ACADIA_2015

Computational Ecologies: Design in the Anthropocene

OCTOBER 19–25

CINCINNATI_OHIO

Catalog of the 35th
Annual Conference of the
Association for Computer Aided
Design in Architecture

EDITORS

Lonn Combs
Rensselaer Polytechnic Institute

Chris Perry
Rensselaer Polytechnic Institute

HOSTED BY

University of Cincinnati
College of Design, Architecture,
Art, and Planning

ACADIA 2015 CONTENTS

Monday 19/10/15 | Tuesday 20/10/15 | Wednesday 21/10/15 | Thursday 22/10/15 | Friday 23/10/15 | Saturday 24/10/15 | Sunday 25/10/15

8:00am

Monday 19/10/15
SHUTTLE SERVICE FROM KINGSGATE MARRIOTT TO UC CAMPUS TUC FOR PICK UP RESERVE AT RECEPTION

Workshops Introduction

9:00am Workshops Session 01

12:00pm (T)

1:00pm Lunch

2:00pm Workshops Session 02 (T)

SHUTTLE SERVICE TO KINGSGATE FOR PICK UP CALL 513.487.3800

Tuesday 20/10/15
SHUTTLE SERVICE FROM KINGSGATE MARRIOTT TO UC CAMPUS TUC FOR PICK UP RESERVE AT RECEPTION

Workshops Session 03

(T)

Lunch

Workshops Session 04 (T)

SHUTTLE SERVICE TO KINGSGATE FOR PICK UP CALL 513.487.3800

Wednesday 21/10/15
SHUTTLE SERVICE FROM KINGSGATE MARRIOTT TO UC CAMPUS TUC FOR PICK UP RESERVE AT RECEPTION

Workshops Session 05

(T)

Lunch

Workshops Session 06 (T)

Opening Remarks from Dean **Robert Probst**
Evening Keynote:
Hosted by UC SAID
Philippe Rahm (D)

SHUTTLE SERVICE TO KINGSGATE FOR PICK UP CALL 513.487.3800

Thursday 22/10/15
Acadia Session 1: Material Science I
Session Chair: Ellie Abrons
4 speakers + roundtable (C)

Acadia Session 2: Material Science II
Session Chair: Filip Tejchman
4 speakers + roundtable (C)

Lunch

Keynote Lecture: **Stefan Behnisch**
Hosted by UC SAID (B)

Acadia Session 3: Biomimesis I
Session Chair: Adam Fure
4 speakers + roundtable (C)

Acadia Session 4: Biomimesis II
Session Chair: Nancy Diniz
4 speakers + roundtable (C)

SHUTTLE SERVICE TO UC DAAP SAID

Exhibition Opening (E) (X) (R)

Evening Keynote:
Hosted by UC SAID
Cristina Díaz Moreno - Efrén Garcia Grinda (amid.cero9) (D)

SHUTTLE SERVICE TO 21c Museum Hotel

Suggested evening venue:
Rhinegeist

Friday 23/10/15
Acadia Session 5: Geomimesis / Landforming
Session Chair: Dana Cupkova
4 speakers + roundtable (C)

Pioneers of Design Computation Panel
Robert Aish - Chuck Eastman - Don Greenburg - Tom Maver
4 speakers + roundtable (C)

Lunch

Awards Lecture **Skylar Tibbits** (C) | Awards Lecture **Branko Kolarevic** (H)

Acadia Session 6: Robotics / Responsive Environments I
Session Chair - Adam Marcus
5 speakers + roundtable (C)

Acadia Session 7: Robotics / Responsive Environments II
Session Chair - Mara Marcu (C)

SHUTTLE SERVICE TO UC DAAP SAID

Evening Keynote:
Hosted by UC SAID
Francois Roche (D)

SHUTTLE SERVICE TO 21c Museum Hotel

Suggested evening venue:
Rooftop @ 21c Museum Hotel

Saturday 24/10/15
Acadia Session 8: Robotics/R.E. III
SC: Sang Lee
5 speakers + roundtable (C) | Acadia Session 9: Environmental Parametrics I
SC: Stephen Slaughter (B)
4 speakers + roundtable

Acadia Session 10: Environmental Parametrics II
SC: Anton Harfmann (C)
4 speakers + roundtable | Acadia Session 11: Ecological Urbanism I
SC: Mark Mistur (B)
4 speakers + roundtable

SHUTTLE SERVICE TO UC DAAP SAID

Lunch

Awards Lecture **Andrew Kudless**

Awards Lecture **KieranTimberlake** (A)

Acadia Session 12: Ecological Urbanism II
Session Chair: Ming Tang
4 speakers + roundtable (A)

Awards Lecture **Achim Menges**

EcoDIVERSITY Exhibition Panel (A)

UC Campus Tour
Lecture Reception Hors-d'oeuvres (E) (U)

Evening Keynote: Hosted by UC SAID
Nader Tehrani (D)

Banquet Dinner provided by ACADIA
Awards Ceremony (G)

SHUTTLE SERVICE TO 21c Museum Hotel

Sunday 25/10/15
SHUTTLE SERVICE FROM KINGSGATE MARRIOTT TO UC CAMPUS TUC FOR PICK UP RESERVE AT RECEPTION

Acadia Hackathon
Hosted by VRay Chaosgroup
With FLUX
    Proving Ground
    DAAP Rapid Prototyping Center
    VIMtrek

(T)

Lunch

Acadia Hackathon
Hosted by VRay Chaosgroup
With FLUX
    Proving Ground
    DAAP Rapid Prototyping Center
    VIMtrek

SHUTTLE SERVICE TO KINGSGATE FOR PICK UP CALL 513.487.3800

(T)

(T) UC TUC Great Hall
(B) Aronoff Center 5/3rd Bank Theater
(A) UC DAAP Room 5401
(C) 21c Museum Hotel
(D) UC DAAP Room 4400
(G) UC DAAP Atrium/ 4000 Level
(H) Aronoff Center Rehearsal Hall
(U) University of Cincinnati Campus
(R) UC DAAP Reed Gallery
(X) UC DAAP Blue Box
(E) UC DAAP Reed Extension

THURSDAY 22ND - MORNING
MATERIAL SCIENCE

21c Museum Hotel	(C) 8:00AM		Conference Registration/Breakfast
	9:00AM		SESSION 1: MATERIAL SCIENCE I Session Chair - **Ellie Abrons**
	9:10AM	SPEAKER 1:	**Rizkallah Chaaraoui - Ali Askarinejad** Anisoptera: Anisopteran Deformation and the Latent Geometric Patterns of Wood Envelopes
	9:25AM	SPEAKER 2:	**Ata Sina - Shannon Pitt - Annalisa Meyboom - Mark Martinez - James Olson** Thermocatalytic Metafolds
	9:40AM	SPEAKER 3:	**Glenn Wilcox - Anca Trandafirescu** C-Lith: Carbon Fiber Architectural Units
	9:55AM	SPEAKER 4:	**Faysal Tabbarah** Things in the Anthropocene
	10:05AM	DISCUSSION	Round Table
	10:25AM	BREAK	Coffee Break
21c Museum Hotel	(C) 10:45AM		SESSION 2: MATERIAL SCIENCE II Session Chair - **Filip Tejchman**
	10:55AM	SPEAKER 1:	**Ahmed Hussein** Sandworks: Sand Tectonic Prototype
	11:10AM	SPEAKER 2:	**Kam-Ming Mark Tam - Caitlin Mueller** Stress Line Generation for Structurally Performative Architectural Design
	11:25AM	SPEAKER 3:	**Ming Tang - Mara Marcu** Data Mapping and Ornament
	11:40AM	SPEAKER 4:	**Ellie Abrons - Adam Fure** Texture Tectonics
	11:50AM	DISCUSSION	Round Table
	12:10PM	LUNCH	Lunch is provided
Aronoff Center: 5/3rd Bank Black Box Theater	(B) 12:30PM	KEYNOTE	Keynote Lecture by **Stefan Behnisch**
	1:30PM	BREAK	Coffee Break

THURSDAY 22ND - AFTERNOON
BIOMIMESIS

21c Museum Hotel	(C) 1:45PM		SESSION 3: BIOMIMESIS I Session Chair - **Adam Fure**
	1:55PM	SPEAKER 1:	**Ali Askarinejad - Rizkallah Chaaraoui** Spatial Nets: The Computational and Material Study of Reticular Geometries
	2:10PM	SPEAKER 2:	**Tim Ireland** A Cell Inspired Model of Configuration
	2:25PM	SPEAKER 3:	**Dennis Lagemann** Abstract
	2:40PM	SPEAKER 4:	**Marco Poletto - Claudia Pasquero** Urban Algae Folly
	2:50PM	DISCUSSION	Round Table
	3:10PM	BREAK	Coffee Break
21c Museum Hotel	(C) 3:30PM		SESSION 4: BIOMIMESIS II Session Chair - **Nancy Diniz**
	3:40PM	SPEAKER 1:	**Ehsan Baharlou - Achim Menges** Towards a Behavioral Design System: An Agent-based Approach for Polygonal Surface Structures
	3:55PM	SPEAKER 2:	**Elif Erdine** Generative Processes in Tower Design: Simultaneous Integration of Tower Subsystems Through Biomimetic Analogies
	4:10PM	SPEAKER 3:	**Laia Mogas Soldevila - Jorge Duro Royo - Neri Oxman** Form Follows Flow: A Material-driven Computational Workflow For Digital Fabrication of Large-Scale Hierarchically Structured Objects
	4:25PM	SPEAKER 4:	**Jenny Sabin - Martin Miller - Daniel Cellucci** ColorFolds - eSkin + Kirigami: From Cell Contractility to Sensing Materials to Adaptive Foldable Architecture
	4:35PM	DISCUSSION	Round Table
	4:55PM	SHUTTLE	Shuttle Service to UC DAAP SAID
UC DAAP Reed Gallery	(R) 5:30PM	EXHIBITION	Exhibition Opening
UC DAAP Blue Box	(X)		Lecture Reception Hors-d'oeuvres
UC DAAP Room 4400	(D) 6:30PM	KEYNOTE	Keynote Lecture by **Cristina Díaz Moreno - Efrén Garcia Grinda (amid.cero9)**
	8:00PM	SHUTTLE	Shuttle Service to 21c Museum Hotel

FRIDAY 23RD - MORNING
GEOMIMESIS / LANDFORMING

| 21c Museum Hotel | C | 8:00AM | BREAKFAST | Breakfast provided by 21c Metropole |

| | | 9:00AM | | SESSION 5: GEOMIMESIS / LANDFORMING
Session Chair - **Dana Cupkova** |

| | | 9:10AM | SPEAKER 1: | **Philip Belesky - Rosalea Monacella - Jane Burry - Mark Burry**
A Field in Flux |

| | | 9:25AM | SPEAKER 2: | **Elissa Ross and Daniel Hambleton**
Exact Face-offsetting for Polygonal Meshes |

| | | 9:40AM | SPEAKER 3: | **James Melsom - Ilmar Hurkxkens - Christophe Girot**
Directed Deposition: Exploring the Role of Simulation and Design in Erosion and Landslide Processes |

| | | 9:55AM | SPEAKER 4: | **Adam Marcus - Molly Reichert - John Kim - Daniel Dean**
Meander: Spatializing Geography, Cartography, and Environment |

| | | 10:05AM | DISCUSSION | Round Table |

| | | 10:25AM | BREAK | Coffee Break |

| 21c Museum Hotel | C | 10:45AM | SPECIAL PANEL | Pioneers of Design Computation
Panel Moderator - **Robert Aish**
Panelists: **Chuck Eastman - Don Greenburg - Tom Maver** |

| | | 12:15PM | LUNCH | Lunch is provided |

| 21c Museum Hotel | C | 12:30PM | AWARDS LEC-TURE | Acadia 2015 Awards Lecture by **Skylar Tibbits** |

| Aronoff Center Rehearsal Hall | H | 12:30PM | AWARDS LEC-TURE | Acadia 2015 Awards Lecture by **Branko Kolarevic** |

| | | 1:00PM | BREAK | Coffee Break |

FRIDAY 23RD - AFTERNOON
ROBOTICS / RESPONSIVE ENVIRONMENTS

| 21c Museum Hotel | C | 1:30PM | | SESSION 6: ROBOTICS / RESPONSIVE ENVIRONMENTS I
Session Chair - **Adam Marcus** |

| | | 1:45PM | SPEAKER 1: | **Michael McKay**
Relative Positioning |

| | | 2:00PM | SPEAKER 2: | **José Pedro Sousa - Germano Veiga - António Paulo Moreira**
Robotic Fabrication with Cork: Emerging Opportunities in Architecture and Building Construction |

| | | 2:15PM | SPEAKER 3: | **Johannes Braumann - Sigrid Brell-Cokcan**
Towards Adaptive Robot Control Strategies |

| | | 2:30PM | SPEAKER 4: | **Simon Kim - Mark Yim - Kevin Alcedo - Michael Chung - Billy Wang - Hyeji Yang**
Soft Robotics Applied to Architecture |

| | | 2:45PM | SPEAKER 5: | **Future Cities Lab / Jason Johnson - Nataly Gattegno - Ripon DeLeon**
Lightswarm |

| | | 3:55PM | DISCUSSION | Round Table |

| | | 3:15PM | BREAK | Coffee Break |

| 21c Museum Hotel | C | 3:30PM | | SESSION 7: ROBOTICS / RESPONSIVE ENVIRONMENTS II
Session Chair - **Mara Marcu** |

| | | 3:40PM | SPEAKER 1: | **Nancy Diniz**
The Anatomy of a Prototype |

| | | 3:55PM | SPEAKER 2: | **Daniel Fougere - Ryan Goold - Kathy Velikov**
Pneuma-Technics: Methods for Soft Adaptive Environments |

| | | 4:10PM | SPEAKER 3: | **Michael Silver**
(Un) Building Codes: Architecture and the Limits of Artificial Intelligence |

| | | 4:25PM | SPEAKER 4: | **Lauren Vasey - Ehsan Baharlou - Moritz Doerstelmann - Valentin Koslowski - Marshall Prado - Gundula Schieber - Jan Knippers - Achim Menges**
Behavioral Design and Adaptive Robotic Fabrication of a Fiber Composite Compression Shell with Pneumatic Formwork |

| | | 4:40 | SPEAKER 5: | **Gianluca Tabellini**
Mycelium Tectonics |

| | | 4:50PM | DISCUSSION | Round Table |

| | | 5:10M | SHUTTLE | Shuttle Service to UC DAAP SAID |

| UC DAAP 4400 | D | 6:00PM | KEYNOTE | Keynote Lecture by **Francois Roche** |

| | | 7:30PM | SHUTTLE | Shuttle Service to 21c Museum Hotel |

SATURDAY 24TH - MORNING
ROBOTICS / RESPONSIVE ENVIRONMENTS
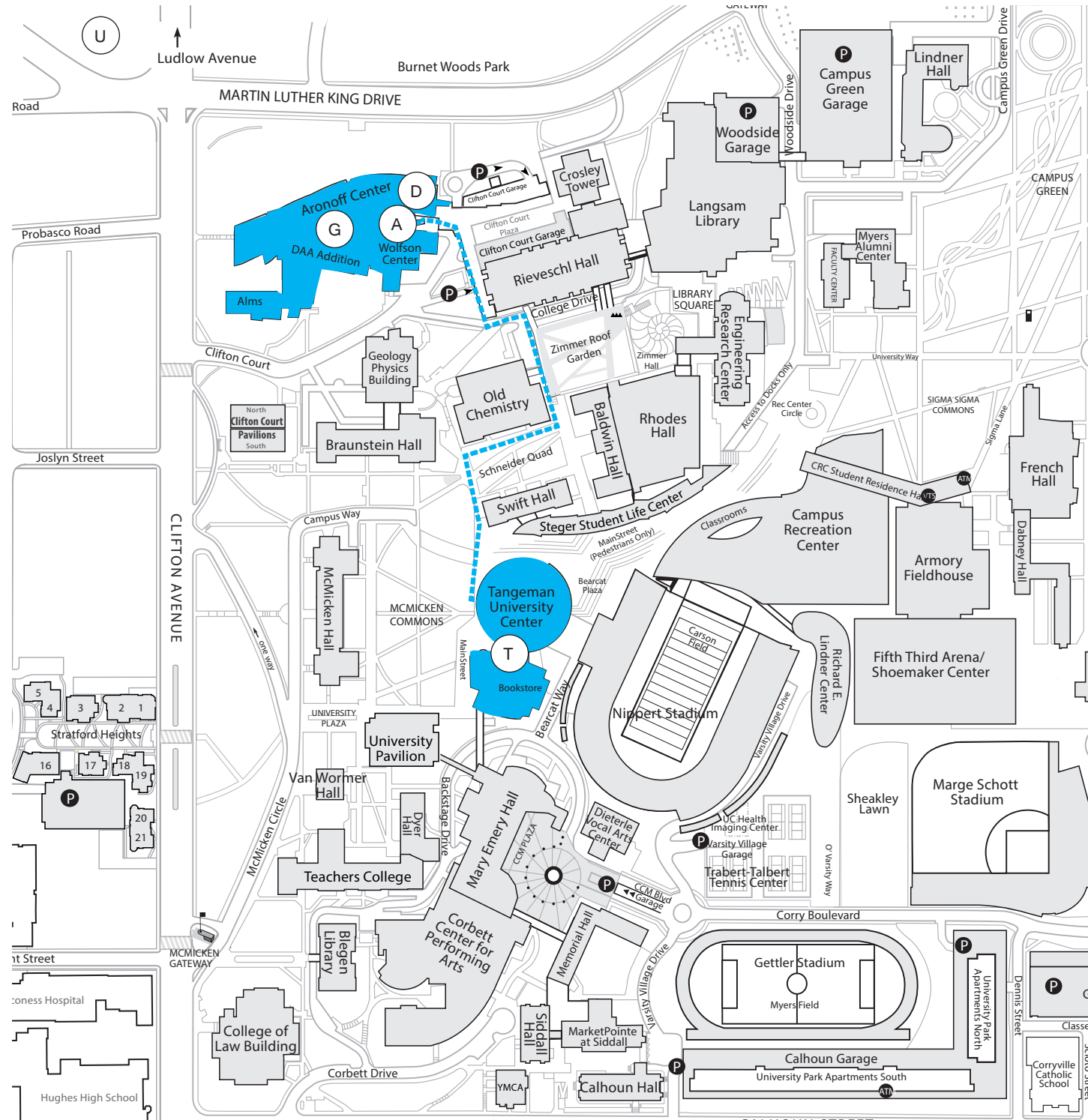ENVIRONMENTAL PARAMETRICS / ECOLOGICAL URBANISM

21c Museum Hotel — C — 8:00AM — Breakfast provided by 21c Metropole

9:00AM — SESSION 8: ROBOTICS/RESPONSIVE ENVIRONMENTS III
Session Chair - **Sang Lee**

9:10AM — SPEAKER 1: — **Sean Ahlquist**
Social Sensory Architectures: Articulating Textile Hybrid Structures for Multi-sensory Responsiveness and Collaborative Play

9:25AM — SPEAKER 2: — **Chandler Ahrens**
Klimasymmetry: Locating Thermal Tactility

9:40AM — SPEAKER 3: — **Stanislav Roudavski**
Sketching with Robots: Props for Autonomous Architecture

9:55AM — SPEAKER 4: — **Nicole Koltick**
Autonomous Botanist: The Poetic Potentials of a New Robotic Species

10:10AM — DISCUSSION — Round Table

10:30AM — BREAK — Coffee Break

21c Museum Hotel — C — 10:45AM — SESSION 10: ENVIRONMENTAL PARAMETRICS II
Session Chair - **Anton Harfmann**

10:55AM — SPEAKER 1: — **Dongil Kim - Seojoo Lee**
A Systemized Aggregation with Generative Growth Mechanism in Solar Environment

11:10AM — SPEAKER 2: — **Ramon van der Heijden - Evan Levelle - Martin Riese**
Parametric Building Information Generation for Design and Construction

11:25AM — SPEAKER 3: — **Kelly Winn**
Transient Thermal Surfaces and Developmental Form for Tactile Surfaces

11:40AM — SPEAKER 4: — **Julie Larsen - Roger Hubeli**
dis-FIGURE

11:50AM — DISCUSSION — Round Table

12:10PM — SHUTTLE — Shuttle Service to UC DAAP SAID

Aronoff Center: 5/3rd Bank Black Box Theater — B — 8:00AM — Breakfast provided by 21c Metropole

9:00AM — SESSION 9: ENVIRONMENTAL PARAMETRICS I
Session Chair - **Stephen Slaughter**

9:10AM — SPEAKER 1: — **Yassin Ashour - Branko Kolarevic**
Heuristic Optimization in Design

9:25AM — SPEAKER 2: — **Navid Hatefnia - Marjan Ghobad**
Computing Outdoor Comfort Based on CBE Thermal Comfort Calculation for Ashrae-55

9:40AM — SPEAKER 3: — **Wassim Jabi**
The Potential of Non-manifold Topology in the Early Design Stages

9:55AM — SPEAKER 4: — **Filip Tejchman**
The Cave is the Campfire: Thermal Forms in Architecture

10:10AM — DISCUSSION — Round Table

10:30AM — BREAK — Coffee Break

Aronoff Center: 5/3rd Bank Black Box Theater — B — 10:45AM — SESSION 11: ECOLOGICAL URBANISM I
Session Chair - **Mark Mistur**

10:55AM — SPEAKER 1: — **Stefano Andreani - Allen Sayegh**
Parametric Spatial-Structural Optimization in the Conceptual Design Stage of Projects

11:10AM — SPEAKER 2: — **Aurgho Jyoti**
High Rise Morphologies: Architectural Form Finding in a Performative Design Search Space of Dense Urban Contexts

11:25AM — SPEAKER 3: — **Philip Speranza - Robert Kiesler - Jiawei Vincent Mai**
Social Interaction and Cohesion Tool: A Dynamic Design Approach for Barcelona's Superilles

11:40AM — SPEAKER 4: — **Michael Fox - Victor Zhang**
Shattered Communities

11:50AM — DISCUSSION — Round Table

12:10PM — SHUTTLE — Shuttle Service to UC DAAP SAID/Lunch is provided

SATURDAY 24TH - AFTERNOON
ECOLOGICAL URBANISM

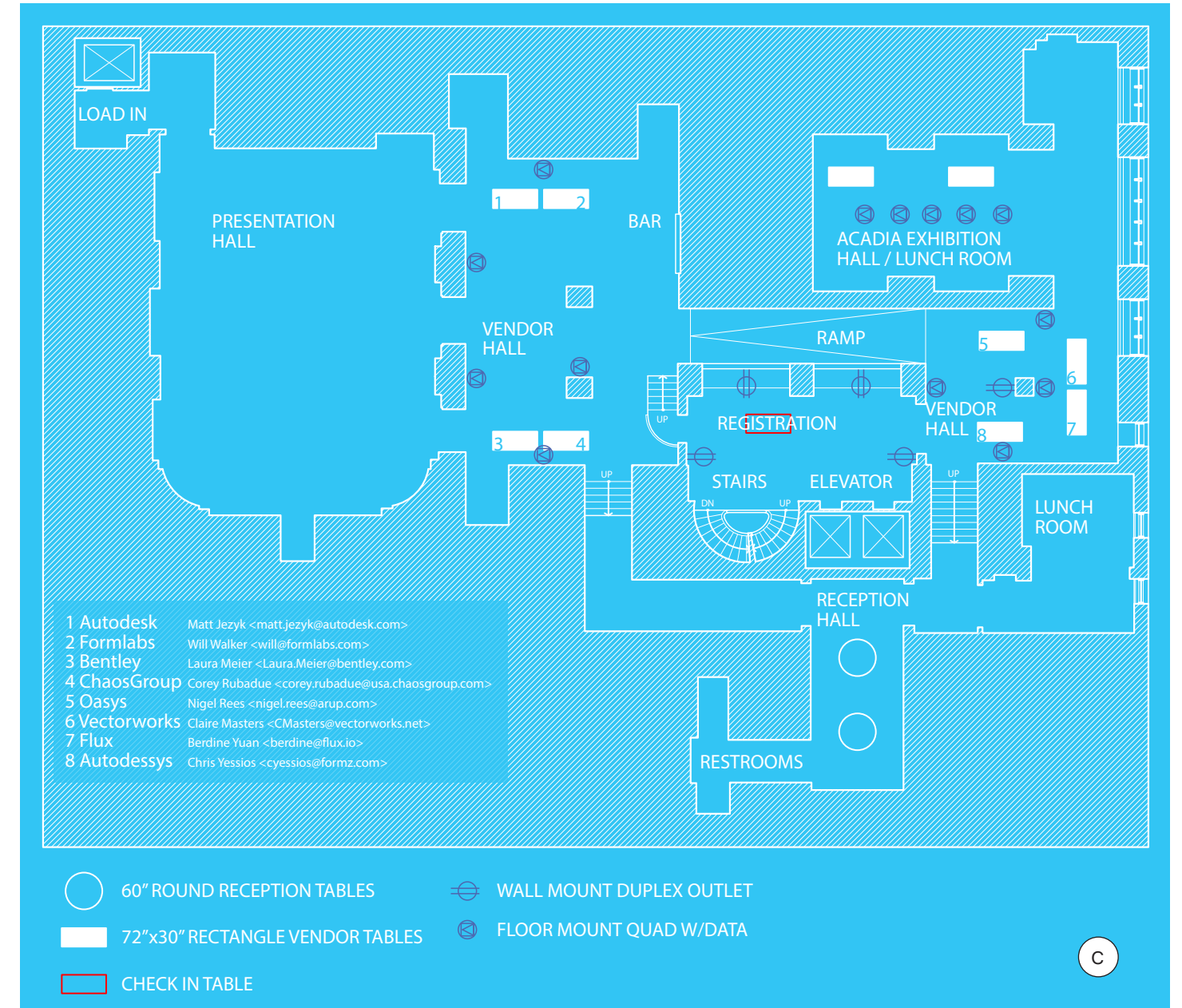|				
UC Reed Extension	(E)	12:45	LUNCH	Lunch is provided
UC DAAP Room 5401	(A)	1:15PM	AWARDS LEC-TURE	Acadia 2015 Awards Lecture by **Andrew Kudless**
		1:45PM	AWARDS LEC-TURE	Acadia 2015 Awards Lecture by **KieranTimberlake**
		2:15PM		SESSION 12: ECOLOGICAL URBANISM II Session Chair - **MingTang**
		2:25PM	SPEAKER 1:	**Biayna Bogosian - Maider Llaguno** Sensing Urban Microclimates
		2:40PM	SPEAKER 2:	**Carlos Sandoval Olascoaga - John Victor-Faichney - Scott Ewart** Flows, Bits, Relationships: Construction of Deep Spatial Under-standing
		2:55PM	SPEAKER 3:	**Jose Sanchez** Temporal and Spatial Combinatorics in Games for Design
		3:10PM	SPEAKER 4:	**Richard Garber - Zeyuan Qiu - Sabrina Raia** Zhangdu Lake Farm
		3:20PM	DISCUSSION	Round Table
UC Reed Extension	(E)	3:40PM	BREAK	Coffee Break
UC DAAP Room 5401	(A)	4:00PM	AWARDS LEC-TURE	Acadia 2015 Awards Lecture by **Achim Menges**
		4:30PM	SPECIAL PANEL	EcoDIVERSITY Exhibition Round Table
		5:30PM	TOUR	University of Cincinnati Campus Tour
UC Reed Extension	(E)	6:00PM	RECEPTION	Lecture Reception and Hors-d'oeuvres
UC DAAP Room 5401	(D)	6:30PM	KEYNOTE	Keynote Lecture by **Nader Tehrani**
UC DAAP Atrium/ 4000 Level	(G)	7:30PM	DINNER	ACADIA 2015 Dinner/ Awards Ceremony
		9:30PM	SHUTTLE	Shuttle Service to 21c Museum Hotel

LOCATIONS - UNIVERSITY OF CINCINNATI CAMPUS

(U) Ludlow Avenue

MARTIN LUTHER KING DRIVE

Burnet Woods Park

Road

Probasco Road

Clifton Court

Joslyn Street

CLIFTON AVENUE

Aronoff Center
DAA Addition
Alms
(D) (G) (A) Wolfson Center

Crosley Tower
Clifton Court Garage
Clifton Court Plaza
Clifton Court Garage
Rieveschl Hall
College Drive

Campus Green Garage
Lindner Hall
Woodside Garage
Myers Alumni Center
CAMPUS GREEN

Langsam Library

Geology Physics Building
Old Chemistry
Braunstein Hall
Baldwin Hall
Rhodes Hall
Zimmer Roof Garden
Zimmer Hall
Engineering Research Center
LIBRARY SQUARE
FACULTY CENTER
University Way

Swift Hall
Schneider Quad
Steger Student Life Center
MainStreet (Pedestrians Only)
Campus Recreation Center
Classrooms
CRC Student Residence Hall
Rec Center Circle
SIGMA SIGMA COMMONS
Sigma Lane
French Hall
Dabney Hall

McMicken Hall
McMICKEN COMMONS
Campus Way
MCMICKEN PLAZA
(T) Tangeman University Center
Bookstore
Bearcat Plaza
Nippert Stadium
Carson Field
Richard E. Lindner Center
Armory Fieldhouse
Fifth Third Arena/ Shoemaker Center

Stratford Heights
5 4 3 2 1
16 17 18 19
20 21
(P)
University Pavilion
Van Wormer Hall
UNIVERSITY PLAZA
MainStreet
BackStage Drive
Mary Emery Hall
CCM PLAZA
Dieterle Vocal Arts Center
UC Health Imaging Center
Varsity Village Garage
Varsity Village Drive
Sheakley Lawn
Marge Schott Stadium

Teachers College
Dyer Hall
Memorial Hall
CCM Blvd
CCM Garage
Corry Boulevard

Biology Library
Corbett Center for Performing Arts
Siddall Hall
MarketPointe at Siddall
Gettler Stadium
Myers Field
University Park Apartments North
Dennis Street
Scioto Street

College of Law Building
Corbett Drive
YMCA
Calhoun Hall
Calhoun Garage
University Park Apartments South
CALHOUN STREET
Corryville Catholic School

MCMICKEN GATEWAY
Hughes High School

LOCATIONS - 21c MUSEUM HOTEL

LOAD IN

PRESENTATION HALL

BAR

ACADIA EXHIBITION HALL / LUNCH ROOM

VENDOR HALL

RAMP

1 2

5

3 4

VENDOR HALL

6
7
8

REGISTRATION

STAIRS ELEVATOR

UP UP UP

DN

LUNCH ROOM

RECEPTION HALL

RESTROOMS

(C)

1 Autodesk   Matt Jezyk <matt.jezyk@autodesk.com>
2 Formlabs   Will Walker <will@formlabs.com>
3 Bentley   Laura Meier <Laura.Meier@bentley.com>
4 ChaosGroup   Corey Rubadue <corey.rubadue@usa.chaosgroup.com>
5 Oasys   Nigel Rees <nigel.rees@arup.com>
6 Vectorworks   Claire Masters <CMasters@vectorworks.net>
7 Flux   Berdine Yuan <berdine@flux.io>
8 Autodessys   Chris Yessios <cyessios@formz.com>

◯ 60" ROUND RECEPTION TABLES   ⊖ WALL MOUNT DUPLEX OUTLET
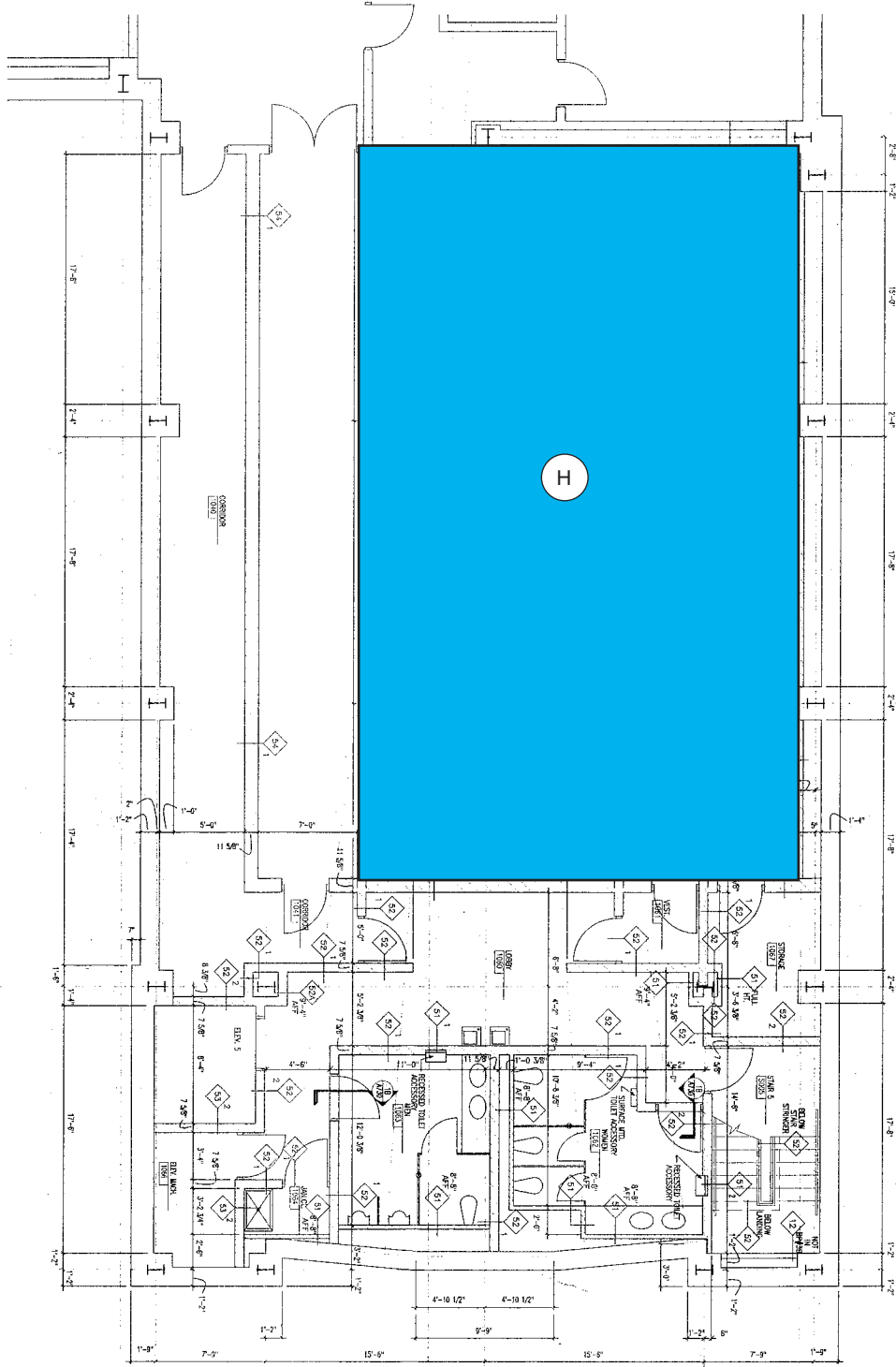▭ 72"x30" RECTANGLE VENDOR TABLES   ⊗ FLOOR MOUNT QUAD W/DATA
▭ CHECK IN TABLE

(A) UC DAAP Room 5401   (D) UC DAAP Room 4400   (U) University of Cincinnati Campus

(T) UC TUC Great Hall   (G) UC DAAP Atrium Level 4000

(C) 21 c Museum Hotel

LOCATIONS - ARONOFF CENTER 5/3 Bank Theatre

LOCATIONS - ARONOFF CENTER BASEMENT

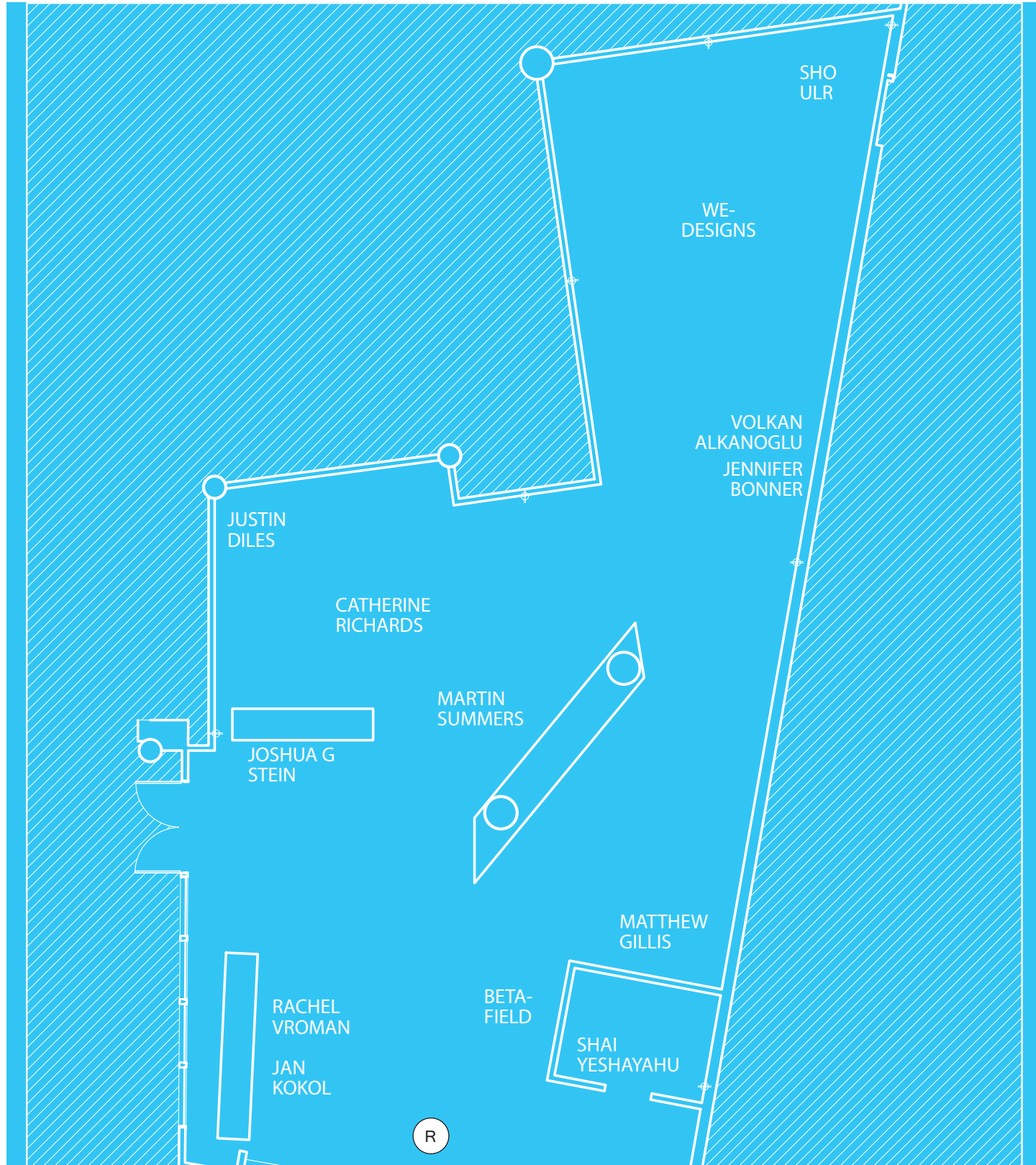(B) Aronoff Center: 5/3 Bank Black Box Theatre

(H) Aronoff Center: Reception Hall

LOCATIONS - Tangeman University Center (TUC)
2766 UC MainStreet, Room 465 "Great Hall"

LOCATIONS - UC DAAP 5TH FLOOR

T — UC TUC Great Hall

R — UC DAAP Reed Gallery

X — UC DAAP Blue Box

E — UC DAAP Reed Extension

A — UC DAAP Room 5401
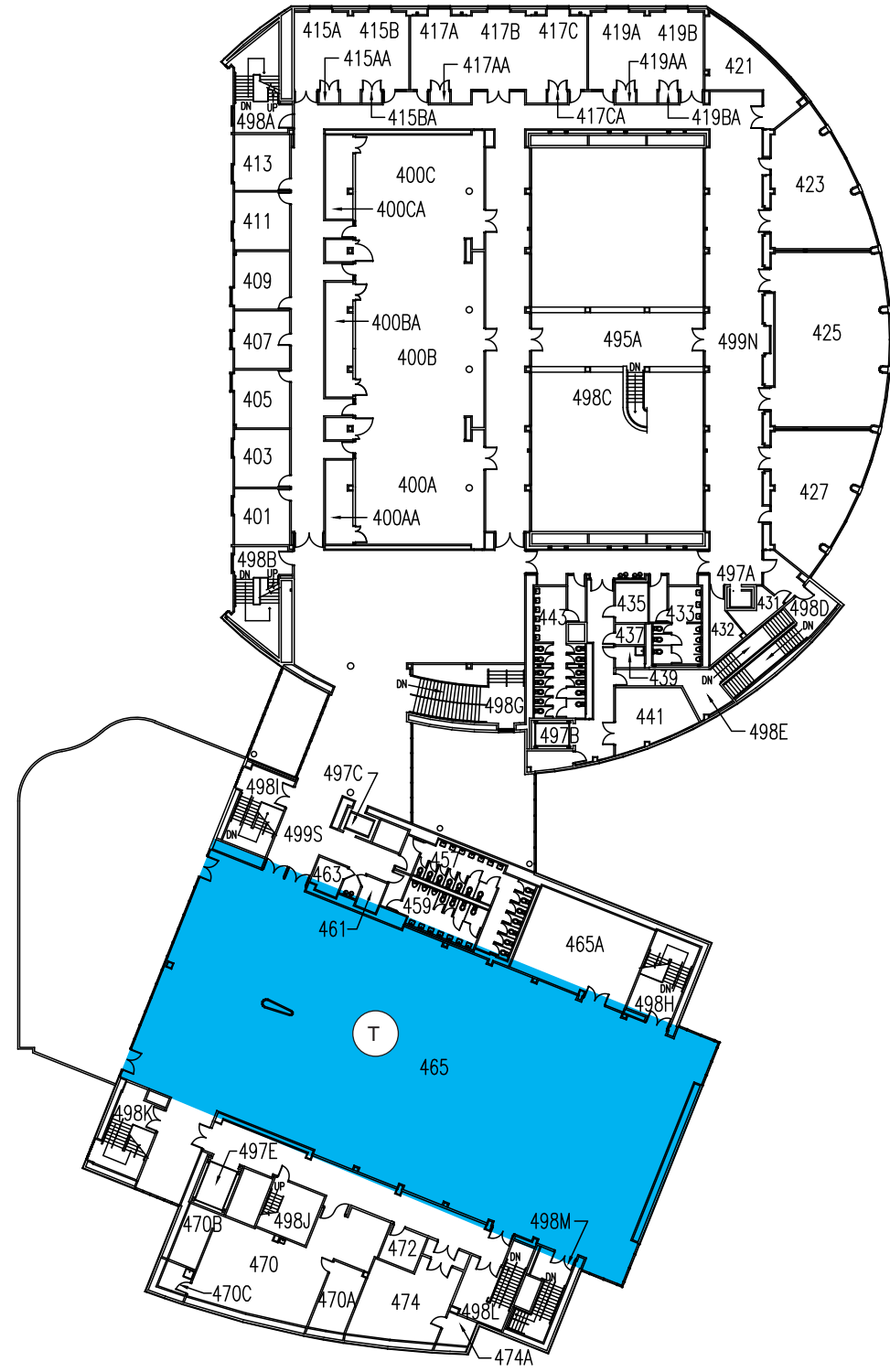
LOCATIONS - UC REED GALLERY

SHO ULR
WE-DESIGNS
VOLKAN ALKANOGLU
JENNIFER BONNER
JUSTIN DILES
CATHERINE RICHARDS
MARTIN SUMMERS
JOSHUA G STEIN
MATTHEW GILLIS
BETA-FIELD
RACHEL VROMAN
JAN KOKOL
SHAI YESHAYAHU
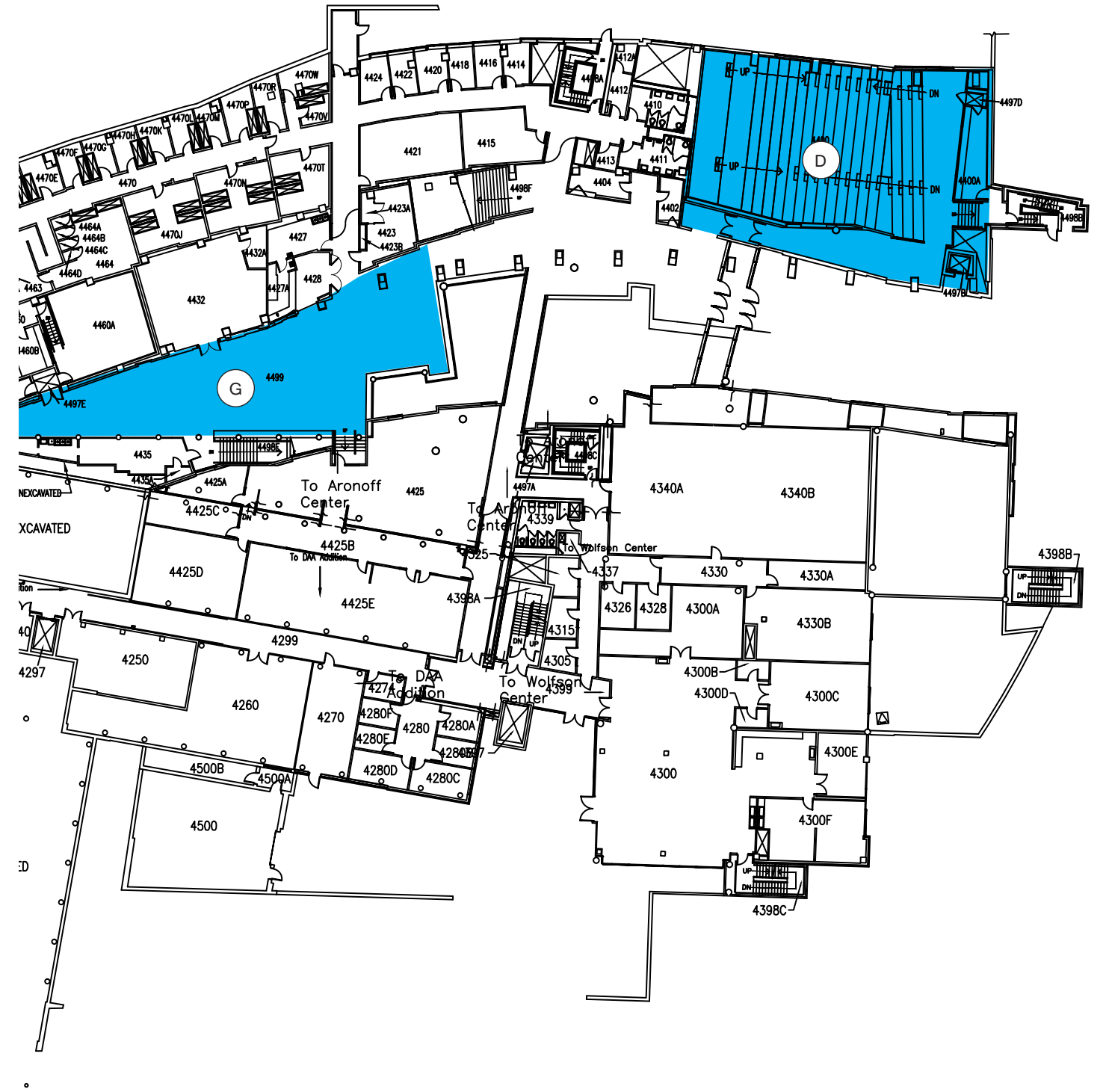
R UC Reed Gallery

LOCATIONS - UC DAAP 4TH FLOOR

G UC DAAP Atrium / 4000 Level

D UC DAAP Room 4400

KEYNOTE

CRISTINA DÍAZ MORENO
EFRÉN Gª GRINDA

Cristina Díaz Moreno and Efrén Gª Grinda are both architects and founders of the Madrid-based office amid.cero9. They are Unit Masters in the Diploma sequence at the Architectural Association School of Architecture (AA) in London and are also directing an Option Studio at the Harvard Graduate School of Design. They both held professorships in Vienna at the Institut für Kunst und Architektur Akademie der Bildenden Künste from 2013 to 2014. While teaching together in Madrid from 1998 to 2013 (in parallel at ETSAM and ESAYA UEM) they have been visiting professors and lecturers throughout Europe, Asia and the United States. Their projects have been widely disseminated, and they have won more than forty prizes in national and international competitions. Their projects and writings of the last fifteen years were documented in 2014 in an
exhibition at the AA and published in "Third Natures, A Micropedia". They have recently built the renowned Institución Libre de Enseñanza headquarters in Madrid.

Image Credits: amid.cero9
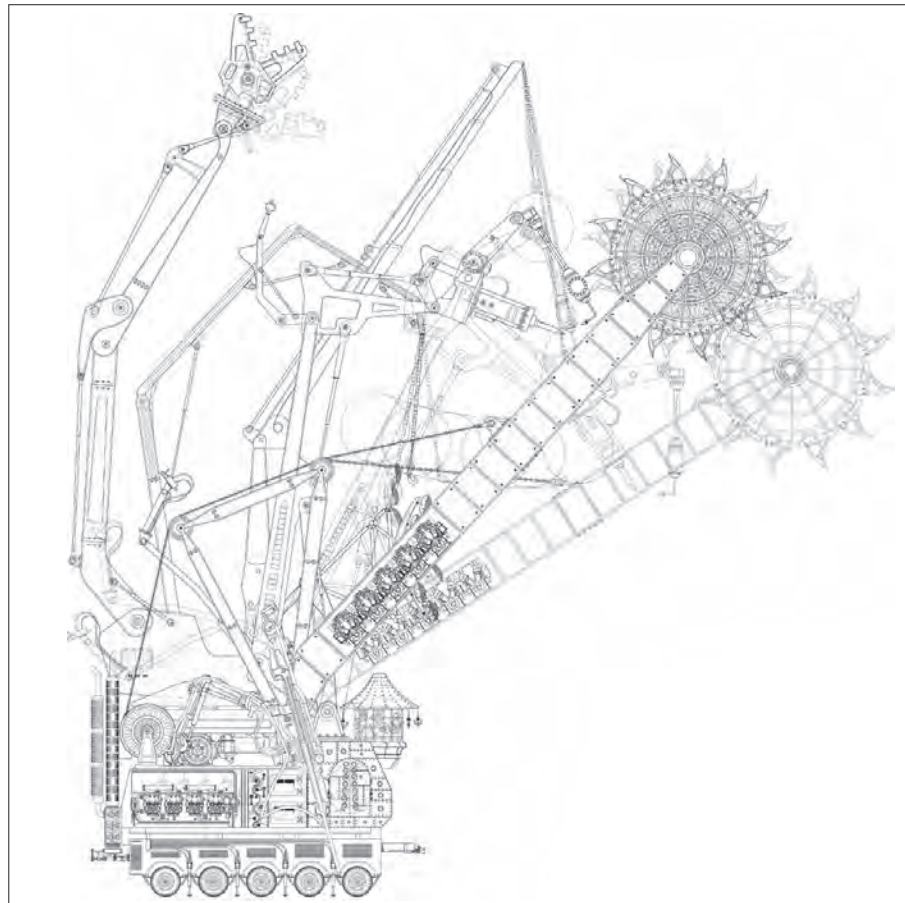
KEYNOTE

Stefan Behnisch
BEHNISCH ARCHITEKTEN

Behnisch Architekten was founded in 1989 and works out of three offices – Stuttgart, Munich, and Boston. These offices are directed by Stefan Behnisch and his partners Robert Hösle (Munich), Robert Matthew Noblett (Boston) and Stefan Rappold (Stuttgart).
From the outset, the social dimension of architecture has been a fundamental aspect of the firm's design philosophy. The search for innovative and sustainable solutions making optimum use of natural resources has produced a rich variety of buildings, each of which responds to specific user requirements and site conditions.
Behnisch Architekten realized such signature projects as the LEED Platinum Genzyme Center in Cambridge, MA (2004); the new Unilever Headquarters (2009) and the Marco Polo Tower in Hamburg's HafenCity (2010). The most recently completed major construction projects are the John and Frances Angelos Law Center in Baltimore, MD, USA (2013) and the new conference hall for the World Intellectual Property Organization WIPO in Geneva (2014). Over the years the practice has established an international reputation as a firm that combines design excellence with advanced expertise in sustainability.

Image Credits: Behnisch Architekten

KEYNOTE

NADAAA is a Boston-based architecture and urban design firm led by Nader Tehrani in collaboration with partners Katherine Faulkner and
Daniel Gallagher. NADAAA has evolved over three decades as a multi-disciplinary practice dedicated to bridging between design
disciplines; from landscape to urbanism, architecture to interiors, and industrial design to furniture. The work of NADAAA demonstrates a commitment to new forms of knowledge through making. With an eye towards integrated thinking, we enter the discourse on technology, aesthetics, and building protocols as part of a holistic process.
Design excellence is core to all pursuits and the firm boasts sixteen Progressive Architecture Awards, the 2007 Cooper-Hewitt National Design Award in Architecture, the 2002 American Academy of Arts and Letters Architecture Award, the 2007 United States Artists Award, the 2002 Harleston Parker Award, the 2012 Hobson Award, the 2014 Holcim Foundation Sustainability Award, as well as multiple Chicago Athenaeum, BSA and ID Awards. In 2013 and 2014, NADAAA was ranked number one in design in Architect Magazine's Top 50 Firms in the United States.

NADAAA
Nader Tehrani

Image Credits: NADAAA

KEYNOTE

Laboratory of research (New-territories.com) Institute for contingent scenario (Bangkok) MindMachineMakingMyths LLC (NYC). Through those different structures, their architectural works and protocols seek to articulate the real and/ or fictional, the geographic situations and narrative structures that can transform them.
Architectural designs and processes have been show at, among other places, ICA, Mori Art Museum, SF MOMA, Centre Pompidou, MAM, Tate Modern, ArchiLab, at the Venice Architecture Biennales, French pavilion in 90, 96, 2000, international section in 2000-04-08-10, and the last two in 2012 (Dark Side, Slovenian Pav., Writing Architecture) and in 2014 in Bembo Pavilion. F. Roche was guest professor among others at Bartlett, TU, ES-ARQ, UPENN, Angewangde, USC, GSAPP... and Camille Lacadee at Thammassat, Inda (Chulalongkorn) and both they are guest at RMIT, Michigan Ann-Arbor in 2014-15.

New-Territories
Francois Roche

Image Credits: New-Territories

KEYNOTE

Philippe Rahm architectes
Philippe Rahm

Philippe Rahm is a Swiss architect, Principal in the office of Philippe Rahm architectes, based in Paris, France. His work, which extends the field of architecture from the physiological to the meteorological, has received an
international audience in the context of sustainability. He has taught archtectural design at the Harvard Graduate School of Design. In 2002, Mr. Rahm was chosen to represent Switzerland at the 8th Architecture Biennale in Venice and was one of the 25 Manifesto's Architects of Aaron Betsky's 2008 Architectural Venice Biennale. He has lectured widely, including at Yale, Cooper Union, UCLA, and ETH Zürich. His recent work includes the First Prize for the seventy hectares Taichung Gateway Park in Taiwan currently under construction. Monographic book include Physiological Architecture (Birkhaüserm 2002), Distortions (HYX 2005), Environ(ne)ment: Approaches for Tomorrow (Skira 2006), Architecture Météorologique (Archibooks 2009) and Constructed Atmospheres
(Postmedia, Milan 2014).

Image Credits: Philippe Rahm architectes

AWARD

KieranTimberlake

Founded in 1984, KieranTimberlake is internationally recognized architecture firm noted for research, innovation, and inventive design. Our work includes the programming, planning, and design of new structures as well as the transformation of existing buildings, with special expertise in education, government, arts and culture, civic, and residential projects. We seek ways to improve the art, quality, and craft of architecture through research into new materials, processes, assemblies, and products. This pursuit includes the development of application-specific environmental analysis and prediction tools, building and environmental monitoring, novel building assemblies, and more. Common to all our work is that each
project begins with a question and continues its development within a culture of questioning, ensuring that design results from deep investigation. We promote a transdisciplinary design process that inspires creativity and fosters a culture of sharing ideas, knowledge, and techniques.

Image Credits: KieranTimberlake

AWARD

Branko Kolarevic is a Professor of Architecture at the University of Calgary Faculty of Environmental Design, where he also holds the Chair in
Integrated Design and co-directs the Laboratory for Integrative Design (LID). He has taught architecture at several universities in North America and Asia and has lectured worldwide on the use of digital technologies in design and production. He has authored, edited or co-edited several books, including "Building Dynamics" (with Vera Parlac), "Manufacturing Material Effects" (with Kevin Klinger), "Performative Architecture" (with Ali Malkawi) and "Architecture in the Digital Age." He is a past president of the Association for Computer Aided Design in Architecture (ACADIA) and a recipient of the ACADIA Award for Innovative Research in 2007. He was also recently President of the Canadian Architectural Certification Board (CACB), which accredits professional programs in architecture in Canada. He holds doctoral and master's degrees in design from Harvard University and a diploma engineer in architecture degree from the
University of Belgrade.

Branko Kolarevic

Image Credits: Branko Kolarevic

AWARD

Andrew Kudless is a designer based in San Francisco where he is an
Associate Professor at the California College of the Arts. In 2004, he founded Matsys, a design studio exploring the emergent relationships between architecture, engineering, biology, and computation. He holds a Master of Arts in Emergent Technologies and Design from the
Architectural Association and a Master of Architecture from Tulane
University. The work of Matsys has been exhibited internationally and is in the permanent collections of the San Francisco Museum of Modern Art, the Centre Pompidou in Paris, and the FRAC Centre in Orleans, France.

Andrew Kudless

Image Credits: Andrew Kudless

AWARD

Achim Menges

Achim Menges is a registered architect and professor at Stuttgart
University, where he is the founding director of the ICD Institute for
Computational Design and the co-director of the ITech MSc programme. He also is Visiting
Professor in Architecture at Harvard University's
Graduate School of Design.
He graduated with honors from the AA School of Architecture in London where he subse-
quently taught as Studio Master of the Emergent
Technologies and Design Graduate Program and as Unit Master of
Diploma Unit 4. In addition he was Professor for Form Generation and Materialisation at
the HfG Offenbach University for Art and Design in
Germany.
Achim Menges teaching and research focuses on the development of
integral design processes at the intersection of design computation,
biomimetic engineering and robotic fabrication that enables a highly
articulated, performative built environment. His work is based on an
interdisciplinary approach in collaboration with structural engineers,
computer scientists, material scientists and biologists. He has published several books on
this work and related fields of design research, and he is the author/co-author of numer-
ous articles and scientific papers. His
projects and design research have received many international awards and have been
exhibited worldwide.

AWARD

Skylar Tibbits

Skylar Tibbits is the director of the Self-Assembly Lab housed at MIT's International Design
Center. The Self-Assembly Lab focuses on
self-assembly and programmable material technologies for novel
manufacturing, products and construction processes.
Skylar is faculty in the Department of Architecture where he teaches graduate and un-
dergraduate design studios and co-teaches How to Make (Almost) Anything, a seminar
at MIT's Media Lab with Neil Gershenfeld. Skylar was recently named a 2015 National
Geographic Emerging
Explorer, 2014 Inaugural WIRED Fellow, 2014 Gifted Citizen, 2013 Fast Company Inno-
vation by Design Award, 2013 Architectural League Prize, The Next Idea Award at Ars
Electronica 2013, Visionary Innovation Award at the Manufacturing Leadership Summit,
2012 TED Senior Fellow and was named a Revolutionary Mind in SEED Magazine's 2008
Design
Issue.
Previously, he has worked at a number of renowned design offices
including: Zaha Hadid Architects, Asymptote Architecture and Point b
Design. He has designed and built large-scale installations at
galleries around the world, has been published extensively in outlets such as the New York
Times, Wired, Nature, Fast Company as well as various peer-reviewed journals and books.
Skylar has a Professional Degree in Architecture and minor in
experimental computation from Philadelphia University. Continuing his education at MIT, he
received a Masters of Science in Design
Computation and a Masters of Science in Computer Science under the guidance of; Patrick
Winston, Terry Knight, Erik Demaine and Neil
Gershenfeld. Initiated in 2007, Skylar Tibbits is also the founder and
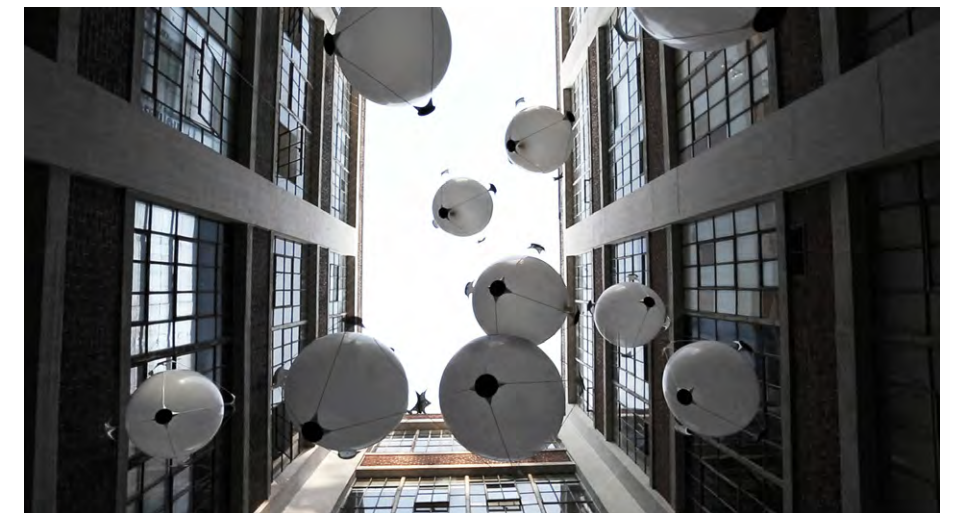principal of a multidisciplinary design practice, SJET LLC.

Image Credits: Achim Menges

Image Credits: Skylar Tibbits

SPECIAL PANEL: "Pioneers of Design Computation"

Chaired by **Robert Aish**

with **Chuck Eastman**
Don Greenberg
Tom Maver

This panel session brings together three of the most influential pioneers whose work has defined architectural computing. The session will provide an opportunity to discuss issues of historic, present and future interest, ranging over research, practice and education. The central theme of the panel discussion is the role of software in architecture: at its best it is an enabler of the intellect and the imagination, but at other times software appears to act as a conservative constraint on creative expression. Amongst the three panelist are the founder members of ACADIA, eCAADe and CAAD Futures and together they bring a unique perspective on the issue of architectural computing.

Chuck Eastman:

Chuck Eastman is Professor, College of Architecture and the College of Computing at Georgia Tech and Director, Digital Building Lab. As a pioneer of AEC CAD, he developed experimental solid and parametric modeling systems for the building industry starting in the early 1970's, including one of the first solid modelers in 1974 and what would be called today a BIM authoring tool. He has consulted for Boeing, General Motors, SDRC and others on solids and parametric modeling.
Previously, he was a faculty member at Carnegie-Mellon University and UCLA. In 1982 he co-founded Formtek, a parametric modeling start-up, which was eventually sold to Lockheed Corporation. In his current position at Georgia Tech, he directs the Digital Building Laboratory which is sponsored by fifteen AEC companies including Bechtel, Turner Construction, DPR, Skanska, Beck, HOK, Perkins-Will, Oldcastle, Component Assembly Systems, Autodesk, Tekla, BIMsmart, Nematschek Vectorworks and the Smithsonian Institute, In addition, Eastman carried out research for GSA for five years automating design reviews, especially for courthouses. He currently has projects with the Precast Concrete Institute and the Charles Pankow Foundation, the American Institute of Steel Construction and the American Concrete Institute, defining BIM exchange standards for these industry domains. He is also co-author of the BIM Handbook, now translated into Mandarin, Korean and Portuguese (in Brazil). He is author of more than 100 papers and conference presentations dealing with BIM, and its transformative impacts on the AECO industries.

Issues for discussion:
History:
In the earliest days of CAD (1970s), all areas were integrated- mechanical, aerospace, process industries electronics, buildings, ships. All had shared modeling issues: display, modeling geometry, user interaction. The Design Automation Workshops, organized by IEEE, had sessions in all the above areas. As the field grew, separate organizations emerged and the open collaboration slowly turned into stovepipes. Some business areas saw the strategic value of virtual design and invested in tailoring CAD to its needs - electronics, and manufacturing in particular and quickly worked the technical issues to model the object itself, not the drawing representation of the object. In the early 1980s the various fields and industries adopted one of these basic approaches. Architecture and most construction adopted the model the drawing approach, while electronic, manufacturing and aerospace adopted virtual objects as their output. It took building industry another 25 years to span that transition.

Semantics:
What are the semantics of a building? What do the objects and composition 'say'? Some architects lament that BIM supports construction aspects of design, not the historical, cultural and intentional aspects they are interested in. BIM can support cost estimation, it can do a carbon count for all materials. Why can't it address historical features and cross reference different symbolic and cultural aspects? Is an aesthetic model one that has features reflecting historical analogies? The construction model has its purpose; the historical model has its purpose. BIM can evolve to support many kinds of interpretation.

Don Greenberg:

Don Greenberg is the Jacob Gould Schurman Professor of Computer Graphics at Cornell University. He has been researching and teaching in the field of computer graphics since 1966. During the last 15 years, he has been primarily concerned with research advancing the state-of-the-art in computer graphics and with utilizing these techniques as they may be applied to a variety of disciplines. His specialties include real time realistic image generation, color science, and computer-aided architectural design. He presently teaches the computer graphics courses in Computer
Science, computer-aided design for the Department of Architecture,
computer animation for the Department of Art, and technology strategy in the Business School. He received his B.C.E. from Cornell in 1958 and his Ph.D. in 1968. Greenberg also studied at Columbia University.

Issues for discussion:
Architectural curricula:
One of the important issues that I think is worthwhile is to talk about the topics which are necessary for architectural education and future practice. Not only do I think that it is so difficult to change architectural curricula but today's students do not learn the fundamentals behind the currently available software environments. They have great difficulty in being able to predict their future changes. In this respect, discussing what the three of us and others tried to do in the 60's, 70's, and 80's, and the resistance which we had, is important for the next generation of architects to
understand. It is not that we did anything special but today they can look at the folly of the resistance of the profession and why we are in a position where the AIA and other organizations inhibit progress.

Rendering:
A second issue which I feel qualified to talk about is certainly rendering, the future of rendering, and what is necessary to make it an easier design tool to use. A particular emphasis would be on the importance of "light" and "space" and the ability to walk through three dimensional environments.

Computing environments:
A third topic, which would be easy for me to merge with either of the first two would be the change in the computing environments, not just the exponential increase in computer power but the portions of the digital world which have not changed as rapidly.

Tom Maver:

Tom Maver is currently Research Professor in the Mackintosh School of Architecture at the Glasgow School of Art. He is also Emeritus Professor of the University of Strathclyde where, for some 40 years, he was Director of the Architecture and Building Aids Computer Unit, Strathclyde (ABACUS) – a research group that pioneered the application of computing to architectural design and received the top UK award of 5* in the UK Research Assessment Exercise. Tom is an Honorary Fellow of the Royal Incorporation of Architects in Scotland and has life-time/long-service awards from the DRS, IBPSA, eCAADe, etc. He founded eCAADe and CAADFutures."

Issues for discussion:
Design Decision making:
How can computer-based simulation and performance evaluation inform design decisions which affect the cost/performance characteristics of emerging design solution? He remains (increasingly) optimistic that R+D in the field – in academia and practice – will answer these questions.

Robert Aish [chair]

Robert Aish is Visiting Professor of Design Computation at the Bartlett School of Architecture. Previously he was Director of Research at Bentley where is lead the development of GenerativeComponents and Director of Software Development at Autodesk where he lead the development of DesignScript. He is also a cofounder of the SmartGeometry group.

SPECIAL PANEL: "EcoDIVERSITY Exhibition Panel"

Chaired by **Mara Marcu**
Stephen Slaughter
Ming Tang

with **Jennifer Bonner**
Volkan Alkanoglu
Wendy Fok
Greg Spaw
Lee Su Huang
Zaneta Hong
Michael Beaman
Rachel Vroman
Jan Kokol
Mattew Gillis
Shai Yeshayahu
Joshua Stein
Justin Diles
Catherine Richards
Martin Summers
Jacob Marsico

Ecodiversity, Computation and Identity

The School of Architecture and Interior Design, at the University of Cincinnati's College of Design Architecture Art and Planning is honored to host ACADIA's 2015 Annual Conference and convene, simultaneously, an exhibition and symposium, as an expansion of the conference theme "Computational Ecologies: Design in the Anthropocene." Our objective is to address the role of the individual within the vast ecology of computation, through the lens of how one's geography, identity, and philosophy influences the positioning of their work in reaction to, or in accordance with the emergence of the Anthropocene.

As the conference's host committee, we are committed to expanding the forum for discourse at ACADIA, and so in conjunction with ACADIA's usual compendium of workshops, presentations, and panel discussions, we are pleased to contribute an exhibition featuring the work of designers whose productive output engages the topic of identity.

By providing the 35th Annual ACADIA Conference with an auxiliary exhibition and symposium, we hope to interject into the discussion of computational design in architecture, voices that advance the discourse from a position not typically given a platform by the academy nor the profession, allowing for a forum that both questions, and offers alternative perspectives in computational design.

Style and Identity

The prescription for inclusion in today's architectural avant-garde is the virtuous execution of advanced computational technique in the design, representation and fabrication of work, realized or speculative. The reigning pinnacle of the contemporary vanguard, both in practice and in discourse, is Parametricism. As defined by the movements advocate general, Patrik Schumacher, the development of Parametricism "was facilitated by the attendant development of parametric design tools and scripts that allow the precise formulation and execution of intricate correlations between elements and subsystems.

The shared concepts, computational techniques, formal repertoires, and tectonic logics that characterize this work are crystallizing into a solid new hegemonic paradigm for architecture." For Schumacher, the emergence of design technique predicated on computation was not only mere methodology, but also an epoch and continuation of the early modernist discourse on "style". Ingeborg Rocker in her Log essay "Apropos Parametricism: If, In What Style Should We Build?" (Fall 2009) writes: "For Schumacher, styles are 'design research programs.... Style serves as a cohering research program that allows for the construction of a systematic series of design experiments.' Those experiments are based on methodological rules defining paths of research to avoid (negative heuristics) and paths to pursue (positive heuristics). For him, today's architecture is marked with a new style, a new design research program, the style of parametricism, 'the first large style that occurred after modernism.'" So in today's dialectic, contemporary practice in advanced computation mandates an aggressive revisionist understanding of the translation of the modernists' project from its inception to the present. What's not clear is how the modernists' agenda, as canonized in the series of conventions held between 1928 and 1959 by the Congrès International d'Architecture Moderne, translate as well. An allusion to this problem was addressed in the one day conference held at the Red Cat Theater in Los Angeles in 2013, "The Politics of Parametricism, Digital Technologies and the Future(s) of Sociality." In a press release for the then pending conference, Matthew Poole & Manuel Shvartzberg elaborated on these issues in their description of the meeting's topic engagement: To date, critiques of the proliferation of parametric design processes have focused on the central issue of a technocratization of social relations intrinsic to the Parametricist design ethos. These critiques principally observe and raise alarm that Parametricist design processes actively quantify bodies, subjects, and the coding of spaces in full acquiescence with the logic of Neoliberal socioeconomics, gesturing towards a collapse of political potential and the destruction of social bonds and forms of dissent by such means. Such criticisms focus on Parametricism's apparently seamless coextensive integration of social relations, technological automatization, and Neoliberal governmentality. Here, the political forces that affect social relations are seen as being reduced by Parametricism to purely technoeconomic, instrumental imperatives, and hence to the imperatives of the structures of late-stage capitalism that appear to govern such technological innovations.

Although an interesting counterpoint to both the historical and social Parametricism positions, and a clear address to the schism between the ambitions of modernism and the politically neutral stance Parametricism has to capital and the public, no argument has yet to situate its defense or advocacy of the movement on the aspect of the design process that neither engages the technical or procedural realm of computation nor the posthumous critique of affect after the design process has concluded. We believe that what is absent from the current discussion in contemporary computational design is the imperative of the author. In a movement that is defined by the "heterogenous society of the multitude" and champions "continuous differentiation", both the agent and their role in the design process is either overwhelmed by computational tactic or strategically subordinated to the point of complete erasure.

With "EcoDiversity, Computation and Identity" we are interested in: engaging a discussion; promoting evident work that attempts to arrest from the perception of computational automatization the authority of individual or collective; and reinstating the preeminence of the author within digital design. The relationship of identity to one's body of work is a valued element of critical thinking. To seek alternative methods, to accept alternative perspectives critical of established dogma, is intrinsic to the culture of University of Cincinnati and permeates the approaches of faculty, staff and student at the school. Providing a forum that not only questions but also offers alternative arguments for computational design's raison d'être is essential to the mission of the school and an invaluable experience that we hope to provide to all that will be in attendance and participating in the conference. The selected installations use computation in their conception, design, and fabrication to explore how identity; place, family, culture and/ or gender, helps define and situate their contribution to the built environment. We are proud to provide this venue and forum for discussion at ACADIA 2015, and hope it challenges those who engage the work and attend the symposium, to think on the topic of computer-aided design in architecture, more inclusively.
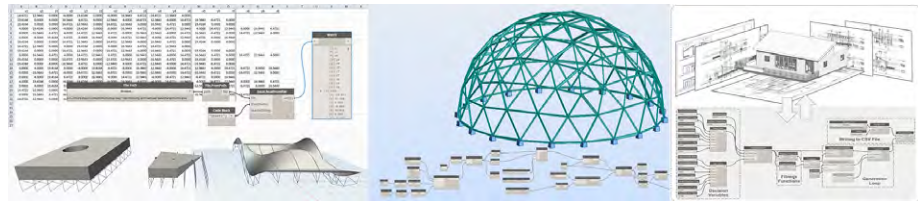
Stephen Slaughter
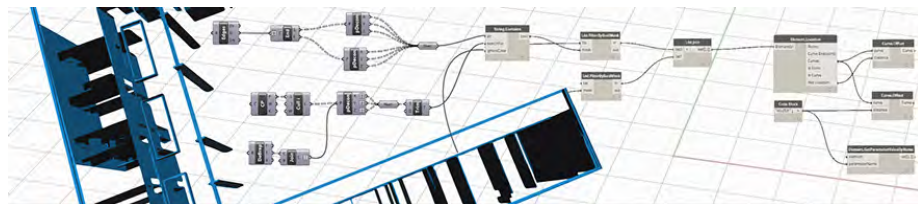University of Cincinnati

WORKSHOPS
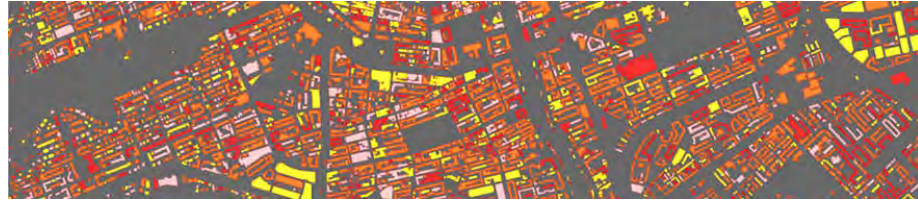
WORKSHOP 1 - OPEN GEO DATA + PERFORMANCE by **CORE Studio Thornton Tomasetti**

WORKSHOP 2 - BIO-AGENCY by **Igor Pantic and Soomeen Hahm with Will Walker and Formlabs**
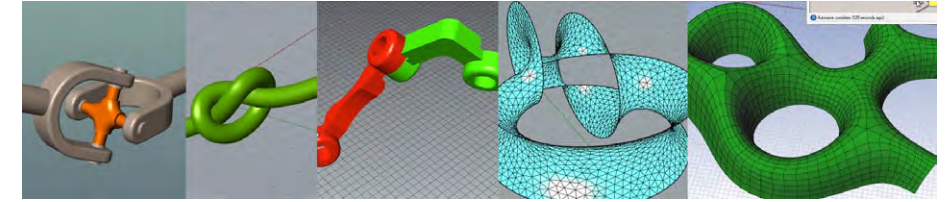

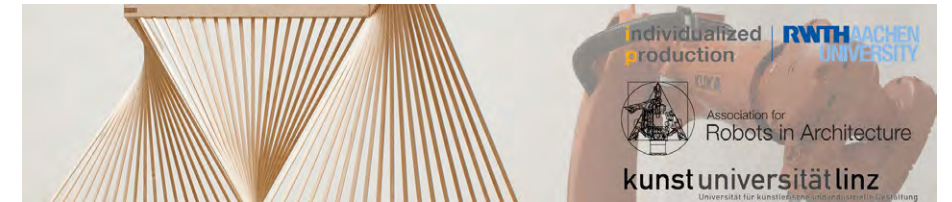WORKSHOP 4 - DYNAMO: INTRO/ANALYSIS/OPTIMIZATION by **AUTODESK**

WORKSHOP 6 - COMPUTATIONAL BIM IN PRACTICE by **GRIMSHAW Architects and NBBJ**

WORKSHOP 7 - PROTOTYPING EXPERIENTIAL FUTURE by **Woods Bagot and CORE Studio Thornton Tomasetti**

WORKSHOP 9 - KANGAROO2 FORM-FINDING AND CONSTRAINT BASED MODELLING by **Daniel Piker/ McNeel**

WORKSHOP 10 - ROBOTIC WOODCRAFT by **Sigrid Brell-Cokcan, Johannes Braumann, Daniel Goldbach, and Elisa Lublasser**

EXHIBITIONS

EXHIBITIONS

ACADIA ORGANIZATION

ACADIA (Association for Computer Aided Design in Architecture)
ACADIA is an international network of digital design researchers and professionals. We facilitate critical investigations into the role of computation in architecture, planning, and building science, encouraging innovation in design creativity, sustainability, and education.

ACADIA was founded in 1981 by some of the pioneers in the field of design computation including Bill Mitchell, Chuck Eastman, and Chris Yessios. Since then, ACADIA has hosted over 34 conferences across North America and has grown into a strong network of academics and professionals in the design computation field.

Incorporated in the state of Delaware as a not-for-profit corporation, ACADIA is an all-volunteer organization governed by elected officers, an elected Board of Directors, and appointed ex-officio.

OFFICERS AND BOARD OF DIRECTORS

OFFICERS

President
Michael Fox
pres@acadia.org

Vice President
Aron Temkin
vp@acadia.org

APPOINTED OFFICERS

Secretary
Greg Luhan
secretary@acadia.org

Treasurer
Michael Christenson
treasurer@acadia.org

Membership Officer
Wei Yan (outgoing) and Phillip Anzalone (incoming)
membership@acadia.org

Technology Officer
Andrew Kudless
webmaster@acadia.org

BOARD OF DIRECTORS

Class of 2014 (Jan 2015–Dec 2017)

Phillip Anzalone
New York City College of Technology

Mike Christenson
North Dakota State University

Dana Cupkova
Carnegie Mellon University

Gregory Luhan
University of Kentucky

Nathan Miller
Proving Ground

Chandler Ahrens (alternate)
Washington University

Duks Koschitz (alternate)
Pratt Institute

Kyle Steinfield (alternate)
University of California Berkeley

Class of 2013 (Jan 2014 - Dec 2016)

Sean Ahlquist
University of Michigan

Gil Akos
Mode Lab

Brad Bell
University of Texas, Arlington

Jason Kelly Johnson
California College of the Arts

Andy Payne
Harvard University

Danelle Briscoe (alternate)
University of Texas, Austin

Wes McGee (alternate)
University of Michigan

Lira Nikolovska (alternate)
Autodesk

SUBCOMMITTEES

Awards Committee
Gil Akos
Brad Bell
Wes McGee
Nathan Miller
Andy Payne

Elections Committee
Chandler Ahrens
Brad Bell
Dana Cupkova
Lira Nikolovska
Kyle Steinfield

ACADIA Roadmap Committee
Sean Ahlquist
Brad Bell
Jason Kelly Johnson
Aron Temkin

Technology Committee
Michael Fox
Andrew Kudless, (chair)
Wei Yan

Conference Hosting Liaison Committee
Sean Ahlquist
Philip Beesley
Mike Christenson
Michael Fox
David Gerber
Jason Kelly Johnson

CONFERENCE MANAGEMENT & PRODUCTION

Technical Chairs **Lonn Combs**
Chris Perry

Site Chair **William Williams**

Co-Chairs **Mara Marcu**
Brian Ringley
Stephen Slaughter
Ming Tang

Lonn Combs Rensselaer Polytechnic Institute
Lonn Combs is an educator and a practicing architect with degrees from Columbia University (MScAAD 2001) and the University of Kentucky (B.Arch 1992). Lonn Combs was awarded the Rome Prize in Architecture in 2012.
Lonn Combs co-founded EASTON+COMBS with partner Rona Easton in 2004.
EASTON+COMBS is focused on innovative building strategies through the convergence of material practice, digital methodology and applied architectural research. Among other awards, EASTON+COMBS received the Architecture League of New York award for emerging practices in New York City (2010).

Chris Perry Rensselaer Polytechnic Institute
Chris Perry holds a Master of Architecture from Columbia University where he received an Award for Excellence in Design. After two years working as a project designer for Stan Allen (SAA) and ten years as principal of his first design practice servo, he co-founded his current practice pneumastudio in 2011.
Formed in 2011, pneumastudio has exhibited its work at the Design Museum in Barcelona and New York University's Gallatin School of Individualized Study. Perry is a recipient of the Architectural League of New York's Prize for Young Architects and Designers and The MacDowell Colony Fellowship.

William Williams University of Cincinnati
William Williams received his Master of Architecture from Harvard GSD in 1991 and his undergraduate degree from the University of Houston in 1989. Prior to joining the University of Cincinnati he taught at the University of Virginia, Rice University, University of Houston, UC Berkeley, and UCLA.
His teaching and research focus on affordable housing. In 2004 he co-authored ROW: Trajectories through the Shotgun House . His work has been funded by the National Endowment for the Arts in 1995, 2000, and 2006, and by the Graham Foundation in 2005.

Mara Marcu University of Cincinnati
Mara Marcu received her Master of Architecture from Harvard GSD in 2009 and her undergraduate degree from the University of Houston in 2005. She is also a graduate of the International Master Class with Glenn Murcutt - Australia and Ghost Lab 7 with Brian MacKay-Lyons - Canada.
Her teaching and research focus on providing for a digital and material workflow that connects design, fabrication, and culture-specific topics. Mara was awarded the Best in Show Design Award upon graduation by the University of Houston and is the recipient of the University of Virginia Fellowship in 2011.

Brian Ringley Woods Bagot
Brian Ringley is on the Global Design Technology Team at Woods Bagot where he leads efforts around Rhino, Grasshopper, fabrication, and analysis workflows, curates and develops custom digital toolsets, and provides intensive project assistance for globally significant projects with high degrees of complexity.
He taught at City Tech (CUNY) and currently teaches at Pratt Institute's GAUD. Prior to Woods Bagot, he worked for KPF in New York and London, Dellekamp Arquitectos in Mexico City, and R&Sie(n) in Paris. He is a regular contributor to Designalyze.com, a design computation education site, and AEC-APPS.com, an award-winning AEC software database community.

Stephen Slaughter University of Cincinnati
After graduating with a Masters of Architecture from The Ohio State University, Slaughter has initiated his career in Thom Mayne's studio, Morphosis. As a professional, with nearly 20 years in practice, his experience spans a wide range of projects.
In 2004 he co-founded PHAT, which has exhibited at the Studio Museum in Harlem, the National Gallery of Victoria, and ArchiLab in Orléans. His teaching synthesizes technical expertise with a research agenda pursuant of innovative and unconventional design solutions to real world problems facing the underserved.

Ming Tang University of Cincinnati
Ming Tang is an Assistant Professor at the University of Cincinnati, a registered architect, and founding partner of Tang & Yang Architects. The firm has won numerous design awards, including first place in d3 Natural System Competition, IAAC self-sufficient housing contest, and Chichen Itza lodge museum design competition.
His research includes parametric design, digital fabrication, building information modeling, virtual reality, human-computer interaction (HCI), and performance-driven design.
His book, Parametric Building Design with Autodesk Maya was published by Routledge in 2014.

HACKATHON

Hosted by VRay CHAOSGROUP, with FLUX, PROVING GROUND, VIMtrek, and DAAP Rapid Prototyping Center

Organized by **Brian Ringley**
Nathan Miller

Champions **Erin Morrow**
Rhys Lewis
Nigel Rees
Anthony Buckley Thorpe
Owen Derby
Berdine Yuan
Duks Koschitz, PhD
Matt Newberg
Anthony Caruso
Shane Scranton
Lorin Parker

To conclude ACADIA 2015, we will host a HACKATHON event that will encourage every participant of the conference to open their laptops to code, collaborate, and problem-solve during an exciting one-day event hosted by the DAAP Rapid Prototyping Center and powered by Chaos Group V-Ray, Flux, Proving Ground and VIMtrek.

The event will host a number of computational ecologies "champions" around which we will form teams and explore different workflows. The participants will be invited to join any of the groups or wander around, absorbing the amazing range of critical design approaches of our skilled participants

The hackathon celebrates a culture of making and sharing. While we will give juried prizes to the best outputs at the end of the day, every
participant will gain insight from how designers behind key practices and institutions critically engage industry problems.

The event invites all design disciplines to work together under one roof. The event will be free to all ACADIA 2015 ticket holders and may also be purchased separately for those unable to attend the ACADIA 2015
conference.

PEER REVIEW COMMITTEE

Chandler Ahrens
Washington University

Phillip Anzalone
New York City College of Technology

Mohammad Rahmani Asl
Texas A&M University

Neeraj Bhatia
California College of the Arts

Kory Bieg
University of Texas at Austin

Gail Borden
University of Southern California

Johannes Braumann
Technische Universität Wien

Brennan Buck
Yale University

Michael Chen
Pratt Institute

Mike Christenson
North Dakota State University

Jeroen Coenders
Technische Universiteit Delft

Angelos Chronis
Foster and Partners

Jean-Michel Crettaz
University of Santa Barbera

Kristof Crolla
The Chinese University of Hong Kong

Dana Cupkova
Carnegie Mellon University

Karl Daubmann
University of Michigan

Daniel Davis
WeWork

Adam Dayem
Rensselaer Polytechnic Institute

Nancy Diniz
Rensselaer Polytechnic Institute

Mark Donohue
California College of the Arts

Gustav Fagerstrom
Buro Happold Engineering

Antonio Furgiuele
University of Wisconsin–Milwaukee

Rhys Goldstein
Autodesk

Marcelyn Gow
Southern California Institute of Architecture

Dustin Headley
Kansas State University

Alvin Huang
University of Southern California

Lee-Su Huang
University of Florida

James Kerestes
Ball State University

Christoph Klemmt
Zaha Hadid Architects

Robert Krawczyk
Illinois Institute of Technology

Manuel Kretzer
Eidgenössische Technische Hochschule Zürich

Julie Larsen
Syracuse University

Sang Lee
Technische Universiteit Delft

Carla Leitao
Rensselaer Polytechnic Institute

Mara Marcu
University of Cincinnati

Kyle Miller
Syracuse University

Mark Mistur
Rensselaer Polytechnic Institute

Rashida Ng
Temple University

Lira Nikolovska
Autodesk

Carlos Olguin
Autodesk

Guvenc Ozel
UCLA

Alexandra Paio
Instituto Universitário de Lisboa

Nicholas Puckett
Ontario College of Art and Design

Benjamin Rice
Academy of Art University

Jeana Ripple
University of Virginia

Andrew Saunders
University of Pennsylvania

Marc Aurel Schnabel
Victoria University of Wellington

José Pedro Sousa
Universidade do Porto

Asbjørn Søndergaard
Aarhus School of Architecture

Kyle Stover
Rensselaer Polytechnic Institute

Michael Su
Pratt Institute

Joshua Vermillion
University of Nevada

Ingalill Wahlroos-Ritter
Woodbury University

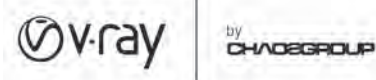Alex Webb
University of New Mexico

SPONSORS

PLATINUM SPONSOR

AUTODESK

SILVER SPONSORS

BHDP

V·ray | by CHAOSGROUP

WOODS BAGOT

BRONZE SPONSORS

Bentley
Sustaining Infrastructure

FLUX
SUSTAINABLE ARCHITECTURE @SCALE

VECTORWORKS
A NEMETSCHEK COMPANY

HKS LINE

CORE studio | Thornton Tomasetti

Oasys
YOUR IDEAS BROUGHT TO LIFE

form·Z

SPONSORS

D|A|A|P rapid prototyping center

formlabs

KUKA

Rhinoceros
modeling tools for designers

proving ground

Association for Robots in Architecture

TAFT RESEARCH CENTER

TU Delft
Delft University of Technology

UNIVERSITY OF Cincinnati

VIMtrek
where sense meets sizzle

iris

TAFT RESEARCH CENTER

VOLUNTEERS

**University of Cincinnati
School of Architecture and Interior Design (SAID) Students**

Craig Moyer
Michael Rogovin
Noah Shroyer
Andy Glass
Anjali Patel
Sarah Kusuma
Melissa Long
Han Shen
Ali Morshedlou
AJ Sivakumar
Kumi Wickramanayaka
Seher Hashmi
Kuang Li
Meredith Miller
Shinji Miyajima
Julie Morgan
Megha Dubey
Samantha Schuermann
Kevin Kastle
Farshad Khalighinejad
Kiana Memarandadgar
Xinyuan Cao
Petar Mitev
Lauren   Whitehurst
Jamie Kruer
Sarah Altene
Chas Wiederhold
Clark Sabula
Josh Skinner
Anna Kerr
Nathan   Echstenkamper
Christina Tefend
Abigail Rollinger
Peter Mitev
Hannah Westendorf

Computational Ecologies: Design in the Anthropocene Catalog of the 35th Annual Conference of
the Association for Computer Aided Design in Architecture (ACADIA). Published and distributed by ACADIA

EDITORS

Lonn Combs
Rensselaer Polytechnic Institute

Chris Perry
Rensselaer Polytechnic Institute

EXHIBITION CURATORS AND
ASSOCIATE EDITORS

Mara Marcu
University of Cincinnati

Stephen Slaughter
University of Cincinnati

Ming Tang
University of Cincinnati

CONFERENCE TECHNICAL CHAIRS

Lonn Combs
Rensselaer Polytechnic Institute

Chris Perry
Rensselaer Polytechnic Institute

CONFERENCE SITE CHAIR

William Williams
University of Cincinnati

CONFERENCE SITE TEAM
Mara Marcu
Brian Ringley
Stephen Slaughter
Ming Tang