and this prompted us to question what living in the North was like for Greenlanders, Americans, Finns, and Russians.

Our experience with *Mackenzie Place* will allow us to start from a much more advanced position in regards to technology, logistics, aesthetics, and workflow. We have done extensive trial and error in Hay River, and were able to iterate towards the optimal equipment and infrastructure required for such a technologically ambitious project, and one that takes place under environmentally forbidding conditions.

Additionally Jackson and I have worked on and have extensive experience executing and completing projects with large budgets (included among them are: *Mackenzie Place*: \$74,000 (Jackson and Foster); *Robotic Herd*: \$55,000 (Foster), and *Marching Cubes*: \$99,000 (Jackson)).

Jackson holds degrees in Architecture and in Engineering and attended Emily Carr University. I am trained in New Media, Documentary Media, and Architecture. Our backgrounds and our working styles complement one another exceptionally well. Both of us nimbly respond to changing problems and conditions during research and production phases, and our working methods are unified in the pursuit of work of the highest conceptual and technical calibre.

Jackson and I both have extensive technical expertise. Collectively we have expertise with the design and assembly of industrial-grade outdoor image capture assemblies, large-scale image processing including custom software scripting, managing international teams, and ethnographic research methods. In addition to the above, I have specific expertise with experimental video processing and editing, advanced fabrication technology such as laser and water cutting machines, small-scale installation, and physical computing. Jackson has specific expertise with the design and fabrication of architectural-scale installations, advanced fabrication technology such as 3D printers and CNC machines, and structural and mechanical engineering methods.

Jackson and I have additionally worked with artists and technical partners in remote sites, most recently for our *Mackenzie Place* project. That project required that we interview locals about their individual experiences in a location that we were largely unfamiliar with. It also required that we work closely with a technical assistant in Hay River, as well as hire an artist who to help with on-site work year round while we were absent from the site.

## Exceptional Nature of the Project

In the last fifty years, the Arctic has moved from the periphery to the centre of attention. Policy realignments, global interests in northern resources, climate change debates, and questions of arctic sovereignty have drawn our gaze northwards. Both at a distance and from within, our understanding of the environmental, sociopolitical, and economic concerns that define 'the North' are mediated by visual information. While northern landscapes are often depicted as pristine and isolated, a range of external processes and pressures (e.g., military exercises, new shipping routes, mineral exploration) are producing northern locales that are increasingly part of the interconnected global world. This shift has contributed to

the rapid urbanization of the north after the 1960's, and to a striking disconnect between the public's conception and the lived reality of northern life.

*Arctic Passage* creates a visual experience that communicates underrepresented elements of northern urban life by tracking the consistent patterns and anomalous curiosities that define the urban landscapes in arctic communities. In capturing the structures of occupation that either connect or distinguish these spaces from each other and from their southern counterparts, such as infrastructure, and patterns of movement and occupation of space, the installation will illustrate how these environments affect and define peoples' sense of place and community. The interactive and immersive constructions of time and space in the North also provide a platform for asking larger theoretical questions about the opportunities and challenges that new media art offers the human experience—particularly human experiences the users themselves will never or can never participate in.

The project is also exceptional from a technical point of view. While artistic projects involving long-term image capture (see, for example David Rokeby's *Machine for Taking Time*) and documentary projects involving multiple cameras installed across the arctic (see, for example, James Balog's *Extreme Ice Survey*) have each been pursued before, we believe that this will be the first project that combines a high rate of capture (millions of images) with multiple remote locations. Building on our *Mackenzie Place* experience we are also working with our suppliers and consultants to achieve an unprecedented level of robustness. Distribution of this visual information via our web-based platform is also transformative, in the way that it provides these northern places with the level of documentary ubiquity already present in more populated places. The online presence of *Arctic Passage* also serves to ensure that our unique perspective of the lived experience of the north can be made broadly available to audiences worldwide.

## Fees rationale

For *Arctic Passage* we will be working with numerous Canadian and international artists and members of the arts community. Among them are:

- 1) Kyle Duffield, new media artist and programmer
- 2) Greg J. Smith, new media arts writer, critic, and curator
- 3) A local artist/technical consultant in each of the following sites: Inuvik, Canada; Sisimiut, Greenland; Tromso, Norway; Murmansk, Russia; Barrow, USA. These artists are to be determined.

We have corresponded at length with our two major Canadian partners: Kyle Duffield and Greg J. Smith. Each has consulted in the drafting of our budget in the areas that pertain to their involvement, and their fees are consistent with professional norms within their disciplines.

In an attempt to capture our global sites from the perspective of locals, Jackson and I will be seeking consultation and technical assistance from citizens in each of these cities. We will hire two Inuit consultants in Inuvik and Sisimiut where the cities are primarily populated by Canadian and Greenlandic Inuit. For all five consultants we have projected the hours and fees based on our experience with two individuals who have performed similar, if not identical, roles in our *Mackenzie Place* project.

Marching Cubes Made Tangible is an interactive installation that permits direct physical engagement with the Marching Cubes algorithm—a language that defines our virtual environments—and generates dialogue about the ways in which information technologies create the building blocks of contemporary culture.

## INTRODUCTION

Marching Cubes is an algorithm that constructs a continuous three-dimensional surface from a collection of points in space. First presented in 1986<sup>1</sup> and later refined<sup>2</sup> for the purpose of generating high-resolution renderings of medical scan data, Marching Cubes and its derivatives have since become some of the most widely adopted algorithms ever created. This algorithm's particular geometric signature is frequently present in screen-based representations of three-dimensional information; it is a language that defines our virtual environments.

*Marching Cubes Made Tangible* proposes an interactive installation comprised of plastic construction units that permit participants to, through playful interaction enabled by media technology, directly experience the algorithm, the virtual language it represents, and the cultural residue it leaves behind. This project is the culmination of a ten-year sequence of new media productions focused on deploying this language in the sculptural realm, by interpreting the algorithm as a tool for provocative form making at a variety of scales.

## PRECEDENT PROJECTS

The Marching Cubes algorithm provides a first order refinement of a voxel grid approximation of a volume. A voxel grid is a cubic subdivision of space, and can be understood as the three-dimensional analogue of a pixel grid. Voxels grids have been of long-standing interest to interactive media artists, most prominently in the pioneering work of David Rokeby. In Rokeby's projects, beginning with *Very Nervous*

## MARCHING CUBES MADE TANGIBLE

*System* (1986) and continuing in contemporary projects such as *Dark Matter* (2010), the voxel grid is an invisible instrument for which the artist provides a navigable structure, which he describes as “an articulation of a space, either real, virtual, or conceptual<sup>3</sup>.” Taking up Rokeby’s challenge, *Marching Cubes Made Tangible* provides a navigable structure for algorithmic space by articulating it both literally—as a virtual space made real, physical, and tactile—as well as conceptually, by mapping a computational procedure onto the agency of human interaction.

Several precedents within my own practice also inform this proposal. *Automatic* (2009) and *Automatic/Revisited* (2013), produced in collaboration with architect Luke Stern, precipitated my first encounters with the Marching Cubes algorithm. Inspired by principles developed by Frank Lloyd Wright, this interpretation consists of a set of plywood forms that, when used as casting apparatus, generate a reciprocal set of lightweight concrete block units (Figure 1). These units can be flexibly assembled an architectural scale while consistently retaining the aesthetic imprint of their algorithmic origin. Pursued as both a novel contribution to architectural knowledge<sup>4</sup> and as a meditation on sculptural modularity, these installations<sup>5,6</sup> (Figure 2) made Marching Cubes physical for the first time.

Inspired by the playful qualities recognized in 3-D printed prototypes created for the *Automatic/Revisited* project (Figure 3), and motivated by *Making it Real*, a curatorial project I initiated focused on digitally fabricated artifacts<sup>7</sup>, in 2013 I completed *Marching Cubes Units #4* (Figure 4), a new interpretation made from 3-D printed plastic. The most recent iterations of this prototype incorporate an improved connection mechanism that makes use of a rotating spherical neodymium magnet (Figure 5).

## PROPOSED PROJECT

*Marching Cubes Made Tangible* will be an interactive installation that permits direct physical engagement with the Marching Cubes algorithm. The construction units will be sized to fit in the hand, and the installation will contain enough units to allow participants to freely play, assisted by tablet-based custom modelling software<sup>8</sup> (Figure 6). This software will generate real-time assembly instructions that help participants translate their experimentation into human-scale architectonic sculptures. The units will be sufficiently robust to be assembled repeatedly, in near-limitless configurations; the interface will be sufficiently intuitive to encourage creativity.

An algorithm is nothing more than a step-by-step procedure. Conceptual artists have a long-standing engagement with step-by-step procedures as generators of form: the “idea becomes a machine that makes the art<sup>9</sup>.” In this case, the “machine” is an algorithm appropriated from one of the most transformative cultural forces in history: information technology. By inverting the normal application of this

## MARCHING CUBES MADE TANGIBLE

machine—from a procedure for converting form into computer-digestible units, to a procedure for converting computer-digestible units into form—*Marching Cubes Made Tangible* will allow the audience to directly experience the algorithm, the virtual language it represents, and the cultural residue it leaves behind.

Embodying the algorithm in a construction unit, a traditional vehicle for open-ended play and experimentation, will place it at our fingertips, extracted from its usual background position within the inner workings of our screen-based visualization technologies. Enabling the algorithm in this way will require physical movement on the part of the user, which, thus released from the error-correcting mechanisms present in a virtual instantiation, will permit the audience to exploit the potential of “glitches” or other unintended consequences; while assembly instructions will be provided, they need not be followed.

### PHASE ONE

Once adequately funded this project will proceed in two phases. The first phase will take place in the Experimental Media Performance Lab (xMPL) in Irvine, California. The xMPL is a black-box performance space optimized for interdisciplinary, interactive, and experimental new media performance projects. Access to this space, which has been confirmed by the xMPL curatorial committee, provides a unique opportunity to deploy the Marching Cubes construction units as part of an interactive performance. A more limited version of this performance was proposed and shortlisted for the main exhibition at the 21<sup>st</sup> International Symposium on Electronic Art (Figure 7), but was ultimately not selected.

Several thousand units will be located in the xMPL for one week. Performers trained in the use of the custom modelling software will, through example, facilitate interaction with the construction units. The software will generate real-time instructions for the evolutionary assembly and disassembly of architectonic sculptural forms. Participants may choose to work as a team, acting out the instructions provided (Figure 8), or they may choose to work against the instructions and pursue their own direction. This hybrid of expert and inexperienced participants deliberately evokes a historic performance recently reenacted in the xMPL: Yvonne Rainer’s *Trio A* (1966), in which rhythmic movements, structured like tasks, are enacted without pause or climax. In this case, the regular rhythmic movements of the participants echo those of the algorithm’s procedural calculations.

Documentation of the performance, through video, time-lapse photography, and computer-generated drawings of both prescribed and unanticipated assemblies of construction units (Figure 9) will serve not only to immortalize the production, but to generate the elements required for the next phase.

## MARCHING CUBES MADE TANGIBLE

### PHASE TWO

The second phase will take place at Pari Nadimi Gallery (PNG), a Toronto-based professional gallery whose roster includes established new media pioneers Jim Campbell, George Legrady, and David Rokeby, as well as emerging and mid-career artists Jeremy Bailey, Tori Foster, and Joe McKay. In this phase, a comprehensive selection of the objects and drawings derived from the interactive performance will be installed (Figure 10). The selection will be curated to represent both the systematic intentions of the algorithmic procedure, as well as the unanticipated results made possible by communication failure or deliberate subterfuge on the part of the participants. These artifacts will be augmented by further composite images and video derived from the time-lapse documentation of the performance.

Subsequent to my PNG exhibition, I will continue my existing history of artist's presentations on the subject of physical instantiations of the Marching Cubes algorithm. Specifically, I will pursue the presentation of new results at ACM SIGGRAPH, in advance of the 30<sup>th</sup> anniversary of the initial presentation of the algorithm at this venue. I will also pursue publication of the entire *Marching Cubes Made Tangible* new media creative trajectory in Leonardo, a leading journal for publication of work residing at the intersection of art, science, and technology<sup>10</sup>. Lastly, I will also pursue further interactive performance and curated installation opportunities worldwide.

### CONCLUSION

The algorithm that drives *Marching Cubes Made Tangible* is not new. Its applicability to physical form has been established and explored by my previous installations. What is missing is a means by which a person can engage with the algorithm in a tangible way. The tangibility of the construction units, enabled by the universally familiar and culturally primal<sup>11</sup> act of play, will render the abstract idea of the algorithm accessible. This project provides a way in which one of the foundational computational procedures of our graphically enhanced world can be touched and manipulated, generating dialogue about the ways in which information technologies create the building blocks of contemporary culture.

Though my practice encompasses a number of different creative agendas, it is this body of work that has generated the most original and transformative results. I anticipate that the results of this project will serve to position my practice as a leading international example of a new media installation artist providing cultural critique of the pervasive virtual realm, as well as help secure my tenure as a Professor of Electronic Art and Design at University of California, Irvine.

## MARCHING CUBES MADE TANGIBLE

### ARTIST'S BIOGRAPHY

I am a Canadian artist based in Southern California, focused on object- and image-making with emerging technology as discursive modes of media production. My creative practice explores the intersection of my intellectual formation (architecture and engineering) and my disciplinary allegiance (media and visual art). In the case of *Marching Cubes Made Tangible*, this tendency is visible in the way in which the creative results simultaneously extend the original algorithm instrumentally (what can Marching Cubes do?) and critically (what does Marching Cubes mean?). This mode of practice, which exploits the “space between idea and object<sup>12</sup>” situates my work among other Canadian contemporary artists operating at the boundaries of traditional artistic disciplines, including An Te Liu and Giroux and Young, winners of the 2011 Sobey Art Award.

I have received funding for my new media projects from the Ontario Arts Council, the Centre for Innovation in Information Visualization and Data-Driven Design, and the Social Sciences and Humanities Research Council of Canada. I was a 2014—2015 Hellman Fellow at the University of California, and, in partnership with collaborator Luke Stern, was the 2008—2010 Howarth-Wright Graduate Fellow at the University of Toronto. I am an Assistant Professor in the Department of Art at the University of California, Irvine, where I serve as the head of the Electronic Art and Design area and as the Director of a campus-wide Minor in Digital Art; I previously taught at OCAD University and the University of Toronto. I am represented by Pari Nadimi Gallery in Toronto; my recent solo exhibition there of image-based media art received a full-page review in *The Globe and Mail*<sup>13</sup>.

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<sup>1</sup> Wyvill, Goeff, Craig McPheeters, and Brian Wyvill. “Data structure for soft objects.” *The Visual Computer*, no. 2 (1986): 227-234. Correspondence with Brian Wyvill at the University of Victoria confirms that this is the first published description of the procedure, though the variation by Lorensen and Cline is the source of the name.

<sup>2</sup> Lorensen, William, and Harvey Cline. “Marching cubes: A high resolution 3D surface construction algorithm.” *ACM SIGGRAPH Computer Graphics* 21, no. 4 (1987): 163-169.

<sup>3</sup> Rokeby, David. “Transforming Mirrors: Subjectivity and Control in Interactive Media.” *Critical Issues in Electronic Media*. Ed. Simon Penny. Albany: State U of New York, 1995.

<sup>4</sup> Jackson, Jesse Colin and Luke Stern. “A Physical Instantiation of the Marching Cubes Algorithm.” In *Synthetic Digital Ecologies: Proceedings of the 32<sup>nd</sup> Annual Conference of the Association for Computer Aided Design in Architecture*, San Francisco, October 18-21, 2012, 239-247.

<sup>5</sup> Jackson, Jesse Colin and Luke Stern. “Automatic.” Larry Wayne Richards Gallery, Toronto January 12-23, 2009.

<sup>6</sup> Jackson, Jesse Colin and Luke Stern. “Automatic/Revisited.” Latitude 44 Gallery, Toronto, January 18 - February 28, 2013.

<sup>7</sup> Jackson, Jesse Colin and Greg Sims, eds. *Making it Real: A Juried Exhibition of Digitally Fabricated Artifacts*. Toronto: OCAD University, 2013.

<sup>8</sup> Former collaborator Luke Stern, who has specialized expertise in algorithm implementation and tablet application development, will serve as a programming consultant for the custom software component

<sup>9</sup> Lewitt, Sol. “Paragraphs on Conceptual Art”, *Artforum*, June 1967.

<sup>10</sup> Leonardo: The International Society for the Arts, Sciences and Technology. “Leonardo Journal.” *Leonardo Online*. <http://www.leonardo.info/leoinfo.html> (accessed April 27, 2014).

<sup>11</sup> Huizinga, Johan. *Homo ludens a study of the play-element in culture*. Unabridged. Boston: Beacon Press, 2014.

<sup>12</sup> Mays, John Bentley. “Modern Man: An Te Liu and the Space Between Idea and Object.” *Canadian Art*, Summer 2011.

<sup>13</sup> Mays, John Bentley. “The Building, Through a Rose-Coloured Lens.” *The Globe and Mail*, October 3, 2014, G2.

MARCHING CUBES MADE TANGIBLE

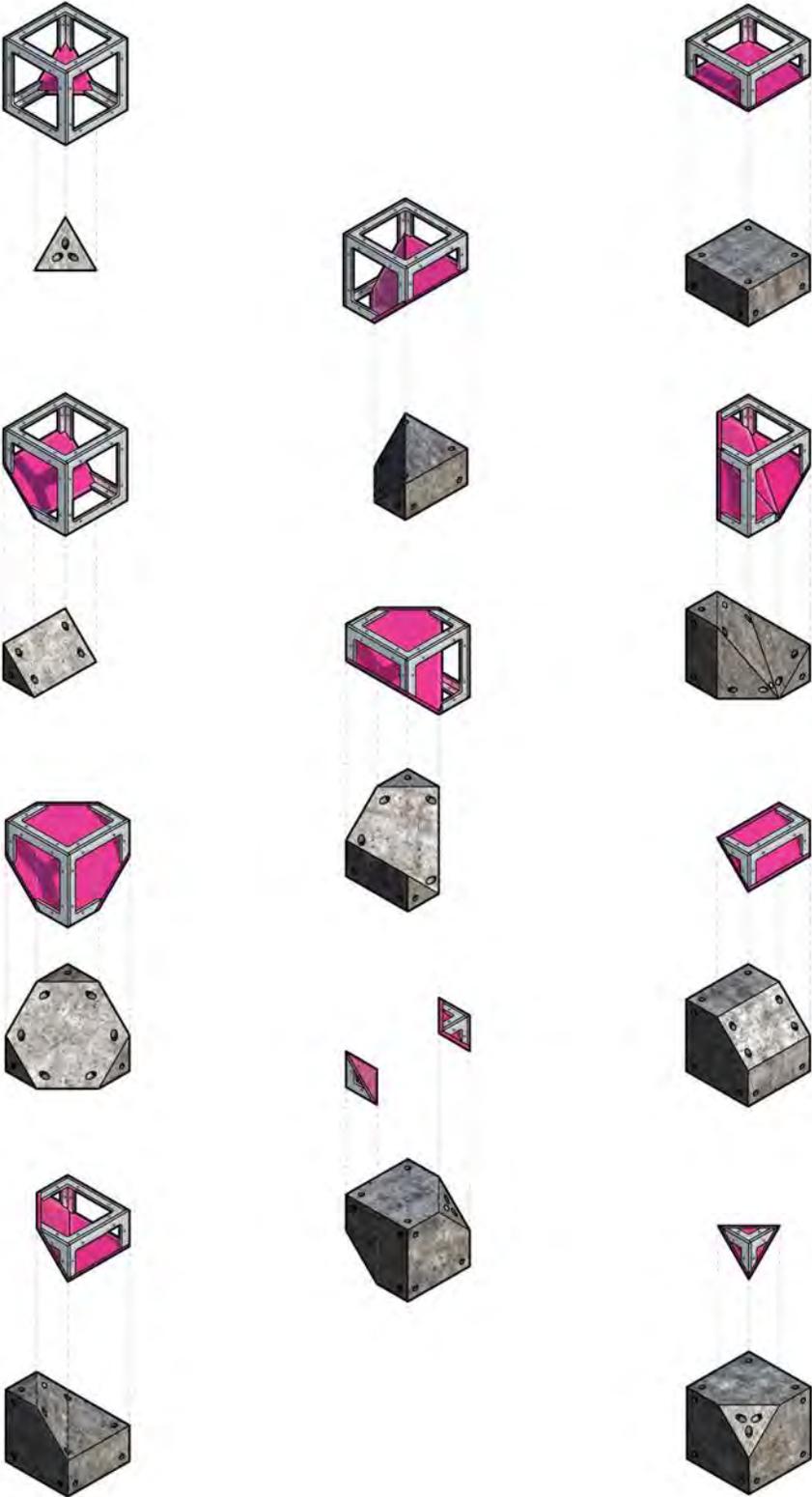


Figure 1: The first physical interpretation of the Marching Cubes algorithm: concrete block units.

MARCHING CUBES MADE TANGIBLE



Figure 2: Exhibition of the first interpretation: Automatic/Revisited (2009) installation views.

## MARCHING CUBES MADE TANGIBLE

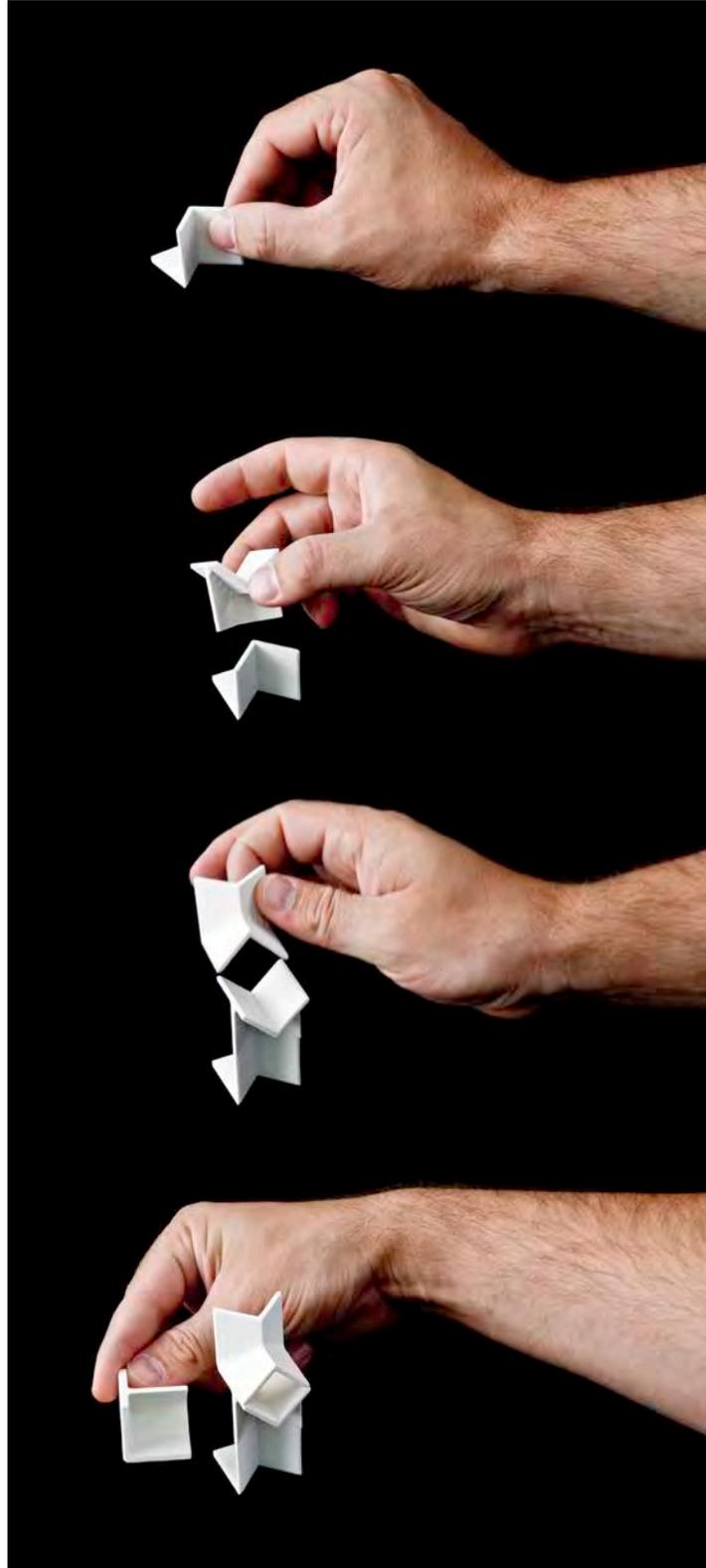


Figure 3: The source of inspiration for a new interpretation: playful 3-D printed prototypes.

MARCHING CUBES MADE TANGIBLE

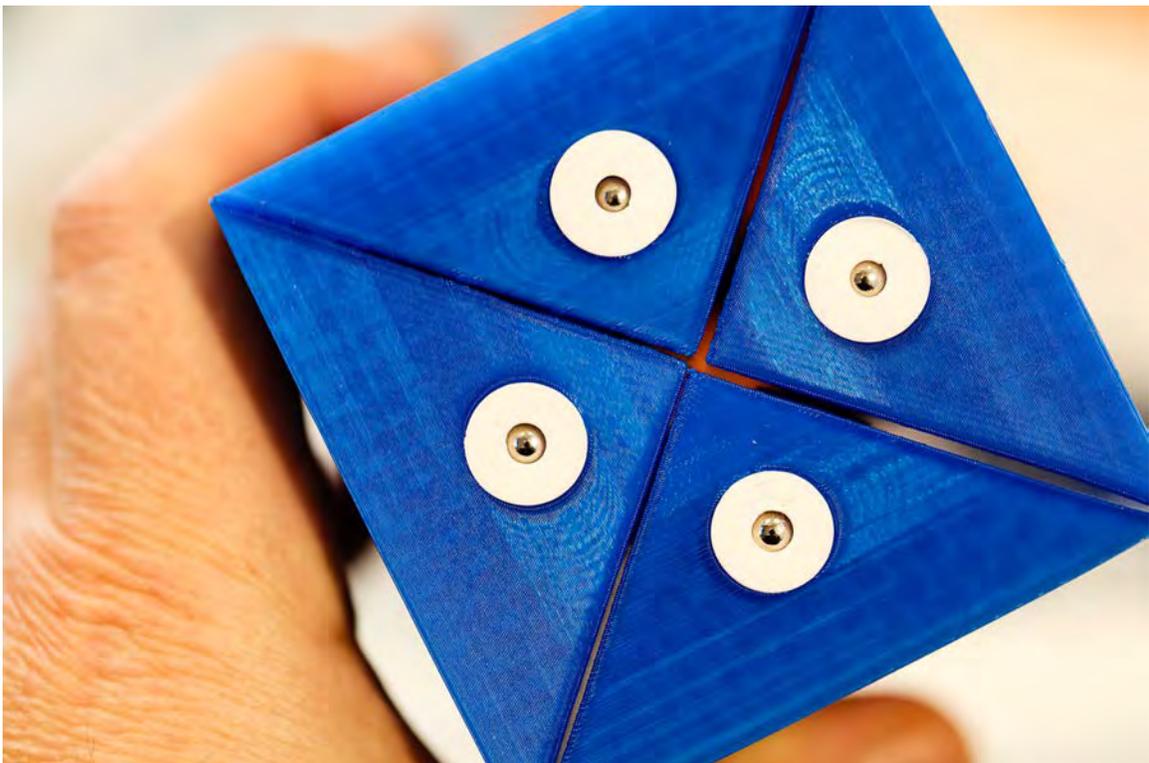


Figure 4: A new physical interpretation made from 3-D printed plastic: *Marching Cubes Units #4* (2013).

## MARCHING CUBES MADE TANGIBLE



*Image courtesy Garnet Hertz, Emily Carr University*



*Image courtesy Garnet Hertz, Emily Carr University*

Figure 5: The most recent 3-D printed prototypes, incorporating spherical neodymium magnet connectors.

MARCHING CUBES MADE TANGIBLE



Figure 6: Mockup of custom modelling software that will generate real-time assembly instructions.

## MARCHING CUBES MADE TANGIBLE



21st International Symposium on Electronic Art  
Vancouver, Canada

Dear applicant,

Thank you for submitting your artwork to ISEA2015 to be held August 14 - 18, 2015 in Vancouver, Canada. In this round we received over 600 amazing submissions and the process of review was highly competitive. We are happy to let you know that your work has been shortlisted for the main exhibition at ISEA2015.

#### PROCESS:

Our process now is to begin a secondary review and to start to shape the exhibition and programming in relation to factors such as symposium events, external partnerships, budgets, and space constraints. In some cases we may require further information from you and if this is the case we will be in touch directly in the coming days.

#### TIMELINE:

We expect to complete this final stage of review in October.

#### PAPERS, POSTERS and PANELS

You may also wish to submit in one of the following categories, which has a deadline on December 20, 2014: long art or research papers, short art or research papers, extended abstracts with demonstration or poster presentation, art or research demonstrations, panels, workshops or tutorials. Full information about these calls can be found on our website: <http://isea2015.org/call-for-proposals/papers-posters-and-panels/>

Again, thank you very much for your interest in ISEA2015 and we look forward to seeing you in Vancouver for what promises to be an amazing event. We will have more news for you about final results soon.

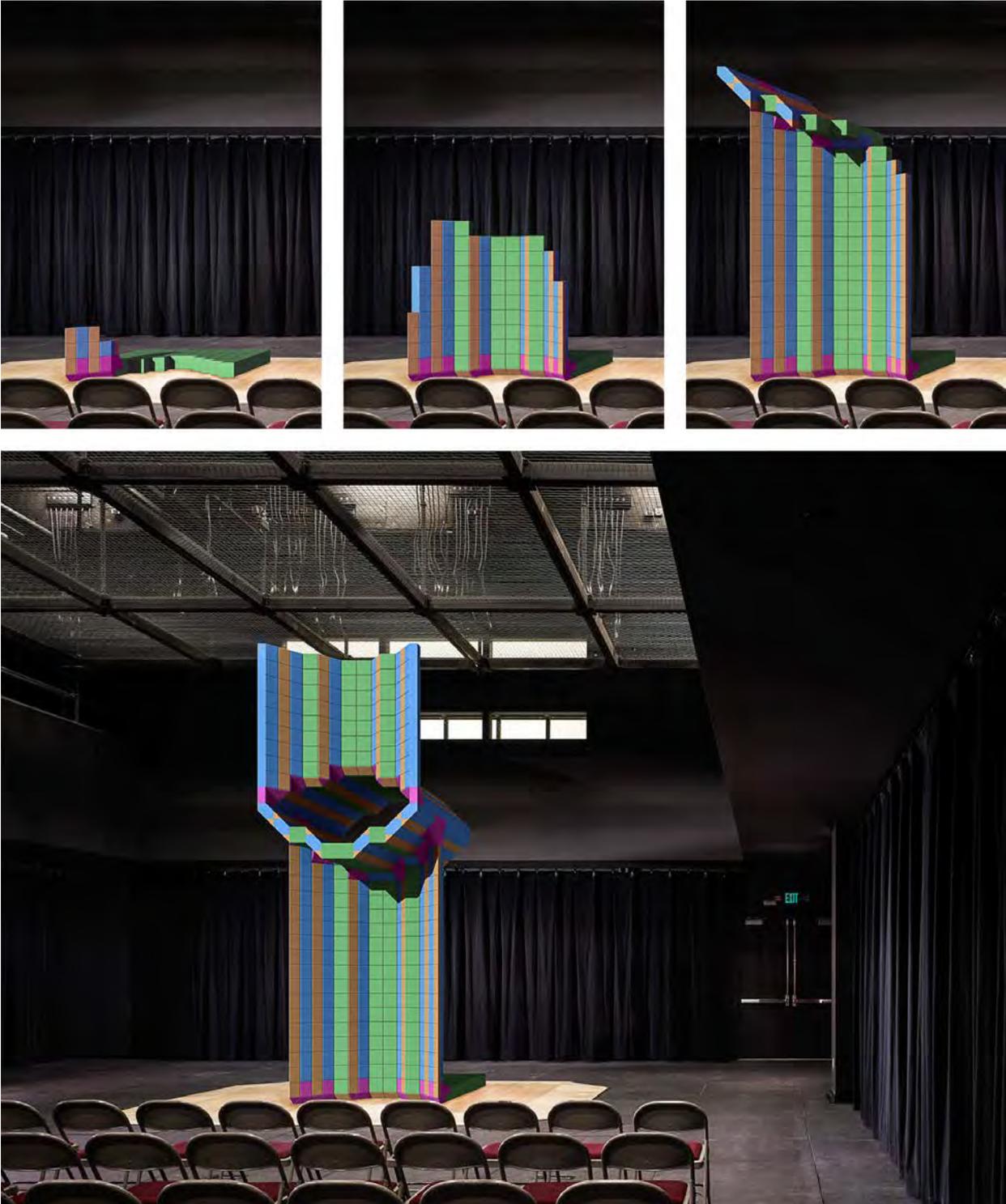
Best,

Kate Armstrong and Malcolm Levy  
Artistic Directors, ISEA2015

[www.ISEA2015.org](http://www.ISEA2015.org)

Figure 7: Letter announcing the ISEA 2015 main exhibition shortlist results.

MARCHING CUBES MADE TANGIBLE



*XMPL image courtesy Nick Merrick, Hedrich Blessing*

Figure 8: Mockup of a hypothetical assembly sequence in the Experimental Media Performance Lab.

MARCHING CUBES MADE TANGIBLE

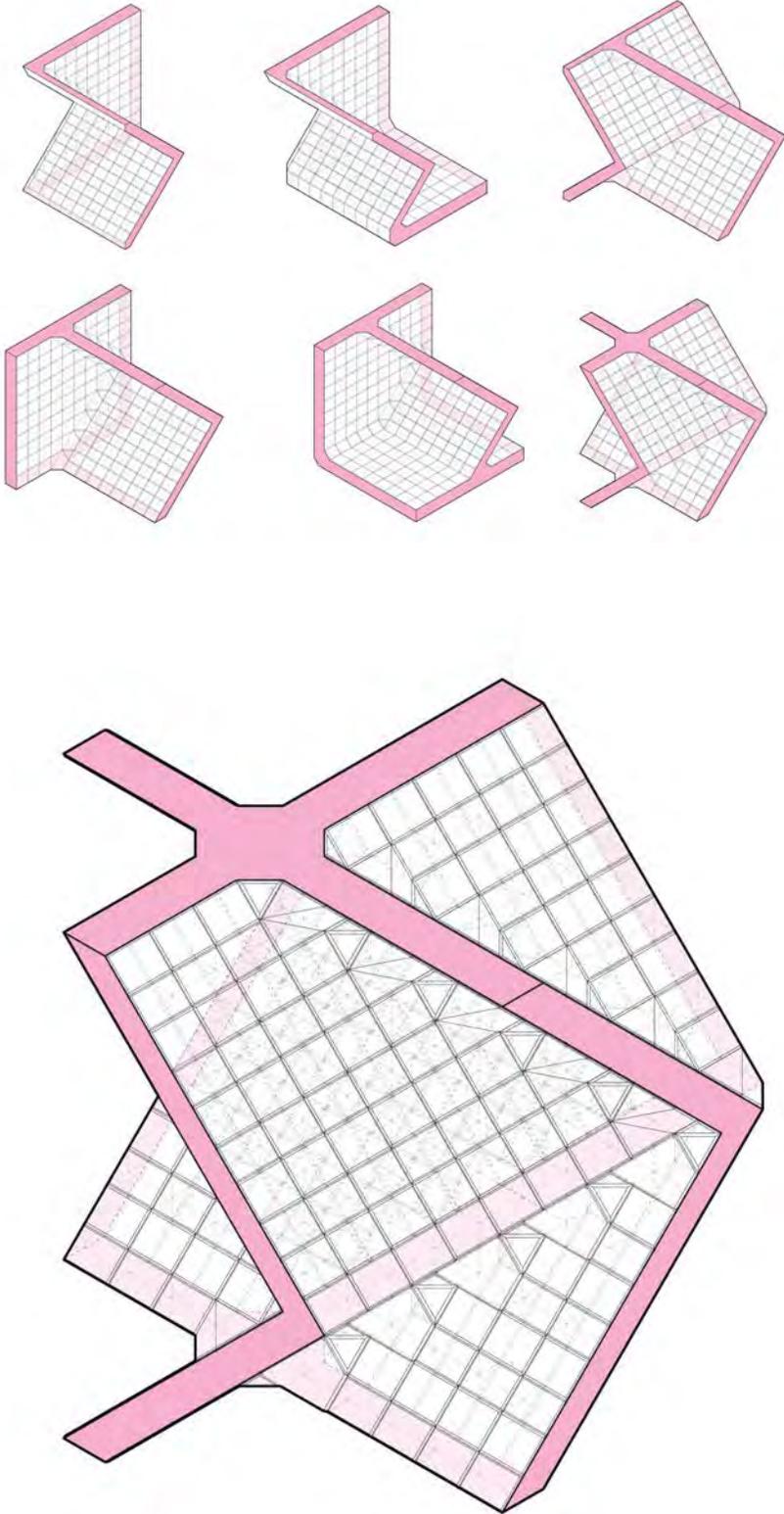


Figure 9: Mockups of computer-generated drawings of objects created during the interactive experience.

MARCHING CUBES MADE TANGIBLE



Figure 10: Mockup of a curated installation of Marching Cubes objects and drawings at Pari Nadimi Gallery.

*Radiant City* is a new body of photographic work by Los Angeles-based Canadian artist Jesse Colin Jackson. Focused on Toronto's tower apartment neighbourhoods, *Radiant City* invites us to consider these conflicted sites and their evolving presence and status in our collective consciousness. Titled after Le Corbusier's "The Radiant City: Elements of a Doctrine of Urbanism to Be Used as the Basis of Our Machine-Age Civilization," first published in English in 1964 and the origin of many of the design principles that characterize these neighbourhoods, *Radiant City* catalogues the towers at a pivotal moment in their history, and engenders new conversations about their visibility and vitality.

Jackson has been generating representations of tower apartment neighbourhoods since 2006. *Radiant City* is his most ambitious extension of this body of work to date. Through this new series of large-format still images, Jackson evokes the designed and lived intensities of Toronto's tower apartments, and their ubiquity and significance to the city. Frequently employed by policy makers and design professionals, Jackson's images are integral to ongoing efforts to revitalize these buildings. Close examination of Jackson's work, however, reveals ambivalence towards this progressive project in the face of the complexities these structures embody: arrival destinations for incoming immigrant populations, essential housing for one quarter of the city's population, the decaying location of much of Toronto's urban poverty, products of modern ideologies gone awry, and locations of past glory, current dynamism, and future potential.

Jackson's creative practice centres on object- and image-making as discursive modes of architectural production. Educated as an artist, architect and engineer, Jackson appropriates the images, forms, and conceptual apparatus found in the urban landscape. His work has been the subject of several solo and two-person exhibitions, including *Automatic/Revisited* (Toronto Design Offsite Festival, 2013); *Figure Ground* (Gladstone Gallery, 2011); *Usonia Road* (Larry Wayne Richards Gallery, 2009); and *West Lodge* (Convenience Gallery, 2009). Jackson has received funding from the Ontario Arts Council, the Centre for Innovation in Information Visualization and Data Driven Design, and the Social Sciences and Humanities Research Council of Canada. In 2009, he was shortlisted for the Canada Council for the Arts Prix de Rome in Architecture for Emerging Practitioners. He is a 2014 Hellman Fellow at the University of California, and, in partnership with collaborator Luke Stern, was the 2008—2010 Howarth-Wright Graduate Fellow at the University of Toronto. Jackson is an Assistant Professor in the Department of Art at the University of California, Irvine, and has previously taught at the University of Toronto and OCAD University.

## PARI NADIMI GALLERY

254 Niagara Street, Toronto, Canada  
Wednesday to Saturday, 12pm to 5pm, or by appointment  
[www.parinadimigallery.com](http://www.parinadimigallery.com)  
[info@parinadimigallery.com](mailto:info@parinadimigallery.com)

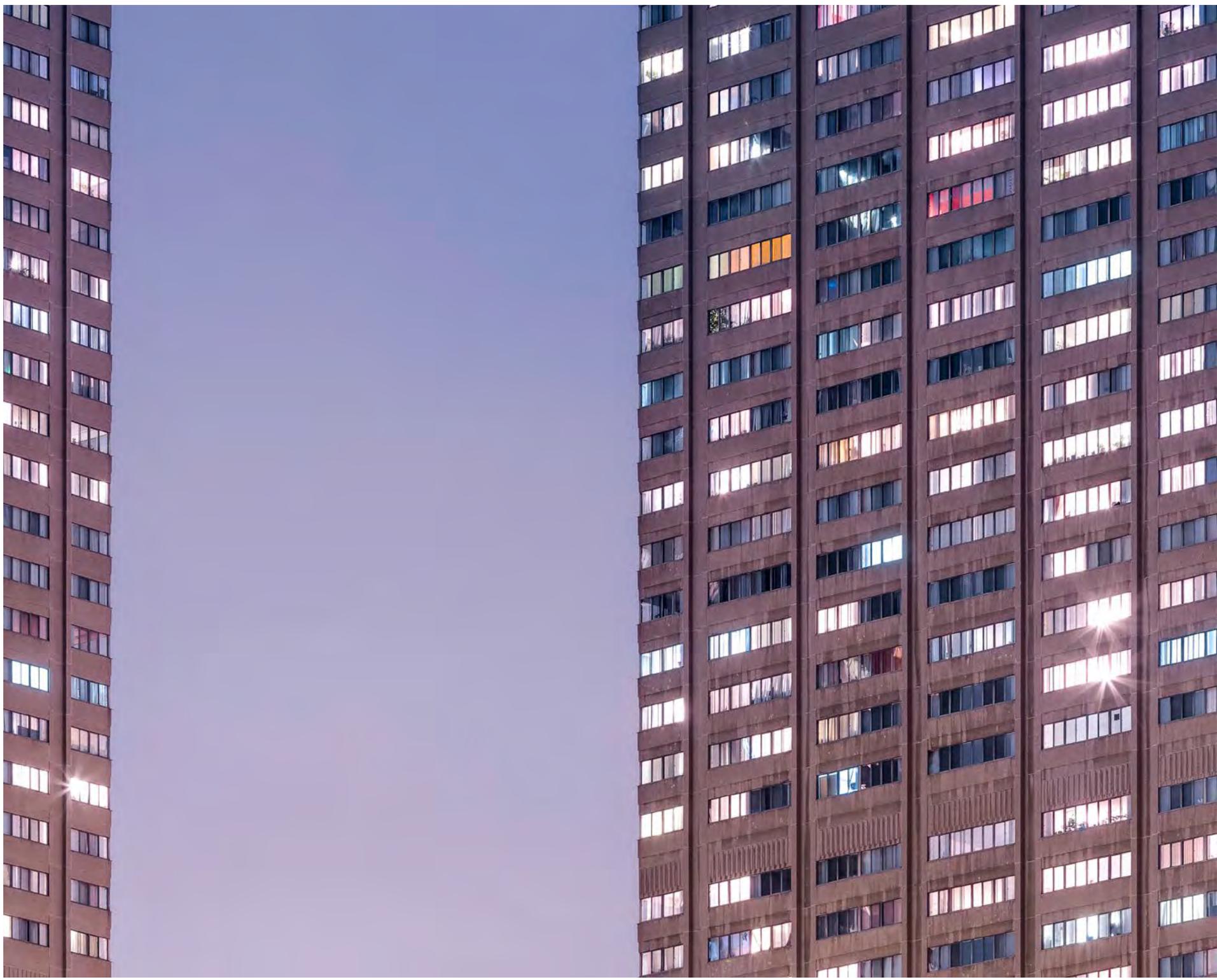
# Radiant City

85 and 95 Thorncliffe Park Drive, Toronto (Leaside Towers)



# Radiant City

detail of 85 and 95 Thorncliffe Park Drive, Toronto (Leaside Towers)



# Radiant City

714 and 716 The West Mall, Toronto (The Buckingham)



# Radiant City

detail of 714 and 716 The West Mall, Toronto (The Buckingham)



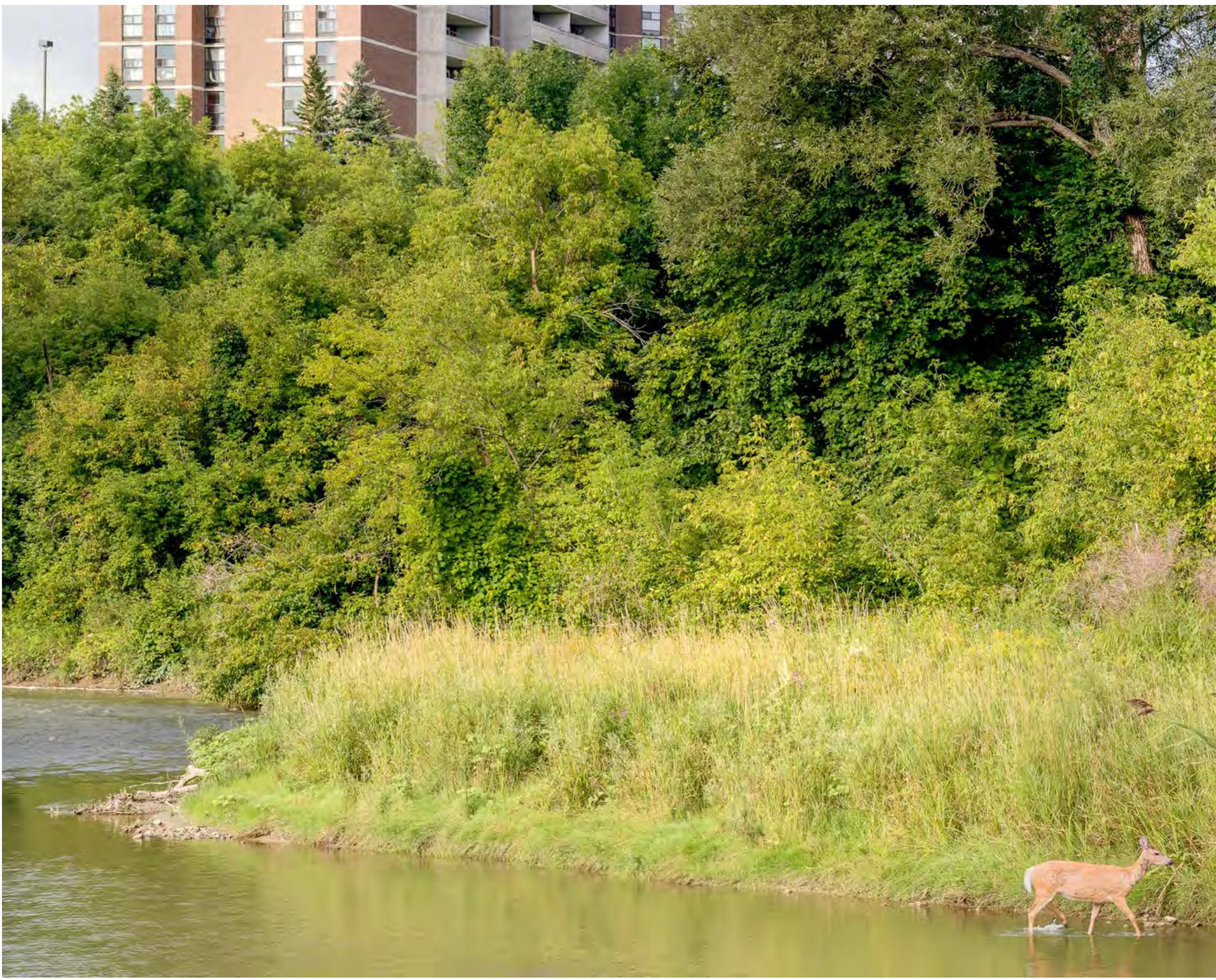
# Radiant City

2737 and 2757 Kipling Avenue, Toronto (Riverside Apartments)



# Radiant City

detail of 2737 and 2757 Kipling Avenue, Toronto (Riverside Apartments)



# Radiant City

1850 Victoria Park Avenue, Toronto (Greenbrier North)



# Radiant City

detail of 1850 Victoria Park Avenue, Toronto (Greenbrier North)



# Radiant City

240, 260, and 270 Scarlett Road, Toronto (Lambton Square)



# Radiant City

detail of 240, 260, and 270 Scarlett Road, Toronto (Lambton Square)



# Radiant City

190 Exbury Road and 2269 Jane Street, Toronto



# Radiant City

detail of 190 Exbury Road and 2269 Jane Street, Toronto



# Radiant City

170 Chalkfarm Drive, Toronto (The Oaks)



# Radiant City

detail of 170 Chalkfarm Drive, Toronto (The Oaks)



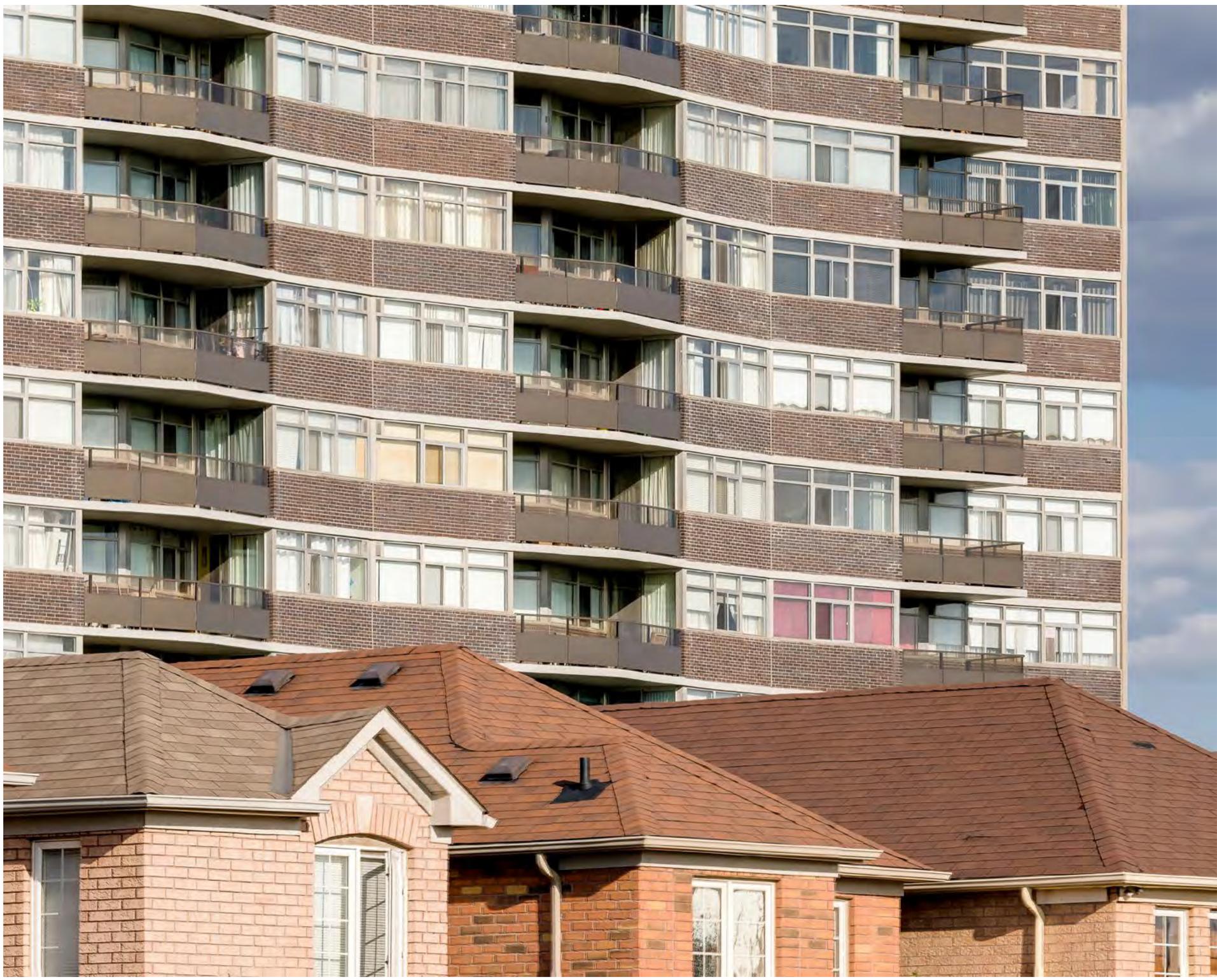
# Radiant City

3151 Bridletown Circle, Toronto



# Radiant City

detail of 3151 Bridletown Circle, Toronto



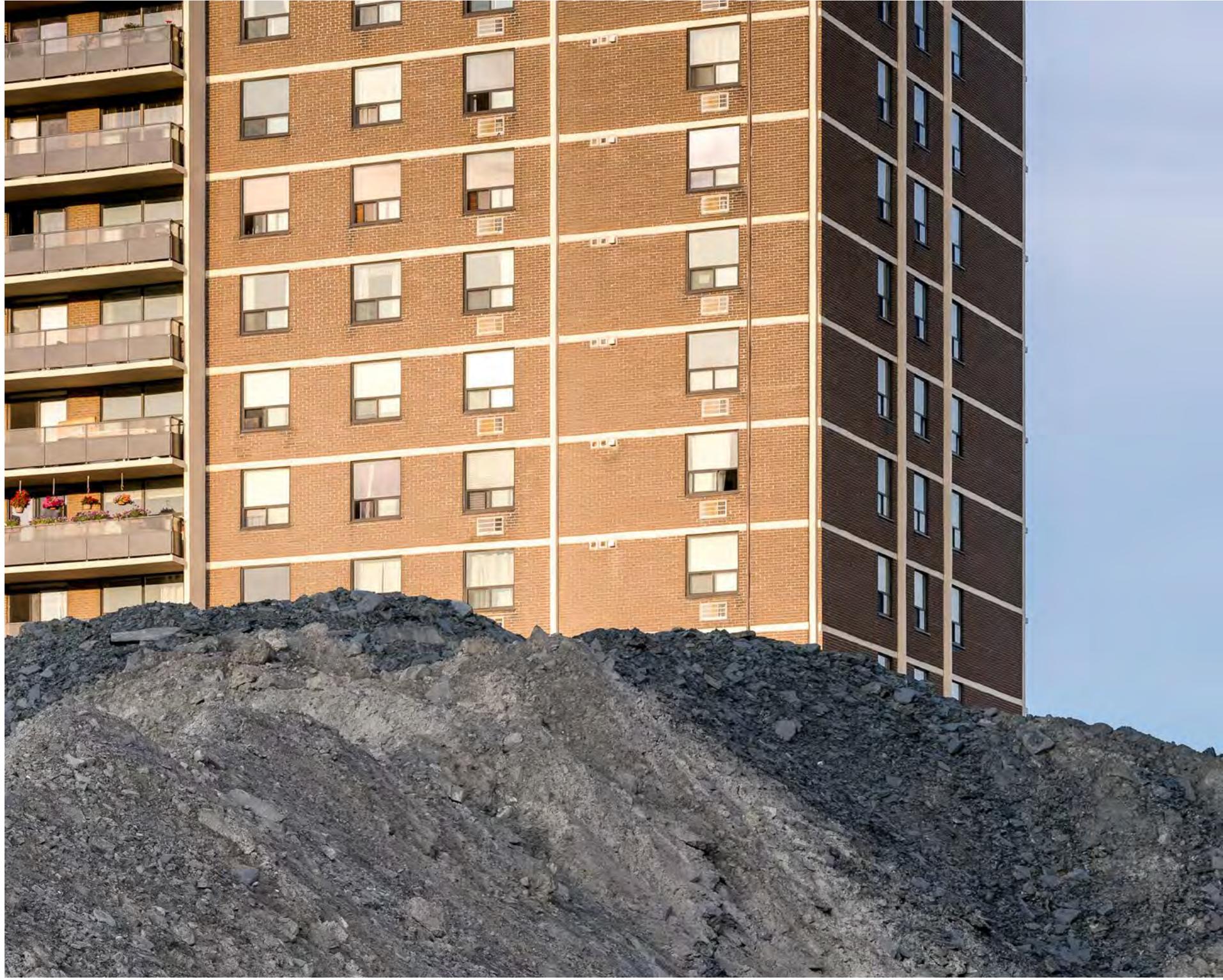
# Radiant City

511 The West Mall, Toronto (Bransfield House)



# Radiant City

detail of 511 The West Mall, Toronto (Bransfield House)



# Radiant City

75, 100, and 150 Graydon Hall Drive, Toronto



# Radiant City

detail of 75, 100, and 150 Graydon Hall Drive, Toronto



Jesse Colin Jackson

Architectural Photography  
Samples of Work, 2006 - 2014



2014

Project: Aga Khan Museum  
Client: Blueprint (UK)



2014

Project: Bowen Bunkie  
Client: Jonathan Reed



2013

Project: Elementary Teacher's Federation of Ontario  
Client: Kuwabara Payne McKenna Blumberg



2012

Project: 49 Brookfield Street  
Client: Evan Saskin



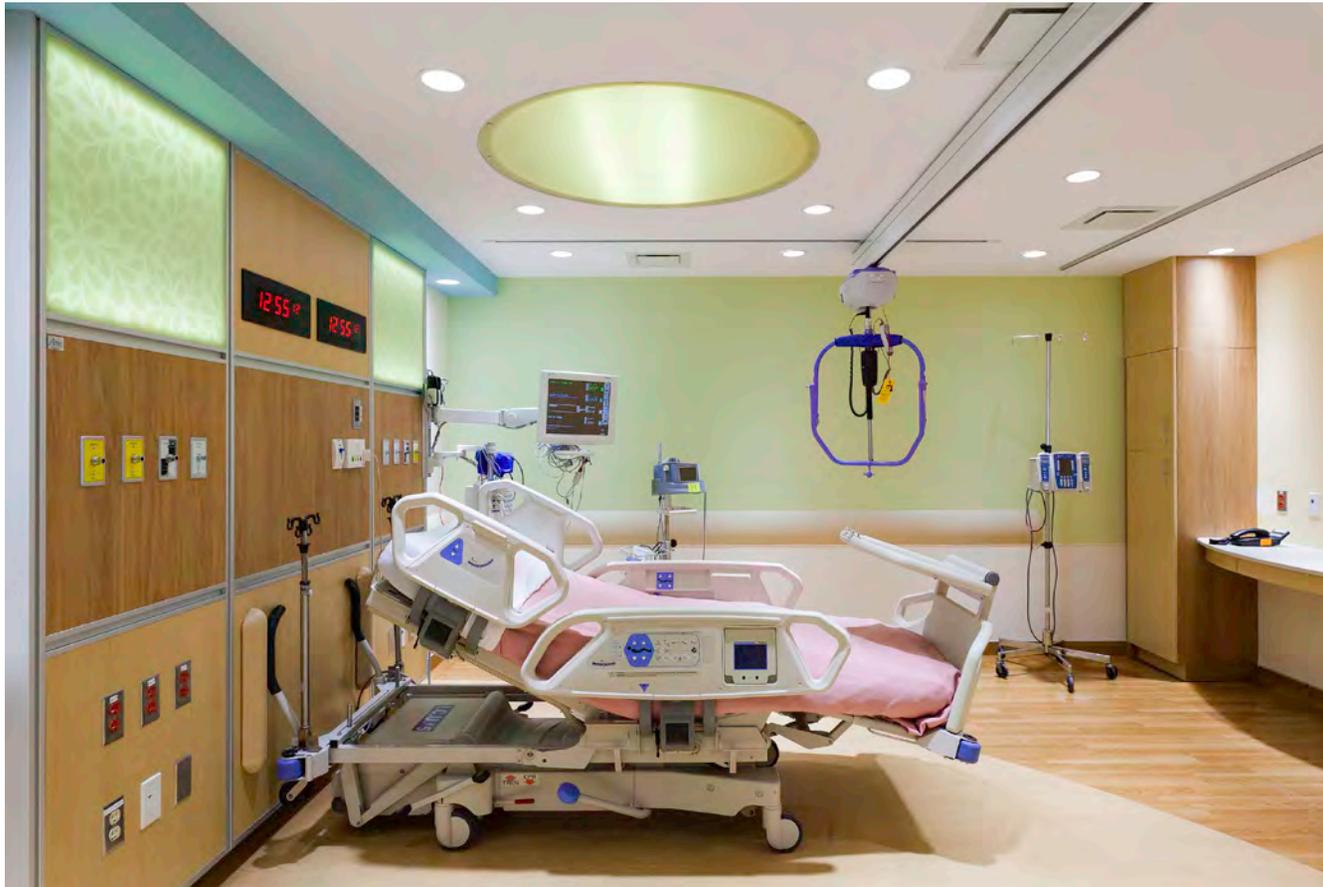
2011

Project: Sugar Beach  
Client: Claude Cormier



2011

Project: 19 Kendal Avenue  
Client: Denegri Bessai



2011

Project: McMaster University Medical Centre  
Client: McCallum Sather



2010

Project: Hamilton City Hall  
Client: Ventin Group



2010

Project: Salvation Army Lawson Autism Centre  
Client: Garwood-Jones & Hanham





2009

Project: Native Child and Family Services Longhouse  
Client: Levitt Goodman



**DOC/nOW/ INTERSECTIONS**  
Twenty-First Century Communities

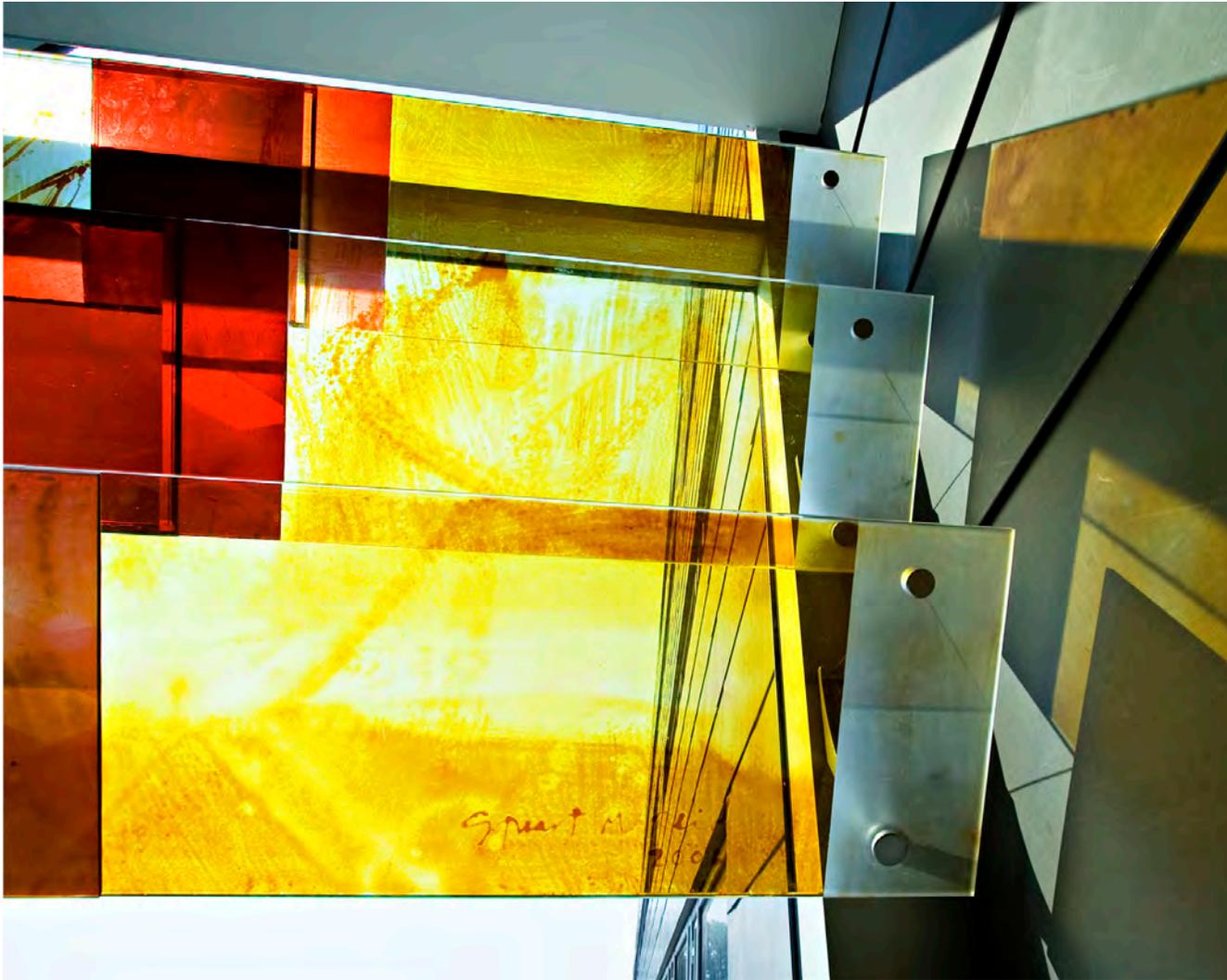
Doc/nOW celebrates the evolving documentary practice through multiple forms including film, photography, live media, installation, performance, and bookworks. This is also our first week in the Toronto venue. Doc/nOW presents the work of Ryerson University's first graduating class of the new MFA in Documentary Media Program. Engaged in issues ranging from intimate character profiles to questions of identity to ordinary space through and the ecology of social practice, this festival interrogates the sites and conditions of our shared humanity through exploration in both new and traditional forms of documentary practice.

Tori Foster  
Morris Lum  
Lindsay Maynard



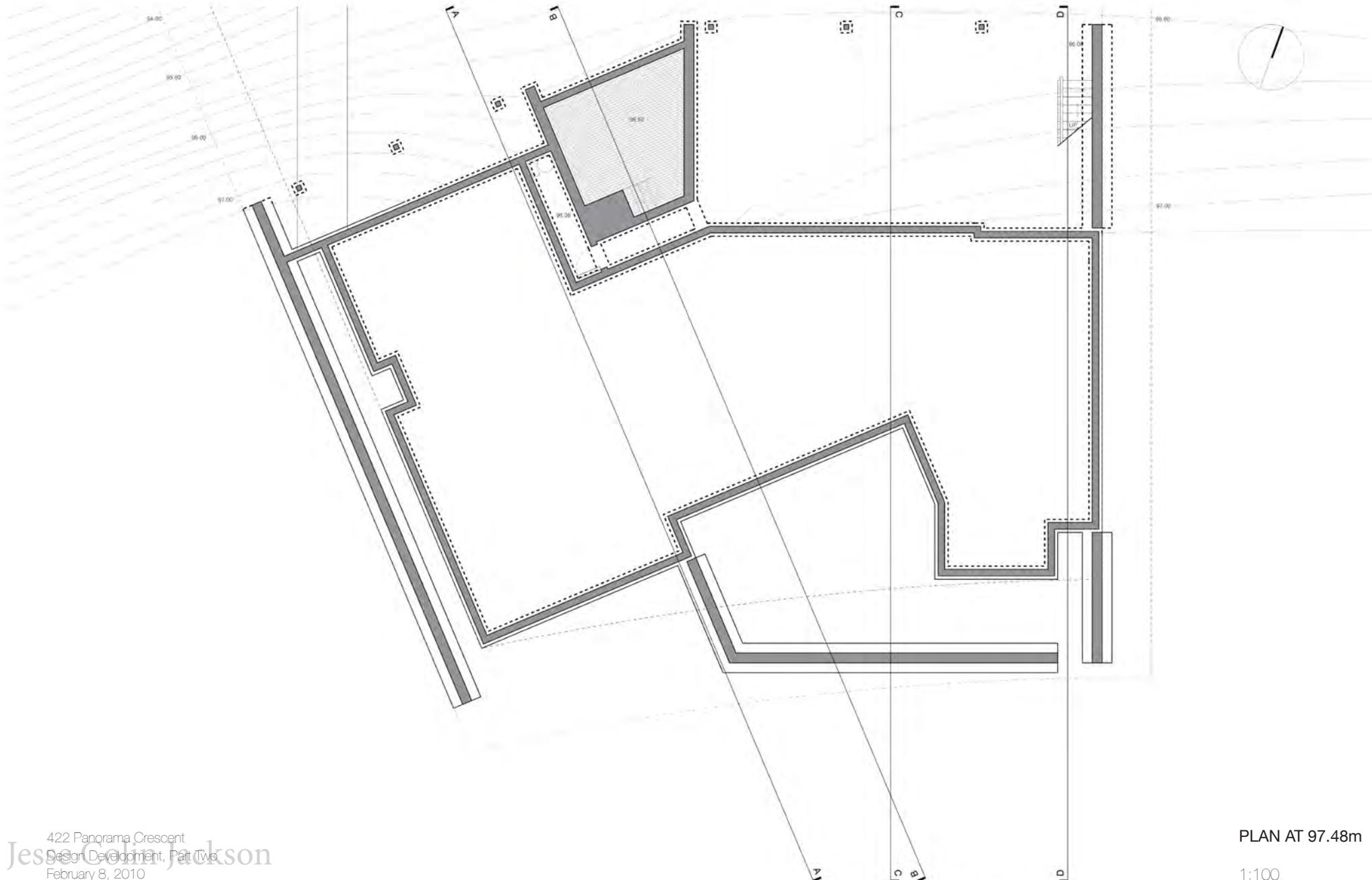
2007

Project: Mabin School  
Client: Architects + Research + Knowledge



2006

Project: Bloorview Kids Rehabilitation Hospital  
Client: Blackwell Bowick



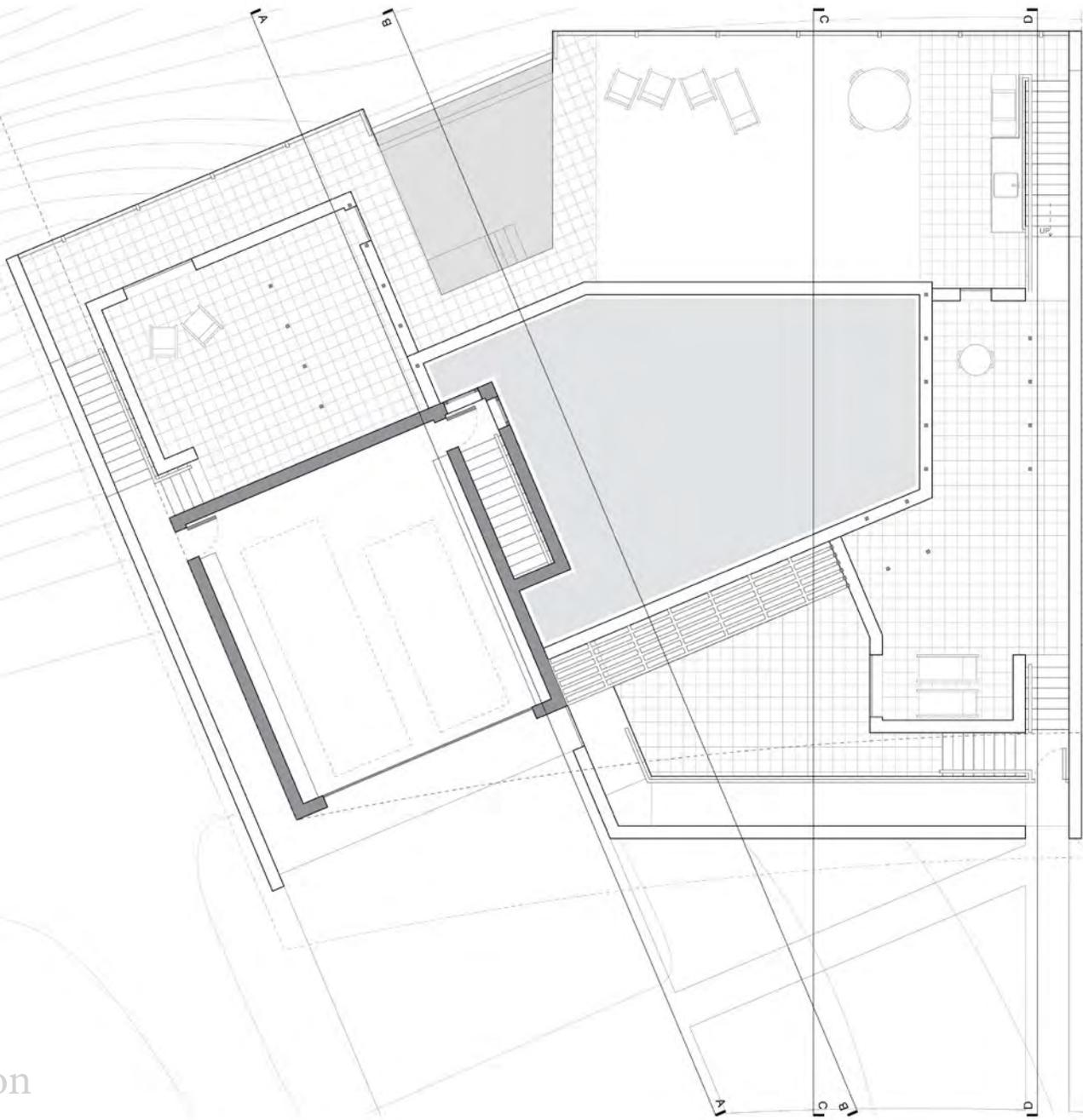
422 Panorama Crescent  
Resort Development, Part Two  
February 8, 2010

PLAN AT 97.48m

1:100



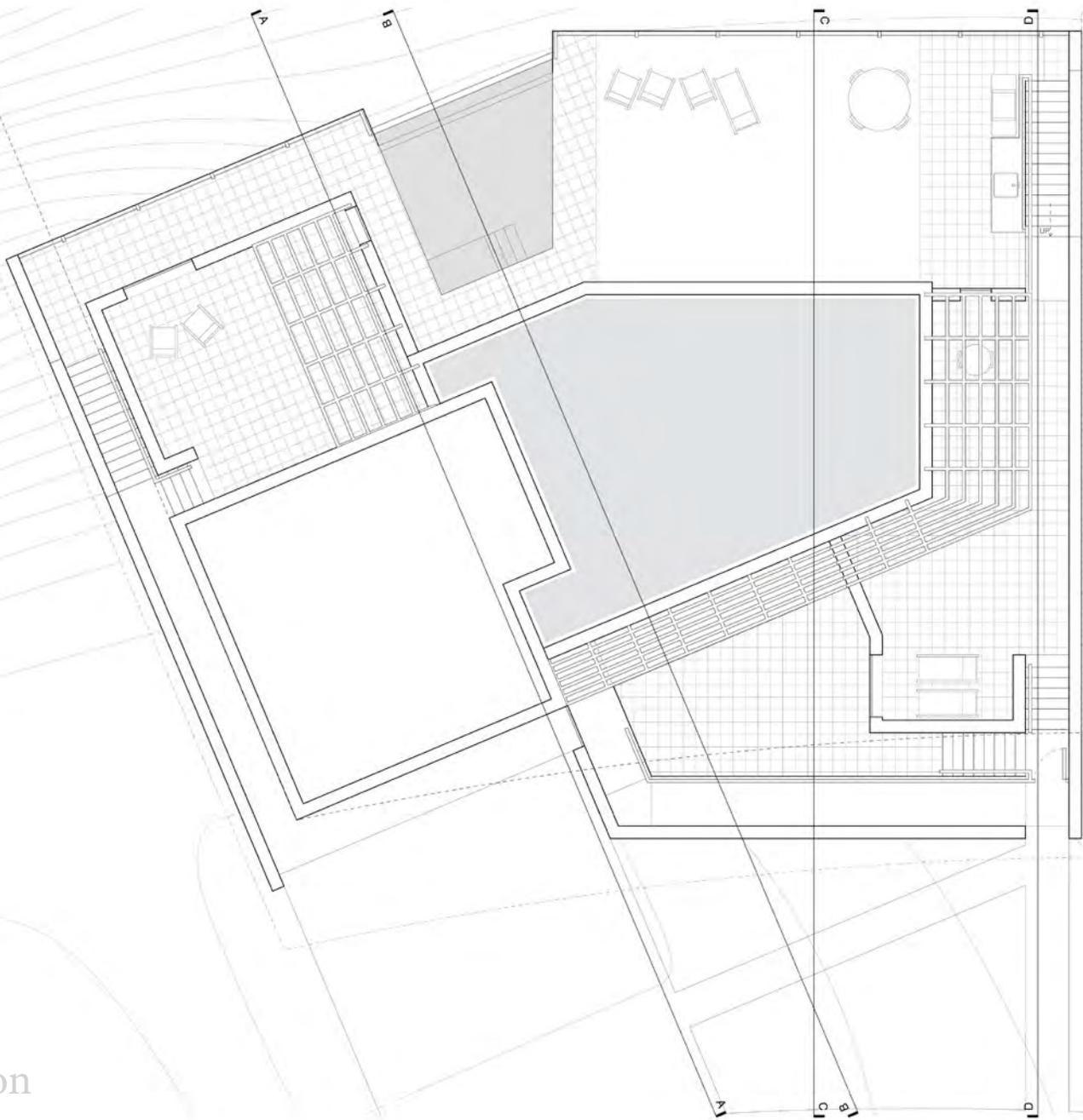




422 Panorama Crescent  
Resort Development, Part Two  
Jesse Colin Jackson  
February 8, 2010

PLAN AT 103.40m

1:100



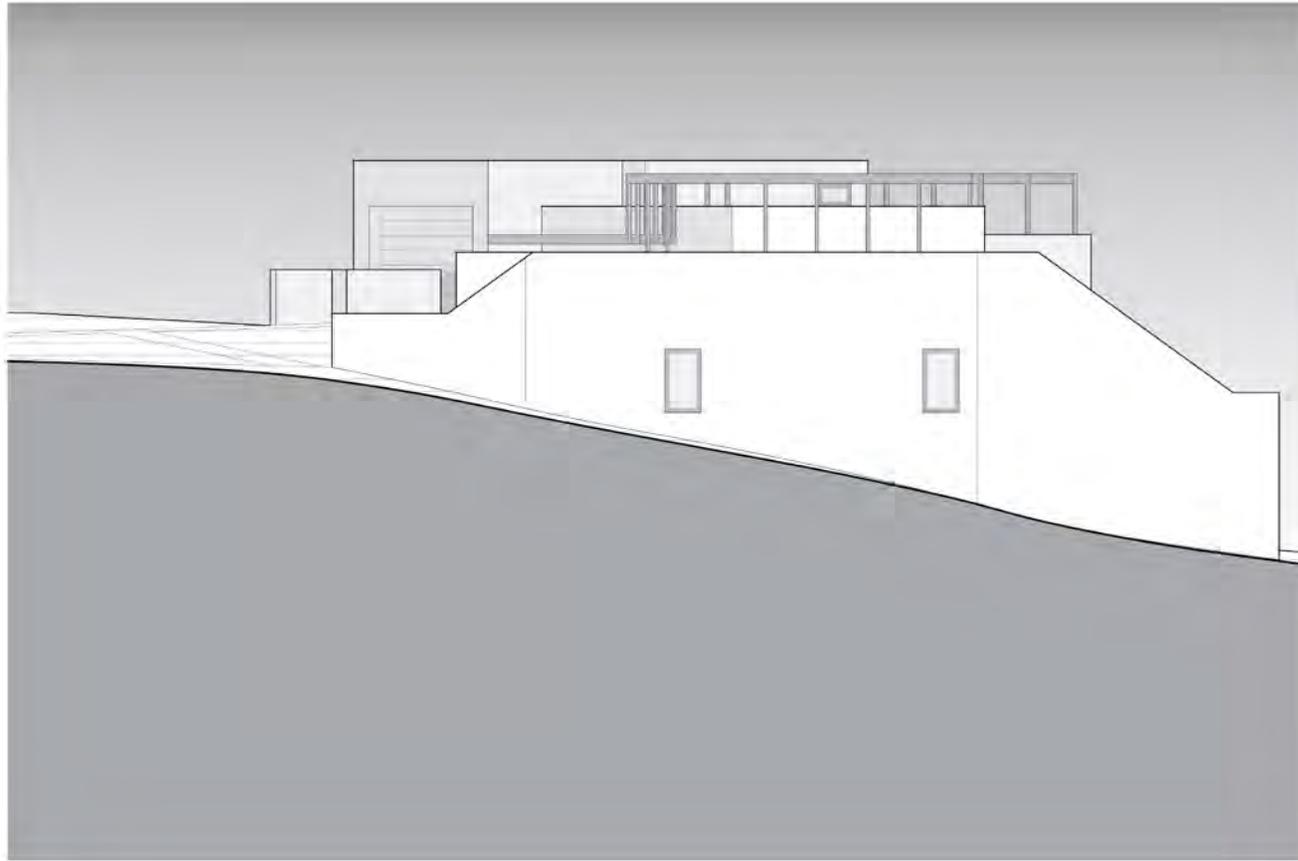
422 Panorama Crescent  
Resort Development, Part Two  
February 8, 2010

Jesse Colm Jackson

PLAN AT 104.40m

1:100



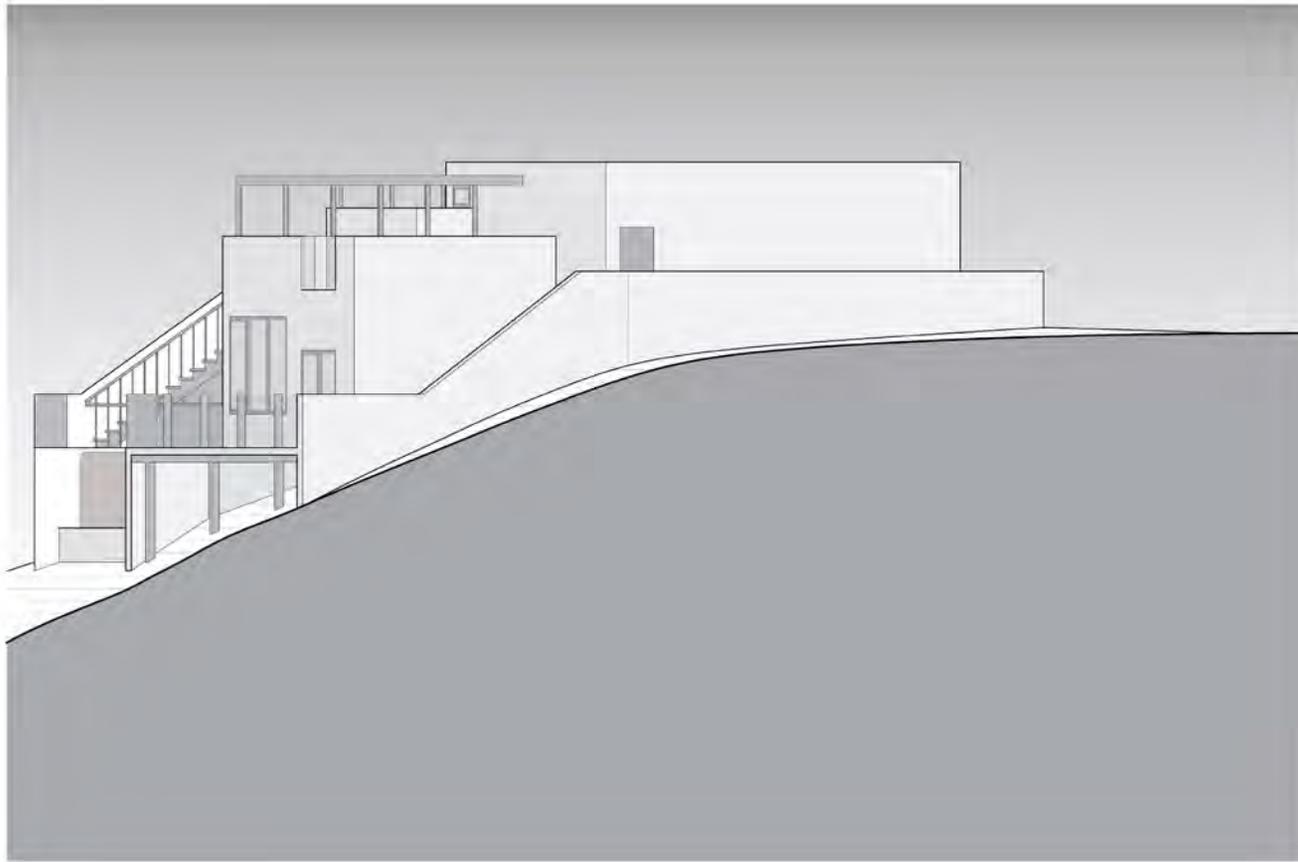


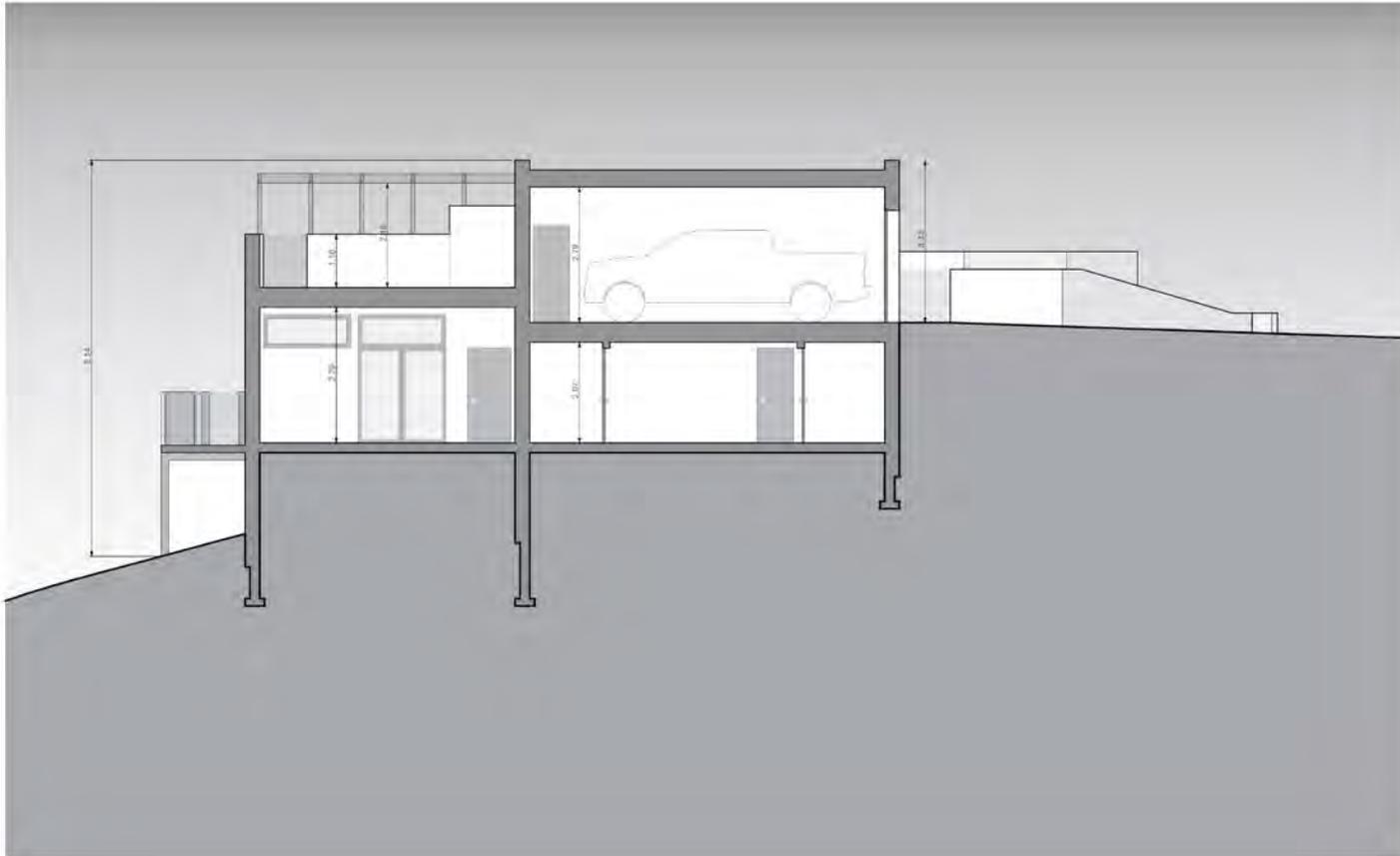


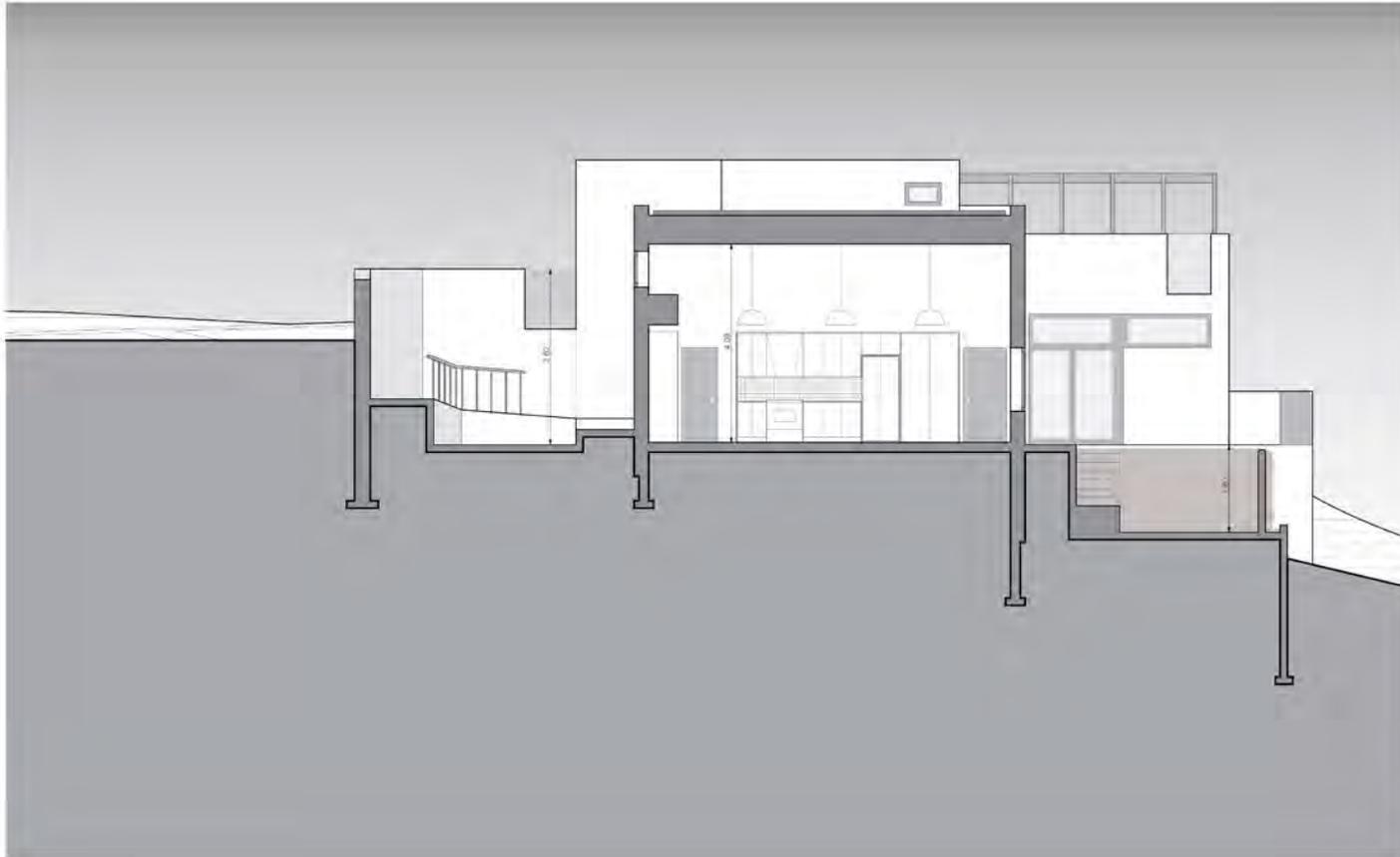
422 Panorama Crescent  
Resort Development, Part Two  
February 8, 2010

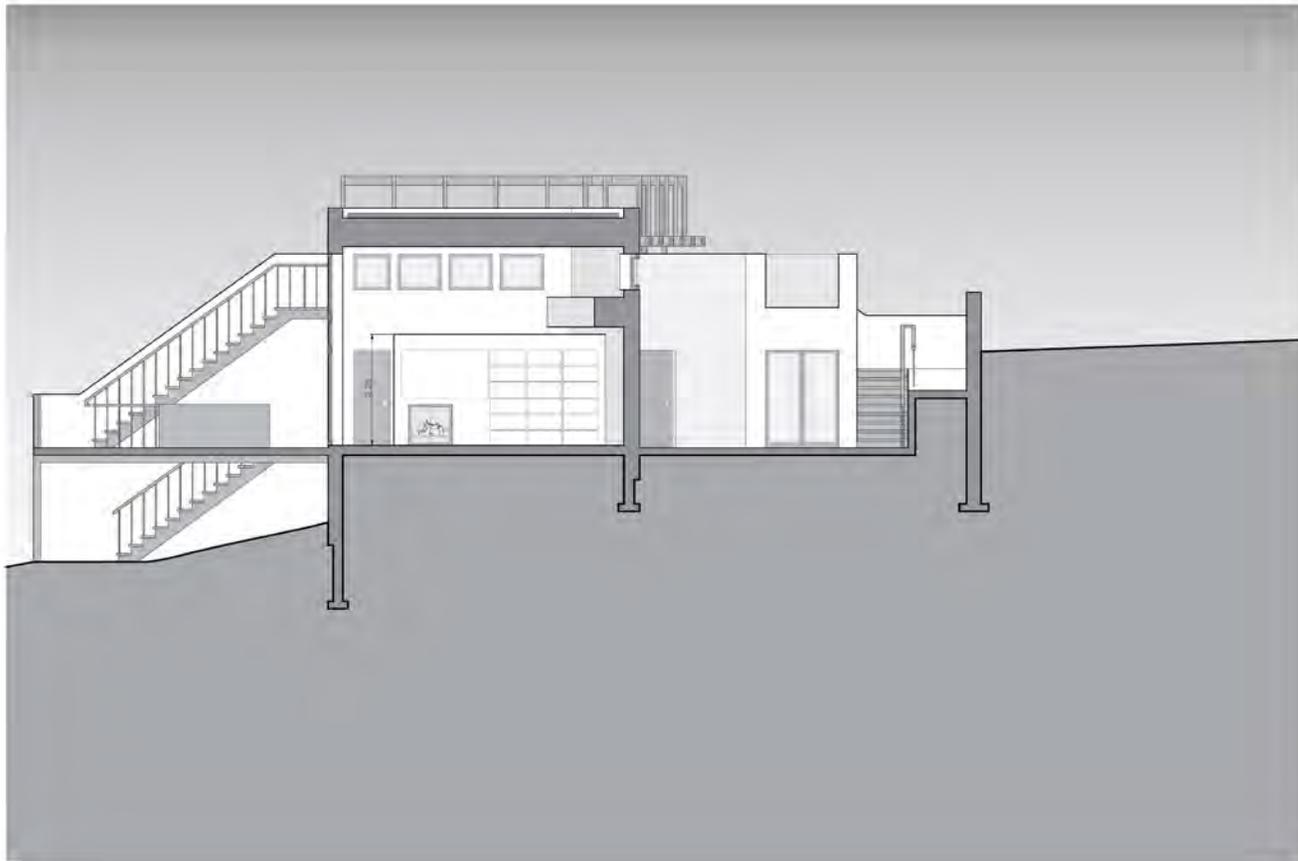
NORTH ELEVATION

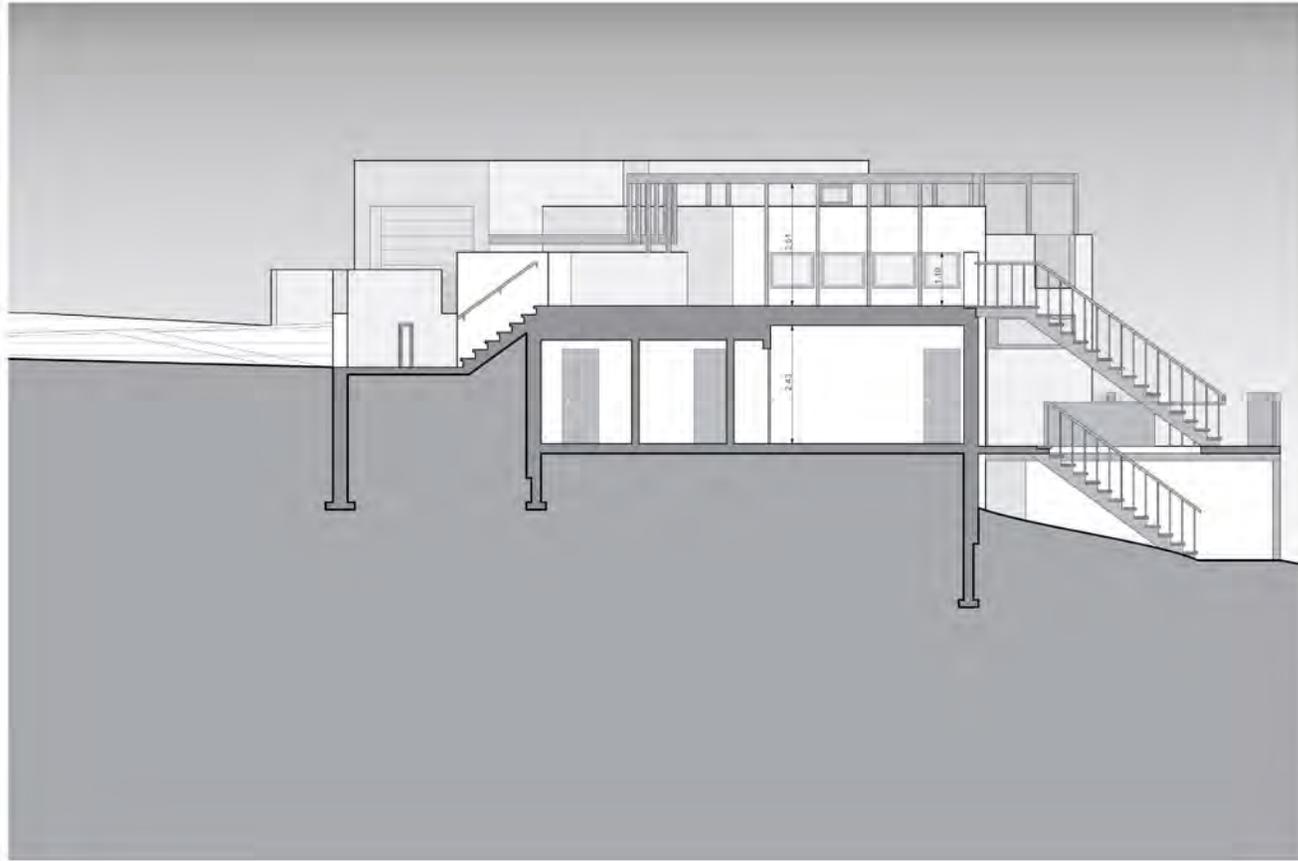
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**BlocKit**



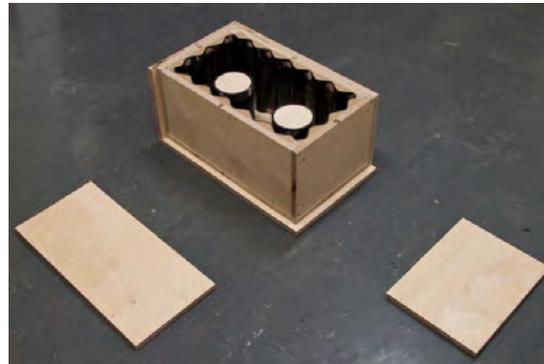
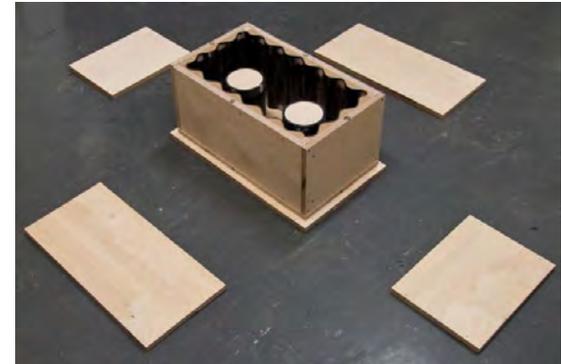
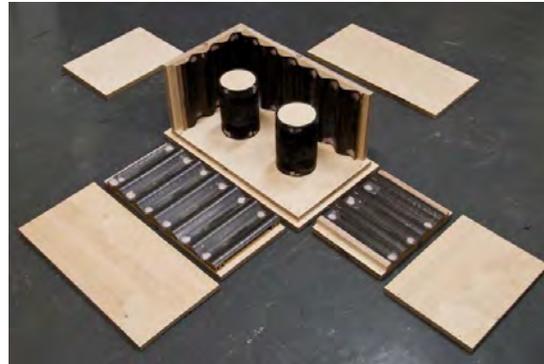
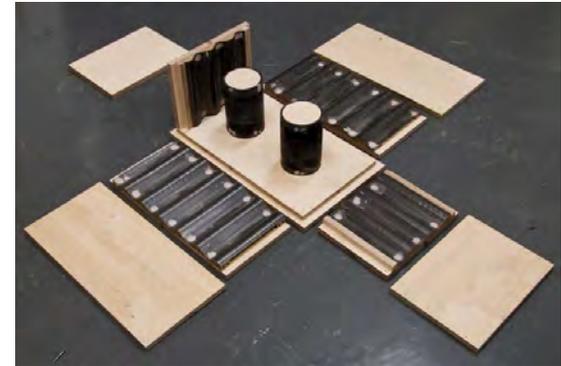
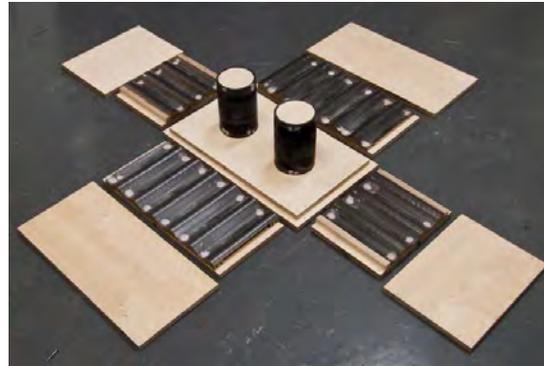
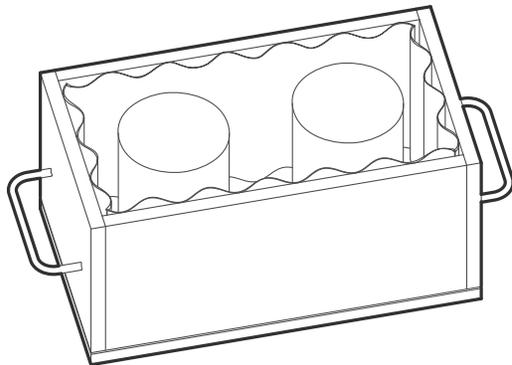
# BlockKit

An open source system of construction requires a critical mass of adoption to succeed. Technical innovation is not enough: the system must also be accessible.

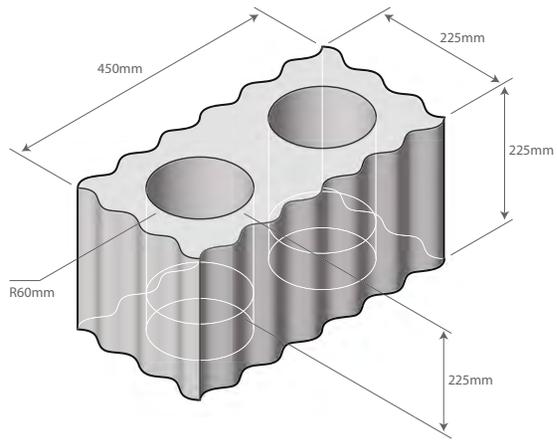
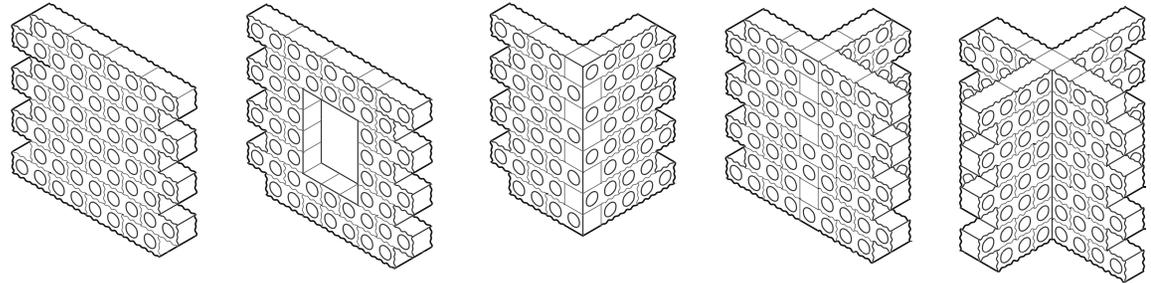
BlockKit mortarless concrete blocks create a framework from which the widespread adoption of such a system can emerge. Adapted from a simple and ubiquitous building component, the concrete masonry unit, BlockKit permits existing knowledge and skills to be efficiently transformed into an entrepreneurial open source building industry.

BlockKit blocks are modular, demountable, and designed to accept a series of locally developed plug-in components that serve the evolving climactic, economic and cultural needs of their users. The BlockKit tool is also mutable, and will evolve to meet future material, scale and interface requirements.

BlockKit forms the backbone of a new way of building.



# BlockKit



## ESSENTIAL BLOCKS

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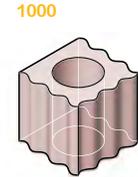
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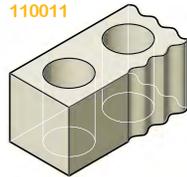
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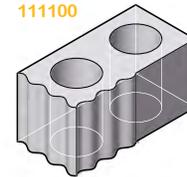
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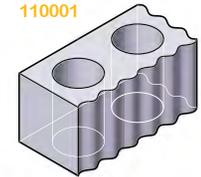
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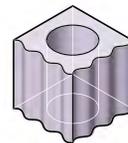
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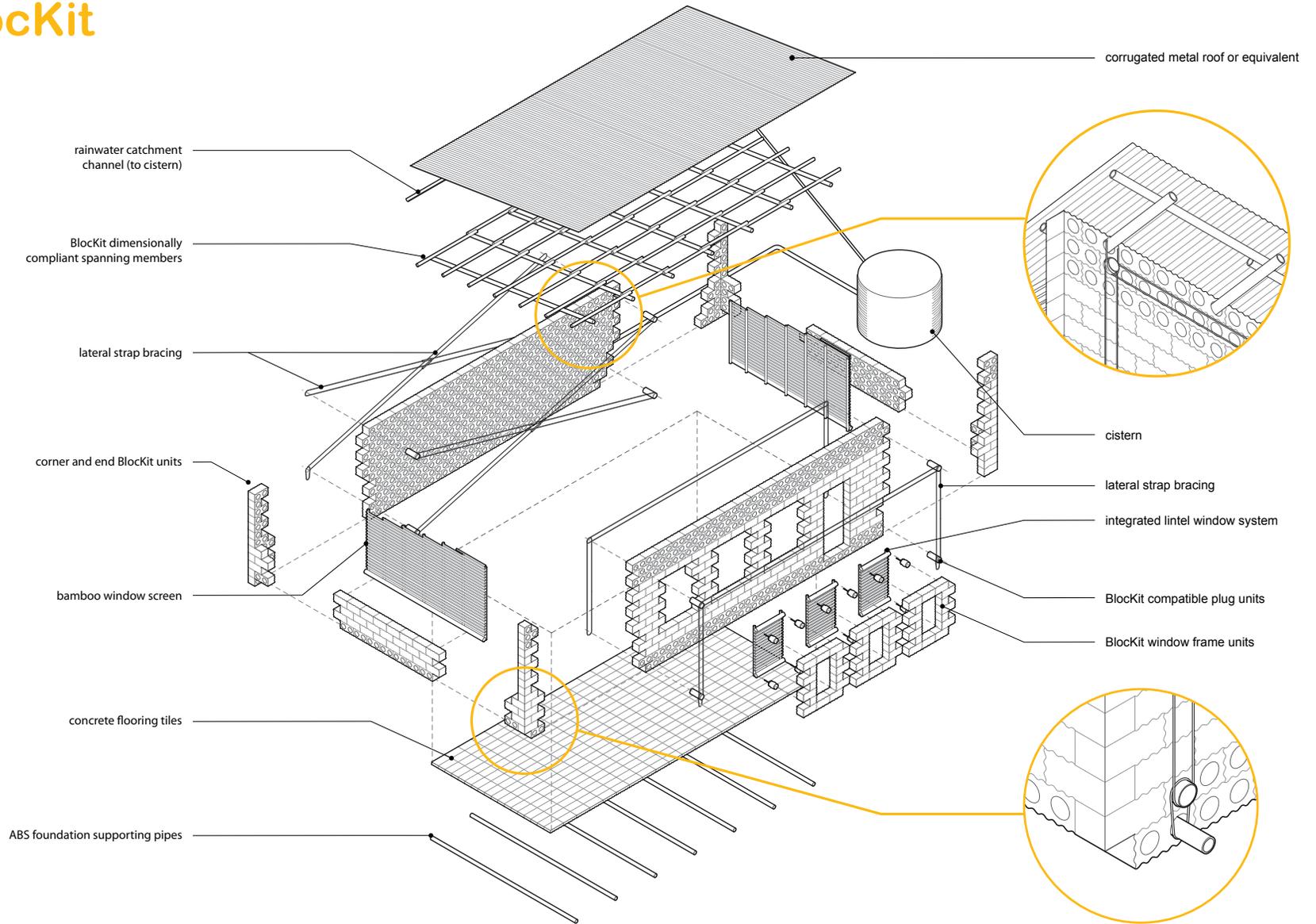


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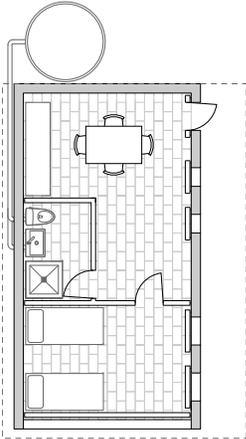


## USEFUL BLOCKS

# BlockKit

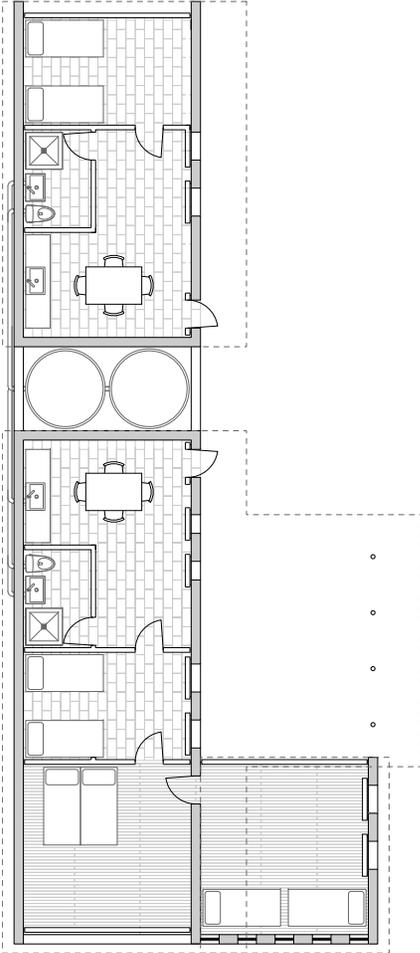


# BlocKit



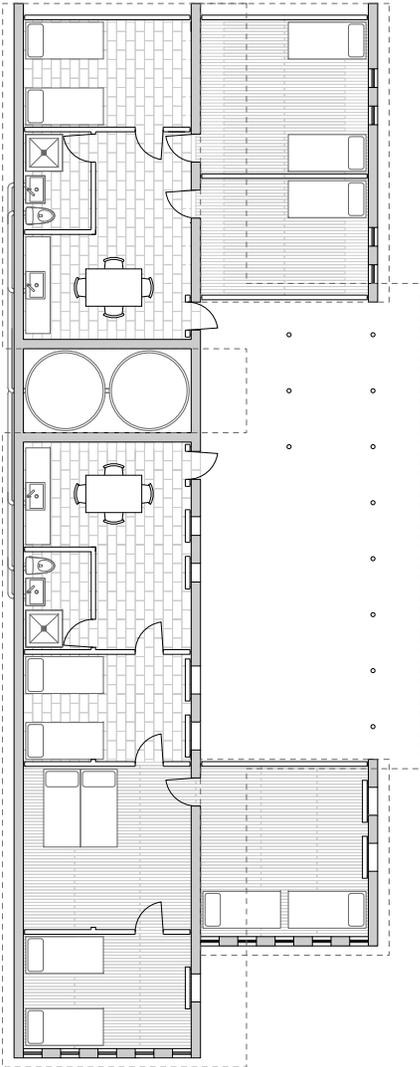
YEAR 1

# BlocKit



YEAR 5

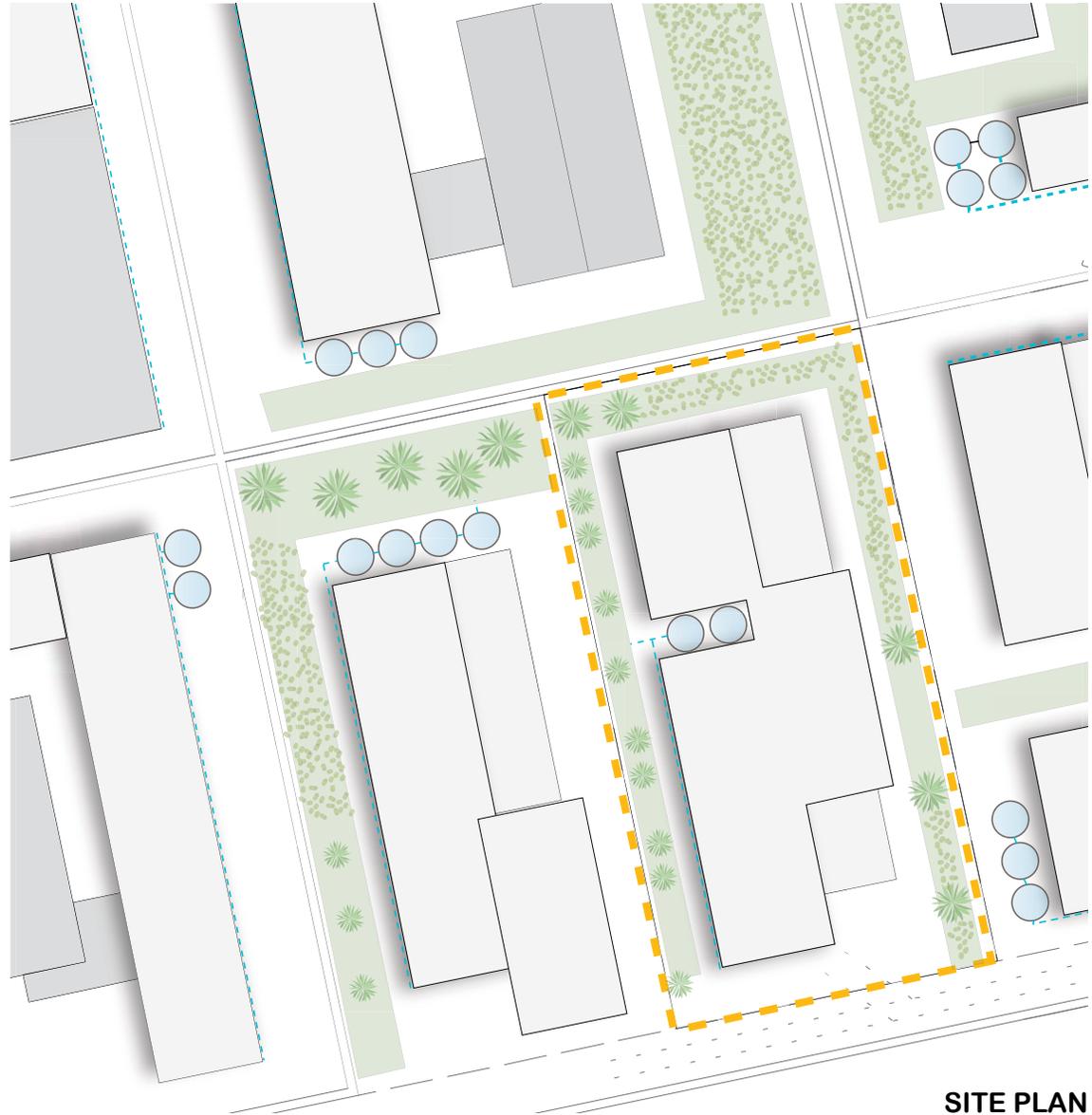
# BlocKit



# BlockKit

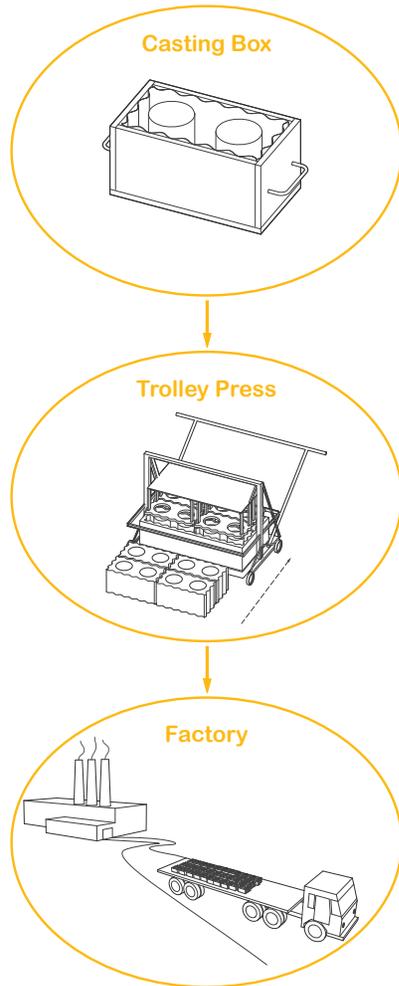
The inherently modular and demountable nature of BlockKit allows any given site to be occupied incrementally. As the building grows, stereotomic building components can be arranged to accommodate and support building infrastructure—water, waste water, electricity, etc.—as well as natural site elements.

A fully realised BlockKit structure could occupy the full buildable site area while supporting a complex ecosystem of support networks. In this case, cisterns collect rain water from the roof, cooling the shaded court-yard and irrigating a bamboo stand that, in turn, produces additional building material.



**SITE PLAN**

# BlockKit



## EVOLUTION OF BlockKit TOOL

### It's Locally Embedded.

BlockKit permits users to create their own home, at their own home. BlockKit blocks, cast from portland cement concrete or another cementitious composite form the basis for any small building. The tool is also constructed from locally available materials: 76mm corrugated iron, 100mm plastic or metal pipe, and sheet wood or metal.

### It's Dynamic.

BlockKit supports the complete life cycle of a building, or even several buildings. BlockKit blocks can be assembled and disassembled many times without damage. The long service life of the blocks offsets the initial investment of embodied energy required to manufacture them. The form of the blocks encourages the use of bamboo, an emerging renewable resource industry.

### It's Climactically Suitable.

BlockKit blocks create opaque, thermally massive walls that provide shade and shelter, and temper their surrounding environment. In an equatorial climate, these walls are best oriented north-south, in order to maximize their passive environmental control potential.

### It's Interchangeable.

BlockKit blocks are interchangeable within a building and between buildings. Common wall details are created from a small number of essential block types. These block types are readily reusable, tradeable or saleable. Plug-in components are also interchangeable by virtue of the dimensional consistency BlockKit encourages. The blocks are small enough to be assembled by one person, and are easily and securely stackable for transportation.

### It's Stable and Separated.

Assembled BlockKit blocks create a stable vertical enclosure fully separate from spanning members and external cladding. Lateral stability is provided in a threefold manner: through the shear-resistant action of the interlocking shapes; through external cross-bracing that supports entire wall segments, and through external frame units that support door and window openings.

### It's Flexible

BlockKit's modular nature naturally encourages addition and adaptation. Plug-in components, spanning members and cladding can all be upgraded over time. Additional blocks can be added to an original assembly as necessary to accommodate growing families and the creation of housing compounds. By adjusting the BlockKit tool, new block types can be created that remain compatible with the existing system.

### It's Demountable.

Unlike conventional concrete masonry units, BlockKit blocks are dry mounted. Block variations with one or more flat faces facilitate wall corners and ends; the BlockKit tool readily creates these variations. BlockKit's round holes facilitate connections to demountable plug-in components, spanning members and cladding.

### It's Open Source.

BlockKit is ripe for hacking. Users are free to use, adapt and improve the system as they see fit. The BlockKit tool empowers users to experiment with materials, plug-in components and block variations; the incentive of dimensional consistency encourages the basic geometry to be retained. Ultimately, users and entrepreneurs will drive BlockKit's evolution.



BlocKit

Frank Lloyd Wright’s Usonian Automatic project synthesized his formal and social aspirations into a modular system of pre-cast concrete blocks. These blocks are miniature manifestations of the buildings they create, each carrying the same sense of mass and texture evident in the assembled whole. They also represent a low-cost material and method, one that permitted the client to fabricate and erect a home with minimal assistance from a contractor. In AUTOMATIC, artist Jesse Colin Jackson and architect Luke Stern have reinterpreted the procedures and results of Wright’s historical endeavor as a gallery installation.

The main component of the installation is one or more hypothetical segments of an Automatic home, assembled from historically accurate pre-cast concrete blocks generated from reverse-engineered formwork, as shown in Figure 1. Three examples of the individual units are depicted in Figure 2. The smallest assembled area that adequately represents the original system’s intentions and flexibility—and the dimensions of the first gallery installation of this work, which took place at the Larry Wayne Richards Gallery in 2009—is 10’ long, 6’ wide, and with 6’6” clearance below the ceiling blocks. Figure 3 depicts this first installation.

Figures 4 and 5 depict possible scales for new hypothetical segments at the Museum of Modern Art: 10’ x 6’ with 7’6” clearance, and 10’ x 10’ with 9’6” clearance. As shown in Figure 6, these would be assembled around an engineered steel frame, concealed with “Cherokee red” floor components and simulated grout. (For clarity, several details are omitted from this diagram: the stiffening members required on the top of the frame, and the fasteners that assemble the frame and affix the ceiling components.)

The most efficient way to execute these new segments is in Jackson’s studios in Los Angeles, California, as this eliminates or reduces the costs associated with studio rental, studio assistants, CNC milling, and travel between LA and NYC. The following page outlines a (very) rough estimate of the costs associated with the new segments.

One of the primary artistic motivations for this project is to create an expression of the client labor Wright originally proposed as a cost savings measure. Not shown are the costs associated with a short film that would be created during the fabrication process. The working title of this film is “William and Elizabeth Tracy,” and it will depict the studio assistants casting the concrete blocks in homage to the efforts of the Tracys over 60 years ago. These costs will be borne by the creators.

*Jesse Colin Jackson is a Canadian artist based in Southern California, focused on object- and image-making as discursive modes of architectural production. Jackson is a professor of art at the University of California, Irvine. Luke Stern is the Manager of Design Research at Patkau Architects in Vancouver, where he led the winning entry in the Cottages at Fallingwater competition.*

Shared Costs

3D printed prototypes	\$0	(in-kind by UC Irvine)
Steel frame design:	\$2500	
Marine plywood formwork:	\$2500	
CNC milling time:	\$1000	(partially in-kind by UC Irvine)
Concrete mixer and small tools:	\$500	
Studio rental	\$0	(in-kind by UC Irvine)
Studio assistants	\$2500	(UC Irvine students; 1 month)
LA to NYC travel (2 trips):	\$2000	(some accommodation in-kind)
Contingency	\$2500	
 Subtotal:	 \$13,500	

Small Segment (10' x 6' x 7'6"; 58 blocks)

Concrete (cement, sand, colorant):	\$4000	
Steel frame fabrication:	\$4000	
Studio assistants	\$3750	(UC Irvine students; 1.5 month)
LA to NYC shipping	\$3750	10,000lbs
Contingency	\$3000	
 Subtotal:	 \$18,500	

Large segment (10' x 10' x 9'6"; 120 blocks)

Concrete (cement, sand, colorant):	\$6000	
Steel frame fabrication:	\$6000	
Studio assistants	\$5000	(UC Irvine students; 2 months)
LA to NYC shipping	\$6000	20,000lbs
Contingency	\$4000	
 Subtotal:	 \$27,000	

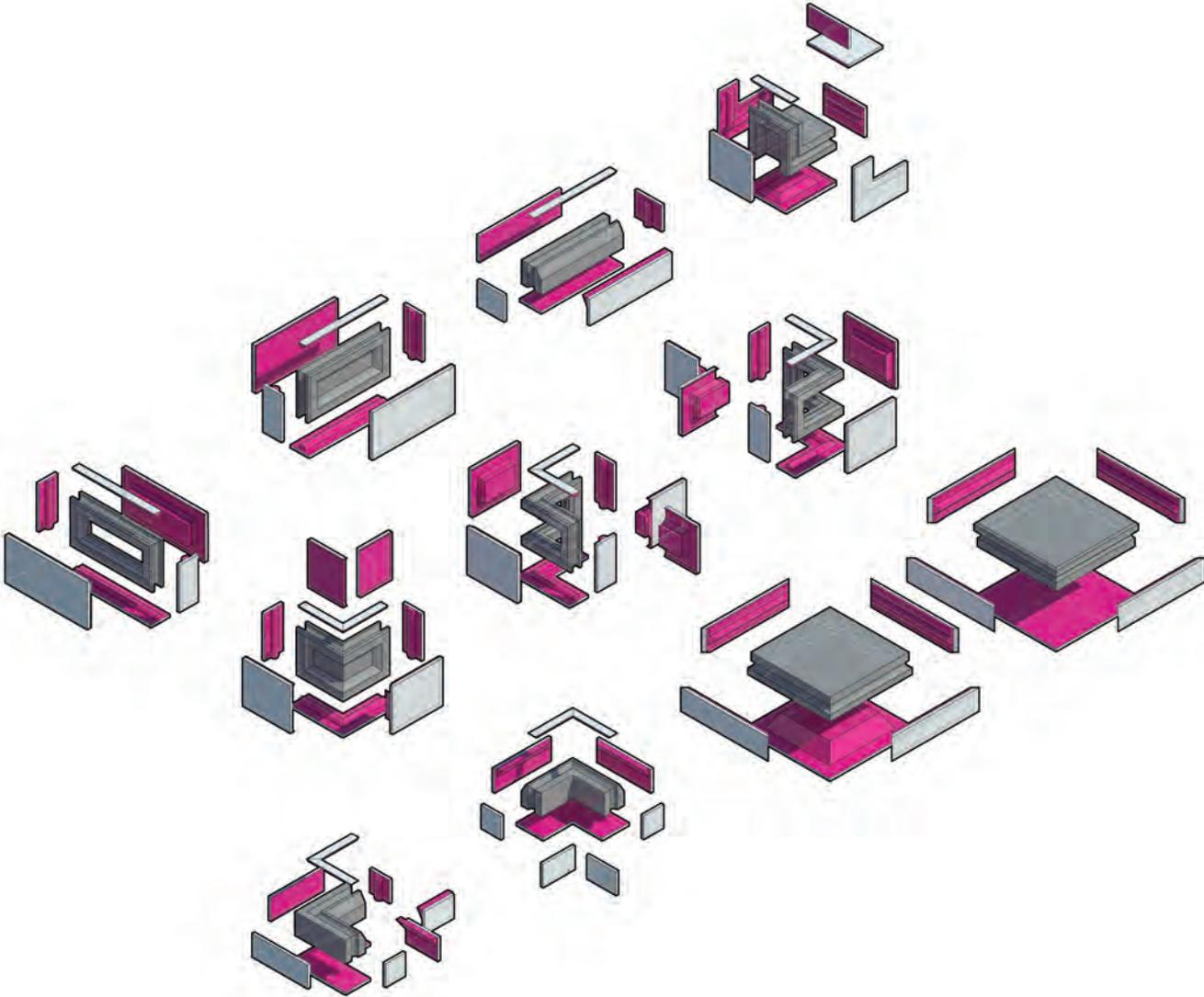


FIGURE 1



FIGURE 2

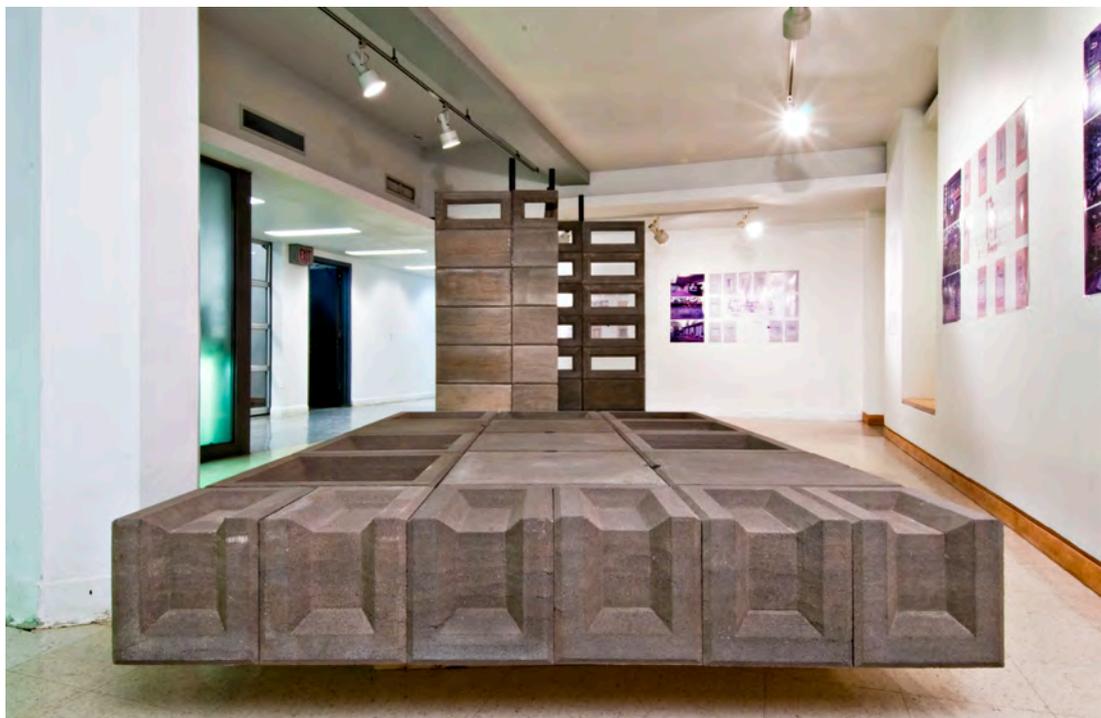


FIGURE 3



FIGURE 4



FIGURE 5

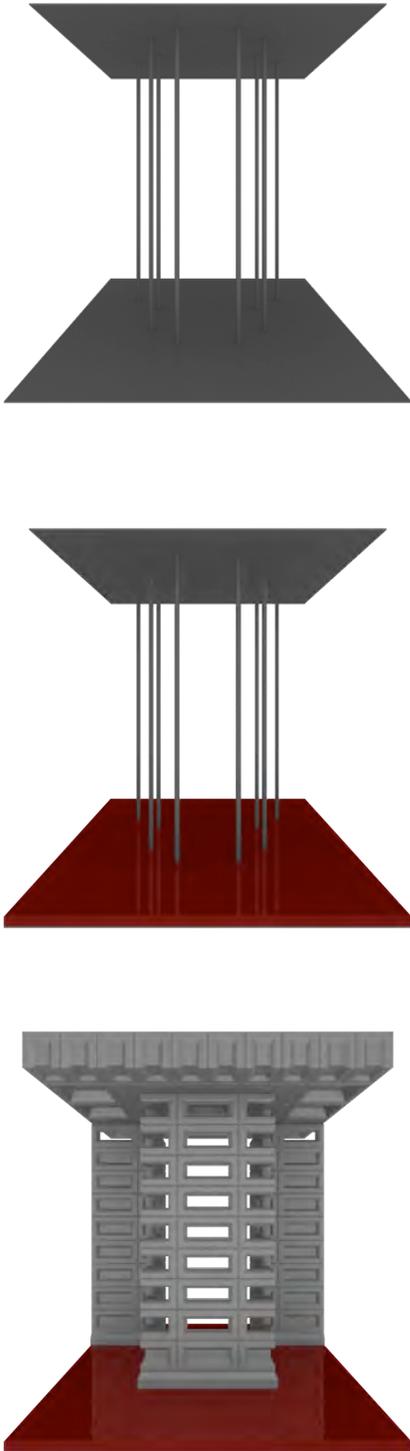


FIGURE 6



21st International Symposium on Electronic Art  
Vancouver, Canada

Dear applicant,

Thank you for submitting your artwork to ISEA2015 to be held August 14 - 18, 2015 in Vancouver, Canada. In this round we received over 600 amazing submissions and the process of review was highly competitive. We are happy to let you know that your work has been shortlisted for the main exhibition at ISEA2015.

**PROCESS:**

Our process now is to begin a secondary review and to start to shape the exhibition and programming in relation to factors such as symposium events, external partnerships, budgets, and space constraints. In some cases we may require further information from you and if this is the case we will be in touch directly in the coming days.

**TIMELINE:**

We expect to complete this final stage of review in October.

**PAPERS, POSTERS and PANELS**

You may also wish to submit in one of the following categories, which has a deadline on December 20, 2014: long art or research papers, short art or research papers, extended abstracts with demonstration or poster presentation, art or research demonstrations, panels, workshops or tutorials. Full information about these calls can be found on our website: <http://isea2015.org/call-for-proposals/papers-posters-and-panels/>

Again, thank you very much for your interest in ISEA2015 and we look forward to seeing you in Vancouver for what promises to be an amazing event. We will have more news for you about final results soon.

Best,

Kate Armstrong and Malcolm Levy  
Artistic Directors, ISEA2015

[www.ISEA2015.org](http://www.ISEA2015.org)



Office of the Dean  
T 416 978 3089 F 416 971 2432

Thursday, September 24, 2009

Mme. Anne Lacaton  
Lacaton & Vassal Architectes  
206, Rue la Fayette  
F-75010 Paris  
+33 (0) 1 47 23 49 09  
[www.lacatonvassal.com](http://www.lacatonvassal.com)  
[lacaton@lacatonvassal.com](mailto:lacaton@lacatonvassal.com)

**Re: Jesse Jackson – Prix de Rome in Architecture for Emerging Practitioners**

Madame Lacaton,

As Dean of the John H. Daniels Faculty of Architecture, Landscape, and Design at the University of Toronto, I am writing to you to request a "stagiaire" position at your office, partially funded by the Government of Canada, for an exemplary recent graduate of our Master of Architecture program.

Every year, the Canada Council for the Arts, Canada's public funding agency for arts and culture, awards the Prix de Rome in Architecture for Emerging Practitioners to a recent graduate from one of Canada's ten professional schools of architecture who demonstrates exceptional potential in contemporary architectural design. The prize recipient will have the opportunity to broaden his or her knowledge of contemporary architecture culture by visiting a selection of works of architecture. The recipient will also be able to expand his or her professional skills through an internship at an internationally acclaimed architectural firm, anywhere in the world. Daniels has selected Jesse Colin Jackson as our candidate for this prestigious prize, and he has expressed interest in fulfilling the internship requirement at Lacaton & Vassal if he is the chosen graduate. The last two winners of this prize have been from Daniels, and we have high hopes that Jesse will continue this successful trend.

Jesse was one of the strongest students in our 2009 Master of Architecture graduating class. His performance in design studios was consistently outstanding, and through his parallel interest in photography, he has established an equally impressive publication and exhibition record. As winner of the 2008-2009 Howarth Wright Fellowship, one of Daniels' most significant awards, Jesse meticulously reconstructed Frank Lloyd Wright's Automatic system of residential construction, and results from this project were featured in the Globe and Mail, Canada's national newspaper of record. Jesse is also an instructor at the Ontario College of Art & Design, one of Canada's leading school of visual arts and design. His emerging experimental practice is summarized at his website, [www.jessecolinjackson.com](http://www.jessecolinjackson.com). A draft of Jesse's Prix de Rome submission, included below, describes his proposed research travels documenting and analyzing experimental housing projects worldwide, research that he proposes to culminate with an

internship at your distinguished practice. The results of his research and internship would then be disseminated to the architectural community and the greater public back in Canada.

In order to fulfill the requirements of the competition, Jesse requires a letter of offer of employment from your firm by September 28, 2009. The dates and duration of the proposed internship, currently listed as occurring between September and December 2010, are flexible. Jesse speaks French readily, has excellent design skills and sensibilities, is an exceptionally thoughtful and diligent worker, and would be an ideal candidate for temporary employment in your office. He selected your firm as a result of the deep resonance he perceived between his values and yours after seeing your lecture at Daniels earlier this year and his subsequent explorations of your website and your publication "Les grands ensembles de logements - Territoires d'exception." I whole-heartedly support Jesse's selection, recommend him to you without reservation, and would be happy to answer any questions you might have about him.

Dans l'attente d'une réponse favorable, veuillez accepter, Madame Lacaton, l'expression de mes sentiments les meilleurs.

Sincerely,



**Richard M. Sommer**  
Dean

cc: Jesse Jackson

Enc.

--

*Prix de Rome in Architecture for Emerging Practitioners Application  
Partial Draft  
Jesse Colin Jackson  
August 26, 2009*

*My architectural design interests manifest themselves as two interlocking critical practices operating at complementary scales and employing complementary methodologies. The first is a highly constructional, experimental and activist practice, focused on the research, design and implementation of innovative yet pragmatic architectural components and details that directly engage issues surrounding cultural, environmental and economic sustainability, emergent tools and technology, rapid-prototype fabrication, and material exploration. The second is a photography-based fine-art body practice in which theoretical ideas about the broader contextual implications of built form are explored. The critical specificity of the former practice is supported by the reflective synthesis of the latter practice; both have been extensively exhibited and published, as demonstrated by my support material. My Prix De Rome proposal, described below, furthers my engagement with these parallel streams on an international stage.*

*Housing is highly expressive of the norms of a given culture, the performance requirements of a given environment, and the restrictions of a given budget, and this typology is a primary vehicle for architectural experimentation at the boundaries of these constraints. The global cross-pollination of contemporary architecture has led to strong commonalities of diagram, form, and image, but local forces -- building codes, local precedents, contractor capabilities and material availability, to name a few -- have led to widely divergent components, details and ultimate aggregate results. It is in this constructional resolution that specific, reproducible, and mutable insights into superior built forms can be found, insights that propel the discourse of sustainability in design. My project aims to investigate, through a refined evolution of the critical lenses I have developed previously, the constructional details and synthetic resolution of a focused and nationally relevant selection of international experimental housing projects, and subsequently disseminate the results across Canada through presentation and exhibition.*

*My project will consist of two simultaneous critical explorations. I propose to research and evaluate, through direct observation and analytical drawing, the components and details of sixteen recent experimental housing projects, listed below, in order to determine how these buildings respond to the qualitative and quantitative exigencies of construction.*

*The locations of the projects -- Great Britain, northern continental Europe, Scandinavia, Russia, northern China and Japan -- have been selected on the basis of their combined cultural and climatic connection to Canada. They represent a cross-section of some of the traditions that combine to create our nation and the climates that exist between the 41st parallel and the inhabited Arctic. Each of these projects will be paired with a conventionally designed and programmatically analogous control project located nearby, to reveal the constructional differences between a generic, normative solution and the experimental, aspirational one. In parallel, I will produce a series of consistently composed large-format photographs of both the experimental and the normative projects, in order to capture the synthetic resolution of both approaches within their common context. This context will link the projects both visually and conceptually, and their apparent differences will further expose the implications of the critical experimental approach. These two critical lenses -- analytical reconstruction of essential details, and compositionally consistent typological studies, with an emphasis on context -- are well developed in my previous bodies of work. This project will reconcile a critical regional*

sensibility with the conflicting reality of Canada's heterogeneous, multicultural inhabitants and widely varying environmental conditions by generating a set of archetypes for use as a point of departure when determining an appropriate response to comparable Canadian confluences of forces. The resultant paired diptychs of drawings and photographs will be curated as a gallery exhibition and public presentation, which I propose to travel to major centres across Canada at the conclusion of my tenure as the 2009 Prix de Rome prizewinner. These initiatives will convert my project into a resource for experimental architects and the general public, by providing a rigorous examination of a wide variety of sustainable housing experiments extant internationally that are directly applicable as prototypes for our own nation.

Following the traveling phase of my project, I propose to complete an internship working on experimental housing projects at Lacaton et Vassal, a French firm of rising international stature renowned for the pragmatic poetics and political engagement of its residential solutions. These range from a poignant experiment in treading lightly at Cap Ferret, where the existing trees pierce a decidedly unsentimental seaside home, to the publication *Les grands ensembles de logements - Territoires d'exception*, which explores alternatives to the demolition of decaying apartment blocks in France: "Dans ce contexte, nous pensons que la démolition est aberrante et que la transformation permettrait de répondre aux besoins de façon plus économique, plus efficace et plus qualitative. . . Les capacités structurelles, géographiques et spatiales de ces grandes constructions sont, le plus souvent, un point de départ valable pour améliorer radicalement les conditions d'habitation actuelles." In the catalogue of a 2004 exhibition of their work held at the Architectural Association in London, Lacaton et Vassal noted that "Architecture will be straightforward, useful, precise, cheap, free, jovial, poetic and cosmopolitan. It'll be nice tomorrow." This optimistic, radically pragmatic attitude resonates with my own values, with my work to date and with the types of built form I believe that Canada needs. Lacaton et Vassal build almost entirely in France, and the cultural specificity I will experience while working with them will serve a valuable control function: by temporarily fixing the qualitative cultural constraint relative to the quantitative environmental and economic constraints, any misconceptions regarding the inter-relationship between the three that I observe during the first phase of my project will gestate and emerge.

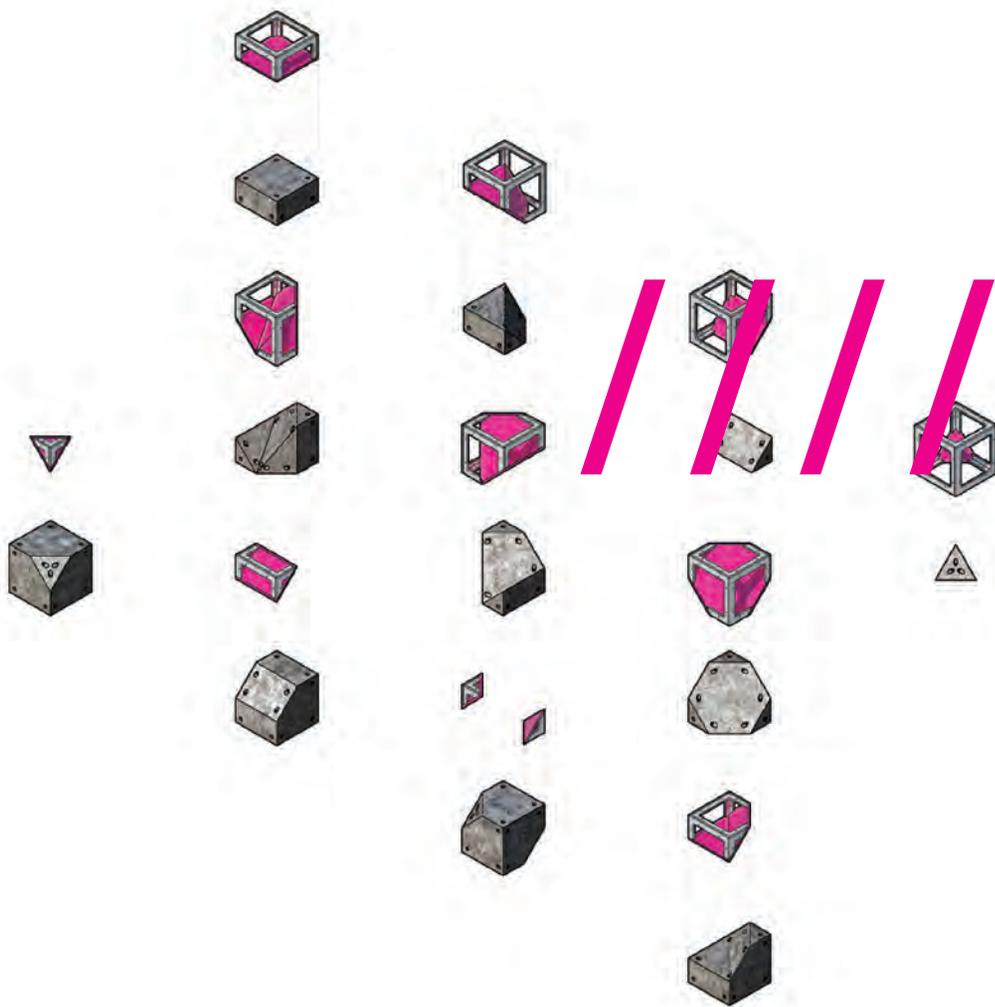
By examining the work of leading practitioners in cultures that exhibit climatic extremes comparable to ours, under a variety of economic conditions, through well-developed critical lenses, my ability to generate comparably accomplished work in the future will be enormously improved. By interning at Lacaton and Vassal, a culturally singular example of values that I espouse, these abilities will be tested and consolidated. Following my tenure as the Prix de Rome prizewinner, I will continue my existing commissions to design two homes with experimental programs and modest budgets program in two different Canadian climates; my ongoing research into the rehabilitation of concrete apartment towers in Toronto, and my teaching commitments at the Ontario College of Art and Design. These projects, and all subsequent ones, will be invaluablely informed by my Prix de Rome experience.











////////////////////  
**AUTOMATIC /  
REVISITED**  
////////////////////

January 19th – February 16th 2013

Automatic/Revisited is an ongoing exploration of the physical  
creation and philosophical implications of experimental unit-  
based construction systems.

Jesse Colin Jackson  
Luke Stern

////////////////////////////////////  
**AUTOMATIC /  
REVISITED**  
////////////////////////////////////

.....  
The 1<sup>st</sup> part of the installation, Automatic, deconstructs and reconstructs the assembly of concrete blocks used by American architect Frank Lloyd Wright in a series of 1950s family homes. With these homes, Wright demonstrated how a system of modular architectural units could be designed in advance of the building in which they were to be used, and how these units could produce not just one but a remarkable variety of compelling buildings.

.....  
The 2<sup>nd</sup> part of the installation, Revisited, reinterprets Wright's intentions and forms. Just as Wright responded to design imperatives of his time, this evolution responds to contemporary desires. By employing the logic of an existing computer graphics algorithm, a new system of concrete units was developed with greater creative freedom and environmental performance than Wright's original conception. Again, the system does not anticipate any specific building, instead suggesting a variety of possible end results—or even multiple end results, as the new system is designed for disassembly and reassembly.

.....  
*These construction systems each permit buildings that are responsive to specific sites and programs. Similarly, the installation responds to the gallery's dimensions and the location of the audience: the repeated symmetries and opposing placement of the Automatic and Revisited systems creates a dialogue between two progressive ideas in architecture, past and future.*  
.....

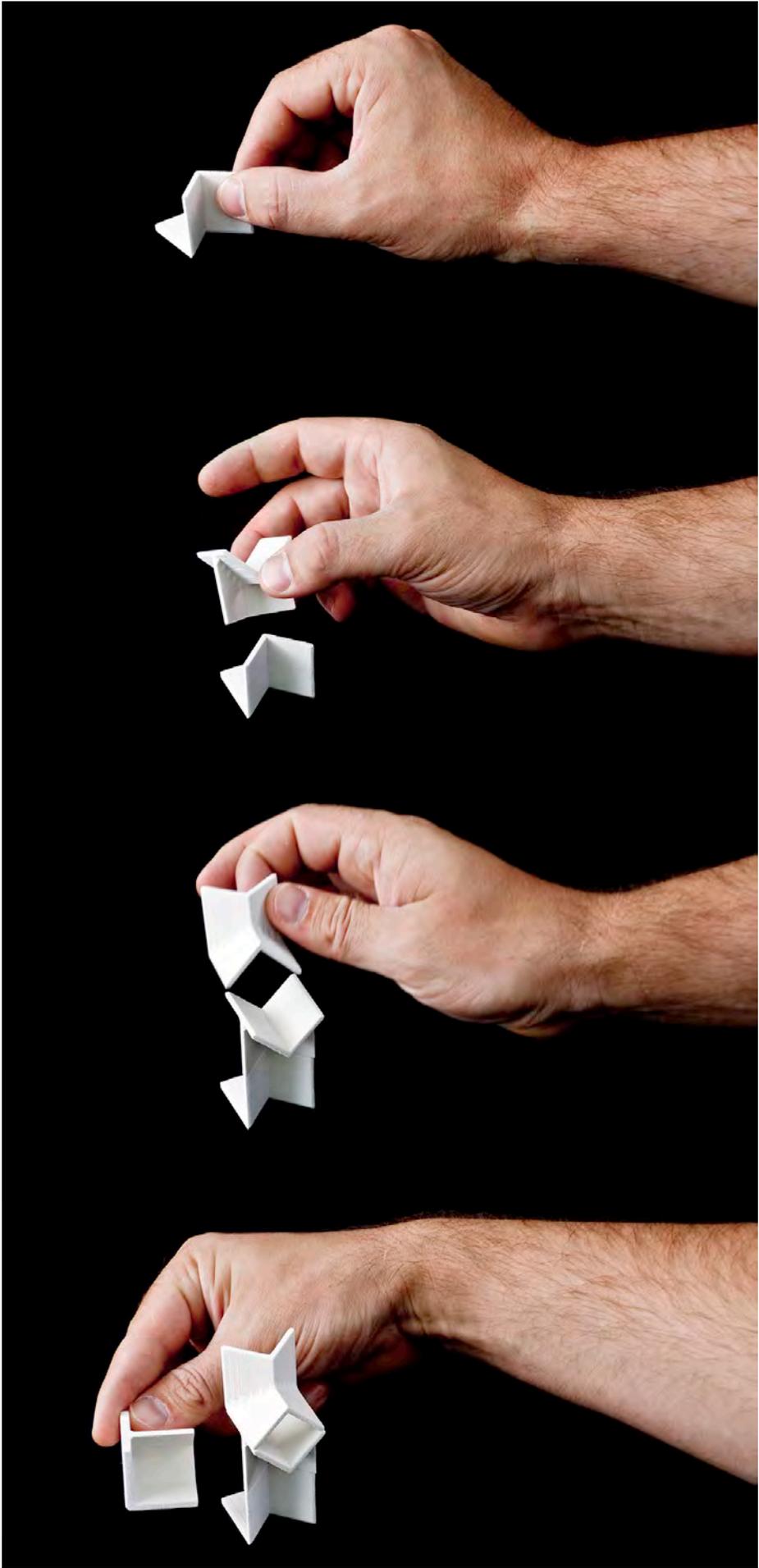
www.jessecolinjackson.com    Latitude 44 Gallery  
2900 Dundas Street West  
Toronto, ON  
416.769.2900

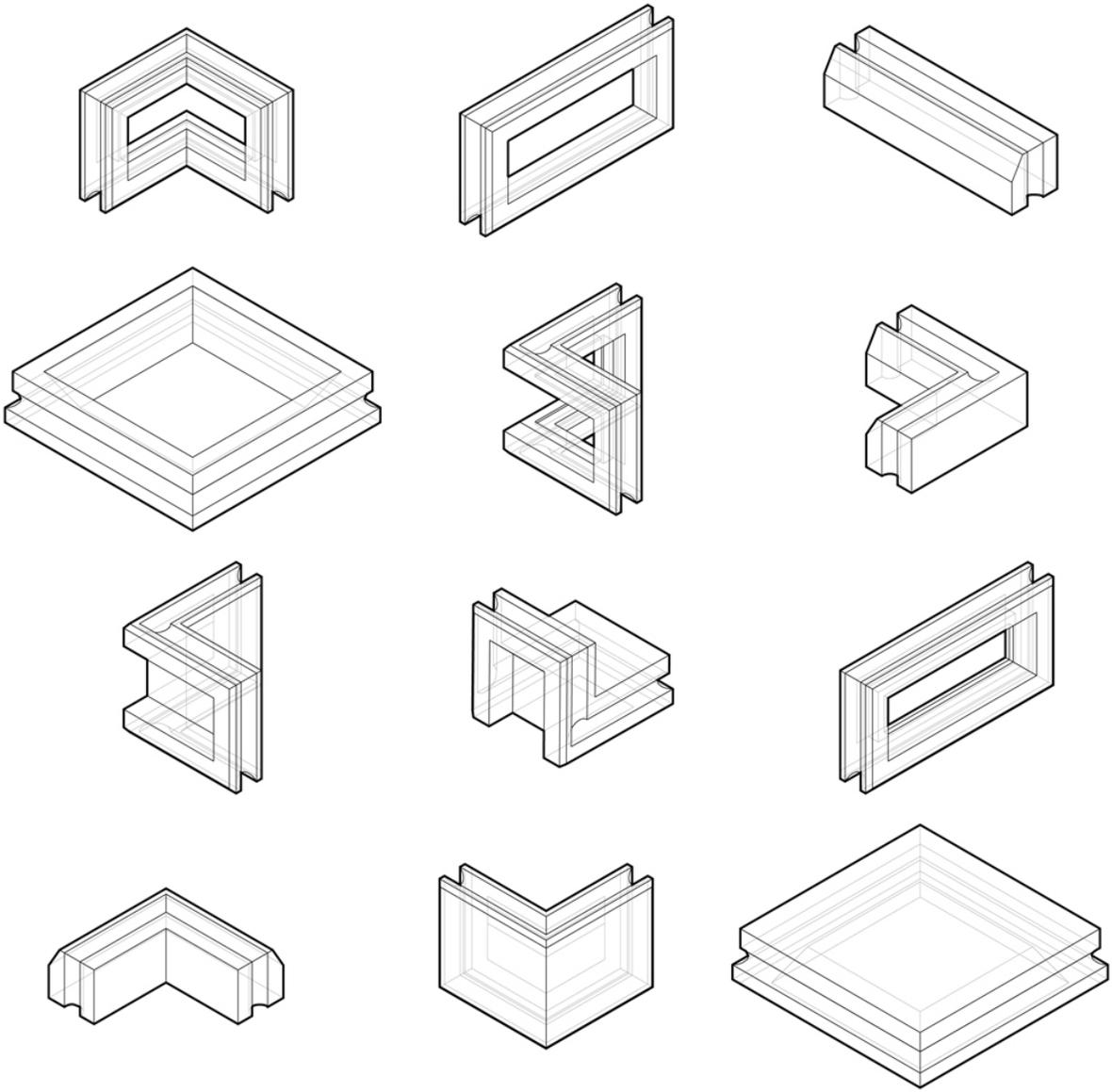




fabricating  
sustainable  
concrete  
elements





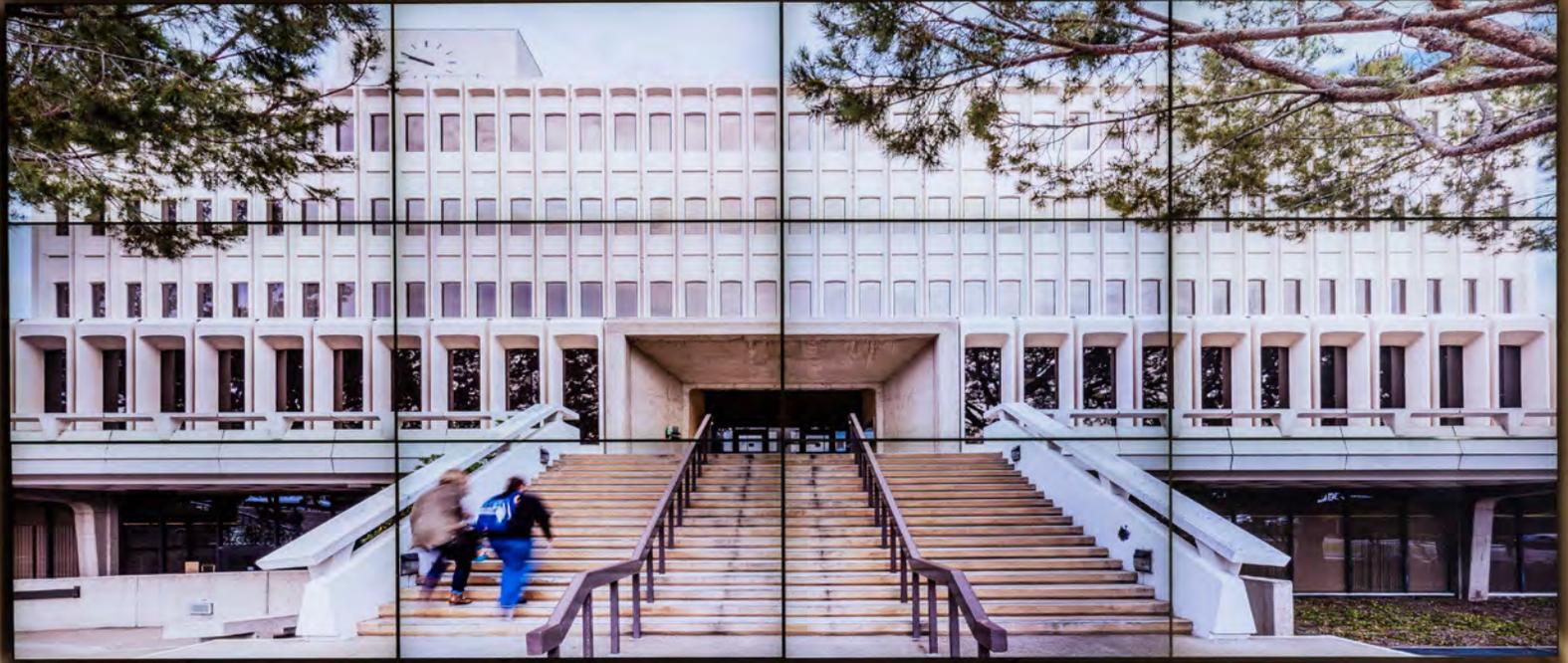


**AUTOMATIC**  
January 12-23, 2009  
Larry Wayne Richards Gallery  
John H. Daniels Faculty of Architecture, Landscape, and Design  
[www.howarthwright.blogspot.com](http://www.howarthwright.blogspot.com)















# TORONTO 2020

*Where Will  
We Live?*

Over the last few decades, Toronto has become a city of towers. Is it a great accomplishment or great step backwards?

What is ahead?

BOOM  
BUST  
BOOM!?!?

HOW HIGH  
WILL WE GO?

ARE WE  
DESIGNING AND  
LIVING SMART?

## TOWER LIVING



## SMART LIVING





Small white informational card or label.

Small white informational card or label.

# Digital Promises

The promises of digital design have been made: flawless repeatability, effortless customization and a new wave of shapes and motifs never before possible. But turning a digital model into material reality requires more than pushing <START>.

Explore both the processes and products of designers pushing the boundaries of their digital tools. This exciting collection, composed primarily of furniture and jewelry, gives a rare window onto the methods and work-spaces of Toronto and international designers who represent the leading edge of digitally-mediated production.

**CAD / 3D Printing / CNC Machining /  
CNC Laser Cutting / Parametric Modelling**

## Featuring

Adrian Bica, Bin Dixon Ward, Ian Devenney, Scott Eunson, Arthur Hash, Jesse C. Jackson, J.C. Karich, Paul McClure, Heather Montgomery, Briar Murawski and Sean Grounds, Gregory Phillips, Greg Sims, Stacklab and Rob Southcott.

## Artscape Triangle Gallery

38 Abell St. Toronto, Ontario  
January 21–26, 2014

### Hours

1–8pm daily

### Opening Night

Friday, January 24 | 6–11pm

### Artist Presentations

Tuesday, January 21 | 6pm

Saturday, January 25 | 4pm

### Press Preview

Thursday, January 23 | 4–6pm



[www.digitalpromises.org](http://www.digitalpromises.org)



<making it real>



# Iterations

Tori Foster & Jesse Colin Jackson  
May 1-31, 2010  
Arepa Café

[torifoster.com/iterations](http://torifoster.com/iterations)

WORKSHOP

# MING MODERN

OPENING JANUARY 23, 2010, 5-8pm

Andrew Jones, *Toronto*  
Blanc de Chine, *Hong Kong*  
Brent Cordner, *Toronto*  
Elena Manferdini, *Los Angeles*  
EXH Design, *Shanghai*  
Gord Peteran, *Toronto*  
Jesse Jackson, *Toronto*  
Katherine Xiao Kejia, *Beijing/Washington DC*  
MAP Office, *Hong Kong*  
Morris Lum, *Toronto*  
Neri & Hu, *Shanghai*  
Yu-Ting Aixinjueluo, *Vancouver*  
University of Toronto Architecture Students

Larry Wayne Richards, *Curator*

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# Cao Chang Di

Jesse Colin Jackson | May 1-25, 2008 | Gladstone Hotel, Room 213

CURATED BY JESSE JACKSON AND GREG SIMS



# < making

# it

# real > \*

May 14–28, 2013

OPEN GALLERY

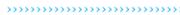
Oct 21–Nov 12, 2013

MUSAGETES ARCHITECTURE LIBRARY

Jan 20–26, 2014

ARTSCAPE TRIANGLE GALLERY

\*a juried exhibition of digitally fabricated objects



**MAKING IT REAL** is a juried exhibition of digitally fabricated objects curated by Jesse Jackson and Greg Sims. Virtual objects, submitted electronically from around the world are 'made real' locally using a variety of

Andy Belscherby  
Doug Boyd  
Bill Dixon-Wood  
Dad Sun  
Marie Elie  
Nick Erntick  
Frankie Flood  
Arthur Haas  
Dustin Hendley + Pat Nelson  
Shobana Houston + Hannah Rhodes  
J.C. Karkis  
Jesse Jackson + Labe Stern

3-D printing technologies. **Making It Real** showcases innovative designs for jewelry, product design, fine art, and other small objects that take maximum advantage of direct digital manufacturing.

Francis Lebertheller  
Paul MacCarty  
Heather Montgomery  
Nervous System  
Greg Phillips  
Baboon Jamak  
Gabriela Sulfman  
Saul Schlemmer + Henry Segerman  
Greg Sims  
Caitlin Shockey  
Jim Smith  
Williamson Chang



makingitreal.ca

The Speculative Prototyping  
Lab, University of California,  
Irvine (Jesse Jackson)  
Author

Speculative Prototyping:  
Making Plastic Printing  
Sustainable and Playful  
Project

2015-2016  
Year

#play #play #extrude  
Format Theme Action

Playful and sustainable  
potentials of 3D printing  
pedagogy

# SPECULATIVE PROTOTYPING: MAKING PLASTIC PRINTING SUSTAINABLE AND PLAYFUL





### The Speculative Prototyping Lab

The Speculative Prototyping Lab at the University of California, Irvine (UCI) pursues projects at the intersection of media art and speculative design in collaboration with artists, designers, engineers, scientists, humanists and the general public. Two recent Speculative Prototyping Lab projects, pursued by multidisciplinary design teams of undergraduate students and faculty mentors from six different programs of study hosted by three different academic units, are addivist in nature. One is focused on Making Plastic Printing Sustainable. The other group is focused on Playful Fabrication: Envisioning the Future of 3D Printing. Both groups are focused on how we should make in the future instead of what we can make in the present: the first on the

nuts and bolts of what might make the addivist process sustainable or at least less wasteful; the second on what playful potentials remain untapped and point to future opportunities.

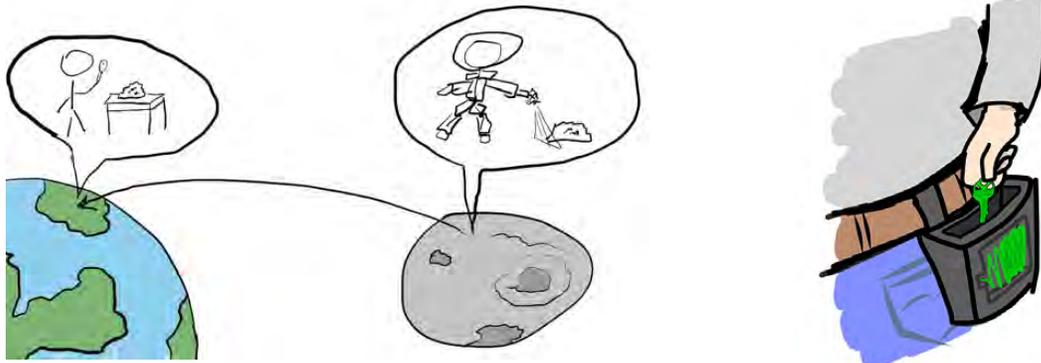
### Making Plastic Printing Sustainable

While 3D printing based on the fused deposition of polymer filament is not new, they are now readily available at various price-points in the consumer market. This proliferation was initiated in the do-it-yourself community by the open-source RepRap project in 2005, and further popularized by a variety of commercial enterprises. A possible negative byproduct of more ubiquitous 3D printing would be an era of physical spam, marked by the production of what the Institute for the Future has called "a large number of objects of

infinitesimally small value." Spam or not, these objects are creatively empowering, providing consumers with opportunities for personal expression previously only available to experts.

Though its publication predates the rise of these technologies, Braungart and McDonough's *Cradle to Cradle: Remaking the Way We Make Things* provides a useful framework for considering how the deleterious effects of physical spam might be offset. Their concept of technical nutrients—materials that remain within closed-loop cycles—is particularly pertinent, given that the two most common materials used in consumer-oriented 3D printing, acrylonitrile butadiene styrene (ABS) and polylactic acid (PLA), are each proven candidates for cradle-to-cradle processes.

Making Plastic Printing Sustainable



is a Speculative Prototyping Lab project focused on showing how today's technologies—waste plastic recovery, custom filament extrusion, and human kinetic energy—can be integrated into the nutrient workflow of tomorrow, in which the objects they make are continually upcycled, physically and creatively, into new and improved objects. The team has assembled, tested, and refined a mobile demonstration of what additivism might look like in a future condition that is sensitive to pollution, challenged for resources, or both.

### Playful Fabrication: Envisioning the Future of 3D Printing

We now have the opportunity to put 3D printers on our desktops. The vast majority of the use cases put forward for doing so are functionalist and utilitarian. This parallels the early days of the personal computer, where the emphasis was on technical uses for calculations and algorithms, and only when computers could be used to make music, create documents, and play games did a compelling narrative for a computer in the home emerge. Core to this transformation was a shift away from command-line interfaces and applications designed for engineers and programmers, towards programs that made the technology accessible to everyday users.

Playful Fabrication: Envisioning the Future of 3D Printing is a Transformative Play Lab project that seeks to challenge practical

approaches to 3D printing by conceptualizing and prototyping experiences that illustrate the untapped expressive power these technologies might permit. Co-hosted by the Speculative Prototyping Lab, the team has envisioned over thirty "playful futures" for 3D printing ranging from the silly (a printer fueled by human waste) to the far reaching (a printer that takes signals from probes on alien worlds and recreates extraterrestrial objects on Earth).

More recently, the team is developing Terraform, a civilization-building online strategy game that explores an explicitly playful use case of personal fabrication technology. The current prototype of Terraform uses the Unity 3D game engine to communicate gCode commands to a Printbot Play. The 3D printed building units that result function as fiducial markers for an augmented reality system, allowing the player to track the colony's status by viewing the units through a tablet. This proof-of-concept for a more playful future suggests several directions for additivism that are currently underexplored, including direct communication between different virtual platforms, and printed objects used as characters in a language.

### Critical and Pedagogical Intentions

The critical intentions of Sustainable Prototyping Lab projects are not instrumental. They do not propose to solve

a problem, and though these outcomes are not necessarily unwelcome, they are not oriented towards commercialization or entrepreneurship. For example, while Making Plastic Printing Sustainable successfully demonstrates how additivism might become less wasteful, the design of the vehicle for demonstration—a mobile, participatory, bicycle-powered assembly, installed as public art—prioritizes maximum provocation over efficient function. Playful Fabrication operates in an explicitly conjectural mode, brainstorming as far away from current practice as possible, and circling back towards an unforeseen opportunity. Pedagogically, these ways of working permit students to explore multiple hypothetical futures, rather than orienting themselves towards a narrow vision constrained by commerce, capital, the current capabilities of technology, and other false limitations. Their speculative prototypes to date suggest that the future of additivism is mobile, sustainable, playful, and fun.

Extra Credits: Jesse Colin Jackson, Speculative Prototyping Lab, Claire Trevor School of the Arts in collaboration with Josh Tanenbaum, Karen Tanenbaum, & Michael Cowling, Transformative Play Lab, Donald Bren School of Information and Computer Sciences, Mark Walter, Henry Samueli School of Engineering, University of California, Irvine and the following undergraduate students William Amos (Environmental Engineering), Amihan Amargo (Mechanical Engineering), Tina Chau (Art), Tom Chen (Computer Science, Electrical Engineering), Patrick Chung (Mechanical Engineering), Aaron Hilado (Art), Jard Hsu (Computer Science), Aldrin Lupisan (Environmental Engineering), Amanda Ortscheid (Computer Science, Anthropology), Ethan Pen (Mechanical Engineering), Eunji Russ (Art) funded in part by The California Institute for Telecommunications and Information Technology

Alomar  
Atkinson

## V. Terreform ONE

Bernbaum & Plaxton  
Blackwell  
Bogdanowicz  
Bowes  
Bresler  
Briker  
Brown & Storey

Colangelo & Davila  
Constable & Turnbull

Danahey  
Desai  
Diamond

Ebrahim  
EVERGREEN

## III. Peter Hall

Fard & Jafari  
Foster

Gloushenkova & Murray  
Gray

Hinds, Hastrich & Clarke

Ingram

Jackson & Bell

Kapelos  
Khamisi

## I. Teddy Cruz

Lee  
Lister

Margolis  
McCartney  
Montgomery & Roberts

NO.9

Ormston-Holloway

Pearson  
Przybyloki

Sarmadi  
Schneider  
Schwartz  
Sheppard

Solow-Ruda & Wilson  
SPACING  
Stewart

Talbot

WATER FRONT  
Whitehead

### Edited by

Jesse Colin Jackson

Roderick Grant

Patricio Davila

# Urban Ecologies

2013



PRESENTATIONS /

# Urban Ecologies

2013

**Edited by**

Jesse Colin Jackson  
Roderick Grant  
Patricio Davila

**Designed by**

David Caterini  
Chris Lange



**Jesse Colin  
Jackson**

## **What Are Urban Ecologies?**

“ It isn’t easy to reinvent a city. Cities are made of reinforced concrete, brick and metal. Office towers and subway tunnels don’t yield readily to the forces of change. Highways and sewer systems don’t lend themselves to metamorphosis. The biggest impediment to transforming a city, though, is not a physical limitation: it’s the inertia that comes from historical legacy and a mentality of resignation. In other words, if a city is perceived in a particular way, it takes a tremendous amount of energy and inspiration to reimagine it as something radically different and better. ”

David Miller, Mayor of Toronto, 2003-2010

Urban environments are the location or destination of an increasing proportion of humanity. The urgent need for cities to achieve a sustainable balance between human impact and environmental resilience is motivating the consideration of ecology as a source of new theoretical, methodological, and metaphorical directions. Ecological approaches to the design of urban environments appropriate the complex, multivariate, and interdependent — yet innately balanced — characteristics of natural systems. In considering cities as urban ecologies, designers must reconcile multiple interlocking imperatives, such as social needs and desires, cultural norms and aspirations, economic restrictions, the allocation of natural resources, and aesthetics.

Urban ecologies operate dynamically across time and space: qualities that challenge the static two-dimensional logic of conventional design methods and instruments. Urban ecology *ideas* are also dynamic, informed by other theoretical frameworks including systems thinking, sustainability, biomimicry, inclusive design, active living, community engagement, and big data. A close examination of the relationships between ecology and urbanity has the potential to result in strategies and solutions that equip us to design sustainable, inclusive, healthy, engaged, and resilient cities.

Urban Ecologies 2013 is the first in a series of OCAD University conferences and publications intended to propel the creation of knowledge by, and foster collaborative connections between, urban ecologies thinkers and practitioners. These initiatives emerged as a response to OCAD University’s geographical position within the heart of a metropolis, and as an extension of the Faculty of Design mission statement: to create objects, communications, environments and experiences that nurture community, humanize technology, satisfy human needs and empower the individual; and to achieve the maximum quality of experience for people for each ecological unit consumed in its creation, production, and use.

As a conference, Urban Ecologies 2013 was organized around five intersecting themes, representing a spectrum of activities that contribute to the urban ecologies perspective. We called for design activities, realized or speculative, that examined the impact of emerging categories of research and practice that are shaping the future of design in our cities: **visualizing information, thinking systems, regenerating cities, building health, and creating community.**

**1****Visualizing Information:**

Using advanced visual strategies to improve our understanding of data-intensive human and non-human urban activity.

**How can we see the city?****What challenges do new methods for representing urbanity create?****How can under-represented people, places and processes gain a voice?**

Cities are host to multiple interlocking environments, infrastructures, connective networks and patterns of information. The relationships between these elements are challenging to observe and describe. The Visualizing Information theme called for data-driven design strategies that create the potential to exploit these complex relationships.

**2****Thinking System:**

Applying knowledge of the urban environment's complex and dynamic patterns of exchange to design stronger communities.

**How does the city work?****How are the components of urban ecologies interdependent?****How can systems thinking approaches be used to create stronger communities?**

Cities are systems, comprised of interconnected and interdependent dynamic components. Understanding this interplay is essential if we are to operate across physical, jurisdictional and disciplinary boundaries. Thinking Systems seeks methods that productively examine the city through a systems thinking lens.

**3****Regenerating Cities:**

Developing regenerative urban design strategies to create restorative relationships between cities and their surrounding environments.

**How can we sustain the city?****How does our understanding of nature inform the design of cities?****How can cities become net contributors to the ecological systems they inhabit?**

In the face of decaying infrastructure and resource depletion, city builders have begun to take inspiration from the self-replicating, symbiotic, and evolutionary characteristics of nature. The Regenerating Cities theme called for regenerative design concepts that contribute to, rather than extract from, local ecological systems.

**4****Building Health:**

Bringing integrated concepts of human health, quality of life and inclusion to the design of the urban environment.

**How healthy is the city?****What are the key relationships between urban form and physical and mental health?****How can the principles of active living be incorporated into the urban design process?**

The intricate relationships between urban form and physical and mental health frequently go unconsidered in conventional design processes. Most health care programs and services are located in cities,

where environments often fail to encourage healthy living. The Building Health theme called for practices that address this ecological paradox.

**5****Creating Community:**

Fostering design partnerships between grassroots and professional communities to co-create sustainable urban places.

**How can we make communities?****Are cities too complex to involve the public?****How can design processes accommodate an ever-increasing diversity of perspectives?**

Directly engaging stakeholders in the design of cities dissolves institutional and disciplinary boundaries, and provides an alternative to conventional processes. The Creating Community theme called for design experiences that are rooted in community participation rather than in established professional relationships.

The themes provided provocations through which otherwise independent segments of the international design community could be engaged. An enduring lesson from the conference, however, was that once presented with the opportunity to cross-pollinate, participants were resistant to being circumscribed by thematic containers. With this in mind, conference contributors were asked to expand on the content presented at the conference for this publication. The results have been editorially released from thematic

categorization, allowing the work to intermingle as it had at the conference. Keynote speakers were asked to elaborate in essay form on the thoughts they had so eloquently provided in person. Also featured are contributions from local partners exploring urban ecologies in professional contexts: a student competition focused on intelligent urban transportation ideas, and from our exhibition partner, Onsite [at] OCAD U. In all cases, the practices represented here are reimagining the city as "as something radically different and better" by proposing innovative design activities that are essential to our urban future.

Jesse Colin Jackson  
May 2015

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# I. Teddy Cruz

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**Teddy Cruz** is Professor in Public Culture and Urbanization in the Visual Arts Department and co-director of the Center for Urban Ecologies at the University of California, San Diego. He has been recognized internationally for his urban research on the Tijuana / San Diego border, forwarding border neighborhoods as sites of cultural production from which to rethink urban policy, affordable housing, and civic infrastructure. His work has been exhibited internationally, including representing the US in the Venice Architecture Biennial, and in various exhibitions at the Museum of Modern Art in New York. He was recently selected as a Social Change Visionary by the Ford Foundation, and received the Architecture Award from the US Academy of Arts and Letters.

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**Urban Ecology,  
Urban Conflict  
and the  
Politicization  
of Design  
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&

**Lindsay Bell**

UNIVERSITY OF NEW YORK AT OSWEGO

**Visualizing  
Canada's  
Urban North**

**+ Visualizing Canada's  
Urban North** informs our  
understanding of circumpolar  
urban life.



(Fig. 1 - Hay  
River Space  
Overlay  
Test #1:  
Porrit Place  
(Disneyland))

Through the production of a series of visual texts, the research tracks the consistencies and curiosities that define northern urban landscapes in several communities in Canada's arctic. The research illustrates the structures of use and occupation in northern urban environments that either connect or distinguish these spaces from their southern counterparts. The research also provides a platform for asking larger theoretical questions about the merits and challenges that new media representational strategies offer the social sciences.

#### **Research context**

In the last fifty years, northern Canada has moved from the periphery to the centre of national attention. Policy realignments, global interests in northern resources, climate change debates, and questions of arctic sovereignty have drawn our gaze northwards. Both at a distance and from within, our understanding of the environmental, sociopolitical, and economic concerns that define 'the North' are mediated by visual information.

While northern landscapes are often depicted as pristine and isolated, a range of external processes and pressures are producing northern locales that are increasingly part of the interconnected global world. This shift has contributed to the rapid urbanization of the north after the 1960s, and to a

striking disconnect between the public imaginary and the lived reality of northern life. As most Canadians never travel north of the 60th parallel, circulated images of northern life are vital to how its challenges are understood.

### Project description

Visualizing Canada's Urban North is creating novel visual information products that communicate under-represented elements of northern urban life. Blending theory from visual anthropology and political economy with innovative information visualization techniques developed in media art and design, the research investigates and expands the role that visual information plays in our understanding of Canadian arctic communities.

The research tracks the consistent patterns and anomalous curiosities that define the urban landscapes in several arctic communities, including Hay River, Watson Lake, and Iqaluit. In capturing the structures of occupation that either connect or distinguish these spaces from their southern counterparts, such as repeated built forms and patterns of movement, the research illustrates how these environments affect and define peoples' sense of place and community.

### Overlays

Overlays, the primary visual technique employed by this research, are experimental methods that simultaneously capture the unique and reoccurring elements of a landscape.

These methods explore the analytic capacity provided by contemporary information visualization practices applied to issues in the social sciences, and generate a visual platform from which to broaden existing public conversations about northern development.

Time Overlays, as shown in (Fig. 1), are composite images that represent the experience of time at a specific site. Each composite is created through the compilation of a linear sequence of information derived from time-lapse photography. The composites are, at first glance, indistinguishable from conventional still photographs, but the dynamic information they contain represents the interactions within a space over a length of time. Each Time Overlay presents, simultaneously, parallel experiential narratives: featured protagonists' actions do not account for the presence of neighbors in time. The method reveals the vitality of the space under scrutiny and creates surreal representations that begin to suggest its defining characteristics.

Space Overlays, as shown in (Fig. 2), are composite images that represent the experience of repeated built forms found at multiple sites. This repetitive information might include tract housing, portable trailers, branded structures, sidewalks and roads, commercial and industrial equipment, parked vehicles, and other urban infrastructure specific to the north. Consistent elements reinforce each other through repetition, while inconsistencies, such as the surrounding environment and



(Fig. 2 - Hay River Time Overlay Test #1: Commercial Road and Woodland Drive (Nothing Going On))

human subjects appear ghost-like. The method reveals how our visual world is organized around architectural anchors, by conflating the self-reinforcement of repeated built forms with the unique circumstances of their surrounding environments.

Moving Overlays are composite video products that combine the qualities of the composite images described above. They can potentially conflate information from both space and time, though they most often focus on one or the other. For example, a time-focused overlay might describe the influence of an external mechanized event, such as

the passing of a train, on the movement of people and vehicles. This type of event typically produces an undulating effect on the spaces' inhabitants: activity in the space shifts from static to active in a repetitive rhythm, revealing both the archetypes and the outliers of pedestrian and vehicular movement.

# III. Peter Hall

---

**Peter Hall** is a design writer whose research focuses on critical visualisation and mapping as a design process. He is the head of the Design and Design Futures programs at Griffith University Queensland College of Art in Brisbane, Australia. He teaches design history and methods and has written and lectured widely on mapping as a metaphor for a spatial approach to design criticism and history, including a TEDx appearance and a forthcoming video in RMIT's Design Futures 10 x 10 symposium. His current research includes his involvement in the visualisation work package of the European TRESPASS project, where he is looking into the genealogy and limitations of dominant visualisation tropes such as tree diagrams and the potentials of participatory mapping. He has been a contributing writer for Metropolis magazine and has written widely about design in its various forms for publications, including Design and Culture, Design Philosophy Papers, Print, I.D. Magazine, The New York Times, and The Guardian. His books include Tibor Kalman: Perverse Optimist and Sagmeister: Made You Look.

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VERSTAPPEN ET AL,  
OCAD UNIVERSITY

# V. Terreform ONE

**Terreform ONE (Open Network Ecology)** is a non-profit architecture group for smart city design, ecological planning, and public art in New York City.

—  
**Mitchell Joachim, Ph.D.**, is Co-Founder and Director of Research, Terreform ONE and Associate Professor of Practice, New York University. He was chosen by Wired magazine for "The Smart List: 15 People the Next President Should Listen To". Rolling Stone honored him with "The 100 People Who Are Changing America". He earned a Ph.D. Architecture, MIT; M.A.U.D., Harvard University; and M.Arch., Columbia University.

**Maria Aiolova** is Co-Founder and Director of Education, Terreform ONE and Academic Director of Global Architecture and Design, CIEE. She is Co-Chair of ONE Lab NY School for Design and Science and ONE Prize Award. She is an institutional adviser

to New Lab at the Brooklyn Navy Yard. Maria is currently a visiting faculty at University of Applied Arts Vienna. She earned a M.A.U.D., Harvard University; B.Arch; Wentworth IT; and Dipl.-Ing., Technical University of Vienna, AT/Sofia, BG.

**Melanie Fessel** is Director of Design, Terreform ONE and Managing Editor of Ecogram. Melanie was an associate with the Cooper Union Institute for Sustainable Design and worked as an architect with a focus on municipal buildings and masterplanning in Spain, Switzerland, and New York City. She earned a M.Arch II, Cooper Union; Dipl.-Ing., Technical University of Berlin, DE/Polytechnic University of Catalonia UPC, Barcelona, ES.

**Nurhan Gokturk** is Director of Innovation, Terreform ONE and Founder, Hometown L.L.C. He conceived of Project2020, an initiative to develop 2,020 modular homes as infill strategy on blighted and

abandoned lots in New Orleans. He has been featured in Metropolis Magazine, and awarded Gambit's Top 40 under 40. Nurhan was a contributing artist to the Louisiana SPCA auction. He earned a M.A.U.D., Harvard University; and B.Arch, Pratt Institute.

**Oliver Medvedik, Ph.D.**, is Director of Science at Terreform ONE and Genspace/Bioworks Institute. He is also the Sandholm Visiting Professor and Assistant Director of the Center for Biomedical Engineering at The Cooper Union. He has worked at Sirtris Pharmaceuticals and mentored two Harvard University teams for the iGEM (international genetically engineered machines) competitions. Oliver has been awarded the TED fellowship. He earned a Ph.D. Harvard Medical School and B.A. Biology, Hunter College.

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From June 19-22, 2013, OCAD University's Faculty of Design presented **Urban Ecologies 2013**, a conference that examined the impact of five intersecting themes that are shaping the future of design in our cities. This publication updates and expands the content first presented at the conference.

[www.urbanecologies.ca](http://www.urbanecologies.ca)

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# Urban Ecologies

2013

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-  
Jesse Colin Jackson  
Assistant Professor  
Department of Art, Claire  
Trevor School of the Arts  
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Irvine

-  
Roderick Grant  
Associate Professor and  
Chair, Graphic Design  
Faculty of Design  
OCAD University

-  
Patricio Davila  
Assistant Professor  
Faculty of Design  
OCAD University

## Designers

-  
David Caterini  
Chris Lange

## Assistants

-  
Rui Felix  
Alex Gebhardt  
Dakota Wares-Tani

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UE 2013



**Canals for  
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9 781772 520019

10th ANNIVERSARY ISSUE

URBANISM UNCOVERED

SPACING.CA

# spacing



## URBANISM GOES MAINSTREAM

by Shawn Micallef

### *The Good & Bad*

## A DECADE OF CITY HALL ANTICS

by John Lorinc

### *Urbanism's Challenges*

## THE NEXT 10 YEARS OF CITY BUILDING

by Dylan Reid

### *Also inside:*

ABSOLUTELY NO ARTICLES ABOUT THE ROB FORD SAGA. ZERO. WE PROMISE.

### *Other features inside:*

10 PEOPLE WE LOVE

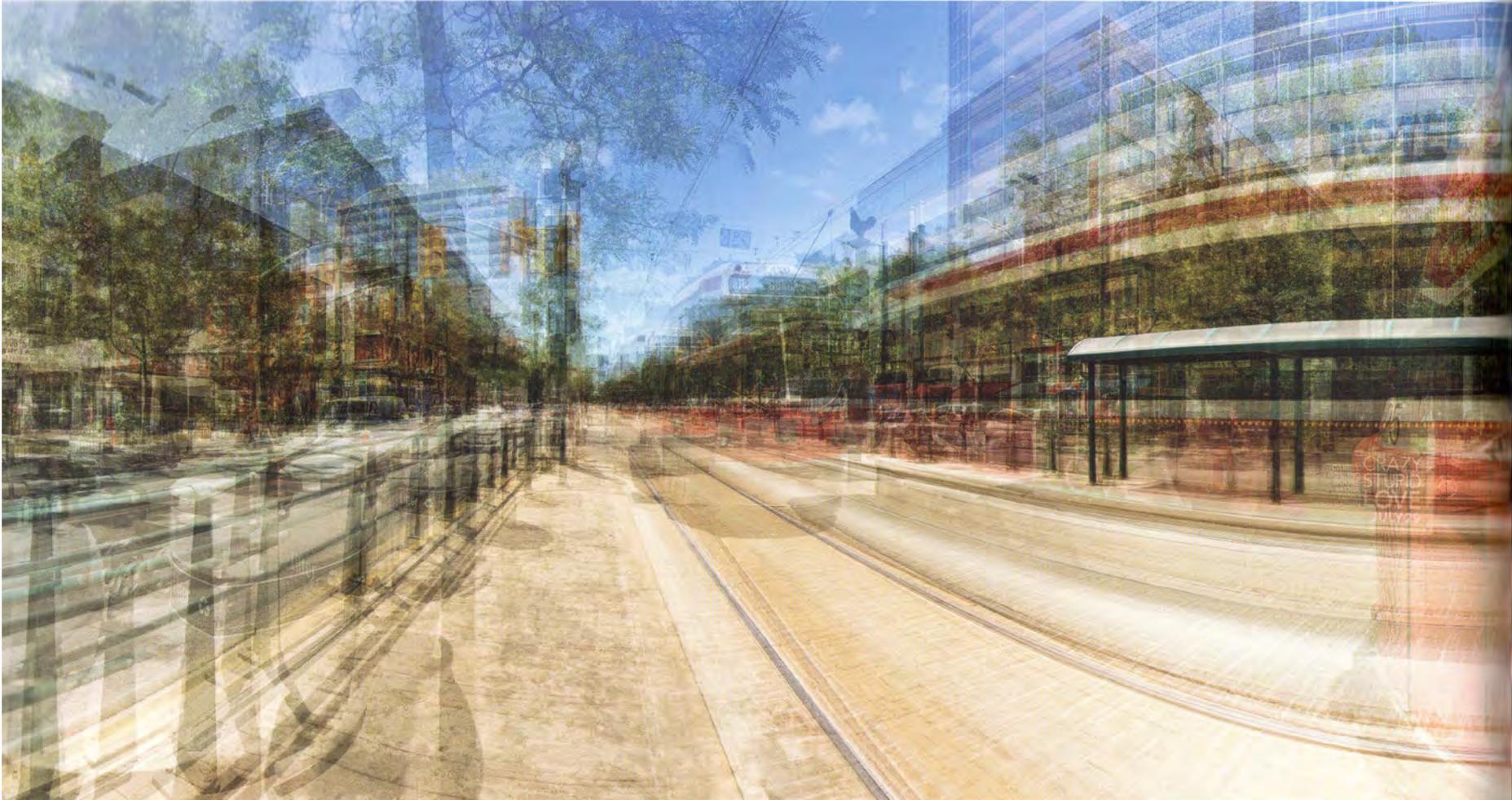
## TORONTO'S SECRET SPACES

by Marlena Zuber, Matt Galloway, & Metro Morning listeners

## A CENTURY OF SPACING COVERS

by Matthew Blackett

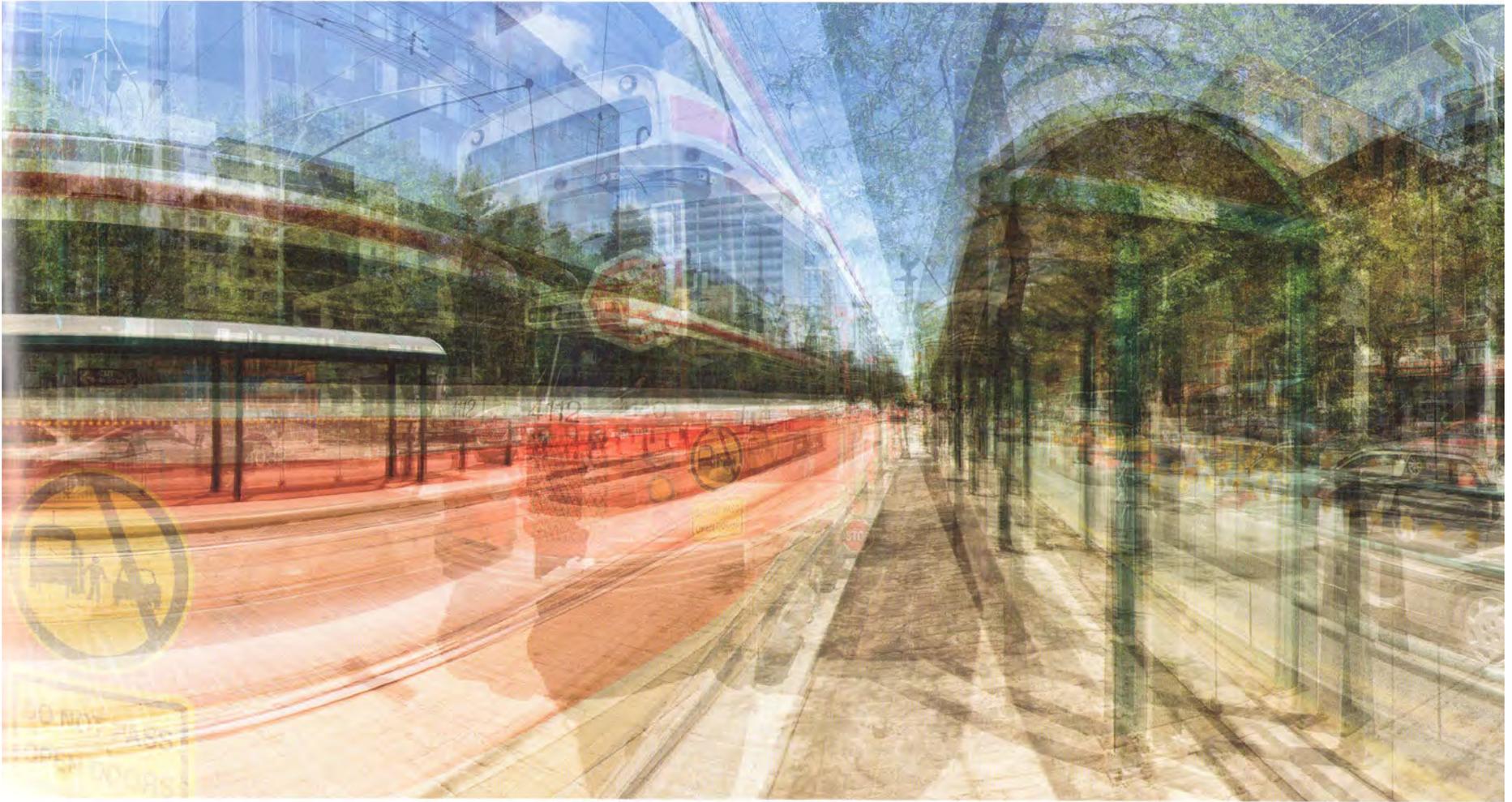
Just analysis of his poor work as mayor of the city (Okay, maybe a few words about crach)



*Layers of the City*

# ITERATIONS

by Jesse Colin Jackson & Tori Foster

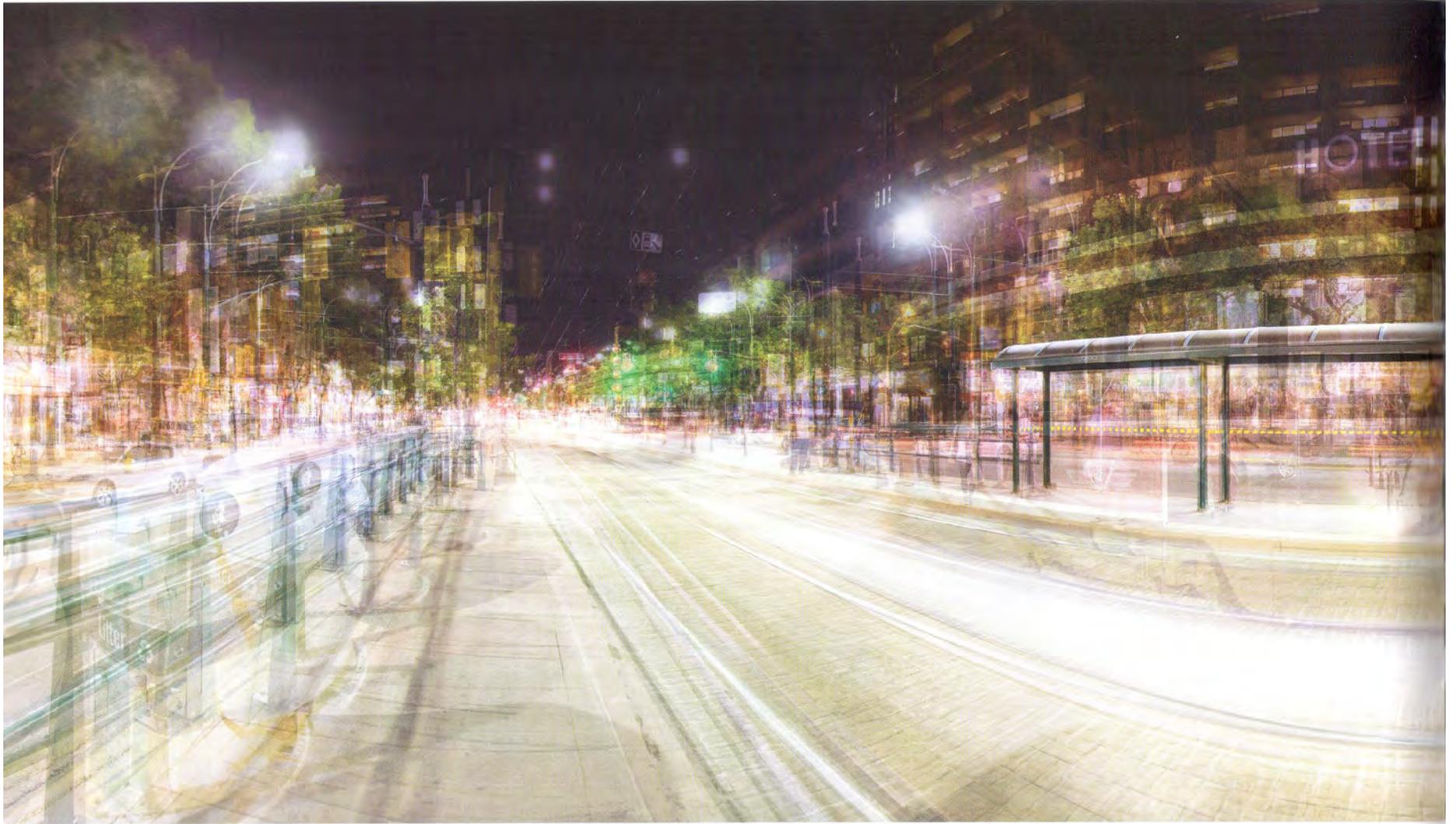


*Iterations*, a collaborative photographic project by Jesse Colin Jackson and Tori Foster, collapses multiple locations into a single image, providing the viewer with a sense of how the repetitive aspects of urbanity (such as the streetcars and streetcar shelters along Spadina Avenue right-of-way) relate to their surrounding environment.

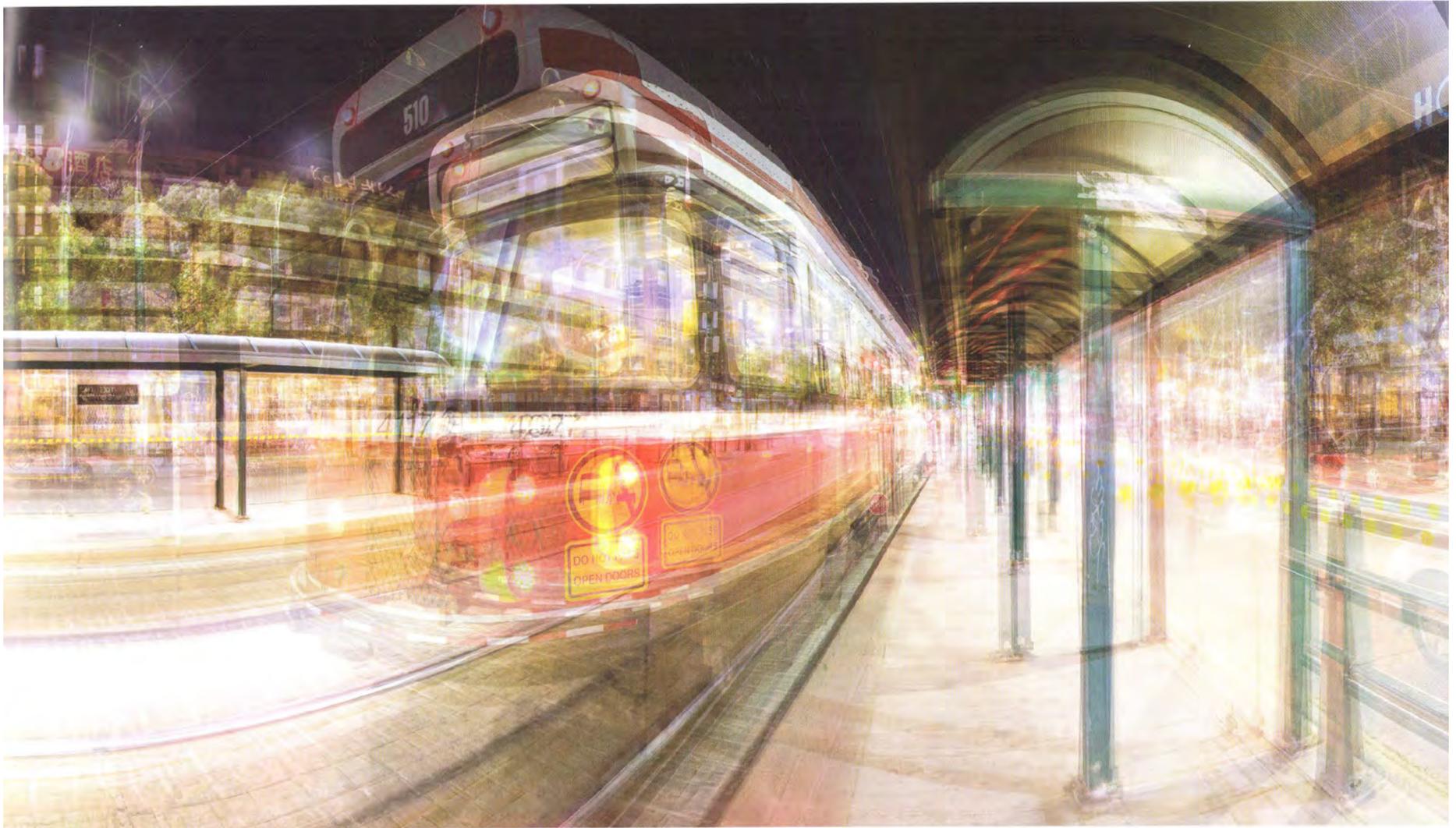
Each location contributes equally to the final composite image. At every location, elements that repeat are reinforced, highlighting

patterns of movement (the streetcars) and archetypal forms (the streetcar shelters). Elements that don't repeat appear as ghostly outliers (surrounding buildings, pedestrians, vehicles, etc.). This evokes the rhythmic patterns that define the city.

These photographs prompt the viewer to contemplate the more mundane elements of their surroundings and how the patterns of infrastructure inform our experience of the city. The composite method reveals forms and relationships that would otherwise be difficult to perceive. †



*photos courtesy of Pari Nadimi Gallery*



*Eight Streetcar Shelters (Day), Spadina Avenue (previous pages)*  
Chromogenic print, 24" x 96", 2011

*Eight Streetcar Shelters (Night), Spadina Avenue*  
Chromogenic print, 24" x 96", 2013

CURATED BY JESSE JACKSON AND GREG SIMS



# < making it real > \*

\*a juried exhibition of digitally fabricated objects



ESSAY BY GREG J. SMITH

**MAKING IT REAL** is a collection of digitally fabricated objects curated by Jesse Jackson and Greg Sims. Virtual objects, submitted electronically from around the world, are 'made real' locally using a variety of 3-D printing technologies. *Making It Real* showcases innovative designs for jewellery, products, fine art, and other small objects that take maximum advantage of direct digital manufacturing.

*“We shape our tools and thereafter our tools shape us.”*

— Marshall McLuhan

**MAKING IT REAL** brings together the work of artists and designers from around the world that take maximum advantage – conceptually, procedurally, and materially – of direct digital manufacturing technologies.

3-D printing and other forms of additive manufacturing have captured the public imagination for their potential to generate tangible objects ‘*out of thin air*’. Wizardry alone, however, is not the focus of this collection. Instead, the emphasis lies on objects that evince creativity and expertise before, during, and after the printing process, and that expand the possibilities these technologies engender. Each maker has engaged with direct digital manufacturing in a way that fully exploits the potential of this transformative set of technologies to generate original – and exemplary – jewelry, products, fine art, and other small objects.

The objects in this collection vary in how they apply 3-D printing technology to best effect. Some of the objects take advantage of the geometric complexity permitted by

digital design and manufacturing. Others exploit the material properties of the plastics and new composites these technologies produce most readily. Some of the most intriguing examples make use of the opportunity to create fully assembled interlocking forms in a single operation. In all cases, the makers have generated objects that would not have been created by any other means.

What does it take to be real? As the children's book *The Velveteen Rabbit* wisely explains, "Real isn't how you're made. It takes a long time." The objects in this collection are real not because of how they are made. Their realness comes from the investment of time and knowledge: focused inspiration, iterative improvement, and meticulous craft. They have been loved.

*Jesse Jackson + Greg Sims*

*“In our relationship with objects, as in any relationship, indifference is the worst offence and laziness the worst sin.”*

– Paola Antonelli<sup>1</sup>

**IN THE WALTZ INVENTION**, a 1938 tragicomedy by Russian novelist Vladimir Nabokov, haggard inventor Salvator Waltz leverages a mysterious device to carry out a coup d'état in an unidentified European country. Armed with his 'Telmort' (a radio-like apparatus that can annihilate targets at a distance), Waltz menaces his way into being appointed the supreme leader of his countrymen – but his rule is short-lived. While cutting-edge technology allows our would-be despot to seize power with minimal effort, his inability to impose meaningful order on the republic at his fingertips leads to total chaos. This sequence of events and corresponding consequences are a perfect allegory for the emerging era of do-it-yourself digital fabrication. Yes, having that shiny new \$1,000 3D printer on your desktop allows you to directly engage an emerging means of production and create myriad possible objects – make no mistake, it is empowering. But, no, your newfound 'maker' status does not automatically grant you the clarity of thought required to create well-designed objects that will stand up to the demands of everyday use, or,

1. Paola Antonelli, *Talk to Me: Design and the Communication between People and Objects* (New York: The Museum of Modern Art, 2011) 8.

to sculpt exquisite forms worthy of aesthetic consideration in white cube galleries.

*Making it Real* is a collection of digitally fabricated objects that allow us to begin to have a conversation about the nature of 21st century craft. While 3D printers and related prototyping technologies have been within arm's reach in automotive and industrial design for decades, the arrival of affordable, consumer-grade versions of these processes invites wider participation and engenders new literacies. The most immediate goal of an exhibition like this is to move well beyond the banal celebration of clumsy 'hello, world' objects. You've seen 3D prints of this variety before: superhero figurines, tiny Eiffel Towers, a miscellany of junky kitsch. There are several derisive names for objects like these, but none is more fitting than 'crapjects'. A 2011 Institute for the Future whitepaper warned that a possible byproduct of ubiquitous 3D printing would be a new era of 'physical spam'; marked by the production of "a large number of objects of infinitesimally small value."<sup>2</sup> It is in anticipation of this rising tide of

2. Institute for the Future, "Perils: A World of Crapejects," from *The Future of Open Fabrication*. <http://www.openfabrication.org>

3. Bruce Sterling, "Generation Generator (New Aesthetic)," *Beyond the Beyond*. [http://www.wired.com/beyond\\_the\\_beyond/2012/04/generation-generator-new-aesthetic](http://www.wired.com/beyond_the_beyond/2012/04/generation-generator-new-aesthetic)

cheap thermoplastic objects – absolutely brimming with flotsam – that we should reconsider the importance of intent and craft in the creation of digitally fabricated objects.

The objects featured in *Making it Real* were developed for a range of purposes and demonstrate a variety of formal strategies. Much of the work is jewellery, and the diverse assortment of rings, bracelets, armbands and necklaces speak to the changing conventions of that medium. While many pieces fit the contours of the body as would be expected, it is the form, assembly and finish of many of the designs that is particularly adventurous: flowing contour bands, baroque reptilian scales, skeletal wireframes and idiosyncratic joinery are all explored. The more sculptural works don't adhere to the body, or any standard frame of reference, so they live or die by their ornate geometries and composition: figurative abstractions, delicate lattices, matryoshka volumes and seemingly-viscous Cronenbergian forms abound. Beyond the jewelry and sculptural objects, there are a number of inventive reconsiderations of everyday tools and trinkets,

modular construction kits, and even some literal data modelling. New geometries inspire new conversations, and the majority of this inventory of complex forms could not have been manufactured without digital fabrication. We clearly need to develop a vocabulary for discussing this kind of complexity, as the algorithmic design strategies driving much of this work is becoming increasingly commonplace as designers recalibrate their skills to match the capabilities of the tools at their fingertips. This is the second decade of the 21st century, and it only follows that the design of our most provocative objects should, as suggested by Bruce Sterling, “*come gushing headlong out of processors, instead of assembly lines or atelier easels.*”

*Greg J. Smith*

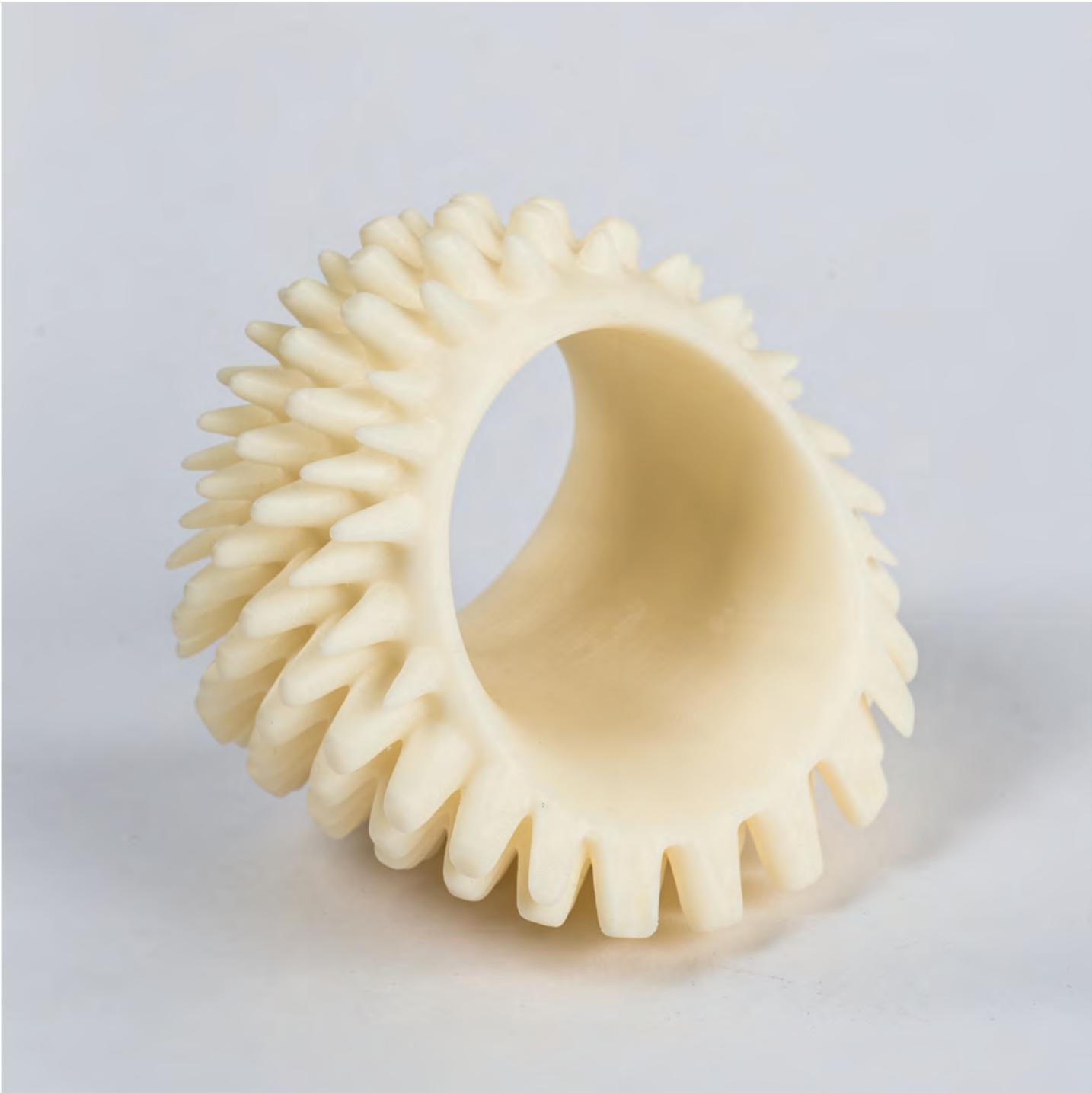
**Bin Dixon-Ward**

**Framework Neck piece**, *Dyed laser-sintered nylon*  
600mm x 600mm x 40mm



Arthur Hash

Hedgehog, Fused deposition ABS plastic  
150mm x 150mm x 130mm



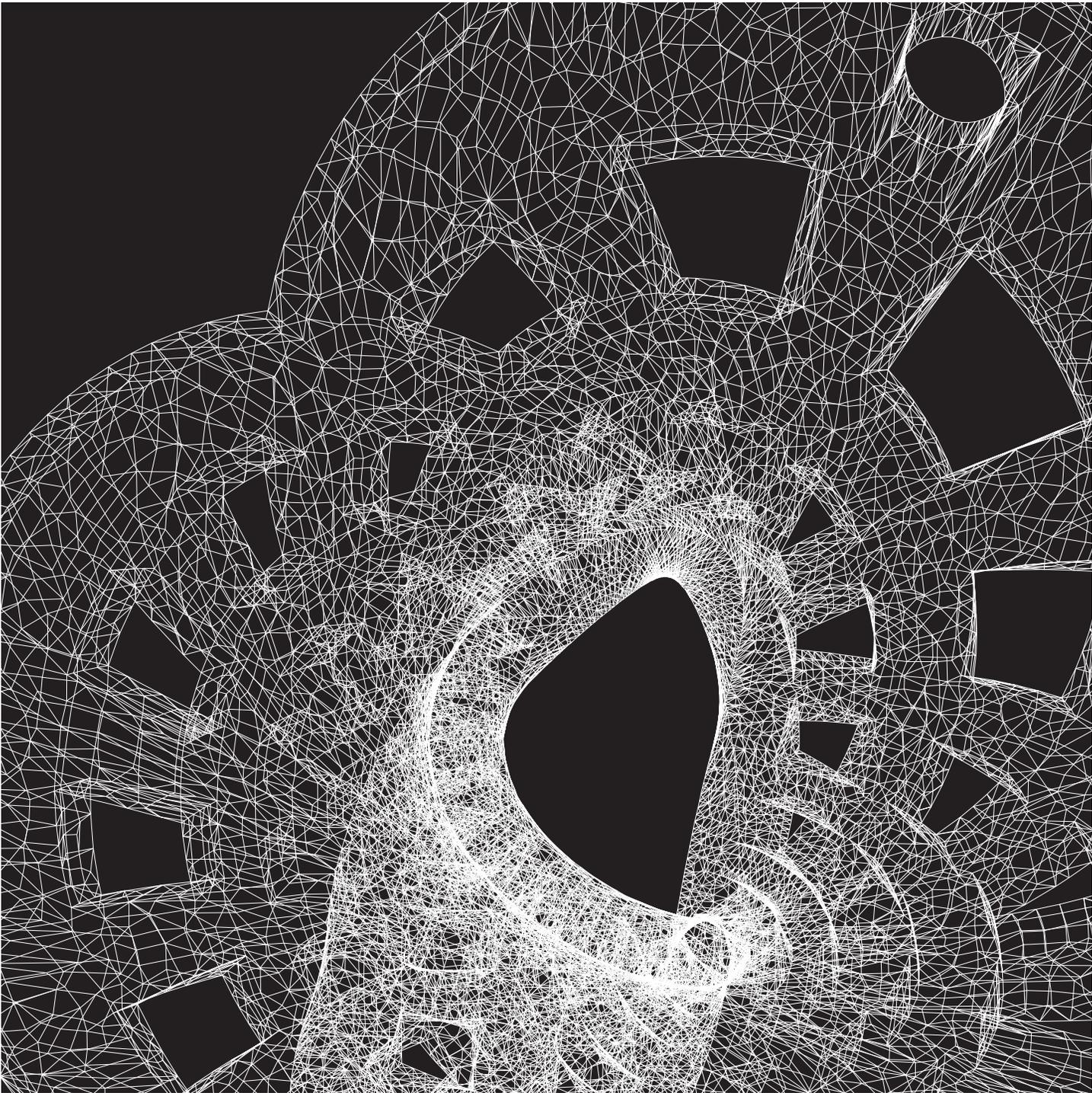
Francis Lebouthillier

**Surgical Touch Simulators**, *UV-cured photo polymers*

*15mm x 15mm x 30mm*







**Nervous System**

**Spiral Cuff**, *Laser-sintered steel with bronze infusion*  
75mm x 52mm x 38mm



Henry Segerman

Hilbert Curve, *Laser-sintered nylon*

45mm x 45mm x 45mm



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# ARCTIC RISING

As the tallest residential building in Canada north of the 60th parallel, the Mackenzie Place high-rise is Hay River's defining landmark

BY JESSE JACKSON & LINDSAY BELL

PHOTOS BY JESSE JACKSON

 Heading north from Edmonton, it's a 975-kilometre drive to the 60th parallel. Travellers pull over and snap self-portraits with the polar bear sign: "Welcome to the Northwest Territories." Between May and September, tourists drop into the 60th parallel visitor's centre to claim their "Order of Arctic Adventurers" certificates. From here, the natural wonders of the Northwest Territories beckon: the Aurora Borealis, highway-blocking bison, world-class fishing and hunting, and more.

Keep driving due north of 60 to the shores of Great Slave Lake and you'll arrive in Hay River, the second largest town in the Northwest Territories, population 4,000. Rail, river, and road meet here in what is known as the transportation "Hub of the North." Marking the centre of town is an unlikely urban icon: the Mackenzie Place high-rise, the Territories' tallest residential building. Like many places in Canada, the north is increasingly urban

in nature — a quality that goes unnoticed by many southern visitors as they seek out the expected natural wonders.

Completed in 1975, the construction of the 17-storey high-rise residential tower was highly anticipated. The 80 units were to be filled by an influx of workers and residents that would accompany the proposed Mackenzie Valley Pipeline. The pipeline would carry oil and gas from the Beaufort Sea southward to the railhead in Hay River, where it would leave for refineries farther south. The pipeline project was defeated due to a mix of Aboriginal activism, changing Canadian policy towards Aboriginal lands, and a substantial drop in the price of oil. The building has never been filled to capacity.

While a postwar tower jutting up from the sub-arctic landscape may seem unusual, northern Canada has been the site of many experiments in planned urbanization and modernization. Inuvik, known for its above-ground "utilidors" and brightly

painted homes, was planned in the 1950s as part of larger Cold War efforts to develop and protect the north. Frobisher Bay, now known as Iqaluit, began as a military base and was expanded to become an administrative centre during these same years. The Mackenzie Place high-rise was part of a planned relocation of the original settlements, which were located along the lakefront on both sides of the river. The original town was prone to seasonal flooding when river ice would break up every spring. In 1963, federal administrators for the region decided that a "new town" would be developed farther up the river. Its centrepiece was the high-rise.

Physically, the Mackenzie Place high-rise has reached its best-before date. Its recently repainted exterior belies its inadequate insulation and tired mechanical systems. The original tower design included shops on the ground floor, conference facilities on the second, and the first coin-operated laundromat in town.

These spaces have been repurposed many times. Most recently, the bottom floor was used as remedial classroom space for the nearby high school. Hay River's lone radio station has been broadcasting from the second floor for the past 20 years. As in many towers, the residential units are stratified vertically, with the nicest units on the upper floors. They're also stratified east to west, with the river side units seen to be more desirable than the town side units, both because of the view and because of their superior satellite television orientation.

Tower life is not part of most people's vision of the north as an unruly and unspoiled wilderness. This view is part of our national mythology, but this unlikely northern icon disturbs our collective sense of place. However, from almost every vantage point, the tower is the standout feature in Hay River. It is the only building of its type for over 1,000 kilometres, and yet, by virtue of Hay Riv-



er's isolation, the tower is by and large a sight unseen. Those who visit will find that many locals don't know what to make of the place. For locals, the high-rise went from being a promise of a modern future to an all-too-present eyesore. Unlike many urban towers down south, however, this one singularly dominates in the centre of town and the surrounding landscape, serving as a constant visual anchor of the Hay River experience. Visually, it's Hay River's CN Tower.

Locals claim the high-rise is an epicentre of drug activity and complain about the owner's failure to contribute to the town's beautification efforts. When the building has garnered outside attention, the focus has been on violence and tragedy. A young woman who moved up from Alberta suspiciously fell from the 16th floor. This was shortly followed by reports that a jealous ex-partner killed a local fisherman and his wife there. These anomalies easily overshadow the everyday life of those in the tower.

Those who move into the high-rise

see it as a stepping-stone. For Ivan, Hay River wasn't supposed to be his "forever home." In 1978, his family fled Chile just as military dictator Augusto Pinochet had come to power. Ivan arrived just as a nearby lead and zinc mine was moving into full production, and getting work proved easy. Ivan explains: "Being an immigrant and coming up here is like winning the lottery. When we arrived, they were desperate for help. [My] dad took a job as a janitor for \$1,000 a week and could not believe it! Although my father had been wealthy in Chile, we became servants, but we were well-treated, so that was confusing to us." What was supposed to be a brief stay before moving to Miami lasted much longer.

Other residents still are eager to go home. Adore, an engineer from the Philippines, moved north to save money in the hope of returning sooner to his home country. He uses his second bedroom as a mini-recording studio. On any given Saturday or Sunday, you can find him behind an electric piano, wearing headphones, re-



coding songs he has written or adapted, so he can send home CDs to his wife and children. He came to Canada seven years ago and has yet been unable to return to visit them.

Destiny, a 22-year-old Dene woman from the nearby First Nation, folds baby clothes she buys each week at the town's local thrift shop. For her, the high-rise means doing things "her way." Like many young adults, Destiny wants to feel in charge of her life. With a baby on the way, she hopes that moving to a bigger town in

the N.W.T. will offer her more job prospects. For Mary, a nurse practitioner originally from Ontario, the high-rise is the road out of many more years of work. She came north to save for retirement. She sits at her dining room table painting pieces of driftwood she collects at the beach on her morning walks with her pug, Oscar. "This place has everything I need. At my age, you have learned that it doesn't take much to keep on," she laughs.

The modern concrete residential tower — and its associated physical and exis-

tential problems — is no longer an image associated with progress in Canada. Nevertheless, understanding the evolving function of these multi-unit dwellings is fundamental to understanding a community's strengthening — or weakening — heart. Hay River is no exception. The Mackenzie Place high-rise is threaded into the fabric of the town. Hay River, the north, and even Canada in the broadest sense, cannot be understood without understanding the high-rise and the stories it holds. †



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# **Fabricating Sustainable Concrete Elements: A Physical Instantiation of the Marching Cubes Algorithm**

Jesse Jackson, OCAD University and Luke Stern, Patkau Architects

## **Abstract**

This paper explores how an algorithm designed to represent form can be made physical, and how this physical instantiation can be made to respond to a set of design imperatives. Specifically, this paper demonstrates how Marching Cubes (Lorensen and Cline 1987), an algorithm that extracts a polygonal mesh from a scalar field, can be used to initiate the design of a system of modular concrete armature elements that permit a large degree of variability using a small number of discrete parts. The design of these elements was developed in response to a close examination of Frank Lloyd Wright's Usonian Automatic system, an architecturally pertinent historical precedent (Pfeiffer 2002). The fabricated results positively satisfy contemporary design criteria, including maximal formal freedom, optimal environmental performance, and minimal life-cycle costs.

## **1.0 Introduction**

Our research trajectory began with the observation that computer graphics algorithms used to subdivide a scalar field into a cubic-grid polygonal mesh might have a physical analogue in element-based construction. This led to iterative attempts to design an element-based construction assembly derived from Marching Cubes, a seminal example of this type of graphics algorithm. The validity of the most promising design was then tested through full-scale fabrication using contemporary rapid prototyping technology.

An in-depth examination of Frank Lloyd Wright's Usonian Automatic system provided an architectural context for these explorations. The Automatic system, like our proposal, also provided a rule-based means to subdivide a regular, gridded space to create form while also considering the constructional element as a design exercise in itself.

## **2.0 A Conceptual Framework: Prioritizing the Tectonic Elements**

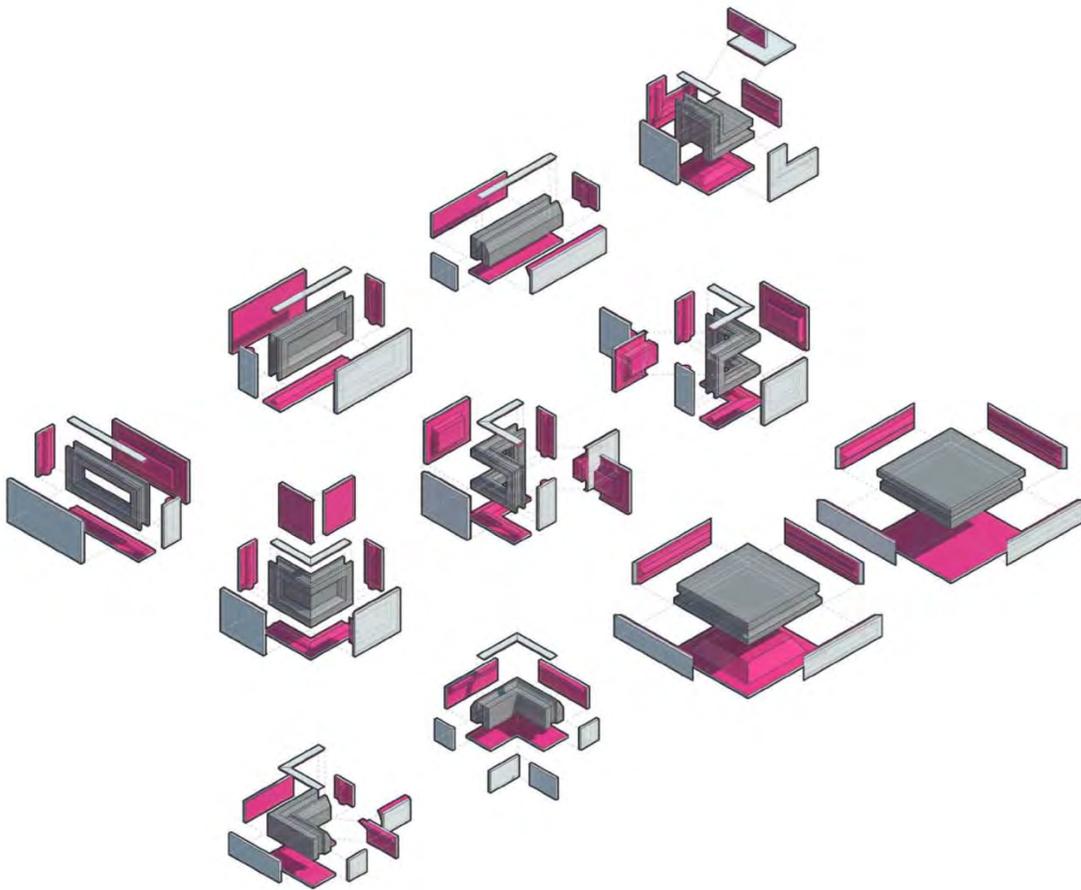
Subdivision into elements, through pixels, voxels, or tessellation, is a fundamental quality of the virtual realm. In the physical realm, the analogous unit parts are commonly referred to as the tectonic elements of built form, and are normally considered to be subordinate components of a greater architectural endeavor. These elements have desired qualities – firmitas, utilitatis, and venustatis – comparable to that of an aggregate assembly, and warrant direct design consideration (Frampton 1995). The parallel between virtual and physical elements was utilized in service of an original design for a unit-based system of construction.

### **2.1 A Point of Departure: Frank Lloyd Wright's Usonian Automatic System**

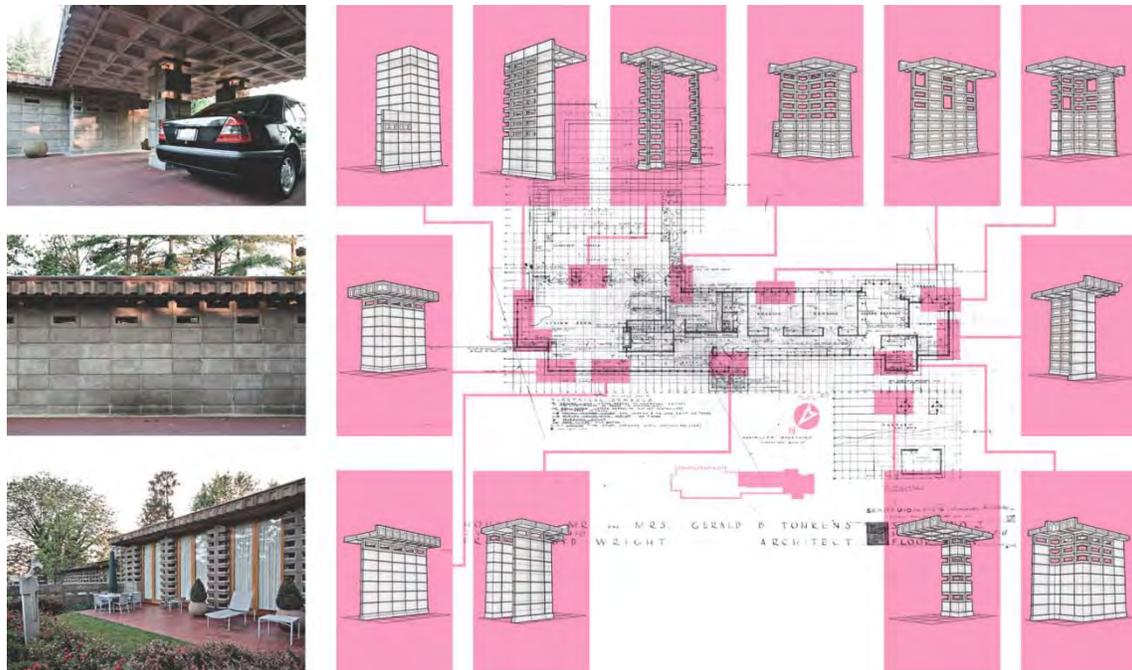
Frank Lloyd Wright's Usonian Automatic system of concrete block construction is a well-known precedent for the prioritization of the tectonic elements (Frampton 1995). Deconstruction, reconstruction and replication of this system provided a point of departure for our research. Though much of this work is outside of the scope of this paper and has been documented elsewhere (Jackson and Stern 2009), it is summarized here for context.

Wright used the term Usonia to denote his vision for a new American landscape characterized by a diffuse agrarian urbanism. In particular, Usonian refers to a series of modest family homes featuring native materials, flat roofs, and large cantilevered overhangs. Early Usonian homes used a wood board-and-batten construction technique, but faced with rising labour costs in the 1950s, Wright turned to concrete. The term Automatic was adopted because the revised design created the potential for end-user assembly and therefore economy, facilitated by a strict grid that determined the dimensions and relative positions of the constituent concrete elements. These elements can be seen as miniature manifestations of the buildings they create, each with a sense of mass and texture that continues to be evident in the assembled whole.

Figures 1-4 below illustrate some of the key results of our deconstruction, reconstruction and full-scale replication process.



**Figure 1: Frank Lloyd Wright's Automatic elements**



**Figure 2: In-situ use of the Automatic elements**



**Figure 3: Reconstruction of the Automatic formwork**



**Figure 4: Full-scale replication of the Automatic system**

### **3 Design Imperatives**

This detailed examination of the Automatic system helped situate our research in an architectural context, and began to suggest design imperatives that would inform the new design proposal, including:

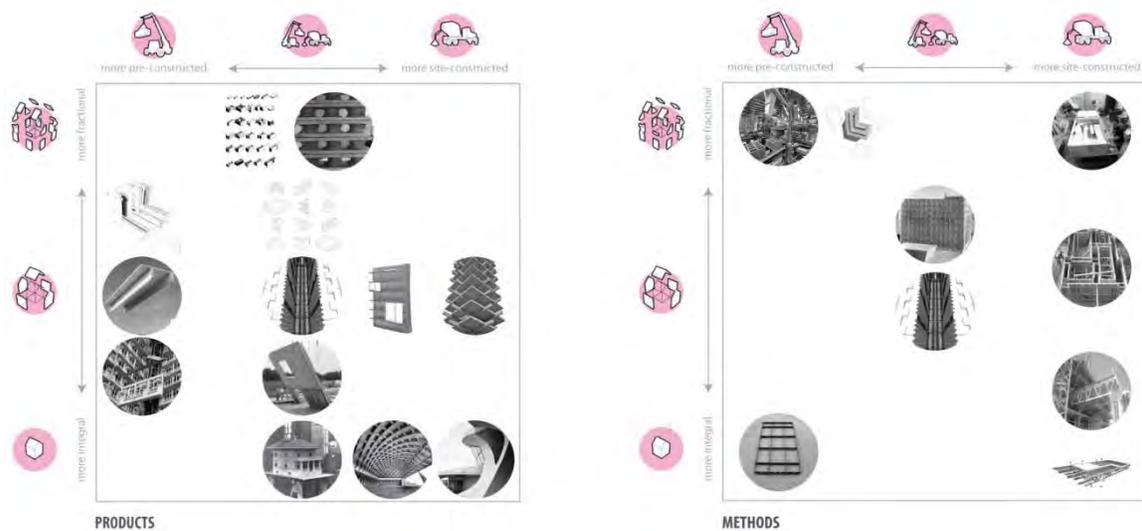
- innovative concrete materiality;
- environmental, cultural and economic sustainability; and
- element connectivity and specificity.

#### **3.1 Innovative concrete materiality**

We anticipated that our new design proposal would continue to be made of concrete. Concrete products can be categorized by the degree to which they are either site-constructed or pre-constructed, and by the degree to which they are elemental in nature. An analysis of historical and contemporary concrete assemblies was conducted, including: everyday concrete masonry units; autoclaved aerated concrete building systems (Rastra); proprietary composite insulated concrete panels; contemporary designer concrete elements (Loom); and, of course, Usonian Automatic blocks. Given that concrete always begins in a liquid state, the methods required to fabricate each assembly were also of interest and were similarly investigated, including: conventional one-off wood forms; fly-forms; and deck systems; modular plastic formwork (Moladi); and more unconventional techniques, such

as Edison's single pour system (Bergdoll 2008).

These analyses, summarized in Figure 5, helped position our new design within the spectrum of concrete construction practices, with the specific aim of identifying opportunities for innovation and how existing systems failed to address our design imperatives. Notably, many of the existing systems failed to overcome: a) their pre-determined orientation, because their structure and form reflect the forces they will be subjected to, and b) the inherent tension between simplicity and specificity, by subscribing to one of the "one-size-fits-all" or mass-customization extremes.



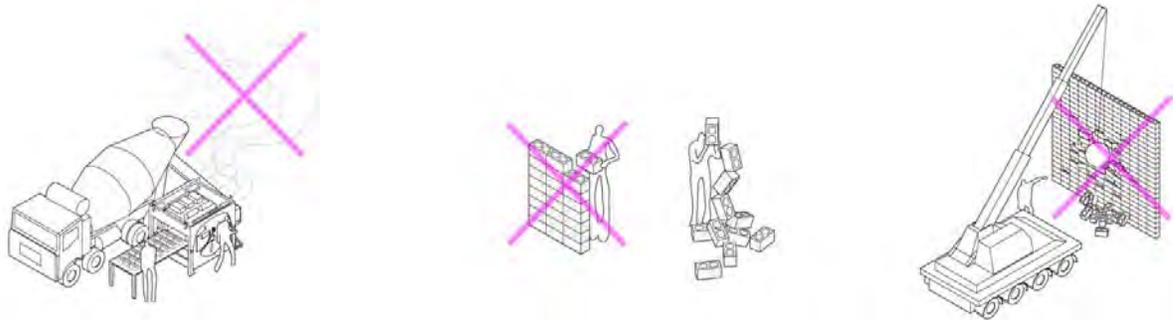
**Figure 5: Concrete products and methods**

### 3.2 Environmental, Cultural and Economic Sustainability

Wright's system was designed when resources were believed to be infinite. Given our acknowledgement that resources are indeed finite, we sought to make our proposal respond to contemporary environmental, cultural, and economic sustainability concerns, including:

- Impact mitigation: employing advancements in constituents and techniques that mitigate some of the deleterious effects of concrete production.
- Formal flexibility: providing maximal freedom of expression.
- Life-cycle optimization: maximizing the potential for reuse - typical concrete elements require permanent assembly methods that inhibit reuse.

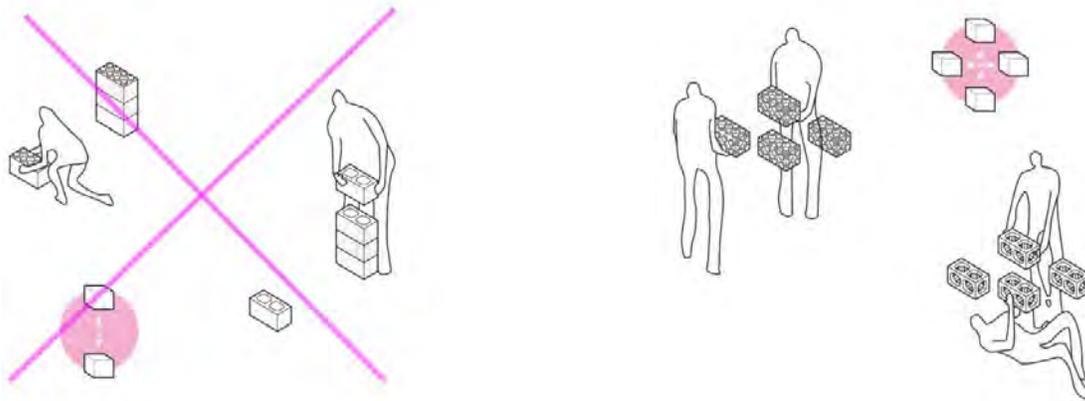
These imperatives are represented in Figure 6.



**Figure 6: Sustainability imperatives**

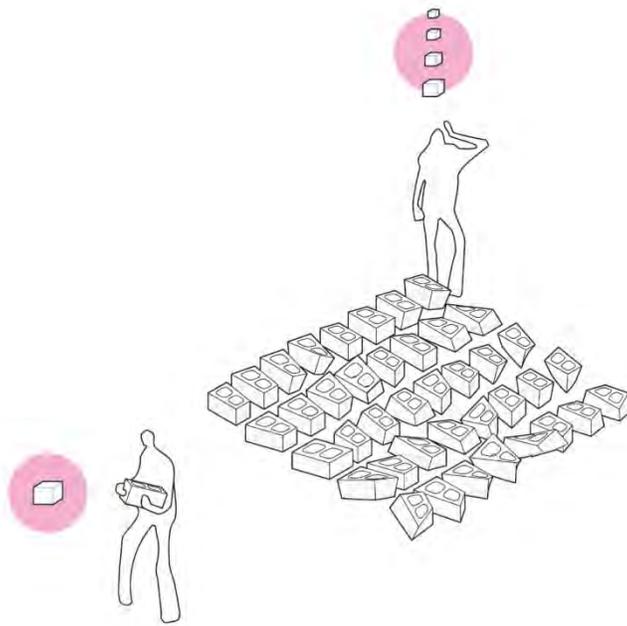
### 3.3 Element Connectivity and Specificity

Like Lego™, both Wright's system and conventional concrete blocks are designed with a specific orientation and position in mind. In order to achieve more formal flexibility, the new proposal was designed to permit universal connectivity to facilitate both stacking and spanning, as shown in Figure 7.



**Figure 7: Universal connectivity**

The design also sought to permit the freedom to generate a significant range of forms while remaining simple enough to understand and organize. An important parameter in this potentially conflicting desire, represented by Figure 8, is the number of discrete parts: too many, and the system will become onerous to use; too few, and the system has a potentially limited application.



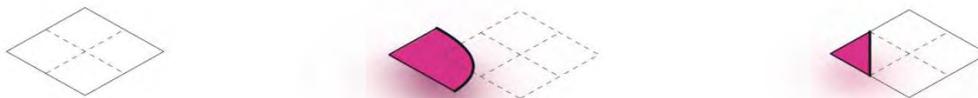
**Figure 8: Simplicity versus formal freedom**

#### **4 One Physical Instantiation of Marching Cubes**

Universal connectivity and a balance between simplicity and formal freedom can be achieved by leveraging the results of a set of form-finding rules. These rules have their origin in a pair of computer graphics algorithms developed for constructing polygonal meshes in two and three-dimensional space: Marching Squares and Marching Cubes.

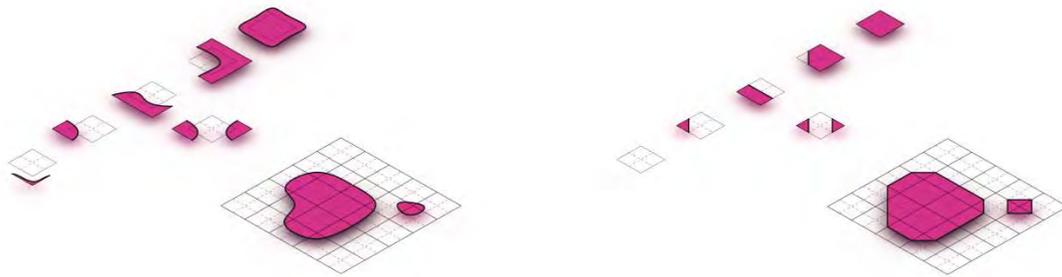
##### **4.1 Marching Squares Made Graphical**

Marching Squares can be made graphical by dividing a plane into quadrants, intersecting this plane with any arbitrary region, and finally approximating this region as shown in Figure 9. The approximation is determined by the quadrants through which the arbitrary region passes.



**Figure 9: Marching Squares made graphical**

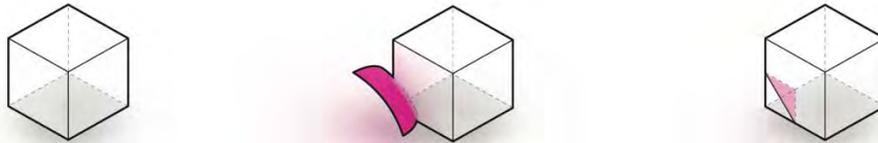
There are six quadrant/region intersections possible, each of which can be approximated and, in combination, used to approximate a closed region of any size and shape, as shown in Figure 10. The resolution of the approximation is dependent on the size of the quadrants: smaller quadrants provide higher resolution.



**Figure 10: All permutations of Marching Squares**

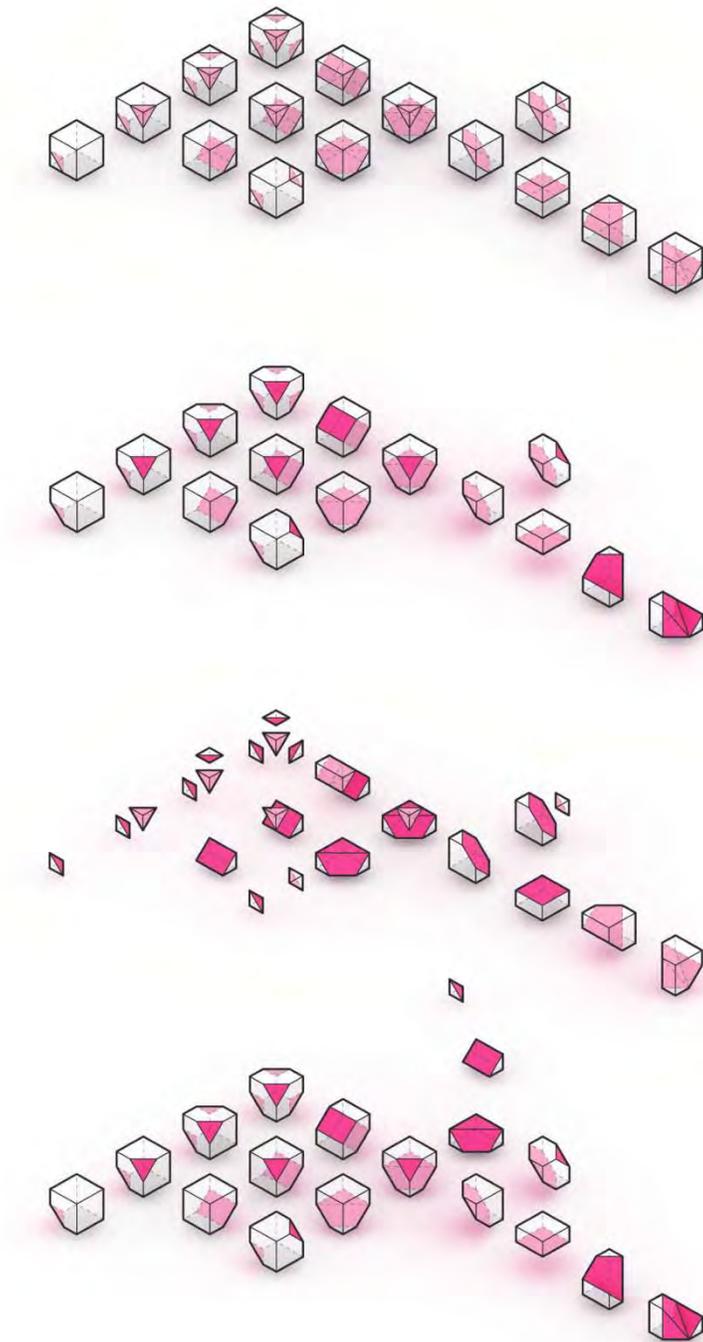
#### 4.2 Marching Cubes Made Elemental

The same logic can be applied in three dimensions in order to make Marching Cubes elemental. Any arbitrary surface, intersecting a cube divided into quadrants, can be approximated as shown in Figure 11. Again, the approximation is determined by the quadrants through which the arbitrary surface passes.



**Figure 11: Marching Cubes made elemental**

There are fifteen quadrant/surface intersection approximations possible, which can be interpreted reciprocally as either positive or negative volumes, generating eighteen unique elemental forms. These elements can be used in combination to approximate any closed surface, as shown in Figure 12. Again, smaller quadrants create more resolution.

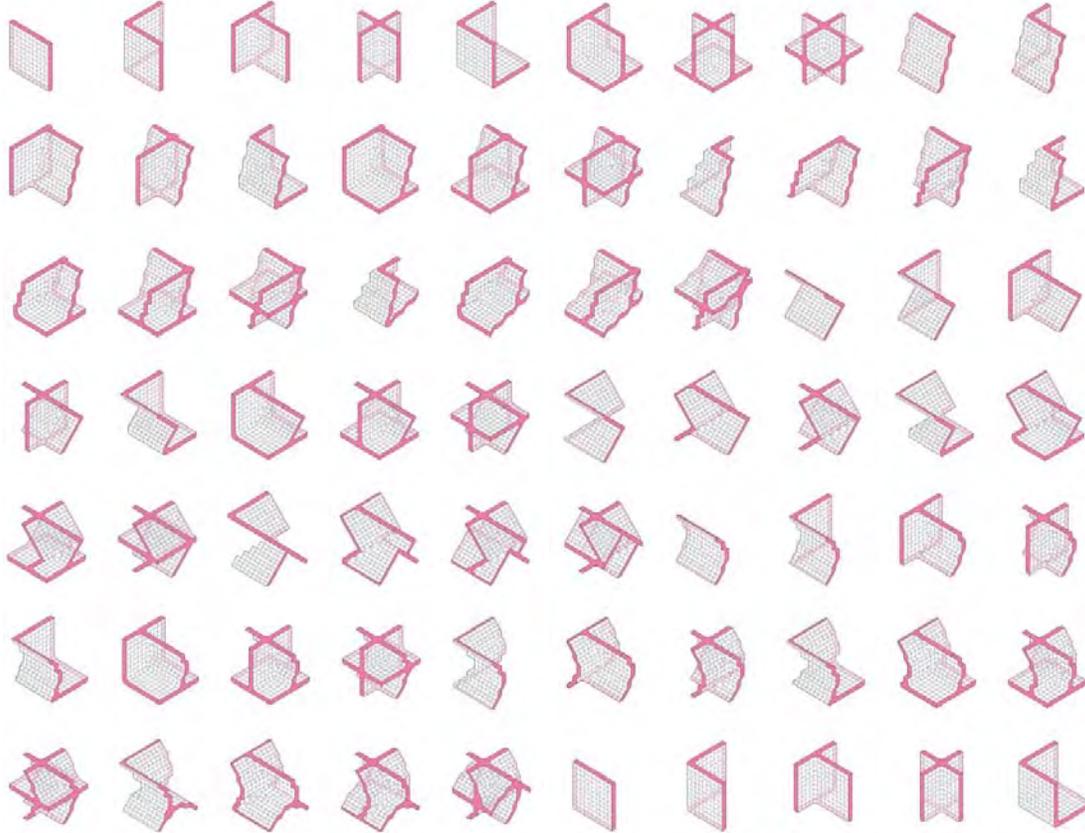


**Figure 12: All permutations of Marching Cubes made elemental**

#### 4.3 The Elements Made Architectural

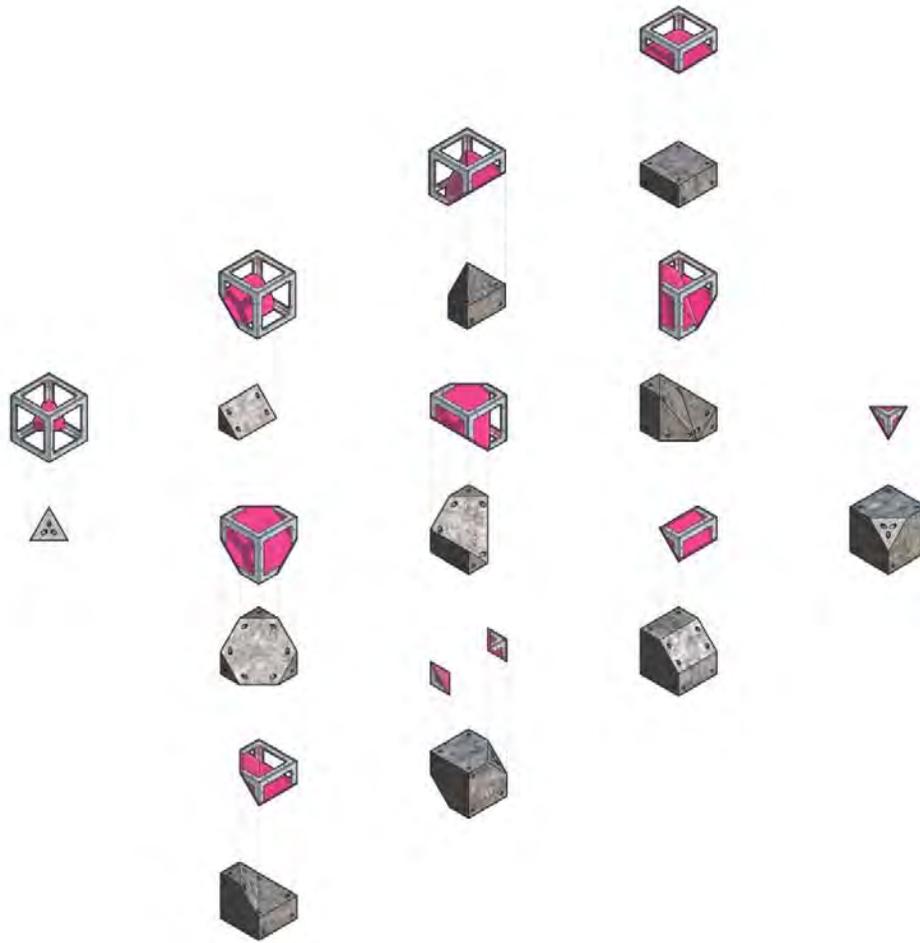
While the Marching Cubes algorithm can be used to approximate any surface, the eighteen unique elements can also create aggregate forms with architectural relevance. Typical enclosure configurations such as walls, floors and roofs, and intersections of the three can be produced utilizing this system of construction elements. These elements, like Wright's

Automatic blocks, encode their strong formal vocabulary and character on any design to which they are applied. Sixty-four sample aggregations, ranging from normative orthogonal configurations to more complex forms, such as kinked and curved configurations, are shown in Figure 13.



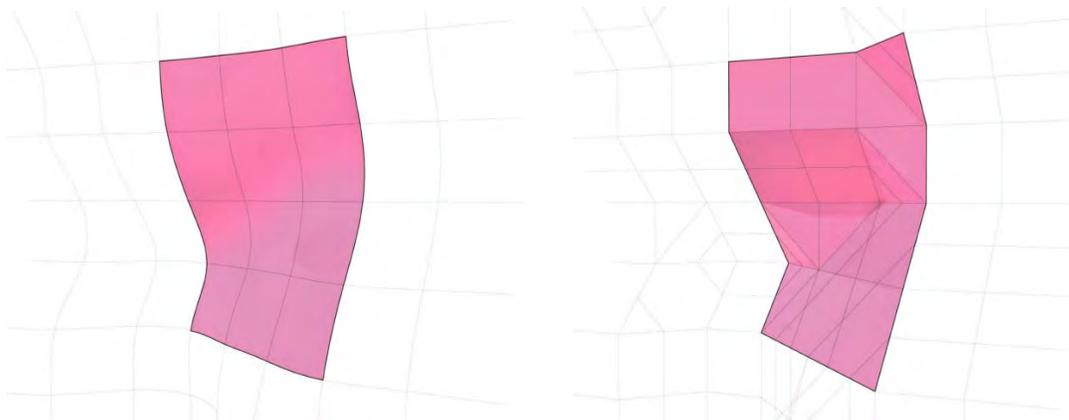
**Figure 13: Sixty-four architectural configurations**

An important parallel between the positive/negative nature of the individual elements and concrete products is that concrete products also have a reciprocal negative: the mold or formwork. When the positive is rendered in concrete, the reciprocal negative of each element becomes its formwork. Understanding this, it was possible to eliminate redundant or non-essential elements from the system, as shown in Figure 14. This reduced set of elements creates an equally complete but substantially less complex system, at the expense of the resolution of some kinked and curved configurations.



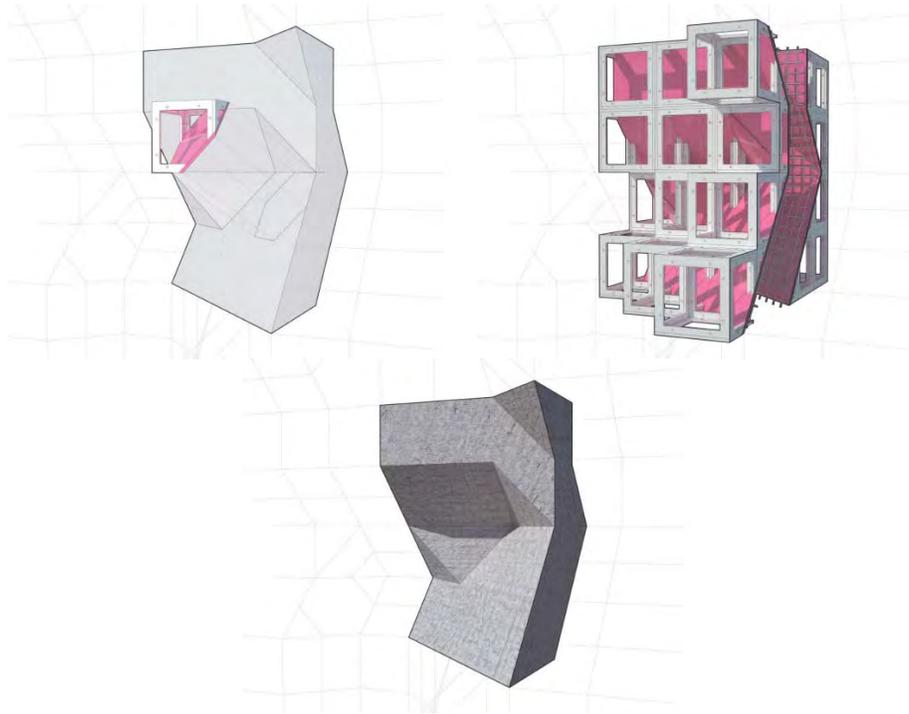
**Figure 14: Eleven essential elements**

The use of this reduced set of elements to approximate an enclosure surface, as shown in Figure 15, results in two design variations: a system of elemental modular formwork for cast-in-place construction (Figure 16), and a system of elemental pre-cast concrete units (Figure 17).



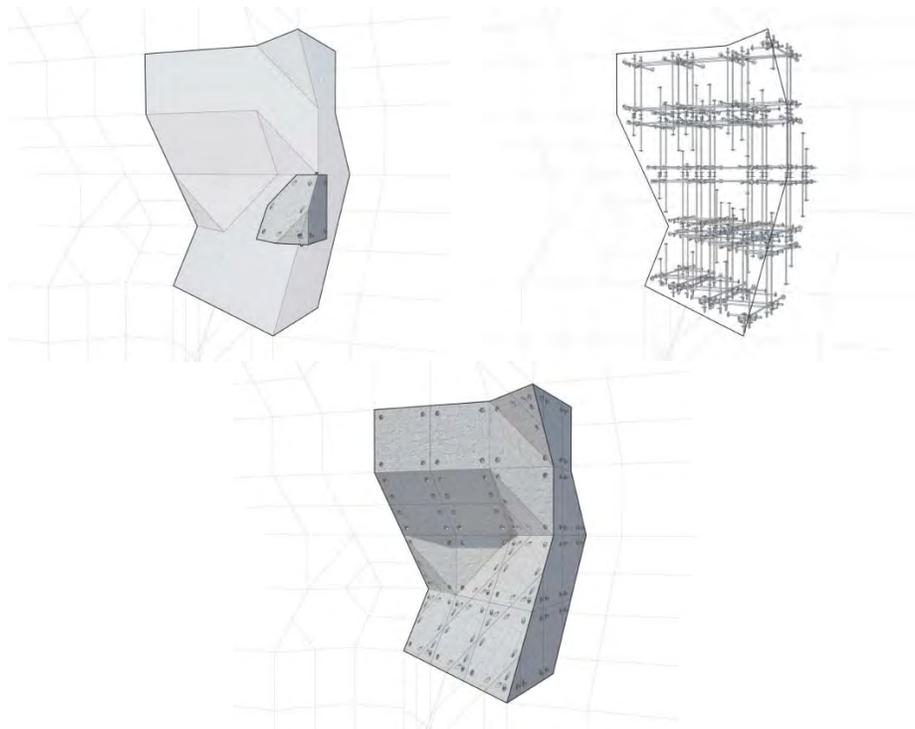
**Figure 15: Enclosure surface approximated**

In the cast-in-place variant, shown in Figure 16, the elements become two-sided modular formwork which, when concrete is poured between them, creates an architectural enclosure. An offset grid of reinforcing steel is required on each side to resist tension, the size and quantity of which is determined by the enclosure's loading and orientation. The formwork is re-useable, permitting a small number of formwork elements to create a large variety and quantity of architectural enclosures without the difficulty and waste normally associated with the cast-in-place construction of complex geometry.



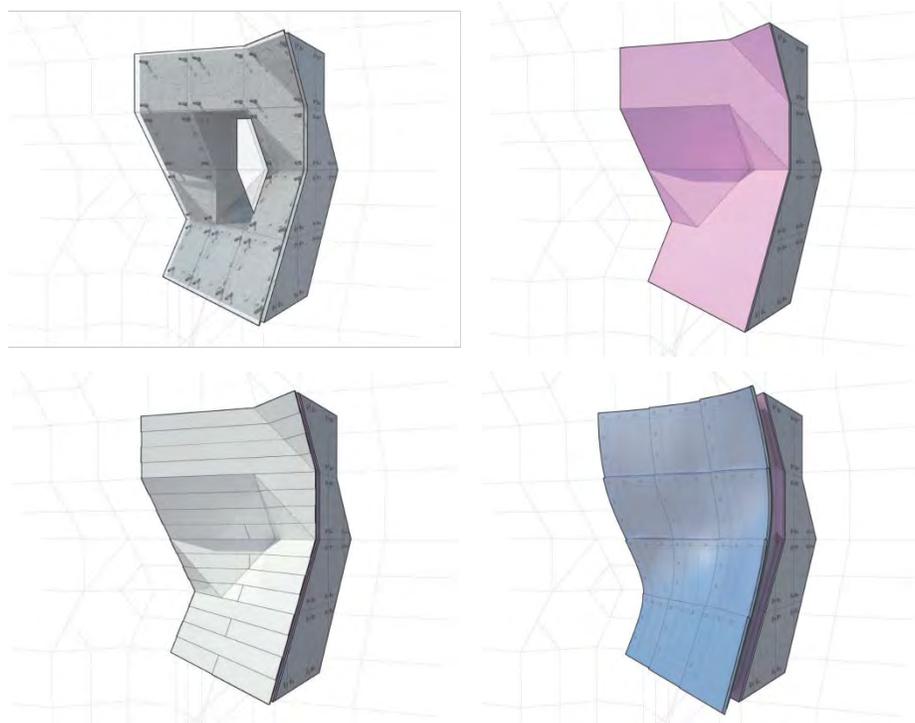
**Figure 16: Cast-in-place variant**

In the pre-cast variant, shown in Figure 17, the elements become factory produced concrete units. These units require tri-axial post-tensioning, which is provided by a system of connection rods and couplings, and which simultaneously facilitates the one-by-one assembly of the units and eliminates the need for elaborate shoring. Unlike the cast-in-place variant, the development of tensile capacity in the pre-cast variant is orientation-independent and reversible: the system can be disassembled and reassembled into new configurations as desired.



**Figure 17: Pre-cast variant**

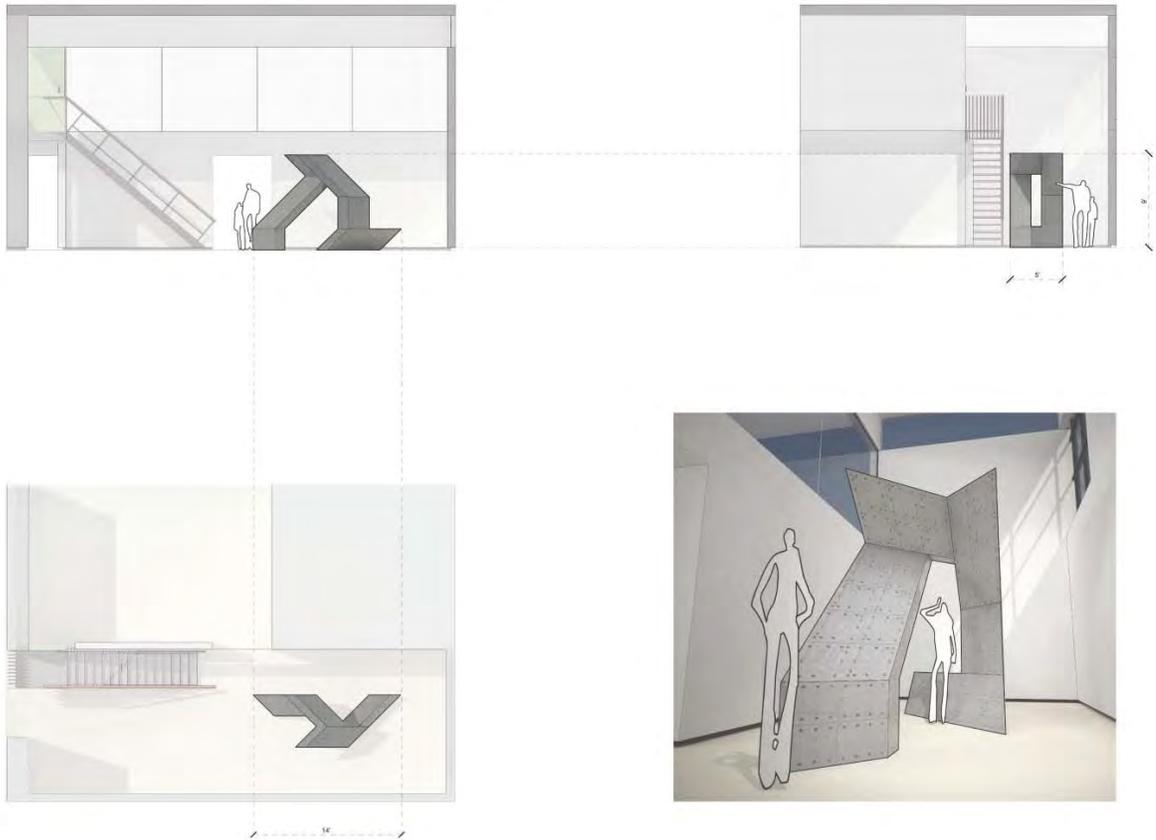
The flexible structural armature permitted by either variant offers many possibilities for cladding, including insulation, slatting, glazing and paneling, as shown in Figure 18. The armature's resolution can either be expressed directly, or can be used as a substructure.



**Figure 18: Cladding the armature**

#### 4.4 The Architecture Made Physical

Finally, a response to a specific site – a gallery – was proposed, as shown in Figure 19. The pre-cast variant was selected as the most suitable system for this temporary installation as it could be easily assembled and then demounted to be potentially re-mounted and/or reconfigured at a later time.

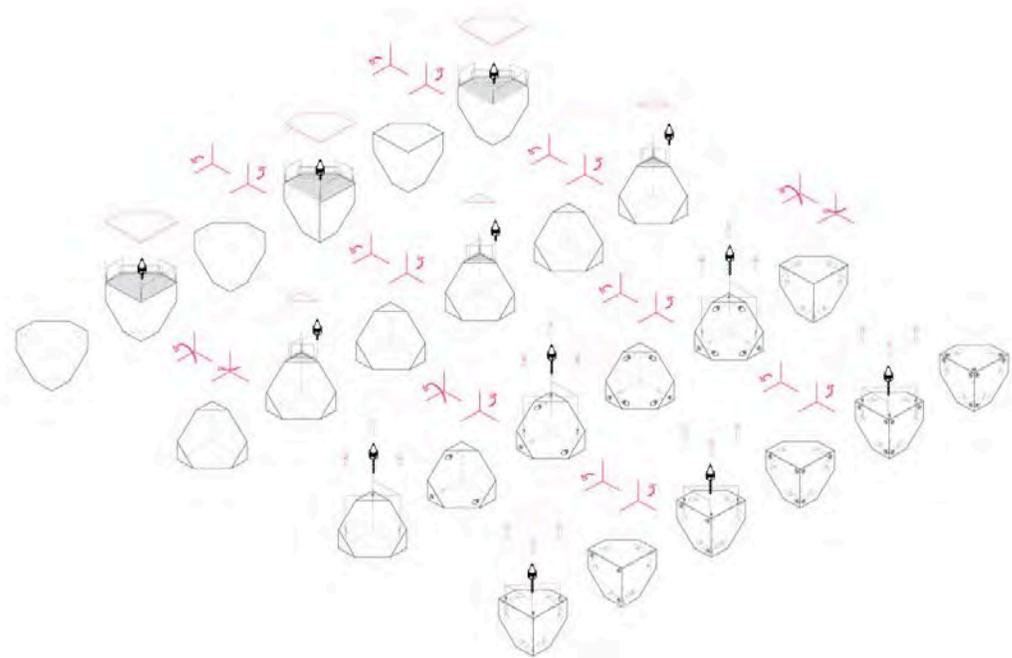


**Figure 19: Proposed gallery installation**

Figures 22-26 show aspects of the fabrication and installation process.



**Figure 20: Full-scale fabrication of the pre-cast variant**



**Figure 21: Milling procedure required to complete the pre-cast variant**



**Figure 22: Physical instantiation of the Marching Cubes algorithm**

## 5.0 Conclusions and Future Directions

The full-scale fabrication of the gallery installation revealed advantages and limitations of the design, which will be discussed in a future paper. However, two preliminary conclusions may be drawn:

- This physical instantiation of Marching Cubes, as a modular system of re-useable concrete elements that permit a large degree of formal variability using a small number of discrete parts, convincingly satisfies the established design imperatives.
- The direct consideration of constructional elements and the full-scale fabrication of those elements as a parallel exercise to conventional design activity empowers the architect to reclaim problem-solving agency (Kieran 2004).

The synergies between the digital and the physical demonstrated by this body of work validate further exploration into the translation of form-finding algorithms into material objects. The potential to leverage generative algorithms to facilitate design using these elements remains a tantalizing line of research as does the possibility of addressing non-concrete based instantiations of the elements.

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•  
LINES •  
AND  
NODES

In the early 1970s, plans to build an oil pipeline through Canada's Northwest Territories began to crystalize. The 760-mile line would bring oil from the Beaufort Sea south to transfer to global markets. A node in the proposed pipeline was the multiethnic community of Hay River. Locally known as the "Hub of the North," the community is the main commercial access point into and out of the territory. The region's only rail line and major highway end here. The Hay River lets out onto the Great Slave Lake where barges are loaded for shipment up the Mackenzie Valley River.

When the pipeline was proposed, the existing settlements along the lakeshore on both sides of the river were deemed unsuitable for the region's modernization. The "new town" development was laid out on a grid in the fashion of southern city planning. Two features marked the development. The first was a high-rise residential tower that would offer "modern" accommodations to the imagined influx of pipeline workers and new professionals.

The second was a cluster of ten small homes set up in a circle, colloquially referred to as Disneyland. Intended as subsidized housing, the units were available only to "Treaty Indians." The homes were meant to draw Dene people living on the river's east bank to clear the land for a new marshaling yard as part of the North's resource future. The Dene took political action to stop the development and preserve the east bank's graveyard and churches. About three hundred people continue to live on that side of the river today. The proposed pipeline was also met with resistance, and once oil prices dropped in the late 1970s, the project was shelved. The high-rise and Disneyland remain, raising questions about where resource lines can be drawn in space and time.

—Lindsay Bell

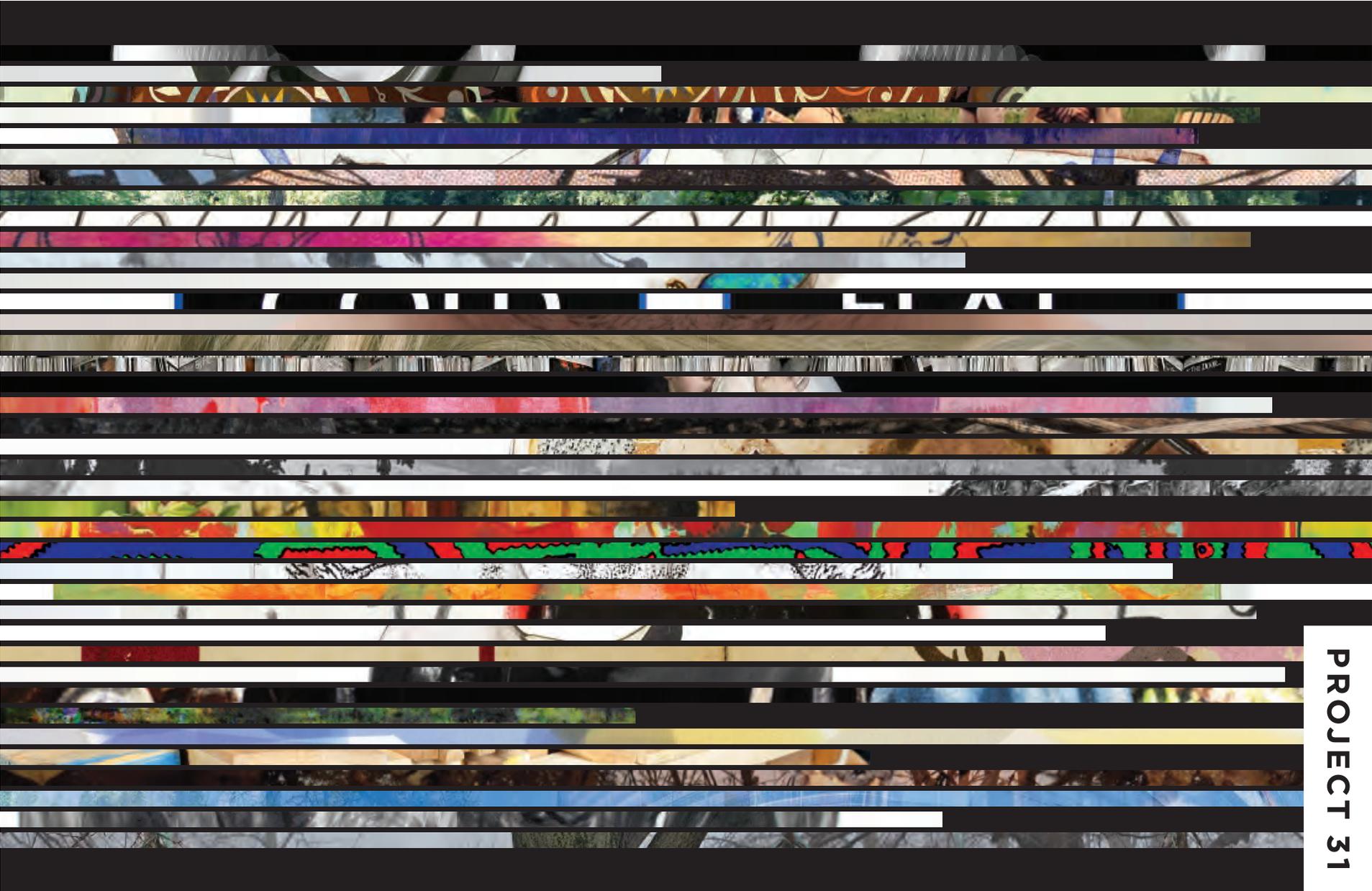


**LINDSAY BELL** (PhD, Toronto) is a Visiting Assistant Professor of Anthropology at SUNY, Oswego. Her interests are grounded in long-term ethnographic fieldwork with indigenous communities touched by large-scale resource development in Circumpolar North America. Her latest work investigates the role of images in mediating the place of indigenous life and arctic environments in (inter)national public culture.

**JESSE COLIN JACKSON** based in Los Angeles is a Canadian artist and designer. Jackson's work centres on object- and image-making as discursive modes of architectural production. Jackson is an Assistant Professor in the Department of Art at the University of California, Irvine, and is represented by Pari Nadimi Gallery in Toronto.

**TORI FOSTER**'s work centers on emergent behavior and the urban landscape. She has been the recipient of more than twenty artist awards and grants and her work has been exhibited in 16 countries worldwide. Foster is Adjunct Professor at OCAD University and is represented by Pari Nadimi Gallery in Toronto, Canada.

Images by Jesse Colin Jackson and Tori Foster:  
 Top: Hay River Time Overlay Test #1: Commercial Road  
 and Woodland Drive (Nothing Going On), 2013  
 Bottom: Hay River Space Overlay Test #1: Porrit Place (Disneyland), 2013.



**PROJECT 31**



LOT 37

## JESSE COLIN JACKSON AND TORI FOSTER

### *Eight Streetcar Shelters (Day), Spadina Avenue*

Chromogenic print, edition: 1 of 8

2011, 24" by 96"

Courtesy of Pari Nadimi Gallery

Estimate: \$4,000-\$4,500

*Iterations* is a series of 96" by 24" panoramas of familiar built forms and their surrounding environments. Each panorama comprises seven or more photographs that are composited through transparency overlay. For example, *Eight Streetcar Shelters (Day), Spadina Avenue*, consists of eight different streetcar shelters on Spadina Avenue, superimposed to create a juxtaposition of the common and unique characteristics of

each panoramic scene. Consistent elements reinforce each other through repetition, while inconsistencies appear ghost-like. The archetype of each form emerges as a result of the accumulation of formal information.

This project brings together Jackson's photographic practice, focused on architecture and urbanity; and Foster's media practice, focusing on emergent forms and behaviour.

Tori and Jesse are directing the auction proceeds from their work to third-year scholarships for Environmental Design and Integrated Media students.



WORK  
問  
SHOP

MINING  
MODERN



**Andrew Jones** Toronto

Andrew Jones designs furniture, architecture, interiors and lighting for clients locally and abroad, including Keilhauer, Gloster, Teknion, and Umbra, among others. Through research and collaboration with manufacturers, Jones finds appropriate solutions that are both useful and durable and creates forms that are expressive and materially beautiful. He has won numerous awards, including three prestigious I.D. Magazine Annual Design Review awards. His work has been exhibited at MOMA and the Venice Biennale, and is in the permanent collection of the Royal Ontario Museum and the Design Exchange.

**Blanc de Chine** Hong Kong

Established in 1986 as a design workshop and in 1990 as a retail group, Blanc de Chine seeks to create depth in design by drawing inspiration from Chinese culture and philosophies. Blanc de Chine was the first luxury brand to make a serious effort to translate traditional Chinese cultural values into modern fashion that befits today's lifestyles. Its interpretations of the Qi Pao, Mine O, and Zhong Shan suit are groundbreaking and have successfully brought Chinese design to the world of haute couture. Blanc de Chine, which literally means the "White of China", is a term that reflects the admiration of 18th century French connoisseurs of the exquisite purity of Chinese white porcelain originating from the Fujian Province. It symbolizes a time when the West looked to the East for beautiful and luxurious creations. Blanc de Chine offers women's and men's wear, fashion accessories, home accessories and bespoke services through its stores in New York, Hong Kong and Beijing.

**Brent Cordner** Toronto

Brent Cordner is an industrial designer who lives and works in Toronto. His Felt chair for Keilhauer won 'Best in Show' for innovation at NEOCON in 2002. He was subsequently awarded a 'Best in Canada' award for the same product at the Toronto Design Exchange the following year. Brent has taught both architecture and furniture design at the University of Toronto and has been an instructor at the Ontario College of Art & Design. He is interested in light construction, tensegrity, biomimicry and responsive technology for their potential application in industrial design and architecture.

**Elena Manferdini** Los Angeles

Atelier Manferdini is an interdisciplinary design firm that has been recognized internationally for its imaginative architecture, fashion, and furniture. Their

Ricami stool was recently added to the permanent collection of the Los Angeles County Museum of Art and their Fabric Tower was featured in the January 2010 issue of Architectural Record. Atelier Manferdini's work has been featured extensively in the national and international media, including A+U, Domus, The New York Times, Elle, Vogue, Icon, Form, and Metropolis.

**EXH Design** Shanghai

Based in Shanghai, EXH Design is committed to exploring contemporary design that bridges Chinese and world cultures, leading to architecture, interior design, furniture, and products for the home of the highest quality. Contemporary Ming-style furniture by EXH, including a pair of handsomely proportioned Ming-style chairs from their "A la recherche du temps perdu" furniture collection, was presented in Wallpaper magazine's special "Made in China" issue in June 2009.

**Gord Peteran** Toronto

Gord Peteran is an artist that operates on, in, or often near the territory of furniture. He has been referred to as the Bugatti of contemporary design, the undertaker of craft and the conceptual sniper of the furniture form. A retrospective exhibition of Peteran's work titled "Furniture Meets its Maker" has toured major art museums across North America. Peteran teaches at the Ontario College of Art and Design.

**JBa** Toronto

Founded in 2009 by University of Toronto Master of Architecture students Byron Thomas White and Jeff Powers, JBa is a speculative research and design collective interested in countries, handrails, and all in between. In reference to their CNC-milled *Touching Element*, JBa quote Mies van der Rohe: "We must remember that everything depends on how we use a material, not on the material itself ...New Materials are not necessarily superior. Each material is only what we make of it."

**Jesse Jackson** Toronto

Architecture graduate Jesse Colin Jackson isolates a location, frames a scene and compiles a linear sequence of moments through time-lapse photography. He then creates a single composite image that incorporates dynamic information from multiple frames. He thus presents, simultaneously, parallel experiential narratives. In doing so, he calls attention to the vitality of

the space/location and creates surreal representations that suggest essential aspects of the place itself. His composites of key locations in Cao Chang Di, a village in the urban periphery of Beijing, reveal the state of conflict and compromise that characterize China's rapidly changing landscape.

**Katherine Xiao Kejia** Beijing/Washington DC

In analyzing the form of Katherine Xiao Kejia's calligraphy, what stands out the most is her brush stroke: rich and full of life, it exudes emotion at every rise and pause of her brush while blending into the overall structure of her calligraphy. Hailed as a child prodigy and exceptionally skilled at traditional forms of calligraphy, Xiao Kejia began experimenting with a new style of cursive or grass calligraphy after moving to Hong Kong in 1987. Combining large and small characters, often overlaid in different colors, Xiao Kejia succeeds in carrying over her classical training into new forms, producing a feeling of freshness and originality.

**MAP Office** Hong Kong

First presented at the 2007 Shenzhen and Hong Kong Bi-City Biennale of Architecture and Urbanism, *Unreal Estates of China* proposes an alternative reading of contemporary China. This specific project originated in the Pearl River Delta region and followed the path of a small traveling particle named PIXEL. This fictional character becomes the medium through which spaces/ places are explored. When PIXEL comes into contact with real spaces, it can morph and take on any possible visual angle, form or role, and finally roughly delineate the contours of a new topography. In the port, inside the factory walls, underneath the highway, through the newly urbanized farmland, PIXEL reflects the dramatic change of China's contemporary reality.

**Morris Lum** Toronto

*New Cultural Topographics* explores cultural immigration and integration in the Greater Toronto suburbs. In this project Lum has chosen to focus on an aspect of his own cultural identity and heritage: "I am interested both in the strong visual presence of the Chinese community in suburban Toronto and in the suburban landscape's culturally hybrid nature. In the case of a plaza, for example, you may encounter a Chinese restaurant beside a Caribbean roti house and a Tim Horton's." This unique mix of cultures echoes Lum's own hybrid heritage; ethnically Chinese but born in Trinidad and Tobago, Lum moved to Canada in his childhood. This hybrid nature of identity,

traces of migration patterns, and the development of cultural centres is central to Canada's identity both human and architectural.

**neri&hu** Shanghai

Established in 2006, neri&hu represents a contemporary Chinese aesthetic and a collective vision of modernity balanced by heritage. Founding designers Lyndon Neri and Rossana Hu, seek to reinterpret beauty by revealing raw materials, exposing an object's frame, and examining history and its path. Most neri&hu pieces are handmade; a reflection of a place whose masters of trade can still be found waiting for patrons in the lanes of Shanghai.

**Yu-Ting Aixinjueluo** Vancouver

Yu-ting is the nephew of Puyi Aixinjueluo, the Last Emperor of the Qing Dynasty. He has been painting since he was five years old. His father, Puquan, himself a famous Chinese artist, insisted that Yu-ting carefully study Chinese masterworks in order to fully understand traditional techniques and compositions. As such, his style brings together the elegance of traditional Chinese painting with Western painting techniques. Yu-ting is best known for his horse paintings. Executed on canvases of thin silk, these works capture the beauty and spirit of these mythical animals.

**Zut Design** Montreal

Zut Design's products couple modern design and craftsmanship with a strong desire to protect the environment. Zut Design produces a complete line of recycled rubber products for the office, for school, for home and for traveling.

**Larry Wayne Richards** Toronto/Natchitoches, Louisiana

Larry Wayne Richards is Artistic Director of WORKshop and Professor of Architecture at the University of Toronto, where he was Dean of the John H. Daniels Faculty of Architecture, Landscape, and Design from 1997 to 2004. A graduate of Yale University, Richards has curated and designed exhibitions for 35 years, including installations for the Canadian Centre for Architecture, the Venice Architecture Biennale, the Patricia Faure Gallery (Los Angeles), the University of Toronto Art Centre, and the University's Eric Arthur Gallery. Richards is a Fellow in the Royal Architectural Institute of Canada and at the Urban Design Institute (New York), and he is an International Associate of the American Institute of Architects. In 2007 Richards received the RAIC's national "Advocate for Architecture" award.

# Northern Public Affairs



Volume 4, Issue 1

February 2016

*Essays in celebration  
of political scientist  
GRAHAM WHITE:*

*The challenging future  
of Northern politics  
FRANCES ABELE*

*Public governance &  
education in Nunavut  
ANNIS MAY TIMPSON*

*Reflections from  
JACK HICKS,  
GABRIELLE SLOWEY,  
AILSA HENDERSON,  
& CHRISTOPHER  
ALCANTARA*

*Extinct: A suite of poems  
by JOANNA LILLEY*

*Life in Hay River's high-rise  
LINDSAY BELL  
& JESSE COLIN  
JACKSON*

*Overheard in Yukon's  
Legislative Assembly, book  
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*Arctic Interruptions*

## RESHAPING *the* NORTHERN IMAGINARY

*What do researchers owe the North? Three emerging scholars on  
why Northern research should be in Northern hands*

CRYSTAL FRASER *on residential school research  
in Gwich'in communities*

*Mexican in Alaska: SARA KOMARNISKY  
explores diversity in Arctic America*

## Life in Hay River's High Rise

*Text: Lindsay Bell*

*Photos: Jesse Colin Jackson*

**I**n Canada's Northwest Territories, rail, river and road meet in the town of Hay River – the transportation “Hub of the North.” Known for its key role in facilitating the movement of natural resource goods and labour in, out, and around the territory, pluri-ethnic Hay River is often described by outsiders as “not the real North.”

Whether you arrive to Hay River in a World War II era DC-3 operated by Buffalo Airways or by car via the only paved highway, the first structure to catch your eye will be a yellowed 17-storey building. Mackenzie Place, known locally as simply “the High Rise” is the tallest residential building in the NWT. Completed in 1975, the tower was anticipatory. The 80 units were to be filled by an influx of workers and residents that would accompany the proposed Mackenzie Valley Pipeline.

On the flat landscape in a town of 4,000, the High Rise can be seen from just about anywhere, yet few people, not even the residents, would direct a visitor's (or an anthropologist's) attention to it. “That's not the REAL Hay River!” people say when asked about the tower. Such declarations about “the real” elements of a place signal the ways in which people struggle to define who they are by emphasizing some things while erasing, or downplaying, others.

From almost every vantage point, the tower is the stand out feature in Hay River. It is the only building of its type for over 1,000 kilometres, and yet for most visitors to the NWT, the tower is by and large a sight unseen.

Hiding the High Rise is impossible: It is Hay River's CN Tower. It visually interrupts the landscape from all directions. It can be seen from as far as 75 km away. For those who do visit, it's a sight that many don't know what to make of. For locals, the High Rise, like many urban towers, went from being a promise of a modern future to an all too present eyesore. This unlikely Northern icon interrupts our collective sense of Northern places.

Imagining the North as unruly and unspoiled wilderness is part of Canadian national mythology. Because of this, tower life is not part of most people's vision of the North. Based on 18 months of fieldwork in the lone tower, and follow up work with artist-researcher Jesse Colin Jackson, this visual essay invites you to see the tower and its residents as central to

Canada's Northern cultural and political landscape.

While a post-war tower jutting up from the sub-arctic landscape may seem unusual, Northern Canada has been the site of many experiments in planned urbanization and modernization. Inuvik, known for its above ground “utilidors” and brightly painted homes, was planned in the 1950s as part of larger Cold War efforts to develop and protect the North. Iqaluit, formerly Frobisher Bay, began as a military base and was expanded to an administrative centre during these same years.

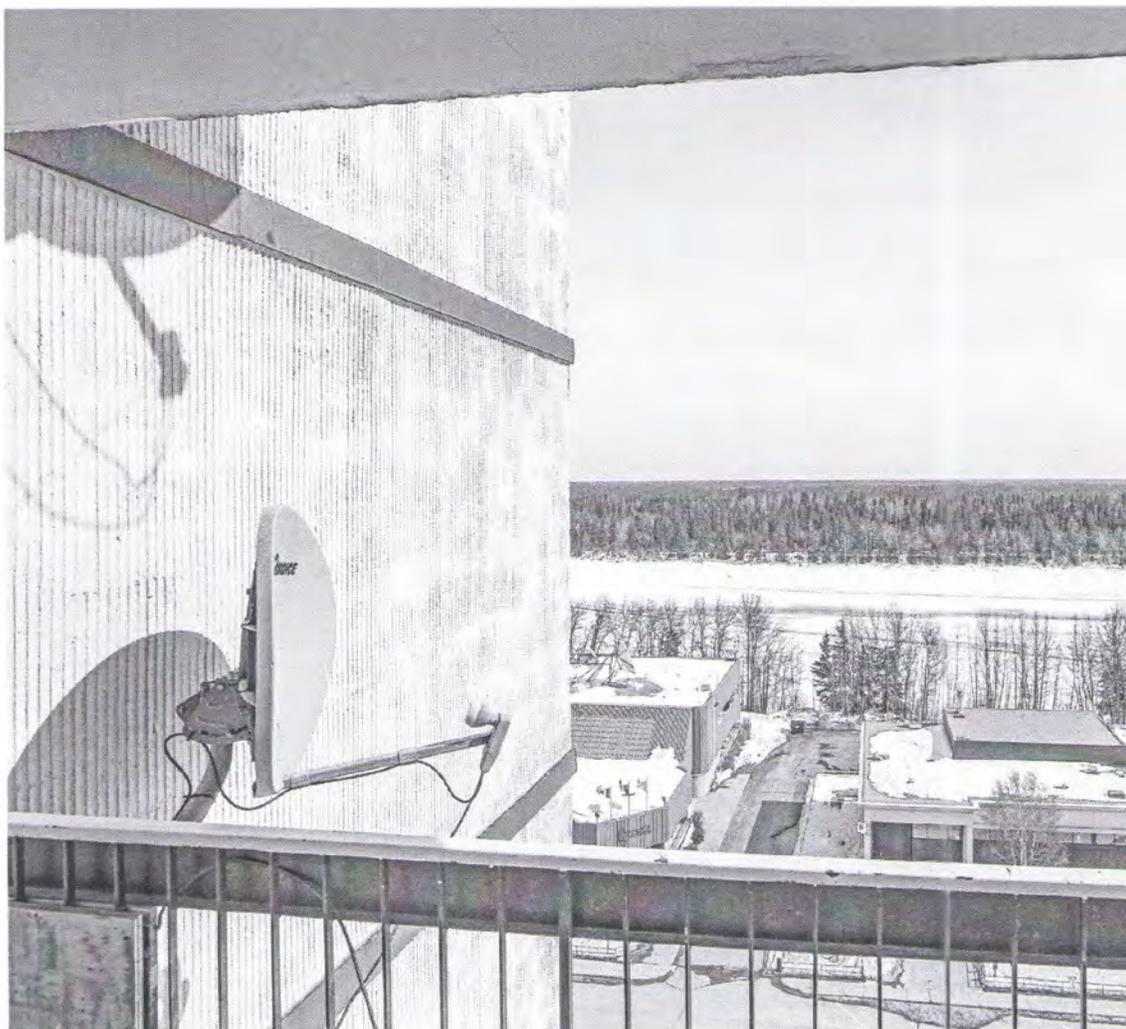
In the 1970s, the proposed Mackenzie Valley Pipeline was slated to carry oil and gas from the Beaufort Sea, southwards to the railhead in Hay River where it would leave for refineries further south. The pipeline project was defeated due to a mix of Aboriginal activism, changing Canadian policy towards Aboriginal lands, and a substantial drop in the price of oil. Nevertheless, infrastructure projects had already gone ahead. Projects like Hay River's high-rise tower.

The Mackenzie Place High Rise was part of a planned relocation of the original settlements, which were located along the lakefront on both sides of the river. This was partially to make room for a larger marshalling yard along the lakefront, which was already serving as the Northern Transportation Corporation Limited's (NTCL) marine shipping headquarters. The relocation was also meant to deal with the seasonal flooding of the original town site when river ice broke up every spring. In 1963, federal administrators for the region decided that a “new town” would be developed further up the river. Its centrepiece was the High Rise. As a result of the defeated pipeline and nominal population growth, and resistance to relocation on both sides of the river, the High Rise has never been filled to capacity.

Physically, the Mackenzie Place High Rise has reached its best before date. Its recently repainted exterior belies its inadequate insulation and tired mechanical systems. The original tower design included shops on the ground floor, conference facilities on the second, and the first coin-operated laundromat in town.

These spaces have been repurposed many times. Most recently, the bottom floor was used as remedial classroom space for the nearby high school. Hay River's lone radio station has been broadcasting from the second floor for the past 20 years. As in many towers, the





residential units are stratified vertically, with the nicest units on the upper floors. Units in this building are also stratified east to west, with the riverside units seen to be more desirable than the townside units, both because of the view and their superior satellite television orientation. Like mushrooms growing on the sunlight side of a fallen log, grey satellite dishes line only the one side of the building.

Local elites claim the High Rise is an epicentre of drug activity and complain about the building owner's failure to contribute to the town's beautification efforts. When the High Rise has garnered outside attention, the focus has been on violence and tragedy. Several regional news stories told of a young woman who moved up from Alberta then "fell" from the 16<sup>th</sup> floor. These were shortly followed by reports that a jealous ex-partner killed a local fisherman and his wife. These anomalies easily overshadow the everyday life for those in the tower.

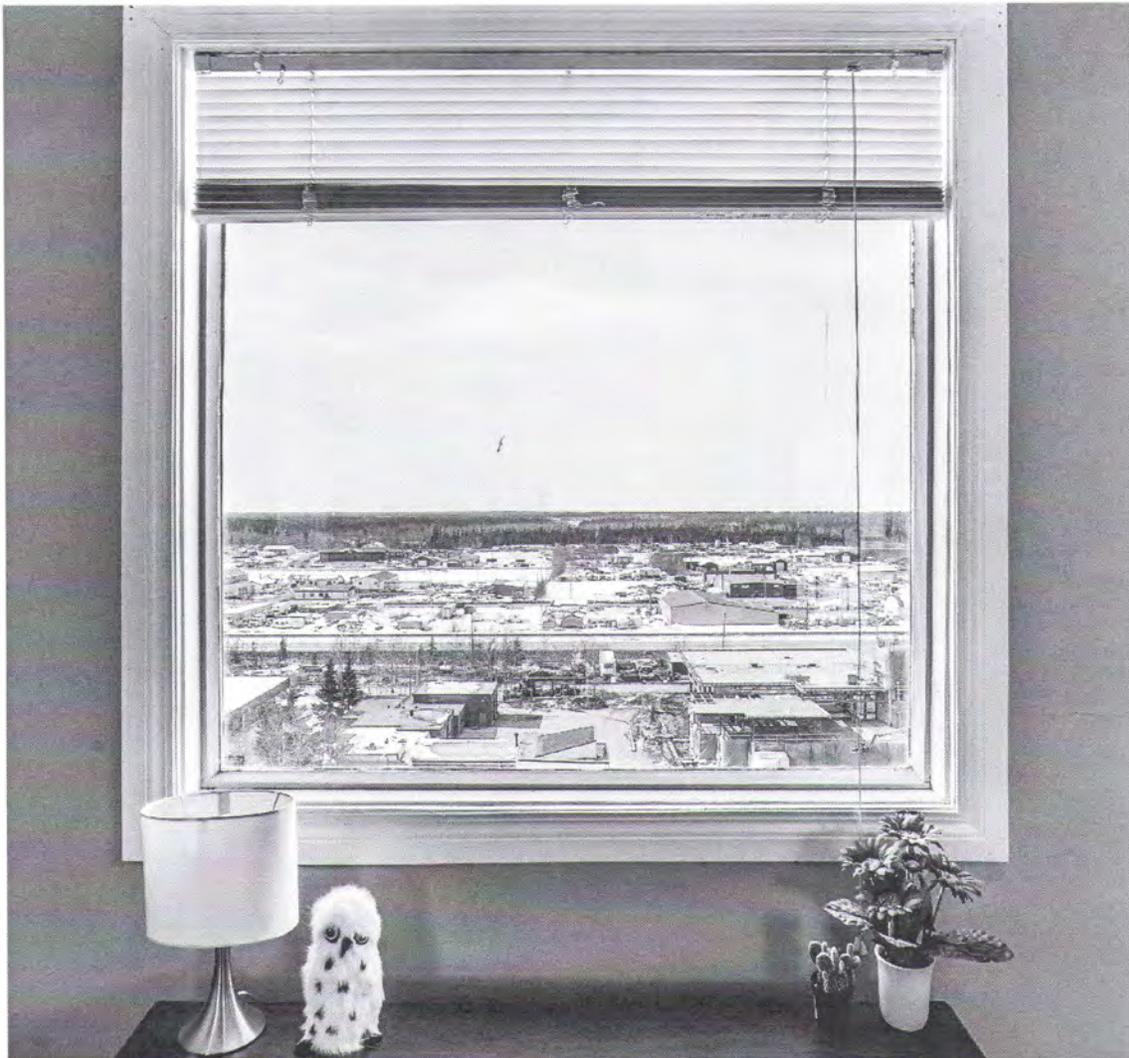
What I learned from spending a year living in the tower as an anthropologist was that those who make their home in the High Rise, like those in other tow-

ers like it elsewhere in Canada, see it as an important stepping-stone in the search for "the good life."

For Ivan, Hay River wasn't supposed to be his "forever home." What was supposed to be a brief stay before moving to Miami lasted much longer. In 1978, his family fled Chile just as military dictator Pinochet had come to power. Ivan arrived in Hay River just as a nearby lead and zinc mine was moving into full production and getting work proved easy. As he explained:

Being an immigrant and coming up here is like winning the [lottery] ... When we arrived, they were desperate for help. [My] Dad took a job as a janitor for \$1,000-a-week and could not believe it! Although my father had been wealthy in Chile, we became servants, but we were well-treated, so that was confusing to us.

Other residents are eager to go "home." Adore, an engineer from the Philippines uses his second bedroom as a mini recording studio. On any given Saturday or Sunday, you can find him behind an



electric piano, wearing headphones recording songs he has written or adapted to send home CDs to his wife and children. He came to Canada seven years ago and has been unable to return to visit them. Adore moved North to save more money in the hopes of returning to the Philippines soon.

Destiny, a 22-year-old Dene woman from the nearby First Nation, folds baby clothes she buys each week at the town's local thrift shop. For her, the High Rise means doing things "her way." Like many young adults, Destiny wants to feel in charge of what's to come. With a baby on the way, she hopes that moving to a bigger town in the NWT will offer her more job prospects.

For Mary, a nurse practitioner originally from Ontario, the High Rise is the road out of many more years of work. She came North to save for retirement. She sits at her dining room table painting pieces of driftwood she collects at the beach on her morning walks with her pug, Oscar. "This place has everything I need. At my age, you have learned that

it doesn't take much to keep on," she laughs.

Many people, like Nicholas, make the High Rise their first stop in town while they decide whether to make Hay River home or head back south to their hometowns. Nicholas arrived from eastern Quebec seven years ago to work as a teacher in the town's small French language school, *École Boréale*. He left his High Rise apartment after a year when he decided Hay River would be permanent "for now." He bought a small home on the river's edge but returns to the High Rise every week to broadcast his Francophone radio show. The NWT is home to many Francophone and Francophile families.

Although High-Risers may not self-identify as being part of a coherent cultural whole, they are extremely insightful with respect to questions of political economy. Their life trajectories reveal the types of conjunctures that bring together a labour supply just in time for resource booms and busts. The larger study from which this essay is drawn chronicles individual High Rise resident stories with an aim



of tying them together in order to understand the changing cultural and political landscape of urban and peri-urban communities in the North.

The everyday lives and experiences of tenants and the construction and maintenance of the physical building provide a vantage point from which to understand larger questions of social reproduction. Instead of thinking of Hay River, the High Rise and the people that live there as somehow “not the real North,” I argue that Northern urban and peri-urban spaces are in fact crucial parts of the history of Canada itself. The late modern concrete residential tower – and its associated physical and existential problems – is no longer an image associated with progress in Canada. Nevertheless, understanding the evolving function of these multi-unit dwellings is fundamental to understanding a community’s strengthening – or stilling – heart.

Hay River is no exception.

The Mackenzie Place High Rise is deeply threaded into the story of the town. Hay River, the North

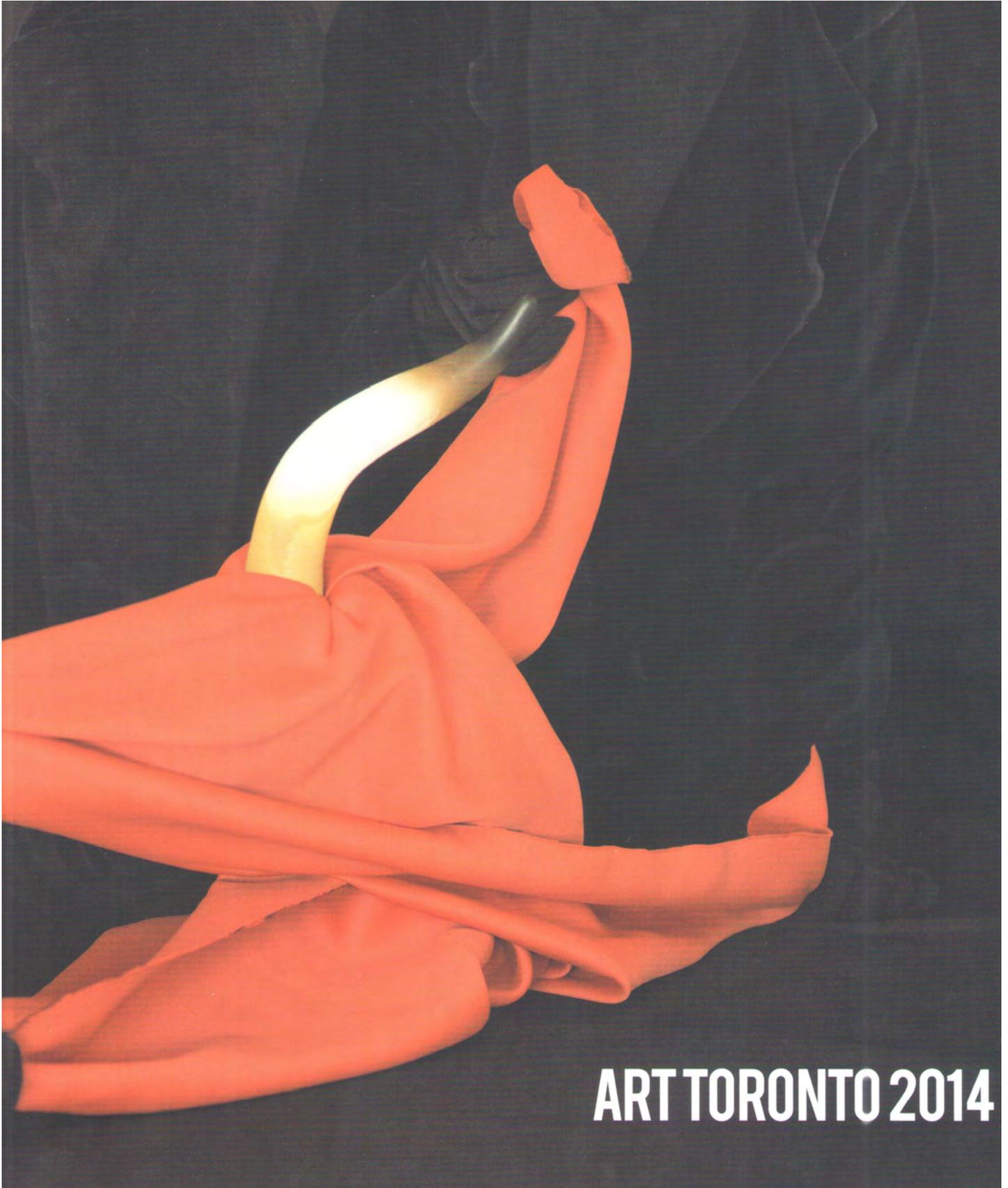
and even Canada in the broadest sense cannot be understood without understanding the High Rise and the stories that it holds. Demographers predict that the circumpolar world will see growth in their peri-urban and urban centres in the years to come. The High Rise and other modern experiments tend to interrupt stories of progress and improvement.

We’d do well to fully see them and those who live in them, in the years to come. ●

*Lindsay Bell is a professor of anthropology at the State University of New York at Oswego. She was a school teacher in Aklavik and Hay River NWT before going on to complete graduate degrees at the University of Alaska Fairbanks and the University of Toronto.*

*Jesse Colin Jackson is a Canadian artist based in Southern California. He is an assistant professor in the Claire Trevor School of the Arts at the University of California, Irvine. Jesse spent the summers of his youth in the Yukon and the NWT working for his dad’s construction company.*





**ART TORONTO 2014**

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Jarod Charzewski  
Sarah Farndon  
Tori Foster  
Joe Hambleton  
Jesse Jackson  
Felix Kalmenson  
Abbas Kiarostami  
Peter Kingstone  
Elena Kovylna  
Elle Kurancid  
George Legrady  
David McDougall  
Joe McKay  
Lucy & Jorge Orta  
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Eugen Sakhnenko  
Jennifer Stillwell  
Rhonda + Trevor Weppler  
+ Mahovsky



George Legrady  
*6 Men - Jerusalem*  
31.5 x 47.5 inches  
lenticular  
2013



Tori Foster + Jesse Jackson  
*Ten Low-Rise Apartments, Regent Park*  
40 x 120 inches  
c print  
2014

# METROPOLIS

ARCHITECTURE AND  
DESIGN AT ALL SCALES  
July/August 2015

The Metropolis Guide  
to the World's  
Most Livable Cities

Koolhaas on OMA's  
Fondazione Prada

Olson Kundig's Luxe  
Northwestern Cabin

NeoCon Wrap-up

The best  
cities to  
live, work,  
and play



It's estimated that some one million people live in the concrete high-rise residential towers of Toronto's inner suburbs. Built between the 1950s and 1980s by mostly private developers, the towers were envisioned as a commodious real estate option for young middle-class couples; after Canada's liberalization of its immigration policies, the slabs quickly became enclaves for migrant populations. "They play an absolutely crucial role as entry housing for newcomers,

but they weren't designed for that," says architect Graeme Stewart, who for the last decade has mobilized political interest in the towers to preserve their building stock and vital social role. Period zoning mandated that the slabs be set back in a field of green, effectively creating dead zones for commercial and social activity. Rezoning measures based, in part, on Stewart and partner Sabina Ali's research, have a good chance of being passed into law.





THIS PAGE AND OPPOSITE: COURTESY JESSE COLIN JACKSON

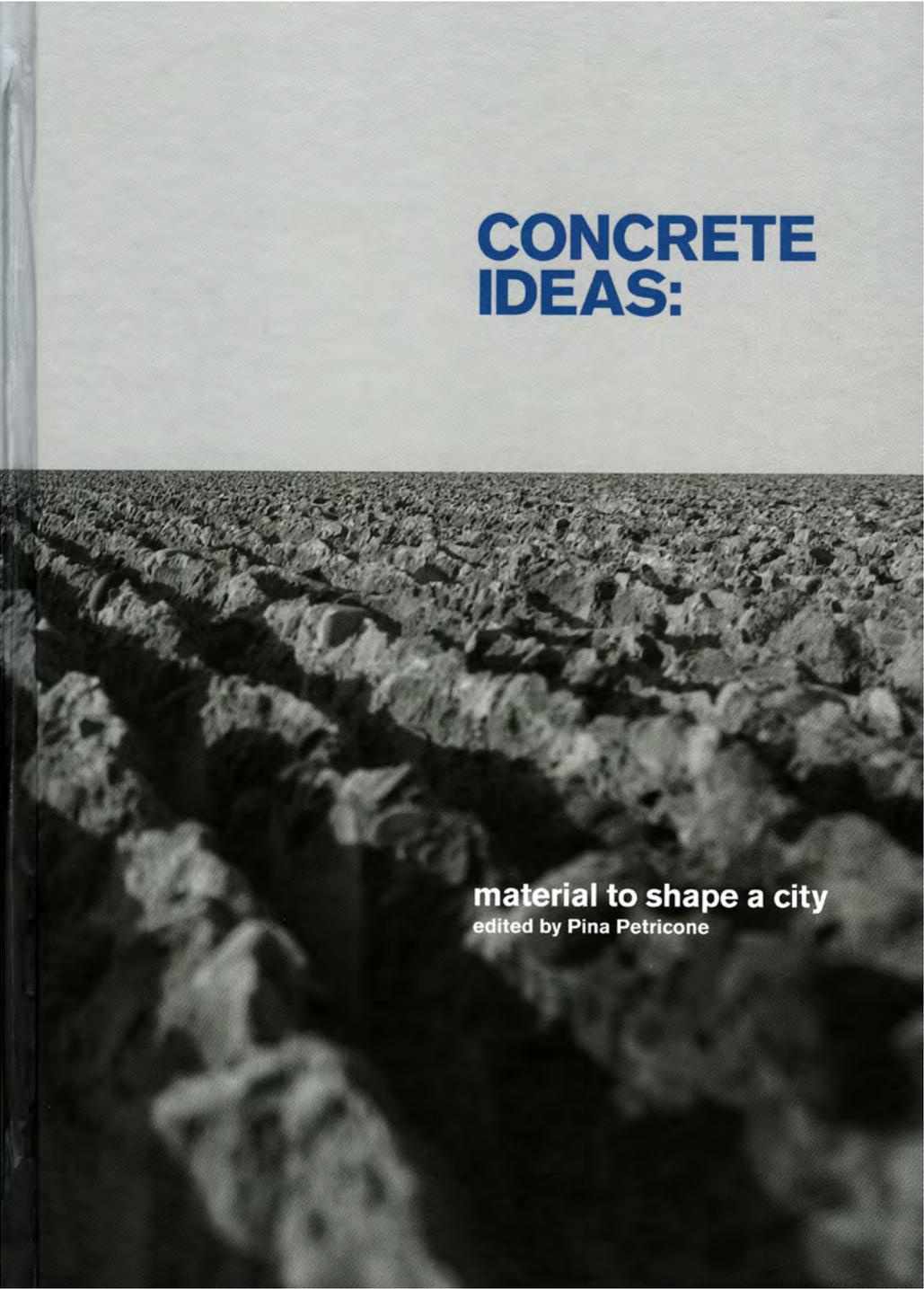
**THE GLOBE AND MAIL**

FRIDAY, APRIL 19, 2013

# Globe Real Estate



**ARCHITECTURE**



**CONCRETE  
IDEAS:**

**material to shape a city**  
edited by Pina Petricone



Weston, Ontario

section

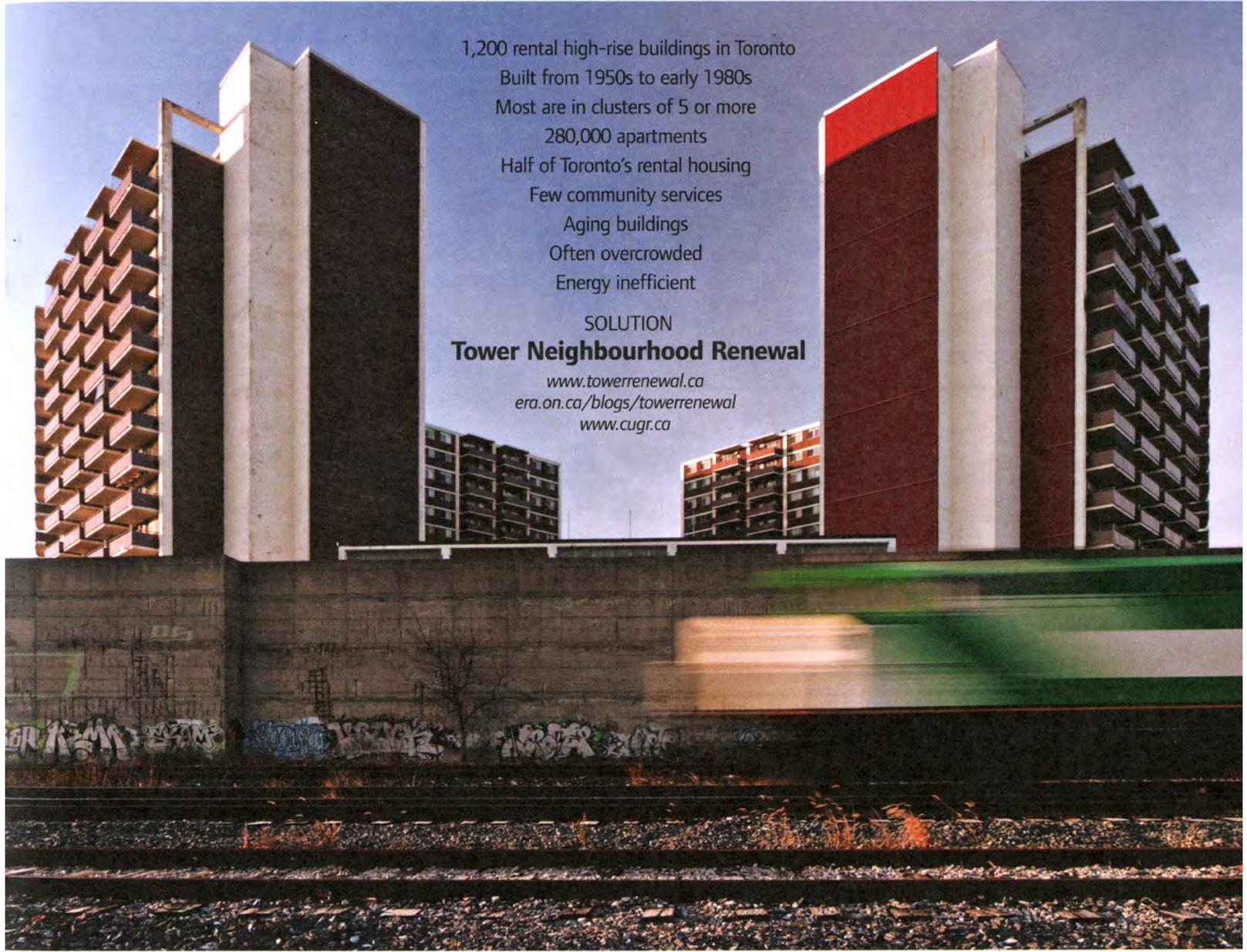


# THE THREE CITIES WITHIN TORONTO

Income Polarization Among Toronto's Neighbourhoods, 1970-2005

BY J. DAVID HULCHANSKI, UNIVERSITY OF TORONTO





1,200 rental high-rise buildings in Toronto  
Built from 1950s to early 1980s  
Most are in clusters of 5 or more  
280,000 apartments  
Half of Toronto's rental housing  
Few community services  
Aging buildings  
Often overcrowded  
Energy inefficient

SOLUTION

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# BLUEPRINT 337

ARCHITECTURE | DESIGN | ART

## MVRDV'S MARKTHAL ROTTERDAM

THOMAS HEATHERWICK | RICARD SERRA | CHARLES JENCKS | GILLIAN WEARING

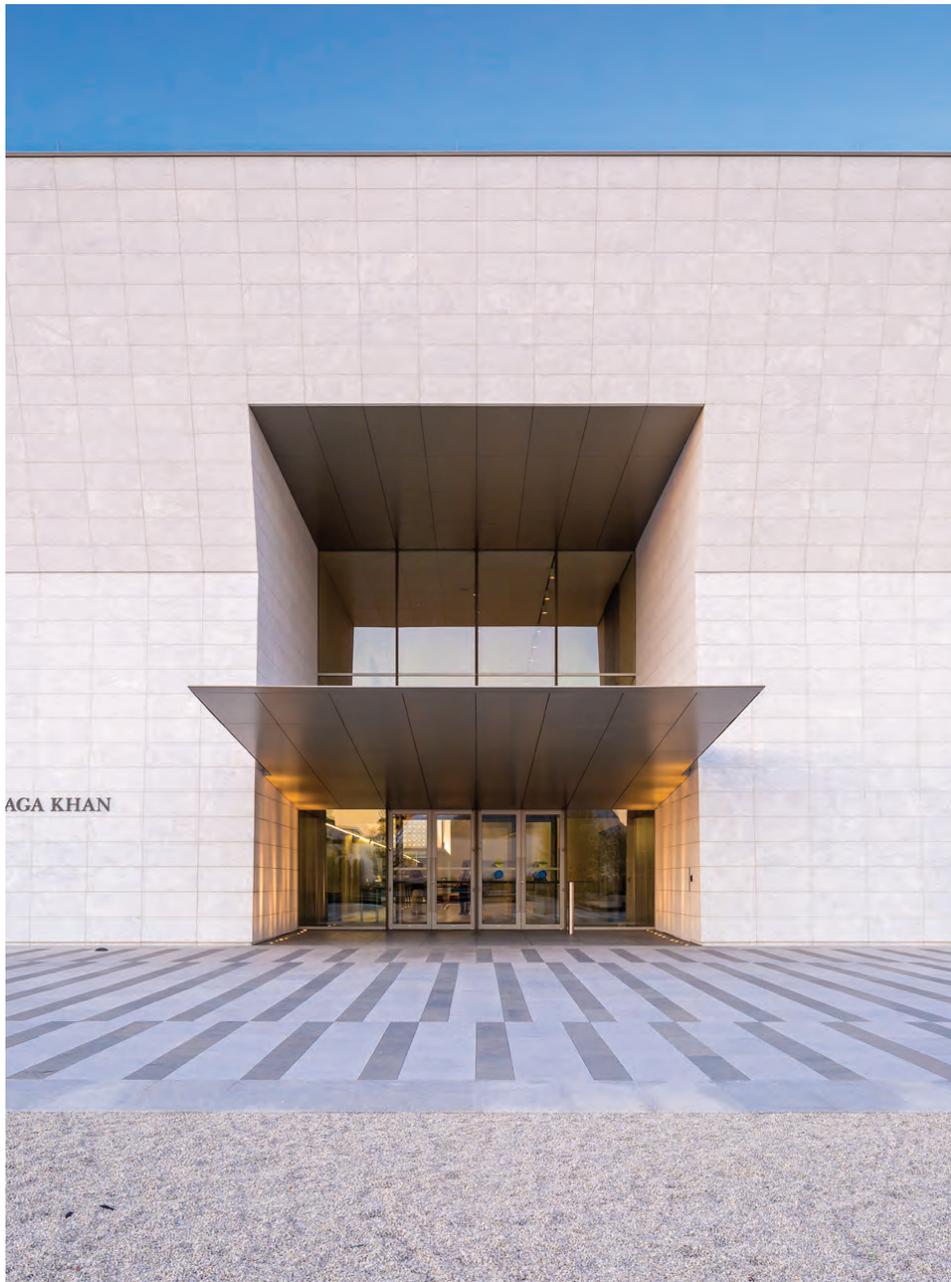


## STOIC SPLENDOUR

|  
Words George Baird  
Photography Jesse Colin Jackson

**Eschewing original plans for a London site, the Aga Khan Foundation has inaugurated a new museum of Islamic art in Toronto, designed by Metabolist veteran Fumihiko Maki. Together with Charles Correa's new Ismaili Centre, the geometrically striking complex reflects the city's cultural mix, finds seasoned Torontonian George Baird**





Over the past year, curious Torontonians driving on the Don Valley Parkway, a major expressway that links the city's outer suburbs to its downtown, have witnessed the construction of two striking new buildings and a garden. Adjacent to the intersection of the Parkway with a mid-suburban arterial highway are now located the new Aga Khan Museum, by the office of the Metabolist Group co-founder, architect Fumihiko Maki; a Jamatkhana (prayer hall and community centre) designed by celebrated Indian modernist Charles Correa; and a formal garden by Lebanese landscape designer Vladimir Djurovic. All three are intended to serve the growing Ismaili population of Toronto, as well as other residents of the city, and visitors to it.

The Canadian Ismaili community had planned to construct a Jamatkhana – literally a communal or gathering-house – on this site for many years. The museum, on the other hand, was originally intended for London. When bureaucratic impediments to its construction there became apparent, the Aga Khan Trust for Culture took the decision to locate the museum

in Toronto instead, on the same site as the planned Jamatkhana.

This decision is probably not as surprising to Canadians as it may be to observers elsewhere, on account of the long-growing rapport between the various agencies of the Aga Khan Development Network and Canada. This rapport was sharply accelerated with the decision of then prime minister Pierre Trudeau to accede to an appeal of the Aga Khan in 1972, to admit to Canada some 10,000 Ismaili refugees who were in the process of being expelled from Uganda by the dictator Idi Amin. This past year has seen another notable marker when the Aga Khan was awarded the Gold Medal of the Royal Architectural Institute of Canada in recognition of his exemplary use of architecture 'as an instrument to further peaceful and sustainable community development around the world'. This relationship comes to a climax with the opening of the new complex of buildings in Toronto.

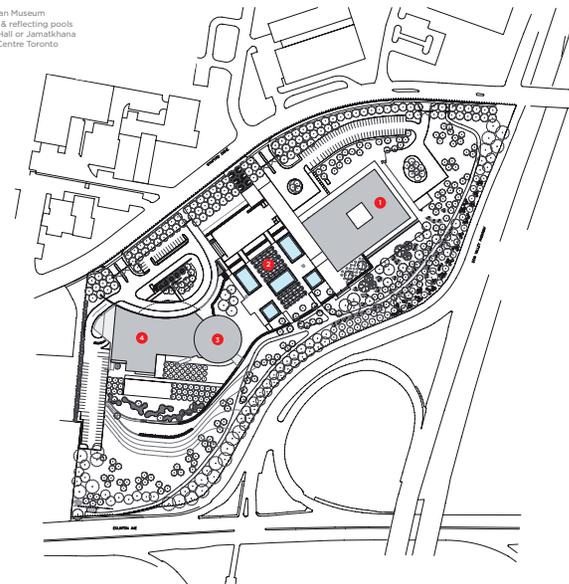
The museum building and Jamatkhana sit on a rise of land in the north-west quadrant of the intersection of the Parkway and the east-west arterial highway, with the markedly Islamic-

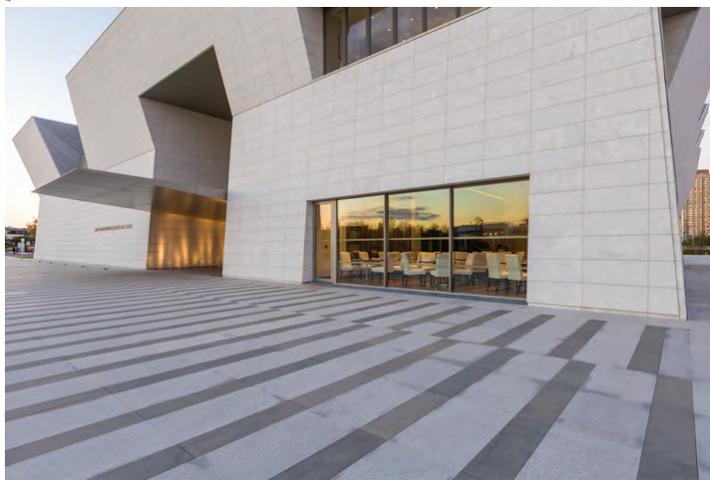
1 (previous page) – The serenity of Djurovic's landscaping complements Maki's stoic volume

2 (opposite page) – A simple aluminium canopy juts from the smooth Brazilian granite which envelops the museum

#### AGA KHAN COMPLEX SITE PLAN

- 1 Aga Khan Museum
- 2 Garden & reflecting pools
- 3 Prayer Hall or Jamatkhana
- 4 Ismaili Centre Toronto

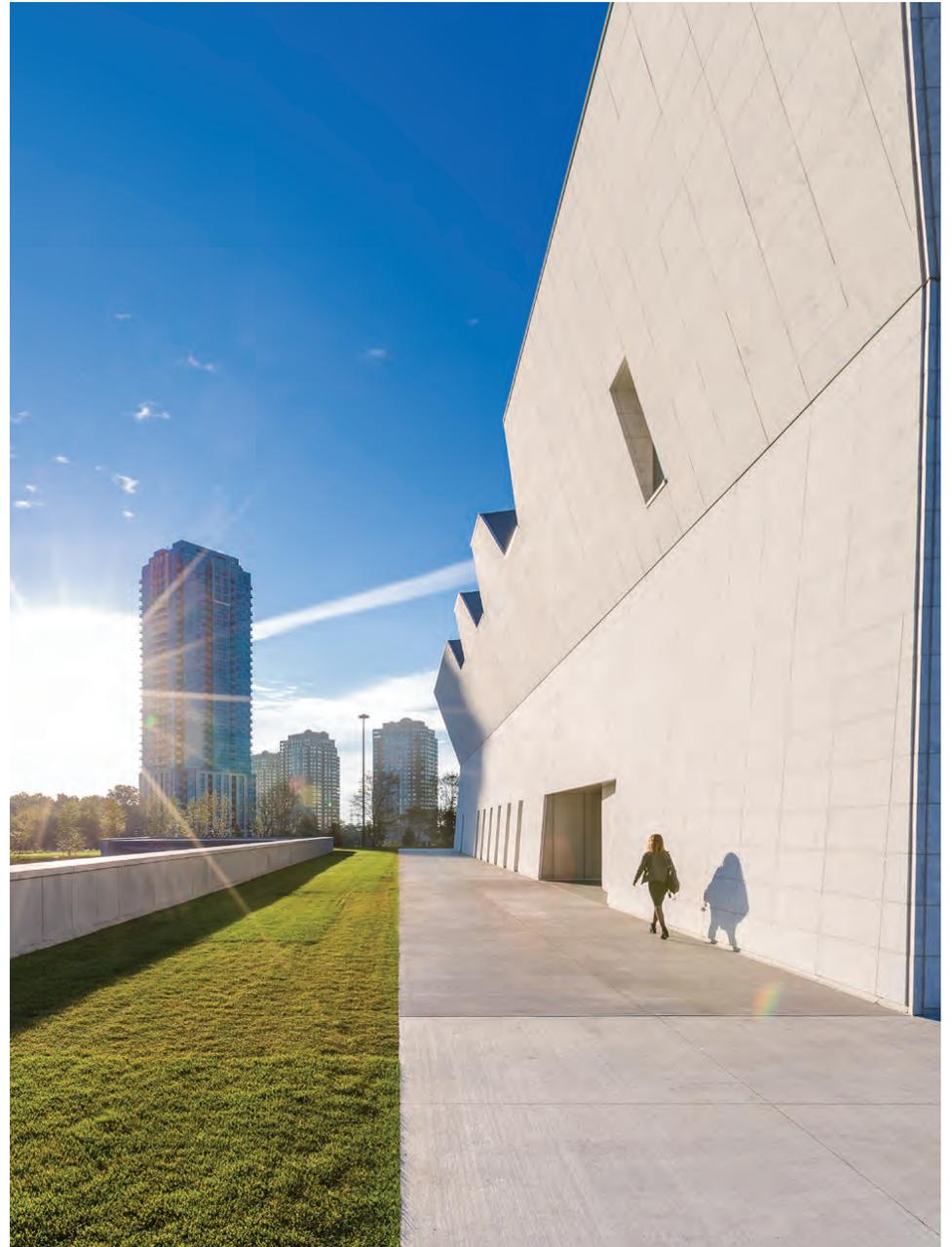




3 - Such simplicity as seen at the Aga Khan Museum belies the care needed to maintain a serene air of perfection

4 - The ground floor of Maki's rectangular volume houses the Diwan restaurant and other public facilities

5 (opposite page) - The expansive landscaping of the Aga Khan complex contrasts with its urban context



influenced garden in between them. Correa, Maki and Djurovic, in their individual practices, share a common thread between East and West, and all three worked in collaboration with the Toronto architectural firm, Moriyama & Teshima.

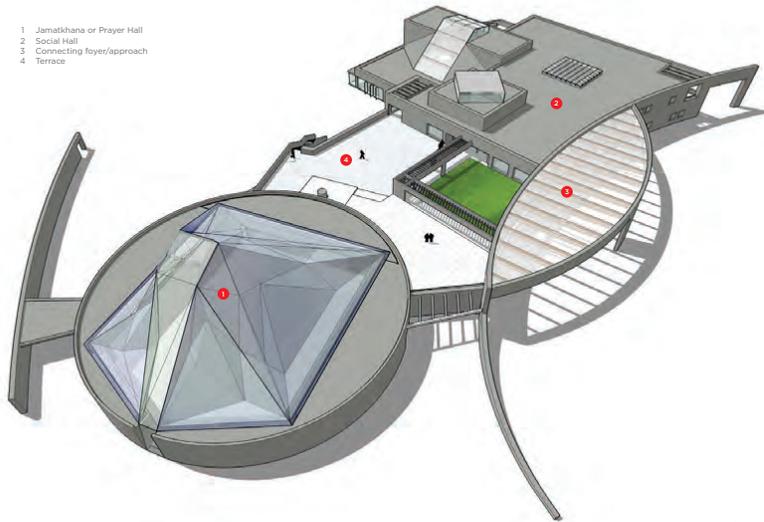
The museum houses a collection of Islamic artefacts which includes portraits, textiles, miniatures, manuscripts, ceramics, tiles, medical texts, books and musical instruments representing more than ten centuries of human history, and encompassing a geographic area stretching from the Iberian peninsula to China. It is a collection surpassed in cultural consequence by only one other in the entire world: that of London's Victoria and Albert Museum. What is more, the museum administration plans not only to organise displays of material from its own permanent collection, but also to curate contemporary exhibits of works from the Islamic world.

While the complex of buildings and garden faces the major highway intersection, vehicular and pedestrian access to it derive from a more local street to the north with extensive

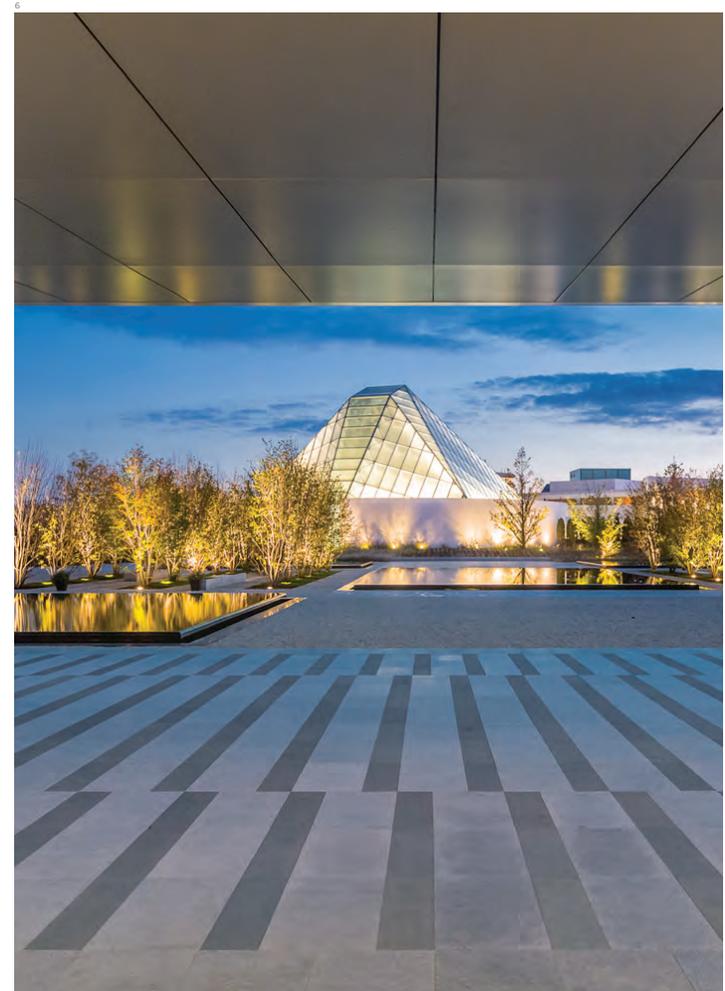
parking for vehicles provided, most of it below ground. The Jamatkhana is located at the west end of the site, and the museum at the east end, with Djurovic's dramatic garden in between them. Comprising a grid of aromatic serviceberry trees and reflecting pools, the garden makes a very strong contribution to the character of the ensemble as a whole. The Jamatkhana and the museum each have their own drop-off locations at either end of the garden. To reach the museum, a wide walkway borders one side of the Djurovic garden leading to the knife-edged, projecting aluminum canopy of the museum entrance. Through here lies the two-storey, oblong block of the museum, at the core of which is a courtyard open to the sky, surrounded by a glass wall etched with *machrabiyah* patterns. Along the south and east sides of the courtyard are the galleries for permanent and temporary exhibitions, one above the other, and along the north side is the administrative wing. On either side of the entrance foyer are located a 350-seat auditorium space, and a restaurant. The public concourse has a stone mosaic floor, and

#### JAMATKHANA (ISMAILI CENTRE) SITE PLAN

- 1 Jamatkhana or Prayer Hall
- 2 Social Hall
- 3 Connecting foyer/approach
- 4 Terrace

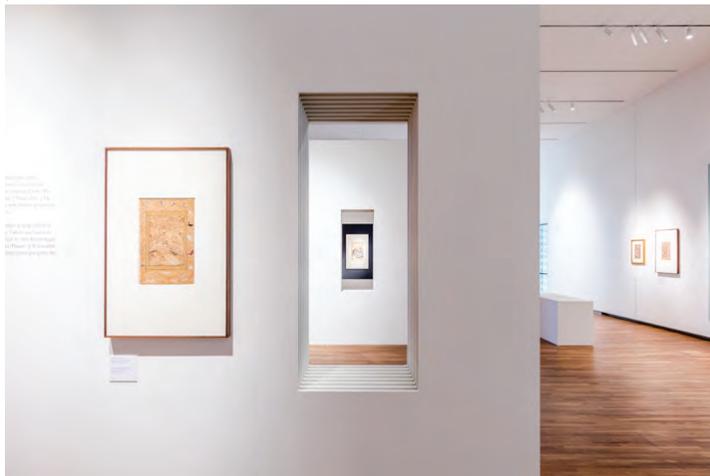


COURTESY OF CHARLES CORREA ASSOCIATES

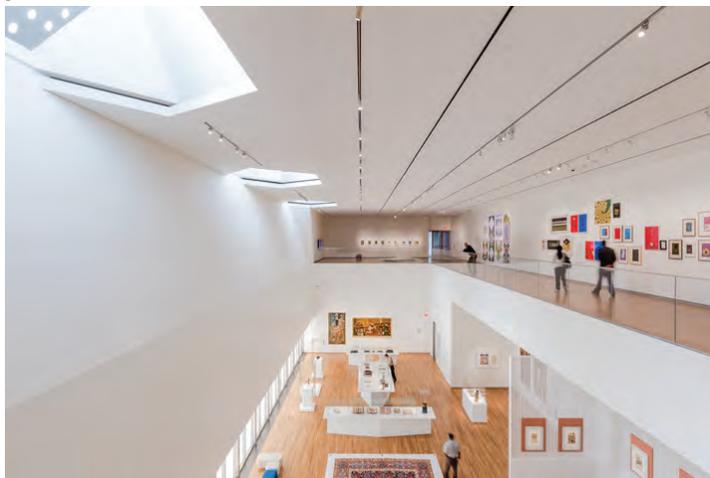


6 - The warm glow of the Jamatkhana's fractal corbelling, as seen from the museum's knife-edge entrance canopy

7

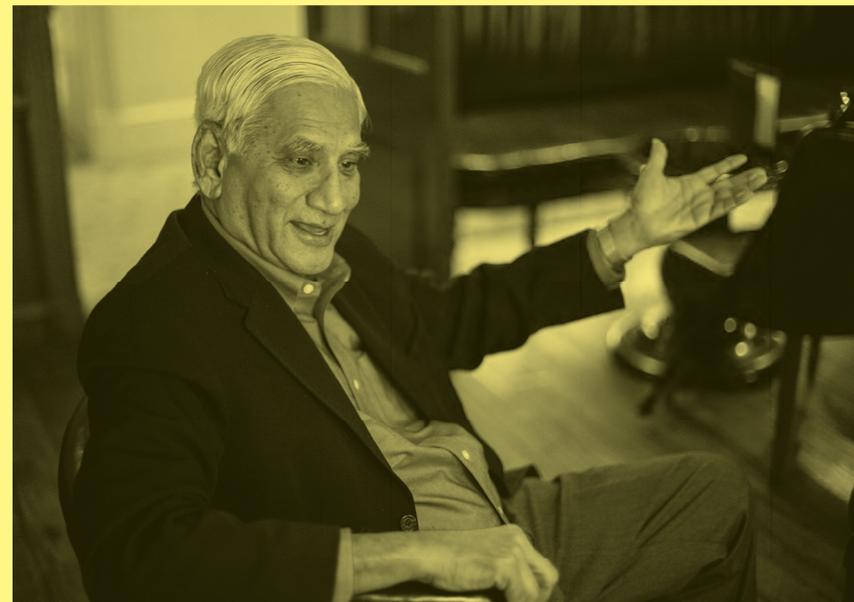


8



7 - Cut-out windows in the galleries permit the framing of specific views or artworks

8 - Perforated skylights allow for the diffusion of natural light through gallery spaces



'Another, more sacred, world.'  
**Charles Correa,**  
Charles Correa  
Associates, Mumbai

**Blueprint spoke to Charles Correa, legendary Indian modernist and architect of the Jamatkhana (Ismaili Centre). Correa provides insight into the project narrative as well as the crystalline form of the Jamatkhana itself, under the auspices of the Aga Khan. For more on the architecture of Charles Correa, see Blueprint 329, December 2013**

**Blueprint:** How did your story with the Aga Khan development in Toronto begin?

**Correa:** I have never dealt with the AKDN, but I was a member for three consecutive terms (1987–1986) of the original Steering Committee which set up the Aga Khan Award for Architecture. We won a limited competition for the Ismaili Centre or Jamatkhana back in 2000. This evolved through design development stages, in discussions with the Aga Khan and the local Ismaili committee in Toronto — a complex process, which took almost three years.

The Aga Khan was enthusiastic about the result, and decided to acquire the rest of the site, so that he

could move the Jamatkhana to the crown of the hillock, from where it could enjoy good views and be seen from surrounding areas of the city. Furthermore, he decided he would use the original site for a Museum of Islamic Art, which eventually became the building designed by Maki that you see here.

**Blueprint:** So the Jamatkhana was the initial driver of the project? How much involvement was there with Maki or Djurovic?

**Correa:** The new proposal necessitated a further three years of land acquisition, building redesign, renegotiating municipal approvals, and so on. In the meantime, Fumihiko

Maki was selected to design the Islamic Art Museum, and then still later, the landscape architect was appointed. So the design of the Jamatkhana was completed before Maki started designing his museum. Given this, he has done a remarkably sensitive job of relating his museum to the Ismaili Centre — including framing it in his main entrance — for which I thank him.

**Blueprint:** How did you go about creating a building to reflect a minority ethnic identity in Toronto?

**Correa:** Right from my competition entry, I have believed that though many of the Ismailis have come from Uganda, their country is Canada —

and the building must speak with a contemporary voice. So, as you will see from the sketch perspective (see page 202), the centre welcomes you with a generous gesture oriented to the city's roads and geometry.

But as you step inside, another geometry takes over — oriented towards Mecca — telling us that beneath the banality of our everyday existence, there exists another, more sacred, world. The paradigm is as old as the great mosque in Isfahan, and even older. Here, it is expressed in today's materials and technologies.

**Blueprint:** What inspired the shape of the corbelled glass pyramid?

**Correa:** The faceting of the glass roof above the Prayer Hall is structural — and not random or arbitrary. It is our contemporary equivalent of the stunning stone corbelling achieved in Central Asia and Persia many centuries ago. The design and detailing of this glass is a technological tour de force, developed by a team consisting of Nandita Mehrotra from our Boston office, together with Moriyama & Teshima, the local practice based in Toronto, as well as the brilliant engineering firm, Halcrow Yolles. The glass itself was produced and erected by a firm with the highest world standards, German fabricators Josef Gartner GmbH.



its walls are polished plaster. Indeed, one can say that save for the interior of the auditorium, clad in Indonesian teak, the museum interior is very minimalist in character, similar to other works of the Skidmore, Owings and Merrill veteran, Fumihiko Maki.

The exterior form of the museum is volumetrically quite complex. The entire block is homogeneously clad in an off-white Brazilian granite, but the face of the second storey flares dramatically outwards on all four sides of the building, save for a series of plastic incisions at its cornice line, which accommodate a number of exceptional volumetric conditions. One of these is an expressive cupola over the auditorium space; a series of others accommodate skylights to the exhibition galleries. Finally, a few incisions into the flared second storey accommodate a small number of windows. Thus, while the volume of the building is a simple rectangle, its aggressive volumetric expression, combined with its homogeneous material cladding, make for a very visually striking form on the Toronto suburban landscape.

No less arresting is the slightly irregular glass pyramid, which surmounts the mass of the Jamatkhana, and serves as a crystalline foil to the precocious volume of the museum, across the long axis of the Djurovic garden.

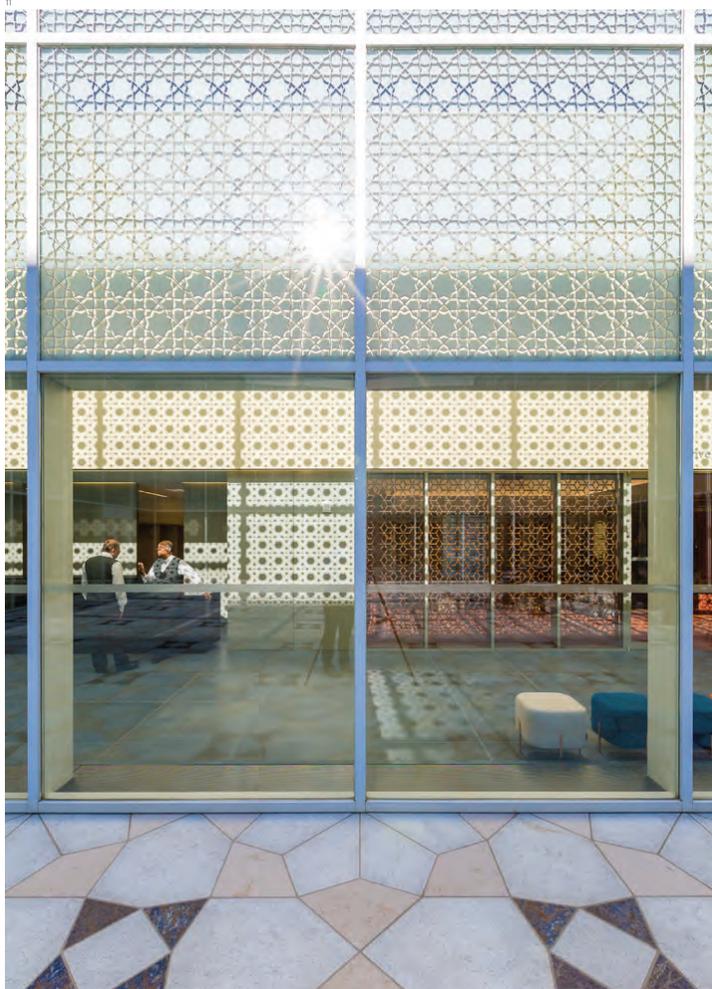
It is important to note that at the time that the Maki office started designing the museum, the institution that it houses did not yet exist. Accordingly, the programme for the building was being developed at the same time that its design was in process. It is perhaps for this reason that the interior spatial order of the museum is not as compelling as its exterior form. The architects and the museum administrators agreed not to make the entire museum interior a secure paid zone, but instead, to arrange for visitor paypoints to occur only at the entrances to the temporary exhibitions gallery, the permanent collection gallery and the auditorium. As a result, the entire building concourse which surrounds the courtyard is free public space, creating a very generous sense of openness at the core of the plan of the museum. Still, the spatial relationship of the circulation space

9 (opposite page) - The crenellated fortress conceals a cache of Islamic artefacts spanning a millennium

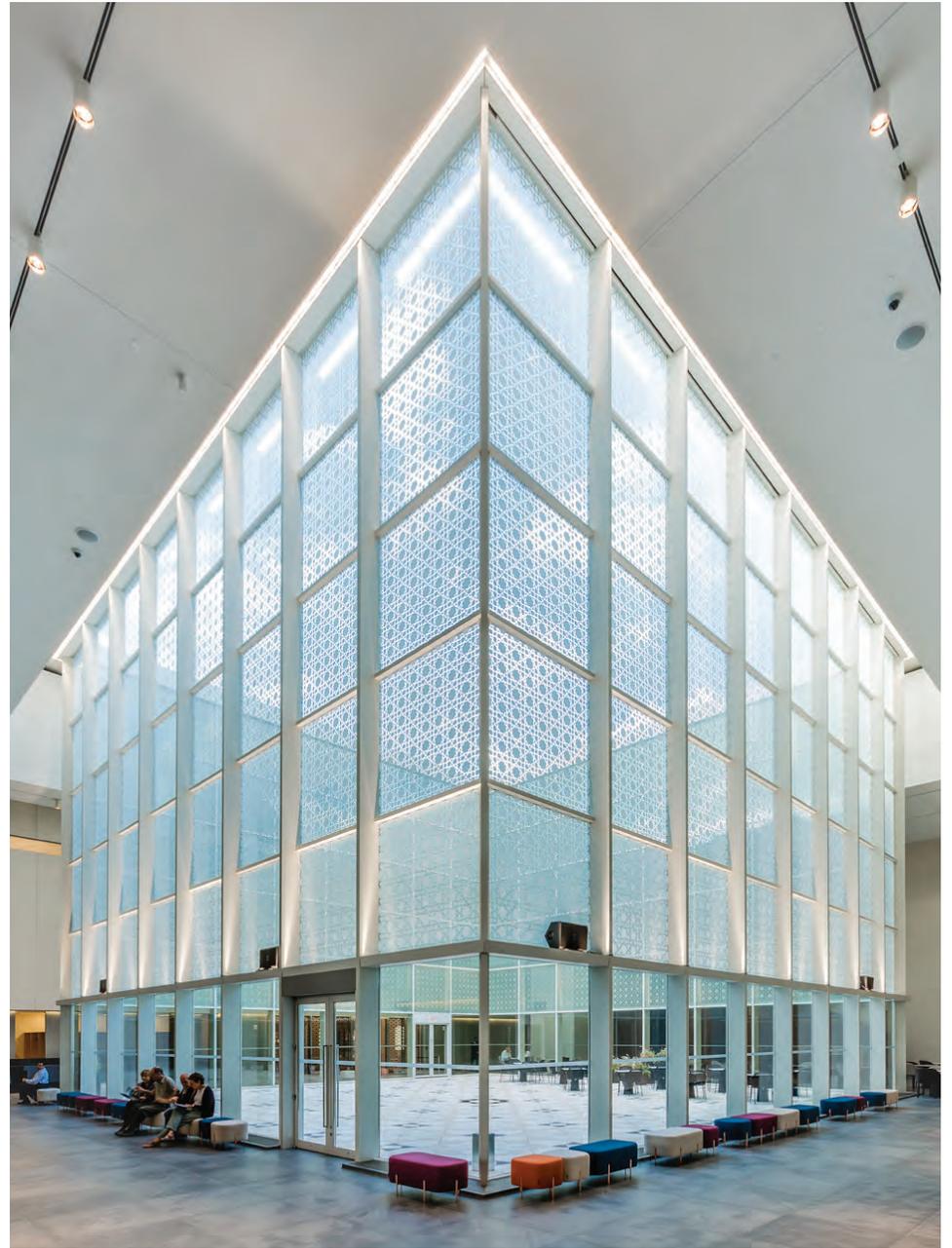
10 - An Islamic predilection for geometry informs the 350-seat auditorium

10





11 & 12 (opposite page) -  
Glass walls around the  
museum's internal courtyard  
are etched with typical  
machrabiyah patterns



around the courtyard to the exhibition galleries seems a little inconclusive. For example, the major vertical public circulation from the concourse to the upper level exhibition galleries – an open staircase and a freestanding elevator – is not visible from the concourse until you are very close to it, due to the fact that the frit pattern on the glazing of the courtyard obscures its appearance from afar. And once this important vertical circulation element is reached, it seems under-scaled. Then too, the doorways from the concourse into the auditorium and the exhibition galleries might have been increased in scale.

It is thought that once the new institution finds its operational way forward, and has developed a firmer policy on exhibitions, the space of the exhibition galleries may be rethought. And that might suggest that the spatial relationship of the galleries to the public concourse might also be strengthened. For now, then, the building reads as a very powerful and expressive volumetric shell which houses a public interior of a somewhat more tentative character.

The opening exhibition of items from the permanent collection was designed by Studio Adrien Gardère, who designed the exhibit from the permanent collection from the Louvre, on display at the Louvre Lens in northern France (see Blueprint 323, February 2013). His work at the Aga Khan Museum is even more successful than at Lens, largely because the scale of the artefacts on display varies so much more in Toronto. This means that even though the objects on display are disposed as openly in a large interior space as they are in Lens, it is easier to concentrate on individual pieces, one at a time, in Toronto.

Toronto can now add to its roster of distinguished buildings designed by such international figures as Mies van der Rohe, IM Pei, and Frank Gehry, these two dramatic ones by Fumihiko Maki and Charles Correa. A major new, and internationally significant cultural institution has opened its doors, and three renowned and talented designers have produced an ensemble of forms in a mid-suburban Toronto landscape that opens a door to a profound transformation of that landscape. ■

13 – The generous public spaces, around pools or internal courtyards are free and publicly accessible

13



THE GLOBE AND MAIL

SATURDAY, MAY 24, 2014

# Globe T.O.



The Native Child and Family Services centre features a cedar longhouse that blends a traditional form with modernist engineering. JESSE COLIN JACKSON

**ARCHITECTURE**

BIRKHAUSER

KUWABARA  
PAYNE  
McKENNA  
BLUMBERG  
ARCHITECTS

GEORGE BAIRD THOMAS FISHER MARK KINGWELL MIRKO ZARDINI

The Elementary Teachers' Federation of Ontario (ETFO) represents over 76,000 teachers and education workers in the province of Ontario. The ETFO headquarters was conceived to be a pinnacle of sustainable building practice with goals for a minimum 60 percent energy reduction over the MNECB (Model National Energy Code for Buildings), and LEED Platinum certification. The primary design goals were to provide a welcoming home for ETFO, create a highly sustainable and efficient green building; use architecture as an educational opportunity; and achieve effective neighbourhood integration and signature architecture. Two years were invested in developing the design and in consultations with the neighbourhood and the City, resulting in a successful rezoning of the site.

**Site** The project is located in the Upper Jarvis neighbourhood, a small enclave of Victorian homes in downtown Toronto designated as a community in transition. It is surrounded by high-rise commercial and condominium towers, a social housing complex, the massive Roger's Communication Headquarters, a nine-storey, 1970s-era rental apartment building and Casey House, Toronto's first AIDS hospice complex. Proximity to public transit and the downtown core made this an ideal location for ETFO.

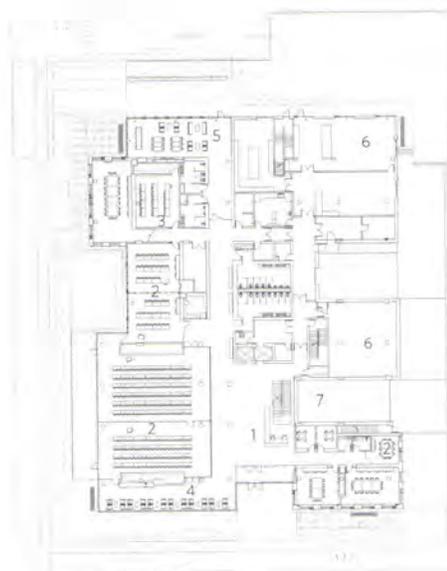
**Program** The 11,250-square-metre owner-occupied office building includes training and conference facilities, flexible event space for owner and community use and a coffee bar.

**Concept** The design prioritizes a contextual response to knit together the divergent set of conditions that characterize the neighbourhood and its edge conditions. Siting strategies involved preserving the existing tree canopy to provide a natural shading device. The building is massed to respond to the rhythm and scale of Victorian residences to the west. A large black walnut tree was retained by creating a west-facing tree court cutting into the building. The varied landscape strategy, including transplanting mature trees to the site, a series of 'front yard' sized gardens addressing the sidewalk as well as a publicly accessible front porch and ground floor conference facilities harmonize the building into the residential neighbourhood. Large roof overhangs provide passive shade and allow winter light to penetrate deep into the floor plate.

**Materials** A façade of vision glazing, fibre-cement panels and vertical sunshade fins reduces solar gains. For south and west façades, late-day solar gains are countered by a fully automated exterior shading blind system — one of the only large-scale applications in Canada. Passive solar shading fins and panels are detailed to provide a finer grain and articulated façade. Large, brick-coloured fibre-cement panels and muted warm greys complement adjacent heritage buildings.

**Outcome** As the greenest, and most energy-efficient, purpose-built office building in the Toronto region, the new ETFO headquarters will be a model for other organizations to take action and confront energy-climate challenges. As a counterpoint to rapid high-rise urbanization, it reinforces the importance of designing buildings for the long term and as a strategy to manage urban growth.

- 1 atrium/reception
- 2 multi-purpose event/meeting room
- 3 training room
- 4 front porch
- 5 staff lounge
- 6 support
- 7 parkade entry



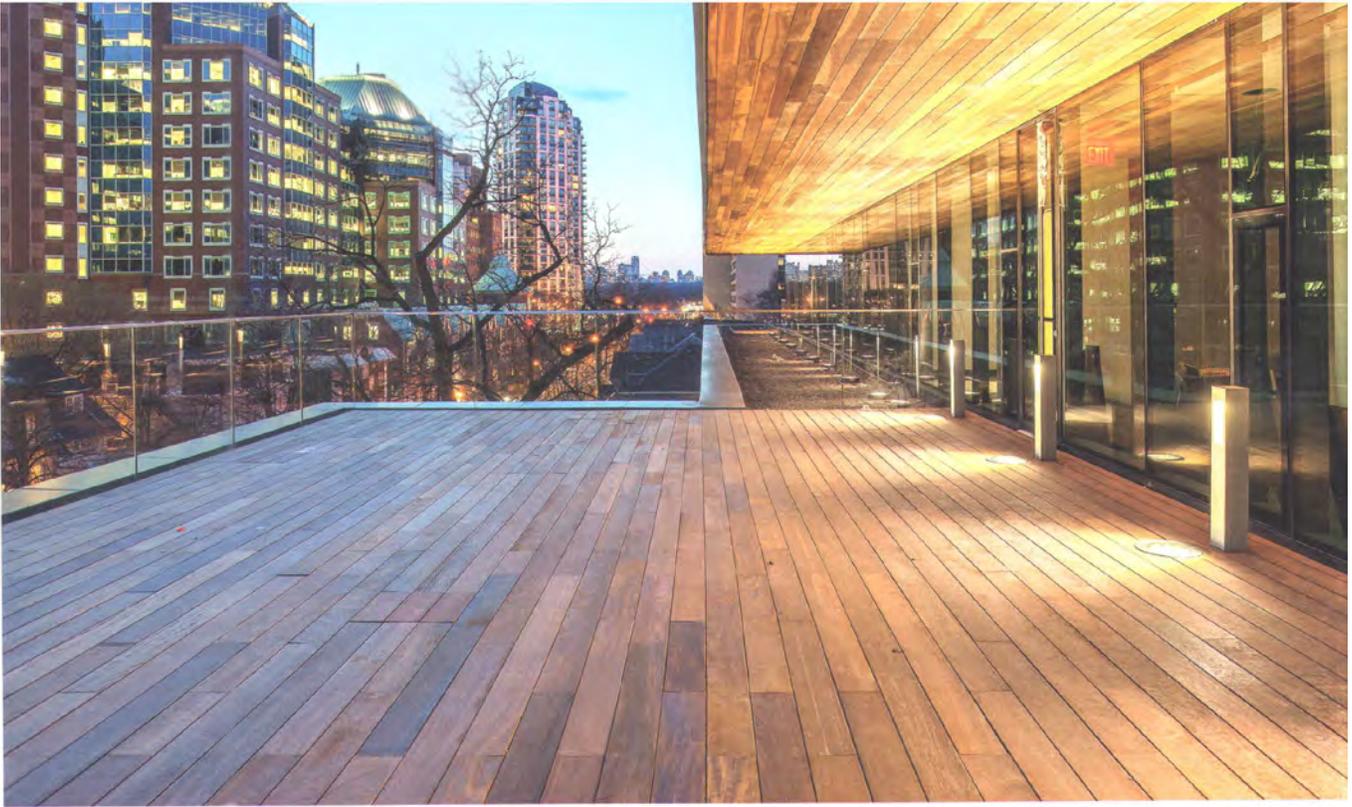
Ground floor

0 10 20m

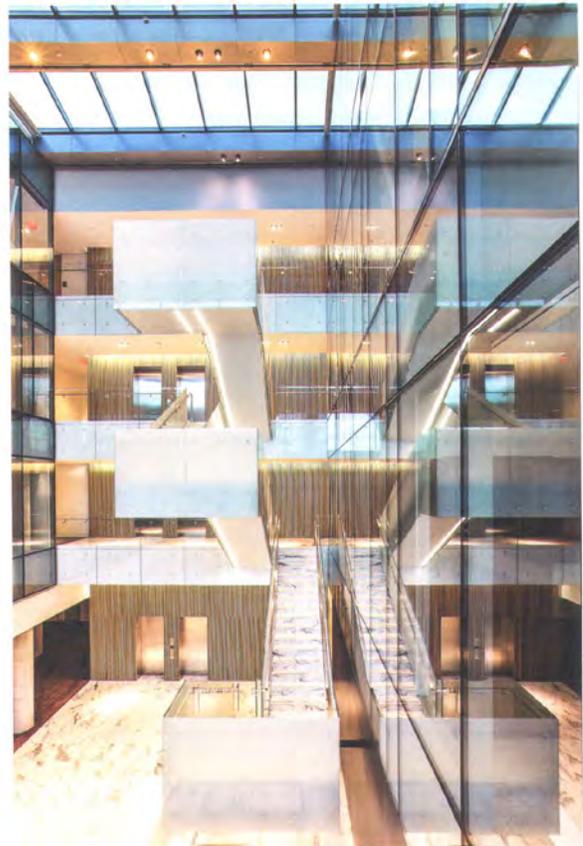
Aerial view of building and neighbourhood (opposite top); south façade (opposite bottom)







Balcony/external event space (top); atrium (bottom); training room detail (opposite top); energy models for summer and winter (opposite bottom)



# The building, through a rose-coloured lens

A photographic show celebrates the postwar high-rise in a way Le Corbusier may have envisaged – verdant, sunlit and full of promise



**JOHN BENTLEY MAYS**  
**THE PERFECT HOUSE**  
jmays@globeandmail.com

Before you find out what's on view at Puri Nadim Gallery, the show's title, Radiant City, snags your attention. Architecturally savvy folks will catch the reference: The 1929 book *Le Ville Radieuse*, written and dedicated "to Authority," by the French-Swiss architect and theorist who, since 1920, had styled himself Le Corbusier.

For many people who care about the look and liveability of North American cities these days, the name raises hackles. Le Corbusier, on this view, was the last century's leading conspirator against the organic, humane, casual city and a wily intellectual who seduced whole generations of architects and urban planners with his utopian, suspiciously right-wing speculations.

The notorious (and never implemented) master plan for Paris he devised in the 1920s, it has been said, provided key inspiration for the widespread postwar building of old urban neighbourhoods and the replacement of their fabric by monotonously repeated, presumably "soulless" residential brick and concrete high-rises. He is credited with inventing the mischievous idea of the "tower in the park," now a notion in disgrace, but enormously influential among planners, suburban residential developers and public housing agencies everywhere in the decades between 1950 and 1980.

This is not the place to debate how much, if any, blame for the banality of Cold War architecture and urban design can be legitimately laid at Le Corbusier's feet. In any case, many urbanists, architects and citizens without portfolios have made up their minds on the matter. But it's good for our heads to keep puzzling over our heritage from the past. We might ask, for example: Was the postwar history of multistory dwellings — the era and the field in which Le Corbusier's disciples allegedly made a very big mark — really the wasteland it's now made out to be?

In Radiant City, Canadian artist Jesse Colin Jackson answers this question with a thumping No. Each of the nine large-format colour photographs in his show is an admiring portrait of a high-rise apartment block put up in suburban Toronto during the years of postwar commercial modernism's noon (the 1960s) or of its gradual twilight in the 1970s.

At 66, Mr. Jackson is too young to remember the time when the buildings he documents were new. Distance from that moment, and resistance to the condescending opinion common in our own day, perhaps explain the resemblance of his image-making to the photography of themselves that elderly people often appreciate — frank about wrinkles and blemishes, but not rubbishes, not a cover-up, but respectful.

The topics of these pictures are, for the most part, indeed getting on in years, and Mr. Jackson makes no effort to conceal this fact. Facades are missing bricks, reinforced concrete surfaces are rain-stained, rust shows in metal balcony-fronts and window frames, and some decorative pine trees, planted a generation ago in the interval between the buildings and the lawns surrounding them, look decidedly parched and tired.

But however candid he manages to be — or has to be, given his medium, which ordinarily forgives little — Mr. Jackson has done all within his power to communicate the optimism, the promise of sunlight, fresh air and freedom, that the most mindful designers of these structures thought they were offering to the first tenants. The shiny, new tower rising in parkland was imagined by its theorists and promoters to be the cure for the evils of slums and crowding, a healthy mixture of dwelling and nature, a way to accommodate hundreds of people comfortably within a small footprint.

To evoke these idyllic visions, Mr. Jackson snaps a tower and its shimmering, summery reflection in a free-running stream. Another image depicts an apart-



Photographer Jesse Colin Jackson treats these towers as they may have been imagined by theorists and promoters of half a century ago: as tools to combat the evils of slums and crowding and promote a healthy mixture of dwelling and nature. Clockwise from top, Riverside Apartments, Kipling Avenue (with deer on the Humber River); Thorncliffe Park at dusk; The Oaks, 170 Chalfarm Dr.; Lambton Square on Scarlett Road; skateboarder at Greenbrier North, 1850 Victoria Park Ave. PHOTOS BY JESSE COLIN JACKSON



ment block, deep within the city, that looms over a river, beside which shy deer graze. In another, a kid zooms by the tall apartment building on a skateboard — a high-rise child apparently carefree, full of energy, surely well-loved.

Trained in the University of Toronto's architecture school, and now a professor of art in the Los Angeles area, Mr. Jackson knows, of course, that things inside the towers haven't turned out as Le Corbusier and their planners and architects intended.

A statement that accompanies the show admits the artist's "ambivalence toward this progressive project in the face of the complexities these structures embody" — such "complexities" as their decay, the concentration of "much of

Toronto's urban poverty," and their latter-day reputation as "products of modern ideologies gone awry."

Little ambivalence, however, is detectable in the images themselves. The mood in Radiant City is upbeat, affirmative. The pictures portray their subjects, in the words of the statement, as "locations of past glory, current dynamism and future potential." The show argues earnestly (but not, I think altogether persuasively) that the time has come for a serious review of the currently orthodox (negative) regard for Le Corbusier's teachings, and for the numerous ways his thought has shaped the contemporary city.

Radiant City continues at Puri Nadim Gallery, 254 Niagara St. until Nov. 1.



# Photos uncover the everyday beauty of Toronto's post-war high-rises



Published Thursday, Oct. 02, 2014 11:29AM EDT

Last updated Thursday, Oct. 02, 2014 11:29AM EDT

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Riverside Apartments, Kipling Ave., with deer on the Humber River. All photos by Jesse Colin Jackson



190 Exbury Rd. and 2269 Jane St., Toronto.

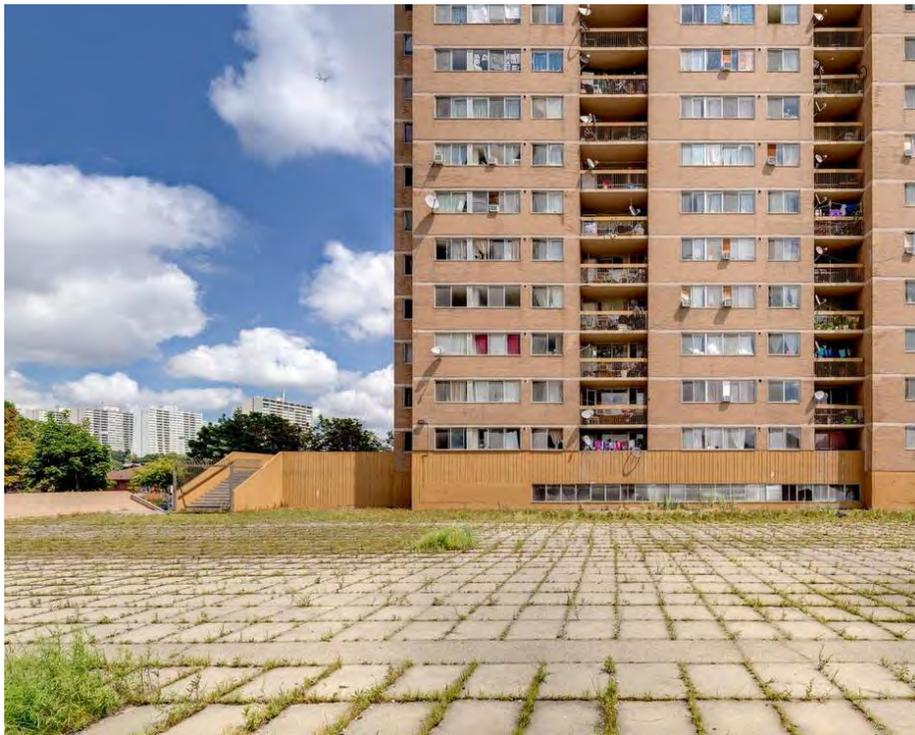
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resemblance of his image-making to the photography of themselves that elderly people often appreciate – frank about wrinkles and blemishes, but not ruthless; not a cover-up, but respectful.



Lambton Square on Scarlett Road, Toronto.



The Oaks, 170 Chalkfarm Dr., Toronto.

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Skateboarder at Greenbrier North, 1850 Victoria Park Ave., Toronto.



Bransfield House, 511 The West Mall, Toronto

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*Radiant City continues at Pari Nadimi Gallery, 254 Niagara St., until Nov. 1.*

## Exhibition Review

### White Walls, “Black City”: Reflections on “Exhibition as Residency—Art, Anthropology, Collaboration”

Monique Scott, Ph.D.

Visiting Scholar, Department of Anthropology,  
Columbia University Research Associate, Department  
of Anthropology, American Museum of Natural  
History

There is a common perception, perhaps misperception, that High Art exists in white spaces—aesthetically clean white gallery spaces populated by prestigious white cultural producers and consumers of a similar ilk. The signifying potency of whiteness in exhibition spaces persists in the popular imagination and finds an unyielding legacy in exhibition history. At the 1893 World’s Fair held in Chicago, the famed “White City” referred to the exposition’s “Court of Honor”—a set of illuminated white stucco buildings created to construct a sterilized image of Chicagoan beauty as a conscious counter to the darker slums and tenements that tainted the image of the city in the 19th century. This rebranding of Chicago was provocatively suggestive of purity in aesthetics and culture, and also served as a civilizing ritual. This type of institutional white-washing resonates with many present-day high art galleries, which too often cultivate a sense of cultural ascension and create borders between themselves and their audiences. Yet some galleries also strive to move away from the stigma of whiteness and creatively work to diversify their images, their audiences, and their cultural producers.

An extraordinary example of the departure from hierarchical exhibition conventions is the pioneering gallery known as the Arts Incubator in Washington Park, located in Garfield in South Chicago, recent home of the exhibition “Exhibition as Residency—Art, Anthropology, Collaboration” from November 18 to 22, 2013, organized by the progressive international curatorial collective, *Ethnographic Terminalia*. By curating works at the intersection of art and anthropology, the Collective

takes anthropology outside of the narrow confines of academia to create novel, contemporary sites of public anthropological engagement. *Ethnographic Terminalia* is composed of six anthropologists and artists including Craig Campbell, Kate Hennessy, Fiona P. McDonald, Thomas Ross Miller, Trudi Lynn Smith, and Stephanie Takaragawa. The Collective has curated four previous exhibitions since 2009, each in conjunction with the American Anthropological Association (AAA) conferences in Philadelphia, New Orleans, Montréal, and San Francisco. According to Fiona P. McDonald, anthropologist and curator from the *Ethnographic Terminalia* collective for the 2013 exhibition, “This year in Chicago we set out to create conversations with and within Chicago by taking up residency at the Arts Incubator in hopes of participating in and bringing international responses to local conversations” (Figure 1).

For “Exhibition as Residency,” *Ethnographic Terminalia* broke new ground by collaborating with the Southside’s acclaimed Arts Incubator of the University of Chicago’s Arts + Public Life Initiative to install in their Project Flex Space on the second level of the Incubator. The Arts Incubator in Washington Park encourages cultural renewal in South Chicago by bringing a “high art” gallery to an economically depressed neighborhood in order to create a space where the community can come together to collaboratively produce and appreciate art. It is under the directorship of the internationally famed artist Theaster Gates. In a January 20, 2014, *New Yorker* article entitled, “The Real-Estate Artist: High-concept renewal on the South Side,” Jeffrey Deitch (the former director of the Museum of Contemporary art in LA) shares about Gates: “His special fusion of art and community activism has made him the kind of artist that people are looking for today. It’s not just addressing issues of art about art, and art about self-identity; it’s a new vocabulary, a new approach. The success of his work is measured by its actual impact on the community” (Colapinto 2014). According to McDonald, “We are grateful to Theaster Gates for his openness in seeing potential for a conversation between anthropologists and the community around the Arts Incubator. On the meta-level of undertaking a residency, *Ethnographic Terminalia* was initially

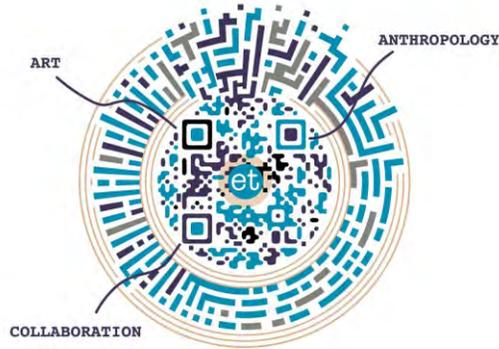


FIGURE 1. *Ethnographic Terminalia* 2013 logo. Designed by Ian Kirkpatrick.

creating a response to the exciting framework that the Arts Incubator has established since its opening in March 2013, just eight months prior to our exhibition, and we were consciously embracing the work that Theaster Gates performs both in the Arts Incubator but also in his larger art practice." A goal of "Exhibition as Residency" was to integrate, to take residency, among the culture of the neighborhood, rather than assume the distance conventionally taken up by artists closed off in gallery spaces. Furthermore, while it was not necessarily the main focus of the exhibition, by installing "Exhibition as Residency" in the Arts Incubator, it did, however, create a space to reflect upon the dialectics of race and class that transpire when predominately white artists take up residency in a predominately Black South Chicago neighborhood.

My response in this exhibition review stems not only from my time visiting the gallery, but also from my experience as a discussant for the closing roundtable conversation about the exhibition on its last day at the Arts Incubator, once the artworks were completed. This culminating event brought together the artists, the *Ethnographic Terminalia* curators, and two other outside discussants, Robert Peterson (New York City-based artist and curator) and Roderick Coover (professor of film and media arts at Temple University, Philadelphia) who themselves had exhibited in past *Ethnographic Terminalia* exhibitions (Coover: 2009 and Peterson: 2010). The round table provided an important glimpse into the artists' motivations, pro-

cesses, and reflections that I present throughout the rest of this review and that I contextualize in relation to my own observations.

In "Exhibition as Residency," *Ethnographic Terminalia* curated works that were globally, aesthetically, and conceptually diverse from seven different groups comprising artists and anthropologists who carried out their research in residence for five days in South Chicago in order to engage their anthropological and artistic research methods with new audiences and communities. During the week, exhibitors were invited to experiment with their collaborative research practices and share with each other and with visitors the opportunity to create responsive, reflective works that merge methodologies, media, topics, and themes. Over the five days of the residency, *Ethnographic Terminalia* also broke ground in curating an exhibition that refreshingly focused almost as much on process as product and put the artists themselves on display as objects under the outsider's gaze.

With "Exhibition as Residency," this inspired collection of artists and anthropologists took up the challenging and elusive question of how artists truly inhabit and engage novel spaces around them. That primarily anthropologists undertook this ambitious project makes the larger exhibition even more nuanced as it created another space for dialogue around not only art, but anthropology as well. Coinciding with the 112th AAA meetings happening simultaneously in downtown Chicago, this exhibition represented a *public* face of anthropology. Anthropologists often wrestle with themes of identity and place, being insiders and outsiders, with intimacy and alienation, and with the overarching challenge of creating meaningful relationships and thick interpretations of an-other culture. And during this weighty process, anthropologists have increasingly become self-reflexive in the visual presentation of their research—a reflexivity that this exhibition addressed in creative and critical ways.

The marriage of *Ethnographic Terminalia* and the Arts Incubator was ripe for harmonic and disharmonic convergences that offer unique academic and artistic insights. However, while the richness of the artistic products was unquestionable, it is quite challenging to evaluate the overall impact of the residency—an entanglement of experiences, expectations, and outcomes. And of course, what we glean from this exhibition as outsiders is also relative to our own biased perspectives. For me, this was admittedly about being a female Black anthropologist who studies museum audiences and not gallery art, and was thus intimidated in my own way by the predominately alienating atmosphere of the "Exhibition as Residency" gallery space.

Yet this outsider-ness in the exhibition space was also complicated by being equally disconnected from the external atmosphere. I, too, was entering the neighborhood of the Arts Incubator and the exhibition for only a few days, a few ephemeral experiences. My own research has given me a healthy respect and cynicism at an outsider's ability to evaluate process. Given the complex constellation of influences that determine how meaning is made in exhibitions, the greater cultural matrix in which exhibitions and their visitors are situated constitutes a site where anthropological knowledge becomes coproduced on multiple levels among makers, curators, institutions, and audiences. From my vantage point, coproduction was certainly inherent to "Exhibition as Residency"—where new meanings were continually being produced, evolving, and responding to the interplay of artists and audiences.

### Artists, Artworks, and Audience

In keeping with their goals, *Ethnographic Terminalia* set up a number of participatory audience events throughout the week of the residency to facilitate the convergence of artist, artwork, and the local community. The exhibition was open daily from 12:00 p.m. to 3:00 p.m. for the public to see and ask questions about the projects under construction. Although the exhibition did not reach the level of visitation it sought from the local community, the investment in public engagement was evident in the intention. And in some moments, the intention was more than met, as when the Coast Salish knitting workshop clearly succeeded in engaging the community (Figure 2).

When we think of the coproduction of knowledge, innumerable connections can be made between the artworks and projects produced for "Exhibition as Residency." In the nexus of artists and anthropologists who converged on the Arts Incubator space, three distinct connections were very apparent to me. I use these thematic organizations to organize my discussion of the works in the exhibition: (1) those that emphasize how we see and *exhibit culture*; (2) those that represent certain profound *aesthetic innovations*; and (3) those that aimed at true *cultural immersions*.

#### *Exhibiting Culture*

Ian Kirkpatrick and Zoe Bray placed both themselves and their artistic endeavors on display. Their forward approach to exhibiting visual research methods such as painting and drawing allowed visitors to question how



FIGURE 2. Gallery encounter: Coast Salish knitting. Sylvia Olsen discussing knitting. Photo © 2013 by Rachel Topham Photography for *Ethnographic Terminalia*.

intimacy arises between artist and artwork, and to meditate on artistic process in rich ways. It also illuminated the shifting role of insiders and outsiders to a work of art and the process of producing art.

In the work of artist and graphic designer Ian Kirkpatrick, *Habitat (UK)* provoked viewers to think about how we look: this sculptural installation invited visitors to observe artistic practice in situ within a temporary, makeshift studio. Ian Kirkpatrick created his own "habitat" out of cardboard, inspired by consumer packaging as well as ancient containers such as Greek amphorae and Egyptian sarcophagi. The artist inhabited the work during the residency, illuminating the sculptural object from within with iconography informed via observations within the gallery, research at local museums, and impressions of Chicago at large. This performative installation highlights the engagement of artists with the historic conventions of museum anthropology in the creation of new cultural forms (*ET2013 Gallery Guide*) (Figure 3).

Kirkpatrick's work evoked the 1893 Chicago Exposition, as well as other large-scale public exhibitions, by putting himself on display; his installation became a living reflection on exhibiting others, challenging the history of othering by placing himself, the white, male artist, on display as an object of anthropological knowledge. Because of the lack of attendance by the local community, however, the juxtaposition of power positions could not become fully realized because he was mostly an artist on display to his peers rather than on display for the local community. Interestingly, Kirkpatrick also noted the instability of his work. In process and "without an endpoint," *Habitat* was not an installation



FIGURE 3. *Habitat* by Ian Kirkpatrick. Photo © 2013 by Rachel Topham Photography for *Ethnographic Terminalia*.

that most art galleries would exhibit; rather, it was a site-specific response to the Project Flex Space within the Arts Incubator.

Likewise, anthropologist Zoe Bray's *The Ethnographic Process of Portrait Painting (UK/Basque Country)* put on display her practices of painting as an ethnographic method of qualitative data collection. Through painting her models while conducting field interviews, she produces a progressive form of ethnography that creates new ways of thinking about how anthropologists engage their subjects. Like Kirkpatrick's *Habitat*, Bray's work reflects on process, extending to the destruction, and not simply construction, of her paintings: during the residency, Zoe Bray live-painted in the gallery space to explore further her methodological connections between naturalist (also known as realist) painting and ethnography. By demonstrating ethnographic research methods such as cultural immersion, participant observation, open-ended interviews, and reflective selection, Bray draws parallels between ways of looking. For example, through her work she connects the techniques employed in naturalist painting, such as the use of the mirror, squinting, distance, and choice of focus, to the intense participant observation anthropologists are often trained to use during their fieldwork. At an epistemological level, this installation explored how painting and ethnography share a common concern with apprehension of the objective world by means of long-term observation and contextual interaction (*ET2013 Gallery Guide*) (Figure 4).

Eager to engage in dialogue with visitors during her painting process, Bray established an active rather than passive exhibition space. Bray stopped painting her model, Dr. Tom Blakely, a well-regarded visual anthropologist, every 20 minutes to discuss her unique ethno-

graphic process with her audience. Reflecting on her experience in Chicago, Bray mentioned that she was disappointed more visitors, particularly young people, were not present for daily exchanges. Improvising (a strength of several of these artists), she inserted herself into the Coast Salish knitting workshop that took place in the gallery by setting herself and her model within proximity of the public workshop. This arrangement created a striking visual and conceptual immersion. In addition, Bray's work at the Arts Incubator departed from her primary research focus on Basque communities overseas. When undertaking her painting in the gallery space, she put anthropologists as models for her paintings on display. This created a challenging new meta-level layer of interpretation and deepened the experience of having anthropology on display—a clear goal of *Ethnographic Terminalia* as a collective.

### *Aesthetic Innovations*

Two projects featured in "Exhibition as Residency" focused on film and digital imaging to make aesthetic



FIGURE 4. *The Ethnographic Process of Portrait Painting*, with Zoe Bray and Dr. Tom Blakely. Photo © 2013 by Rachel Topham Photography for *Ethnographic Terminalia*.



FIGURE 5. *Visualizing Arts and Public Life* gallery talk (left to right: Jesse Colin Jackson, Tori Foster, and Lindsay Bell). Photo © 2013 by Rachel Topham Photography for *Ethnographic Terminalia*.

interventions into how we think of and see space, as well as the shifting cultures that inhabit a place—first, *Visualizing Arts and Public Life* by anthropologist Lindsay Bell, and artists Tori Foster and Jesse Colin Jackson, and second, *Imaginary Venues* [Almost There—Washington Park] by artist/anthropologist Robert Willim. The avant-garde methodologies in film and digital media challenged audiences to rethink ways of seeing and visualizing landscapes around the Arts Incubator.

With *Visualizing Arts and Public Life* (USA/Canada), the Visualizing Canada's Urban North team created several works that interrogated the possibilities for reading the intersection of art and anthropology and how we perceive the instability of urban spaces: the work provided an opportunity for the research team to refine their collaborative strategies for translating urban information into visual form. Their site-specific project at the residency allowed them to test their research methods through short-term observation and subsequent visual recombination of the territory in and around the Washington Park area (*ET2013 Gallery Guide*) (Figures 5 and 6).

By installing cameras that looked within and outside of the gallery, the team collected data that were sliced together to create a sense of time, activity, and place. Looking at their photo and film documentation while visiting the gallery, we see layer upon layer of meaning mutate as the artists use translucent overlays and other technologies to re-create landscape. The

moving layers of images, however, are all “real” and in some ways are themselves a form of data visualization. Bell and Foster also reflected upon their process during the closing roundtable when they shared the limited amount of time they spent in the environment collecting footage versus the many hours they spent intensely focused on the production of the work. They were able to acknowledge the critical nature of time to their research methods and that perhaps these methods did not suit the notion of residency after all—an honest reflection that created an insight into both the time artists spent looking outside (at the world) and looking “inside,” entrenched in the production of their work.

In *Imaginary Venues* [Almost There—Washington Park] (Sweden), Robert Willim created an experimental film that presents a surreal account of imagined venues associated with the Washington Park area in Chicago. Produced over the course of the residency, the film gathered imagery and factual material associated with the city of Chicago's bid to host the 2016 Olympic Summer Games, in which Washington Park was proposed as the main site for the Olympic arena. While Chicago lost the bid to Rio de Janeiro, the “dream” of hosting the games is now part of the city's history. As an artist and anthropologist, this project in Chicago builds upon *Fieldnotes*, a larger project where Willim attempts to understand the extent to which dreamscapes associated with place can enchant a city (from the *ET2013 Gallery Guide*).

Robert Willim's film mixed the real and the imagined, producing an imaginative geography with



FIGURE 6. *Desire Lines*, 2013. Detail from *Visualizing Arts and Public Life*. Image courtesy Visualizing Canada's Urban North team.

important political and cultural implications for how we understand both Washington Park and Chicago at large. It provocatively refers back to the Columbian Exposition by considering Chicago as a hopeful host to an international spectacle that would have put the city on display in a contemporary context through sport. As he filmed his footage of the Washington Park area, Willim felt "intentionally ambivalent" about this work as residency, admitting that the stories he constructs are site-specific mediations that can be produced without even visiting the environment—a compelling challenge in and of itself to the notion of residency (Figure 7).



FIGURE 7. Robert Willim producing *Imaginary Venues [Almost There—Washington Park]*. Photo © 2013 by Rachel Topham Photography for *Ethnographic Terminalia*.

### *Cultural Immersions*

Three other contributions to "Exhibition as Residency" capture the art of cultural immersion. Three works, (1) *Self-Repair*, (2) *Shrines of Citizenship*, and (3) *Re-connections: Coast Salish Knitting and Resilience in Chicago*, examined residency in immediate ways by creating works that explicitly embodied the cultures of Chicago. Often these artists and anthropologists attempted to immerse themselves in the city's communities and, in doing so, occasionally provided insights into the relevant racial politics that dominate Chicago both past and present.

*Re-connections: Coast Salish Knitting and Resilience in Chicago (Canada)* began as a conversation between Coast Salish knitters Adam Olsen and Joni Olsen, anthropologists Andrea Walsh and Trudi Lynn Smith, and historian Sylvia Olsen about the tensions between academic knowledge production and creative practices in indigenous communities. During the residency, this conversation continued as the team used local archives and collections at the Field Museum to retrace the exhibition of Coast Salish knitting in the 1893 Columbian World's Fair. They used documentation of a ceremonial blanket performance staged in 1893 along with the historical data obtained from archival research to create new hand- and machine-knitted pieces in the gallery space (*ET2013 Gallery Guide*) (Figures 8–10).

In addition to the works produced, the Coast Salish group held a demonstration and interactive knitting workshop at the Arts Incubator as mentioned earlier. The



FIGURE 8. *Re-connections: Coast Salish Knitting and Resilience in Chicago*. Photo © 2013 by Rachel Topham Photography for *Ethnographic Terminalia*.

workshop was formed through a successful collaboration with Joanne Smith, organizer of a local group known as Committed Knitters, which holds regular “knit-ins” at the gallery through the support of the Arts Incubator and the local yarn shop, Loopy Yarns. This event brought in members of the community, primarily a community of knitters of various ages and cultural backgrounds, who shared their appreciation of knitting together with the Coast Salish group. The leaders of the workshop openly shared personal family anecdotes and photos, passed around knitted garments for participants to smell and feel, and established a sense of intimate, shared community.

The Coast Salish group pushed the boundaries of residency even further by a profound public demonstration of their work, which they also filmed. After collaborating with the Field Museum archivists to retrace



FIGURE 9. Blanket ceremony by *Re-connections: Coast Salish Knitting and Resilience in Chicago*. Photo by and courtesy of Trudi Lynn Smith.



FIGURE 10. Gifting of blanket. Field Museum Archive. *Re-connections: Coast Salish Knitting and Resilience in Chicago*. Photo by and courtesy of Trudi Lynn Smith.

the exhibition of Coast Salish knitting at the 1893 World’s Fair, the group staged a contemporary ceremonial blanket performance in Garfield Park (near the Arts Incubator) on and around a replica statue of the original “Bulls with Maiden,” which stood outside the Agricultural Building in the 1893 World’s Fair. In effect, they reclaimed and reappropriated the history of exhibition, creating new collaborative networks of meaning between past and present, communities and museums, insiders and outsiders. The Coast Salish group donated the blanket to the museum, creating a life for the “artwork” beyond the exhibition at the Arts Incubator and allowing it to find permanent *residence* in Chicago.

With *Shrines of Citizenship (Portugal)*, the EBANO (Ethnography-Based Art Nomad Organization) Collective—comprising artists and anthropologists Chiaro Pussetti, Victor Barros, and Lorenzo Bordonaro—produced a shrine as an interactive work reflecting upon citizenship and the inherent racial and nationalist politics. The EBANO Collective uses diverse art forms and media to explore the imaginaries ascribed to migration. Based upon several years of anthropological fieldwork with immigrant communities in Europe, their multimedia installation *Shrines of Citizenship* invited visitors to reflect upon the recent tightening of European migration policies as well as the physical, bureaucratic, and symbolic barriers undocumented immigrants face around the world when pursuing the dream of citizenship. Their piece consisted of a tall wooden bookshelf-like structure with illuminated off-white wax heads sitting in water-filled jars on the shelves and illuminated from within. Water, wax, and other devotional objects, such as an enshrined passport, allude to the complexity of mobility and citizenship along



FIGURE 11. *Shrines of Citizenship*. Installation view. EBANO Collective. Photo © 2013 by Rachel Topham Photography for *Ethnographic Terminalia*.

all national borders, specifically evoking the memory of the thousands of people who disappeared in the Mediterranean Sea while attempting to reach Europe's southern border in the last decades, many of whom were from African countries (edited from *ET2013 Gallery Guide*) (Figures 11–13).

The EBANO Collective shared meaningful reflections about their experiences during the residency, meditating on their own boundary crossings—from Portugal to the United States, and on a deeper level, the unanticipated challenges of attempting to bring soil collected from Cape Verde to Europe and to the United States, a movement interrupted by U.S. Customs. They commented on the additional compromises made to fit their work within the gallery space, given restrictions on using real candles and barbed wire. With work that focuses on boundary crossings through public art, these reflections provide an additional layer of meaning to the boundaries artists face in constructing their work within the frame of a gallery and a specific local context.

The EBANO Collective created the most memorable and critical contribution to the public roundtable event by entirely recontextualizing their work during the event. Of all the artists, this collective was perhaps the most self-critical of their process and of their inability to create a work that is interactive with its environment and community. During the roundtable, the collective dramatically turned their shrine around—from focusing inward toward gallery insiders to focusing out the windows to the local community. In this way, they were not only reflective, but corrective. They mentioned that “being enclosed in gallery felt like a contradiction” to their larger public art practice and that they aimed to make an intervention in the public space. Here again, their inclusion in the residency program allowed for a

conversation to emerge about sites of knowledge transmission and the role of a gallery in the community.

The final group to deal with “Cultural Immersions” was the artists, designers, and anthropologist who created a project called *Self-Repair (Norway)*. The project was an extension of a residency in Norway at the Rogaland Art Center that investigated the notion of repair in terms of the relationship between that which is industrially manufactured and that which is produced through the touch of hands with needle and thread. For Chicago, this collective expands the notion of repair to research the topic of “self-repair” (e.g., self-help, life coaching, positive thinking, and aura-reading) (*ET2013 Gallery Guide*). From their experiences undertaking such treatments in Chicago, they returned to the space of the residency to provide a creative “transcript” of their emotions during this fieldwork, a form of art therapy, transcribed onto a scroll of paper filled with creative reflections. It was readily apparent that the artists moved a project prepared and presented in Norway to this very unique and divergent local environment in Chicago. Nevertheless, it was in line with the experimental ambition of the residency in the Arts Incubator as their research in Chicago explored similarities between anthropological and artistic methods in terms of participant observation and subjective interpretations. During the residency, they developed a pattern inspired and informed by this research specific to Chicago. The pattern was to be further developed after the residency, and the research from Chicago will form the basis for a Chicago line within the HAIK collection for autumn/winter 2014 (*ET2013 Gallery Guide*) (Figure 14).

## In Closing

“Exhibition as Residency” provided an invaluable window into an exhibition model that reveals the



FIGURE 12. *Shrines of Citizenship*. EBANO Collective. Photo © 2013 by Rachel Topham Photography for *Ethnographic Terminalia*.



FIGURE 13. Exterior night view of the Arts Incubator. *Shrines of Citizenship*. Photo by Vitor Barros. Image courtesy the EBANO Collective.

possibilities for collaborative artistic-anthropological exhibition within processes that push disciplinary discourses outside of conventional confines. However, the many ways in which boundaries were pushed defy a simple conclusion. Did “Exhibition as Residency” succeed in integrating themselves or fully taking residence in the neighborhood around them, that is, in breaking down some of the boundaries of race and class in South Chicago? Probably not. And, to be fair, this was outside the scope of what the exhibition aimed to do or what the artists possibly could achieve in the week of their residency. However, their visibly outsider

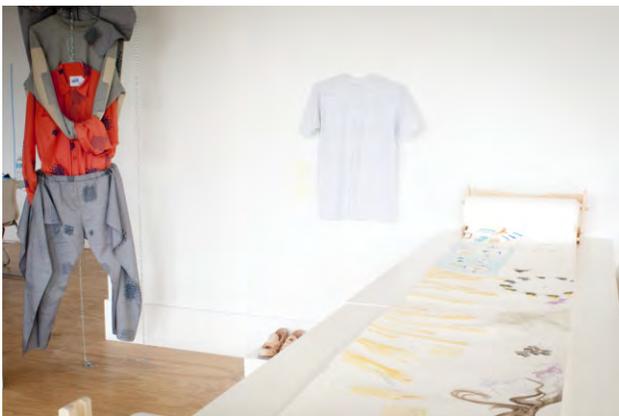


FIGURE 14. *Self-Repair*. Installation view. Photo © 2013 by Rachel Topham Photography for *Ethnographic Terminalia*.

presence in a Black neighborhood did offer a reflection on the role of projects such as this in breaking down the boundaries between artist insiders and audience outsiders through its larger commitment to create dialogue.

The “Exhibition as Residency” is best looked at as an experimental project that involved various interpretive communities and interpretive layers involving a diverse body of knowledge and a diverse community of stakeholders. In this cultural matrix, the artists, anthropologists, exhibition space, and local environment all work to coproduce anthropological knowledge and create cultural meaning. Perhaps the idealized goal of outsiders fully integrating into an unfamiliar community, given the constraints of the project, is overly ambitious. However, this exercise is critical to the future of exhibitionary practices. “Exhibition as Residency” took us on a journey that revealed just how important it is for exhibitions such as this to become a critical touchstone for conversations about the past, present, and future of art, anthropology, and insider/outsider exhibition practices.

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08



# AGENCEMENT D'UNE ARCHITECTURE MOLÉCULAIRE

## CONSTRUIRE LA CUISINE COMMUNAUTAIRE MOBILE DE MOUNT DENNIS

PAR ADRIAN BLACKWELL

La cuisine communautaire mobile de Mount Dennis est issue d'un atelier où ont collaboré des étudiants du programme de maîtrise en architecture de la Faculté d'architecture, d'architecture de paysage et de design<sup>1</sup> de l'Université de Toronto et un groupe de résidents du quartier Mount Dennis à Toronto. Lors de rencontres le vendredi soir, on y cuisinait les uns pour les autres<sup>2</sup>.

Le titre de l'atelier mentionne deux concepts importants introduits et développés par Gilles Deleuze et Félix Guattari dans leur livre de 1980 *Mille plateaux : capitalisme et schizophrénie*<sup>3</sup> : l'action d'assembler ou d'agencer et l'adjectif *moléculaire* en tant que qualificatif du type d'architecture que nous ferions. C'était le seul texte que les étudiants devaient lire durant le cours, et ces deux concepts sont devenus sujets de questionnements autant sur le plan de la lecture que sur celui de la construction. Dans sa traduction du travail de Deleuze et Guattari, Brian Massumi utilise rarement le verbe *to assemble* [assembler, agencer], préférant plutôt employer un terme moins commun en anglais, le mot *assemblage* [« agencement » dans le texte original de Deleuze et Guattari], pour décrire une composition complexe de chacune des instances d'individuation, pour

chaque chose, personne, place ou moment. Pour Deleuze et Guattari, tout est un agencement de forces hétérogènes agissant sur un matériau unitaire. Nous avons d'ailleurs convenu d'utiliser l'adjectif *moléculaire* pour mettre l'accent sur le fait que l'architecture est souvent constituée d'une multitude d'éléments hétérogènes et qu'elle forme également un élément intrinsèque des agencements plus larges de la ville ou, plus précisément, des agencements de l'urbanisme fracturé exacerbé l'isolement économique et social. Ainsi, chaque aspect de cet atelier implique la composition d'agencements.

La classe a débuté avec quatre objectifs simples qui impliquaient chacun la construction collective d'agencements défiant la structure habituelle de la plupart des ateliers d'architecture et de design : 1) il s'agit de collaborer avec un groupe communautaire dans un quartier de banlieue où l'urbanisme fracturé exacerbe l'isolement économique et social, de fonctionner ainsi comme un agencement social fait pour des gens ayant des désirs différents pour le futur et des histoires sociales divergentes ; 2) il s'agit d'assembler littéralement non seulement les dessins mais aussi une série de matériaux hétéroclites dans une même composition fonctionnelle concrète construite à taille réelle ;



3) il s'agit de mettre l'accent sur un programme essentiel et urgent : la production, la distribution et la consommation de nourriture. Cette dimension comprend à la fois la notion de plaisir et celle de convivialité sociale. Elle implique un agencement complexe établi entre les gens et les aliments qu'ils mangent, des aliments qui les rendent heureux, en santé et qui ont bon ou mauvais goût; 4) il s'agit finalement de créer un agencement intellectuel concret avec le livre que nous avons décidé de lire – *Mille plateaux* – et l'assemblage complexe d'idées et de concepts qu'il contient.

Pour les étudiants, le défi le plus difficile à relever fut de concevoir et de construire une architecture en groupes complexes et non hiérarchiques. Les ateliers de design s'attardent généralement aux concepteurs individuels, et l'idéologie de conception est aussi le plus souvent marquée par les idées libérales et romantiques de l'artiste comme agent individuel. Ainsi, le défi de travailler avec les autres entraine en conflit avec la formation usuelle en architecture et avec le mode de fonctionnement de l'université qui a toujours encouragé la compétition entre les étudiants. Le défi n'était pas seulement relié à l'université, il était également présent sur différents plans : dans la classe en soi, entre la classe et le groupe de citoyens de la Mount Dennis Community Kitchen, et entre cet agencement classe-communauté et un réseautage d'autres résidents de Mount Dennis, des organisations et des institutions partenaires dans ce projet. Ce réseau plus large comprenait la Mount Dennis Action for Neighbourhood Change, qui a instauré la cuisine communautaire, et le groupe de bienfaisance Evergreen, qui a mis sur pied un jardin communautaire et des barbecues à l'origine de l'émergence du projet de cuisine communautaire. Il incluait aussi la Mount Dennis Community Association qui représentait un contexte local plus large ainsi que des fournisseurs et des fabricants qui ont soutenu le projet comme les Punchclock Metal Shop et Community Bicycle Network. Chacune de ces organisations est déjà un groupe social complexe dont la mission implique l'autonomisation des citoyens par rapport aux systèmes de pouvoir normatif qui régulent les gens et la nature. En même temps, chacun peut trouver une place différente dans cet éventail de positions en relation aux systèmes de domination. Du Punchclock, une coopérative de travailleurs, au groupe Evergreen, un organisme de bienfaisance à but non lucratif, chacun a une compréhension différente des politiques de collaboration et des économies capitalistes.

Les étudiants avaient des rencontres avec la communauté chaque vendredi soir. Toutes les deux semaines, ils cuisinaient et mangeaient avec les résidents. La semaine où ils ne cuisinaient pas, ils présentaient l'évolution des idées concernant le projet de cuisine communautaire mobile. Lors de la durée de cette collaboration de design, diverses propositions furent faites : une cuisine extérieure fixe avec une aire de repas, des infrastructures de jardin dispersées, une cuisine combinée à une scène extérieure. Chaque fois, les résidents ramenaient le problème aux considérations plus immédiates de cuisiner et de manger ensemble en insistant sur le besoin d'un dispositif mobile ou de structures qui pourraient animer différents sites et événements locaux. Les étudiants collaboraient en groupes de tailles et de compositions variables, produisant diverses propositions qui convergeraient éventuellement vers des thèmes

généraux (modularité des parties, singularité d'éléments complémentaires) ou des consensus plus spécifiques (« trois structures de différentes grandeurs », « trois roues de bicyclette standard comme modules de base »).

Le design final de la cuisine communautaire mobile consiste en trois chariots-bicyclettes, chacun ayant une fonction complémentaire : un chariot pour distribuer la nourriture et ramasser, qui contient trois grandes poubelles ; un chariot pour préparer les aliments et cuisiner, muni d'un large barbecue et d'un évier ouvrant qui double sa superficie, créant ainsi une surface de cuisine et un comptoir de préparation ; un chariot pour distribuer et manger, qui peut être utilisé comme une large table ou un présentoir comme on en retrouve dans les marchés. Les trois chariots s'assemblent différemment, selon les sites et les événements, sous une bâche colorée qui les protège du soleil ou de la pluie. Ainsi, les résidents usagers peuvent créer différentes compositions urbaines et architecturales en relation aux emplacements disponibles du quartier Mount Dennis : rues, zones limitrophes aux voies ferrées, parc d'Eglinton Flats ou coulée verte du ravin de Black Creek.

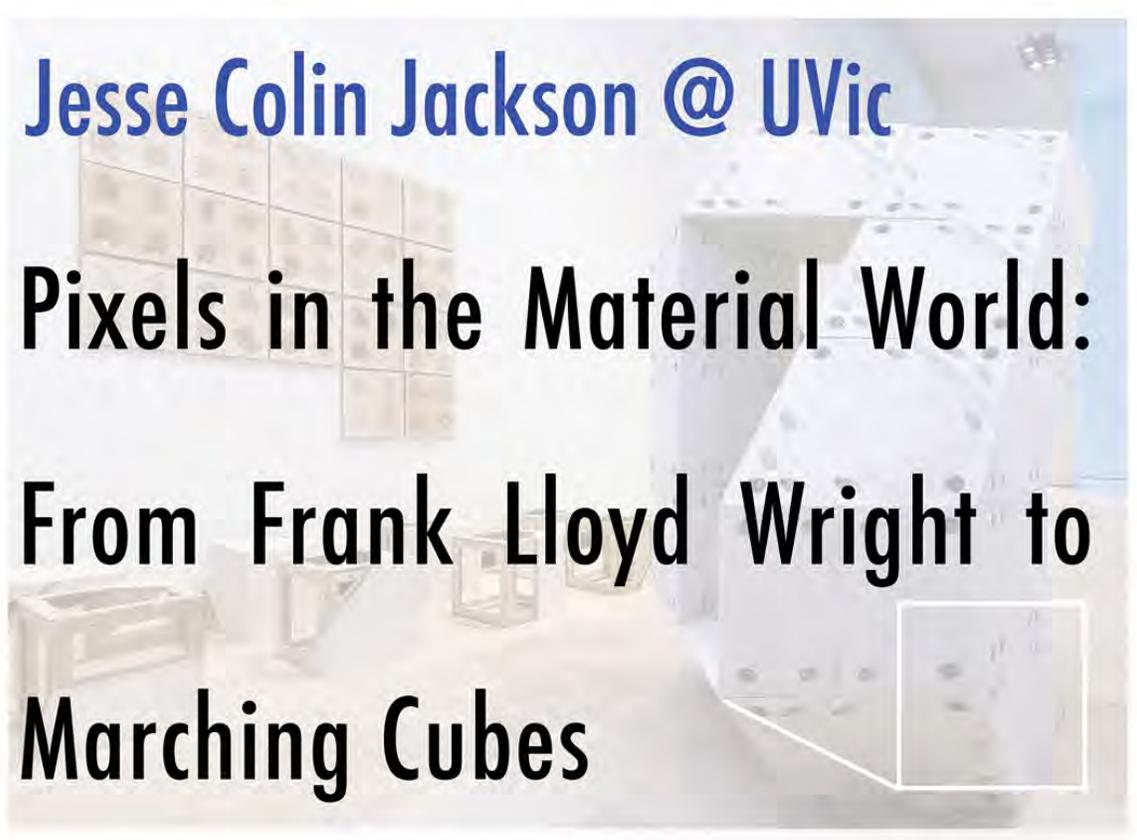
Le projet dans sa totalité est une tentative de repenser les relations entre l'architecture, la société et l'écologie au sein de l'université et à travers une expérience de design en communauté. Tout au long du projet, l'université a été considérée comme un espace collectif – plutôt qu'individuel – de production des savoirs, alors que la communauté ne fut pas idéalisée *a priori* mais plutôt abordée comme milieu social varié, un milieu dans lequel les relations de pouvoir sont constamment à l'œuvre. L'atelier a permis d'explorer l'idée que l'architecture est toujours un agencement d'éléments hétérogènes. Un repas crée une composition avec le corps qui le mange ; l'architecture de la cuisine communautaire mobile crée des compositions variées avec chaque site où elle est utilisée, alors que les gens qui l'utilisent créent sans cesse des compositions changeantes, les uns avec les autres. ■ PHOTOS : JESSE COLIN JACKSON

#### Notes

- 1 Membres de la Faculté d'architecture, d'architecture de paysage et de design de l'Université de Toronto : Adrian Blackwell, professeur ; étudiants : Pamela Choo, Nicholas Elliott, Jesse Colin Jackson, Scott Keyes, James Lennox, Larry Mac, Giampaolo C. Mancuso, Eugene Mastrangeli, Cara McKibbin, Graham McNally, Luke Stern, Hui Teng et Pamela Tung.
- 2 Cuisine communautaire mobile de Mount Dennis : Noni, Antoinette, Rebekka, Dave, Jean, Felecia, Caitlin, Dwan, Keith, Keli, Judy, Jim, Carl, Cathy, Iko, Lin, Richard, Josie et plusieurs autres ; Mount Dennis Action for Neighbourhood Change : Jean-Marie Boutor ; Evergreen : Rebekka Hutton ; Punchclock Metal Shop : Stefan Pillpa.
- 3 Cf. Gilles Deleuze et Félix Guattari, *A Thousand Plateaus : Capitalism and Schizophrenia*, B. Massumi (trad.), University of Minnesota Press, 1987 ; version originale française : *Mille Plateaux : capitalisme et schizophrénie*, de Minuit, 1980.

Adrian Blackwell est un designer urbain et artiste dont le travail porte sur les espaces de développement produits dans ce que l'on nomme l'urbanisation postfordiste. Ses sculptures, photographies, cartes et films interviennent dans les espaces publics, mettant au défi la privatisation du bien commun. Ces travaux ont été exposés dans des centres d'artistes et des institutions publiques à travers le Canada, à la *Bienmale d'architecture et d'urbanisme* de Shenzhen ainsi qu'à l'Association d'architecture de Londres. Il est membre de la Toronto School of Creativity and Inquiry et éditeur du collectif Scapegoat : Architecture, Landscape, Political Economy. Il est professeur associé au Département d'architecture de l'Université de Toronto.





Jesse Colin Jackson @ UVic

# Pixels in the Material World: From Frank Lloyd Wright to Marching Cubes

Thursday 3 December 2015 | 10:00 AM | Maclaurin Building D114

Digital images consist of pixels: squares that carry color and brightness values. The three-dimensional world can also be understood to be composed of rectilinear units, such as bricks, blocks, or voxels. Conceptions of area and volume as assemblies of discrete units are increasingly predominant in the digital age, as these units are easily reduced to a binary series of zeros and ones. In this talk, Jesse Colin Jackson will demonstrate that a unit-based understanding of space can be illuminated by the architectural ideas of Frank Lloyd Wright. The Marching Cubes algorithm is an early method for making a surface binary, still commonly used in computer graphics; Jackson will describe his interactive installation that, through an intervention inspired by Wright, permits tactile engagement with this algorithm, and generates dialogue about the ways in which information technology shapes contemporary culture.

Jesse Colin Jackson is a Canadian artist based in Southern California. His practice focuses on object- and image-making as alternative modes of architectural production, manipulating the form and ideas found in the human landscape through the expressive opportunities provided by digital visualization and fabrication technologies. Jackson has received project funding from the Social Sciences and Humanities Research Council of Canada, the Centre for Innovation in Information Visualization and Data Driven Design, the Digital Media Research and Innovation Institute, and the Ontario Arts Council. He is a 2014 Hellman Fellow at the University of California, and was a 2008 Howarth-Wright Fellow at the University of Toronto. Jackson is an assistant professor of electronic art and design at the University of California, Irvine; he taught previously at the University of Toronto and OCAD University.

## Public Lecture

sponsored by the Maker Lab in the Humanities | [maker.uvic.ca](http://maker.uvic.ca)



Automatic/Revisited, 2009  
Installation View, Eric Arthur Gallery, Toronto

## Jesse Colin Jackson, UC Irvine

# Pixels in the Material World

From Frank Lloyd Wright to Marching Cubes

Friday, November 27, 3:00 p.m.  
Everyday Design Studio, Room 3400

# PIXELS IN THE MATERIAL WORLD:



From Frank Lloyd Wright  
to Marching Cubes



**JESSEE COLIN JACKSON**  
UNIVERSITY OF CALIFORNIA IRVINE

Digital images consist of pixels: squares that carry color and brightness values. The three-dimensional world can also be understood to be composed of rectilinear units, such as bricks, blocks, or voxels. Conceptions of area and volume as assemblies of discrete units are increasingly predominant in the digital age, as these units are easily reduced to a binary series of zeros and ones. In this talk, Jesse Colin Jackson will demonstrate that a unit-based understanding of space can be illuminated by the architectural ideas of Frank Lloyd Wright. The Marching Cubes algorithm is an early method for making a surface binary, still commonly used in computer graphics; Jackson will describe his interactive installation that, through an intervention inspired by Wright, permits tactile engagement with this algorithm, and generates dialogue about the ways in which information technology shapes contemporary culture.

TUESDAY NOV 24th 2015  
NOON • ROOM 190

SEATING LIMITED

## The Studio for Critical Making

S T U D I O T A L K



The Twenty-seventh Annual  
University of California, Irvine  
Chief Executive Roundtable Retreat



R E F E R E N C E   M A N U A L



Thursday, April 30 - Sunday, May 3, 2015  
Cavallo Point - The Lodge at the Golden Gate  
Sausalito, California

# UCI Chief Executive Roundtable

L E A D E R ■ T O ■ L E A D E R C O N N E C T I O N S



## Jesse Colin Jackson

Assistant Professor, Department of Art;  
Director, Minor in Digital Arts  
Claire Trevor School of the Arts  
j.c.jackson@uci.edu  
(949) 536-6515

### PIXELS IN THE MATERIAL WORLD: FROM FRANK LLOYD WRIGHT TO MARCHING CUBES

How can art and design interrogate technology? Digital images consist of pixels, squares that carry color and brightness values. The three-dimensional world can also be understood to be composed of rectilinear units, such as bricks, blocks, or voxels. Conceptions of area and volume as assemblies of discrete units are increasingly predominant in the digital age, as these units are easily reduced to a binary series of zeros and ones. In this talk, Professor Jesse Colin Jackson will suggest that a unit-based understanding of space can be illuminated by the architectural ideas of Frank Lloyd Wright. He will show that these ideas can be used to manipulate our binary understanding of the material world. The Marching Cubes algorithm is an early method, still commonly used in computer graphics, for making a surface binary; Professor Jackson will describe his interactive art installation that, through an intervention inspired by Wright, permits tactile engagement with this algorithm. He will demonstrate how a creative research practice that bridges art, design, and digital media can provide novel contributions to knowledge through the creation of objects and images that generate dialogue about the ways in which information technology shapes contemporary culture.

*Jesse Colin Jackson is an assistant professor of Electronic Art and Design in the Claire Trevor School of the Arts, and the director of the campus-wide minor in Digital Arts. His creative research practice appropriates images, forms, and ideas found in the human environment. These conceptual ingredients are then manipulated and reflected in original and unexpected ways, frequently through the expressive opportunities provided by digital visualization and fabrication technologies. He has received funding for these projects from the Social Sciences and Humanities Research Council of Canada, the Centre for Innovation in Information Visualization and Data Driven Design, the Digital Media Research and Innovation Institute, and the Ontario Arts Council. He was a 2014 Hellman Fellow at the University of California, Irvine and a 2008 Howarth-Wright Fellow at the University of Toronto. The Pari Nadimi Gallery, a leading venue for experimental media art, represents Professor Jackson's artistic production. Prior to coming to UCI in 2013, he taught at OCAD University and the University of Toronto.*



85 and 95 Thorncliffe Park Drive, Toronto (Leaside Towers)  
Chromogenic Print, 2014

# Jesse Colin Jackson, UC Irvine Radiant City, Twice Removed

*Toronto's Tower Neighborhoods, Aesthetically Considered*

Wednesday, April 22, 4:00-6:00 p.m.  
Conference Room, 61 Kirkland Street, Cambridge



Jesse Colin Jackson is a Canadian artist based in Southern California. His practice focuses on object- and image-making as alternative modes of architectural production, appropriating and manipulating the images, forms, and conceptual apparatus found in the human landscape. Jackson has received project funding from the Social Sciences and Humanities Research Council of Canada, the Centre for Innovation in Information Visualization and Data Driven Design, the Digital Media Research and Innovation Institute, and the Ontario Arts Council. He is a 2014 Hellman Fellow at the University of California, and was a 2008 Howarth-Wright Fellow at the University of Toronto. Jackson is an assistant professor in the Claire Trevor School of the Arts at the University of California, Irvine; he taught previously at the University of Toronto and OCAD University. Jesse Colin Jackson is represented by Pari Nadimi Gallery in Toronto. His most recent solo show received a full-page review in *The Globe and Mail*.

Jesse Colin Jackson has been generating representations of Toronto's tower neighborhoods since 2006. Jackson's images evoke the designed and lived intensities of Toronto's tower apartments, and their ubiquity and significance to the city. Frequently employed by policy makers and design professionals, Jackson's images are integral to ongoing efforts to revitalize these buildings. Close examination of Jackson's work, however, reveals ambivalence towards this progressive project in the face of the complexities these structures embody: arrival destinations for incoming immigrant populations, essential housing for one quarter of the city's population, the decaying location of much of Toronto's urban poverty, products of modern ideologies gone awry, and locations of past glory, current dynamism, and future potential. In this talk, Jackson will invite us to consider these conflicted sites and how their evolving presence in Toronto's collective consciousness has been impacted by his image-making practice.

## Jesse Colin Jackson, UC Irvine

# Radiant City, Twice Removed

*Toronto's Tower Neighborhoods, Aesthetically Considered*

Wednesday, April 22, 4:00-6:00 p.m.  
Conference Room, 61 Kirkland Street, Cambridge



Department of English  
PO Box 3070, STN CSC  
Victoria, British Columbia  
V8W 3W1 Canada

**NICHOLAS BRADLEY**  
nbradley@uvic.ca  
office: 250 721 7273

14 December 2013

## University of Victoria

Jesse Colin Jackson  
Assistant Professor  
Department of Art  
Claire Trevor School of the Arts  
University of California, Irvine  
3229 Art Culture and Technology  
Irvine CA 92697-2775  
USA

Dear Professor Jackson:

I am writing to confirm your participation in the upcoming symposium at the University of Victoria. As you know, the symposium ("The Ragged Edge: Water, Land, and Culture") will take place February 3, 2014. Participants and audience members will be faculty members and graduate students from a range of departments in the humanities, social sciences, and fine arts. I am pleased that you will be a featured guest artist.

As we have discussed, your involvement will consist primarily of the following:

- A presentation about your work in progress, namely coastal photography
- Exhibition of selected works from this project
- Panel discussion with other participants in the seminar
- Meeting colleagues and students to discuss your works

Please continue to keep me informed of your technical requirements. Room bookings have been made and the AV equipment is in place for your presentation.

As you continue to work in the weeks ahead on your photography, you may wish to bear in mind this passage written by the historian John R. Gillis in *The Human Shore* (Chicago, 2012), which we are taking as an expression of the themes of the symposium:

There was once a time when coasts were home to a significant part of humanity, when, like any home, they were the locus of a sense of belonging, the center of a world rather than a periphery. Now, when coasts are considered edges of something else, of continents or islands, we live not *in* but only *on* them. Humanity's current relationship to the shore is that of the stranger, for after millennia of coastal existence, it has forgotten how to live *with* coasts and oceans. Not that inhabiting shores was ever easy. Rising sea levels, overfishing, and pollution all happened in the past, and coastal peoples have always had to cope with natural and man-made disasters. By trial and error, they became adept at dealing physically and culturally with this challenging environment. But never before has the scale or frequency of threats been as great as now, complicated by the fact that so many who live on shores have no idea of how to live there in a sustainable way. There is not only an urgent need to understand the dynamics of climate change but also

an imperative to draw on the adaptive strategies preserved in the historical record from times when coasts were a here rather than a there, places to dwell rather than just visit.

The symposium's speakers will reflect upon the question of "how to live with coasts and oceans" in light of their expertise and research. Your work will provide the symposium with an invaluable international perspective and will synthesize the creative and scholarly approaches to coastal studies with which the symposium is concerned. Let me say once again that I am highly optimistic about the prospect of further collaboration once the symposium has concluded.

I look forward to seeing you in the new year and welcoming you to UVic.

Yours sincerely,

Nicholas Bradley

Associate Professor

# California Modern Irvine Style

Campus Architecture,  
City Planning, and the  
Legacy of William Pereira

**symposium** Monday, April 18, 2016  
Pacific Ballroom

**3:30PM Keynote: Elizabeth Diller**

**10:00AM Pereira and UCI: The View from the City**  
with Alan Hess, Grace Kook-Anderson and Kevin Staniec

**1:00PM Pereira and UCI: Architectural Perspectives**  
with Jean-Louis Cohen and Nicholas Olsberg

**5:00PM Celebratory Roundtable and Reception**  
with foundational faculty and the Pereira family

**gallery talks** April 19-22 at noon  
Viewpoint Gallery

Tuesday, April 19 **Tales from the Archives**  
Wednesday, April 20 **Film Festival Outtakes**  
Thursday, April 21 **Planning, Policy, Design**  
Friday, April 22 **UCI Stories**

**exhibit** April 14-25  
Viewpoint Gallery

**Bold and Independent:  
UCI's 50<sup>th</sup> Anniversary  
Exhibition**

Curated by Kevin Staniec

**exhibit** April 18-25  
Crystal Cove Lobby

**Turning Fifty**

Hiperwall installation by  
Jesse Colin Jackson and  
Catherine Liu

**screening** April 18 at 11:30AM  
Pacific Ballroom

**Around the Campus in 60 Minutes:  
A Festival of One-Minute Films**

Open to all undergraduate students

Visit [indi.com/787k4](http://indi.com/787k4) for more info

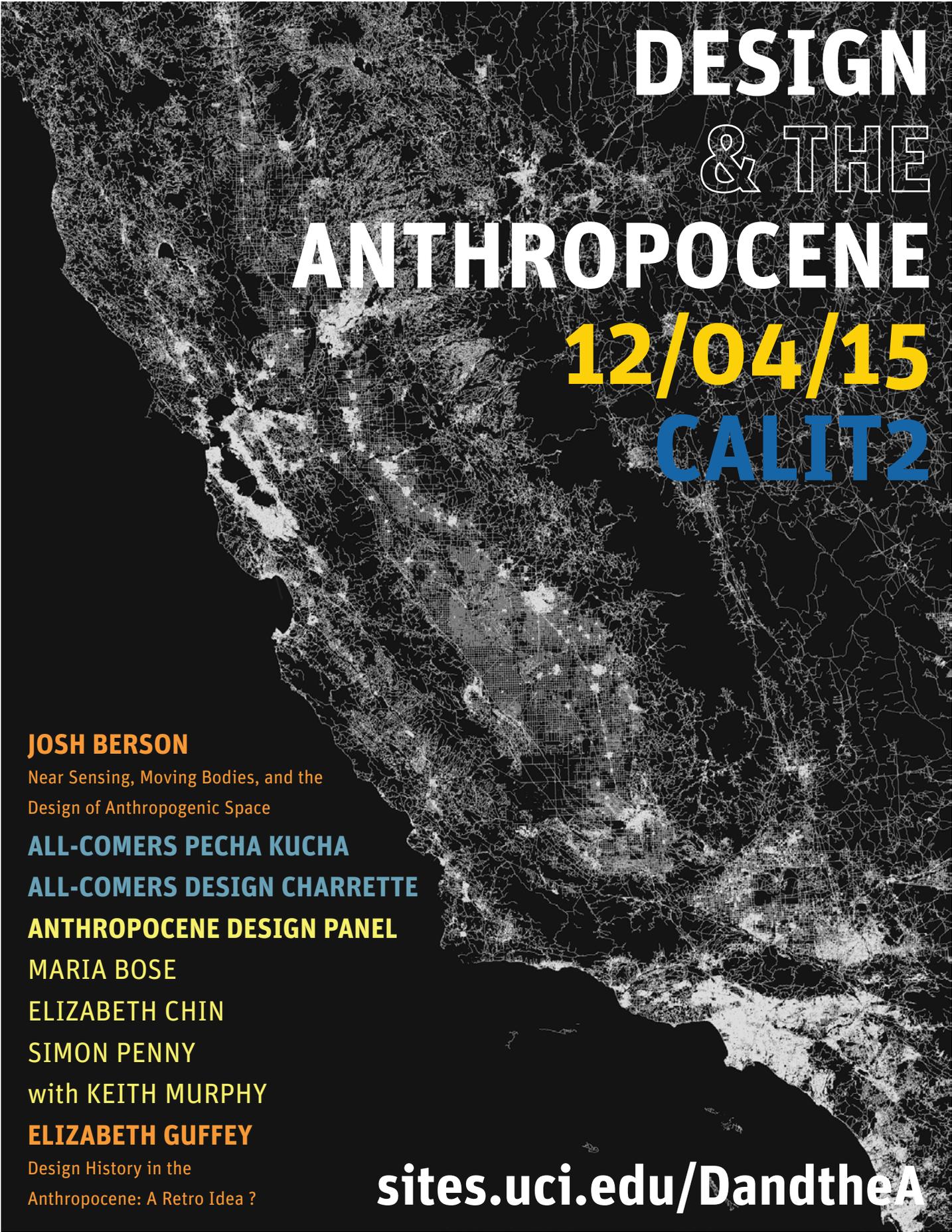
Free and open to the public at the UCI Student Center

Part of the 50th Anniversary Academic Symposium Series

Sponsors include the Office of the Provost and Executive Vice Chancellor,  
the School of Humanities, the Claire Trevor School of the Arts, UCI Libraries,  
the Department of Planning, Policy and Design, and Illuminations

[sites.uci.edu/pereira](http://sites.uci.edu/pereira)





**DESIGN  
& THE  
ANTHROPOCENE**

**12/04/15**

**CALIT2**

**JOSH BERSON**

Near Sensing, Moving Bodies, and the  
Design of Anthropogenic Space

**ALL-COMERS PECHA KUCHA**

**ALL-COMERS DESIGN CHARRETTE**

**ANTHROPOCENE DESIGN PANEL**

MARIA BOSE

ELIZABETH CHIN

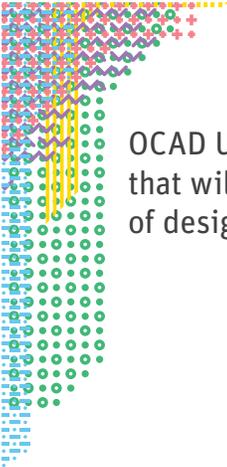
SIMON PENNY

with KEITH MURPHY

**ELIZABETH GUFFEY**

Design History in the  
Anthropocene: A Retro Idea ?

**[sites.uci.edu/DandtheA](http://sites.uci.edu/DandtheA)**



OCAD University's Faculty of Design presents Urban Ecologies 2013, a conference that will examine the impact of five intersecting themes that are shaping the future of design in our cities.

**JUNE 20-21  
TORONTO, CANADA**

**REGENERATING CITIES**

Developing regenerative urban design strategies to create restorative relationships between cities and their surrounding environments.

**BUILDING HEALTH**

Bringing integrated concepts of human health, quality of life and inclusion to the design of the urban environment.

**VISUALIZING INFORMATION**

Using advanced visual strategies to improve our understanding of data-intensive human and non-human urban activity.



**Urban  
Ecologies  
2013**

**CREATING COMMUNITY**

Fostering design partnerships between grassroots and professional communities to co-create sustainable urban places.

**THINKING SYSTEMS**

Applying knowledge of the urban environment's complex and dynamic patterns of exchange to design stronger communities.

**KEYNOTE SPEAKERS**

**KATHRYN FIRTH**  
London Legacy Development Corporation  
Chief of Design

**ADRIAAN GEUZE**  
West 8 Urban Design & Landscape Architecture  
Founding Principal

**DEADLINE FOR PROPOSALS:**

**Deadline Extended:  
February 8, 2013**

**2013**

**URBANECOLOGIES.CA**

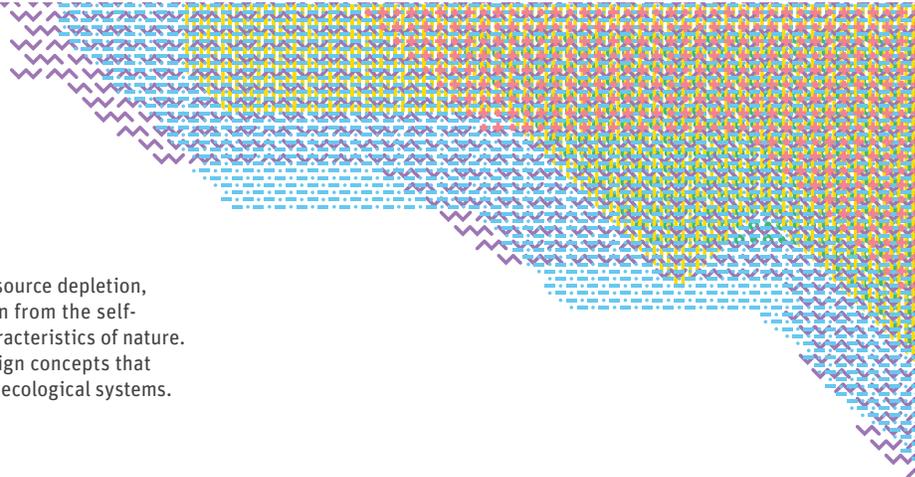
OCAD University has more depth and breadth in art and design education and research than any other institution in Canada. OCAD U is located in the heart of Toronto, Canada's largest centre for design, culture, and business.

Presented by



Sponsored by





## REGENERATING CITIES

In the face of decaying infrastructure and resource depletion, city builders have begun to take inspiration from the self-replicating, symbiotic, and evolutionary characteristics of nature. Regenerating Cities seeks regenerative design concepts that contribute to, rather than extract from, local ecological systems.

## VISUALIZING INFORMATION

Cities are host to multiple interlocking environments, infrastructures, connective networks and patterns of information. The relationships between these elements are challenging to observe and describe. Visualizing Information seeks data-driven design strategies that create the potential to exploit these complex relationships.

## THINKING SYSTEMS

Cities are systems, comprised of interconnected and interdependent dynamic components. Understanding this interplay is essential if we are to operate across physical, jurisdictional and disciplinary boundaries. Thinking Systems seeks methods that productively examine the city through a systems thinking lens.

## CREATING COMMUNITY

Directly engaging stakeholders in the design of cities dissolves institutional and disciplinary boundaries, and provides an alternative to conventional processes. Creating Community seeks design experiences that are rooted in community participation rather than in established professional relationships.

## BUILDING HEALTH

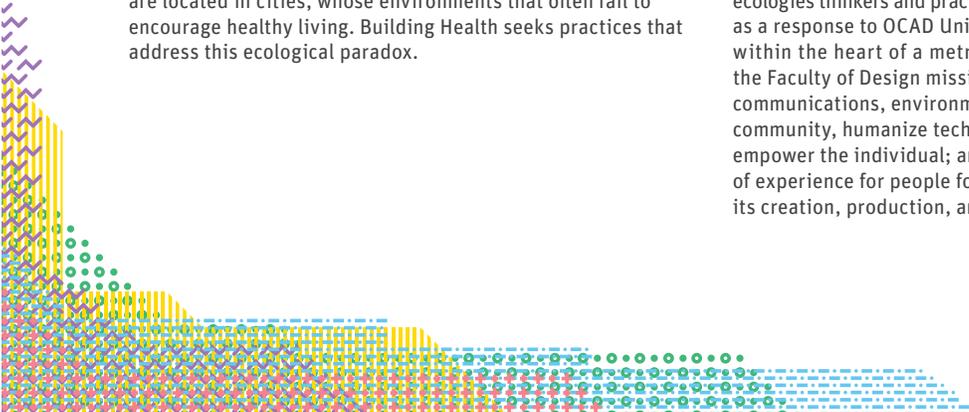
The intricate relationships between urban form and physical and mental health frequently go unconsidered in conventional design processes. Most health care programs and services are located in cities, whose environments that often fail to encourage healthy living. Building Health seeks practices that address this ecological paradox.

## WHAT ARE URBAN ECOLOGIES?

Urban environments are the location or destination of an increasing proportion of humanity. The urgent need for cities to achieve a sustainable balance between human impact and environmental resilience is motivating the consideration of ecology as a source of new theoretical, methodological, and metaphorical directions. Ecological approaches to the design of urban environments appropriate the complex, multivariate, and interdependent—yet innately balanced—characteristics of natural systems. In considering cities as urban ecologies, designers must reconcile multiple interlocking imperatives, such as social needs and desires, cultural norms and aspirations, economic restrictions, the allocation of natural resources, and aesthetics.

Urban ecologies operate dynamically across time and space, qualities that challenge the static two-dimensional logic of conventional design methods and instruments. Urban ecology *ideas* are also dynamic, informed by other theoretical frameworks including systems thinking, sustainability, biomimicry, inclusive design, active living, community engagement, and big data. A close examination of the relationships between ecology and urbanity has the potential to result in strategies and solutions that equip us to design sustainable, inclusive, healthy, engaged, and resilient cities.

The Urban Ecologies series will propel the creation of knowledge by, and foster collaborative connections between, urban ecologies thinkers and practitioners. Urban Ecologies emerges as a response to OCAD University's geographical position within the heart of a metropolis and as an extension of the Faculty of Design mission statement: to create objects, communications, environments and experiences that nurture community, humanize technology, satisfy human needs and empower the individual; and to achieve the maximum quality of experience for people for each ecological unit consumed in its creation, production, and use.



## CALL FOR PROPOSALS

Urban Ecologies 2013 invites proposals for consideration in two categories: abstracts for oral or poster presentations that describe practice-based research activities, and proposals for interactive workshops that create topical collaborative learning opportunities for conference participants.

### 1. PRESENTATION ABSTRACT PROPOSALS

Presentation abstract proposals must consist of the following:

- **A 500-word (maximum) description of the practice-based research (MS Word or PDF format) activities to be presented.**
- **A single figure (drawing, diagram or image) that represents these activities visually (JPG, max. 5MB).**

Approximately 30 submissions will be accepted for oral presentations and 45 submissions will be accepted for poster presentations.

Evaluation will be based on the clarity of the abstract, the quality of the practice-based research described, relevance to the conference themes, and adherence to the guidelines.

### 2. WORKSHOP PROPOSALS

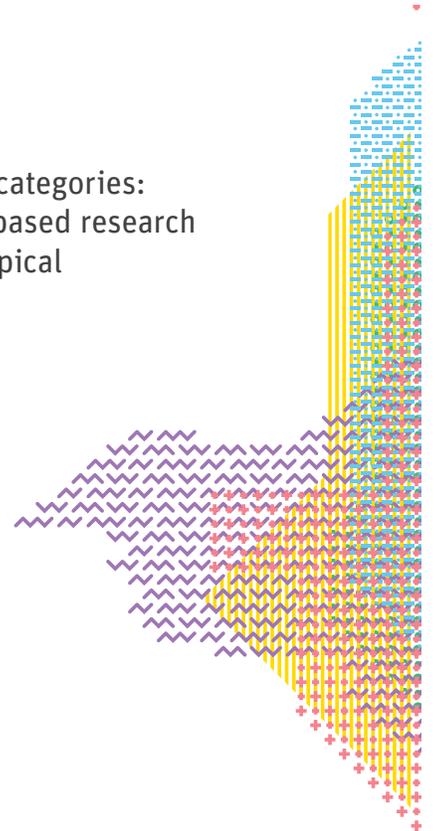
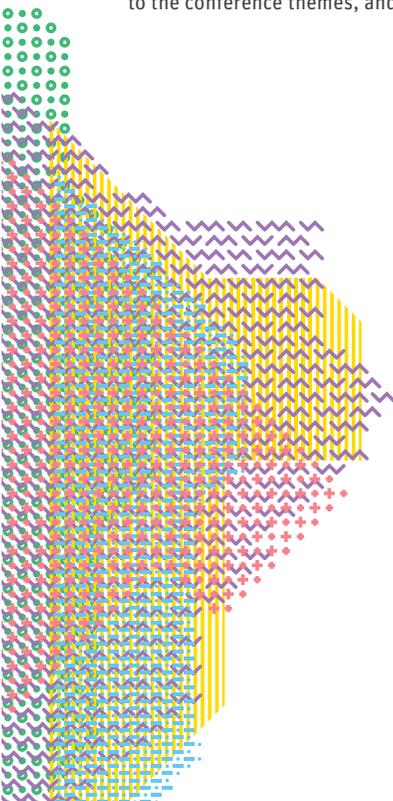
A key component of Urban Ecologies 2013 will be interactive workshops that create collaborative learning and knowledge production opportunities for conference participants. Of particular interest are workshops that provide tools for engagement that lie at the intersection between conference themes. Workshops should be designed to be approximately 1.5 hours in length.

Workshop proposals must consist of a document of no more than two pages (MS Word or PDF format) that summarizes the proposed activities under the following headings:

- **Workshop Objectives**
- **Activity Breakdown**
- **Learning Outcomes**
- **Interactive Opportunities**

Evaluation will be based on the quality of the interactive learning opportunities provided and their relevance to the conference themes.

Prospective workshop facilitators are encouraged to contact Urban Ecologies 2013 to discuss their submission in advance of the deadline.



## SUBMISSION PROCEDURE

Please complete the Proposal Submission Form ([urbanecologies.ca/submission.pdf](http://urbanecologies.ca/submission.pdf)) and email it, along with your proposal, to [proposals@urbanecologies.ca](mailto:proposals@urbanecologies.ca).

**Deadline: 17:00 EST on February 8, 2013.**

## EVALUATION AND DISSEMINATION

All proposals will undergo a blind evaluation process by a diverse selection of internal and external reviewers chosen for their thematic expertise.

Authors will be notified of submission status on or before February 25, 2013.

All successful proposals will have the opportunity to be included in a peer-reviewed publication initiative, to be produced after the conference. Further details regarding this initiative will be provided in May.

## REGISTRATION AND FEES

Registration will begin in March 2013. Early registration discounts will apply for all participants who register before May 1, 2013.

Conference Attendees:	Presenters and Facilitators:	Students:
Early Registration: \$495.00	Early Registration: \$295.00	Early Registration: \$145.00
Late Registration: \$595.00	Late Registration: \$395.00	Late Registration: \$195.00

## MORE INFORMATION

[urbanecologies.ca](http://urbanecologies.ca) | [info@urbanecologies.ca](mailto:info@urbanecologies.ca)

The conference co-chairs are  
Jesse Colin Jackson and Bruce Hinds,  
Faculty of Design, OCAD University.





# Department of Art

## Graduate Art Lecture Series (GALS)

### *A Lecture by Jimenez Lai*

Thursday, February 5, 2015 | 12 PM  
Contemporary Arts Center Colloquium Room (CAC 3201)



Bureau Spectacular is an operation of architectural affairs founded and led by Jimenez Lai since 2008. Jimenez is a faculty member at UCLA and taught at University of Illinois at Chicago. He graduated with a Master of Architecture from University of Toronto. Previously, Jimenez Lai lived and worked in a desert shelter at Taliesin and resided in a shipping container at Atelier Van Lieshout on the piers of Rotterdam. Before founding Bureau Spectacular, Lai worked for various international offices, including OMA. In the past years, Lai built numerous installations as well as being widely exhibited and published around the world, including the MoMA-collected White Elephant. His first manifesto, Citizens of No Place, was published by Princeton Architectural Press with a grant from the Graham Foundation. Draft II of this book has been archived at the New Museum as a part of the show Younger Than Jesus. In 2012, Jimenez Lai won the Architectural League Prize for Young Architects. Lai also won the Debut Award at the Lisbon Triennale in 2013. Lai was the curator and designer for the 2014 Taiwan Pavilion at the 14th Venice Architectural Biennale.

Free and open to the public. This event is part of the UCI Department of Art Lecture Series. The Series is designed to be an opportunity for the UCI community to engage in dialogue with guest artists from a variety of disciplines and perspectives in the field of contemporary art.

**UCI** Claire Trevor | Art  
School of the Arts



100 McCAUL STREET  
TORONTO, ONTARIO  
M5T 1W1

[www.ocadu.ca/sustainability](http://www.ocadu.ca/sustainability)

## SUSTAINABILITY OFFICE

**JESSE COLIN JACKSON**  
ASSISTANT PROFESSOR,  
FACULTY OF DESIGN &  
SUSTAINABILITY OFFICER

[jjackson@faculty.ocadu.ca](mailto:jjackson@faculty.ocadu.ca)

**MINESH MANDODA**  
COORDINATOR, IT SERVICES &  
SUSTAINABILITY INITIATIVES

[mmandoda@ocadu.ca](mailto:mmandoda@ocadu.ca)

**MIKE LOVAS**  
SUSTAINABILITY OFFICE  
COORDINATOR

[mlovas@faculty.ocadu.ca](mailto:mlovas@faculty.ocadu.ca)

**TAYLOR STONE**  
SUSTAINABILITY OFFICE  
COORDINATOR

[tstone@faculty.ocadu.ca](mailto:tstone@faculty.ocadu.ca)

## sMarch

### SUSTAINABILITY MONTH @ OCADU

In 2008, OCAD University made a firm commitment to sustainability by establishing the Sustainability Task Force, leading to the creation of the Sustainability Office. To celebrate the fifth anniversary of this important milestone, the Sustainability Office is dedicating March 2013 to sustainability, by facilitating a series of events called **sMarch**.

Created in partnership with the OCAD Student Union and other campus organizations, this calendar of events will highlight and acknowledge student, faculty, and staff sustainability activities and initiatives under one banner.

**sMarch** has four main goals:

- **Awareness** – Raising the profile of sustainability-minded campus organizations, programs, and events
- **Acknowledgement** – Showcasing past successes and the great work currently being done to make OCAD U more sustainable
- **Engagement** – Creating a participatory conversation exploring how we think, live, design and create sustainably
- **Networking** – Presenting the Sustainability Office as a hub through which individuals, groups, programs, departments, students, faculty, staff, organizations and collectives can build a sustainability network within OCAD U

**sMarch** will feature a broad variety of sustainability activities showcasing our diverse community, including:

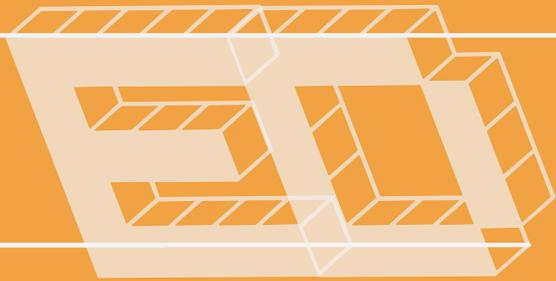
- The Green Exchange
- Earth Hour
- Water Bottle Upcycling Contest
- Workshops by grOCAD and Greening the Grange
- Bicycle tune-up days
- Movie nights
- Speaking events and panel discussions
- Exhibits featuring student work

**sMarch** activities will provide the opportunity to engage with different conceptions of what it means to think, live, design, and create sustainably, in support of our forthcoming Sustainability Master Plan. All are welcome to join us in celebration and learn more about OCAD U's visions for sustainability throughout the month.

Watch for **sMarch** event listings on the OCAD U website, Facebook, and around campus in February.

If you have an idea for a **sMarch** event or would like to get involved, please contact Taylor Stone at [tstone@faculty.ocadu.ca](mailto:tstone@faculty.ocadu.ca).

We look forward to seeing you in **sMarch**!



**17:00**

**OCADU ENVIRONMENTAL DESIGN  
FALL LECTURE SERIES  
CENTRAL HALL (ROOM 230)  
SELECT THURSDAYS**

HOSTED BY JESSE COLIN JACKSON

**28.10.2010**

**DAN BRIKER M.Arch.** [LEVIT GOODMAN ARCHITECTS]  
**BINDYA LAD M.Arch.** [DUBBEDAM DESIGN ARCHITECTS]

CRISIS AS CATALYST: EXEMPLARY THESIS PROJECTS PART I

**04.11.2010**

**AN TE LIU** [JOHN H. DANIELS FACULTY OF  
ARCHITECTURE, LANDSCAPE, AND DESIGN]

**+RICHARD UNTERTHINER B.Des. M.Arch.** [KPMB ARCHITECTS]  
**+KATERYNA NEBESNA B.Des. M.Arch. (Candidate)**

THE UNIVERSITY OF TORONTO MASTER OF ARCHITECTURE PROGRAM

**11.11.2010**

**LAUREN DYNES B.Des.** [OXFORD HOMES]  
**JOSE TRINIDAD B.Des.**

INTERSECTIONS: EXEMPLARY THESIS PROJECTS PART II

POSTER DESIGN BY EVE ZORAWSKI