Collaborative Design Practice as Pedagogy

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Collaborative design practice provides opportunities for architectural education to disavow the trope of the hero architect, flip the power dynamic of client and designer, and engage with complex social and ecological challenges. At the same time, questions of impact, relevance, equity, design quality, and efficacy abound when considering these models. Focused on the "why", but grounded in both the "how" and "now", this paper explores the complexity of community-engaged collaborative design practice with a bias towards action. The authors explore existing efforts and identify new ways for collaborative design practice to serve as a critical component of architectural education at their respective institutions. The keywords which shape this paper -- co-creation, collaboration, and coalition and capacity building -- also frame the work of the two community design centers which serve as the grounding case studies. The paper represents and reflects on collective lessons learned, burning questions and current challenges and existing models of collaborative practice.

COLLABORATIVE DESIGN PRACTICE AS PEDAGOGY

Collaborative practice takes many different forms in the academy, in practice and in between. The authors offer the perspective of two university-based community design centers; however, lessons discussed here are relevant to other models of collaborative practice, including but not limited to interdisciplinary academic programs and practices, research studios and faculty practices. Faculty and designers are approaching this topic from multiple angles nationwide. The 2019 ACSA Fall Conference provided an opportunity to discuss issues related to teaching collaborative practice more broadly. The conversation is detailed later in this paper.

The Detroit Collaborative Design Center (DCDC) at the University of Detroit Mercy and the Albert and Tina Small Center for Collaborative Design (Small Center) at Tulane University serve as two models for collaborative practice. The two teaching practices are part of a larger trajectory of community design centers and engaged teaching and practice, the history of which is not detailed here. This paper focuses on DCDC and the Small Center as case studies on the pedagogical implications of collaborative design practice and how models for collaborative practice intersect with and inform related teaching methods and learning outcomes.

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TWO MODELS FOR COLLABORATIVE PRACTICE: DETROIT COLLABORATIVE DESIGN CENTER

The Detroit Collaborative Design Center (DCDC) is a nonprofit multidisciplinary community design center based at the University of Detroit Mercy. Over the past 25 years, DCDC has partnered with community groups and nonprofit organizations throughout the city on a range of design projects, from community bulletin boards to building rehabilitation and park design to neighborhood plans. Increasingly, DCDC works with the City of Detroit and collaborative interdisciplinary teams on neighborhood planning and projects at the intersection of infrastructure, policy and community. Typically, DCDC is invited into a process by local partners and focuses on creative and impactful community engagement and participation in the planning and design process. Underlying tenets include that the best designs are found at the confluence of community expertise and discipline expertise, and that residents should have an active role in the decision making that impacts their built environment. This focus on an engaged and collaborative design process also defines DCDC's role in the University of Detroit Mercy School of Architecture (SOA) curriculum and pedagogy.

DCDC operates much like a teaching hospital -- student interns work alongside a full time multi-disciplinary professional staff, learning the practice of collaborative community design by participating in the profession. This is one of the primary ways that DCDC engages in the SOA curriculum. Architecture students graduate with two semesters of full time work experience as a result of the SOA's coop program. DCDC hosts two to four students every semester and asks students to participate in all aspects of collaborative design practice -- from partner and community meetings to drawings and documentation. In turn, students observe and participate in collaborative practice, learning how to listen, navigate diverse perspectives, incorporate new ideas into the design process, and communicate design decisions.

DCDC is also engaged with the SOA curriculum in the classroom. DCDC staff designers lead a yearly Public Interest Design Studio, which guides students as they engage with neighborhood circumstances and a Detroit context. This studio also invites community partners into the design process, providing students with their first opportunity to integrate diverse



Figure 1. DCDC student interns work alongside professional staff preparing for and participating in community design workshops.

perspectives into their design process and intentions. Learning outcomes also include relevant verbal and visual communication skills and an understanding of the larger community context in which student projects operate, each integral to collaborative practice. In addition to the studio setting, DCDC staff has also worked with other SOA faculty to develop an initial Public Interest Design module that is in the process of being integrated throughout the student experience over the course of four or five years. After an introduction to PID concepts in an introductory course in their first year, second year students are exposed to key concepts in site analysis, observation and community engagement, emphasizing learning outcomes tied to interpreting and responding to a range of experiences and perspectives as part of the design process.

Finally, the SOA is also home to a Master of Community Development (MCD) program, which offers a holistic approach to the theory and practice of community development with a foundation rooted in service, social justice, and sustainability. DCDC staff teach courses cross-listed in the MCD and Architecture programs focusing on physical development and community engagement, underscoring collaborative practice in the context of a community development framework. The discussion that follows further unpacks how collaborative design practice contributes to educational opportunities and pedagogical outcomes.

THE ALBERT AND TINA SMALL CENTER FOR COLLABORATIVE DESIGN

The Albert and Tina Small Center for Collaborative Design is the community design center of Tulane University's School of Architecture (SOA). Founded in 2005, the Small Center serves as the primary community outreach arm of the SOA and provides pro-bono design services to non-profit organizations and community groups in Orleans Parish by responding to community identified needs through an annual Request For Proposal process. Developed in partnership, the Small Center's projects fall into four categories: design/build, architectural visioning/urban design, graphic design advocacy, and public programming. Underpinning the Center's work are two tenets: all residents should have the right to shape the city in which they live, work and play and collaborative design processes can build capacity and coalitions at the scale of the organization and that of the city.

These tenets take tangible form in the SOA curriculum through elective course offerings; both studios and seminars. The design build option studio is open to 4th-5th year undergraduate and all graduate students. Students bring projects from design to completion through a semester long studio in which a collaborative design process is embedded. This embedded collaborative design process and the nature of design-build pedagogy ensures that students gain not only technical skills, but also communication and leadership skills that prepare them for professional practice. Completed design/build projects are typically smaller in scale ranging from shaded outdoor classrooms and playscapes to bookstore renovations and pavilions. In contrast, elective seminars, including the Public Interest Design seminar, provide an opportunity for undergraduate and graduate students from multiple disciplines to explore theory and practice of PID through specific topics including health, water, affordable housing and public space. Students deepen their understanding of the complexity of these issues and others connected to the built environment through assignments which require partner collaboration, traditional research, site analysis and observation along with the development of design responses.

Beyond the curriculum, the Public Interest Design Summer Fellowship is an eight week summer fellowship for Tulane SOA upper level undergraduate and graduate students. Four to six students work closely with Center staff and partner organizations to bring projects to fruition. Through design build, graphic design advocacy, tactile urbanism, and community based research projects, students learn all aspects of collaborative design practice, from initial conversations with partners to clarify and deepen understanding of needs and broader stakeholders, to project timeline and budget management,



Figure 2: Students learn to "lead" by involvement in the collaborative design process.

and iterative design processes. Alumni surveys indicate that this experience provides an excellent introduction to professional practice and students have the opportunity to gain IDP credit. Students also engage with the Small Center's collaborative design process through independent study, graduate research fellowships, paid work and thesis projects.

KEY PEDAGOGICAL OUTCOMES

The collaborative design process offers opportunities for learning outcomes that reflect the hierarchical Bloom's taxonomy: remember, understand, apply, analyze, evaluate and create. Students gain knowledge of specific issues, needs and context. Working with community partners requires students to articulate their ideas to non-architects as well as use their skills in non-traditional architectural studio settings. The iterative design process inherently requires students to question and test their ideas as they create. Several key pedagogical goals and learning outcomes are at the core of how collaborative practice at DCDC and the Small Center intersect with educational opportunities.

COMMUNICATION SKILLS

Although essential to all fields and practices, communication skills -- and their application -- are essential to collaborative design. This extends to student work, project teams, interdisciplinary collaboration, and community-engaged design, all of which are central to the work and processes of DCDC and the Small Center in practice and pedagogy. DCDC focuses on community-engaged design, through which design development seeks to merge community expertise and technical expertise, requiring thoughtful communication skills.

For DCDC, teaching communication skills is integrated into the coop intern experience as well as the Public Interest Design Studio and other coursework. Working alongside professional staff, student interns at DCDC prepare for and attend community meetings, events and other activities, contributing to the development of strategies to effectively involve stakeholders in design decision making. They document engagement processes and participate in design processes, integrating local expertise and a range of perspectives. This builds skills related to designing engagement tactics and preparing to listen, clearly communicating design ideas graphically and verbally, active listening, navigating and valuing diverse perspectives, and subsequently integrating what's been said and heard into design projects and practice.

Similarly, the Public Interest Design studio series seeks to expose students to Detroit neighborhoods and diverse local perspectives. In turn, students learn how to first listen to stakeholder feedback and then interpret design implications and apply what they've heard to their studio projects and design development. They also gain experience communicating their design ideas verbally and graphically beyond the bounds of architecture school.

As heard from participants at the ACSA 2019 Fall Conference, listening and communications skills should have greater presence in architecture pedagogy and design education. Participants at the Fall Conference also introduced other related learning outcomes to the conversation about teaching communication skills. Conflict resolution was raised as a key learning outcome tied to collaborative practice, and communication skills were also highlighted as key to successfully working in teams -- in the classroom and beyond.

LEADERSHIP SKILLS

Collaborative practice requires embracing alternative models of leadership that move the architect and those with professional design expertise from being the "sage on the stage" to being one of many voices. A leader in this process facilitates by listening, observing and valuing multiple forms of expertise; knowing when to step in and step back and understanding how to navigate diverse perspectives to move the design process forward. This reframing of leadership is modeled in practice and integrated into pedagogy of the Small Center and DCDC.

At the Small Center, students gain these skills as they work with faculty, staff and community partners to bring projects from ideation to completion in both curricular and non-curricular settings. For example, graduate research fellows participate in the engagement process including individual partner meetings, focus groups with stakeholders and design charrettes, all



Figure 3: Public Interest Design Studio students hear from DCDC community partners in Southwest Detroit. Credit: Erik Paul Howard

of which provide opportunities to hone facilitation skills Public Interest Design Summer Fellows gain a deeper understanding of partner organizations' work, challenges and dynamics by taking part in day to day operations. This deeper understanding leads students to identify gaps in their own knowledge and enhances their recognition of the value of community expertise. Traditional classroom settings provide opportunities for students to learn these skills as well. Upper level seminar courses require students to work together in teams and embed both written and verbal reflection into the syllabi through assignments.

TECHNICAL SKILLS

Ensuring the next generation of architects and designers have the skills to enter the profession is at the core of architectural pedagogy. Collaborative practice offers the opportunity to expand the definition of what are considered technical skills. A collaborative design process allows students to gain traditional design skills including drawing, drafting, rendering, programming and the like, but it also provides an opportunity to consider "soft" skills such as communication and leadership as core competencies. At the Small Center, the semester design-build option studio offers students the opportunity to learn technical design skills and to build their leadership and communication skills through collaborative design practice. Students begin the semester with both an introduction to the societal issue(s) the partner is working to address and an introduction to the wood shop and making. They learn best practices of community engagement throughout the semester, expanding beyond passive observation to more tactile and responsive forms of engagement that reflect the values, needs and work of the partner. Through these practices, students gain the ability to respond to divergent design priorities and more clearly articulate the design process and the reasoning behind individual design decisions. Students also learn project and budget management skills as the project moves from design to construction to completion. As they adapt and work within the constraints of budget, site and materials and the team, they continue to develop their problem solving and communication skills. The design/build studio creates an environment that is more reflective of professional practice, where teams are often the norm.

POWER DYNAMICS

Zooming out to broader pedagogical goals and learning outcomes, collaborative practice requires an understanding of power dynamics at a range of scales and in a variety of contexts. Players in any project may include government, consultants, nonprofits, community groups, residents, media, philanthropy, faith-based institutions, and a range of other stakeholders. Understanding that the designer -- or community developer -- is part of any power dynamic and project structure is an important lesson in the classroom and in practice. This lesson in turn enables students to more thoughtfully approach a project and understand their impact on its outcome. Similarly, teaching power dynamics in collaborative practice can offer lessons on how designers can leverage their position to play a facilitation role, in acknowledgement that leadership often means navigating diverse perspectives. Indeed, learning outcomes tied to power structures have implications for other goals outlined here, specifically leadership skills, listening and other communication skills, and intentional interdisciplinary practice.

Understanding how to navigate power dynamics and leverage awareness toward an engaged and responsive design process and product are challenging lessons. In the Detroit Mercy Master of Community Development program based in the School of Architecture, students learn power mapping as a tool in community development processes, gaining an understanding of who is participating, who holds authority, and who is impacted by decision-making. This lesson can also be applied to opportunities in the architecture curriculum that position students in a real world context.

ADDRESSING EQUITY

Finally, as community design centers, DCDC and the Small Center work toward larger issues of equity and social justice in the built environment. In order to make a meaningful impact, designers must operate in concert with a range of interdisciplinary and community partners, necessitating collaborative models of practice. In this context, designers contribute to cross-sector efforts to address complex issues, in recognition that design alone cannot solve for inequity in our cities and communities. Though in many cases this is evolving, the designer as a collaborative actor situated in a collaborative context has not been the traditional framing within architectural education. Teaching collaborative practice allows students to understand how designers can work with a range of other actors across fields to affect change. Teaching collaborative practice also offers an educational opportunity to help students understand the structural issues that impact equity in the built environment and situate their work within a larger context. Several recent projects at the Detroit Collaborative Design Center situate design services within a larger public policy framework with implications for Detroit neighborhoods, making clear the larger context in which design can operate. Similarly, any studio project with a real world context can be framed through a wider lens, offering lessons on design as a function and input in terms of larger neighborhood, city and societal forces.

DISCUSSION: TEACHING AND FRAMING COLLABORATIVE PRACTICE

During the ACSA 2019 Fall Conference, the authors had the opportunity to share and discuss these ideas with peers and



Figure 4: Small Center Collaborative Design Process

faculty from across the country. Additional learning outcomes and skills important to teaching collaborative practice identified by participants included: self awareness and bias training; conflict resolution skills for both internal team dynamics and external relationships; and team building.

Participants also noted related issues that broadened the discussion and identified additional types of practice where collaborative lessons are relevant. One participant noted that key skills and learning outcomes related to collaborative practice also apply to large private firms, as well as working between the academy and practice. Collaborative practice is also relevant within architecture studio culture and dynamics, in addition to external relationships. Similarly, faculty relationships were identified as a type of collaborative practice. Finally, participants identified the question of authorship and the need to recognize questions of intellectual property and community research in the collaborative context.

Following an initial presentation and large group discussion, the authors asked participants to workshop their goals and challenges in the context of teaching collaborative practice and subsequently report out to the group. Participants cited ways in which they are already teaching toward collaborative practice or are positioning the question in their work and institutions. At some institutions, ethnographic research and related responsibilities are taught in an intro course, alongside diversity, inclusion and bias training. Another small group focused on the relationship between leadership models and



Figure 5: Students work together to build formwork for semester design-build studio.

collaborative practice, identifying the need to teach collaborative leadership skills in professional practice courses. Participants acknowledged that learning outcomes related to power dynamics have broad applications throughout academics and practice. In the context of two university-based community design centers sharing their models of teaching and practicing collaboration, there was a discussion of how design centers can represent the university in the larger community and staff can be seen as engagement specialists and resources on campus. From the perspective of some participants, design centers are uniquely situated to stay close to curriculum while also connecting to the larger context and skirting university politics.

In two more specific examples of collaborative settings, participants offered additional insights. In the context of faculty collaboration, the discussion focused on an interest to create formats and forums to learn the culture of different disciplines, identify avenues for faculty to share their work and find connections across disciplines, and create a centralized space to facilitate collaboration. In terms of student collaboration, participants identified a need for best practices in supporting collaborative working and team structures, particularly in terms of transparently communicating why students are teams, how teams were created, criteria and rationale, as well as a clear evaluation structure.

MOVING FORWARD

These conversations expand the framing of collaborative practice to extend to traditional architecture practice, faculty dynamics, university-community relationships, studio culture and cross-disciplinary opportunities. They also shed light on institutions propelling learning outcomes related to collaborative practice as well as remaining related challenges across programs. More cross-pollination, shared lessons and evaluation around collaborative pedagogical approaches are needed to expand and deepen our understanding of the impact of these efforts for students and alumni.