2021 AIA Fellowship

Candidate Caryn J. Brause
Organization University of Massachusetts Amherst, Department of Architecture
Location Northampton, Massachusetts
Chapter AIA Massachusetts; AIA Western Massachusetts

Category of Nomination

Object 2 > Education

Summary Statement

Professor Brause is a prominent contributor in the field of collaborative design pedagogy. She creates vibrant and fruitful connections between educators, students, practitioners, and community stakeholders through her expansive, innovative, and award-winning work.

Education

Master of Architecture (AIA Henry Adams Certificate), 1996
University of Virginia, Charlottesville, VA, 3 years attended

Bachelor of Arts in Design of the Environment, 1988
University of Pennsylvania, Philadelphia, PA, 3.5 years attended

Licensed in:

Massachusetts #31187

Employment

University of Massachusetts Amherst (2008-present); 12 years
SITELAB Architecture + Design (2008 – present); 12 years
Center for Design Engagement (2015 – present); 5 years
Hampshire College (2011-2012); 1 year
Thomas Douglas Architects (2006 - 2008); 2 years
Caryn Brause, Architect (2004 – 2006); 2 years
CDR Studio Architects, PC (1997 – 2004); 7.5 years
Smith-Miller + Hawkinson Architects (1996 – 1997); 0.5 years

2021 AIA College of Fellows Application

Caryn J. Brause AIA

September 14, 2020

Nancy Rogo Trainer FAIA
Chair Jury of Fellows
The American Institute of Architects
1735 New York Avenue, NW
Washington, DC 20006-5292

To the Jury:

It is my honor to sponsor Professor Caryn Brause AIA for advancement to the College of Fellows of the American Institute of Architects. I have known Professor Brause for 12 years primarily as a colleague in the Department of Architecture at the University of Massachusetts Amherst. However, I have also had the opportunity to share many experiences with her here in our Five College community. I have seen up close her extraordinary energy for and commitment to forging creative connections between academia and community engagement, particularly in underserved urban neighborhoods. Her teaching, writing, research and community engagement projects have garnered 8 AIA and 7 other distinguished awards.

Professor Brause's contributions to the Department of Architecture at UMass Amherst have been stellar as a teacher, faculty mentor, and Director of both the Graduate Program and the Honors Program. Her intellect and dynamic presence consistently attract both graduate and undergraduate students to her 21st century collaborative approach to our evolving architectural profession. Her award-winning course *Voices from the Field* introduces students to both innovative and traditional building practices on the job site. Brause paired the practical aspects of extending the student experience beyond the design studio seamlessly with the creative design process within the university. Likewise, her publication of *The Designer's Field Guide to Collaboration* delivers innovative methods of practice to the next generation of architects.

Professor Brause's key role in the creation of the journal of Technology|Architecture + Design (**TAD**) and her engagement as editor of this publication have brought academic research in architecture into the 21st century. **TAD** is the first new ACSA journal to be published in 70 years. Through this peer reviewed journal, she has created an essential venue for researchers in architecture, design, and building technology around the world to showcase their work. Her impressive skills with respect to current digital technologies linked with her sensitivity to high quality design have yielded great value to her research.

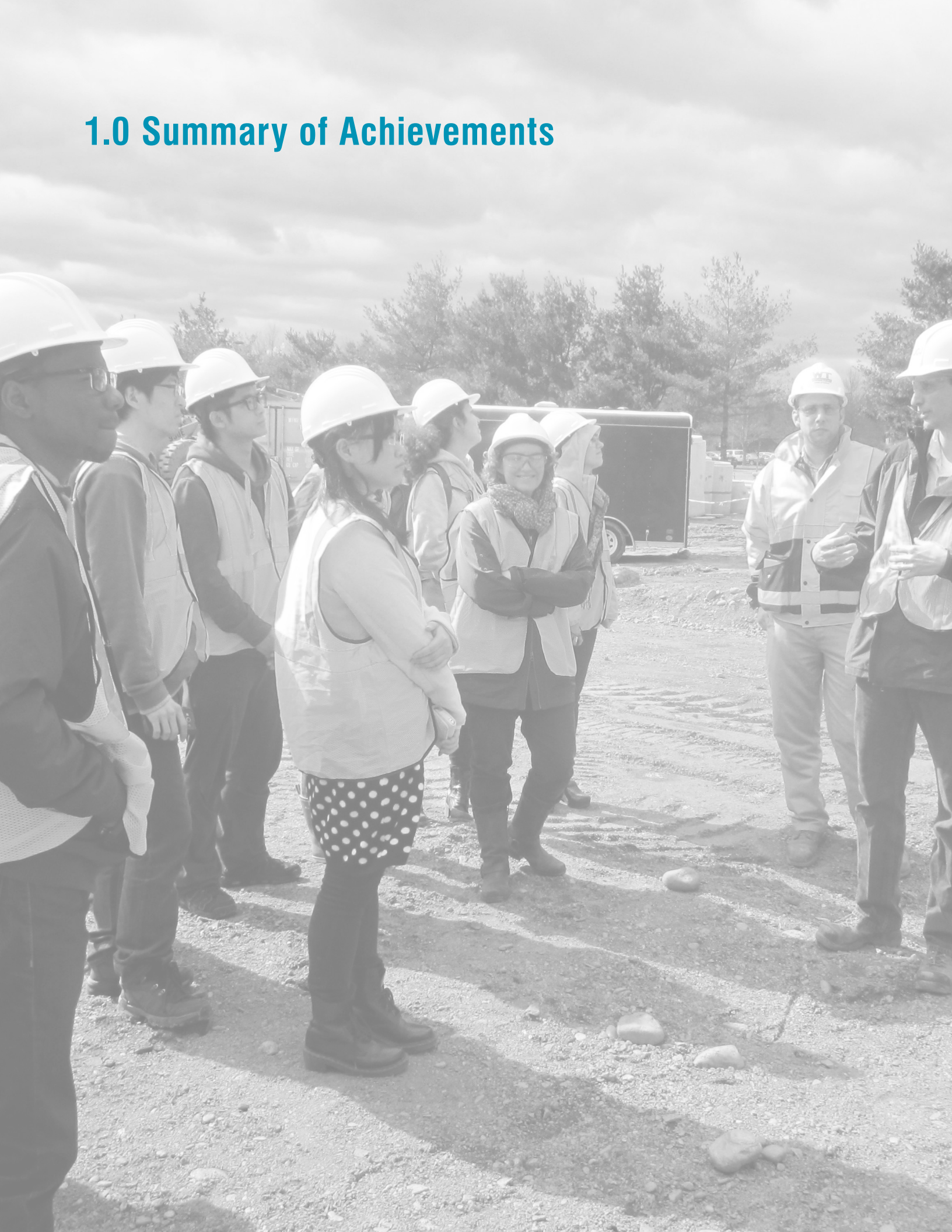
Professor Brause's practice SITELAB has undertaken numerous pro-bono projects that address sustainable building practices, food insecurity and community empowerment. Her pathbreaking EcoBuilding Bargain project completed in 2012 is now known thoughout the region by builders and homeowners alike as an innovative distribution center for reusable construction materials.

Caryn Brause's outstanding achievements in teaching, research and collaborative practice make her well deserving of advancement to Fellowship. She is, indeed, a role model who has inspired and will continue to inspire students, researchers and practioners alike. I support her nomination without hesitation.

Respectfully submitted,

Sigrid Miller Pollin, FAIA

1.0 Summary of Achievements



Caryn J. Brause AIA

Professor Brause is a prominent contributor in the field of collaborative design pedagogy. She creates vibrant and fruitful connections between educators, students, practitioners, and community stakeholders through her expansive, innovative and award-winning work.

Interweaving Teaching, Research, and Leadership

Through nearly two decades of professional practice, teaching, and service, Prof. Brause has forged powerful connections between the academy and the profession. She is nationally recognized for her integrated approach to experiential design pedagogy, interdisciplinary collaboration, and socially engaged design practices. She is a prominent contributor in the field of collaborative design, for which she earned awards from three of the major collaterals: AIA, ACSA, and NCARB. Brause's innovative community-engaged Public Interest Design projects have also garnered professional design awards and recognition from major funding organizations. A tenured professor, she works assiduously to bring practitioners into her classes. She helps students locate their place in the profession, builds bridges across departments and into surrounding communities, and advances the profession through numerous leadership roles. Brause has skillfully interwoven her teaching, research, creative work, and leadership into a mature embodiment of a 21st century architectural academic.

Advancing Critical Skillsets for Contemporary Practice

Prof. Brause's teaching and scholarship center on the transformative impact of collaborative practice on design outcomes. As the profession evolves toward more complex partnerships, Brause has significantly contributed to advancing the skillsets of future practitioners through her award-winning book, *The Designer's Field Guide to Collaboration,* and her innovative course, *Voices from the Field*.

In *The Designer's Field Guide to Collaboration*, Prof. Brause examines how collaborative practices can meet contemporary environmental, social, and technological concerns. Her work garnered praise for its erudite case studies that expanded the canon to highlight the profession's ethnic, social, and gender diversity. Brause's innovative coursework, including *Voices from the Field*, empowers her students to find their own creative and professional voices. Her cutting-edge course employs a hybrid model, interconnecting the classroom and the field. She instruct students on essential professional domains such as project delivery methods, the regulatory environment, finances, and labor. Brause received national recognition for this contribution, including a 2016 AIA/ACSA Practice + Leadership Award and a 2013 NCARB Award for the Integration of Practice and Education. Brause further expanded her students' horizons by creating a three-year sequence in which notable female design practitioners present lectures, exhibits, and engage personally with students.

Creating New Platforms for Architectural Research

Prof. Brause's bridging of scholarship and the profession achieved international impact in 2017, when she co-founded *Technology I Architecture + Design* (*TAD*), the first new journal to be published by the ACSA in over seventy years. *TAD* is a visually compelling, peer-reviewed journal focused on technology and practice. The journal fills a void in the literature for technology-related design content. Beyond the print journal, Brause continues to create opportunities for other scholars by developing webinars, research workshops, and conference panel sessions to raise the quality of architectural research.

Collaborating with Communities

Prof. Brause's award-winning, socially engaged design work features networks of collaborators with diverse expertise and viewpoints. Her design for EcoBuilding Bargains, a non-profit that recycles building materials, received three AIA awards and was featured in the nationally televised program *This Old House*. The *El Corazón* project in Holyoke, conducted in partnership with governmental and non-profit collaborators, is developing public spaces for the display of cultural works while building creative capacity for the largest per-capita Puerto Rican community in the diaspora. This project has been supported by the National Endowment for the Arts and Mass Development, and was recognized as a finalist in the Bloomberg Philanthropies Public Art Challenge.

Connecting the Academy and the Profession

Prof. Brause's longtime professional service highlights her deep commitment to connecting the academy and the profession. Brause has served on national NCARB committees and currently serves on numerous juries and peer review committees, the national AIA Higher Education Advisory Group, and as Secretary for her local AIA chapter. Recently, she developed a survey of the impact of COVID-19 on regional firms in order to support the work of state legislators on opening and recovery strategies during the pandemic.

2.0 Achievements

2.1 Significant Work

Teaching

Public Interest Design

Professional Roles

Leadership and Service Roles

2.2 Honors, Awards & Recognition

2.3 Publications

Teaching: Advancing Critical Skillsets for Contemporary Practice

Voices From the Field

2013 - present

Winner of the 2013 NCARB Award for the Integration of Practice and the Academy and the 2016 AIA/ACSA Practice and Leadership Award. Brause designed this course to address the findings identified in the 2012 NCARB Practice Analysis. She then developed the course to address the interplay between the quality of collaborative relationships and the successful manifestation of design intent. The experiential course empowers students to address the myriad issues that comprise contemporary architectural design decision-making and project delivery.

Women in Design

2016 - 2019

Over a multi-year period, Brause successfully funded a series of three initiatives to expose and connect students to exceptional women designers. These initiatives address the gender imbalances found in architecture and design lecture series, exhibits, and at major student design reviews. Brause developed a program of lectures and exhibits that demonstrate women's creative endeavors coupled with personal creative feedback for students. She also provided students, particularly women, with the inspiration and mentorship necessary to bolster their careers.

Lighthouse

2016

Brause designed this Community Engagement and Service Learning Studio to expose students to two critical skillsets for contemporary architectural practice - community engagement and digital fabrication. Under Brause's supervision, students worked on the design of an underutilized outdoor space with a community partner, the Lighthouse—an alternative middle and high school. Brause's students first completed larger site design concepts, and then collaborated with Lighthouse students to prototype and digitally fabricate custom furniture elements.

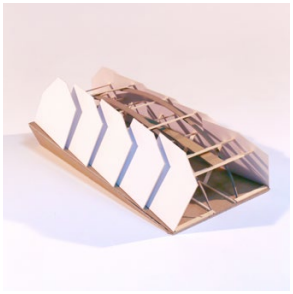
Interdisciplinary Design Collaboration

2014 - 2015

Brause created this course for architecture and landscape architecture students to develop crossdisciplinary collaborative practices. Brause introduced her students to models of creativity and collaboration and presented contemporary case studies of architect-landscape architect partnerships. She developed a series of active exercises that enabled student teams to gain skills required for collaborative teamwork.

> *"After the first offering of the Interdisciplinary Design Collaboration course, my co-instructor and I noticed a significant improvement in how the students worked with one another. Caryn's class was a huge success in providing students with ways of building and organizing a team...I view this as a perfect example of integrating one's research into the classroom and sharing with students the latest thinking about a particular topic."*
>
> *- Mark S. Lindhult FASLA, UMass Amherst*
> *Department of Landscape Architecture and Regional Planning*

Teaching cont.



Arch 400 The Ark Studio

2012 - 2016

In this undergraduate design studio, Brause taught her students a design process founded on making at a variety of scales, including full-scale prototyping. She developed students' ability to generate a tectonic agenda for their work and advanced their collaborative skills through team-based research and design projects. In a recent iteration, the Ark Studio, students considered the kinds of cross-species cohabitation necessary for post-oil resilient community design.

Arch 541 Digital Fabrication Lab

2012 - present

Brause exposes her students to a variety of digital fabrication tools and develops projects that emphasize material explorations, tooling operations, and a file-to-fabrication workflow. Brause's lab prepares students to collaborate with fabricators in practice settings. The lab structure provides an immediate feedback loop for their beginning design investigations, many of which plug in to their studio projects.

Riverscaping Design Build Studio

2011

Brause's Undergraduate Design Studio engaged in an international design-build competition funded by the European Union, "Riverscaping: Alles am Fluss: Rethinking Art, Environment and Community." After one of Brause's students won the competition, she helped to establish a collaboration with Sigrid Miller Pollin AIA Architecture and Yestermorrow Design Build School to build the project with students from a broad range of schools, departments, and disciplines.

Building Linkages | Pynchon Plaza

2010

Brause's community design studio inaugurated the UMass Amherst Design Center in Springfield, which is helping to revitalize the Commonwealth's second largest city. Her studio's design work addressed the redevelopment of the strategic but underutilized downtown Pynchon Plaza site. As a direct result of her studio's work and community presentation, the City of Springfield reopened the plaza to the public, restoring 28,000 sf of the park to public use.

"Caryn's teaching is highly effective due to the influences of her own research, original creative work, and service to the profession of architecture. When a teacher is enthusiastic about a topic, it is contagious for the students, which I find to be the case in Caryn's teaching."

- Angela DeGeorge, BFA 2012

Public Interest Design

El Corazón | The Heart of Holyoke, Holyoke, MA

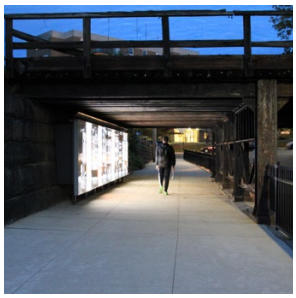
Co-Director, Co-Design Lead: 2016 - present

Brause and her collaborators are developing *El Corazón|The Heart of Holyoke* to provide spaces and places of belonging for the largest per-capita Puerto Rican community in the diaspora. The creative place-making project is supported by a NEA "Our Town" award and significant public and private matching funds. The project features broad community engagement and was recognized as a finalist in the 2018 Bloomberg Philanthropies Public Art Challenge.

Abundance Farm, Northampton, MA

Design Leadership: 2012 - present

To convert a nearly vacant parcel into a vibrant social justice farm, Brause provided professional services which the non-profit leveraged to garner unprecedented levels of funding. The project forms an innovative collaboration between three local institutions – a synagogue, an elementary school, and a food pantry serving 4500 people a year. *Abundance Farm* now serves hundreds of families challenged with food insecurity, hosts major festivals (over 3000 participants per year), and serves as an educational classroom for students from pre-K through high school.



Arrivals, Holyoke, MA

Co-Design Lead: Completed 2015

Winner of an 2016 Western Massachusetts AIA Citation Award. *Arrivals* is a public art and infrastructure project that lights a formerly desolate underpass, providing a safe connection between a low income neighborhood and the central business district. The project contrasts a homogeneous image of the city with the multiple voices of residents' arrival stories and captures Holyoke's rich immigrant experience. The installation's bilingual translation invites participation in the city's public domain.

EcoBuilding Bargains, Springfield, MA

Design Architect: Completed 2012

Winner of an 2013 AIA New England Citation Award, a 2012 Western Massachusetts AIA Merit Award, and a 2012 Western Massachusetts AIA People's Choice Award 2012. Brause provided pro-bono design services to redesign this non-profit whose mission advances material reuse. Brause's design promotes repurposing at all scales of architectural intervention, from structural elements and roofing materials to interior fixtures and furnishings. The 32,000 sf facility is the largest of its kind in New England.

Brickhouse Community Resource Center, Turners Falls, MA

Design Architect: Completed 2008

Brause provided pro-bono design services for this non-profit to support individual and community well-being through economic development, youth development, education and advocacy. Brause's renovation of its home in an historic firehouse included a newly designed facade, an accessible entry sequence, and an outdoor double-functioning stoop and stage.

Selected Professional Roles related to the Object of Nomination

Education
University of Virginia
Master of Architecture, 1996

University of Pennsylvania
Bachelor of Arts, 1988

Registration
Massachusetts

University of Massachusetts Amherst Department of Architecture

Faculty: 2008 - Present; Associate Professor with Tenure: 2017 - present

Prof. Brause has been a full-time faculty member of the Department of Architecture since 2012, and previously served in part-time roles beginning in 2008. She has served as Graduate Program Director, Architectural Licensing Advisor, and Honors Program Director. She also founded and taught UMass's Pre-College Summer Design Academy, which introduces high school students to design and to the architecture profession. Brause serves as a mentor to junior colleagues and numerous students, many of whom now contribute to the department by serving as jurors and mentors. She supports a wide variety of graduate and undergraduate thesis committees as well as independent studies each year.

Brause's interest in integrating pedagogical issues and professional ones informs her service, particularly her work on the new John W. Olver Design Building. As faculty liaison to the building committee, she collaborated for more than three years with colleagues from neighboring departments to support the creation of this exemplary multidisciplinary space. Brause also connects students to the profession through her roles in national and local AIA and NCARB committees. She similarly connects her students to contemporary research practices through her leadership in the journal of *Technology | Architecture + Design* and her service on varied peer review and scientific committees. Brause previously taught at Hampshire College and she serves as an invited juror and lecturer at schools both locally and nationally.

Center for Design Engagement (CDE)

Director: 2015 - present

The Center for Design Engagement (CDE) is a non-profit community and design resource center in Holyoke, MA directed by UMass Amherst faculty. CDE provides progressive design, innovative public art, and civic engagement, particularly in underrepresented communities. Brause serves as Co-Director and Co-Design Lead on prominent projects. She has partnered to write grants totalling over $1 million to support project development and implementation, as well as capacity building for community partners.

SITELAB Architecture + Design

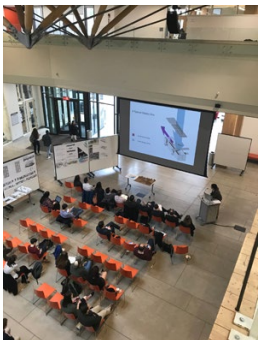
Principal and Founder: 2008 - present

SITELAB pursues client-driven projects, collaborations with community partners, and theoretical investigations. Many of these projects address resource scarcity by redeploying abundant resources, such as existing building stock, underutilized landscapes, and reclaimed building materials. Prof. Brause's pro-bono work has broad impact in the region by addressing issues such as food insecurity, building material reuse, and youth empowerment.

Brause became a licensed architect in New York State in 2000 and has held a Massachusetts license since 2009. Previously she was an Associate Principal at CDR Studio Architects, where she worked on award winning projects such as the Eileen Fisher Showroom, the African Burial Ground Competition Entry, and the second stage finalist entry to the NJ 9/11 Memorial Competition. Her design and construction experience includes museums, memorials, offices, residences, commercial space, and community-based projects; she has received seven AIA awards for this work.

Selected Leadership and Service Roles



Professional Leadership

- AIA Higher Education Advisory Team (HEAT): 2020 - present
- AIA Western Massachusetts Chapter (WMAIA), Board Member and Chapter Secretary: 2018 - present
- ACSA/AIA Practice and Leadership Award, Chair: 2018 - 2019
- AIA SDAT Developing Holistic Approach to Climate Adaptation and Mitigation, Northampton, MA: 2015

NCARB Architectural Licensing Advisor: 2015 - 2019

NCARB Education Committee: 2016 - 2018

NCARB Award Committee: 2015

Academic Leadership

University of Massachusetts Amherst

College of Humanities and Fine Arts Core Leadership Group: 2020 - 2021

UMass Research & Engagement VIZ Initiative Steering Committee: 2019 - present

Graduate Program Director, Master of Architecture: 2017 - 2019

Architecture Honors College Program Director: 2015 - 2016

John W. Olver Design Building Committee, Faculty Liaison: 2013 - 2016

Pre-College Summer Design Academy, Founder and Director: 2010 - 2012

UMass Amherst Design Center at Springfield Steering Committee: 2011

Academic Roles cont.

Academic Juries & Outside Evaluator

Portman Prize Jury: 2020

Amherst College, Brandeis University, Hampshire College, Hobart & William Smith Colleges, Marlboro College, Mount Holyoke College, Northeastern University, Parsons - New School for Design, Rhode Island School of Design, Smith College, Yale University

Journal Roles

Journal of Technology | Architecture + Design (TAD), Founding Editorial Board Member: 2015 - present, Design Editor: 2017 - 2019, Issue Editor: 2020.

Public Administration Review Journal, Reviewer: 2020

International Journal of the Constructed Environment, Associate Editor: 2014 - 2015

Publication Review

Routledge Taylor & Francis, Peer Reviewer for Book Proposals: 2018 - present

Association of Collegiate Schools of Architecture (ACSA) Peer Reviewer & Session Moderator: 2016 - present

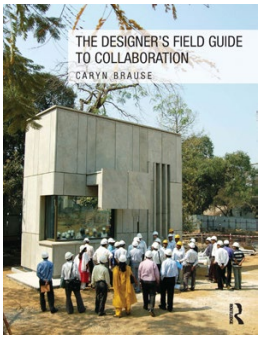
Architectural Research Consortium (ARCC), Peer Reviewer: 2020

Building Technology Educator's Society, Conference Co-Chair: 2018 - 2019, Scientific Committee & Session Moderator: 2016 - 2017

National Conference on the Beginning Design Student (NCBDS) Peer Reviewer & Session Moderator: 2015 - 2016

Selected Honors and Awards






AIA Awards

2016 AIA/ ACSA Practice + Leadership Award Voices From the Field

2016 Western Mass AIA Citation Award Arrivals, collaboration with Joseph Krupczynski

2013 AIA New England Citation Award EcoBuilding Bargains

2012 Western Mass AIA Merit Award EcoBuilding Bargains

2012 Western Mass AIA People's Choice Award EcoBuilding Bargains

2000 AIA New York City Chapter Interior Design Award Eileen Fisher Showroom, while at CDR Studio Architects

1998 AIA New York City Chapter Project Design Award African Burial Ground, while at CDR Studio Architects

1998 AIA New York City Chapter Design Citation Eileen Fisher Store, while at CDR Studio Architects

Other Awards

2018 Bloomberg Philanthropies Public Art Challenge Finalist El Corazon, with City of Holyoke OPED, Nueva Esperanza Inc. and Joseph Krupczynski

2018 PROSE Award Honorable Mention, Social Science Textbook The Designer's Field Guide to Collaboration

2017 Building Technology Educator's Society Book Award First Prize The Designer's Field Guide to Collaboration

2017 International Journal of the Constructed Environment Award for Excellence Volume 7 Strategic Additions: Reconsidering Architecture's Stepchild

Other Awards cont.

2014 Mosher Street Rail Bridge Underpass First Place in Competition, Collaboration with Joseph Krupczynski

2013 NCARB Award for the Integration of Practice and the Academy Voices From the Field

2011 Riverscaping International Design Build Award First Place in Competition UMass Design III Studio

2004 New Jersey 9/11 Memorial Foundation Second Stage Finalist while at CDR Studio Architects

Selected Grants & Funded Research

2020 Holyoke Local Cultural Council $5,000, El Corazon | The Heart of Holyoke, Collaborators: City of Holyoke OPED and Joseph Krupczynski

2019 Commonwealth Places Program, Mass Development $25,020 crowdfunded + $20,000 match, El Corazon | The Heart of Holyoke , Collaborators: City of Holyoke OPED, Nueva Esperanza, Inc., and Joseph Krupczynski

2019 Department of Architecture Research Collaborative $3,000, Investigation of Interior Learning Environments, Collaborators: Dorrie Brooks AIA, Jones Whitsett Architects

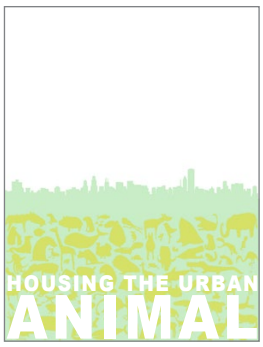
2018 Marion and Jasper Whiting Foundation $6,500, Voices from the Field: Impact of Collaborative Practices on Design in Nordic Countries

2018 College of Humanities and Fine Arts Research Grant $2,000 Voices from the Field: Impact of Collaborative Practices on Design in Nordic Countries

2018 Women for UMass Fund $5,400, Women in Architecture Creative Production Project, Collaborators: Pari Riahi and Sandy Litchfield

Selected Grants, Funded Research & Exhibits





Selected Grants & Funded Research cont.

2018 College of Humanities and Fine Arts Conference Grant $5,000, Integration + Innovation 2019 Building Technology Educator's Conference

2017 Women for UMass Fund $3,500, Women in Design Creative Exchange, Collaborators: Pari Riahi

2016 National Endowment for the Arts Our Town Award $50,000 + $70,000 matching funds, El Corazon | The Heart of Holyoke, Collaborators: City of Holyoke OPED and Joseph Krupczynski

2016 Women for UMass Fund $5,000, Women in Design Lecture Series

2014 Faculty Research Grant / Healey Endowment Grant $12,180, The Designer's Field Guide to Collaboration

2013 NCARB Award for the Integration of Practice and the Academy $25,000, Voices From the Field: From Design Concept to Reality

2010 City of Springfield Dept. of Planning and Economic Development $5,000, Building Linkages, Projects for Pynchon Plaza

Selected Exhibits

Integration + Innovation Co-curator, Design Building Gallery, Amherst, MA, June - July 2019

Beyond the Building: Architectural Artifacts Co-curator, Design Building, University of Massachusetts Amherst, February 2017
Co-curator, NYPOP Gallery, New York, NY, December 2016 - February 2017

Selected Exhibits cont.

Architectural Education Winners Traveling Exhibit
ACSA Annual Meeting, Seattle, WA March 2016
AIA National Convention, Philadelphia, PA May 2016
AIA Headquarters, Washington, DC 2016
Project: Voices from the Field

Housing the Urban Animal Co-curator, NYPOP Gallery, New York, NY, December 2016

OPEN CITIES Research + Design Project Exhibition
Ewha Womans University, Seoul, Korea June 2014
Project: ReSKIN: Parametrically Defined Insulated Metal Panels

WMAIA small lot | BIG IDEAS Competition Exhibit
A.P.E. Gallery, Northampton, MA November 2013
Project: The Productive [Narrow] Lot w/ Carey Clouse

Architecture Boston Expo AIA New England 2013 Design Awards Exhibit, Boston, MA November 2013
Project: EcoBuilding Bargains

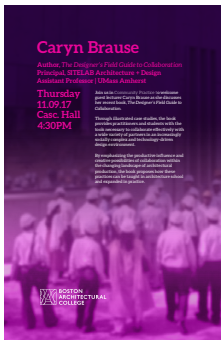
AIA New England 2013 Design Awards Exhibit: Taking Design to Heart DCU Center, Worcester, MA October 2013
Project: EcoBuilding Bargains

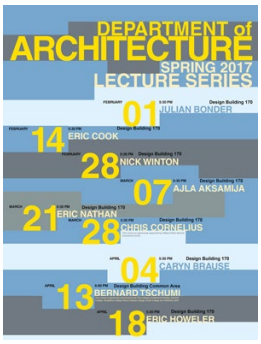
AIA New England Conference
Burlington, VT October 2012
Projects: EcoBuilding Bargains and Garden Pavilion

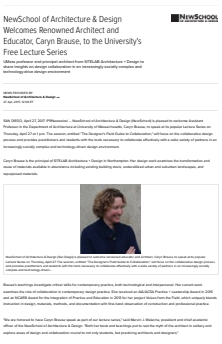
LEVERAGE: Strengthening Neighborhoods Through Design Philadelphia Center for Architecture October 2011
Project: Building Linkages, Projects for Pynchon Plaza

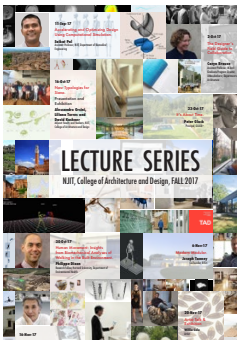
Liveable Communities Exhibit AIA New England Conference Exhibit design A.P.E. Gallery, Northampton, MA October 2011 w/ Erika Zekos, Mary Yun, Chris Farley, Angela DeGeorge and Jennifer Levy

Selected Workshops, Lectures & Presentations









Workshops

"Defining Your Research," Workshop Facilitator, 107th ACSA Annual Meeting: 2019

"Design Fundamentals Applied," UMass Data VIZ Symposium: 2019

"Architectural Research 101: What, How & Why?" Workshop Facilitator, AIA Conference on Architecture: 2018

"Exploring/Defining the Research Landscape Within the Discipline of Architecture," Webinar Organizer & Moderator ACSA/ TAD Research Series: 2018

"Defining Your Research," Workshop Facilitator, 106th ACSA Annual Meeting: 2018

Eureka! Program for Girls' Inc, Clinton Global Initiative, STEM Workshop Leader: 2014

Selected Lectures & Presentations

2020 ACSA Annual Meeting *Process of Design to Realization: TAD Authors Panel,* Organizer and Moderator w/ Julian Wang

2019 Smith College, Northampton, MA Guest Lecture: *The Designer's Field Guide to Collaboration*

2018 ACSA Annual Meeting, Denver, CO Invited Speaker: *Begin with Why: Values and Ethics in Beginning Design*

2017 Boston Architectural College, Boston, MA Guest Lecture in Community Practice: *The Designer's Field Guide to Collaboration*

2017 Keene State College, Keene, NH Lecture Series: *The Designer's Field Guide to Collaboration*

2017 New Jersey Institute of Technology, Newark, NJ Lecture Series*: The Designer's Field Guide to Collaboration*

Lectures & Presentations cont.

2017 International Conference on The Constructed Environment, Krakow, Poland *Collaborative Practices: Communication Flow and Information Exchange*

2017 Mass College of Art and Design, Boston, MA Lecture Series*: The Designer's Field Guide to Collaboration*

2017 New School of Architecture & Design, San Diego, CA Guest Lecture: *The Designer's Field Guide to Collaboration*

2016 ACSA Annual Meeting, Seattle, WA Practice & Leadership Awards Session *Voices from the Field*

2015 NCARB Annual Business Meeting, New Orleans, LA Featured speaker: *Voices from the Field*

2014 Intern Development Program (IDP) Coordinators Conference, NCARB + AIA, Miami, FL
Video Presentation: *Voices from the Field*

2014 NCARB Annual Business Meeting, Philadelphia, PA Video Presentation: *Voices from the Field*

2014 Constructed Environment Conference, Philadelphia, PA *Strategic Additions: Reconsidering Architecture's Stepchild*

2013 Reclaim + Remake Symposium, Washington, DC *The Barn Project: Teaching Design for a Future of Resource Scarcity*

2011 Association for Community Design, Philadephia, PA *Stone Soup – Collaborating in Springfield to create the UMass Amherst Design Center* w/Michael DiPasquale & Frank Sleegers

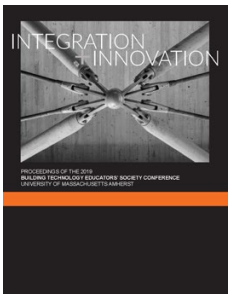
2010 Massachusetts Art Education Assoc., Amherst, MA *Using Architecture to Develop Personal Narratives: Teaching Architecture to High School Students* w/ Stephen Schreiber

Publications

TAD 4:1 | Translation

Issue Editor: Completed 2020

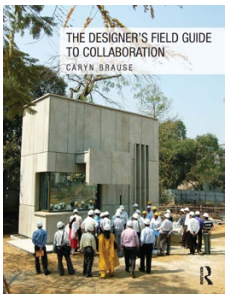
As Issue Editor, Prof. Brause edited and published scholarly submissions, creative designs, and primary research that investigate the means by which design concepts become translated into the built environment. To accompany the submitted articles, she invited essays and research papers to fill gaps in knowledge, advance architectural research capabilities, and stimulate research in undeveloped areas of the field.



Integration + Innovation

Proceedings Co-Editor, Conference Co-Chair: Completed 2019

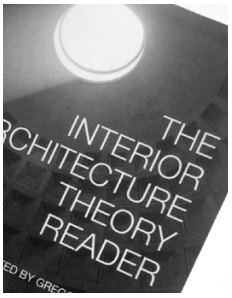
As Building Technology Educators' Society Conference Co-Chair, Prof. Brause sought exemplary proposals of research and pedagogy that explore innovative practices and integrative thinking in the academy and profession. Brause transformed the conference's method of dissemination and increased its impact by creating a digital proceedings platform. The digital proceedings receives over 200 downloads per month and exposes BTES members' work to an international audience.



Designer's Field Guide to Collaboration

Routledge, Taylor & Francis: 2017

Winner of First Prize in the 2017 Building Technology Educators Society Book Award and a 2018 PROSE Award Honorable Mention. In her innovative book, Prof. Brause examines how collaborative practices are evolving to respond to meet today's environmental, social, and technological concerns. Brause contributes to the scholarship of practice by investigating the transformative impact that collaboration has on design outcomes.



Beyond the Visible: Skillsets for Future Interior Architecture Practice

Book Chapter, Routledge, Taylor & Francis: 2017

In this essay, Prof. Brause looks at attitudes and skillsets that are essential for future Interior Architecture practice, such as modularity, reconfigurability, designing for disassembly, planning to accommodate future renovations, and engaging future occupants by designing for ongoing personal customization.

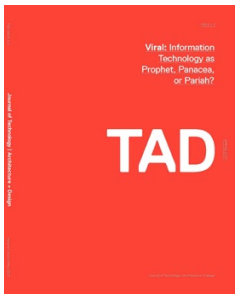
> *"Caryn Brause's Designer's Field Guide to Collaboration is a comprehensive manual for students, educators, and professionals. Through a series of well-researched and illustrated case studies, practical guidelines, and structured exercises, Professor Brause elucidates the essential skills needed for successful collaboration that are often overlooked and undervalued."*
>
> *-BTES Book Award Press Release*

Publications cont.

Technology | Architecture + Design (TAD)

Founding Editorial Board Member, Design Editor Volumes 1 & 2: 2015 - present

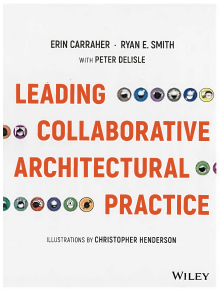
Brause and her fellow founding editorial board members created *TAD* after identifying a lack of publishing opportunities specifically related to building technology research and its integration with design. Through *TAD*, Brause elevates architectural research and provides a central, peer-reviewed venue for faculty, practitioners, and researchers working in this field.



Why TAD?

Co-authored Executive Editorial: 2017

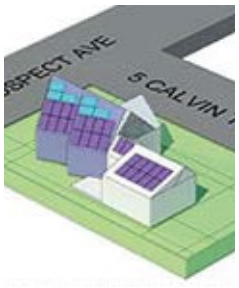
To introduce the new journal, Brause and her fellow founding editors wrote an editorial discussing the journal's objectives, intended audiences, and positionality. The editorial identifies how TAD aims to expand upon architectural publication through new forms of creative and scholarly engagement. Brause and her collaborators created *TAD* to increase author and audience diversity across disciplines, and to increase knowledge translation between the academy and practice.



Collaborative from the Start

Contribution to Book, Wiley: 2017

This book chapter features an edited conversation between Brause, Clare Olsen, and Erin Carraher about the relationship between professional collaborative practices and evolving pedagogical methods.



Strategic Additions: Reconsidering Architecture's Stepchild

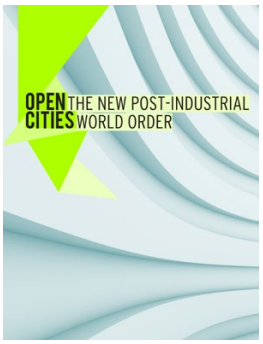
International Journal of the Constructed Environment 7, no. 1: 2016

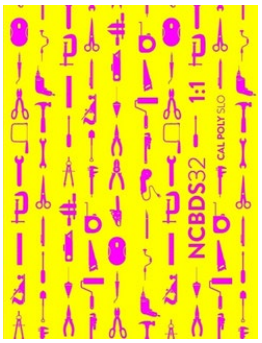
Winner of the journal's International Award for Excellence for Volume 7. In this paper, Brause challenged the bias for new construction over renovation by documenting a design research project. Brause suggests reconceptualizing existing housing stock through the lens of embodied energy and location efficiency. This reframing can invigorate design, and alter the reception and implementation of such projects.

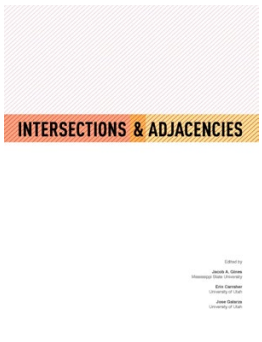
"As the inaugural Design Editor, Caryn led the Editorial Board in shaping the direction of TAD's graphic identity and its relationship between text and image. Her editorial vision has shaped the look and feel of this journal. I particularly value the care and design sensitivity she brought to guide authors in improving the graphic way in which they communicate their research. This is especially difficult when discussing technology and engineering. Her editorial work helps each article reach its greatest potential. My appreciation of Caryn's contributions comes not only from my direct experience but also through communications I received from the ACSA Board of Directors, our authors, and our readers."

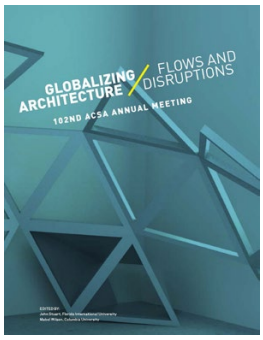
- Andrzej Zarzycki, TAD Executive Editor, Volumes 1 & 2

Selected Peer Reviewed Papers









"Transferring visual methods from design to social science to advance built environment research," ***Proceedings of the EAAE - ARCC International Conference***, 2020 (in process).

"El Corazon | The Heart of Holyoke," ***Proceedings from EDRA 50: Sustainable Urban Environments***, Amy Beth, Richard Wener, Betsy Yoon, Ruth A. Rae, & Jessica Morris (Eds.) Brooklyn, NY, 2019. (w/ Joseph Krupczynski & Clayton Beaudoin)

"Collaborative Beginnings: Developing Collaboration Skills in an Interdisciplinary Design Seminar," ***Proceedings of the 34th National Conference on the Beginning Design Student,*** Samantha Krukowski & Melanie Swick (Eds.) University of Cincinnati, Cincinnati, OH, 2018.

"Constructing Relationships: Examining Project Structures to Align Design Conception and Realization," ***Poetics and Pragmatism: Proceedings of the 2017 Building Technology Educators' Society Conference,*** Tom Leslie, Shelby Doyle, Robert Whitehead (Eds.), Des Moines, IA, 2017.

"Collaboration: Propelling An Expanded Practice," ***Proceedings of the 105th Annual ACSA Meeting,*** Luis Francisco Rico-Gutierrez & Martha Thorne (Eds.) Detroit, MI, 2017.

"Housing the Urban Animal," ***Proceedings of the 105th Annual ACSA Meeting***, Luis Francisco Rico-Gutierrez & Martha Thorne (Eds.) Detroit, MI, 2017, 28-29. (w/ Carey Clouse & Stephen Schreiber)

"Urban Gleaning: Promoting Food Security Through Opportunistic Design Strategies," ***Proceedings of the 5th Fábos Conference on Landscape and Greenway Planning,*** Budapest, Hungary, 2016, 37-43. (w/ Carey Clouse)

"Learning and Unlearning Precedent," ***Proceedings of the 32nd National Conference on the Beginning Design Student***, Jeff Ponitz, Clare Olsen, & Carmen Trudell (Eds.) California Poly, San Luis Obispo, CA, 2016, 571-576.

"Divergent Modes of Engagement: Exploring Collaborative + Participatory Practices," ***Proceedings of the 104th Annual ACSA Meeting***, Robert Corser & Sharon Haar (Eds.) Seattle, WA, 2016. (Topic Chair, w/ Joseph Krupczynski)

"Arrivals: Public Art + Infrastructure Project," ***Shaping New Knowledges, Proceedings of the 104th Annual ACSA Meeting***, Robert Corser & Sharon Haar (Eds.) Seattle, WA, 2016, 3-4.

"Foraging for the Curriculum: Sourcing Local Projects for an Integrated Understanding of Issues Central to Practice," ***Proceedings of the 2015 Building Technology Educators' Society Conference***, Jacob Gines, Erin Carraher & Jose Galarza (Eds.) Salt Lake City, UT, 2015, 167-174.

"Intern architects in the academy: preparing for future practice," ***Future of Architectural Research Proceedings of the 2015 ARCC Conference,*** Ajla Aksamija, John Haymaker & Abbas Aminmansour (Eds.) Chicago, IL 2015, 627-634.

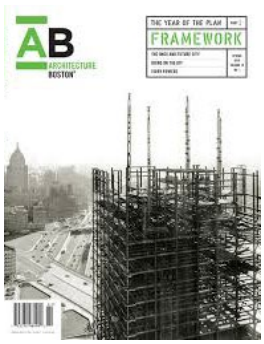
"The Ark: Grafting Productive Programs onto Contemporary Waste-space," ***OPEN CITIES Proceedings of the 2014 ACSA/ AIK International Conference***, Alice Kimm & Jaepil Choi (Eds.) Seoul, South Korea, 2014, 243-249. (w/ Carey Clouse)

"Animal Dwelling Modules," ***Globalizing Architecture / Flows and Disruptions, Proceedings of the 102nd Annual ACSA Meeting***, John Stuart & Mabel Wilson (Eds.) Miami, FL, 2014, 111-112. (w/ Carey Clouse)

"Prototyping Practice," ***Proceedings of the 30th National Conference on the Beginning Design Student***, Leslie Johnson, Catherine Wetzel & Leslie Johnson (Eds.) Illinois Institute of Technology Press, Chicago, IL, 2014, 205-211.

"Playing with Systems," ***Proceedings of the 2013 Building Technology Educators' Society Conference***, Andrzej Zarzycki & Robert Dermody (Eds.) Roger Williams University, Bristol, RI, 2013, 412-413.

Selected Publications by Others



Press related to Teaching

Beam, Alex. "MATTER OF COURSE: 'Women in Design' fall lecture series." ArchitectureBoston. Spring 2016.

Everett, Rebecca. "Parking spots transformed into mini-parks, each with its own message, on Park(ing) Day." Hampshire Gazette. September 20, 2015.

Mazzocco, Megan. "Award Bridges Practice and Education." Architectural Leader Column in Architectural Products Magazine, March 2015.

"Voices from the Field: From Design Concept to Reality." WMAIA Newsletter, Fall 2014.

"Riverview: Wooden platforms, open windows helps passers-by see the Connecticut." Hampshire Gazette, June 3, 2013.

"On the River." WMAIA Newsletter, Winter 2013.

"College Heats Up." UMass Amherst Magazine, Fall 2012

Editorial: "Designing Students." Hampshire Gazette, May 8, 2012

"Students, energy company brainstorm the gas station of the future." Hampshire Gazette, May 7, 2012.

"Hampshire College students design 'green' services stations of the future for Sandri Companies." The Republican, February 27, 2012.

Press related to El Corazon

Becker, Sy. 2019. "Heart of Holyoke Celebrates City's Hispanic Community." WWLP, December 15, 2019.

Bunnell, Kathryn. 2019. "El Corazon/The Heart of Holyoke Looks to Celebrate Holyoke's Latino Culture through Public Art." WWLP, March 19, 2019.

Ramos, Manuel Frau. 2019. "Campana pro Fondos Proyecto El Corazon / The Heart of Holyoke." El Sol Latino, May 2019.

Vega, Iohann. 2019. "El Corazón: The Heart of Holyoke." RadioPlasma. March 19, 2019.

Hohenberger, Dennis. 2018. "Bloomberg Philanthropies Names Holyoke National Finalist for Art Grant." The Republican, July 18, 2018.

"14 U.S. Cities in the Running to Receive Up to $1 Million in Funding for Public Art Projects That Address Civic Issues." 2018. Bloomberg Philanthropies. July 18, 2018.

"How Can Public Art Address Critical Issues?" 2018. Youtube. Bloomberg Philanthropies. July 18, 2018.

Press related to Arrivals

Ramos, Manuel Frau. "Llegadas – Proyecto de Arte Publico en Holyoke." El Sol Latino. September 2015.

Mazza, Chris. "New display tells story of Holyokers 'Arrivals.'" The Reminder. August 27, 2015.

Plaisance, Mike. "Holyoke 'Arrivals' Works as Public Art and Safety Feature: Video." The Republican. August 20, 2015.

Plaisance, Mike. "Holyoke Lifts Curtain on 30-Foot-Long Illuminated 'Arrivals.'" The Republican. August 19, 2015.

Press related to EcoBuilding Bargains

"Architect Honored for Design." The Republican, January 13, 2013.

"Architect Caryn Brause (EcoBuilding Bargains Architect) Wins Award for Design." Waste & Recycling News, January 2013.

"Deconstruction & Design." This Old House. Public Broadcasting Service, Original airdate: October 11, 2012.

3.0 Exhibits

The Designer's Field Guide to Collaboration

Voices from the Field

Teaching: Design, Technical & Collaborative Skillsets

Technology | Architecture + Design

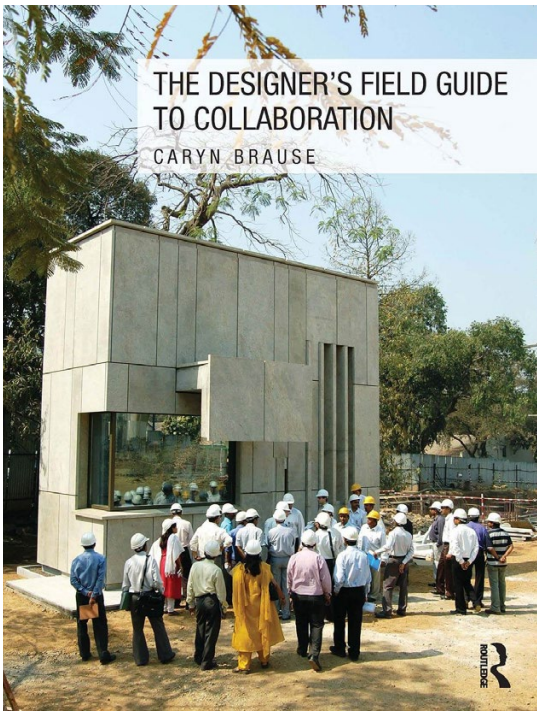
TAD 4:1 Translation

EcoBuilding Bargains

Arrivals

El Corazón • The Heart of Holyoke

The Designer's Field Guide to Collaboration



Role of Nominee: Author and Researcher
Publisher: Routledge
Date of Publication: 2017

Declaration of Responsibility
I have personal knowledge of the nominee's responsibility for the project listed above.

Stephen Schreiber FAIA
Chair, Department of Architecture
University of Massachusetts Amherst

The Designer's Field Guide to Collaboration provides practitioners and students with the tools necessary to collaborate effectively with a wide variety of partners in an increasingly complex design environment.

Prof. Brause's work draws on the expertise of top professionals in the allied fields of architecture, landscape architecture, engineering and construction management. She assesses research from diverse disciplines such as software development, organizational behavior, and outdoor leadership training. Brause then examines emerging and best practices for effective team building, structuring workflows, enhancing communication, managing conflict, and developing collective vision–– all to ensure the highest standards of design excellence.

Case studies detail the collaborative processes used to create award-winning projects by Studio Gang, Perkins+Will, Tod Williams Billie Tsien Architects | Partners, Gensler, CDR Studio Architects, Mahlum Architects, In.Site:Architecture, and Thornton Tomasetti's Core Studio. Brause also provides pragmatic ideas and formal exercises for brainstorming productively, evaluating ideas, communicating effectively, and offering feedback.

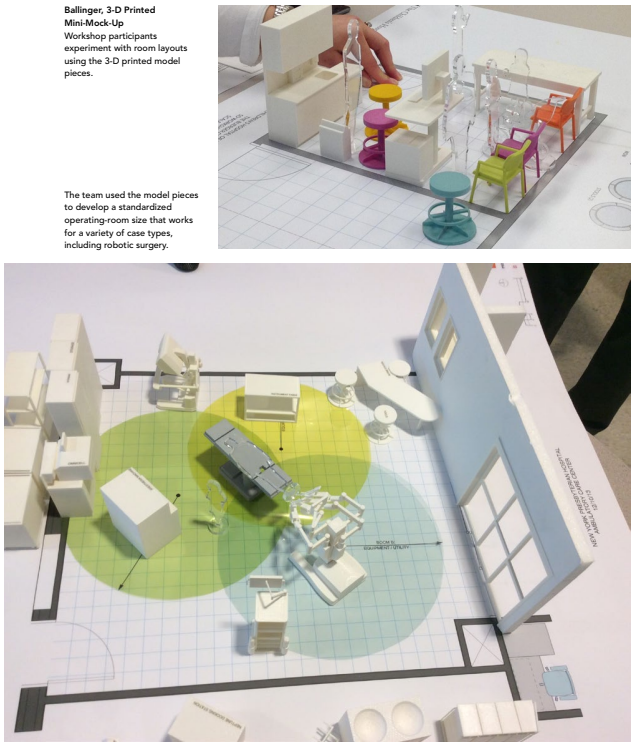
By emphasizing the productive influence and creative possibilities of collaboration within the changing landscape of architectural production, the book proposes how these practices can be taught in architecture school and expanded in practice. In a changing world that presents increasingly complex challenges, Brause demonstrates that collaboration is crucial to the process of creating advanced architecture.

Awards

2018 PROSE Award Honorable Mention, Social Science Textbook
2017 First Prize, Building Technology Educators' Society Book Award

Related Efforts: Selected Papers and Presentations

2018 "Collaborative Beginnings: Developing Collaboration Skills in an Interdisciplinary Design Seminar," National Conference on the Beginning Design Student, Cincinnati
2017 "Constructing Relationships: Examining Project Structures to Align Design Conception and Realization," Building Technology Educators' Society Conference, Des Moines
2017 Community Practice, Boston Architectural College, Boston
2017 "Collaboration: Propelling An Expanded Practice," ACSA Annual Meeting, Detroit
2017 Lecture: New Jersey Institute of Technology, Newark, NJ
2017 "Collaborative Practices: Communication Flow and Information Exchange,"Constructed Environment Conference, Krakow
2017 Lecture: The New School of Architecture & Design, San Diego
2017 Lecture: Mass College of Art and Design, Boston



Ballinger, 3-D Printed Mini-Mock-Up
Workshop participants experiment with room layouts using the 3-D printed model pieces.

The team used the model pieces to develop a standardized operating-room size that works for a variety of case types, including robotic surgery.

CHAPTER 3 What Does Collaboration Look Like? 87

Decision-making Styles

Part of group decision making is deciding how to decide.

Leader-led Decision Making
When a fast-paced decision must be made, and when there is an individual who is competent, knowledgeable, and trusted by the people affected by the decision, a leader can be designated to make an independent decision. This leader-led or directive model can also be effective and appropriate when the stakes are low. Regardless, the leader should inform the stakeholders of the decision and give any directives for participation so that members know what is expected of them.

Consultative Decision Making
For greater buy-in, the group leader might consult with team members for recommendations—individually or as a whole—prior to making a final decision. This consultative model can be useful for inclusivity, balancing speed while involving stakeholders.

Decision Making by Voting
There are a variety of voting methods, including ranking alternatives and establishing a majority by percentage of the vote. On a social and emotional level, voting produce a series of "winners" and "losers," with the winners determining the course of action. Voting is fine if the stakes are low and the options are acceptable to all members, but this method also often dismisses minority opinions early on. In significant decisions, voting can create an adversarial atmosphere; it should be avoided if you need all members to be highly committed for the duration of a sustained project.

Consensus Decision Making
A consensus model tries to avoid having winners and losers by requiring that everyone agree. All legitimate concerns must be raised, and members must keep working until they address and integrate all perspectives. This can be extremely time-consuming, and members must resist the temptation to reach agreement too quickly. If a group has the skill, or can gain the skill to do so, then a consensus model will enable the group to "own" the decision so that they can advance the project and implement the decision.

How Collaborative Does Your Decision-making Need to Be?
You will want to choose a decision-making method that takes into account some of these factors.

Pages from Chapter 3
"What Does Collaboration Look Like?"

"The book provides a field guide to contemporary collaborative practices—chapters introduce issues and ideas inherent to collaborative work and explore them through a range of case studies. The text was developed through a series of interviews I conducted with dozens of contemporary designers. Leaders in their fields, these practitioners have been widely recognized for the design excellence of their work, in publications, and through professional design awards. In my initial conversations, I asked architects to identify their own particular set of collaborators and to elaborate on how they go about structuring their collaborations. Although some partnerships and processes were unique, commonalities and overlaps emerged. I chose to focus this text on the primary relationships and exchanges architects identified as being essential to successful project outcomes. And while the views of consultants, clients, and fabricators are represented in these pages, this book––which ultimately examines the relationship between collaboration and design excellence––is told largely from the point of view of the architect."

- From "Introduction"

"Caryn Brause's invaluable 'Designer's Field Guide to Collaboration' puts to rest the Fountainhead myth of the architect as solo genius, replacing him with the collaborative teams who really design today's buildings. Her 'Field Guide' describes the increasingly varied options for collaborating, and it offers sound advice on how to do it better. Brause couples the insights of leading researchers and writers with in-depth interviews and case studies. Her lessons for successful collaboration will help everyone from students to experienced practitioners."

- Jay Wickersham, FAIA, Esquire, Associate Professor of Architecture in Practice
Harvard Graduate School of Design

Mahlum Architects

Mahlum, Wilkes Elementary School, Bainbridge Island School District, Bainbridge Island, WA, 2012
The school fosters environmental values by connecting students with nature while also integrating a number of sustainable design elements, including on-site wastewater treatment, 100-percent porous paving, heat recovery, a hybrid geothermal and water-to-water heat-pump heating system, operable windows, and non-toxic finish materials throughout.

This chapter has looked at some of the mindsets, structures, strategies, and practices that propel design teams to continuously improve their work and their processes. Instead of looking at a particular building, this case study looks at a firm that has built continuous improvement into the firm culture.

Mahlum Architects, founded in Seattle in 1938, is an eighty-person firm with offices in both Seattle and Portland.[29] In 2014 Mahlum was awarded the AIA Northwest and Pacific Region Firm Award. Their attention to continuous improvement is reflected in the thoughtfulness paid to many aspects of the firm, including the way that the office is structured. The firm is led by three studio directors. Each director leads one of the three market-based studios, one focusing on health care projects, another on K–12 schools, and the third on higher-education projects, including student housing. There is considerable attention paid to cross-pollinating between the two offices, while, at the same time, breaking down the eighty-person firm into smaller, more manageable communities that encourage ongoing professional growth.

What makes Mahlum interesting in the context of this chapter is that they have set up internal metrics to encourage continuous improvement with both quantifiable and intangible goals. In 2005 the firm crafted a strategic vision for the subsequent ten years, which included annual goals for

CHAPTER 7 Continuous Improvement 217

Top: **Mahlum, Wilkes Elementary School, Bainbridge Island School District, Bainbridge Island, WA, 2012**
The school fosters environmental values by connecting students with nature while also integrating a number of sustainable design elements, including on-site wastewater treatment, 100-percent porous paving, heat recovery, a hybrid geothermal and water-to-water heat-pump heating system, operable windows, and non-toxic finish materials throughout.

Bottom: **Anne Schopf**

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Pages from Chapter 7 Case Study
"Continuous Improvement"
Mahlum Architects

To pursue sustainable design strategies, "we were asking alot of our consultants to come to the table and actually participate in the framing and the forming of our projects. And within those first 3-4 years, we started to practice architecture in a fundamentally differently way... And now we don't have conference rooms big enough because everybody joins in!...Our world is more complicated, it's performance based."

- Anne Schopf FAIA, design partner
from Chapter 7 Case Study: Mahlum Architects

"It takes collaboration to realize truly great projects. Caryn Brause's new book is an insightful resource to assist architects in collaborating in innovative fashion to create excellent designs. Building on, and advancing the literature, Brause dissects the collaborative process, illuminates the key issues, and demonstrates brilliant and provocative possibilities when collaboration is orchestrated as she describes. The work is a genuine synthesis, and will be a contribution to both practice and academic realms."

- Andrew Pressman, FAIA, Architect and author of *Designing Relationships*

Voices From the Field: From Design Concept to Reality

Role of Nominee: Educator and Researcher
Dates of Activity: 2013 - present
Image Credits: Caryn Brause and students

In *Voices From the Field,* Prof. Brause has developed a model of classroom and field-based learning that addresses topics that are difficult to understand in an academic environment, such as project structuring and delivery methods, the regulatory environment, finances, and labor. She successfully links these concepts to real-world examples, providing students with direct experiential knowledge of practice issues.

This project was initially supported by the 2013 NCARB Award; Brause's course objectives sought to address recurring themes identified in the 2012 NCARB Practice Analysis, including the need to establish an early understanding of construction sequences and the Architect's role from design to construction. Each semester, Brause's students analyze five different projects under construction that are pursuing high performance standards, such as the Living Building Challenge and LEED. She teaches students to review construction document sets and then she leads visits to active construction sites with practitioners to compare topics studied in the classroom with construction realities.

As the profession looks for ways to shorten the licensure process and eliminate months or years of internship, Brause fills an essential need by addressing these practice issues through experiential learning in the academy. Students have confirmed this in their course reflections, indicating that they are more confident entering the profession with their broadened understanding of practice. Brause's work is widely disseminated, impacting architectural education through outreach in lectures, conference papers, public presentations, and exhibits.

Awards

2016 AIA/ ACSA Practice + Leadership Award
2013 NCARB Award for the Integration of Practice and the Academy

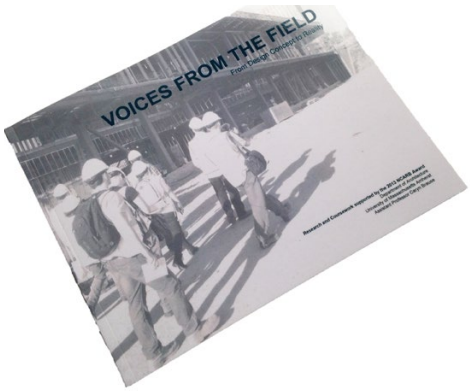
Related Efforts: Selected Presentations & Exhibits

2017 "Constructing Relationships," BTES Conference, Des Moines
2016 ACSA Annual Meeting, Practice + Leadership Awards, Seattle
2016 Architectural Education Winners Traveling Exhibit
ACSA Annual Meeting, Seattle, WA
AIA National Convention, Philadelphia, PA
AIA Headquarters, Washington, DC
2015 Featured speaker, NCARB Annual Business Meeting, New Orleans
2015 "Foraging for the Curriculum," BTES Conference, Salt Lake City
2015 "Intern architects in the academy," ARCC Conference, Chicago
2014 Video presentation, AIA/NCARB IDP Coordinators Conference
2014 Video presentation, NCARB Annual Business Meeting, Philadelphia

Declaration of Responsibility
I have personal knowledge of the nominee's responsibility for the project listed above.

Stephen Schreiber FAIA
Chair, Department of Architecture
University of Massachusetts Amherst

Prof. Brause collaborates with practitioners at UMass Campus Planning to source a core set of projects for each semester. She has anchored the course case studies through the University's $500 million, ten-year construction plan by studying a diversity of project types and construction phases. She thereby provides a translatable model for other architecture programs at flagship universities located far from urban centers. Brause's partnerships with pracitioners from Campus Planning as well as local firms have provided her students with insight into career opportunities and roles in both private and institutional settings.



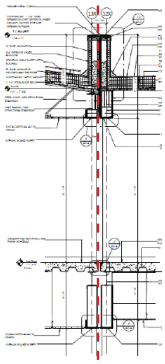
Following each site visit, Brause's students synthesize and reflect on their experiences by composing Field Reports. Their Field Reports include photographs juxtaposed with annotated excerpts from construction documents and descriptions of the transformations they observe in the field. Her students' Field Reports also include reflections on aspects of the design and construction process that were not apparent from the construction documents alone, such as issues of project management, labor, finances, collaboration, the role of technology, and professional conduct.

Prof. Brause compiles a representative collection of these reports into a reference book each semester. She then analyzes the reports for how often the varied "Issues that are Central to Practice" were explored. She conducts qualitative data analysis to compare student understanding of issues based on project type, phase of construction, and delivery method. Brause's analysis enables her to create better, more tailored future course iterations.

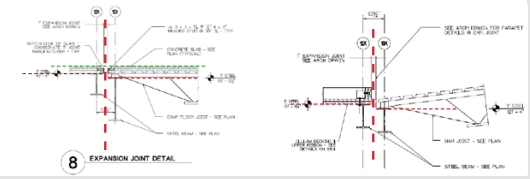
Student Work by Evan Janes and Elisabeth Baird

DESIGNING FOR THE REAL WORLD

Another interesting aspect of this project was how apparent the expansion joints were in the building, and how well we were able to observe these moments when we visited the site; whereas these joints were more concealed in the Champions Center because that project was farther along. The attention paid to these particular instances in the drawings was immense. The photo to the far right shows one instance where the structure is accommodating an expansion joint. The image beside it displays a similar instance, showing how the floor and ceilings interact along an expansion joint. The red dotted line highlights the continuous spacing created between the structural components along the expansion joint. The images at the bottom right are also details showing conditions along the expansion joint. Another interesting aspect of these drawings is that they show how structural systems in the same area may be offset in order to accommodate the different thicknesses of various materials. As in the photo below this condition is general more apparent at corners, but may also be observed in these instances. The dotted red lines show the difference in height of the beams, while the dotted green lines illustrate how the they align at the top surface.

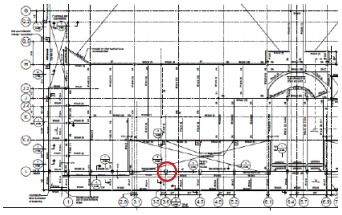


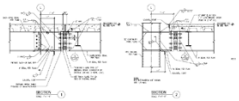
The images to the right show decking details at the expansion joint(s). Note that the materials and height of the wide-flange beams differ to either side. This is not necessarily the case at all points along the expansion beam, but is rather a result of the different uses of spaces on either side. The height of the beams varies because of the thickness of the truss ends which are resting on one beam but not the other. Lowering one beam allows for the floor surfaces to be at the same level.

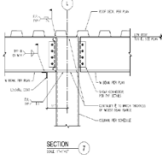


EXPOSED STEEL VERSUS ARCHITECTURALLY EXPOSED STEEL

Steel intended to be left visible, (i.e. columns) are painted and clearly differentiated from the horizontal wide flange beams that will be concealed and left unpainted, developing a thin coat of protective rust.







Seeing the bare structure was a unique experience in a number of ways. Firstly, it allowed us to better understand the physical characteristics of steel structures. Second, it allowed us to see how the systems snake their way through the structure; something that will be hidden obviously be concealed once the walls are finished. Thirdly, it allowed us to understand the process by comparing and contrasting the steel that would be visible, and that which would not. The different end states of the steel where fairly readable by the condition in which they existed during our visit. That which was going to be visible and exposed, which was most abundant near the future site of the curtain wall, were already primed/painted gray. The steel which was to be encased within the walls or service areas were left unpainted and was lightly rusting. Furthermore, as we saw in the framing plans, the exposed elements were all HSS while the majority of the hidden elements were wide flange beams. What was particularly interesting to me was that Richard said the layer of rust was actually protective to the steel. While I was aware that the thin layer of aluminum-oxide acted as a protective measure for exposed aluminium; I did not realized that rust worked in the same manner for steel, having always seen it as more of a catalyst. It seems quite certain to me that rust is not as effective and that is another reason why all of the exposed elements were painted, not just for aesthetics but also out of necessity.

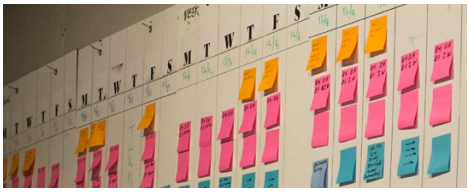
PROJECT DELIVERY METHOD

This project was extremely unique to the other sites that we have visited for several reasons. Not only was it the only fit-out project as opposed to new construction, it was also developed through an Integrated Project Delivery strategy. This approach demands the involvement of the construction team and general contractor from the very beginning of the process.

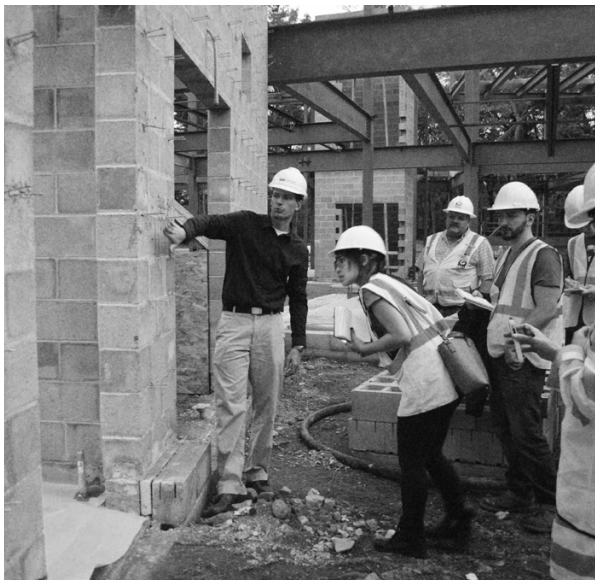
More commonly, projects are developed through Design-Bid-Build strategies in which the architects send out finalized drawings that construction teams then respond to with cost estimates. As a result, the architecture firm has a much greater responsibility to generate extremely accurate drawings so that changes aren't made later in the project after the budget has been set. In addition, the relationship between the architects and construction teams becomes tenuous as a result of discrepancies and misunderstandings between the two.

Integrated Project Delivery eliminates a majority of these issues because it integrates the two teams at the very beginning of the process. All stakeholders in the project share the risks and rewards as well, thus creating a mutually supportive relationship. Josh DiGloria, the general contractor, described to us the ways in which this strategy greatly maximizes efficiency. His role during schematic design was to give immediate feedback on costs and feasibility. This meant that there was a lot of time saved in the long run since value-engineering plays a much less significant role.

One place in which this relationship was visually communicated was in their main conference room. Lining each of the four walls were calendars that scheduled the coordination between the design and construction teams. The organization was extremely impressive and unlike any of the other site conference rooms we had seen prior. Josh described his intention with the variety of colors that each indicated a different sub-contractor. In this way, all the workers had a comprehensive and visual understanding of the work of other teams and the pace at which they should be accomplishing their tasks. It had proved to be an extremely efficient and successful strategy according to both Josh and Kris at the time.



Images of the white boards in the conference rooms.



Practitioner and Student Feedback

"Overall, I not only found this program to be hugely enriching for the students, but for the architectural community as a whole....I would go so far as saying that this program is sorely needed at all architecture schools and should be expanded to be a mandatory part of every architectural program...The class is based on a simple premise, yet it turned out to be one of the most important classes in an architecture school curriculum."

- Marc Sternick AIA, Principal, Marc Sternick Architect

"I found the students to be attentive and asking questions that opened discussion on many topics that offer learning opportunities….I think that such discussion is sharpened by your having organized the course into a classroom meeting, in which the design program and documentation are reviewed (and some of the peculiarities revealed), and then a second meeting at the construction site."

- Bruce Coldham FAIA, Founding Principal
Coldham + Hartman Architects

"Honestly, during the first site visit I had no idea of what I was looking at. In my professional experience as an architect in several important projects, I have not had the chance to go to construction sites and talk with contractors. By asking lots of questions and collecting information about building science, I gradually accumulated more and more knowledge about construction...The comprehensive knowledge that I acquired towards building and constructing will definitely benefit my future study and professional life."

- Yi Wang, M.Arch 2015

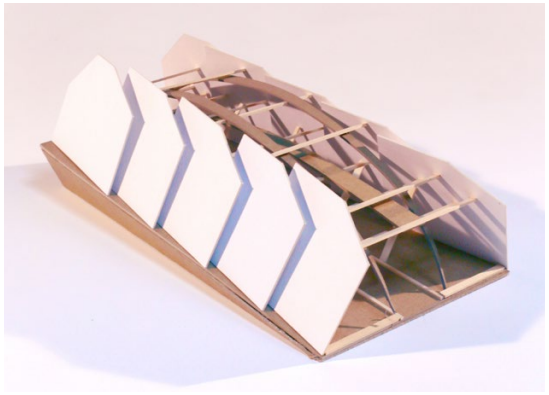
"I really appreciated the broad scope of the conversation–as I think the students did as well. Instead of focusing solely on construction details (as I did in graduate school), it was far more interesting to relate some of those specific design decisions to the larger context - the role of the client, OPM, architect, and contractor; lessons learned from the project; and how much of the process is really dependent on human interactions in addition to what gets put on paper."

- Kristian Whitsett AIA, Principal
Jones Whitsett Architects

"I was particularly interested in practice issues and the collaboration dynamic, especially how Coldham + Hartman advance their professional practices by a combination of novel high performance and paradigm advancing work such as the Living Building Challenge with renovation and performance enhancing work...This was enlightening for me as a professional who aspires to work in a challenging environment where there is the absence of the market that actively supports elaborate architecture design projects and views sustainability as an expensive design endeavor."

- Silva Olaoluwa, M.Arch 2015

Teaching: Design, Technical & Collaborative Skillsets



Role of Nominee: Professor

Images from 2016 Arch 400/ Ark Studio Projects by Phil Chang and Dylan Brown

Prof. Brause prepares students to engage in a dynamic professional context that requires attention to discipline-specific needs, such as evolving technical and interpersonal skillsets. At the same time, she designs her courses to also engage broad public concerns, such as community revitalization and sustainable development.

Brause has taught a broad range of courses, including seven different undergraduate and graduate studios, a two-course graduate digital lab, and two advanced seminars. Every year, she sponsors thesis students, independent studies, and research projects at the graduate and undergraduate levels, which result in built work, awards, exhibits, and publications. While covering design curricula, Prof. Brause frames problems within a critical context and asks students to contend with some of the forces shaping architectural practice, such as resource scarcity, urban vacancy, and post-oil development. By modeling ways to address these challenges through design, her students can respond meaningfully to these issues in their careers.

Selected Course Examples

ARCH 400 The Ark Studio In this undergraduate studio, Brause features making at a variety of scales, including full-scale prototyping, to generate a tectonic agenda for their work. Her students gain collaborative skills by working together on research and design projects. In a recent iteration, the *Ark Studio*, students considered the architectural implications of the cross-species cohabitation necessary for post-oil resilient community design.

ARCH 404 The LightHouse In this senior level Civic Engagement and Service-Learning studio, Prof. Brause exposed students to community engagement and digital fabrication practices. Her students devised participatory design strategies to work with students from their community partner, an alternative middle and high school.

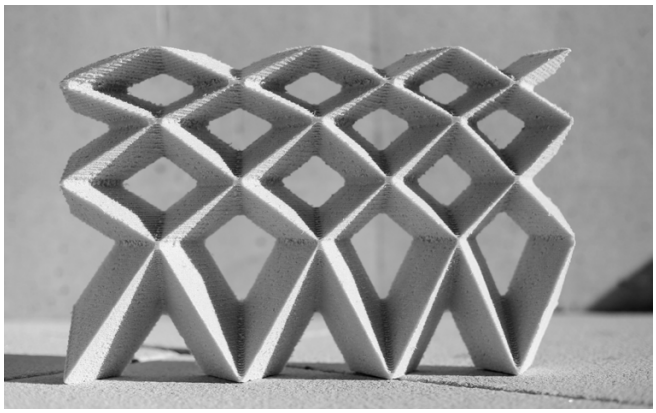
Arch 541 Digital Fabrication Lab Prof. Brause designed this fabrication course to emphasize material explorations, tooling operations, and a file-to-fabrication workflow.

Selected Exhibits & Presentations related to Design Pedagogy

2018 "Begin with Why: Values and Ethics in Beginning Design," ACSA Annual Meeting, Denver
2017 "Housing the Urban Animal," ACSA Annual Meeting, Detroit
2016 "Housing the Urban Animal," Exhibit NYPOP Gallery, NYC
2014 "The Ark: Grafting Productive Programs onto Contemporary Waste-space," ACSA/AIK International Conference, Seoul

Declaration of Responsibility
I have personal knowledge of the nominee's responsibility for the project listed above.

Stephen Schreiber FAIA
Chair, Department of Architecture
University of Massachusetts Amherst



Selected Course Examples and Feedback

Arch 541 Digital Fabrication Lab
In this lab, Brause's students explore tools' potential and constraints, as they experiment, iterate, and fabricate. Her process provides an immediate feedback loop for their beginning design investigations, many of which connect to their studio projects.

"The strength of this course is the fact that it merges technical skills with theoretical thinking as well as workflow management. I think this course ties those different modes of learning well together in a mutually supportive way."
- Arch 541 anonymous course evaluation

"I felt that the course is designed in a way that many different individuals can feel comfortable with the work that they have to do to feel productive in the class, and come away with more knowledge than before."
- Arch 541 anonymous course evaluation

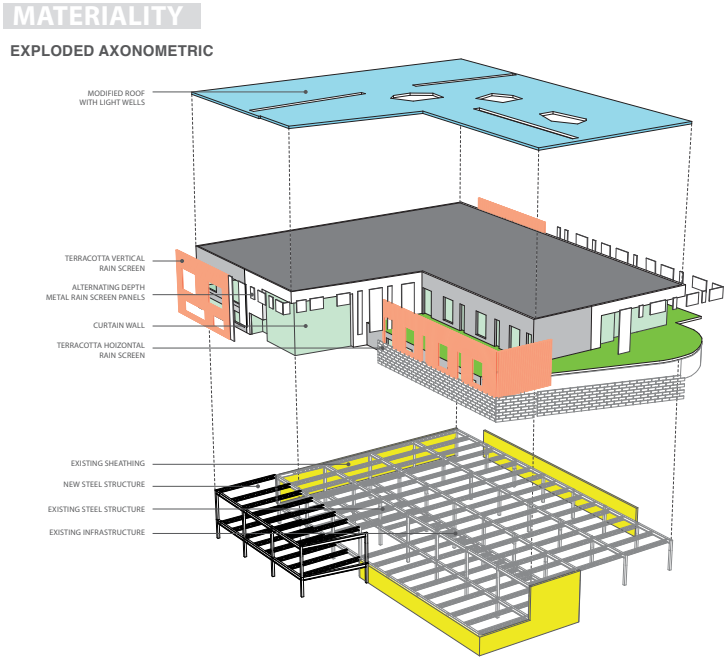
Student Work by Dylan Brown and Xing Yu

Arch 404 The LightHouse Community Engagement & Digital Fabrication Studio

Brause first identified a set of needs with her community partner. She then led a studio to develop designs for an adjacent parking lot to be used for academic outdoor activities. Working with their middle and high school clients, Brause's students co-designed the underutilized outdoor space. Once the site designs were complete, they prototyped and digitally fabricated custom furniture elements.

"My students enjoyed learning about design process very much. From my perspective, seeing them developing their speaking and critical thinking skills, and most especially, learning to see college and inspiring careers as real possibilities, was an absolute joy. Thank you for giving them access to a potential world of possibility."
- Catherine Gobron, Co-Director LightHouse Holyoke

Student Work by Maggie Cassidy, Molly Clark, Zhenxing Gu, Philip Rizzo, Wandy Pascoal, Lindsay Todaro, Jordan Young

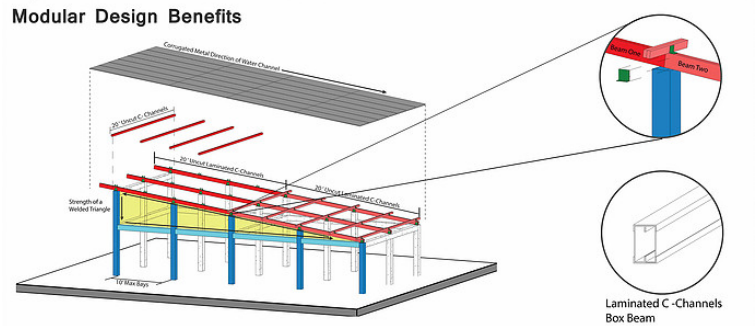


Selected Thesis Advisees & Projects

From Vacant to Vibrant: Proposing a New Approach to the Anchor Space Typology

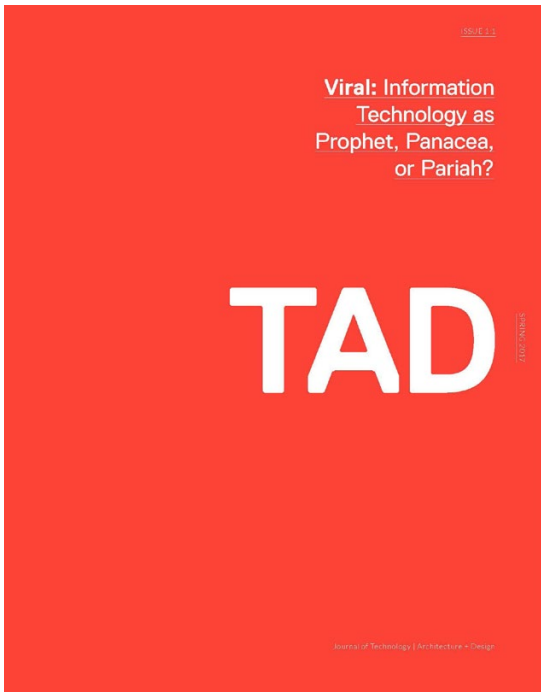
"I would like to acknowledge the profound role that Professor Brause has played in my academic and professional development...Brause's genuine interest and active engagement in my success have influenced me tremendously and have helped me to secure summer, academic-year, and full-time employment opportunities... It is worth noting that Brause has developed similarly strong and meaningful connections with many students, both graduate and undergraduate. Furthermore, Brause's unique ability to truly understand and appreciate students' diverse goals and skill levels enables her to effectively guide her students and develop pedagogical approaches to design and digital education that reflect this diversity."

- Samantha Greenberg Dubroshin, M. Arch 2014



Building Hope: Community Building and Water Initiative
Christopher Mansfield, M.Arch 2016
2016 AIA Annual Emerging Professionals Exhibition
2016 Third United Nations Conference on Housing and Urban Sustainable Design Exhibition
2016 Greenbuild Los Angeles Exhibition

Technology | Architecture + Design



Role of Nominee: Founding Editorial Board Member and Design Editor
Publisher: Taylor & Francis
Dates of Activity: 2015 - present
Image Credits: Authors as noted

Declaration of Responsibility
I have personal knowledge of the nominee's responsibility for the project listed above.

Andrzej Zarzycki
Executive Editor, Technology | Architecture + Design Volumes 1 and 2
Associate Professor, NJIT

Prof. Brause and her fellow founding editorial board members created the journal of *Technology | Architecture + Design (TAD)* to provide a central, peer-reviewed venue for architectural and building technology researchers.

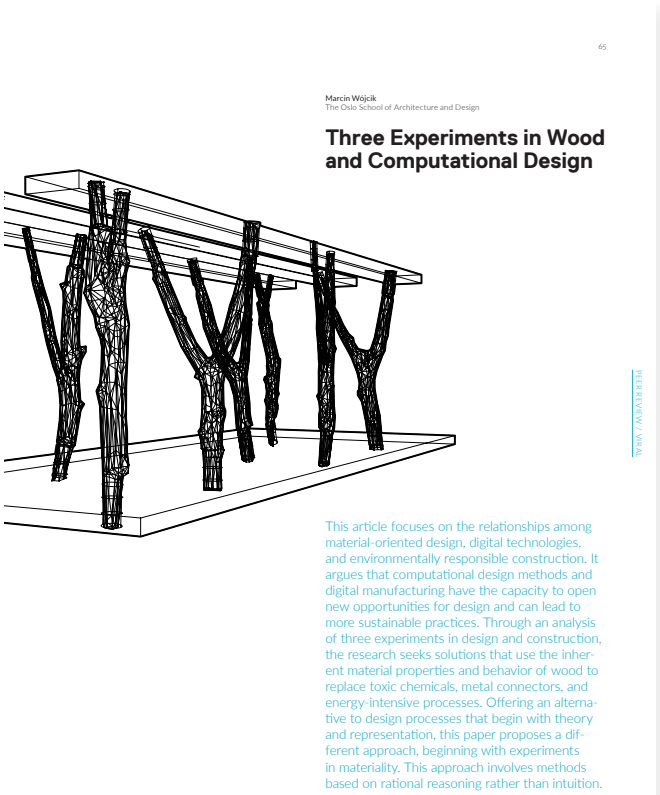
Brause and her collaborators identified a lack of publishing opportunities focused on building technology research and its integration with design, obtained support from the AIA and the Building Technology Educators Society, and formally established TAD in 2017, creating the first new journal sponsored and published by the Association of Collegiate Schools of Architecture (ACSA) in seventy years. Aimed at researchers, educators, and practitioners, the journal advances current discourse on building based technologies and their role in architecture and design.

In May 2017, Prof. Brause and her colleagues published TAD's first volume. Within the first three years, they achieved a competitive acceptance rate of 22%. In the first seven issues, she and her colleagues published forty-one peer-reviewed papers featuring original research in Environmental Design, Digital Design, History of Building Technology, Project Delivery, Health and Wellbeing, and Research Methods. Collectively, thse papers demonstrate the global, interdisciplinary and collaborative nature of architectural research. Moreover, Prof. Brause and her fellow editors actively solicit articles to advance the culture of research in architecture, a field where only one-third of faculty have advanced research degrees.

Prof. Brause and her colleagues have created a unique, finely crafted journal that infuses visual thinking into every aspect of the publication and its wide-ranging research topics. As the journal's first Design Editor, Brause was the leading voice on the Editorial Board responsible for shaping the visual design of TAD. She ensured that even the most highly technical subject matters are presented in a way that renders them accessible to a broad design audience. As Design Editor, Brause worked with the Editorial Teams to articulate the value of research contributions through the language of design in order to increase the potential for practical translation.

Related Efforts: Selected Presentations & Workshops

2019 "Defining Your Research," Workshop, ACSA Annual Meeting, Pittsburgh
2018 "Architectural Research 101: What, How & Why?" AIA Conference on Architecture, NYC
2018 TAD Author Session Organizer, ACSA Annual Meeting, Denver
2018 "Defining Your Research," Workshop, ACSA Annual Meeting, Denver
2018 "Exploring/Defining the Research Landscape Within the Discipline of Architecture," Webinar Organizer and Moderator
2017 TAD Prospective Author Session, ACSA Annual Meeting, Detroit



Marcin Wójcik
The Oslo School of Architecture and Design

Three Experiments in Wood and Computational Design

This article focuses on the relationships among material-oriented design, digital technologies, and environmentally responsible construction. It argues that computational design methods and digital manufacturing have the capacity to open new opportunities for design and can lead to more sustainable practices. Through an analysis of three experiments in design and construction, the research seeks solutions that use the inherent material properties and behavior of wood to replace toxic chemicals, metal connectors, and energy-intensive processes. Offering an alternative to design processes that begin with theory and representation, this paper proposes a different approach, beginning with experiments in materiality. This approach involves methods based on rational reasoning rather than intuition.

PEER REVIEW / VIRAL

Page from TAD Issue 1:1 Viral
Role: Design Editor
Submitted Peer Review Article: "Three Experiments in Wood and Computational Design" by Marcin Wójcik

△ Figure 6. Taping of the floor pallets.

△ Figure 7. Shading factors from Diva.

TAD 1 : 2

advantage of exothermic solidification phase changes and endothermic melting phase changes in order to regulate space temperature. PhaseChange Energy Solution's BioPCM Mat M51 Q23 was incorporated into the interior walls in an amount based upon the heat load determined in WUFI Passive. The BioPCM Mat can provide an additional 580 kJ/m² of space conditioning with effective cooling in a range between 22°C and 23°C, and heating in a range between 19°C and 20°C. Adding PCM to the interior walls increased the specific heat capacity of the house from 60 Wh/m²K to 84 Wh/m²K. This contributes to a 0.6 kWh/m²K reduction in heating demand and a 1.6 kWh/m²K reduction in cooling demand.

Balancing Solar Gains: Design of Fenestration

Our project is punctuated on the North and South by two large glass facades. An East-West orientation was initially attractive because of the lighting effects in the morning and evening, but was ultimately rejected on the basis of energy modeling in WUFI-passive. Our simulations showed an unmanageably large spike in the cooling load in the morning and evening. The same model showed acceptable cooling load variations when the glazing surfaces of the house were given a North-South orientation. We concluded that we could achieve passive house performance even with large North and South windows.

Because two walls of our house are full glass facades, it was important to ensure that the glazing had the lowest possible thermal conductivity. Two main energy flows were balanced: convective heat loss from the space to the outside and solar heat gain into the house. These flows are controlled by the material properties of the glass assembly, primarily through manipulation of the solar energy transmittance coefficient, known as the g-value, and the heat transfer coefficient. Adjusting glass thickness, glass coatings, and cavity gas fillings achieved changes in g-value and U-value. The final window specifications were decided based upon the WUFI model that takes into account the U-value and g-values determined by Calumen II.

Our WUFI Passive model made it very apparent that unique glazing assemblies were needed for the South and for the North. In the winter, the house relies on solar gain to meet passive house heating load criteria as well as the annual heating demand. The WUFI-passive model confirmed that increasing the energy transmittance value on the south glazing significantly reduced the heating load. The tradeoff is that high g-value windows generally provide less thermal resistance. The North glazing experiences very little direct irradiance, especially during the winter, when solar gains would be desirable. Our analysis revealed that the North window experienced more thermal loss than gain, regardless of glazing choice. For this reason it was clear that the lowest possible U-value window was desirable, which also meant reducing the g-value of the window.

Ultimately, design iterations based on the results of the WUFI and Calumen II simulations yielded two triple-pane glass solutions. On the South facade the glazing is composed of 6 mm of clear glass, 16 mm of 95% Krypton, 4 mm of glass, 16 mm of 95% Krypton then finally 6 mm of glass with a low-emissivity coating. This assembly gives a window with a U-value of 0.53 W/m²K and g-value of 0.520. The North facade is composed of 6 mm of glass with a low-gain coating, 16 mm of 95% krypton, 4 mm of glass, 16 mm of 95% krypton and finally 6 mm of glass with a low-emissivity coating. This assembly gives a U-value of 0.42 W/m²K and a g-value of 0.229. The frame themselves are made of clear pine with a thermal break consisting of purenit and are structurally anchored to a frame of finished LVL. This yielded a window frame U-value of 0.737.

The exterior tensile membrane for the house was designed to act as a summer shading structure. Shading factor calculations were performed on the southern glazing using DIVA (Figure 7). The resulting seasonal shading factors were then input into

Page from TAD Issue 1:2 Simulation
Role: Design Editor
Submitted Peer Review Article: "Performance Based Simulations for Membrane-based Enclosures" by Helen Bergstrom, Ryan Abendroth, Jonathan Knowles, and Derek Stein

"A personal note of gratitude: Just received my print copy of TAD 1:1. It's substantive, engaging, beautiful... truly fantastic! Grateful for the dedication that has made this possible."

- Marilys R. Nepomechie FAIA
2015-2016 President Association of Collegiate Schools of Architecture

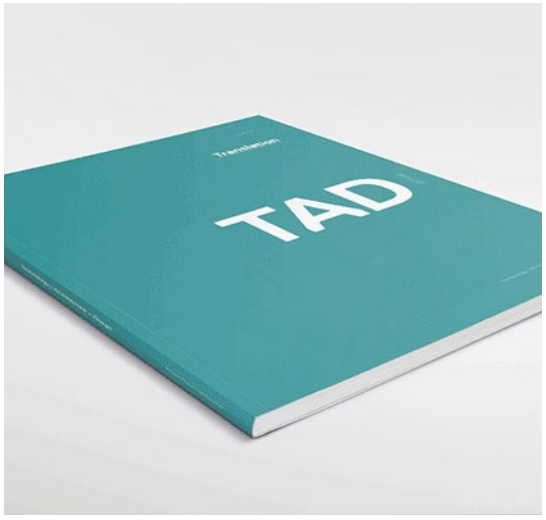
"I can say that I have heard many positive comments from people who have seen Issue 1. People are duly impressed. Amazing job!"

- John Cays, Associate Dean for Academics, New Jersey Institute of Technology

"The experience with the journal was exceedingly pleasant from the word go. The review process was fair, prompt and thorough and it improved the quality of our paper. Before the final print, it was ensured that the paper meets an exceptional standard of presentation. We also feel honoured to be a part of your inaugural issue."

- Mohamad T. Araji, PhD, Associate Professor, University of Manitoba

TAD 4:1 Translation



Role of Nominee: Issue Editor
Publisher: Taylor & Francis
Date of Publication: 2020
Image Credits: Authors as noted

For TAD Issue 4:1, *Translation*, Prof. Brause sought scholarly submissions, creative designs, and primary research that investigate the means by which design concepts become translated into the built environment. To accompany the submitted articles, she invited essays and research papers that advance architectural research capabilities.

Brause wrote the call for peer review submissions to address several areas of architectural investigation. First, the call asked submitters to discuss how new physical testing methods are diversifying and are impacting the design and decision-making processes. Brause published several papers that advanced this work, including an invited article on mass-timber performance-based codes by leading timber structural and fire safety engineers, and a peer review paper that applies rigorous analysis to a fundamentally unpredictable process––the natural formation of cracked clay patterns.

Second, Brause sought to expand venues for considering how underlying organizational structures enable, or present barriers to, architectural production. She asked submitters to consider whether new organizational forms are emerging and whether they are leading to transformations in architectural practice and production. She published several examples of scholarship in this area, among them an invited paper that describes the organizational structure of an international transdisciplinary research project studying the integration of aquaponics in urban environments and a peer review paper that analyzes Guastavino specifications to generate insights into historical changes in the design and construction industry.

Brause particularly highlighted the potential for social science methods to advance architectural research agendas. For example, she invited the founder of a layout automation startup to describe the anthropological methods they employed to develop a product for the construction market. As a counterpoint, she invited a paper from an interdisciplinary team who are critically interrogating the development, deployment, and impact of artificial intelligence technologies on the future of equitable work. She also published papers featuring an openness to expanded methodological strategies, among them an invited paper employing open-access data sets to demonstrate how researchers can frame inquiries and test hypotheses about the built environment using quantitative social science methods. Through these invited and peer reviewed submissions, Prof. Brause stimulated research in areas of the field with limited architectural research precedents.

Related Presentations

2020 "Process of Design to Realization: TAD Authors Panel," ACSA Annual Meeting

Declaration of Responsibility
I have personal knowledge of the nominee's responsibility for the project listed above.

Marci S. Uihlein, PE, M.ASCE, Assoc. AIA
Executive Editor, Technology | Architecture + Design Volumes 3 - 5
Associate Professor, University of Illinois at Urbana-Champaign

Fabric-Lined Tensile Formwork 64

△ Figure 9. System-B full-scale prototype: deployment series.

△ Figure 10. System-B control cast: photo series of the control cast, further investigating the location tolerances of the mechanical anchors and the secondary weave's ability to respond to varying lateral pressure in the formwork.

TAD 4 : 1

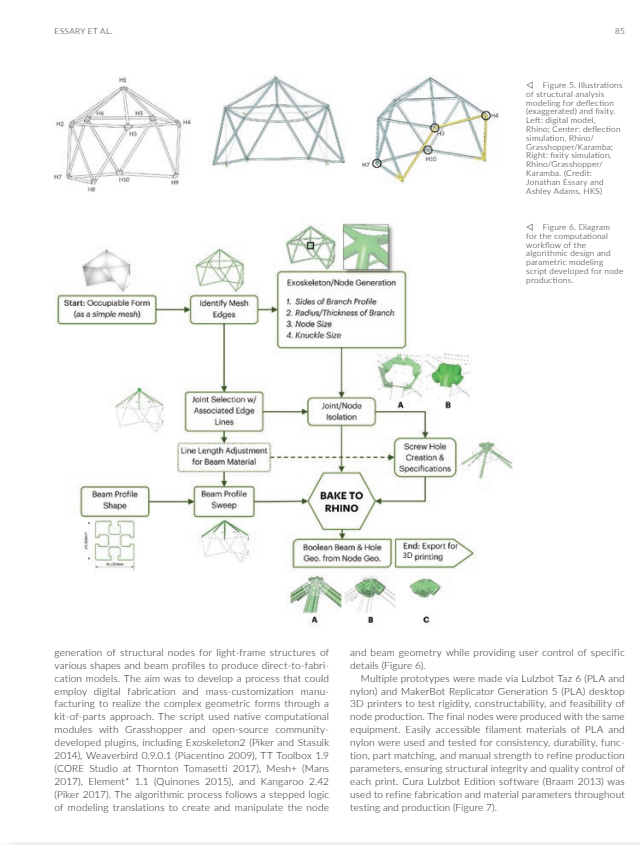
Concept Models

Initial concept models investigated Otto's Cushion Roofs (Roland 1970) as a means of eliminating the external scaffolding of the System-A prototype. Rather than the rigging, through its triangulation to the scaffolding, pulling the centerlines to locate the offset links in System-A, System-B used a floating compression member to push out those connection points. In the concept models, when the floating compression member was woven into place with a continuous twisted string line, the Tensegrity Cushion provided both control and an ability to tune the floating compression members' orientation (Figures 6 and 7).

Scaled Assemblies

A grid of six 12-inch × 12-inch (0.31 m x 031 m) Tensegrity Cushions, three wide by two tall, were established by staking four 36-inch (0.91 m) #3 rebar vertically at twelve inches on center (0.31 m). An additional six 16-inch (0.41 m) #3 rebar were used as the floating compression members of the Tensegrity Cushions. Twisted string line was used as temporary rigging for each of the floating compression members to allow for their adjustment once installed (Figure 8). Once all the floating members were tuned into the desired position, tie-wire replaced the twisted string line. This replacement of the continuous string with individually secured tie-wires fixed the floating compression members in their locations. The geometry was then reinforced with a layer of 3/4-inch (19 mm) chicken-wire mesh, which was folded and secured to the tie-wire guides. Drawing from the success of System-A 's offset links, System-B extended the length of the floating compression members. These *extension offsets*, like the offset links, allowed for the stitching of the flat-sheet fabric and maintained controlled coverage for the internal steel reinforcement. Like the System-A prototype, System-B had a secondary weave laced across the extension offsets. In this system, the secondary weave has the additional role of adding structural stability because the tensile

Page from Submitted Peer Review Article
"Fabric-Lined Tensile Formwork for Cast-in-Place Concrete Walls" by Kristopher Palagi



ESSARY ET AL. 85

◁ Figure 5. Illustrations of structural analysis modeling for deflection (exaggerated) and fixity. Left: digital model, Rhino; Center: deflection simulation, Rhino/Grasshopper/Karamba; Right: fixity simulation, Rhino/Grasshopper/Karamba. (Credit: Jonathan Essary and Ashley Adams, HKS)

◁ Figure 6. Diagram for the computational workflow of the algorithmic design and parametric modeling script developed for node productions.

generation of structural nodes for light-frame structures of various shapes and beam profiles to produce direct-to-fabrication models. The aim was to develop a process that could employ digital fabrication and mass-customization manufacturing to realize the complex geometric forms through a kit-of-parts approach. The script used native computational modules with Grasshopper and open-source community-developed plugins, including Exoskeleton2 (Piker and Stasuik 2014), Weaverbird 0.9.0.1 (Placentino 2009), TT Toolbox 1.9 (CORE Studio at Thornton Tomasetti 2017), Mesh+ (Mans 2017), Element* 1.1 (Quinones 2015), and Kangaroo 2.42 (Piker 2017). The algorithmic process follows a stepped logic of modeling translations to create and manipulate the node and beam geometry while providing user control of specific details (Figure 6).

Multiple prototypes were made via Lulzbot Taz 6 (PLA and nylon) and MakerBot Replicator Generation 5 (PLA) desktop 3D printers to test rigidity, constructability, and feasibility of node production. The final nodes were produced with the same equipment. Easily accessible filament materials of PLA and nylon were used and tested for consistency, durability, function, part matching, and manual strength to refine production parameters, ensuring structural integrity and quality control of each print. Cura Lulzbot Edition software (Braam 2013) was used to refine fabrication and material parameters throughout testing and production (Figure 7).

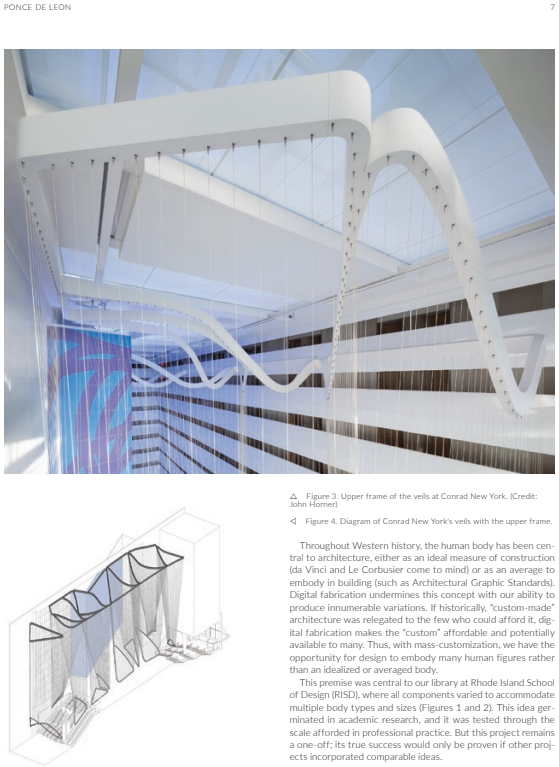
Page from Submitted Peer Review Article
"Making a Sensory Cocoon: Translating Discrete Sensory Needs into a Built Solution with Emerging Digital Fabrication Workflows" by Jonathan Essary, Giyoung Park, Lisa Adams & Upali Nanda, HKS

"The value of translation—of bridging the divide between concept and realization, between academia and practice—has been a core editorial mission of this journal since its inception. The work presented in this issue suggests that we need not position research and practice on opposing sides of a conceptual divide. The working methods that designers routinely bring to professional practice can be critical assets for developing more systematic yet unapologetically creative research practices. These habits of mind, such as the ability to recognize new problems and reconceptualize existing ones, to incorporate criticism, to be comfortable with ambiguity, and to change direction when the current problem-solving strategy proves ineffective, are essential for generating new knowledge. Thus, we might consider how the disciplinary logic and training of designers, architects, and engineers can inform a research agenda that, in turn, can nurture a more vibrant and sustainable built environment.

...Through a combination of creative framing and systematic exploration, the work in this issue of TAD cogently demonstrates how the knowledge platform of architectural research may be expanded to improve the built environment and contribute to the public good. In doing so, the work invokes a vital relationship between research and practice, breaking down perceived barriers to effective knowledge sharing."

- From Brause's Editorial "Creative Framing, Systematic Exploration"

Page from Invited Op/Position Essay



△ Figure 3. Upper frame of the veils at Conrad New York. (Credit: John Horner)

◁ Figure 4. Diagram of Conrad New York's veils with the upper frame.

Throughout Western history, the human body has been central to architecture, either as an ideal measure of construction (da Vinci and Le Corbusier come to mind) or as an average to embody in building (such as Architectural Graphic Standards). Digital fabrication undermines this concept with our ability to produce innumerable variations. If historically, "custom-made" architecture was relegated to the few who could afford it, digital fabrication makes the "custom" affordable and potentially available to many. Thus, with mass-customization, we have the opportunity for design to embody many human figures rather than an idealized or averaged body.

This premise was central to our library at Rhode Island School of Design (RISD), where all components varied to accommodate multiple body types and sizes (Figures 1 and 2). This idea germinated in academic research, and it was tested through the scale afforded in professional practice. But this project remains a one-off; its true success would only be proven if other projects incorporated comparable ideas.

"Architecture is one of the few fields where scholarship, creative practice, and technology have historically been intertwined... Yet our measures for academic success do not reflect this. Funding and dissemination have not favored projects that explore the translation and integration of research in architecture and design."

- Monica Ponce de Leon, Princeton University
"Research, Practice, and the Making of Architecture"

Pages from Invited Research Methodology Article

▷ Figure 2. Helsinki Central Library Oodi. (Credit: Tuomas Uusitalo)

▷ Figure 3. Main Entrance of Oodi. (Credit: City of Helsinki)

"The Helsinki Central Library, Oodi, is characterized by an ambitious, large-scale wood facade. To obtain the best possible wood quality and durability, the research team examined the whole production chain: from the procurement of raw materials to the maintenance of the finished facade.... Through a rewarding dialog between research and practice, a set of guidelines were developed for the Oodi cladding that set standards for future wood construction in Finland."

- Anna-Mikaela Kaila & Pekka Heikkinen, Aalto University
"Designing for Durability: Helsinki Central Library's Wood Facade"

EcoBuilding Bargains

Role of Nominee: Design Architect
Architect of Record: Stephen Jablonski AIA
Image Credits: Peter Mauss, ESTO
Location: Springfield, MA
Date of Completion: 2012

Declaration of Responsibility
I have personal knowledge of the nominee's responsibility for the project listed above.

John Majercak, Client
President, Center for EcoTechnology

Prof. Brause's award-winning renovation of a warehouse features exhaustive reuse of materials and building components across every level of construction, from structural elements and roofing materials to interior fixtures and furnishings. As sustainable building practices move beyond energy efficiency to focus on the overall reduction of the industry's carbon footprint, repurposing existing materials grows in importance.

The project, built for a non-profit whose mission includes advancing consumer practices around materials reuse, serves as a didactic tool to promote repurposing at all scales of architectural intervention. Brause's non-profit client pioneered the repurposing market in New England and their original store sold donated materials at below-retail prices. However, housed in a crowded maze-like space, the original store appealed primarily to industry insiders. To take reuse mainstream, the director purchased a warehouse on a larger, more convenient site to expand the center's deconstruction services and product offerings. The center simultaneously overhauled its brand, which Brause incorporated into the new façade, creating a highly visible street presence.

Brause's design for repurposing the vacant structure powerfully illustrates the non-profit's ethos. The facade design highlights the use of insulated metal panels as part of a deep energy retrofit while conveying the non-profit's message to passersby. Whereas these design moves telegraph big box reliability, her design for the entry vestibule and interior millwork present reused materials in a modern idiom. Through these design features, Brause encourages contractors and homeowners to think about design as a creative outgrowth of material properties.

Awards

2013 AIA New England Citation Award
2012 Western Massachusetts AIA Merit Award
2012 Western Massachusetts AIA People's Choice Award

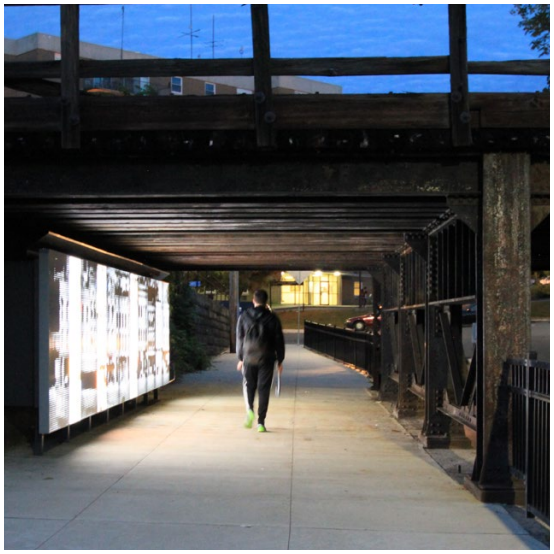
Related Efforts: Selected Exhibits, Presentations & Tours

2014 Northeast Sustainable Energy Association Meeting and Tour
2013 AIA New England Design Awards Exhibit, ABX, Boston
2013 Building Material Reuse Association DECON 13, Seattle
2013 Northeast Sustainable Energy Association Meeting and Tour
2013 Northeast Energy Efficiency Partnership Summit, Tour
2013 AIA New England Awards Exhibit, DCU Center, Worcester
2012 This Old House Television show, "Deconstruction & Design"
2012 AIA New England Conference, Burlington, VT
2012 "Be Local Build Local" WMAIA Exhibit, Northampton

"Caryn's approach brought together our mission and the technical and aesthetic aspirations for the new space into a beautiful, functional, cohesive reality. The space welcomes those we serve, clearly demonstrates and promotes our mission, and established an important landmark for our organization and its work."

- John Majercak, Client
President, Center for EcoTechnology

Arrivals



Role of Nominee: Co-Design Lead
Location: Holyoke, MA
Date of Completion: 2015
Image Credits: Center for Design Engagement

Prof. Brause and her collaborator won an open competition to create *Arrivals*, a public art and infrastructure project that transforms a key gateway between downtown Holyoke and an adjacent residential neighborhood. The project vividly captures Holyoke's rich immigrant and migrant experience by sharing their varied arrival stories.

For over 150 years, immigrants from Europe, Canada, and Puerto Rico have flocked to Holyoke to create a better life for themselves and their families. With each successive wave, these new inhabitants have redefined the former papermill town.

Arrivals is comprised of an LED-lit wall of digitally fabricated panels that depict an historic Main Street scene, representing Holyoke's history as an industrial textile and paper producing city. Set within the wall are three "story boxes" comprising excerpts of Holyoke resident's arrival stories. The stories, gathered through a series of public engagement sessions, capture a diverse cross section of residents—from those who were born here in the early part of the 20th century to those who have recently arrived. Importantly, the panels are in Spanish and English, which speaks to the demographics of adjacent neighborhoods, inviting participation in the public domain of a city that has been nourished by, but has not always been accessible, to non-English speakers.

Brause and her collaborator designed *Arrivals* to operate at several levels. As public infrastructure, it lights a formerly desolate underpass, providing a safe connection between a lower income neighborhood and the central business district. As public art, it reflects the many voices and the cultures that have shaped, and continue to shape, Holyoke's past, present and future. As a public engagement process, it provides a model for creating community receptivity for creative placemaking. As a local production, its perforated panels and LED lighting highlight the advanced capabilities of regional fabricators. Finally, the project signals municipal commitment to reinvestment in the neighborhood and aims to galvanize support for the future development of the adjacent historic, but now unused, H. H. Richardson train station.

Awards

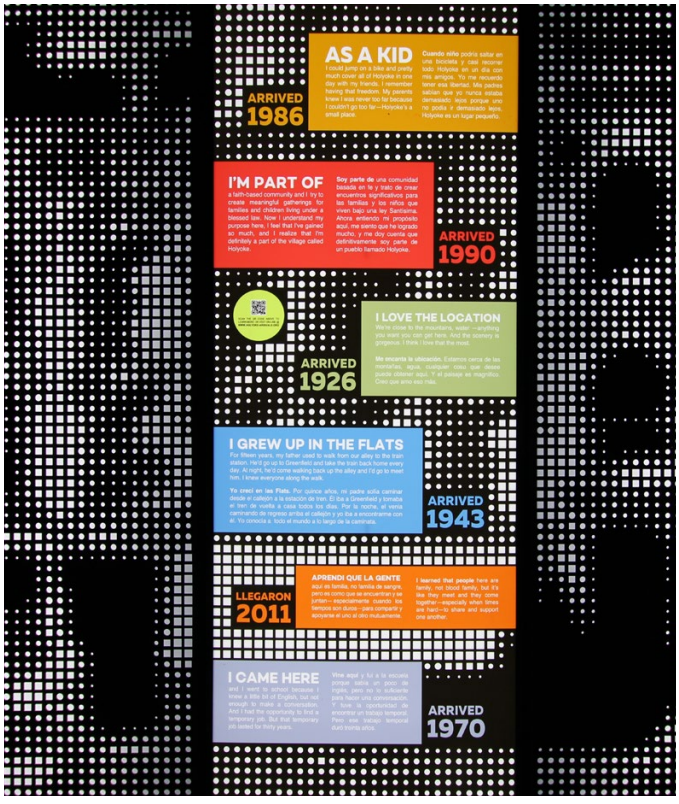
2016 Western Massachusetts AIA Citation Award
2015 Winner, Mosher Street Underpass Project Competition

Related Efforts: Selected Presentations and Public Outreach

2016 Annual ACSA Meeting, Seattle
2016 Multiple Artists' Tours and Talks, Holyoke
2015 Installation Opening, Artists' Tours and Talks, Celebrate Holyoke
2015 Field work and outreach, Holyoke Senior Center, Holyoke City Hall, Gateway City Arts, Congregation Bnai Zion, Holyoke

Declaration of Responsibility
I have personal knowledge of the nominee's responsibility for the project listed above.

Joseph Krupczynski
Director, Center for Design Engagement
Professor, University of Massachusetts Amherst



"Professor Brause was an integral author of the 'Arrivals' monument in Holyoke. It represents the first significant public art piece commissioned by the Morse administration and became the model by which all other public art projects in the City were pursued and judged. It has defied the projections of public art skeptics and met the goals & greatest hopes of its proponents. 'Arrivals' is now an indelible piece of Holyoke's identity in this neighborhood."

- Marcos A. Marrero, Director
Planning and Economic Development, City of Holyoke

El Corazón • The Heart of Holyoke

Role of Nominee: Co-Director, Co-Design Lead
Location: Holyoke, MA
Dates of Activity: 2016 - present
Image Credits: Center for Design Engagement

Declaration of Responsibility
I have personal knowledge of the nominee's responsibility for the project listed above.

Joseph Krupczynski
Director, Center for Design Engagement
Professor, University of Massachusetts Amherst

El Corazón • The Heart of Holyoke is a creative place-making project whose primary objective is to develop spaces and places of belonging and inclusion for the largest per-capita Puerto Rican community in the diaspora.

Prof. Brause and her collaborators are developing *El Corazón* with a Public Art and Creative Placemaking Master Planning process supported by an NEA "Our Town" award and significant public and private matching funds. The master plan is progressing concurrently with community-based efforts to increase the visibility of the Puerto Rican Cultural Area, newly created to celebrate the cultural vitality of the city's Latinx population. These efforts aim to improve neighborhood perceptions, increase cultural pride, and provide economic opportunities for residents in the context of dual challenges: longtime ethnic marginalization and the recent influx of climate migrants from Puerto Rico.

Through broad strategic engagement, the master plan proposes a series of public art and infrastructure projects along Holyoke's Main Street that aim to be reflective of a complex understanding of cultural heritage and to create places firmly rooted in a multivalent diasporic cultural identity. These creative improvements include two decommissioned electrical towers that are being transformed into gateway markers for the district through dramatic lighting and bold imagery. In addition, large-scale artistic building wraps, participatory murals, site-specific installations, and a temporary pavilion will be at located at the heart of the district. These projects aim to catalyze artistic, economic, and cultural activity along a four-block section where many Puerto Rican community-based organizations and businesses are situated. All of the work will be developed through residents' engagement with Latinx artists.

Aware that normative models of creative place-making can result in gentrification and displacement, Brause and her collaborators are developing the process for *El Corazón* with an approach that emphasizes a restorative and social justice framework. Each of the planned artistic works proposes to engage community history, and highlights the creative and social capital of Holyoke's vibrant Puerto Rican community.

Grants, Honors & Awards

2020 Holyoke Local Cultural Council Grant
2019 Commonwealth Place Program, Mass Development
2018 Bloomberg Philanthropies Public Art Challenge Finalist
2016 National Endowment for the Arts "Our Town" Award

Related Efforts: Selected Presentations and Public Outreach

2019 EDRA 50 Sustainable Urban Environments, Brooklyn
2019 Multiple Crowdfunding Events and Celebrations, Holyoke
2018 Puerto Rican Poetry Reading and Interactive Workshop, Holyoke
2018 Puerto Rican Activists + DIY Silkscreening Event, Holyoke

"'El Corazón/The Heart of Holyoke' project started as a collaboration between the City, Professor Brause, and others to plan for long-term placemaking interventions in the City's Puerto Rican Cultural Area. Her work to produce the project's master plan has been the base that has guided and now propels community involvement, fundraising, artist selection, and installations for this landmark initiative in the City. Her architectural know-how continuously untangles the most complex logistics in the project as we prepare to procure our most impressive public art installations to date."

- Marcos A. Marrero, Director
Planning and Economic Development, City of Holyoke