Public Interest Design Education Guidebook

Public Interest Design Education Guidebook: Curricula, Strategies, and SEED Academic Case Studies presents the pedagogical framework and collective curriculum necessary to teach public interest designers. The second book in Routledge’s Public Interest Design Guidebook series, the editors and contributors feature a range of learning competencies supported by distinct teaching strategies where educational and community-originated goals unite. Written in a guidebook format that includes projects from across design disciplines, this book describes the learning deemed most critical to pursuing an inclusive, informed design practice that meets the diverse needs of both students and community partners.

Featured chapter themes include Fundamental Skills, Intercultural Competencies, Engaging the Field Experience, Inclusive Iteration, and Evaluating Student Learning. The book consists of practice-based and applied learning constructs that bridge community-based research with engaged learning and design practice. SEED (Social Economic Environmental Design) academic case studies introduce teaching strategies that reinforce project-specific learning objectives where solving social, economic, and environmental issues unites the efforts of communities, student designers, and educators. This comprehensive publication also contains indices devoted to learning objectives cross-referenced from within the book as well as considerations for educational program development in public interest design.

Whether you are a student of design, an educator, or a designer, the breadth of projects and teaching strategies provided here will empower you to excel in your pursuit of public interest design.

Lisa M. Abendroth is a professor in the Communication Design program at Metropolitan State University of Denver in Colorado, USA. She is a SEED Network founding member and a recipient of the SEED Award for Leadership in Public Interest Design. Her work focuses on the social, economic, and environmental impacts of design created within the contexts of underserved people, places, and problems. Abendroth is a coeditor of the Public Interest Design Practice Guidebook: SEED Methodology, Case Studies, and Critical Issues (2016).
Bryan Bell founded Design Corps in 1991 with the mission to provide the benefits of design for the 98 percent without architects. Bell has published three books on public interest design. His work has been supported by the American Institute of Architects Latrobe Prize and through a Harvard Loeb Fellowship. His designs have been exhibited at the Venice Biennale and the Cooper Hewitt, Smithsonian Design Museum. Bell holds degrees from Princeton University, USA, and Yale University, USA. He teaches at North Carolina State University, USA.
Public Interest Design Education Guidebook
Curricula, Strategies, and SEED Academic Case Studies

Edited by Lisa M. Abendroth and Bryan Bell
Contents

Acknowledgments ix

Foreword: Can Public Interest Design Be Taught? Rahul Mehrotra xi

Introduction: Public Interest Design Pedagogy, Lisa M. Abendroth and Bryan Bell 1

Part 1, Public Interest Design Curricula 7

1. Whole-Systems Public Interest Design Education: Department of Landscape Architecture, University of Washington, Jeffrey Hou, Benjamin R. Spencer, and Daniel Winterbottom 8

2. Educating the Next Generation of Social Innovators: Designmatters at ArtCenter, Mariana Amatullo, Dan Gottlieb, Penny Herscovitch, and Susannah Ramshaw 22

3. Changing Practice, Practicing Change: The Graduate Certificate in Public Interest Design at Portland State University, R. Todd Ferry and Sergio Palleroni 34


5. Connecting Classrooms and Publics: The University of California, Davis, Center for Design in the Public Interest, Susan Verba, Sarah Perrault, and Tracy Manuel 59
6. Design (Education) to Create Meaningful Change: The Design for Social Impact Master’s Program at the University of the Arts, *Anthony Guido with Jeremy Beaudry, Jamer Hunt, Sharon Lefevre, Michael McAllister, and Jonas Milder* 70


8. From the Ground Up: Envisioning an MFA in Public Interest Design at Metropolitan State University of Denver, *Lisa M. Abendroth, Kelly Monico, and Peter Miles Bergman* 93

### Part 2, Educating the Public Interest Designer 105

#### Fundamental Skills

9. Fundamental Skills: Developing Social Literacy Through Practice-Based Learning, *Lee Davis and Mike Weikert* 107

10. The Edge Effect: PROJECT RE_, *John Folan* 111

11. Preparing to Design With: IMPACT Orientation, *Megan Clark and Shalini Agrawal* 117


#### Intercultural Competencies

13. Intercultural Competencies: Teaching the Intangible, *Ursula Hartig and Nina Pawlicki* 131


16. Addressing Air Pollution Impacts on Senior Citizens in Beijing, China: The International Urbanization Seminar, *Deland Chan* 147

#### Engaging the Field Experience


18. iZindaba Zokudla (Conversations About Food): Innovation in the Soweto Food System, *Angus Donald Campbell and Naudé Malan* 158


20. Advancing Resiliency: The Huxtable Fellowship in Civic Engagement and Service Learning, *Benjamin Peterson* 171

#### Inclusive Iteration

22. “Making” Change Together: Rust to Green’s Placemaking Praxis, Paula Horrigan 182
24. Examining Collaborative Efforts to Visualize Community Transformation: Alexandra Youth Precinct Project, Chris Harnish 195

Evaluating Student Learning
25. Evaluating Student Learning: Engaging Experience to Create Agents of Change, Nadia M. Anderson 202
26. Assessing Experiential Learning in Design Education: The Practice Department at the Boston Architectural College, Bethany Lundell Garver 206
27. Merging Research, Scholarship, and Community Engagement: Roche Health Center, Michael Zaretsky 214
28. Reflecting Through Razor Wire: The Environmental Justice in Prisons Project, Julie Stevens 220

Part 3, SEED Academic Case Studies 227
29. The SEED Process for Academia, Lisa M. Abendroth and Bryan Bell 228
30. SEED Academic Case Studies, Lisa M. Abendroth and Bryan Bell 231
   A. Design in Partnership With the Lama Foundation 232
   B. Pleasant Street Pedestrian Project 237
   C. A Social Approach to Design 243
   D. Cooperative Education at the Detroit Collaborative Design Center 248
   E. Com(m)a 254
   F. The Farm Rover 261
   G. On Site: Public Art and Design 266
   H. South of California Avenue 273
   I. With Sacramento 279
31. Afterword: A Public Interest Design Educational Platform, Thomas Fisher 285

Part 4, Appendix 291
Glossary 292
Biographies 302
Reading List 315
Appendix A: Learning Objective Index 318
Appendix B: Program Considerations Index 328
Image Credits 333
Index 340

Contents vii
There are many individuals who have been vital to this publication. First, we wish to acknowledge the contribution of our authors, their students, and community partners. Without their sustained efforts in the realm of community-based pedagogies this publication would not have been possible. They are the inspiration that has driven this publication from the very start.

Our deep appreciation goes to our peer-review team who extended their generosity of time and spirit in their assessment of projects for publication. Also, the five invited authors/teams in Part 2 have imparted a unifying vision to this part of the book. We are thankful for their contribution: Mike Weikert and Lee Davis, Nina Pawlicki and Ursula Hartig, Eduardo Staszowski, Benjamin R. Spencer, and Nadia M. Anderson.

The SEED Network founders, partners, members, and collaborators have our heartfelt thanks for evolving the vital exchange of knowledge we have today.

We wish to recognize Shannon Turlington for her prudent recommendations during the editing process. And we thank Eric Field for the technical creation and smooth operations of the SEED Evaluator.

Routledge has provided us with this opportunity for which we are grateful; thank you to our editorial team for ongoing publication development advice.

Thank you to our respective educational institutions, Metropolitan State University of Denver and North Carolina State University, which have supported our work in important and diverse ways.

Bryan would like to thank, for their valuable long-term support, the Board of Directors of Design Corps and the Edward W. Rose III Family Fund of the Dallas Foundation.
Our families have our unending gratitude. We thank you for your patience, love, and support. Lisa imparts her appreciation to her husband, Eric, and her parents, Peter and Nancy, for their enduring encouragement. Bryan would like to especially thank his wife, Victoria; his parents, Rubie and Bryan; and his children, Sky and Cole.

Lastly, we are thankful for the inspiration provided by our students who drive the requirement for enhanced understanding and application of public interest design pedagogies today and into the future.

Recognizing this work as the deep collaboration that these acknowledgments represent, and seeing this collective work as part of a broader discourse on the interconnected relationship between practice and pedagogy, we envision a future where public interest design practitioners are more and more supported through thoughtfully constructed and engaged learning pedagogies.

Notes

1 Nadia M. Anderson, Greta Buehrle, Shannon Criss, Lee Davis, Ursula Hartig, Nina Pawlicki, Michael Rios, Jota Samper, Benjamin R. Spencer, Eduardo Staszowski, and Mike Weikert.

2 Beth Chute, Emily Axtman, Andrew Sturm, Aaron Bowman, Evan Harrel, Elisa Iturbe, Drew Kepley, Jeremy Knoll, Melissa Tello, Melissa Threatt, and James Wheeler.
Today, the physical structures of human settlements around the globe are evolving—becoming more malleable, more fluid, and more open to change than the technologies and social institutions that generate them. Urban environments face ever-increasing flows of human movement, more frequent natural disasters, and iterative economic crises that modify the global investment of capital and affect the physical form of cities and their extended hinterlands. Furthermore, a general sense of inequity is emerging as one of the largest challenges for imagining the built environment. At a time in which change and the unexpected are the new normal, approaches to design—whether of the built environment or as a broader intervention in people’s lives—need to be more flexible. In this context, attributes like reversibility and openness are critical elements for articulating a more sustainable form of our habitats. How can we imagine transitions in this unpredictable, emerging landscape of demographic and economic shifts? How do practitioners concerned with the built environment partner with people to make these transitions happen? How does design become more vested in the public’s interest for the present as well as the future?

Starting in the 1960s, many alternative practices of engaging with the built environment emerged globally as a counterpoint to the perceived eraser of tradition, as well as nonparticipatory models that the “modern” project perpetuated. These alternative models first manifested themselves in the form of the architect as craftsperson—working directly with the builders and often with the community, essentially eliminating drawings as a medium to communicate design intentions. In other words, drawings and documents as the only means of instruction in the building process were deemed inadequate. Vigorous use of local materials and vernacular
construction techniques characterized the buildings that these practitioners created. The method of direct communication created a truly participatory process, with the bulk of the decisions left to the artisans and builders to make.

The early treatise by Christopher Alexander and others in the seminal book *A Pattern Language: Towns, Building, Construction* (New York: OUP USA, 1977) and, later, the more systemic approach in *Supports: An Alternative to Mass Housing* by John N. Habraken and Jonathan Teicher (Gateshead, UK: Urban International Press, 1999) are two examples of the theorization of this model. The representative work of Laurie Baker in Kerala, India, and Rural Studio in the United States grew out of this genre of practice. In this approach, flexibility in design intentions and open-endedness, where the construction process determines the final product, facilitate the easy incorporation of symbols, icons, and—most importantly—local building practices as a way to link architecture to the larger social and cultural traditions and economy of the region. In these practices was inherent the seed of public interest design as we have come to see it today.

The idea of placing the public interest at the center of design engagement was reenergized with new vigor in the 1990s, with the onslaught of globalization and the marginalization and displacement that ensued. This model of practice now encompasses architect activists and practitioners who have consciously chosen to be more reflective, to consider the consequences of their actions and ways they can effectively counter the global flows that marginalize both traditions and people. These practitioners enter into a potentially more fulfilling relationship with the site, its history, the community of users whose needs they address, and the members of the workforce who are their collaborators. Mainstream practitioners view this model of practice with great suspicion—perhaps as it challenges the more orthodox patterns of professional practice? These experiments are, in fact, carried on at the margins of conventional practice. By choosing to operate at the boundaries of the dominant structure of capital, these alternative practitioners, who work explicitly in the public’s interest, have made overt their moral choices in the face of globalization.

This model of practice is innovative in the matter of patronage; projects are sometimes supported by the state or the corporate sector in a compassionate mood (trusts, foundations, and so on), but more usually by nongovernmental organizations, charities, and similar patrons. In the same spirit, practitioners reject certain sources of patronage, such as developers and real estate speculators, and treat with suspicion technologies of mass production, such as reinforced cement concrete, steel, and an obsessive use of glass. In this way, the model demonstrates new directions and interpretations of sustainable design in the global context.

Exploration of alternative technologies and building methods is a recurring theme in this model. All decisions are based on community participation, resuscitating architecture from formal production processes by focusing on the lived experiences of users. This form of practice also acts as an important counterpoint to the protocol-driven corporate pattern of architecture and planning. The practice emphasizes an intimacy of scale, a direct involvement with building, and an activist preoccupation...
with political and civic issues that impinge on architecture. Practitioners make an argument for architectural diversity and acknowledge the differences that are critical to the evolution of relevant architecture. Moreover, recognition of human creativity acquires special meaning in the age of atomizing privatism. This access to a wider base of skills and concerns is especially important in the face of globalization, which has reduced the character of the built form to a thin veneer of glamour. Most critically, practitioners have the public’s interest in the outcomes of any design intervention at the center of their agenda; the goal is to have the public participate and, more importantly, benefit.

While public interest design often operates at a limited scale, this model of practice is firmly embedded in the socioeconomic milieu of the region. The model facilitates the engagement of social networks in the process of building and is characterized by cost-effective solutions—often derived from the conversion of social assets into financial ones in the way labor is engaged or material procured. Not overwhelmed by issues of architectural and aesthetic concerns, these buildings are often conceived with a looseness that allows for flexibility in terms of materials and the building process. Although this mode of practice has seen popular support among institutions, nongovernmental organizations, and intellectuals and has produced a significant amount of building, it often lacks cohesion in physical articulation and is sometimes reduced to caricatures of regional icons and images. While public interest design seemingly extends traditions and attempts to express an economy of means, its literal visual translation often subverts rather than extends vernacular traditions and can lack the aesthetic robustness that makes the vernacular idiom timeless.

Ironically, this position of privileging the visual should not be seen as contrary but rather as being a simultaneously valid aspiration. However, pedagogy seems to address one over the other. Thus, what does this recognition of alternative practices of design in the public interest mean for pedagogy? While there are currently more questions than answers, some of these questions open up a conversation for the future. How does education address this issue—does it accept and work with reinforcing this pluralism or try to recast the profession in a singular model? Can education simultaneously embrace these counterpoints to create schizophrenic architects, or is conformity a better alternative?

The real question in this discussion of orienting pedagogy for the public interest designer is whether reconciling these varied aspirations is possible at all. Practices that focus on public interest questions often evolve. Conventional practitioners stumble on these issues out of circumstance or while pursuing their own passions and commitments. Alternative practitioners interested in public interest design typically come from the institutions or practices that serve as incubators to nurture these alternative approaches and are often in circumstances where peer learning and support result in new directions. So can public interest design practice be taught?

Public Interest Design Education Guidebook: Curricula, Strategies, and SEED Academic Case Studies, edited by Lisa M. Abendroth and Bryan Bell, fills a crucial gap in grappling with this critical question. The two themes dominating the book
are interdisciplinary public interest design education and the Social Economic Environmental Design (SEED) process, which suggest new ways that the authentic learning from projects around the globe can inform pedagogy and vice versa. While the projects presented in the book are diverse, tackling specific challenges of participating partners and communities, the persistent thread is education: the education of student designers, the frameworks of public interest design pedagogy, and the communities affected by this work. All are crucial ingredients in the formation of the alternative practitioner for whom the public interest is at the heart of the practice.

The challenge of reorienting pedagogy to educate those students who might become alternative practitioners is the primary theme of the book. All of the contributors—educators, students, and project partners—share this mission. In addition to posing questions about the issues that need to be addressed in achieving this pedagogical mission, the book’s admirable ambition is articulating the SEED process, which asks, “What is the specific vision of success?” and “How is that vision to be measured?” The authors propose that learning objectives function as the much-needed lens through which to analyze student-centered learning outcomes to provide a universal reference within the language of pedagogy. The term for measurement in this context is assessment. These commonly accepted academic terms link design education to critical questions that the book seeks to answer in public interest design pedagogy and within the broader process of SEED.

This critical feedback loop and the structure in a pedagogical framework that the authors have established make this book an important resource for educating the public interest designer more globally. The book facilitates a network of practices by constructing a structure that allows and actually encourages all sorts of feedback loops, which support thinking and practice around public interest design. Addressing an academic audience of educators, students, scholars, and administrators, the Public Interest Design Education Guidebook explores how public interest design practice demands specialized instruction that embraces many core values. These values range from a deep investment in working locally through participatory practices with diverse and underrepresented stakeholders to the pursuit of an issue-based approach to problem solving that promotes longevity and sustainability.

The book also covers implementation of evaluation that is embedded in community-centered design work from a project’s start—that is, how to build community partnerships, how to assess student learning in conjunction with project development, how to incorporate service-learning and internships, and more. The book creates a tool kit for the practitioner and educator, as well as for the patron, to understand their own relationships. Its most powerful suggestion is that there is a blurring between the practice of advocacy in the interest of the public and the tools of advocacy. Today, these two things have to be intrinsically linked and coevolved by the advocate and the community.

Any shift in values and modes of practice that we bring to the profession has to be founded on a solid base of education—on values that inform how we
practice. Society invests in our training as architects with the express intention that we help imagine spatial possibilities in which human beings can lead better lives. In fact, public service and interest are intrinsically central to our purpose as design practitioners. Perhaps our training has to reclaim this mission once again to retrieve it from an amnesia that has engulfed us in the final decades of the twentieth century. The *Public Interest Design Education Guidebook* is a guide to nurturing this sensibility in a generation of designers to come.
Introduction

Public Interest Design Pedagogy

Lisa M. Abendroth and Bryan Bell

The goal of this publication is to advance the rigors of a comprehensive public interest design education and collective curriculum. The editors, along with a team of project peer-reviewers, have undertaken the vital task of identifying the best methods and pedagogical techniques embedded within public interest design education today. Subsequently these documented learning competencies together with teaching strategies help shape a vital landscape where academic and community-based goals unite. The inherent challenge was to ensure the information presented here is communicated in the clearest terms and in a manner that promotes relational understanding across audiences. The editors and contributors strive in earnest to move the profession forward by presenting a dialectic of pedagogies, a detailed account of the educational processes, systems, and interactions that empower engaged learning within communities and with community stakeholders. While a mutuality of efforts has galvanized public interest design as a viable profession, it is the attentive pedagogy of educators that will sustain it, offering new standards and practices that define this ever-evolving field.1

In this publication, the term public interest design2 functions as a unifier of diverse approaches and descriptions of inclusive community-based practices from across the fields of design.3 In recent years and the more distant past there has been steady momentum shaping a context for what public interest design might mean to the education and the practice of a designer. In his foreword to Expanding Architecture: Design as Activism (Bell and Wakeford 2008) Thomas Fisher (2008) ponders how education might respond to the necessary evolution of architectural practice in new and differing contexts (10). Donald Schön (1985) has also examined the evolution of architectural design education in the wake of “community architecture.” He points to
the question of whether a “traditional architectural education” best serves students stepping into previously undefined roles (Schön 1985, 3–4). Originally published in 1971, in *Design for the Real World: Human Ecology and Social Change*, Victor Papanek (1985) radically asserts, “The main trouble with design schools seems to be that they teach too much design and not enough about the ecological, social, economic, and political environment in which design takes place” (291).

The call to action has been palpable for quite some time. Today, the evidence of many individual and unified efforts to build transferrable knowledge of this field through pedagogy and practice is apparent. Yet, while there are a number of qualified public interest design educators, each offers a unique range of knowledge and experience. This variety has been productive in building pedagogical discourse but has yet to yield the fully developed, transparent, and interconnected cross-disciplinary scale needed within academia. The adverse result is that very often neither administrators, educators, nor students know what a complete education in public interest design includes.

The demand for design professionals capable of guiding this practice is growing. Students, educators, and administrators must be prepared to tackle the challenges and benefits of a pedagogy of engagement. An opportunity is presented in the creation of new theoretical frameworks that imagine future iterations for applied learning. A new era of education demands continued and dedicated research that maps, for example, educational approaches to the convergence of metacognitive and technical skill development. While educators are thoughtfully developing engaged teaching and research activities, much work remains. There is a need to understand the impact of these activities, both project results and student learning outcomes, on students themselves, the community partners, and institutions. The relatively recent evolution of diverse degrees, programs, and formats of study in this field fuel the necessity for this conversation.

The evidence of public interest design pedagogies are presented here in three primary sections of this publication. This structure was created to provide a baseline for examination of curricular perspectives, thematically driven project-based work along with case studies that demonstrate the rigor and evolving standard of pedagogy embedded within public interest design education.

Part 1: *Public Interest Design Curricula* presents eight chapters from faculty in distinct educational settings—public and private, research-based and teaching-based, undergraduate and graduate levels—from across design disciplines and throughout the United States. The authors reflect on the comprehensive nature of their integrated course work by presenting pedagogical goals and learning outcomes. These create a bridge between Part 1 chapters, demonstrating core curricular and learning takeaways helpful in comparing programs and approaches. Featured projects offer evidence that links educational frameworks with community-based efforts. Project goals, learning objectives, project outputs, and documentation of student learning through assessment of project results are discussed. Together these authors reveal an important transformation shaping schools that moves beyond typical design studio scenarios to
deeply contextualized problem solving working mutually with communities (NERCHE 2016) toward collectively identified goals and often in embedded situations.

Part 2: Educating the Public Interest Designer presents twenty chapters expressed through five themes that underscore the timely relevance of engaged pedagogy. Each thematic section begins with an introduction from an invited author who orients the theme within the landscape of public interest design pedagogy and connects the individual efforts of contributors in that section to a broader discourse. Fifteen double-blind, peer-reviewed chapters identified through an international call for projects constitutes the volume of this section. These chapters articulate a range of critical community-based methods and teaching strategies through applied project-based and practice-based learning that will help design educators envision new possibilities in their own pedagogies.

Chapter themes in Part 2 include the following topics:7

- As noted by authors Lee Davis and Mike Weikert in their introduction to the theme Fundamental Skills, two interwoven yet fundamental concepts emerge: “(1) elevating social literacy to expand students’ capacity for understanding the complex, systemic nature of social problems and change; and (2) employing immersive, collaborative, and participatory practice-based learning experiences to expose students to real-world problems” (see pages 107–110). Thematic topics further address ethics, leadership, immersion, social responsibility, mutuality, building trust, and practicing empathy.

- Ursula Hartig and Nina Pawlicki share perspective on the theme Intercultural Competencies stating, “a profound understanding of the specific local context and a deep investment in the place are required” (see pages 131–134) for intercultural understanding to emerge. Projects in this section demonstrate the importance of metacognitive skill development along with the imperative for translating social and cultural meaning and for considering cultural immersion through the interpretation of political, economic, environmental, and social frameworks.

- In Engaging the Field Experience Benjamin R. Spencer introduces readers to the Scholarships of Application and Engagement (SAE) as “a platform for educators to take public interest design out of the classroom and into the field” (see pages 155–157). Design research in local, national, or international contexts requires a clear understanding of culturally appropriate engagement. Featured authors in this section delve into the processes and contexts that have shaped project outputs through community collaborations.

- Eduardo Staszowski positions Inclusive Iteration as “an experimental, iterative process, where project phases and activities often repeat or overlap, allowing for the disparate needs, motivations, and ideas that exist among the different participants to proliferate and align” (see pages 179–181). Thematic projects reveal ways of generating and gathering effective feedback, which can inform an iterative and participatory design development strategy that promotes access and inclusion.
The theme of *Evaluating Student Learning* is introduced by Nadia M. Anderson who poses the question, “Do students see themselves, as a result of the course, as dialogical people participating in mutual exchange with others, or do they see themselves as individuals separate from others?” (see pages 202–205). Authors in this section reflect on the relational quality of student–university–community partnerships in engaged programs where the role of evaluation is vital to understanding learning outcomes and project results as well as long-term and short-term impacts within applied learning contexts.

Part 3: *SEED Academic Case Studies* demonstrates nine educational projects that highlight project-specific learning objectives paired with a selection of teaching strategies that elucidate the skills required within a resulting public interest design practice. Projects developed into case studies were selected by the editors from within the previously discussed peer-reviewed call for projects. The faculty representing selected case study projects also submitted their work to the SEED Network using the SEED Evaluator to further their case study development. The resulting cases offer important evidence of the variables found within community-based applied learning that address social, economic, and environmental issues; the community-based challenge; pedagogical goals; and project results and learning outcomes. These uniquely divergent perspectives, unified by a consistent SEED case study format useful for comparison/contrast analysis, make tangible the sometimes-intangible aspects of public interest design pedagogy. To further the accessibility of this content, learning objectives in Part 3 and from throughout the book have been collated in Appendix A (Part 4, pages 318–327) and offer a comprehensive set of learning goals as a useful reference.

In the foreword to Paulo Freire’s *Pedagogy of the Oppressed* (2013), Richard Shaull offers perspective on the tacit relationship between education, transformation, oppression, and justice. He reminds us, “There is no such thing as a neutral educational process” (34). This prompt signals the implicit responsibility of educators who, in the context of this publication, seek to empower students and communities through the mutuality of thoughtfully derived public interest, community-centered work. Shaull goes on to translate the important message of Freire’s work where education “becomes the ‘practice of freedom,’ the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world” (34). A proposal for a comprehensive, collective curriculum of public interest design endangers itself in its codification and instead must acknowledge the requirement for intentional, meaningful engagement in the social contexts that define communities and their needs. The emphasis on pedagogy itself as a transformative experience liberated beyond that of a singular set of strategies (Macedo 2013, 24–25) is necessary. The editors of this volume are hopeful that the projects, ideas, and approaches presented here together embody a philosophy of education that transcends a reliance on the technological qualities of design education today. Through a rigorous immersive pedagogy and ethical professional practice, public interest designers can be poised to decisively address the systemic needs of today’s global society.
Notes

1. The editors are indebted to the fine work of the many scholars and affiliated organizations who have pioneered progress on the aligned topics of community engagement, democratic engagement, civic learning, and engaged learning. Please see the Reading List in the Part 4: Appendix (pages 315–317) for recommended reading.

2. In the Public Interest Design Practice Guidebook (Abendroth and Bell 2016), public interest design is defined as “[a] design practice composed of three tenets—democratic decision making through meaningful community engagement, an issue-based approach, and the requirement for design evaluation” (308).

3. See Wisdom from the Field: Public Interest Architecture in Practice (Feldman et al., 2011) for a description of public interest design in “Appendix 5: Survey Instrument” (112, para 2). See also “Appendix 8: Survey Findings Report” for an expanded definition of public interest design adapted from Building Community: A New Future for Architecture Education and Practice: A Special Report (Boyer and Mitgang 1996, 9) which emphasizes “putting creative abilities to use to improve quality of life in communities” (129, para 2). These publications have been pivotal in shaping the discourse around public interest design education today.


5. The editors acknowledge the inherent significance and challenges in conducting work with communities as part of the higher education experience. This publication’s editors have made a priority of celebrating the desirable attributes of this pedagogy, many of which follow here. First, the requirement for mutuality of benefits between community partners and participating institutions should serve as a baseline for coproduced projects developed through the lens of “community engagement” (NERCHE 2016). Further, an emphasis on the integrated nature of “democratic purposes and processes” can demonstrate an alignment with publically meaningful and purpose-driven “democratic engagement” that strives to “alleviat[e] public problems through democratic means” (Saltmarsh, Hartley, and Clayton 2009, 6). Fostering long-term relationships that are built upon trust through collective skill- and knowledge-sharing can promote and strengthen community-identified goals. Honing skills in culturally appropriate communication (both visual and verbal) and design facilitation that respects people and place should benefit both students and community partners alike. Last, the power of exercising humility and building empathy cannot be over stated as necessary twenty-first-century design skills.

Some of the themes included in this publication were inspired during an invited luncheon of over fifteen participants hosted by Design Corps and conducted during the Structures for Inclusion 2015 conference in Detroit on April 12. The meeting provided a forum to explore topics of significance to educators pursuing and/or practicing public interest design and helped establish a space for critical inquiry of these in this publication.

References


References

Introduction: Public Interest Design
Pedagogy


11. Whole-Systems Public Interest Design Education: Department of Landscape Architecture, University of Washington


2 2. Educating the Next Generation of Social Innovators: Designmatters at ArtCenter


5.5. Connecting Classrooms and Publics: The University of California, Davis, Center for Design in the Public Interest


Fisher, Thomas. 2016. “Professional Responsibility and Ethics.” In Abendroth and Bell, PIDPG, 35-44.


6 6. Design (Education) to Create Meaningful Change: The Design for Social Impact Master’s Program at the University of the Arts


Fundamental Skills


Pittsburgh Department of City Planning. 2012. “PGHSNAP Raw Census Data by Neighborhood.” Accessed June 3, 2015. www.pittsburghpa.gov/dcp/snap/ raw_data. 10.3 Exterior view of the community room, studio, and entrance hall of PROJECT RE_ taken from the industrial woodshop and prefabrication area, illustrating the integration of the reconstituted and harvested building material systems employed. Urban Design Build Studio, PROJECT RE_, Pittsburgh, Pennsylvania, 2015. When articulating the ethos of public interest design, practitioners frequently use the phrase “design with, not design for,” underscoring the value of designers being invited into partnership by communities. How do design educators support their students in translating this phrase into embodied action? Educators share technical skills, often discrete activities designed to break down interpersonal barriers, and they build consensus and initiate collaboration among project participants. Educators facilitate project-based learning: mutually beneficial partnerships with community groups through which students develop research and technical skills, reflect on public interest design practice in real time, and gain confidence in real-world settings. And educators provide framing for how students might approach their work, invoking the behavior we expect of guests—respect for, and deference to, our hosts—to upend the power dynamic of practitioner-client relationships epitomized in Dick & Rick: A Visual Primer for Social Impact Design (Gaspar et al. 2015), where Dick privileges his design knowledge over the lived knowledge of a community. Upending these dynamics and professional narratives is crucial to disrupting assumptions and to breaking down our internal barriers to collaborative practice. In addition to these inherently valuable teaching methods, the Center for Art + Public Life at California College of the Arts (CCA) advocates for opportunities to learn more about ourselves and about what
we bring to working partnerships. At the Center, we help our students to explore by asking: • How might who we are influence our ability to partner and work within a community? 11 Preparing to Design WithMegan Clark and Shalini AgrawalPreparing to Design With IMPACT Orientation Megan Clark and Shalini Agrawal

• How might we engage with, and learn about, all of the identities we hold?

• How might our identities intersect with those of our partners and with the unique historical, social, and political realities of a project?

And of ourselves, as educators, we have sought to explore the following:

• How might we develop programming that meets our students where they are?

• How might our educational approach avoid assumptions about students’ identities and experiences?

• How might we prevent a similarly static or unidimensional perception of our communities and community partners?

Our Context

The Center for Art + Public Life is an independently run department of CCA in the San Francisco Bay area. Since its founding in 1998, the Center has worked with over two thousand alumni and has evolved from an external hub for community-based practitioners to an internal and external hub that partners CCA students of art, design, and writing with community organizations dedicated to social good. With this shift, we have expanded the educational experiences offered to our students as well as the creative resources offered to our community partners, and we have recognized
the associated need for deep, responsive community-engagement pedagogy. The Center’s IMPACT Awards require that interdisciplinary teams of CCA students develop grant proposals in direct response to a social need identified by a community local to the project. As a program focused on student-led projects, IMPACT presents an ideal space to pilot in-depth introspective programming. Teams apply their critical and creative problem-solving skills and outline actionable next steps with communities in the San Francisco Bay area, elsewhere in the United States, and internationally. Once awarded IMPACT funding, teams prepare to collaborate with community experts and local groups.

IMPACT Orientation

To facilitate students’ preparation, we developed the IMPACT Orientation, focusing on identity literacy, active listening, and navigation of power dynamics. At the stage when the orientation is offered, teams have begun building a relationship with their community partners but have not yet begun design or implementation. We aim to ground the students in their own identities and to empower them to address challenges with honesty and sensitivity, while building trust and open communication with one another and with their community partners.

11.1 Spectrum of Spectrums tool, adapted from Saltwater Training’s tools. Shreya D. Shah, Saltwater Training
IMPACT Orientation begins with the establishment of community agreements that set the tone for a safer growth environment. We then move into an exploration of self using the Spectrum of Spectrums, a tool developed by Shreya Shah of Saltwater Training, which we will focus on for the purposes of this chapter. The Spectrum was first introduced to CCA as part of school-wide conversations organized by a coalition of staff, faculty, and students, including Center staff. The discussion focuses on the diagram (see Figure 11.1). Components of personal identity are set side by side, each with a vertical spectrum of relative power and oppression. The empty bubbles at the right acknowledge the inherent privilege in who defines the list of identity components, which keeps the list interactive and open for discussion. Once we have discussed and edited the Spectrum, students engage in multiple rounds of pair sharing and group debriefs around their individual experiences with both power and oppression. In a setting that—while not neutral—has yet to be complicated by project deadlines and the natural tensions of local context, the Spectrum dialogues offer students a framework for recognizing power dynamics and provide the language for discussing them. The conversations, and the Spectrum itself, thereby open the door for students to collaborate as empathetic, multifaceted humans rather than as unidimensional designers. It is the setting of a new and different expectation, one of radical empathy, as emphasized by Sue Mobley and Stephen Goldsmith’s (2016) Design Futures session, “Centering the Human in Human-Centered Design.” The IMPACT Orientation builds upon this self-exploration by examining power dynamics through a student-community case study, defining and exploring the practice of allyship, identifying implicit and explicit communication, practicing active listening, and, finally, developing a framework for setting and evaluating project goals. Together, these exercises and discussions provide a response to our initial question, “How might we develop programming that meets our students where they are?” At the conclusion of orientation, students draft team charters, in which
they set forth the project description, mission, vision, goals, responsibilities, timeline, communication plan, and team values.

Learning Objectives and Outcomes

To determine whether the Center has met its learning outcomes for IMPACT orientation, we refer back to the team charters. We compare the teams’ initial intentions and mindsets as articulated in their charters with their written reflections during and after fieldwork. These comparisons consistently reflect achievement in the following learning objectives:

• apply inclusive language and regular reflection on power dynamics and privilege

• employ active listening rather than a team’s fixed vision to evolve relationships and projects

• practice new communication tools among teammates and with community partners

• experiment with responsiveness and flexibility

The mission of Team Visible Youth, a group of undergraduate design students, proved a particularly powerful compass. Over several months, the team established a mutually exciting partnership with Larkin Street Youth Services, a nonprofit serving homeless and at-risk youth in San Francisco. In spite of good rapport and communication, the roadblocks they hit throughout the summer led all to agree to postpone a built solution. At the final IMPACT presentation, the team was asked,
“Why didn’t you just build something without Larkin Street?” They responded without hesitation that doing so would have violated their commitment—captured in their mission statement—to develop a project collaboratively with Larkin Street’s staff and extended community. That they came to this decision of their own accord underscores deeply held personal convictions about public interest design practice.

Further Examples From Academic Peers

The Center acknowledges that the core practices—identity literacy, contextual grounding, and active listening—have been, and continue to be, tried by professional

Democratic Civic Engagement

Pedro Pacheco

The USAER XXXIV Training

Center for Special Education

Pedro Pacheco

Today more than ever civic engagement finds the appropriate conditions to move society in the direction that protects the common good and in ways that are respectful of human rights. Universities across the globe are slowly but consistently identifying ways to prepare students to create knowledge and find sustainable solutions to the challenges posed by diverse societal groups through collaborative
partnerships (Kecskes, Joyalle, Elliot, and Sherman 2017). In this sense, democratic civic engagement becomes a transformative and intense process as college students participate passionately in the co-creation of knowledge for the purpose of changing society (Saltmarsh, Hartley, and Clayton 2009; Boyte and Fretz 2010). As a consequence of the democratic civic movement, experiential learning strategies such as design/build are becoming more widespread within design schools, not only to educate design professionals but also to promote an integrated approach to education that is place-based, problem-oriented, and transdisciplinary (Kolb 1984; Sanoff 2011; Allen 2012; Raisbeck, Mitcheltree, and Pacheco 2013). Design/build was employed in the USAER XXXIV Training Center for Special Education (UTC) project as the service-learning instrument in a senior architectural design studio at the Tecnológico de Monterrey (Monterrey Tec) to understand and apply principles of community design, including participatory decision making and community building. Service-learning was also used to illustrate to first-year architecture students the public nature of design and the social responsibility of architects. The UTC facility, located within the Belisario Dominguez Primary School, was designed and built by college students and volunteers for special education.
training. At seventy-two square meters, it includes an office, a kitchenette, a restroom, and a flexible space used as a meeting room and as a classroom. Teachers are trained at the UTC to work with 284 children with mental or physical disabilities within the Escobedo school district using the inclusive model employed in the regular school system. UTC demonstrates the collaborative effort of college students and community members to learn by building. As a result of this project, students were able to achieve the following learning objectives: • build trusting relationships with diverse stakeholder groups by engaging in formal and informal encounters for learning with UTC users; to do so, students collaborated with potential users in defining and evaluating post-occupancy activities • facilitate communication and design outcomes through participatory strategies, in which users were viewed as experts • generate understanding in academic and community-centered endeavors that helps identify meaningful opportunities for action • interpret the public purpose and realize the impact design can have on underserved groups Building Relationships of Trust The UTC project was planned, designed, and built from July 2012 to December 2014 on its host site at the Belisario Dominguez Primary School. From the first day, as the UTC’s director explained the facility’s needs and expectations to the Monterrey Tec students, it was clear that the project could count on the enthusiastic collaboration of the UTC members, who wanted a dignified place to work but did not have the economic resources to accomplish their goal. In the process of building a trusting partnership, the students and UTC members developed a strong sense of ownership and responsibility that sustained the project over time and led to other projects at the primary school, including a shaded outdoor space, a dining area, and a kitchen. As of July 2016, parents from the school were preparing to build the shaded space. Donaldson and Kozoll (1999) suggest that in the initial stages of collaborative efforts, stakeholders develop social and psychological contracts to guide their work but that formal agreements consolidate these relationships. Collaboration for UTC began as a personal relationship between its director and the design studio professor and was eventually formalized by an institutional agreement. What began as a perceived need developed into the built project that satisfied the space requirements of UTC, fulfilled Monterrey Tec’s mission of preparing students to become citizens committed to the sustainable development of their communities and allowed the students to comply with mandatory community work
adopted by Tecnológico de Monterrey (Benavides-Ornelas, Pacheco, and Hernandez 2017). The collaboration succeeded in no small part as a result of this informal-formal process that permitted the stakeholders to develop both a shared vision and clear roles and responsibilities (see Figure 12.1). 12.1 Model of interagency collaboration (Pacheco 2003).

Facilitating Design and Communication

Designing for underserved groups is a challenge in a context where resources are scarce and the need for appropriate and dignified spaces is great. Fortunately, for UTC and for many similar projects around the globe, design schools are increasingly adopting experiential learning as an important pedagogical paradigm (Allen 2012).

Although hands-on education is not new, it is becoming an alternative for practice among students and young architects seeking meaningful learning experiences. A key component of the UTC case was the mandatory community work, used from diagnosis to construction. Like other schools within the Monterrey Tec system, the School of Architecture, Art and Design (EAAD) integrates the citizenship component across its curriculum to supervise the 480 hours of community work that students are required to complete as a prerequisite for graduation. Traditionally, the EAAD has integrated the community work requirement into the design studio, thus creating a service-learning strategy to help community groups find solutions to spatial and architectural problems, while at the same time allowing architecture students,
along with students from other disciplines, to develop the corresponding disciplinary competencies. In this sense, the work done in the design studio is meaningful for both the students and the beneficiaries because it uses the students’ capacities and the community work mandate as resources for addressing real challenges for real people. In the case of UTC, an advanced design studio was used from 2012 to 2014 to explore the potential of connecting the curriculum requirements and community work with the needs and expectations expressed by the community. In the first phase, during the summer of 2012, students from the University of Melbourne, Australia, and from Monterrey Tec explored ideas for a master plan that eventually guided the UTC project and other projects at the Belisario Domínguez Primary School in collaboration with parents and teachers. During the second phase, which lasted one year, students developed the architectural design of the building and tested construction techniques using nonconventional materials such as wood pallets, recycled polyurethane, refrigerator doors, and reused glass and doors from the Monterrey Tec campus (see Figure 12.2). In this phase, prototyping was crucial to develop students’ sensibility for materials and for the interior atmosphere of the building. In the third phase, during the summer and fall of 2014, the new UTC building was erected according to the technical plans developed by students. In both the second and third phases, students from the architecture school and other disciplines collaborated with parents and teachers from USAER in the exploration of materials, training, and eventual construction of the UTC. Prior to construction, every participant was trained in the use of tools and manipulation of materials. Collaboration was the keystone of the UTC experience, from diagnosis of the situation through design, construction, and celebration. UTC students, their parents, and their teachers were involved at every step of the process, from problem definition through construction. Most students participated for only
one academic period (four months). Those willing to continue did so on a voluntary basis for up to three semesters in a row through the Impulso Urbano program; many did because they had developed a sense of ownership on the project, as expressed by one student: “[We] wanted to see the construction of an idea.” Interaction among stakeholders was accomplished in different scenarios to enable all participants to understand one another’s work environments and to

12.2

Students experimenting with

materials in the laboratory.

Impulso Urbano program,

Testing Prototype, Monterrey,

Nuevo León, Mexico, 2012.

allow the Monterrey Tec students to absorb the knowledge and experience of the

stakeholders, both teachers and students. The Monterrey Tec students, for example,

expanded their site investigation to include neighborhood streets and households

of elementary school children. Conversely, UTC teachers and students visited

Monterrey Tec to understand how architecture students work and to be trained

in construction methods. Other opportunities for interaction included searching

for construction materials in the city and eating and working together on-site. In

all instances, Monterrey Tec students were encouraged to reflect with different

stakeholders about the lessons learned and the challenges faced by the group.

The result of reflecting in action was always useful in
finding better solutions to
problems identified at the construction site or to
visualized potential additions to
the project.

Generating Understanding in Academic
and Community-Centered Endeavors

Because of the involvement of indirect users, such as other
students in the school
district, their teachers, and community volunteers, the UTC
experience went beyond
its original goal of providing a sufficient, dignified
space for training special education
teachers. Once the UTC was inaugurated, its director and
other stakeholders saw
the opportunity to formulate a program for strengthening
relationships between
students with disabilities and their parents through
informal citizenship and human
rights courses, a workshop to fabricate a bench and a small
wooden easel that was
later used for a painting class, and other programs.
Teachers from nearby schools have used the UTC facility for
ceremonies
and other after-hours social activities. In addition,
Monterrey Tec’s EAAD is slowly
becoming an Engaged Department (Kesckes et al. 2017) by
supporting faculty
involved in community projects. Since 2015 the Department
of Architecture uses
the training center as a case study to raise awareness
among first-year students
about the public purpose of the discipline and the role
that collaboration plays in
addressing social problems in general. Raising awareness is the first of a four-phase
model that Monterrey Tec is implementing to make the mandatory community
work an awakening and transformative experience. The other three phases include
comprehension, action, and transformation and are embedded within the curricula
through the five-year program of all majors. Perhaps the greatest lesson for all participants, including design
students, is
learning that our world has become so complex that solving problems now requires
the knowledge and capacities of many people, including different disciplines and
other stakeholders, working toward the common good. UTC has become an important reference for all participants, but mainly for
Monterrey Tec students, who learned basic principles of democratic civic engagement
by designing and building a public facility for special education students and their teachers, one of many underserved groups in society (see Figure 12.3). In the process, the community has been empowered with training in methods that allow them to take greater control of their urban and domestic environments. Connecting people, place, and its problems has provided the ingredients for nonconventional educational methods that allow all participants to become aware of the realities in our society, while gaining the disciplinary capacities and methodologies to address the wicked problems that need attention (see Figure 12.4). Finally, the USAER XXXIV Training Center has become a success story in part due to the commitment of all stakeholders involved, but mainly due to the assumed responsibilities of beneficiaries and the support from an engaging Department of Architecture that recognize the pedagogical strategy used in the project. At the same time, the UTC represents a challenge for both the academic community and the institution as they explore ways of consolidating the pedagogical strategy.
12.3
Children with special
needs performing a play in
collaboration with students
from the school district.
Impulso Urbano program,
USAER XXXIV Training
Center for Special Education,
Escobedo, Nuevo León,
Mexico, 2014.
12.4
The UTC building. USAER
XXXIV Training Center for
Special Education, Escobedo,
Nuevo León, Mexico, 2014.

Notes

1 Unidad de Servicio de Apoyo a la Educación Regular (USAER) is a government agency that coordinates and trains special education teachers to help children with special needs (disabled and high performing children) within the traditional classrooms. There are 237 USAER units in the state of Nuevo León to support 39,000 students with special needs (physical, developmental, behavioral/emotional and sensory impaired).

2 Monterrey Tec is a private university with twenty-six campuses in different states of Mexico. The university has a population of 89,641 students of which 26,114 are high school students, 55,565 are bachelor level, and 7,962 are graduate students.

3 Impulso Urbano is a nonprofit organization that partners with families and communities to improve their housing and
community conditions through self-help practices and voluntary work. The program is coordinated through the Department of Architecture within the School of Architecture, Art and Design at Monterrey Tec and works collaboratively with family and community members, social service students, and faculty to design/build housing and community projects. Impulso Urbano is a platform to explore alternative ways to use and reuse resources in the search for a better-built environment in which trash becomes treasure for most projects.


Article 7.
Intercultural Competencies


Addressing Air Pollution Impacts The International Urbanization Seminar Deland Chan China has experienced rapid urbanization and economic growth since 1978, resulting in reduced air quality and growing concerns about air pollution. In Beijing, fine particulate matter concentrations at times exceed World Health Organization safety guidelines (He et al. 2001). Students in the International Urbanization Seminar (IUS) 1 at Stanford University examined air pollution and its impacts on senior citizens in Beijing as a critical question of urban sustainability. Working in a multinational, interdisciplinary team, American and Chinese students collaborated with Clean Air Asia, an international nongovernmental organization (NGO) that promotes better air quality in cities across Asia through technical assistance, to develop public campaign materials targeting Beijing’s older adult populations. Over four months, the team researched scientific literature on air pollution impacts, identified barriers and opportunities, translated technical knowledge into public campaign materials, and tested these materials with senior citizens. Through this course, students learned to work across cultures and disciplines to apply human-centered design and advance sustainability approaches rooted in cultural humility and respectful collaboration with local communities. Toward an Inclusive Urban Future Two-thirds of humanity will be living in cities by 2050, elevating the need for a sustainable and equitable urban future for all (United Nations 2014). Recognizing
that cities are complex and extend beyond the ability of a single discipline to tackle their challenges, the author co-founded the Stanford Human Cities Initiative (HCI) to nurture a pipeline of leaders who understand cities to be responsive to diverse human communities. Through education and research, the HCI uses design thinking to envision an inclusive human-centered urban future. Several courses are offered under the HCI that are open to undergraduate and graduate students from across disciplines at Stanford. Courses such as the IUS are offered for academic credit and count toward degree requirements. The author developed and teaches the course along with a trans-Pacific faculty team from the Program on Urban Studies at Stanford University and the Department of Construction Management and Information Art and Design at Tsinghua University in Beijing, China. Initiated in 2014, the IUS focuses on design thinking and fieldwork strategies for students from all disciplines to apply creative problem-solving approaches to urban sustainability. It is structured around three urban labs that guide students through human-centered design, empathy interviews, user observation, and prototype testing. This chapter refers to the Clean Air Campaign undertaken by IUS students as one of three projects in fall 2015.

Seminar Structure

The IUS consists of three phases: a two-week fieldwork
studio in Beijing, a ten-week course involving remote collaboration, and a capstone experience at the Human Cities Expo held at Stanford University at the conclusion of the course. The course sequence begins with Stanford students traveling to Beijing for a two-week studio. They participate in daily seminars with Tsinghua University students, visit local NGOs and sustainability organizations, and engage in immersive activities that allow them to understand the scale and history of Beijing (see Figure 16.1).

The studio emphasizes fieldwork where students are divided into multinational, interdisciplinary teams to meet with community partners and engage in site visits. After the studio, Stanford students return to the United States and continue with a ten-week course during the fall quarter. Students meet twice a week in class to discuss comparative United States-China sustainability issues and participate in a weekly joint teleconference session with their Tsinghua counterparts. During these sessions, students engage with faculty and invited guest experts from both sides of the Pacific and break out into small group discussions. Students are required to work outside the class on project development, guided by assignments focused on urban observation and prototyping in the city. The course culminates with Tsinghua faculty and students traveling to Stanford to participate in the annual Human Cities Expo (see Figure 16.2). The expo serves as
a daylong celebration of interdisciplinary perspectives and strategies for advancing
human-centered cities. The expo features interactive exhibits, class presentations,
and keynote talks from sustainability scholars and practitioners.

16.1

China Director of Clean
Air Asia presents the
organization’s work and
meets the students in the
International Urbanization
Seminar in Beijing, China,

16.2

Students in the International
Urbanization Seminar
create interactive exhibits
and engage with audience
members at the Human
Cities Expo as a capstone
experience. International
Urbanization Seminar,
Stanford, California, 2015.

Photo: Adriana Baird. Learning Objectives and Outcomes:
Clean Air Campaign The Clean Air Campaign team consisted of six Tsinghua students and five Stanford students from the fields of environmental systems engineering, construction management, and service design. They partnered with Clean
Air Asia to develop a scientifically based educational campaign to reach senior citizens, who are disproportionately affected by air pollution impacts in Beijing. By engaging in this work, students achieved the following learning objectives:

- comprehend scientific knowledge
- analyze a real-life problem
- synthesize field research into effective ways of addressing air pollution impacts on seniors

Students began the project by researching the health impacts of air pollution on senior populations and effective methods of protection that an individual could take, such as purchasing indoor air purifiers, wearing a respirator mask, or reducing exposure.

Students reviewed existing scientific research, interviewed subject experts, and summarized current practices in a technical report. After the initial literature review, students embarked on exploratory fieldwork to understand the motivations of the senior population. This led to unexpected findings; for example, students discovered that seniors did not initially express concern for their own health but were very concerned about the health of their grandchildren.

In turn, the team realized that they could attract the attention of senior citizens by targeting educational materials that describe health impacts on their grandchildren and suggest protections that would benefit the entire family. Following this discovery, the team analyzed and distilled this knowledge.
into prototypes of public campaign materials to educate senior citizens about the hazards of air pollution and available methods of self-protective measures. Tsinghua students then tested these flyers at a Beijing senior center (see Figure 16.3) to see if the message targeting the senior citizens’ of responsibility as caretakers of their Lessons Learned

The next generation of global leaders must collaborate across cultures and disciplines to address complex urbanization challenges (Steiner and Posch 2006). The Stanford HCI nurtures this pipeline by offering project-based courses such as the IUS and opportunities to partner with stakeholders on real-world problems. The Clean Air Campaign supports the educational benefits of students applying human-centered design to analyze the needs of local stakeholders and devise culturally sensitive approaches. While students sought to work with humility and respect local expertise, the course also emphasized project deliverables that targeted individual actions, rather than broader advocacy for the public or private sectors to regulate air pollution. Future iterations of the course would need to address the delicate balance of working in a foreign country in regard to politically sensitive topics and maintaining collaborative relationships, while ultimately ensuring that the project is sustainable and impactful.
Notes

1 The International Urbanization Seminar is an interdisciplinary course offered at Stanford University through the Program on Urban Studies as Urban Studies 145 and cross-listed in other departments as Civil and Environmental Engineering 126, Earth Systems 138, and International Policy Studies 274.

2 Based in the Program on Urban Studies at Stanford University, the Human Cities Initiative takes a whole-systems approach to the research and practice of sustainable cities. The initiative identifies urbanization challenges at different stages of development and supports human-centered technological, policy, and design strategies that address those challenges. It develops and practices ethical approaches, using frameworks that are inclusive (for many) and participatory (by many) and striving to benefit diverse human communities. For more information, see www.humancities.org.

3 The trans-Pacific faculty team included Kevin Hsu (Program on Urban Studies, Stanford University), Nan Li (Construction Management, Tsinghua University), and Zhiyong Fu (Information Art and Design, Tsinghua University).
Engaging the Field Experience

18

iZindaba Zokudla

(Conversations About Food) Angus Donald Campbell and Naudé Malani

iZindaba Zokudla (Conversations About Food): Innovation in the Soweto Food System

Angus Donald Campbell and Naudé Malan

iZindaba Zokudla (Conversations About Food): Innovation in the Soweto Food System 1

is an interdisciplinary research project initiated by the departments of Development Studies and Industrial Design at the University of Johannesburg (UJ), South Africa.

The project aims to create a more sustainable food system in Johannesburg through urban agriculture. In 2013, iZindaba Zokudla conducted a series of public multi-stakeholder engagement (Dubbeling, de Zeeuw, and van Veenhuizen 2010) sessions to develop a strategic plan for urban agriculture in Soweto. 2 Appropriate technology was identified as a key requirement for sustainable food-systems change. In response, an interdisciplinary service-learning (Jacoby 2015) course was developed in 2014 to support students and urban farmers in designing appropriate technology for marginalized and resource-poor urban farms.

The course, Urban Agriculture and Food Systems Change, was offered to Bachelor of Technology Industrial Design students as a component of their Design
Theory 4 and Product

Design 4 modules and to Bachelor of Arts Honours Development Studies students

in their Participation and Institutional Development module. Urban farmers located

at three educational centers in Soweto were identified to take part in the design

process. For each site, an interdisciplinary team was assembled that consisted

of one industrial design student, between four and seven development studies

students, and between three and five local farmers. The service-learning course was offered to the students with the following

learning objectives:

• identify opportunities for technological design through processes of personal immersion and engagement with community partners
• design appropriate technology for resource-poor contexts through collaborative design and social science methods
• critically evaluate the impact of relevant design processes and outcomes

Methodology

The 2014 service-learning course was developed as a direct result of the iZindaba Zokudla multi-stakeholder engagement sessions (see Figure 18.1) (Dubbeling, de Zeeuw, and van Veenhuizen 2010), which began in 2013. The sessions continued in 2014 in conjunction with the service-learning course, resulting in increased articulation and interaction in the complex collective-action project. Broad participation democratized opportunities for developing and refining urban-farm technology, contextualizing and socializing it in the process. Inherent in this methodology was an acknowledgment that technology is part of a local sociotechnical system (Latour 2005), which includes social capital among actors (Malan 2015a), local resources such as land, and city policies (Malan 2015b). This acknowledgment was important to encourage appropriate technological outcomes from the service-learning course (Smillie 2000). The specific methods used within the service-learning course drew on participatory action research and human-centred design (Campbell 2013; Hussain, Sanders, and Seinert 2010). A step-by-step methodological guide was provided to the students but was sufficiently flexible to
encourage improvisation. This methodological guide consisted of three distinct phases: (1) immersion in the lifeworld of the farmers (Brand and Campbell 2014; Theron, Wetmore, and Malan 2016); (2) active engagement with the farmers; and (3) continual reflection on the process (Malan and Campbell 2014).

18.1

iZindaba Zokudla multi-stakeholder engagement session at the UJ Soweto campus. Naudé Malan and Angus D. Campbell, iZindaba Zokudla, Johannesburg, South Africa, 2013. Immersion was encouraged through a range of field visits and theoretical lectures. Engagement was facilitated through different design media, such as drawings, clay, cardboard models, and toys, to enable effective three-way communication between the designers, social scientists, and farmers. Reflection was undertaken using private online student blogs. In each team, the industrial design students were required to focus on the design of the technology, and the development studies students took up roles as team managers, process monitors, and asset and stakeholder mappers.

Learning and Technological Outcomes

Participatory methods enabled students to observe and engage with farmers on each of the sites in order to identify appropriate designs.
The process resulted in three prototype technologies over a period of fourteen weeks of teaching time and biweekly field trips to farming sites, farmers' markets, local farming cooperatives, or iZindaba Zokudla multi-stakeholder engagement sessions. The prototypes served as the industrial design students’ major project outcome for the semester. The students documented the design process in their blogs, which were integrated with their fieldwork and design development into a final mini-dissertation. The development studies students were required to write four assignments: a contextualization of the current food system in Soweto, their own private reflective blog, a report on their participatory process, and an evaluation of the outcomes of the project. The three prototype technologies that were realized surpassed all expectations, resulting in the university’s Technology Transfer Office provisionally patenting them after the course. They included a self-watering seedling growing system (see Figure 18.2), an off-grid food storage and cooling system (see Figures 18.3 and 18.4), and an off-grid water pump. The seedling growing system was exhibited internationally and included in the publication Design to Feed the World (Di Lucchio and Imbesi 2015, 144, 153–4). The off-grid food storage and cooling system has been further validated by an external engineering company, Resolution Circle, to be batch
manufactured. This process still continues but is not open to participating farmers to test its appropriateness effectively. Therefore, the water pump was consciously made more accessible. It was documented in an open source manual, which used readily available plumbing components for do-it-yourself manufacture by urban farmers. The manual was printed and disseminated to 150 urban farmers in two of the iZindaba Zokudla engagement sessions and has thus far been viewed seventy times and downloaded thirteen times (Jacobsz, Campbell, and Malan 2014). The fourteen private student blogs documented the design research process and illustrated how design and societal considerations can be built into technology development. On analysis, it was clear that a methodological structure with defined disciplinary outputs succeeded in meeting the intended learning objectives of the course. Apart from limited interpersonal conflict, students and farmers collaborated amicably.

18.2

Seedling growing system concept discussion at Setlakalana Molepo Adult Education Centre, Jomari Budricks, Angus D. Campbell, and Naud e'Malan, Take Root Seedling Growing
The evaporative cooled food storage system accommodates the post-harvest activities of food packing, transportation, and display. Natalia Tofas, Angus D. Campbell, and Naude Malan, Umlimi Urban Food Storage Unit for iZindaba Zokudla, Johannesburg, South Africa, 2014. Real-world learning, with the associated complexity involved in the interactions between multiple actors, requires sufficient
time. The service-learning course somewhat underestimated these time requirements. Even with these shortcomings, the course benefited both the urban farmers, who received more appropriate technology, and the students, who experienced real-world embedding of their own learning—resulting in highly appropriate knowledge outcomes for the next generation of South African citizens. 4

Notes

1 For more information, see www.designsocietydevelopment.org/project/izindabazokudla/ and www.facebook.com/izindabazokudla/.


Theron, Francois, Stephen Wetmore, and Naudé Malan. 2016. “Exploring Action Research Methodology: Practical Options for Grassroots Development Research.” In Development, Change, and the Change Agent: Facilitation at Grassroots, edited by Francois Theron and Nthuthuko Mchunu, 317–41. Hatfield, South Africa: Van Schaik Publishers. A large river and its eight subsidiaries run through the city of Santiago, Dominican Republic. These urban streams used to be places for recreation, fishing, and even bathing. Santiago’s population has grown in the past fifty years, turning some of these waterways into areas of concentrated poverty with dangerous living conditions. The city also faces serious risk of natural disaster from hurricanes and tropical storms. Low-income communities are often most vulnerable during severe rainfall events, so a US Fulbright Program research project sought to better integrate those communities into the city’s disaster-mitigation efforts. This ten-month project, completed at Pontificia Universidad Católica Madre y Maestra (PUCMM), took an interdisciplinary approach to environmental remediation, flood mitigation, and public participation in postdisaster rebuilding. On November 20, 2012, a torrential downpour hit the city of Santiago, killing three people in a barrio called Yagüita de Pastor (Ponce 2012). Among the deceased was a three-year-old girl who fell in a stream while crossing a makeshift bridge. A young community leader who attempted to save the child also died. The mayor of Santiago held a press conference, stating that he would move the affected families to a safe place and restore the stream to its original state (CDN Channel 37 2012). This never happened. So, in 2016 students from PUCMM’s School of Architecture partnered with the US Fulbright program and PUCMM’s Center for Urban and Regional Studies (CEUR) to develop a design proposal to bring the community one step closer to recovery. In this case, urban design became a strategy to advocate for a barrio that had been forgotten by local authorities. Once called “Santiago’s campus” because of its public outreach programs, PUCMM had since shifted its focus to building private partnerships. The research project, in a small way, attempted to renew the idea that PUCMM and its students can contribute meaningfully to their city. To graduate from
PUCMM, all architecture

students must complete two 180-hour internships. The six students who participated

on the research team each fulfilled one of the required internships. Student learning objectives addressed the following:

• synthesize qualitative and quantitative data in field research activities

• understand how to collaborate effectively with community partners

• position design as a tool to advocate for those with limited voices

The project was carried out in two phases, a research phase and a design phase, with the goal of integrating the affected community into the city’s environmental resiliency efforts.

Research Phase

The initial research phase began by creating a basemap of the neighborhood.

Students partnered with the Dominican chapter of Habitat for Humanity to facilitate a participatory mapping exercise with thirty residents, who identified businesses, churches, educational facilities, and so on. Students synthesized this information, field-verifying locations during site visits. After establishing the basemap, the interns formed two teams: one investigating qualitative sociocultural issues and the other quantitative environmental issues. The sociocultural team investigated the barrio’s history and partnered with neighborhood teens from the community nonprofit Acción
Callejera to conduct interviews

with residents. Acción Callejera, which specializes in youth development programs, has

worked in the community for over ten years and has a large facility in the barrio. The

interviews compared past and present Yagüita, focusing on four important spaces: the

park, the stream, the community center, and the school. The teens and architecture

students co-created questions, then surveyed twenty-seven residents. This information

was translated into two morphological maps: one detailing sectors and land uses in the

barrio, the other highlighting a visual history of development (see Figure 19.1). Through the sociocultural team’s research, they learned that Yagüita originated

as a repository for people who had been displaced by city infrastructure projects.

Yagüita was established in 1950 when Rafael Trujillo, the country’s dictator at the

time, constructed a monument in downtown Santiago. The thirty families who lived

on the site of the future monument were moved to a vacant hillside across the river.

By 1960, about 190 families lived in the barrio, and by the 1980s, the population

had reached ten thousand (CEUR et al. 1993). According to Juan Parache, Director

of Land Use for the City of Santiago, most of the new development occurred in

close proximity to the stream despite it being illegal to live within thirty meters of

the waterway. Today Yagüita has approximately twenty thousand people. Many of
Morphological maps. Brian Gaudio and research team, Healing an Urban Stream, Santiago, Dominican Republic, 2015. The newer streets are too small for a garbage truck to pass, and the city has yet to connect a sewage line. Thus, the stream is a repository for waste. The environmental team tested water quality in the stream and estimated the number of families living in flood and mudslide zones. They referenced the work done by Fundación Dominicana Para la Gestión de Riesgos (FUNDOGER), the city’s disaster and risk assessment group. In terms of environmental degradation, FUNDOGER reports that 31 percent of residents living near the stream are served by a garbage truck, while 69 percent use the stream as a dump, and sewage from 49 percent of households flows directly into the water (Peña 2012). To measure how poor the water quality was, students collected samples from four points along the stream, analyzing them for pH, dissolved oxygen, turbidity, and conductivity. They also brought samples to the local water authority for analysis. Water in the stream was at “code red” levels due to the dangerously high levels of fecal coliform and low levels of dissolved oxygen. At these levels, residents should refrain from coming into contact with the water. Design Phase Responsibility for the stream’s putrid condition falls equally on the shoulders of city government and residents. Infrastructure alone cannot improve the stream’s health; basic environmental education for residents is as important as any physical changes to the stream. At the macro scale, the proposed design outlined 2,200 meters of riparian restoration and erosion control to mitigate flooding and enhance water quality. A microcollection system for trash pickup was designated for areas where roads are too small for garbage trucks. Local mototaxis would serve as subcontractors, collecting water cooler-sized waste bins from individual homes.
and transporting them to trash facilities stationed on the existing garbage route.

Pedestrian bridges located at high points along the stream would improve evacuation routes and increase connectivity, while public “soft spaces” along the stream would provide recreation and prevent future residential development in flood-prone areas. One of those public “soft spaces” was proposed on the site of the collapsed bridge. Today, a bench and a large shade tree sit on the south side of the stream, while three houses remain disconnected on the north side (see Figure 19.2).

Dominican Habitat for Humanity met with the three families who live on the north side of the stream and discussed relocating and building new housing for them. The proposal recommends that the land where those houses sit be transformed into a pilot park (see Figure 19.3). The proposed park’s features were derived during a participatory design exercise, in which residents delineated activities and programming they would like to see in the space. The south side of the stream was recommended to become an urban “parklet,” with built-in seating for playing dominoes, a patio for barbecues and celebrations, and porous ground cover to reduce runoff. A pedestrian bridge would take visitors across the stream into the approximately twelve-by-fifty-meter 19.3 Streamside park and urban parklet. Brian Gaudio, Healing an
Urban Stream, Santiago, Dominican Republic, 2015. The park would have three distinct spaces: a shaded sitting area, a covered community meeting space, and a small field for unstructured play, all connected by an elevated walkway. Terraced gabion walls would stabilize the soil, and relief channels and berms would offer flood protection. Trees and riparian plants, such as the royal poinciana, would provide shade and help lower the water temperature. Results These plans were presented to the affected community, Acción Callejera, FUNDOGER, Dominican Habitat for Humanity, the Rockefeller Foundation’s 100 Resilient Cities initiative, and students and faculty of PUCMM’s architecture school. The design proposal has not been implemented, and the affected families still live in the line of disaster. The project failed to result in structural changes, but it did build awareness. One architect from Santiago is using the project as a case study for a resiliency plan the city is creating with the US Agency for International Development. Also, one of the six architecture interns designed housing for the families who are still living along the floodplain as her senior thesis. In 2017, Acción Callejera and a team from the University of Florida proposed to work in Yagüita on an environmental education program and a microcollection system. The outcome of this proposed project is unknown. In the case of postdisaster rebuilding, understanding a place’s history, development, and future aspirations can only strengthen the quality of design. When engaging the field experience, it is important to build partnerships with organizations that have already been working on and will continue to work on the issues that the project seeks to address. Listening to residents, analyzing the situation in multidisciplinary fashion, and cultivating the right partnerships can lead to a quality design solution; however, execution of such a design solution may require more long-term commitment and financial resources.


Ponce, Miguel. 2012. “Inundaciones Dejan Cuatro Muertos y Daños a Viviendas.” El Caribe, November 20. www.elcaribe.com.do/2012/11/20/inundaciones-dejan-cuatro-muertos-danos-viviendas. The Ada Louise Huxtable Fellowship at the Boston Architectural College (BAC) promotes design leadership, civic engagement, and service learning across design disciplines. A competitive and selective honors program, the fellowship resides within the BAC’s Gateway Initiative and is funded with support from OneWorld Boston and the Cummings Foundation. As an educational initiative, the Huxtable Fellowship has the following aims: • mobilize students who have demonstrated an interest in design and community engagement • facilitate academic and community partnerships, supported by local municipal, nonprofit, and professional organizations • sharpen the pedagogies of applied learning and refine communication and collaboration skills in the context of public interest design projects • develop student leaders • encourage the transfer of skills and experiences through vertical, peer-to-peer mentoring As an initiative rooted in public interest design and civic engagement, the fellowship reinforces the BAC’s commitment to applied learning through collaborative partnerships with Boston’s Community Design Resource Center (CDRC) and affiliated nonprofit and community organizations. At its core, the Huxtable Fellowship emphasizes design’s utility to foster a community’s capacity for meaningful change. The current cohort of diverse, advanced students in both undergraduate and graduate degree programs in architecture developed a program of community-supported outreach and advocacy related to sea level rise and climate change in East Boston.
With a population of over forty thousand densely packed, tightly knit residents, East Boston is uniquely situated to incur the predicted consequences of coastal flooding associated with climate change and sea level rise. The neighborhood is a transport and infrastructure hub, and, as such, agency-based planners have responded to these alarming predictions with the intent to protect city assets (ULI 2015, 9).

However, the voices and stories of East Boston residents—long-term dwellers in a classified environmental justice community—have often been excluded from top down planning agendas of larger, louder stakeholders (Newman et al. 2013, 9). In partnership with East Boston’s Neighborhood of Affordable Housing (NOAH) and the CDRC, the Huxtable Fellows have sought to amplify these often unheard stories, developing tactics to empower residents to take action and to devise equitable resolutions to their community’s specific vulnerabilities.

Learning by Doing: Strategies in Action

To ensure that neighborhood residents have a voice in shaping solutions to their self identified risks, the Huxtable Fellows have addressed multiple learning objectives:

• identify challenges and verify opportunities through quantitative geospatial research and qualitative ethnographic fieldwork

• provide a foundation for communicating the consequences of sea level rise

• design materials that demystify climate change
• create social cohesion and community consensus through the dissemination of research in public forums

Through these efforts, the fellows uncovered how collaborative planning, focused on replicable and targeted solutions, foregrounds the issue of sea level rise in two ways: as a shared ecological concern and as the impetus for the residents of East Boston to become more resilient collectively.

Design Research: Data as Context

To become trusted allies in community-supported planning efforts, the Huxtable Fellows have oscillated between the roles of the empiricist, data-driven design investigator and the empathetic design listener. East Boston presents a complex and diverse array of conditions that prohibit simplistic design resolutions. As the Huxtable Fellows pursued their efforts, they zoomed in and out of scales, from the macro level of regional ecological, economic, and demographic data to the very micro level of an individual homeowner’s dreams and desires. Approaching these complexities as systems has allowed the fellows to recognize patterns, to isolate and synthesize parameters for design prioritization, and to develop tactical and effective approaches to design action curated into accessible, community-vetted, and verified design recommendations. The fellows began their research in the syntax of percentages, quantities, and geospatial data sets. Confidently, they recited the “facts” to their peers: “In East Boston, the median family income is 58 percent of the statewide median.” “Fiftyfive percent of East Boston residents do not speak English as their native language.” “By 2050, 35 percent of the housing stock in Jeffries Point will be susceptible to flooding.” And they visualized this information as articulate—if distant—infographics, maps, and diagrams (see Figure 20.1). However, while the fellows were canvassing the neighborhoods, a resident in a topographically low street pointed to tattered cardboard covering his gradelevel basement windows and stated that at high tides today, he can pick seashells
After the Huxtable Fellows canvassed East Boston and verified initial findings through in situ meetings with homeowners, they distilled information into diagrams illustrating shared vulnerabilities. Boston Architectural College Huxtable Fellows (Annika Nilsson Ripps, Andres Rincon, David Morgan, Mehran Jahedi, Anna Mezheritskaya, Christine Banister), Huxtable Fellowship in Civic Engagement and Service Learning, East Boston, Massachusetts, 2015.

out of his dirt-covered basement floor. This encounter immediately humanized the quantitative metrics, and the fellows recognized the need to collect stories.

The students used the generated maps, diagrams, and data sets as foundational transcripts for conversations; the quantitative research was enriched by the more qualitative, ethnographic, and narrative data of the social fabric of East Boston. The residents’ recollections of storm events, the tangible evidence of prior damage, and the palpable efforts of continued reconstruction supplemented the numbers ascribed to relative scales of vulnerability in East Boston’s neighborhoods.

Field Research: Building Consensus Through Engagement

Along with the scientific evidence suggesting East Boston’s vulnerability to flooding, other challenges complicate the community’s readiness to respond to the complexities of sea level rise and climate change (Kirshen, Ballestrero,
Huxtable Fellows identified issues that included, but were not limited to, the following:

- economically burdened families coupled with high levels of poverty
- linguistic and social isolation
- substantive knowledge deficit related to the climate change science
- overburdened civic organizations and historical lack of organizing support for community-supported planning initiatives
- limited funding for environmental education of residents
- institutional insensitivity to language-related communication challenges

In response, field research became an essential tool both for on-the-ground investigation and as an immediate platform for advocacy and education. Over multiple weeks, the Huxtable Fellows canvassed East Boston’s most vulnerable neighborhoods, developing a system for cataloging existing housing-stock conditions. To clarify initial findings, the students visited with residents in their homes to understand how, where, why, and when water had compromised their living conditions. The information was graphically synthesized (in various languages) as a tool for homeowners and renters to understand concerns and options for future remediation (see Figure 20.2). Research in the field transformed into a service: residents identify the fellows as advocates and knowledge partners and continue to contact the cohort, asking for assessments of their...
homes and actionable, affordable recommendations for improvement.

Strengthening With Partnerships and Transforming With Capital

The Huxtable Fellows’ efforts demonstrate how successful public interest design projects simultaneously galvanize a constellation of stakeholders and catalyze future efforts. The community-supported planning process, developed in partnership with 20.2

The information was graphically synthesized (in various languages) as a tool for homeowners and renters to understand concerns and options for future remediation. Boston Architectural College Huxtable Fellows (Annika Nilsson Ripps, Andres Rincon, David Morgan, Mehran Jahedi, Anna Mezheritskaya, Christine Banister), Huxtable Fellowship in Civic Engagement and Service Learning, East Boston, Massachusetts, 2015. NOAH, presents a paradigmatic methodology of education, outreach, and action for replicable efforts in other neighborhoods likely to be affected by sea-level rise. The development of an equitable, transparent academic-community partnership has bolstered NOAH’s ongoing resiliency-planning efforts. In fact, the Huxtable Fellows have played an important role in demonstrating the effectiveness of NOAH’s collaborative efforts, assisting the organization to secure a three-year implementation grant funded by the Kresge Foundation. The Huxtable Fellowship has been made possible through the generous grant funding of the Cummings Foundation’s OneWorld Boston program. Each fellow receives a stipend for participation in the project, with the remaining funding allocated to costs associated with the project’s goals, including stipends to support community-member participation in design charrettes and community meetings (see Figure 20.3). The fellows have become aware of the catalytic potential of funded work to support or generate other grant funding; multiple funding
streams, including the grant recently awarded to NOAH from the Kresge Foundation, not only help guarantee the efficacy of actions but also build capacity among the variety of partners and participants involved in East Boston’s resiliency-planning efforts.

Transferring Knowledge and Sharpening Applied Learning Pedagogies

The experience has contributed to the Huxtable Fellows’ professional development as they take ownership of their educational and entrepreneurial trajectories.

The fellows’ tenure has been punctuated by moments of reflective assessment structured as outlets for metacognitive, double-loop learning 1 to support the continuous refinement of collaboration and communication skills. Each fellow has assumed a mentorship role within less experienced Gateway teams. As “super” teaching assistants, the fellows share knowledge and transfer lessons learned through vertical, peer-to-peer mentoring. Moreover, the fellowship has cultivated a spirit of self-directed leadership in the realm of public interest design. One fellow is developing a business focused on resiliency retrofitting that aims to educate local contractors in a network of homeowners-consumers who may be affected by rising tides. Another has embarked on a course of research and advocacy exploring resiliency-planning efforts and community engagement in cities affected by similar issues: New York City, New
Orleans, and Houston. At a curricular scale, the fellowship offers an educational experience through
applied learning in the civic realm. The fellows have recognized that design

thinking and processes situate designers as instigators, facilitators, mediators, and

advocates. Moreover, the project identifies complex problems as opportunities

for design resolutions that are fortified through engagement with stakeholders in

iterative, ongoing processes. Finally, the Huxtable Fellowship reinforces that design

leadership requires the ability to communicate and collaborate and the sensitivity to
In 2015, Cornell University’s Rust to Green (R2G) Capstone Studio (LA 4020/7020) joined forces with the Oneida Square neighborhood in Utica, New York, to co-create the first One World Flower Festival (OWFF), to be held that spring. Since 2010, the studio’s professor, Paula Horrigan, has been leading R2G’s university-community partnership and teaching its companion capstone service-learning studio. The studio is designed to support the larger R2G New York civic engagement project, also led by Horrigan. R2G aims to catalyze community-driven placemaking in upstate New York cities endeavoring to transition from postindustrial “rust” to “green” resiliency (Horrigan 2015). Guided by placemaking (Schneekloth and Shibley 1995) and democratic civic engagement (Saltmarsh, Hartley, and Clayton 2009), R2G is deeply rooted in place and, for the past six years, in the city of Utica. The R2G Capstone Studio emphasizes integration and application of skills and knowledge learned in the landscape architecture major while introducing graduating
seniors to R2G’s placemaking praxis through undertaking local placemaking projects with Utica partners. The Capstone Studio’s 2013 efforts generated the study, “Taking Steps Toward Creative Placemaking: Oneida Square Arts and Culture District” (Horrigan et al. 2013). The study identified ways that creative placemaking (Markusen and Gadwa 2010) might drive Oneida Square’s integrated environmental transformation—physically, socially, and economically. The Oneida Square neighborhood anchors downtown Utica’s south end and is home to its most diverse population, 38.7 to 51.1 percent of whom are living below the poverty line (US Census Bureau 2016). Oneida Square contains the Mohawk Valley Resource Center for Refugees (MVRCR), the Utica Public Library, and the Munson-Williams-Proctor Arts Institute. In spite of recent physical upgrades, this neighborhood is considered unsafe, socially inactive, and unappealing. Creating an art and culture festival was one of the 2013 study’s creative placemaking action ideas. Two years later, R2G’s university-community partners moved the idea forward, and in the process, the 2015 R2G Capstone Studio, with eleven students participating, realized the following three learning objectives: • learn and practice placemaking and democratic community design • collaborate effectively with others across differences on addressing a local issue, need, problem, or aspiration • co-create and complete a placemaking project with community partners Project Goals The OWFF unfolded as a participatory placemaking process to remake Oneida Square into a safe, inclusive, and welcoming public place. With the festival deadline set for May 9, R2G Capstone Studio students began meeting in early February with the festival planning committee members representing MVRCR, Cornerstone Community Church, Oneida County Health Department, local artists, and Utica schools and businesses. The two staff members of the new Utica-based R2G Urban Studio were on
hand to convene the weekly meetings in Utica, which the students in the R2G Capstone Studio attended regularly via Skype. The following goals were collaboratively developed for the project: • through the festival, draw attention to Oneida Square’s public realm and bring positive energy and affection to a part of Utica currently considered to be unsafe, negative, and neglected • forge, develop, and expand participation, inclusion, co-creation, and collaboration through all aspects of the festival’s making and production to strengthen and build social capital and to catalyze ongoing community-driven revitalization • expand the visibility and value of art and culture to the neighborhood’s sense of place and use art and culture as a primary community development vehicle Continual dialogue and reflection, which are integral to R2G’s approach and process, facilitated progress toward these goals. The R2G Capstone Studio made a total of five trips to Utica, including a weekend-long stay during the festival. Students designed the festival logo and developed its website and social media for disseminating event information, tracking the event as it unfolded, and generating greater participation and buzz. Students also undertook mapping and analyses to assess and develop a festival geography aimed at tactically activating and beautifying the square (see Figure 22.1). Festival elements and programming took shape around the themes of “One World” cultural diversity, flowers, and Mother’s Day. A $3,000 grant to the 22.1 R2G Capstone Studio student Zoe Shively, at a community workshop uses a large-scale model to share and generate ideas for the festival’s placemaking elements, tactics, and activities. Cornell University R2G Capstone Studio, Utica, New York, 2015.

R2G Capstone Studio from Cornell University’s Engaged Learning and Research initiative provided materials for creating low-cost, short-term elements that would spur creativity, experimentation, and new placemaking ideas for Oneida Square.

Planning and development over the festival’s four-month production period also involved performance programming, obtaining permissions and permits, and overall event promotion and advertising. The placemaking process fostered widespread inclusion and participation in
festival “making” and contributing to the making of change in Oneida Square. Making, an essential and often-underemphasized ingredient of placemaking, fosters community building and the development of a community’s social capital (Silberberg 2013). Festival-planning ideas and prototypes for co-created elements, activities, and programs emerged from three participatory planning and making workshops, which the Capstone Studio organized and cofacilitated. Students made elements such as large sculptural flowers and Aqua-Resin globes, then distributed them to Utica area youth and artists for further embellishing (see Figure 22.2). Local artists and volunteers designed and assembled other elements, including planters and banners. Ultimately, the festival’s variety of elements and activities arose from the combined efforts of many people and demonstrated the following inclusive iteration strategies:

- undertaking a dialogic, community-engaged festival planning and development process through weekly meetings, planning and making workshops, an open access website, social media communications, and In Our Backyards (IOBY) fund-raising campaign
- broadening inclusion and participation in “making” through participatory design and making by local artists, youth, adults, seniors, and such groups as MVRCR, Thea Bowman House, Cornerstone Community Church, Fine Arc, Sculpture Space, and Midtown Utica Community Center
- ongoing postfestival placemaking through interviewing and reporting postevaluation; continuing R2G’s role in 2016 festival planning; engaging Oneida Square Project in social enterprise business development; continuing neighborhood use of globes, flowers, seats, and planters; and applying for and receiving a 2016 Levitt AMP [Your City] Grant for a free neighborhood summer concert series
Sculptural Aqua-Resin globes, seen here being fabricated by Cornell student Sarah Schlichte then painted by a Utica teen, added color and artistry to Oneida Square.


Project Results

“It’s all about putting some love in Oneida Square,” said one attendee as he took in the scene unfolding on May 9, 2015. OWFF created a palpable feeling of optimism for neighborhood residents. By physically and socially transforming the square into an inviting place, the festival took a bold first step in shaping the area’s future. Brightening the square were thirty multicolored planters, designed and constructed by the Cornerstone Community Church’s Oneida Square Project. They brimmed with vibrant mixes of newly planted flowers. A team of artists created the sari banners waving from the square’s lampposts, and thirty-five giant flower globes, individually painted by area artists and youth, enlivened the sidewalks.

A flower-shop mural by Utica high school students brought
new life to a derelict building facade. Giant plywood flowers, painted by young and old from the Midtown Utica Community Center and the Fine Arc Day Habilitation program held at the Players of Utica theater, were fashioned into flower totems that appeared to be “growing” throughout the square (see Figure 22.3). Artful custom mosaic trash receptacles found a new home in the square, and their success helped launched a social business enterprise, Oneida Square Public Art and Design, which offers jobs and training in the making of mosaic street furnishings to people with significant barriers to employment. At the information booth, nearly five hundred crocheted flowers made by seniors during community crochet nights at Utica’s Parkway Senior Center were clustered together on a canvas banner so visitors could “pick” one (for free). Local musicians and dancers performed on the sidewalks and in the street. People made use of the 150 flower-topped moveable bucket seats painted by 4-H volunteers and children at the Thea Bowman House after-school program. Giant banners, to be permanently hung on buildings at a later date, portrayed historic seed catalog images and provided a backdrop to a community chalkboard and placemaking station, where Capstone Studio students invited people to share their concerns and hopes for the 
neighborhood. While they had originally thought the festival would transform the square for just a single day, the partners quickly changed tack as planning got under way. They decided there needed to be more visible lasting change in the festival’s wake. The flower totems, mosaic receptacles, banners, and planters would stay, and a summer watering and maintenance program would keep the flowers thriving. Postfestival feedback particularly emphasized the optimism created by the festival and the positive reception to the many placemaking improvements, which endured. The festival mobilized the community and set in motion creative placemaking and revitalization efforts, including a much expanded second annual festival and a summerlong free neighborhood concert series the following year.

22.3


Architecture instructors typically present their students with a design “problem” and give a prescribed building type, program, and physical site to be developed. In the Activist Studio, however, the nature of the problem is unknown at the beginning of the semester, even to the instructor, and is discovered by the student through a sequence of focused assignments and investigations, which encourages intimate engagement with an issue. This close familiarity often results in a personal connection to the cause, which changes the nature of the design approach, transferring the focus from the designer to the client, or constituency. Student Julia Jovanovic’s work with the Ten Friends Diner illustrates this shift.

Project Context

In the spring of 2014, Ms. Jovanovic’s research largely focused on issues facing children and youth. A staggering statistic indicating high suicide rates among youth in Ontario was uncovered, which directed research toward the topic of mental
It was discovered that in Canada, one in five individuals has or will suffer from a mental health problem. Mental health care translates to 15 percent of the health care burden but receives only 6 percent of Canada’s health-care budget. Of particular concern was the fact that eleven Canadians per day commit suicide, and 90 percent of these suicide victims have a diagnosable mental health concern. Her research led Ms. Jovanovic to contact the Mental Health Consumer/Survivor Employment Association of Essex County, which operates publicly as Ten Friends Diner (so named because originally there were ten employees). Ten Friends Diner is a nonprofit organization in Windsor, Ontario, that hires individuals recovering from mental health setbacks, helping them attain the new skills and self esteem needed to seek permanent employment in the greater community. Many of these consumer/survivors (CMHA Ontario et al. 2005) cope with illnesses like schizophrenia, depression, anxiety, and bipolar disorder. Ten Friends Diner is a safe haven for these individuals, allowing them to work while gaining access to peer support and counseling. Discussions with Ten Friends Diner Executive Director Carolyn Burton revealed a need that could be addressed. Due to budget cuts in 2012, the diner operation was relocated to a different building. The new space, although larger, presented environmental and functional challenges, including poor
lighting conditions,

deteriorating ceiling insulation, gloomy decor, impeded work flow, high indoor humidity, lack of storage, and disconnected employee areas. These conditions had a direct, significant impact on the well-being and attitude of the consumer/survivors,

many of whom suffered from increased anxiety, confusion, and depression. “Our old diner was cozy and warm,” one consumer/survivor stated in an on-site interview,

“The current diner lacks the home feeling and casts off the sensation of being in an institution. The color is dark and has no welcoming feel.” Another noted that

“My mood in relation to the old diner was more work effective, brought on happier thoughts and a sense of freedom. I really love the added room in the new diner, but as for motivation, the decor lacks that inspiration.”

Project Goals The main goal for the redesign of Ten Friends Diner was to create a healthy, uplifting, functional environment that would contribute to the healing and long-term wellbeing of all its occupants. This general goal was refined into specific needs, including redesigning the lighting, fashioning a consolidated work space, reorganizing the work flow, creating additional storage space, mitigating high humidity and deteriorating ceiling conditions, and using the design of the diner to disseminate mental health awareness and inspire future initiatives. Jovanovic engaged in comprehensive information gathering on a range of mental health topics with various project constituencies through surveys and interviews. Her research included case studies on evidence-based design and how design decisions could affect the physical and mental well-being of users. All research that led to design suggestions was verified with the consumer/survivors, who rejected certain propositions that were anticipated to negatively affect a particular mental health condition.

Project Results In meetings facilitated by Jovanovic, the consumer/survivors dictated the direction of the design, analyzing their needs and suggesting appropriate solutions (see Figure 23.1). Perhaps the most significant result was
that the consumer/survivors felt empowered and inspired to propose design ideas, raise funds, create publicity, and assist in the construction of the project. As required by the course format, Jovanovic maintained a cycle of soliciting ideas from consumer/survivors, presenting design alternatives to all constituencies, recording feedback, and returning with amended proposals for discussion, while documenting and presenting these experiences to her peers. Jovanovic also met the course requirements of using the identification of Social Economic Environmental Design (SEED) Network issues—specifically health, job training, empowerment, and strengthening community—to frame the critical needs of the project and using the Massive Change story formula (Bruce Mau Design 2005) to outline the narrative of project engagement. The community became involved by donating funds, labor, and materials. Volunteers skilled in building trades, marketing, and photography were also critical to advancing the project mission. These donations came about in part because Jovanovic prepared design-vision materials for inclusion in solicitation packages. There were a variety of public and private donors, and the newspaper Windsor Star became a primary media partner. Over the course of several months, the team at Ten Friends Diner raised enough funds to execute the project, addressing all the goals set forth at the conception of the design (see Figure 23.2). While the primary community partners and stakeholders were the consumer/survivors, managers, and customers of Ten Friends Diner, Jovanovic also worked to meet the goals of the Canadian Mental Health Association (CMHA) and the Ontario Ministry of Health and Long-Term Care. Furthermore, the project served as a beacon for other individuals in the Windsor community who suffer from mental health challenges. Finally, Jovanovic 23.1 Preliminary rendering of Ten Friends Diner. Julia Jovanovic, Ten Friends Diner, Windsor, Ontario, Canada, 2015. 23.2 Interior of Ten Friends Diner. Julia Jovanovic, Ten Friends Diner, Windsor, Ontario, Canada, 2015. self-identified as a stakeholder in the project; she was personally and
emotionally engaged in both the process and the impact of Ten Friends Diner. Jovanovic and Burton collaborated in preparing a written agreement outlining the scope of Jovanovic's design work and the deliverables to be provided by the end of the semester. A portion of each student's final grade depended on meeting such expectations, revealed through assessment by their community partners. Orlowski instituted the requirement of this agreement to provide a sense of closure to the semester; it also allowed for the student and partner to maintain a working relationship after the semester ended, which proved in Jovanovic's case to be ongoing. Learning Objectives During the life of the project, Jovanovic met several course learning objectives: • use statistical and observational tools in research, focusing on identifying a problem, the ecosystem that perpetuates the problem, and the affected constituencies • create and document a participatory design process rooted in professional best practices, demonstrating an awareness of innovative and alternative models of professional practice • exhibit the ability to engage in inclusive and informed conversations about design in partnership with nonarchitects

23.3

Ten Friends Diner community garden. Ten Friends Diner staff,

Ten Friends Diner, Windsor,

Ontario, Canada, 2015.

Positive changes were noticed in almost all of the thirty-plus employees of the diner, whose attitude and general well-being significantly improved. Fewer employees missed work or reported heightened anxiety or confusion. As the project was completed, the consumer/survivors were inspired to devise further initiatives, such as a community garden, which was constructed in 2015 (see Figure 23.3). The successful realization of this project not only created an uplifting, functional environment for healing and business but also
directly reinforced the
goals of the organization: giving consumer/survivors
confidence in their abilities and
building their capacity to seek and pursue future
opportunities. The design process
helped Ten Friends Diner address its programmatic and
social objectives.

Note

1 Sources: Statistics Canada, the Ontario Association for
Suicide Prevention, and Children’s Mental Health Ontario.

Bruce Mau Design and the Institute without Boundaries in
collaboration with the Canadian Heritage Information
23, 2006. www.massivechangeinaction.virtualmuseum.ca (site
discontinued).

CMHA Ontario, Centre for Addiction and Mental Health,
Ontario Federation of Community Mental Health and
Addiction Programs, and Ontario Peer Development
Outcomes, and Effectiveness.
http://ontario.cmha.ca/public_policy/consumersurvivor-
vitally in need of engagement. This pedagogy asks students
to confront and transcend
cultural boundaries and perceptions in order to be
successful in such engagements. Within the urban boundary
of Johannesburg lies the 2.6-square-mile township
of Alexandra. The township has long been a spatial
manifestation of its nation’s
complex history, a refuge from and resistance against
oppression, and a place
of scarcity and insecurity in the face of underdevelopment
and undervaluation. 1

Numerous built attempts by outside governmental and
nongovernmental
organizations (NGOs) to revitalize the Alexandra community
have ultimately been
underused by local constituents, leading to divisive and debilitating perspectives of design interventions challenging the spatial legacy of apartheid (Swift 1983).

To the outside designer wishing to undertake a community-focused development project in Alexandra, the public’s wariness forms a complex web—one that must be met with a responsive strategy of authentic community engagement. Alexandra’s 6.4-hectare Youth Precinct is itself a microcosm of these spatial politics and emerging cultural demands. Three community centers, four public schools, and multiple outdoor sports and recreation facilities serve up to 1,500 youth each day. Despite this emphasis on public programming, little consideration was given to precinct planning as a unified whole. The public spaces envelop a series of legally ambiguous private homes, many of which are held by families of original landowners and are still contested today.

Preparatory Seminar

Three primary goals were established for the preparatory seminar. The first goal was to replace students’ preconceptions of South Africans with qualitative interpersonal perspectives. Through direct, scaffolded interactions with South Africans over the course of the semester, students came to understand and better interpret cross-cultural relations. Second, the seminar developed students’ understanding of the public
interest design methodologies that international groups employ to develop design rationales for humanitarian architectural projects. Students interrogated the design methodologies and outcomes of such projects and presented their findings.

The module culminated with presentations of the author’s work in South Africa, including one convincing design methodology that nonetheless resulted in a “failed” humanitarian outcome. This humbling dialogue of lessons learned offered students the opportunity to examine and question designed outcomes and to understand the challenges of work in unique contexts. The third goal was to develop a user-focused research and design methodology for the forthcoming short course in Alexandra. Students tested the model by engaging hypothetical clients in a mock community design workshop based on their proposed research methodology. Through this process, students developed research skills and faced the challenges of engaging “others.”

On-Site Short Course The city of Johannesburg and local NGOs prepared the events schedule and recruited participants in advance of the on-site short course. Youth group leaders from the nearby Phutedechaba Community Centre acted as intermediaries between the university students and the precinct’s primary user group, Alexandra youth. These youth leaders proved invaluable to establishing a valid dialogue between the students and community stakeholders. Community participants led a precinct walking tour that successfully initiated authentic human relationships. Students informally engaged participants on positive aspects of their sociospatial experience, gleaning specific insights into community perceptions. Students’ on-site presence and empathetic attentiveness to constituent testimonies disarmed the
prodigiously held community perception of outsiders. Concurrently, students conducted a spatial inventory, quantitatively studying concrete environmental attributes and documenting their findings in notes, drawings, photographs, and video. Iterative Development and Communication Strategies Groups gathered in community engagement workshops to disseminate the findings, consolidating their insights into concepts that could best summarize shared aspirations for the precinct’s future (see Figure 24.1). While these themes may not have revealed specific design solutions, they did “begin close to the ground, looking at life stories and the human meaning” (Nussbaum 2011, 14) of design decisions for real people. The workshops revealed the importance of initiating design from the perspective of human experience, rather than from that of perceived need, and re-formed preconceptions the students may have generated. Participants designed a text-based mural to communicate the qualitative results of the workshops to the broader Youth Precinct community and to build consensus around the themes that emerged (see Figure 24.2). Over the following two days, participants painted the mural on an exterior wall at the eNtokozweni Community Centre. This experience validated the collegiality of the group, and the mural provided a tangible artifact of Alexandra youth perspective on their community. Design students then worked in an open-studio setting at the Thusong Community Centre, where participants observed and engaged in the design process. Student-generated design materials including axonometric site drawings and photo montages emphasized clarity and legibility functioning across a diverse group of users. A seven-minute video coproduced with Alexandra youth, particularly resonated with the community constituents. The video and design documents were presented to governmental agencies to heighten awareness of the precinct’s condition and to demonstrate the community’s capacity to address the issues. 24.1 Community engagement workshop. Alexandra Youth Precinct Project, Alexandra Township, Johannesburg, South Africa, 2013. 24.2 Community mural painting day. Alexandra Youth Precinct Project, Alexandra Township, Johannesburg, South Africa, 2013. At two points in the process, full-scale community design charettes were held to engage a broad range of constituents in the process; more than fifty people attended each charette (see Figure 24.3). The first charette was presented as a process-based presentation, dedicated to feedback from community members and synthesis of research and design. This process resulted in a diverse range of responses requiring sensitive negotiation and feedback. Learning Objectives As a result of this project, students were able to: • synthesize
disparate stakeholder interests • develop a rigorous and meaningful design proposal focused on the needs and desires of constituencies • distinguish between complex cultural and spatial contexts

24.3


• discover the challenges of community-focused design methodologies while working on-site

• apply methods that incorporate local governing bodies and empower community members

Project Results

The results of this methodology revealed both predictable and insightful design components. Quantitative environmental and security challenges, such as storm water runoff and poor lighting, were largely predictable and easily solved from the design sense. More nuanced, however, were the qualitative issues of otherness, including contested spatial injustice and poor perception of community-focused architecture based on perceived corruption and hidden agendas by outside governmental forces. As the most critical design issues raised by stakeholders, these perceptions also revealed the necessity for empathy, research and interpretation, and effective feedback loops between constituents and designers in such an in situ practice. This process helped students comprehend the problem of paying attention
only to the quantitative in neglect of the qualitative. The project results were similarly compelling on-site. Heightened awareness of precinct users’ needs, assets, and capacities occurred at the neighborhood scale, resulting in community-driven cleanup efforts, improved security measures, and representation in local politics. Governmentally, the proposal resulted in the Johannesburg Development Agency (JDA) implementing the design. Streetlights, sidewalks, and landscaping are now in place, and circulation has been redirected to the proposed route, solving community members’ concerns over private property.

The JDA is incorporating the Youth Precinct into its designs for a bus rapid transit network and transit-oriented development strategy. The precinct is now a node of cultural development and will be strengthened by these future plans.

Note

1 Field research, May 2013.


Evaluating Student Learning


Assessing Experiential Learning in Design Education

Bethany Lundell Garver

Pioneering public interest pedagogy and practice, the Boston Architectural College (BAC) is the oldest cooperative education (co-op) program in architecture in the United States. Founded in 1889 by patrons of the Boston Society of Architects and the Massachusetts Institute of Technology, the BAC emerged as a movement “broadening ... the possibilities of architectural
“training” (Brown 2014, 11), making design education more accessible by allowing students to practice in local offices while simultaneously pursuing course enrichment. From the start, the spirit of public interest design has been integral to the BAC’s curriculum, proving to be a sustainable learning tool for aligning design education with ongoing changes in the field. Scarcely any architectural education models support students in pursuing continuous full-time work while in school (Salama 2015). The BAC, by contrast, has long-standing relationships with design firms, public agencies, and nonprofit organizations who serve as faculty, mentors, and employers for students. Through flexible work-based learning, the college offers the only accredited degree-granting programs in the country that complement academic course work with structured qualitative and quantitative assessment of parallel cooperative education. In this way, the community becomes the BAC’s extended campus, resulting in 97 percent of graduates being employed in their design fields on graduation day, with many holding leadership positions (The BAC 2016). Thirty-four percent of baccalaureate graduates come from underrepresented populations in architectural education (Cox, Matthews, and Associates 2016). Learning Model The Practice Department is a practice-meets-academy environment (Harriss and Widder 2014, 43) that supports the disciplines of
architecture, interior architecture, landscape architecture, and design studies as a vital educational component of the BAC. The department itself does not confer degrees; rather, it administers a required curriculum of applied learning cultivated outside the classroom that aligns with process-oriented evaluation. This aspect of the overall curriculum is commonly referred to as the practice component. The Practice Department model encompasses four strategies: Partnerships, Reflective assessment, Applied learning, and Career support. Using David Kolb’s (1984) Experiential Learning Model as a framework, the department promotes public interest design through a lifelong cycle of “concrete experience, observation of and reflection on that experience, formation and synthesis of abstract concepts based on reflection, and active experimentation that tests the concepts in new situations” (Jacoby 2014, 6). The model leverages a multifaceted learning-doing curriculum to build a more productive school-community-profession relationship that prepares future designers for lives of civic responsibility and service (Brown 2014). Upon completion of Practice Department requirements, students achieve skill levels that reflect integration and synthesis of their academic studies within work-based learning settings. Students will be able to: • make connections across disciplines among experiences outside the classroom by showing an enhanced ability to broaden perspective and build on prior learning to take on increasingly challenging problems • exhibit organized preparation and confident delivery of a compelling message with a variety of supporting materials (graphics, written descriptions, and self-reflection) to increase audiences’ knowledge and understanding • collaborate across and among myriad contexts and organizations to accomplish a clear sense of civic identity, independent initiative in engagement activities, and collaborative commitment to community goals These experiential learning outcomes are measured through students’ accumulation of practice hours, written and graphic portfolio evidence, and one-on-one practice assessment meetings with Practice Department faculty (see Figure 26.1). A sustained high rate of student employment in the competitive field of design is an illustrative metric for evaluating the effectiveness of the model. Partner Evaluations The Gateway to Practice Initiative demonstrates how the Practice Department model matches student learning with Kolb’s (1984) concept of “concrete experience” that supports real-world issues. Gateway projects are voluntary and progress over two semesters. The initiative gives students an opportunity to
connect community needs with societal concerns. As multidisciplinary undergraduate and graduate student teams prepare programmatic and schematic design proposals for community-based clients, they simultaneously accrue practice hours. The weekly time commitment for Gateway projects ranges from ten to twenty hours for each student.

26.1

This matrix reflects a sequence of requirements for the practice component of each degree program that the Practice Department develops and administers; adapted from a self-assessment matrix in Gelmon, Agre Kippenhan, and Cress (2013, 169)

Practice Department Requirements and Learning Outcomes

<table>
<thead>
<tr>
<th>Matrix</th>
<th>New Student Beginner</th>
<th>Engaged</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeline of Reflective Assessment</td>
<td>Broadly introduced during new student orientation</td>
<td>One-on-one Practice Assessment (PA) scheduled during Community Practice course at the end of the Foundation curriculum</td>
<td>Every student signs up for one-on-one PA appointment prior to thesis preparation</td>
</tr>
</tbody>
</table>

Practice Hours

(required minimum) Some students are eligible to receive credit for prior practice hours Architecture (0) Interior (0) Landscape (0) Architecture (2,200) Interior (450) Landscape (600) Architecture (3,000) Interior (900) Landscape (900)

Skill Level N/A Awareness and Understanding Integration Synthesis

Experience None or partial (may have prior practice experience) Foundational Some Deep
Personal Development Attention on self Awareness of self in broader context Linked to others Big picture

Reflection None or partial Broad Related Deep and integral

Connection to

Community Individual benefit Responds to relevant local issues and identifies community assets Linked to community in a personal way Facilitates new opportunities for expanded community linkages

Transdisciplinary

Approach Focused on self Willingness to make personal decisions that reflect awareness of others Acknowledges appreciation and respect for others Finds new connections and adapts naturally to others

Professional and/or Civic Engagement Unknown Active participant Organizes next steps and manages tasks Initiates action on design projects and/or social justice issues

Capacity to Work on Design Teams and with Diverse Communities Unclear Partial and directed Responds to requests that develop context-appropriate action Imaginative, motivated leader

Source: Bethany Lundell Garver, the BAC Practice Department, Boston, Massachusetts, 2016 Community partners evaluate students’ attitudes and designs during presentations, workshops, and written critiques, commenting on how each team’s goals and outcomes address community needs and benefit the client’s mission. Following students’ asset-based designs, feasibility studies, or on-site field observations, clients assess how teams exhibited ethical reasoning, integrity, and professionalism regarding diverse cultural factors. With encouragement from Practice Department faculty, clients offer open dialogue and honest feedback on group efforts, broadening students’ interpersonal communication and conflict-resolution skills by exercising their ability to express differing ideas and values respectfully. Evidence of these experiential learning outcomes is enclosed in
students’ required portfolios. Since 2008, 1,300 BAC students have engaged in more than one hundred sponsored Gateway projects, resulting in a combined effort surpassing fifty years of full-time work (The BAC 2013). In 2015, the program launched the Ada Louise Huxtable Fellowship for students specifically focused on design in environmental justice neighborhoods. Overall, Gateway builds student capacity to generate future opportunities for inclusive community decision making. These student-community partnerships impart self-confidence and reflection on the impact of design in underrepresented places otherwise unable to attain design services (see Figure 26.2). Reflective Assessment One-on-one practice assessments facilitate evaluation of students’ work-based experience in specific knowledge areas. To gauge student performance, the Practice Department model relies on partnerships between educators, students, and employers, which are formalized through Student Learning Contracts (SLC). The SLC calibrates specific competencies, including critical thinking, presentation delivery, and technical skills. Competencies related to public interest design—such as social interaction, human-centered design, intercultural knowledge, and teamwork—are also measured (see Figure 26.3). Students report their hours in work-based and applied-learning settings. Then, progress is noted on their academic transcripts, and their compiled portfolio evidence is reviewed in practice assessments. This formal assessment process promotes institutional awareness of students’ progress, incremental self-reflection, and identification of skill-development needs relative to students’ specific interests. Applied Learning and Career Support Abstract concepts of public interest design are distilled into two credit-bearing classes administered through the Practice Department that are required for undergraduate and graduate students in all disciplines: CityLab (FND1006/3006) and Community Practice (FND2007). These foundation courses utilize applied learning projects to expose students to design stewardship and civic engagement early in their education (see Figure 26.4). They also introduce students to reflective practice

26.2

Select examples of Gateway to Practice Initiative partnerships at the BAC from 2008-2016.

BAC Gateway to Practice Initiative (Gateway) Community Partners **

• OneWorld Boston
• Boston Society of Architects *
• Asian American Civic Association/Boston Redevelopment Authority (AACU/BRA)
• Allston Village Main Streets,
• American Legion Marsh Post #442
• Arlington Children’s Theater
• Belmont Housing Authority
• Benjamin Franklin Institute of Technology
• Boston Chinatown Neighborhood Center *
• Boston Green Academy
• Boston Parks and Recreation
• Boston Public Schools *
• Boys and Girls Club of South Boston
• Boston Redevelopment Authority (BRA); Boston Planning and Development Agency (BPDA) *
• Brockton 21st Century Corporation
• Catherine Aragon
• Charlestown Municipal Garden
Association
• Children’s Cooperative
Montessori School
• Church of the Covenant *
• Citizen Schools *
• City of Boston Mayor’s Office *
• Codman Academy *
• The Community Design
Resource Center of Boston
(CDRC) * • Division of Capital Asset Management & Maintenance * • Department of Neighborhood Development *
• Design Museum Boston • Dorchester Community Food
Co-Operative • Egleston Square Main Streets • Fair Housing Center of Greater Boston * • Fenway Community
Development Corporation • First United Parish of Everett *
• Four Corners Action Coalition • Four Corners Main
Streets • Franklin Park Zoo • Friends of Lake Cochituate
** • Friends of Modern Architecture • Friends of Modern
Arcitecture Lincoln • Girl Scouts of Eastern
Massachusetts • Greater Grove Hall Main Streets • Greater
Love Tabernacle Church • Hale Reservation • • Hawthorne
Youth and Community Center • • Higginson/Lewis School •
Higher Ground • Hosmer School • • Housing Assistance
Corporation of Cape Cod • • ImprovBoston • Innercity
Weightlifters • Juniper Gardens Condominiums • Long Way
Home • Maimonides School • • Massachusetts Department of
Transportation (MassDOT) • • Metal Oxygen Separation
Technologies • • Metro West Collaborative Developers •
Metropolitan Waterworks Museum • • Mission Hill K-8
School • New Brook Farm, Inc. • • New England Conservatory
• Neighborhood of Affordable Housing, Inc. (NOAH) • •
Nuestra Comunidad • PJ Kennedy School • • Roca Chelsea •
Roxbury Community Cultural Arts Center • Salvation Army
Harbor Light • Somerville Community Growing Center •
Stonybrook Neighborhood Association • Students 4 Students
• • Town of Ashland • • Town of Hamilton Recreation
26.3

Student Learning Contract categories and competencies evaluated by the BAC Practice Department.

BAC Student Learning Contract (SLC) Competencies

Core Competencies Concentration Tracks

Conceptualization Professional Values and Organization
Representation Tools and Techniques Public Interest
Design, Service, and Research Practice Management and
Design Entrepreneurship Design Implementation and
Project Delivery

- Critical thinking
- Investigation, inquiry and analysis
- Creative thinking
- Problem solving
- Programming and feasibility
- Site/existing conditions analysis
- Use of precedents, reading and research
- Social interaction and human-centered design
- Intercultural knowledge and competence
- Environmental stewardship and global learning
- Integrative and applied learning • Written communication • Oral communication and presentation delivery • Information literacy • Ethical reasoning, integrity and professionalism • Personal time
management • Conflict resolution • Interpersonal skills • Teamwork and collaboration • Leadership and service • Model building and fabrication • Building information modeling • 2D and 3D CAD drafting • 3D illustrative rendering • Web, graphic, or interactive design • Raster and vector image editing • Manual drafting • Freehand sketching • Diagramming • Mentoring • Teaching and conducting workshops • Civic engagement, service and volunteerism • Writing for grant proposal or design publication • Design competitions • Research project (ideate, document, publish) • Attend community or professional lectures, conferences • Committees and student groups • Professional and community organizations • Business practices and operations • Team building • Stakeholder roles • Budgeting and accounting • Schedule and work plan development • Project management • Bidding and contract negotiation • Marketing support • Market research • Planning, zoning or permitting regulations • Schematic design and design development • Engineered systems (service, structural, environmental) • Financial considerations and project cost • Codes and regulations • Technical and construction documents • Material, lighting, FF&E selection • Specifications • Construction administration and observation.

Notes:

1. Competencies are evaluated using portfolio evidence gathered by each student and reviewed during scheduled Practice Assessment appointments. Students’ practice portfolios exhibit Understanding/Awareness (beginner), Integration (engaged), and Synthesis (advanced) in targeted SLC competencies.

2. Competency-based metrics are adapted from Value Assessment of Learning in Undergraduate Education (VALUE) rubrics from the Association of American Colleges and Universities, National Council of Architectural Registration Boards (NCARB) knowledge areas, Council of Landscape Architectural Registration Boards (CLARB), National Council for Interior Design Qualification (NCIDQ), and Social Economic
Environmental Design Network (SEED) principles.

Source: Bethany Lundell Garver, the BAC Practice Department, Boston, Massachusetts, 2016 through pre-course and post-course self-evaluations, portfolio documentation, and preliminary in-class practice assessments. Career support is offered through Practice Lab, the department’s online job database, in addition to advisory meetings with dedicated career services staff, workshops, job fairs, networking events, and annual student employment surveys. Students pursue work-based opportunities that target SLC knowledge areas. Since the Practice Department only approves practice hours accompanied by regular supervisor evaluations, the model also builds closer relationships between students, supervisors, and mentors.

Practice-Meets-Academy Public Interest Futures

Transdisciplinary in nature, the Practice Department reinforces the value of uniting different design disciplines through an intellectual, practical, mission-driven framework that goes beyond a singular perspective. Underscoring the role of designers as collaborators with multiple stakeholders, students learn to become citizens in dynamic, diverse places. By providing a structure for satisfaction of practice-oriented degree requirements via transcript notation, the model shows where, when, and how high-quality public interest design principles are learned.

More importantly, it articulates a range of ways for public interest design to fit in the institutional context. This gives students the opportunity to reflect on public interest
design engagements the same way they might reflect on more traditional work in design firms, allowing them to examine the relationship between the two with deeper understanding (see Figure 26.3). By framing public interest design alongside other forms of professional practice, the Practice Department seeks to break down perceptions of alternative versus mainstream architecture and design-related fields. Accessibility of this type of education inculcates the importance for students, educators, and practitioners to

27 Merging Research, Scholarship, and Community Engagement Michael Zaretsky

Roche Health Center

Michael Zaretsky

In 2007 the Roche community (a village of approximately five thousand residents in Tanzania) identified a critical need for a permanent health-care facility. Most people in this region had to walk several hours to access health care. Residents asked the nonprofit Village Life Outreach Project (VLOP) to collaborate on the project. The Roche Health Center (RHC) opened April 1, 2011, and that summer, a two-month external assessment of the project studied the impacts of RHC on the Roche community.
The assessment concludes: the community fully supports the health center, and it is the preferred provider of health care in Roche. The community has taken ownership of it and is proud to be host to the health center. ... Their inclusion in the process of planning, building, and evaluating has helped them take ownership in the project and expect only the best. (Lucker 2011)

The RHC project emerged as a result of nonprofits, universities, and individuals working together over many years. The project is one of many collaborations between the following partners: VLOP, a Cincinnati-based nonprofit; Shirati Health, Education, and Development (SHED) Foundation, a nongovernmental organization in Tanzania; University of Cincinnati (UC) faculty and students; the Clinton School of Public Service at the University of Arkansas; and residents of three villages in Tanzania—Burere, Nyambogo, and Roche. VLOP merges research, scholarship, pedagogy, and outreach based on a set of community-engagement principles. Through partnerships, VLOP seeks to improve quality of life, health, and education for the residents of rural Tanzania. Tanzanian villagers identify challenges that can be addressed in partnership with VLOP, SHED, UC, and others. UC faculty employ the research and teaching resources of a Research I university to address these issues. These resources include cross disciplinary design, engineering, and social science research to inform design decisions (see Figure 27.1). VLOP members use several principles when teaching and doing work related to any global project. These principles translate to the following learning objectives in UC courses that engage students with communities in Tanzania: • assess inherent power imbalances and inequities between Western and non-Western communities, as well as power imbalances within cultures • evaluate who is benefiting from the design and construction projects • relate and apply reciprocal learning in context • analyze cultural, social, economic, constructive, and climatic conditions of work areas • apply knowledge of existing conditions to all design and
construction decisions • incorporate principles of appropriate technology by using materials, tools, and techniques that local residents can replicate • create meaningful partnerships with local residents and nonprofit partners in all aspects of research, design, and construction • create design and construction proposals that are informed by the desires of the local community and contextual conditions • assess all design proposals on their cultural, social, economic, and technical value for the communities with whom we are working

27.1

Testing a photo voltaic panel

with the RHC committee.

Michael Zaretsky/Village Life

Outreach Project, RHC, Roche,

Tanzania, 2011.

RHC Teaching

Working with other UC faculty, Arup engineers, SHED, and members of the Roche community, students in three RHC graduate architecture studios (ARCH713) explored,

developed, tested, and assessed design proposals for the RHC complex between 2008 and 2011. The first studio, in 2008, developed a master plan, infrastructure plan,

building system, and clinic designs. In addition to the studio, an external committee consisting of architecture and engineering students, faculty, and practitioners,

including engineers at Arup Chicago through the Arup Cause, explored the technical challenges of the inherent design conditions given a lack of electricity, water shortages,

minimal availability of materials, few local contractors,
and economic limitations. Students in the following studio, in 2009, further developed the clinic plans and details. The third studio, in 2011, explored the public edge of the complex along the street, conducted a post-occupancy evaluation of the clinic, and researched alternative construction methods that could be implemented in the construction of the medical-staff housing. A subsequent UC Honors course, Humanitarianism: Design Thinking across the Disciplines (SAID3010H), taught in 2011, 2013, and 2015, brought together students from across the university to study and critique humanitarianism and aid to Africa. Students explored how design thinking could provide a relevant approach to humanitarianism for all disciplines and developed projects to be implemented in Tanzania.

Project Assessments

Ongoing assessments and evaluations of previous decisions have informed every step of the RHC project. VLOP has partnered with the Clinton School of Public Service for project assessments since 2010. Spencer Lucker, Masters of Public Service candidate at the Clinton School, spent two months assessing the RHC project through interviews, surveys, data analysis, and observation. The evaluation provided data that covered four areas: demographics, service delivery, community satisfaction, and public opinion. Lucker (2011) stated in the community-satisfaction assessment that "every person
who was asked if it [RHC] were an important part of the community either agreed or strongly agreed (seventy-nine out of seventy-nine community members).” Students from the Humanitarianism course learned about RHC through observations, drawings, and interviews with villagers, patients, and medical staff. 2

This learning led to discoveries of additional needs that had to be addressed to improve the comfort of patients while they were waiting or being examined, such as the need for more seating in the waiting area for family members of patients. Medical housing construction, which was also influenced by design changes identified in the student assessments from UC and the Clinton School, began in early 2015. The most important assessment of RHC comes from ongoing dialogue with SHED and the Roche community. The community knows that the project partners are committed and will leave only when the community indicates that they are no longer needed. During a March 2016 visit, villagers pointed out maintenance issues in the clinic that will affect the design of future buildings. For example, the oversized gutter, designed to show villagers how their roofs could be used for water collection, had been repaired several times due to the lack of caulking materials in the region. This knowledge led to a redesign of the gutter, which was implemented in the medical housing. The clinic does not resemble other buildings in the region, though it is built with local materials and tools (see Figure 27.2). Designing a building that looks different from other buildings in the area was a risk. However, it has been verified many times that the community is proud of this project. They are proud that people come to visit RHC, and they recognize its value beyond its function as a clinic: it is a meeting place for
the community (see Figure 27.3). Pedagogical Outcomes The student course evaluations for the RHC studios were very positive, with the majority of students stating that this course “made a strong contribution to my education overall.” There were several positive comments, such as the following:

27.3

RHC committee members meeting. Michael Zaretsky, RHC, Roche, Tanzania, 2015. This course was extremely successful in the integration of realistic challenges and conditions with the studio curriculum. One of the most successful components of the course was exposing students to these challenges and letting them figure out decisions through trial and error, collaboration with other professionals, and collaboration amongst their studio colleagues.

This type of feedback supports the pedagogical intentions; however, one challenge was that most students in the studios did not actually get to engage the community with whom they were designing. Two architecture students at UC, Emily Roush Elliott and Jesse Larkins, have completed cooperative (co-op) internships in Tanzania with VLOP. Elliott spent her co-op in Tanzania leading the design and construction of the health clinic in 2010.

She returned to UC to complete her Masters of Architecture degree; her thesis was “Avoiding Imposition Through Methods of Making,” situated in Roche, Tanzania.

Elliott went on to become the first UC student to be awarded an Enterprise Rose Architectural Fellowship. She is already recognized as a future leader in public

28

Reflecting Through Razor WireJulie StevensReflecting Through Razor Wire
The Environmental Justice in Prisons Project
Julie Stevens

The Environmental Justice in Prisons Project (EJPP) provides landscape architecture and design students with opportunities to engage the often-misunderstood prison population by working directly with incarcerated individuals and prison staff to design and build therapeutic and productive outdoor spaces. A long-term partnership between the Iowa State University (ISU) College of Design and the Iowa Correctional Institution for Women (ICIW), EJPP uses design/build to expand the social capacity and develop the vocational skills of both students and incarcerated women. No classroom experience or book can provide life lessons and skills like a few months on the front lines, as is evident in the student reflections throughout this chapter. Between 2011 and 2016, five courses and three design/build projects were completed with ICIW: Multipurpose Outdoor Classroom (2013). The ICIW warden selected the first design/build project: a multipurpose outdoor classroom located in a one-acre space at the heart of the new campus. The outdoor classroom was developed in partnership with counselors and women in the intensive treatment programs at ICIW. Three classrooms, a lawn mound, and an aspen grove provide opportunities to bring counseling and classroom activities outdoors, a stark contrast to the bleak building interiors (see Figure 28.1).

28.1

The Multipurpose Outdoor
Classroom looking east
through one classroom to
the lawn mound and aspen
grove where students and
incarcerated women are
working. Environmental
Justice in Prisons Project,
Iowa State University and the
Iowa Correctional Institution
for Women, Multipurpose
Outdoor Classroom,

Mitchellville, Iowa, 2013–2014. A second project, the Staff Decompression Area, was inspired by watching ICIW staff and officers gather in the parking lot to “decompress” between shifts. This multileveled brick patio was located near the staff entrance, outside the secure perimeter.

One crew blurs the lines
between students and
incarcerated women to
create a healing garden for
women with special needs.

Environmental Justice in
Prisons Project, Iowa State
University and the Iowa
Correctional Institution for
Women, Special Needs

Healing Garden, Mitchellville,

Iowa, 2015. Special Needs Healing Garden (2015) Project three, a Healing Garden for women with special needs is designed for individual or small group counseling or respite from mental fatigue. It is located near the health-care building with views and access from the acute and sub-acute mental health units. In addition to the Healing Garden, the crew also established the first production garden, approximately one acre in size (see Figure 28.2).

Reflection as Evaluation and Validation

Reflection is the “intentional consideration of an experience in light of particular learning objectives” (Hatcher and Bringle 1997, 153). Reflection in community engagement is not only a method for assessing student learning but also a means for understanding how the experience has helped to expand students’ moral and social capacities. When reflection activities engage the learner in examining and analyzing the relationship between relevant, meaningful service and the interpretative template of a discipline, there is enormous potential for learning to broaden and deepen along academic, social, moral, personal, and civic dimensions. (Hatcher, Bringle, and Muthiah 2004, 39) Working in a prison is intense, and there is little time to think about the social, emotional, and physical energy flowing between people and the project. Students often are unaware of what they have learned or are unable to articulate their expanded perspectives until they have had some distance from their learning experiences. Therefore, “reflection acts as a bridge between conceptual understandings and concrete experiences” (Felten, Gilchrist, and Darby 2006). Free writing is used to collect reflections from students in real time, in their most
authentic voices. Specific survey questions allow for comparing and contrasting students’ experiences. “Through reflection, the community service can be studied and interpreted, much like a text is read and studied for deeper understanding” (Hatcher, Bringle, and Muthiah 2004, 39). These reflections, when shared with the Iowa Department of Corrections (IDOC) and ISU officials, validate continuing and expanding the partnership. The student reflections quoted throughout this chapter describe the impacts of this partnership. Responses were gathered via a survey of past and current students; the responses were anonymous, as directed by ISU’s Institutional Review Board. All students who responded reported a significant shift in their perceptions of incarcerated people. Prior to this experience, I felt that all people incarcerated were hardened criminals who were constantly serious and angry. Afterward, I realized many of the women in the prison are victims of their own upbringings. ... I definitely viewed these inmates more sympathetically than I did before. Building Gardens and Social Capital EJPP is challenging the notion that healthy environments are an amenity rather than a necessity by creating gardens in prisons to improve the health and well-being of incarcerated women and staff. Helphand (2006) summarizes our deep connection to the natural landscape, illustrating why it is essential: “From the long evolutionary perspective, our landscape preference and experience is that of a ‘survivor landscape,’ one that ultimately sustained life. It’s part of what makes us human” (213). EJPP aims to shift tightly held beliefs by listening to the concerns and desires of both prison staff and incarcerated women, educating our community partners about the benefits of access to healthy landscapes, and then building understanding by constructing therapeutic outdoor spaces. Former ICII warden Patti Wachtendorf often referred to this partnership as a win-win: the students gain real-world experience, and the prison an improved landscape. More importantly, this winning combination
creates understanding and empathy between students and incarcerated people. This result is not exactly what students were looking to gain when they signed up for a design/build project in a prison. The survey asked students to reflect on what they hoped to gain and what they actually gained from working with EJPP. Most respondents expressed a desire to gain professional experience with design and construction. Many were candid about wanting a great portfolio project, giving them an advantage over students entering the profession having never planted a tree or built a stone wall. EJPP provides opportunities for hands-on learning, and it does stand out in a portfolio. It helped me get a job right out of college at a great firm. The project was extremely unique and gave my interviewers a lot to speak about during my interview. The following comment represents a common shift in students’ priorities from a purely personal agenda to a concern for the greater good: Through interaction with IDOC staff and offenders, I gained a deeper understanding and profound respect for the rehabilitative nature of the programs at ICIW. ... It is easy to think of prisons as solely punitive places, meant to separate offenders from the rest of society, but learning about these facilities showed me the emphasis placed on lowering recidivism rates, addressing mental health and/or substance abuse issues, and giving offenders professional and personal skills necessary to successful lives after incarceration.

Learning Outcomes and Project Results

There are the obvious outcomes: physical interventions completed through three complicated design/build projects and the addition of a production garden program.

The project has also had often-unseen impacts on students and incarcerated women working side by side to create beautiful spaces in a landscape typically void of life.

The women report feelings of accomplishment and pride in providing beautiful gardens and healthy food to fellow residents. Students learn to negotiate power struggles, security protocols, and challenges inherent in any construction project.
The real lesson students learn, though, is that few people have access to the benefits of well-designed, healthy environments (see Figure 28.3). The following three learning objectives represent years of revisions based on the deeply engaged nature of this partnership. Earlier learning objectives were more basic and less meaningful, such as “describe principles of biophilic design.” The
29 29. The SEED Process for Academia


Pleasant Street Pedestrian Project

The Pleasant Street Pedestrian Project reimagined and transformed underused, sometimes derelict, public spaces into pedestrian-friendly environments that promote community inclusion and empowerment. Project-Specific Student Learning Objectives

• analyze factors contributing to the inclusion or exclusion of a range of stakeholders in the design process
• create engagement tools that generate site-specific discourse
• use full-scale prototype designs to inspire social and pedestrian activity

Summary

Formerly located within the University of Cincinnati (UC) Research Institute, MetroLAB is a UC School of Architecture and Interior Design (SAID) program established to promote “learning through the process of making, applied research and innovation, and community engagement and impact” (UC DAAP 2018). The graduate architecture course Advanced Integration Studio (ARCH 7005) is a MetroLAB public interest design offering in the College of Design, Architecture, Art, and Planning. In the summer of 2015, course faculty and fourteen students partnered with the Corporation for Findlay Market (CFFM) in the Pleasant Street Pedestrian Project, one of several collegewide initiatives with CFFM to energize community voice along Pleasant Street—a neighborhood vulnerable to development in the heart of Cincinnati. The project launched what was to become a series of faculty- and university-led efforts over the next year to realize the benefits of community inclusion in the built environment.

Issues Addressed

Social: Gathering Spaces, Empowerment, Crime and Safety

Community-Based Challenge

Located just two miles from the UC campus, Pleasant Street encompasses four diverse city blocks connecting the recently redeveloped Washington Park in the south with the historic Findlay Market in the north. It is a corridor in transition, mixing newer condominium development with existing residential and rental properties, as well as many vacant lots. Considered an
anchor in the community, CFFM sponsored this initiative to identify and foster social-impact projects that promote community interests. These interests emerged as the social issues previously identified. Pedagogical Goals The project’s primary goal was to cultivate thoughtful, responsive forms of community engagement that encompassed local residents and organizations. The first Pleasant Street event featuring neighborhood mapping. MetroLAB, Pleasant Street Pedestrian Project, Cincinnati, Ohio, 2015. The first Pleasant Street event featuring a photo wall. MetroLAB, Pleasant Street Pedestrian Project, Cincinnati, Ohio, 2015. (including representatives from several neighborhood organizations), commercial stakeholders, and CFFM (Kern 2016). This goal was accomplished through a variety of instructive pedagogies applied to the creation of three temporary community outreach events, each corresponding to a phase in the design process. These events were hosted in empty lots on Pleasant Street, which were cleared and improved for this purpose. Produced by the students, each event promoted a distinct objective supporting qualitative data collection. The first event championed getting-to-know-the-community activities such as photo booths, a video-interview station, and neighborhood mapping. Attendees were encouraged to respond to prompts that began to define neighbors’ collective place-based interests. The second event included participatory cooking demonstrations, playscapes for children, and lighting installations—activities that brought people together to share ideas and observations. The third event presented design prototypes responding to community input collected at previous events.


Select Teaching Strategies

• Learning through making: The Pleasant Street Pedestrian Project leveraged incremental and to-scale development of concepts that evolved directly from stakeholder feedback. Early in the process, students activated underutilized public spaces, using discarded materials as a viable way to
engage community. Discovering that empty lots could not be transformed into permanent gathering spaces, students explored alternative concepts and adapted to the evolving design restraints through iterative making.

- Applying design research: Design research was instrumental to experiencing generative project development. Students applied newfound understanding of community-identified challenges obtained through observations, interviews, events, and charrettes, and they executed designs with knowledge of materials and construction research. Testing supported design and development, and the results were incorporated into design recommendations and prototypes.

- Activating community: The primary goal of the summer session was to activate neighborhood discussion and identify shared public-space interests through sponsored community events (Kern 2016). This strategy was furthered when the Cincinnati-based organization Design Impact hosted a community engagement workshop for students focused on the concept of empathy building, helping to ground understanding of inclusive design. A temporary studio near Pleasant Street offered regular contact between the students and nearby residents.

**Project Results and Learning Outcomes**

The community’s desire for a pedestrian-friendly streetscape directed the MetroLAB students to develop a solution that bridged several considerations, including the need for safe and socially inclusive gathering spaces. Students introduced the design for a parklet—a broadening of the sidewalk into one or more parking lanes—at community meetings in 2015, where it garnered enthusiastic support. Students temporarily installed four full-scale prototypes at parking locations on Pleasant Street in early July. The celebration associated with these installations became the conclusive vehicle for collecting valuable stakeholder feedback. In spring of 2016, eleven of the original fourteen students returned to conduct an independent study focused on the construction of the final parklet design. The Pleasant Street parklet was built under a revocable street privilege between the city and CFFM, which required that the structure be modular and allow for disassembly, if needed. The parklet was installed May 29, 2016, with no
 predefined programing beyond that provided by the community, which will direct its use over time. Upon conclusion of the summer session, students had acquired new skills in participatory practices and demonstrated agile ways of directing engagement processes that were responsive to the community context. Collaborating with diverse stakeholders, who often had differing views, revealed the complex reality of working in the public interest. Students were exposed to the full scope of project 300.10

Pleasant Street residents playing chess in the parklet.

MetroLAB, Pleasant Street Pedestrian Project, Cincinnati, Ohio, 2016.

development predicated on community-driven desires and were subsequently challenged to innovate within these parameters. Partners: University of Cincinnati College of Design, Architecture, Art, and Planning; Pleasant Street Committee; Corporation for Findlay Market; People’s Liberty; Pleasant Street residents; Over-the-Rhine Community Housing; Over-the-Rhine Community Council; City of Cincinnati Department of Transportation and Engineering Credits: UC: MetroLAB studio director and professor, Michael Zaretsky; SAID professor and structural engineer, Tom Bible; students, summer 2015 Advanced Integration Studio and spring 2016 independent study Funding: UC Pathway B Third Century Materials Grant, People’s Liberty, Carol Ann and Ralph V. Haile, Jr./U.S. Bank Foundation

Notes

1 At the time of this project, MetroLAB was operating within the UC Research Institute.

2 See the Pleasant Street Pedestrian Project at www.daap.uc.edu/metrolab/pleasant-street-pedestrian-project.html.

Issues Addressed
Community-Based Challenge

As a discipline, interior design is integrated into many expressions of the built and communicative environment. Interior design is central to social well-being as positioned through the nexus of economic and environmental factors; subsequently,

students of interior design are in an agile position to leverage social-impact opportunities in their field. Shifting focus from exemplars of international high design to local expressions of design for social justice helped emphasize the criticality of the community-based challenge: students were guided through a local design inquiry that put them in direct contact with built projects conveying a social concern significant to the students’ semester study of public interest design.

Pedagogical Goals

The project, A Social Approach to Design, facilitated applied learning through the cityscape of Toronto, enabling interior design students to gain firsthand experience of public interest design in context. A team-based case-study assignment introduced the city as a learning lab. Students were given a list of city organizations where the architectural design or programming might embody social design considerations. Project sites selected for the fall 2015 course included cultural
institutions, community centers, temporary housing facilities, and religious organizations (Leu 2015). The class worked 30C.12 This diagrammatic analysis documents the social aspects of the Centre for Social Innovation located on the fourth floor of Daniels Spectrum. More dots are shown in areas that function as open spaces where collaboration and exchange can occur. Design Seminar students, social programming analysis, A Local and Social Approach SEED Evaluation, Toronto, Ontario, Canada, 2015.

30C.13

Generous hallways function as impromptu gathering spaces for Daniels Spectrum organizations to come together as a single multicultural community. Design Seminar students, social programming analysis, A Local and Social Approach SEED Evaluation, Toronto, Ontario, Canada, 2015.

30C.14

This ground floor diagram of the Artscape Lounge and Show Me Love Cafe in Daniels Spectrum analyzes programming for casual social interaction in an affordable housing neighborhood. Design Seminar students, social programming analysis, A Local and Social Approach SEED Evaluation, Toronto, Ontario, Canada, 2015.

collectively with organizational contacts and corresponding architectural offices to
research social priorities manifested through the design of the buildings. The social lens was quickly expanded to include analysis of holistic triple-bottom-line considerations.

Student-led teams conducted site visits, meeting with organization staff, building occupants, and architectural-firm representatives. Students thus observed the alignment of design intent, outputs, and impact based on needs driven by the community or client.

Select Teaching Strategies

• Focused class discussion: Topical discussions, supported by critical readings and film viewings, introduced themes of social justice in design, focusing on the role of the designer in a contemporary practice. Class discussions of the designer as facilitator versus consultant increased cultural sensitivity and built empathy. Examining processes of engagement and ways in which designers are meeting the needs of clients as communities reinforced the possibilities of working beyond the commercial traditions of interior design.

• City as learning lab: Connecting students directly with organizations, stakeholders, and architectural design teams helped realize the value of first-person research. Being able to contextualize the site requirements and to balance those with the organization’s needs and the design limitations allowed students to make important connections about the design process, especially pertaining to social, economic, and environmental considerations. Emphasis on local design shifted student learning to a space surrounding the Toronto campus, which helped achieve a secondary but related goal: students developed an understanding of pressing local issues.

• Design evaluation: A modified version of the Social Economic Environmental Design (SEED) Evaluator tool guided students in the process of analyzing design outcomes. Reporting on the historic, cultural, and social conditions of the community served by the design solidified students’ primary research with field 30C.15 High contrast colors, nonglossy finishes, and indirect lighting helps people who are visually impaired navigate through the facility.
The sense of smell is incorporated at critical junctures within the building: the Fragrance Garden is located near the front entry and the Cafeteria is the heart of the building. Design Seminar students, sensory analysis, Canadian National Institute of the Blind: Case Study Analysis, Toronto, Ontario, Canada, 2013.

Adjacent to every room are tactile braille signs to assist staff and visitors navigating through the facility. Design Seminar students, sensory analysis, Canadian National Institute of the Blind: Case Study Analysis, Toronto, Ontario, Canada, 2013. Students researched how the design created positive social, economic, and
environmental impact; how it responded to the needs of the community; and how stakeholders were engaged in the design process over the life of the project. Students further identified key issues for their project sites or programs, along with analysis supporting how design outcomes responded to these issues (Leu 2015). Project Results and Learning Outcomes Students produced written and visual research based on original discoveries made through site visits. They documented their findings in photographs and drawings to highlight how designs met key issues addressed in the work. Social, economic, and environmental issues were scrutinized as significant to the combination of factors affecting design results. Diagrams expressed responses to social concerns in gathering and entry spaces, transitional areas, public versus private areas, and programming analyses. Built models further elaborated on manifestations of design meeting social needs. The team-based project output was a comprehensive presentation of findings, accompanied by a booklet detailing the site-specific research results, design and program analyses, and design evaluation using the SEED Evaluator tool. As a result of this project, students were able to confront issues of ethical and moral responsibility and identify gaps or opportunities for social justice endeavors in their work as interior designers. Students distinguished the diverse contexts that define design in the public interest and translated social, economic, and environmental considerations expressed by stakeholders into design outcomes.

Student research documented the importance of building empathy through firsthand observation and working directly with project partners.
Case Study D

Cooperative Education at the Detroit Collaborative Design Center

The Detroit Collaborative Design Center (DCDC) provides learning opportunities for cooperative (co-op) education students pursuing a practice in public interest design; students work side by side with DCDC designers and university faculty on a range of projects serving Detroit communities. Project-Specific Student Learning Objectives • use iteration to create effective visual communication presentation materials for public interest design contexts • practice building trust with stakeholders through a range of community engagement strategies • discover the design and administrative practices of a university community design center

Summary

The University of Detroit Mercy (UDM) School of Architecture (SOA) is home to DCDC, a full-service, multidisciplinary, nonprofit community design firm. Among the oldest community design centers in the country, DCDC got its start in 1994 as a neighborhood design studio merging community need with student and professional talent (DCDC 2017). With more than twenty years in practice, DCDC
supports a mission of civic engagement and strives for sustainable community outcomes that promote resiliency. DCDC has provided a range of design services to over one hundred nonprofit organizations and low-profit limited liability companies (DCDC 2017). The center is recognized for its commitment to design-facilitation processes and neighborhood-level community-engagement workshops, as well as for its long-term citywide initiatives. UDM architecture students are required to complete two semesters of co-op internship credit working in a design office. Students typically take Professional Experience I (ARCH 3010) in the third year and Professional Experience II (ARCH 3020) in the fourth year. DCDC provides a special opportunity for co-op students seeking experience in public interest design methodologies. An average of eight to ten architecture students apply for three or four internship positions at DCDC each semester (fall, spring, and summer). Interns contribute to public initiatives and are exposed to the full spectrum of design and community-engagement processes.

Issues Addressed Social: Civic Engagement, Education, Equity Community-Based Challenge The Livernois Community Storefront (LCS), a DCDC project, was a catalyst for community connectivity and renewed neighborhood investment along the Livernois Avenue corridor in northwest Detroit. At the time of this project, the economic decline of the historic Avenue of Fashion, a once-celebrated shopping district, threatened the future vitality and cohesion of the corridor—the connective tissue between stakeholders that include businesses (both long standing and emerging), two universities (including UDM), and community organizations (ULI 2011, 11–12). Reimagining the Livernois Avenue corridor as a vital hub for commerce and culture prompted the storefront initiative, which operated from May 2013 through September 2014 as a pop-up venue and site for community events (Chadha and Stanard 2013). The sustained momentum of the LCS project in collaboration with local partners has aided in the corridor’s on-going revitalization.

Pedagogical Goals

The LCS project provided co-op students with an applied-learning context: the project
demonstrated the phases of a community development project during its one-and-a-half year life. Students supported the launch of the storefront on May 31, 2013, and played an important role in facilitating the space’s relationship with the community. Working alongside DCDC designer-educators and UDM SOA faculty, students applied technical skills developed in course work and newly acquired facilitation skills to professional and community-engagement contexts relevant to the LCS project. Students attended client meetings, participated in community-engagement workshops, prepared design documents, and assisted with hands-on design/build projects. The co-op experience through the LCS project and its leaders mentored students in their active engagement with a high-visibility and transparent public project. 2

Select Teaching Strategies

• Community engagement: Co-op students are embedded in the DCDC community design center environment and are expected to participate in project-engagement efforts. Students gained experience incorporating community expertise into design development by documenting and participating in community meetings. They built relationships with local businesses and organizations in street-side conversations that allowed them to practice talking about their work. Students helped organize and staffed storefront events that interfaced with different stakeholder groups. Their activities helped promote LCS neighborhood inclusion, resulting in the creation of organizational items, such as a community bulletin board, calendar of events, and Livernois map.

• Iterative production: Co-op students come to the internship with varying levels of proficiency needed to be successful in the DCDC environment. The
Co-op students work on iterations of the wall installation map of the Livernois corridor highlighting local businesses. DCDC, LCS Wall Map, Detroit, Michigan, 2013.

A DCDC co-op student installs finishing touches on a neighborhood bulletin board. DCDC, Fitzgerald Community Bulletin Board, Detroit, Michigan, 2014.

A co-op student and a project manager assemble the wall map for the LCS. DCDC, LCS Wall Map, Detroit, Michigan, 2013. Experience grows competencies and student confidence through an openness to iteration and exploration. Working with other interns and staff, students use skill sharing to accomplish project goals. During the LCS project, students explored iterative production through a variety of team-developed project components. Tasked with the storefront window design, students created visual concepts, responded to input, developed prototypes, researched implementation options (laser cut vinyl, for example), and ultimately installed the work alongside project managers. Additionally, students workshoped their concepts at a design charette with members of the American Institute of Architecture Students (AIAS) to help determine construction and assembly methods for the Livernois map and community bulletin board installation.

- Teaching-hospital model: The teaching-hospital model
embedded within DCDC helps co-op students acclimate to the requirements and full scope of professional practice in a project-based public interest design context (Pitera 2014, 10–11). Students actively participate in the range of required interactions that support project decision making and implementation. For the LCS project, students researched, conceptualized, proposed, adjusted, and implemented a series of modest, scale-appropriate projects under DCDC mentorship. Using the methods typically deployed by DCDC and modeling these within their own projects helped realize learning outcomes and student-stated goals. By participating in a studio-based teaching practice, students are afforded hands-on learning in field experiences that promote their education through immersion.

Project Results and Learning Outcomes

During its operation, LCS hosted over one hundred events, including community celebrations and organizational events that promoted and fostered the unique cultural 300.21 A co-op student installs exterior lettering on the LCS. DCDC, LCS Facade, Detroit, Michigan, 2013. identity of Livernois. Co-op students were active participants in LCS placemaking efforts that moved well beyond the confines of design/build. The storefront is still functioning as a pop-up space but is no longer run by DCDC. As a part of the UDM SOA co-op course requirement, students submit monthly evaluations that demonstrate their professional accomplishments and lessons learned. The evaluations are reflective documents that offer insights into students’ expectations and the reality of their professional experiences in a community design setting. These evaluations help DCDC project directors and managers regularly adjust to student needs. Student learning objectives provide measures for learning outcomes, which are tracked over the course of the semester. Students exit the co-op internship able to adapt to diverse public interest design requirements, which encompass skills in community outreach, communication, design thinking, and rapid prototyping, among others. Partners: Detroit Collaborative Design Center, School of Architecture, University of Detroit Mercy; REVOLVE Detroit; Livernois Avenue businesses; University Commons Organization; Challenge Detroit; Detroit Design Festival; Surdna Foundation Credits: DCDC LCS Project: project director, Virginia Stanard; project managers, Ceara O’Leary and Krista Wilson; additional project leaders, Dan Pitera,
Christina Heximer, and Monica Chadha; co-op students during 2013 and 2014 semesters

30D.22

The Livernois wall map on
the opening day of the LCS.

DCDC, LCS Wall Map, Detroit,
Michigan, 2013.

Notes

1 Co-op internship credit variables include full time (two credit, three-hundred-hour equivalency over twelve weeks) and part time (one credit, one-hundredfifty-hour equivalency over six weeks) options.

2 See page 123 of Syncopating the Urban Landscape. Author Dan Pitera (2014) shares DCDC’s three-pronged model for “knowledge-sharing” engagement, which includes “inform, feedback, [and] exchange”—a model realized in the LCS project with co-op students.


Case Study E
Com(m)a

Com(m)a is a multimodal project created in response to the 2010 earthquake in Chile.

Students and faculty worked with partner organizations and community members to address reconstruction scenarios appropriate for a postdisaster community, resulting in a series of design/build projects and workshops.

Project-Specific Student Learning Objectives

• recognize how collaborative, community-based design can affirm productive actions
• relate disciplinary practices to global contexts and needs
• formulate solutions that empower student- and community-centered assets

30E.23

An informational board used by Com(m)a Studio students to explain the scope of their project to the local community and to Chilean academic partners. Com(m)a Studio, Enlaces, Talca, Chile, 2011. Summary In 2011 the faculty of the Department of Architecture, Interior Architecture, and Designed Objects (AIADO) at the School of the Art Institute of Chicago (SAIC) selected the Com(m)a project proposal for their annual GFRY Design Studio. A transdisciplinary collaborative initiated in 2005, Motorola and SAIC have partnered through the GFRY Design Studio to support students in public-innovation projects (SAIC 2012). One proposal is selected every year for this high-profile, two-semesterlong opportunity where projects are developed from concept through implementation, a process that fosters original thinking and making (SAIC 2012). In spring and summer 2011, twelve graduate students and three undergraduate students, in disciplines such as sculpture, art therapy, interior architecture, architecture, designed objects, and performance, were selected for inclusion in the Com(m)a initiative. Issues Addressed Social: Disaster Response, Learning, Local Identity Community-Based Challenge On February 27, 2010, an earthquake registering 8.8 on the Richter scale ravaged central Chile. This event
destroyed homes in and around the city center of Talca, the historic regional capital of Maule, located approximately 158 miles south of Santiago. The site of the Com(m)a initiative was the Paso Moya neighborhood southwest of Talca’s historic center. An alliance between community groups and the Com(m)a team realized substantive connections to this neighborhood where the earthquake revealed social inequity: with the damage to housing came an assault on the social fabric of a community and its local identity. Nongovernmental organizations, Surmaule, a Talca-based social action and empowerment group, and Reconstruye, an affiliation of professionals and academics committed to the advancement of justly built environments, were project partners (Ciudades 2012). These two groups acted as intermediaries to connect the Com(m)a team with local resources, including the Paso Moya neighborhood association that participated in the process of identifying community need.

30E.24 The public billboard installed on the exterior fence allowed neighbors to leave messages for one another, and the community center to announce events taking place in the neighborhood. Com(m)a Studio, Diario Mural, Talca, Chile, 2011.

30E.25 The quincho located in the center of the building courtyard created a shaded public space for neighborhood events and gatherings.

Com(m)a Studio, Quincho,
Pedagogical Goals

A goal of the Com(m)a initiative was to teach students how to solve complex embedded social, economic, and environmental problems. In small steps, remotely and on site, students tackled postdisaster response and in the process learned how to empower and mobilize community voice through design. Students were taught that they could be catalysts for positive development and productive conversation. By identifying a complement of community strengths and student abilities, the Com(m)a team developed a program of scale-appropriate, tangible design solutions. Com(m)a subsequently created a GFRY Design Studio precedent for locational learning—learning supported by preparatory activities off-site in advance of working on-site with a host community. Intrapersonal learning nurtured a deep connection to stakeholder needs while application of technical skills realized student potential to facilitate design responses in context.

Select Teaching Strategies

• Intercultural preparation: Preparation for cultural immersion came through a series of interventions that grew in scope over time. First, the spring semester course introduced students to the Talca community and the impact the earthquake had in Paso Moya. Next, secondary research provided historical and cultural lenses for generating student understanding and building empathy. With this context, students created initial design proposals that responded to an early appreciation of the issues affecting the community.

The front yard of the community center was paved and furnished for families to enjoy the playground equipment also designed and built by Com(m)a Studio students. Com(m)a Studio, Pavimento, Talca, Chile, 2011. In March the Com(m)a team conducted their first nine-day site visit to Talca where they directed site-mapping and analysis exercises along with programming and design studies in collaboration with community groups. In April the Reconstruye team traveled to Chicago to provide feedback on six project proposals that responded to community-identified need. Reconsrue and Surmaule facilitated weekly Skype meetings with stakeholders and conveyed feedback between the neighborhood association and Com(m)a.

• Quick-response templates: Through preliminary and remote research, teams developed working processes, or
“templates,” that could enable rapid response following a disaster. These strategies were accomplished through an instructor-created “Task, Tool, Jig” methodology. Big problems were broken down into smaller manageable parts appropriate for student initiation. In an effort to scale the enormity of the multisemester project and practice an asset-based strategy, students self-identified individual strengths and related these to team tasks that they could feasibly accomplish within the stated goals and timeline. Connecting the task to tools for execution allowed other students to become technical skill-set collaborators. Jig operated as a systemic framework for guiding design process and implementation. Students were encouraged to work quickly and iteratively while acknowledging the relevance of their own expertise, as well as the expertise of their peers and the community they were working with. • Resource mapping: An emphasis on mapping social and material capital would determine project feasibility. Reconstruye and Surmaule functioned as primary contacts for on-the-ground development and worked with the neighborhood to organize and identify community resources and project goals. Through this asset-based lens, the Paso Moya neighborhood identified two areas for project development: (1) a series of community workshops that encouraged participants to confront grief and loss through the postearthquake rebuilding effort and (2) a series of design/build efforts that addressed improvements at the community center. These projects were developed between April and May; then the team returned to Talca for a three-week (June 20 to July 8) construction and implementation phase. Students worked within the limitations of the local conditions to determine material specification, use, reuse, and recycling or upcycling options available for their on-site construction. Co-creation activities were at the heart of their programming; this required a detailed understanding of the unique capacities of the community with which they were collaborating. Project Results and Learning Outcomes Com(m)a resulted in four community-center design/build projects (a quincho, 2 a playground, a courtyard, and a participatory message board) and four workshops (art making, art therapy, furniture repair, and video/documentary), conceived to support community members in coping with loss. 3 The final day of construction concluded

30E.27

The day before the group
departed, neighbors organized
an art sale and barbecue while
community partner, Surmaule,
provided live music. Com(m)a
Studio, Final event, Talca,
Chile, 2011.

with a celebration acknowledging the efforts of students
and neighbors alike. The
Com(m)a team left the neighborhood association with the
tools that the team
had purchased and guidelines—including blueprints—for
continued improvement
of the community-center facility. Surmaule monitored
facility use and organized
community-center events. Projects supported community goals
while offering
students the chance to gain expertise with technical,
handson craft and building
skills. Student learning came in pluridisciplinary forms
emphasizing reciprocity and
trust. Intrapersonal skills, such as listening and written
and verbal communication,
challenged students to adapt new ways of conveying
information. Partners: School of the Art Institute of
Chicago, Academic Studio Commissioner and Grant Writer;
Motorola Foundation, Grant Provider; Thornton Thomasetti,
Structural Design Consultant; Reconstruye; Surmaule; Paso
Moya neighborhood association and community members
Credits: SAIC: instructors, Odile Compagnon and Paul
Tebben; students, spring and summer 2011 GFRI Design
Studio

Notes
2 A quincho is similar to a pergola and is used as a
sheltered gathering space.


Case Study F The Farm Rover The Farm Rover is a mobile farming home base that provides shelter, access to basic facilities, secure tool storage, and temporary living space for farmworkers operating in flood-prone farming regions. Project-Specific Student Learning Objectives • apply principles of participatory action research (PAR) to a design/build project • formulate a plan for stakeholder engagement that uncovers needs related to traditional farming practices • practice community-based strategies for working across political, ecological, and fiscal divides

Summary The Center for Sustainable Development (CSD) at the University of Texas at Austin School of Architecture (UTASOA) sponsors a summer program in public interest design. The program, which identifies a new challenge every year, consists of two complementary course offerings: a ten-week design studio (Advanced Design/Build Practicum, ARC W696) and a five-week seminar (Community Design Engagement Seminar, ARC F386M). The combination of studio and seminar explore the creative tension between design/build methods and community-based endeavors in support of building trust through a relatively brief period of stakeholder engagement. Reflective and experiential learning between the studio and seminar supports a mix of undergraduate and graduate students in architecture, landscape architecture, and community and regional planning. In summer 2015, Austin’s Office of Sustainability challenged sixteen students to develop a response to urban floodplain farming that connected well-being with access to healthy foods. The challenge evolved into a project, developed in cooperation with two partner organizations: the Multicultural Refugee Coalition (MRC), an organization...
devoted to the resettlement of the refugee community in Austin; and the New Farm Institute, the nonprofit educational branch of Green Gate Farms (GGF), a certified organic farm committed to sustainable farming in the spirit of community-supported agriculture. Issues Addressed:

Social: Refugee Empowerment; Economic: Entrepreneurship; Environmental: Environmental Education Community-Based Challenge

A result of the Balcones Fault, Austin is divided east and west by an escarpment which exposes the city to flooding during storm events. Rapid development of Austin’s urban core coupled with the propensity for urban flooding created an opportunity for the exploration of a floodplain farming problem scenario (Public Interest Design Summer Program, 2015, 16-19). While this land typically cannot be developed for purposes such as housing, for example, it could provide a sustainable use alternative: urban farming, and thus local food production, in zoned areas that promote the cultivation of land for the purpose of growing fresh, accessible food (Bossin and Frambach 2013). The mutual interest in promoting urban agriculture reinforces the agency of the partner organizations involved. Austin’s Office of Sustainability sought solutions that explored floodplain food production (Public Interest Design Summer Program 2015). Together, MRC and GGF had a need for mobile infrastructure that would provision the productivity, comfort, and well-being of community farmers working in potential floodplain farm zones. These issues were addressed in combination and relative to Austin’s floodplain infrastructure.
Pedagogical Goals

While GGF, located east of downtown Austin, is not a floodplain property, it provided an accessible farm location for MRC participants and UTASOA students, who were able to work together on-site in the development of this case study. This farm has a history of sustainable agriculture, is committed to education and outreach, and was able to facilitate a valuable partnership between project stakeholder groups and students. The on-site farming context was beneficial in connecting students to the traditions, culture, and requirements of refugee farmers relative to the design problem. Over the ten-week summer session, students were exposed to a breadth of skill development that ranged from the interpersonal to the technical.

Students building on-site.
UTA summer 2015 Advanced Design/Build Practicum, Farm Rover, Green Gate Farm, Austin, Texas, 2015.

The Urban Farming rover prototype featuring the
kitchenette with integrated cistern, shaded areas for rest, and storage spaces.

UTA summer 2015 Advanced Design/Build Practicum, Farm Rover, Green Gate Farm, Austin, Texas, 2015. Select Teaching Strategies Faculty constructed learning scenarios that included stakeholders from diverse social, economic, and political contexts. Adopted strategies included those pertaining to research, cultural immersion, and design/build. • Research: Drawing upon principles of PAR, students undertook participant observation, key informant interviews, and spatial mapping to understand 30F.31 A student demonstrates the rolling shade screen. UTA summer 2015 Advanced Design/Build Practicum, Farm Rover, Green Gate Farm, Austin, Texas, 2015. how refugees’ past farming practices might inform this project’s design/build outcome (McIntyre 2008).

• Cultural immersion: Faculty fostered students’ cultural immersion through activities that aimed to expand understanding and bridge differences among diverse stakeholders. Students worked with refugees at gardening plots that included Lanier High School (LHS), Festival Beach Community Gardens (FBCG), as well as the GCF farm site. Understanding the unique needs of this multi-actor farming community was a top requirement.

• Design/build: Drawing upon empirical research, students created design concepts that supported intercultural, community-based farming. They were resourceful in creating proposals and solutions that responded to environmental issues and ensured resilient practices. Material reuse and new fabrication thoughtfully responded to community need and context of use.

At the start of the project, students leveraged their research into design concepts that benefited from stakeholder input. From this, students integrated a variety of techniques and theoretical perspectives into predesign development across all three
partner organizations. Consistent participation at LHS, FBCG, and GGF allowed for consideration of how existing gardening practices and spaces relate to a range of proposed conditions. By participating in farm work activities alongside MRC project stakeholders, students were encouraged to reflect upon the relationship between design and empathy. Upon selection of design direction, students worked iteratively in teams devoted to one of three areas: (1) “frame” (floor, frame, and roof systems), (2) “fill” (interior components), and (3) “flip” (entry and access points) (Public Interest Design Summer Program 2015, 37-43).

Design Summer Program 2015, 37-43). Project Results and Learning Outcomes The integration of engaged research into the concept, design, and construction of the Farm Rover advanced a model for reflective design practice and provides a multifunctional response to floodplain farming and farmworker necessity (Perkes 2009). Welded to a mobile-home chassis, the portable structure is twenty feet by seven feet; it can support basic human needs and provide tool security and shelter for people working in the field. In this context, the Farm Rover resolves a number of farmworker-related requirements in one single functional system: it provides shade, rain shelter, personal storage for tools, a kitchenette, water supplied by a fifty-five-gallon cistern, a composting toilet, and areas for rest and community gathering. The exterior walls incorporate perforated metal and gas-powered hinges, which allow an operator to respond to various weather events. Technical achievements such as these will be increasingly important for exploring and testing how design disciplines respond to local conditions of global processes. The students completed the project with recommendations and plans for three variable rover units that respond to the evolving nature of the project and the processes to which it responds. Urban Farming (unit B), which maximizes space for seating while including resting space, was the concept that was built and deployed; two other units, Community Gardening (unit A) and Rural Farming (unit C), each provide spatial enhancement variables for rest, storage, or
seating (Public Interest Design Summer Program 2015, 51-55). The students embraced the goal of adaptable use in their programming, anticipating it in the generation of this first prototype. Testing of the Urban Farming unit in floodplain-farming applications is forthcoming. Partners: University of Texas at Austin School of Architecture; Center for Sustainable Development (UTA School of Architecture); City of Austin Office

30F.32

The Urban Farming rover prototype features gas powered hinges which allows an operator to respond quickly to different weather events.

UTA summer 2015 Advanced Design/Build Practicum, Farm Rover, Green Gate Farm, Austin, Texas, 2015. of Sustainability; Green Gate Farms, New Farm Institute; Multicultural Refugee Coalition

Credits: CSD: studio instructor, Coleman Coker; seminar instructor, Kristine Stiphany; project manager, Sarah Wu; teaching assistant, Kaethe Selkirk; students, summer 2015 Advanced Design/Build Practicum and Community Design Engagement Seminar


Case Study G

On Site: Public Art and Design

Two studio courses—one in public art and the other in public interest design—were joined to afford a unique opportunity for creative placemaking in a suburb of Washington, DC. Ten temporary installations and a neighborhood “Superblock” party became catalysts for community engagement that activated public space and stimulated conversations about the future of the community.

Project-Specific Student Learning Objectives

• develop temporary art and design works that respond to and connect underutilized community spaces

• use art and design to build partnerships and advocate for local engagement

• analyze the physical and psychological meanings of place through interdisciplinary form making

Summary

In spring 2013, the Montgomery Housing Partnership of Montgomery County, Maryland, and the Long Branch Business League approached faculty from the Department of Art and the School of Architecture at the University of Maryland (UMD) to discuss an idea for a pilot public art and design course focused on the Long Branch neighborhood. Located 3.5 miles northwest of campus, Long Branch is a culturally diverse neighborhood in transition: it is expected to be heavily affected by the forthcoming light rail Purple Line, which will connect Long Branch to the Washington Metro transit system in 2022. This university-community partnership focused faculty and student efforts and neighborhood-created synergies on the potential of placemaking during a time of change. The course, “On Site: Creating a Sense of Place through
Intervention and Transformation,” united a three-credit undergraduate advanced sculpture studio 30G.33

A poster created for distribution during the Superblock Party with information and locations of all ten installations. Design: Kristen A. Fox and Alison Boliek Supinski, On Site, Long Branch, Maryland, 2013. 30G.34 Located in the local playground, discarded plastic bottles were woven together with wire thread to form a translucent pavilion gently formed around existing trees that pierced through the structure’s roof. Renard Edwards, Kristen A. Fox, Alison Boliek Supinski, and Kristen Yeung, Thirsty for Change, Long Branch, Maryland, 2013.

elective (ARTT 4380) with five students and a six-credit graduate architecture studio (ARCH 601) with twelve students. Students, faculty, and community partners together played a critical, timely role in affirming the collective identity of the neighborhood as it prepared to represent itself in local and regional planning and infrastructure-investment discussions. Issues Addressed Social: Local Identity, Strengthening Community; Environmental: Capitalizing, Reimagining, and Interconnecting Underutilized Spaces Community-Based Challenge The Long Branch neighborhood in Silver Spring, Maryland, is characterized as a first-ring suburb of Washington, DC, and is composed of multiple and diverse communities that support numerous small, locally owned businesses. Challenged by a lack of investment in existing public infrastructure, lack of cultural amenities, and the development of the Purple Line, Long Branch sought to
increase the visibility and recognition of its existing assets and anticipated needs in seeking public-private partnerships like the one generated with UMD. Pedagogical Goals This first iteration of On Site was a proving ground not only for what might be possible in a community-based public-private partnership of this kind at UMD, but also for the potential of the course to evolve. The faculty recognized the challenges inherent in bringing together undergraduate and graduate students from two related but different disciplines. The benefits of the experience far outweighed any deterrents, however. By emphasizing the shared qualities of their respective disciplines, students were able to fuse sculptural and architectural form making with the spatial conditions of site-specific installation. Beyond the making, students had to understand the complexities of environment, place, and people, and cultures to propose appropriate site interventions responsive to community issues.

Composed of neon construction string tied to the upper library courtyard railings and fixed to the ground below, this work converged at different points, creating colorful triangular planes that interacted and intersected with one another and introduced a new spatial geometry to adjacent spaces. Stephen Neuheuser, Matthew Miller, and Kristen Yeung, In Plane Site, Long Branch, Maryland, 2013. To achieve this goal, students worked in
cross disciplinary teams to generate

proposals that answered the project challenge: create a sense of place through
temporary interventions (Haslam 2013). This prerogative was supported by a series of explorations that bridged two dominant themes in the course: one devoted to formal, material, and spatial explorations and the other to social, cultural, and political issues. Together, these themes helped frame the following activities: research through precedents, site observations, photographic documentation, stakeholder discussion groups, and reciprocal listening; technical skill development exploring formal responses to materiality, building, space, site, and community contexts; conceptual formulations responding to issues, physical environments, community identities, and cultures; and design/build interventions, inviting interactivity, exploration, and discovery.

Select Teaching Strategies

• On- and off-site project development: Students were guided through a sequence of assignments, both in the community and on campus, that helped them understand the possibilities for making work driven by community concerns. A combination of research-based inquiries and technical investigations merged meaning with making. The proximity of Long Branch to campus ensured that students spent time in the community as a structured part of their research practice, which was critical to understanding the scope of embedded issues.

• Iteration: Students managed the full scope of project development in each of ten team-developed installations inclusive of early prototyping, full-scale design
mock-ups, and installation and de-installation plans. Supported by 30G.36 Through color and form, Chairs 1, 2, 3 encouraged playful interaction—a place to sit, a place to relax, a space to move through—activating the library plaza and unleashing its potential as a community public space. Joseph Largess, Kurt Pung, Rochelle Heyworth Cusimano, and Rachel Mihaly, Chairs 1, 2, 3, Long Branch, Maryland, 2013. ongoing stakeholder feedback, students tested their work, verified material compatibility, oriented their designs to a specific location, and engaged local partners for required permissions and permits. • Communication and documentation: The Superblock party, held on May 11, 2013, in the Long Branch Library plaza, was a milestone in the semester-long project. Together with faculty and local partners, students organized, promoted and documented the event and served as “project ambassadors,” available to discuss their ten interactive works displayed on nearby Flower Avenue. The temporal nature of the project created an opportunity for students to gain experience telling the story of their work using communication and documentation methods so that the ideas and messages lived on. Project Results and Learning Outcomes The Superblock party helped reimagine Long Branch public spaces as engaged, vibrant, connected environments—places people want to be. The interactive installations displayed from May 6 to May 20 explored issues relevant to the community’s infrastructure challenges and provoked direct engagement with those issues. Since the academic collaboration, Long Branch has continued to affirm its identity through several artistic and cultural enhancement initiatives, including a highly visible mural program and pop-up performances (myMCMedia 2015; Lowry 2016). The pilot offering of this public art and design course has evolved into several subsequent site-based iterations that promote transformative placemaking and collaboration in communities throughout Maryland (Long Branch 2014).

30G.37

The team used hinges to connect the triangular panels to one another with the understanding that the form would stabilize once fixed to
the ground. Despite building a series of physical and digital models, the students were amazed to see that the idea worked when tested at full scale in the studio. Kurt Pung, Matthew Miller, Carolina Uechi, and Rochelle Heyworth Cusimano, Passage, Long Branch, Maryland, 2013. 30G.38 This temporary gateway offered an artful suggestion as to how one might permanently connect disjointed areas of the neighborhood in festive, unique, and beautiful ways. Kurt Pung, Matthew Miller, Carolina Uechi, and Rochelle Heyworth Cusimano, Passage, Long Branch, Maryland, 2013. Partners: University of Maryland Program in Architecture, School of Architecture, Planning, and Preservation, Department of Art, College of Arts and Humanities, National Center for Smart Growth Research and Education, and Art and Architecture Libraries; Impact Silver Spring; Long Branch Business League; Montgomery County Public Libraries; Montgomery Housing Partnership; Montgomery County Department of Parks; Arts and Humanities Council of Montgomery County Credits: UMD: architecture faculty, Ronit Eisenbach; studio art faculty, John Ruppert; teaching assistant, Mark Earnhart; students, spring 2013 advanced sculpture and architecture studios

Note

1 See the website Long Branch: Exploring Sites in Transition (http://artinplace.wixsite.com/long-branch/10-installations) for an overview of all ten student projects and subsequent work in Long Branch.


Runners take to the streets
in the inaugural SOCA Sprint
5K. CDAC, SOCA Sprint 5K,
Ruston, Louisiana, 2009.

Center (CDAC) is available to graduate architecture students (ARCH 545) and to
third- and fourth-year undergraduate architecture students as a repeatable course

(ARCH 445). An alternative to a field internship, CDAC promotes engaged learning
by providing access to ongoing social-impact projects in Ruston and surrounding

communities. One such project is SOCA, a long-term plan initiated in 2008 with
A twenty-year vision for the co-creation of a sustainable neighborhood south of campus and California Avenue. SOCA challenges students to take a holistic approach to community design problem solving by exploring embedded contextual themes, such as well-being and education, as an entry point for understanding the social conditions of people and place in the built environment.

Issues Addressed

Social: Education, Gathering Spaces, Strengthening Community

Community-Based Challenge

Ruston has a population of approximately twenty-two thousand people, of which 39.1 percent live in poverty, nearly three times the national poverty rate (US Census Bureau 2016). With this concern at the forefront, SOCA arose out of a reciprocal interest in building community between LTU SOD service-learning capacities and assets in the impoverished neighborhood near campus. Five years of relationship building between university facilitators, students, community partners, and city leaders led to formalizing community interests, including improving education, providing gathering spaces, and strengthening community among others. Addressing 30H.40 CDAC students facilitate painting of fence pickets for the SOCA community garden. CDAC, SOCA, Ruston, Louisiana, 2011. These human issues as design issues became a way of combating the localized social strain of poverty. Coalition building by LTU SOD faculty and community partners through the SOCA project resulted in the development of Neighborhoods Unified for Hope (NU-Hope), an independent nonprofit. NU-Hope’s mission...
is to mobilize a constellation of partners and volunteers from across the city who seek to improve their community. CDAC functions as the design arm of the organization; there, student-led projects are instigated and enacted with a variety of partner organizations and stakeholder groups. Pedagogical Goals Students are integral to the long-term plan for SOCA. Service-learning activities are woven into course work and articulated based on the stated needs of the community challenge under investigation. Relying on predetermined phases, students explore the following (Singh 2010, 599-600): • understanding (discovery, research, documentation) • awareness (promotion of problems, community contacts) • expertise (best practices, precedents) • planning (charettes, community discussion, roundtable meetings, fund-raising) • design (with the community, university, and city) • implementation (building proposed projects, fund-raising)

30H.41

Completed SOCA garden sign and entry. CDAC, SOCA community garden, Ruston, Louisiana, 2011.

These phases reinforce SOCA student learning objectives and emphasize the cultivation of leadership skills, design facilitation through relationship building and communication, and collaborative transformation of resilient communities.

Select Teaching Strategies

• Teaching leadership: Student teams tackle new or ongoing SOCA initiatives determined by community feedback and input. These challenges are framed through the six phases (listed earlier) and offer opportunities for students to engage in conversations and work with the community. Leadership skills are nurtured through students’ ability to observe, listen, and discover—intrapersonal proficiencies that can build confidence by bridging understanding 30H.42 A student helps with arts and crafts projects at the 2016 block party. NU-Hope, SOCA block party, Ruston, Louisiana, 2016. and fostering mutual
respect through shared goals. Students can then apply leadership skills through the mentored organization, design, and promotion of events that build awareness of and generate funds for SOCA projects. • Building trust: Teaching leadership skills works hand in hand with building trust between students and stakeholders. A series of CDAC-sponsored annual events has helped build that bond, including fall block parties, a five-kilometer run, and year-round community-service outreach. Students become embedded in the neighborhood by participating in activities that promote inclusion and build fellowship. • Developing citizen designers: CDAC students are given opportunities to identify with and share the interests of the community. Shifting emphasis from building structures to building relationships creates a space for connecting with people and their needs where design problems and solutions emerge from the community context. The multiyear engagement process of SOCA is ongoing, with long-term benchmarks that support students in expanding skills beyond the technical. To understand their in-progress design challenges, students typically use methods like qualitative observations and analysis, interviews, mapping and diagramming, asset-based design, local media and government support, and stakeholder advisory groups. Project Results and Learning Outcomes Since 2008, SOCA has produced results ranging from community-interest events to planning and implementing a community garden, which has since served as an impromptu meeting space. Through these scaled developments and in the creation

30H.43

CDAC students review feedback from a community meeting and discuss next steps to pursue. CDAC, SOCA project, Ruston, Louisiana, 2017.

of NU-Hope, the need for a community center has emerged. In collaboration with the city, which donated land for the center (Bergeron 2017), the Hope House will serve
as a gathering space, provide educational outreach, and strengthen community ties by hosting programs of interest to the neighborhood. This project has spurred others activated by a desire for enhanced connectivity, including redeveloping an abandoned rail line as a shared-use path and planning sidewalks that promote safe walking and biking. Students demonstrate learning in these initiatives through participation and leadership, in weekly reflective journal entries, and in the results of their diverse community design activities. Students are actively engaged in designing the Hope House and procuring the necessary support for the project to be considered a success to the neighborhood and the city. Partners: Louisiana Tech University School of Design Community Design Activism Center; Neighborhoods Unified for Hope; City of Ruston; North Central Louisiana Master Gardeners; North Central Alliance Partners in Prevention; Paul E. Slaton Head Start Center; Kiwanis of Ruston; Rotary Club of Ruston; North Central Louisiana Arts Council; Origin Bank; First National Bank; Ruston High School; local churches; local drug court; and numerous other organizations across the city. Credits: LTU SOD: lead instructor and director of CDAC, Kevin J. Singh; students, CDAC (since 2008) Bergeron, Nancy. 2017. “Aldermen Approve Revitalization Projects: Community Gardens, Center Aim to Unite Neighborhoods.” Ruston Daily Leader, March 7. Singh, Kevin. 2010. “Rebuilding a Community: Social Justice, Diversity, and Design.” In 98th ACSA Annual Meeting Proceedings, Rebuilding, 597-603. Association of Collegiate Schools of Architecture. Accessed November 7, 2016. http://apps. Rendering of the proposed Hope House. CDAC, NUHope, Hope House, Ruston, Louisiana, 2017. 30I.45 What if a bus stop was reimagined as a community center?
Designing a participatory process for transit stop design that can offer community amenities, identity, and gathering spaces.


organizations and the city and county of Sacramento, California. Initiated by the Sacramento Area Council of Governments (SACOG), this collaborative brought together CPID students, local governments, and the Sacramento-based organizations La Familia Counseling Center and Mutual Assistance Network (MAN) to strategically address issues of disinvestment in Sacramento. Driven by social, economic, and environmental challenges and their public health impacts, the With Sacramento project asserts an inclusive process for assessing immediate and long-term community needs.

The project leverages anticipated cap-and-trade carbon tax credits for California public transit improvements in the South Sacramento and Del Paso Heights neighborhoods.

CPID graduate architecture students, undergraduate seniors, summer interns, and student fellows contributed to the ongoing research and development of this project.

Issues Addressed

Social: Strengthening Community; Economic: Access to
Community-Based Challenge

SACOG worked with CPID to identify South Sacramento and Del Paso Heights as ideal partner neighborhoods, each with strong organizational alliances through La Familia and MAN. The state of California had identified the regions these communities are located near or within as “disadvantaged” and eligible for access to the Greenhouse Gas Reduction Fund (CALEPA 2014, 20). Characterized by urban infrastructure disinvestment, these communities vocalized needs and opportunities around community well-being and quality of life. Through student-generated community engagement and outreach, vacant properties, safety, and access to goods and services emerged as critical issues (CPID 2016). Public-transportation accessibility was identified as a significant factor of community interest and became a focal point for CPID research—one potentially supported by California’s cap-and-trade legislation. Pedagogical Goals With Sacramento proposes multiple opportunities for focused pedagogy. As a multifaceted, embedded community-based project, it offers students a unique applied context for honing outreach and research skills, working on-site with stakeholders through a variety of engagement techniques. The project also realizes the value of design process as a gateway to building relationships, community networks, and communication platforms. These nontechnical skills are not only necessary but vital when designing with public constituents. Because CPID establishes longer-term project partnerships, students experience projects at various stages of research and development, replicating the qualities of real-life work and enhancing students’ understanding of workflows, project roles, and life cycles. CPID also underscores team building between
individuals and student cohorts; by emphasizing responsibility to project goals, CPID constructs a legacy of knowledge among participating students beyond the conclusion of the academic term. Project faculty have facilitated additional goals: practicing methods of coproduction and design; using human values to motivate design thinking; and researching, building, and deploying a range of low- and high-tech tools to deepen community engagement. Select Teaching Strategies • Amplify community voice: Students explored varied engagement techniques supporting the open inclusion of diverse stakeholder groups. Students relied on community-organization networking and the inherent social capital

Community input as design research. CPID, With Sacramento, Sacramento, California, ongoing. generated with residents at engagements in Sacramento. Students canvassed neighborhoods and used mapping and diagramming to document their findings. They conducted observations and interviews, participated in public forums, created interactive games, and used descriptive writing, drawing, and asset-based design to verify the voice of the community. Students also helped refine the With Sacramento online engagement tool, which provides enhanced access beyond direct contact with project partners.

• Systemic integration: CPID emphasizes the concept of integration within the curriculum and in its projects. This concept is manifested in project problems and possible solutions where students evaluate social, economic, and environmental factors and the impact of these on the stakeholders. Students are encouraged to look holistically at the design intervention and consider systems, processes, and programs that expand solutions through design and development.

• Scale appropriateness: Students are guided through a planning process that frames small-scale design interventions as a way to build capacity and effectiveness with communities facing large-scale concerns. The incremental development of a project teaches students about the possibilities of modularity and the progressive organic growth of ideas toward long-term goals. Controlling
project scale (or tackling smaller aspects of a project) helps students work through problem solving and application scenarios iteratively, which serves both long-term planning goals and specific small-scale interventions. An architecture student speaks with Del Paso Heights residents about how they travel to, from, and within their community. CPID, With Sacramento, Sacramento, California, ongoing. Project Results and Learning Outcomes

Since 2014, With Sacramento has generated the following outputs: • research materials representing both neighborhoods • a series of low-tech participatory events • visioning documents • a master plan for a sports facility in Del Paso Heights • reappropriation of an unused school for community activities • a design guide that empowers the local community and designers to participate in community-centric public-transit infrastructure. The design guide promotes multifunction bus shelters: bus stops that are also community centers. Four bus-shelter concepts have been presented, each functioning as an in situ community center and gateway to the neighborhood. With Sacramento also collaborated with Ecosistema Urbano, using its Local(in) platform (Ecosistema Urbano 2010; CPID 2016, 80–90) to customize an online engagement tool specific to this project. This version of the community engagement tool is currently in testing prior to full release. Once launched, the tool will further support including the widest breadth of community voice. Students have participated in all phases of the project to date. Learning outcomes in the form of design proposals indicate a wide and deep understanding of community civic engagement techniques coupled with the requirement for coalition building through local, organizational, and political outlets relevant to this project (CPID 2016, 46–79). Design solutions respond to a varied set of circumstances and requirements, from large scale to small. Finally, the importance of a well-articulated design process that

Diagram of project concept

from vacant lot to pop-up shop to building. CPID,

Woodrow Merkel, With

Sacramento, Sacramento,
California, ongoing.

responds to the community context is evident; students engaged with and promoted

the inclusion of their partners in this work where commonly held values were tangible. Partners: Center for Public Interest Design, Portland State University School of Architecture; La Familia Counseling Center; Mutual Assistance Network; South Sacramento and Del Paso Heights residents; Sacramento Area Council of Governments Credits: CPID: instructors, Sergio Palleroni, B.D. Wortham-Galvin, and R. Todd Ferry; students since spring 2014, graduate-level Urban Design Studio (ARCH 580), undergraduate Urban Design Studio (ARCH 480), summer internships, and student fellowships; Ecosistema Urbano; Place Studio

Note

1 See the With Sacramento project at www.centerforpublicinterestdesign.org/cpid-sacramento-transit-guide/.

CALEPA (California Environmental Protection Agency). 2014. “Designation of Disadvantaged Communities Pursuant to Senate Bill 535 (De León).”


Afterword: A Public Interest Design Educational Platform


Glossary


Butko, Daniel, and Anthony Cricchio. 2014. “Designing the Build Experience Through Inhabitable Deliverables: Three Case Studies Housing Project-based Instruction.” Paper presented at the 102nd annual meeting of the Association of Collegiate School of Architecture, Miami Beach, FL,

