

Resilience, Conviviality, and the Engaged Studio

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Abstract

University faculty and outreach program directors have been called to deliver more effective, equitable, and sustainable ways in which neighborhood and university communities may creatively interact. The authors report on the case of the Pittsburgh Studio, an initiative that matches students and resident stakeholders in researching local issues and identifying place-based solutions to catalyze resilience and conviviality in low-income neighborhoods. This article traces the cooperation of the Pittsburgh Studio and the Penn State Center, describes its conceptual basis, and concludes by outlining emerging best practices for neighborhood-based engaged scholarship in the post-industrial inner city.

Introduction

Over the last several decades university faculty and outreach program directors have been called to deliver more effective, equitable, and sustainable ways in which communities and students may collaborate (*Bok, 1982; Boyer & Mitgang, 1996; CAFT, 2011; ESC, 2011; Kellogg Commission, 1999; Orr, 2004*). This article reports on the Pittsburgh Studio (the Studio), an initiative that promotes the intertwined imperatives of professional training, institutional change, and community engagement. Building on the introduction of this community design studio case as the 2011 Outreach Scholarship/W. K. Kellogg Foundation Engagement Award winner for the Northeast region, the authors trace its origins as a cooperative venture between the Penn State Center–Engaging Pittsburgh (“the Center”) and faculty of The Pennsylvania State University (Penn State) Department of Landscape Architecture. They discuss the Studio’s genesis, functioning, and outcomes since the first fall 2008 offering of the course, and conclude by outlining emerging best practices.

The Pittsburgh Studio (the Studio)

The Pittsburgh Studio is one of several options selected by advanced students in the 5-year bachelor of landscape architecture (BLA) and 3-year master of landscape architecture (MLA) programs at the University Park campus of Penn State University.

The fall semester, 5-credit-hour course meets 12 hours per week, and runs for 15 weeks. Both the BLA and MLA are accredited professional degrees that are prerequisite to licensure in most U.S. states and several Canadian provinces. Advanced students who choose the Studio seek to test their considerable, but campus-honed, skills in real-life situations. Most of them are curious about the potential of design in seeding initiatives for local sustainable development, green jobs, re-democratized public places, and environmental quality.

The Studio is facilitated through the Center, which formed concurrent with the first offering of the Studio in 2008. It is a joint initiative of the Penn State offices of Outreach and Extension, and the College of Agriculture. As a facet of Penn State's land-grant mission, it develops and strengthens Pittsburgh-based relationships to connect the university with local partners and to leverage Penn State resources for application in Pittsburgh and Allegheny County.

Goals of the Studio.

The Studio is committed to Pittsburgh's lower income, inner-city neighborhoods, and works closely with local nonprofit organizations, neighborhood councils, and community block groups. Studio venues to date have included the neighborhoods of Beltzhoover, the Hill District, Larimer, West Pittsburgh, South Homewood, Carrick, and Coraopolis. These places have been labeled at-risk, marginalized, disadvantaged, distressed, disenfranchised, or underserved. The course's students may initially see a neighborhood in terms of daunting and entrenched problems; however, they invariably soon "discover" its humanity—its stories and achievements, and its specific place-based aspirations. These are the neighborhoods with which the Center and its leader have had long and productive working relationships based on mutual respect and trust.

The primary goal of the Studio has been to ally with local groups and individuals to research community and environmental design problems and opportunities, and then to collaboratively identify solutions to catalyze social, ecological, and economic resilience in the local context. In some cases the Center has been engaged in these communities prior to the Studio, and it continues that relationship once the Studio concludes. It helps neighborhood partners filter ideas, stimulate social entrepreneurship and community development activities, and forge links to resources available through the Office of the County Chief Executive, the Office of the Mayor, and other local entities.

Rationale for the Studio and the Center

The theoretical, pedagogical, and organizational impetuses for the Studio and the creation of the Center are intertwined stories that the authors believe are worth tracing in some detail. Essentially, each formed out of discontent with the types and degrees of community interaction of previous service-learning studios and outreach operations.

Among several overarching goals, the Center sought to glean from its Allegheny County Extension roots a more relevant and purposeful university–community partnership model, one that responded nimbly and creatively to requests for assistance by at-risk neighborhoods throughout the metropolitan region. One of the Center’s key objectives was leveraging trust it had gained locally to function as a reliable conduit between applied research and learning mandates of the university (beyond the traditional Extension resources of the College of Agricultural Sciences) and needs and potentials of communities.

The Pittsburgh Studio–Penn State Center partnership was premised on a commitment to transitioning from standard service-learning fare to a more robust understanding of community engagement and public scholarship (*Driscoll, 2008; Yapa, 2006*). The partnership’s leaders (the authors) began by acknowledging that the potential goals of reciprocity and co-generation of knowledge were yet to be pursued. They hoped that the Studio might inculcate in their students (nascent professionals) and their neighborhood partners awareness of the power of place-based research and design in the service of neighborhood and civic regeneration over the long term. They were also attentive to the proof-of-concept nature of the Studio as a key initiative being spearheaded by the new Center. Thus, they envisioned a process that would match the needs and capacities of select neighborhoods to the logistic constraints of distance (140 miles between campus and city center) and semester duration (4 months). The partnership between the Studio and the Center would provide the scaffold needed to achieve strong relationships, efficiencies, and continuities that had been missing in earlier service-learning studios.

More broadly, the Studio served as a pilot project of the Center’s drive to partner university entities and scholars with city administrators, industry, and neighborhoods, with relationships defined by mutual respect for what each partner brought to the table. As with other initiatives that would soon flow through the Center, the Studio would respond to the needs of current students, enrich their experiences by bringing current research to challenging

issues, interweave methodology and engagement into a progressive pedagogy, and offer practical opportunities for students to prepare for their future. Knowledge and expertise resources from the Department of Landscape Architecture would also be brought to bear at the neighborhood level, providing valuable assets to the residents.

The first semester, in fall 2008, tested roles, procedures, and expectations, and tracked outcomes. After some shared retrospection and re-tooling, the subsequent three Studios adopted a two-neighborhoods-per-semester rhythm, with each half of a group of 12 to 14 students aligning with willing community partners for the duration of a semester.

The Studio: Formation and Functions

The Studio and the Center each struggled with the need to be better aligned with relevant, real-world, meaningful experiences, the former through teaching, research, and community-based practice, and the latter through the scholarship and delivery of urban services in Allegheny County, Pennsylvania. A range of overlapping literatures also informed the Studio and the courses and outreach programs that undergirded it. As planning ensued, the professional backgrounds of the authors and their experiences in researching and delivering place-based scholarship blended to influence the teaching techniques used by faculty members in the Studio.

Tacit Instruction-Related Foundations

The professions of landscape architecture and community design, while multi-scale, multi-faceted, and client-based, have long traditions of serving the public realm. A curriculum that prepares students for licensed professional practice in a range of contexts, including real-world, community-based coursework, has been central to Penn State's Department of Landscape Architecture mission since at least the early 1970s (*Palmer, 2011*). From the perspectives of instructional theory and course delivery practice, however, several shortcomings coalesced around status quo approaches to advanced studios during the long lead-in to the Studio.

- Stuckeman School of Architecture and Landscape Architecture (SALA) studios labeled as “community-based” or “service-learning” were achieving only moderate immersion levels; the more distant the studio (e.g., 30+ miles from campus), the more

superficial the interaction between students and community stakeholders (*Tamminga, Mozingo, Erickson, & Harrington, 2002*).

- The faculty was in the habit of “shopping around” for community partners from one semester to the next. Although this resulted in a diversity of venues and project types, it limited the ability of faculty and community representatives to form relationships. One result was that project logistics and on-site research frequently bogged down as students and faculty only slowly became conversant with stakeholders and local information caches.
- The prospect of minimal post-studio follow-up was a disincentive for local stakeholders to collaborate with students in knowledge co-generation. Partial reciprocity of learning and beneficial outcomes was often achieved, but longer term, fuller reciprocity remained elusive.
- With the exception of a few select courses such as the Reading Studio (*2001*) facilitated through the Hamer Center for Community Design (HCCD), studio planning and coordination duties were shouldered almost entirely by individual faculty members. Considering the many demands on faculty for research and service productivity, and with little incentive to pursue engaged scholarship, only a few stalwart faculty members in SALA arranged their own community-based courses.

Nevertheless, there was a sizable buildup of largely discipline-specific pedagogy leading up to the Studio. Land planning and environmental design studios tended to associate with near-campus nonprofit organizations or local agencies, providing faculty members with the efficiencies afforded by established relationships driven by service research (*Tamminga, 2004*). Partners included the Friends of Sinking Valley (fall 2000), Susquehanna Greenway (fall 2002, 2003), the Mount Nittany Conservancy (fall 2004, 2005), and the ClearWater Conservancy (spring 2005, fall 2007). The Greenway and first ClearWater studios were supported by a public scholarship grant from Penn State’s Office of Undergraduate Studies. Although quite successful, these courses did not reach full potential because they were filtered through the nongovernment organization partners, allowing limited interactions with residents

in study areas. Still, all attempts at community-based scholarship served as lessons. Collectively those lessons provided a corpus of tacit experience that set the stage for the Pittsburgh Studio.

Discipline-Based Theory and Precedent Influences

Studio-based service-learning in SALA during the 1990s was not only entrenched in departmental curricular tradition, but was also stimulated by earlier professional community-based work conducted by faculty members, such as a major urban river restoration project driven by the grassroots Bringing Back the Don Task Force (Hough, Tamminga, Newbury, & Gordon, 1991); a new 5,500-acre Rouge Park initiated by a consortium of community activists representing neighborhoods along Toronto's east boundary; and the Don Valley Brick Works, a natural regeneration park spearheaded by neighborhood groups surrounding the valley (Tamminga, 2007). Taken together, these projects coalesced "communities of practice" that entailed substantial co-learning (Schweitzer, 2008; Wenger, 1998), with collaborations resulting in neighborhood stakeholders generating and promoting their visions, and with local political units falling in step. These seminal projects worked synergistically to rejuvenate a grassroots localism in the city that had arisen in the late 1960s from successful resistance to the proposed Spadina Expressway extension through stable, working-class neighborhoods.

Overall, these precedents honed engaged techniques and professional–community group partnerships that would later influence the selection and pedagogy of design studios at Penn State. Participatory action design was used for part of the Nine Mile Run Project (1996–1999) that focused activist attention, public policy, and funding in Pittsburgh on consensus-based approaches to environmental design and green infrastructure (Collins, Dzombak, Rawlins, Tamminga, & Thompson, 1999; Miles, 2000).

From community-based professional practice and scholarship to design-learning pedagogy.

Community-based professional practice and scholarship as used in design-learning pedagogy has been realized intermittently in the broader landscape architecture academy over the past several decades. Prior to that, neither the Parisian Ecole des Beaux-Arts studios tradition nor the World War II era Bauhaus/Modernist studio model that replaced it cared much for community engagement (Harbeson, 2008). Ironically, the 19th-century French *ateliers* (workshop-studios) and the earlier European guilds were often

connected with everyday places, as masters and their apprentices addressed concrete problems.

While educational reformers Boyer and Mitgang (1996) acknowledged the studio model, they also urged the U.S. architecture academy to turn parts of the curriculum outward toward the community. Programs in landscape architecture needed less such prompting. The discipline had developed a strong focus on the public landscape following World War II, so many of the 50 or so North American accredited programs had long been striving toward a balance between inward and outward studio foci. Randy Hester (1984, 2006), Michael Hough (1985), Anne Whiston Spirn (1984), Phil Lewis (1996), and others paved the way in pairing academic studios with communities. Several notable partnerships between design studios and underserved communities formed, including Spirn's (2005) University of Pennsylvania-based West Philadelphia Landscape Project, initiatives by the University of Illinois in East St. Louis (*Action Research Illinois*, 2012), and University of California–Berkeley faculty work on ecological democracy (Hester, 2006) and culturally sensitive design in the inner city (Hood, 1997).

However, the literature on community-based design learning remains elusive. A review of articles ($n = 151$) in the flagship academic publication *Landscape Journal* since 2000 shows only a handful that address themes of cross-cultural outreach or community-based coursework. Only three articles (less than 2%) present examples of coursework in underserved communities. Although educators in place-based disciplines have long recognized the imperative of engaged learning, the theory is only weakly codified and disseminated.

Guided by applied experience and case studies, the lead author has taught two dozen service-learning courses since 1994, each providing lessons and contributing incrementally to a personal cache of best practices. The Reading Studio, facilitated through advance relationship building by Hamer Center for Community Design personnel, stands out as a prototype upon which the Pittsburgh Studio could build. In general, however, the lofty goals of public scholarship as espoused by Yapa (2006) listed below were never quite within reach. The authors began to realize that it was not pedagogical limitations or lack of resources that placed robust public scholarship just beyond their grasp, but rather the need for a relational presence in local places, and the sensibilities and nimble responses to local exigencies that come with it. The challenge was not to bring the studio into the community. The challenge was to engage deeply enough to attain the goals of reciprocity, co-learning,

and co-generation of imaginative solutions to place-based problems. The Penn State Center was designed to address this challenge.

Extension, outreach, and learning theories.

Studio faculty members and Penn State Center staff have been strongly influenced by the evolving discourse regarding the role of Extension in the urban context. Substantive effort has been expended in attempting to reconcile the differences between Extension's traditional rural and production agriculture focus and the land-grant roles of outreach, learning theory, and interdisciplinary approaches to translational research addressing real-world problems.

Urban Extension.

Two studies supported the concept of a shift in traditional Extension perspectives by enhancing programming in metropolitan areas. The first, completed in Texas, argued that future support for Extension in Texas depended heavily on having visible, effective Extension educational programs in urban areas (*Fehlis, 1992, 2005*). The second, conducted at The Ohio State University, provided evidence that urban Extension was nested in a traditionally rural and agricultural environment, yet served the urban population by addressing diverse challenges (*Kerrigan, 2005*). This study claimed that securing the future of urban Extension was critical to the health of the entire system. Qualitative and other research continues in urban Extension and outreach (e.g., dissertation work by *De Ciantis, 2009*, on successful models of urban engagement).

Lessons learned from international research.

The Studio faculty's involvement with several international research projects in environmental learning also cross-pollinated with the nascent Pittsburgh Studio. Beginning in 2005, the Mountain Project (*Hoadley, Honwad, & Tamminga, 2010; Honwad, Hoadley, & Tamminga, 2006*) in north India and Nepal applied emerging principles in the learning sciences in its work. A project funded by the National Science Foundation, Anticipatory Learning for Climate Change Adaptation and Resilience (ALCCAR), 2008–present, employed action research techniques in determining anticipatory learning capacities with villages in Ghana and Tanzania in the face of climate uncertainties (*Tschakert & Dietrich, 2010*). Both set up largely informal, constructivist community-wide learning approaches. Yet when necessary—such as when explaining climate change to village residents—both studies blended instructivist,

teacher-to-student styles to introduce exogenous scientific knowledge to local contexts.

Two concepts informed this international work: double-loop learning (Argyris & Schon, 1978; Gunderson & Holling, 2002) and resilience theory (Berkes, Colding, & Folke, 2003; Folke, 2006). Argyris and Schon (1978, p. 3) explain that double-loop learning occurs when error is detected and corrected in ways that involve the modification of an organization's underlying norms, policies, and objectives. A resilience theory framework emphasizes learning, self-organization, innovation, and anticipation as ways social-ecological systems can build adaptive and transformational capacity in the face of uncertainty.

The application of these ideas in South Asia and Africa was ripe for translation to Pittsburgh's post-industrial neighborhoods. Participants in all three contexts showed a willingness to build creative learning capacity as a means to greater resilience and conviviality in their communities. The authors traded and adapted methodologies: participatory video techniques used in the Mountain Project were employed by several students during the Pittsburgh Studio; analytical neighborhood site walks used in the Studio sparked ALCCAR's "walking journeys" tool that helped to assess potential contributions of indigenous knowledge to building resilience in Ghana and Tanzania (Tamminga & Shaffer, 2011). The Studio's well-honed charrette activities directly inspired ALCCAR's "layered mapping" tool, which turned out to be a key link in making the shift from learning about climate change impacts and building community capacity to village-level adaptive planning and management.

Learning theories.

More general learning theory was also very influential in constructing the Studio model. Generations ago, John Dewey (1927) called for unity of theory and practice in the pursuit of learning. Later, Polanyi (1962, 1966) delved more deeply into tacit knowledge that drew from personal trial-and-error and intuition in achieving understanding. He examined pursuit of discovery "guided by sensing the presence of hidden reality and . . . an anticipation of discovery" (Polanyi, 1966, p. 24). This body of theory paved the way for study on contemporary collaborative learning environments such as the *participatory cultures* described by Jenkins (2009). And these ideas overlapped with cultural-historical activity theory, which suggests that community learning is a by-product of the pursuit of shared motives and goals (Roth & Lee, 2007).

The interplay between theory and learning-by-doing was applied to the Studio in many ways. For example, students documented that older participants during community charrettes in Beltzhoover, Larimer, and South Homewood often lamented the loss of what they perceived as a more intact, convivial community that existed prior to job loss and depopulation resulting from the collapse of Pittsburgh's steel industry in the 1980s. The authors found that such bouts of neighborhood-level melancholy may, in fact, be a form of social malaise that Albrecht et al. (2007) termed *solastalgia*. This convinced the authors that exposing students to local histories and sensibilities required introducing them to the people and places of their chosen neighborhood, and then impelling both students and local participants to meet often enough to build relationships. The authors agree with Lebow (1993), who asserted that "our task is really as minimalist coach to steer students toward contexts (places, people, ideas) where connections are more likely to be made" (p. 14). They also saw the imperative of getting students beyond single-story narratives promulgated by the media and pop culture. From achieving interpersonal connections and a semblance of immersion, trust would ensue, and design solutions would reflect the richer and lasting narratives of local groups and individuals living fruitfully in their places.

Meanwhile, campus-based public scholarship discourses provided insights that inspired both the Center and the Studio to press beyond conventional service-learning models. Most notable were the informal Public Scholars group led by Jeremy Cohen beginning around 2000 and the work of geographer Lakshman Yapa (2006) in West Philadelphia. They brought ethics-oriented and postmodern perspectives to emerging ideas on public scholarship and civic engagement. The work of Yapa and his students, in particular, injected a level of holism into discussions on how best to formulate the Studio. The authors embraced as normative his precepts that public scholarship should

- address issues of public interest;
- integrate research, teaching, and service;
- tap into and test theory;
- generate knowledge in the community as well as in the university;
- include community residents as knowledge-producers; and
- include both community and university as beneficiaries of new knowledge (Yapa, 2006, pp. 73–74).

As the inaugural Studio approached, it became clear that higher-order learning was within reach, and that relatively complex and ethically explicit questions could be posed. Could the Studio, through student–community interactions, challenge the implicit status quo that “good design was too good for the ’hood”? Could it reconcile the inevitable feelings of otherness that existed between our privileged, mostly suburban students and participants from low-income communities of color? And even if reciprocal learning was possible, was it desirable from the perspective of job-seeking young practitioners?

These were the types of questions, or problem formulations, that were hoped would span from ethical to empathetic. The intent was to explore in some small ways Yapa’s subversive introduction of notions of power politics and scholarly culpability, as essential precursors to any paradigm shift (*Postman & Weingartner, 1969*). Over the longer term, it was intended that the Studio would resonate through the future work of its alumni to compel the discipline to ponder its own biases and inequities and, hence, more honestly contribute to the full spectrum of life in the city. This evolving definition of public scholarship would thus add four more foundational principles that would

- reveal the fallacy of disciplinary silos beyond the campus (neighborhood participants typically greet students as well-rounded scholars, and expect them to play both generalist and specialty roles);
- scaffold to include more transformative forms of learning (see Figure 1, below);
- emphasize constructive rather than instructive learning styles, thus calling for maturity, independent critical thinking, and an ability to handle the unexpected; for faculty, this means encouraging rather than controlling methodological and relational processes (*Lebow, 1993*); and
- transform beyond the academy to include influencing students’ impending career choices and future professional practice commitments to low-income communities underserved by design expertise.

As suggested in Figure 1, progressive design learning is premised on an expectation of higher order intentionality and creativity, ideally driven by shared goals. Additionally, the Studio would target cross-cultural learning and messy, value-laden (“slow”) design in stressed communities as an opportunity to achieve the kind

of informal and confluent learning that might embody personal responsibility, empathy, and even wisdom (Polanyi, 1966; Whitlock, 1984).

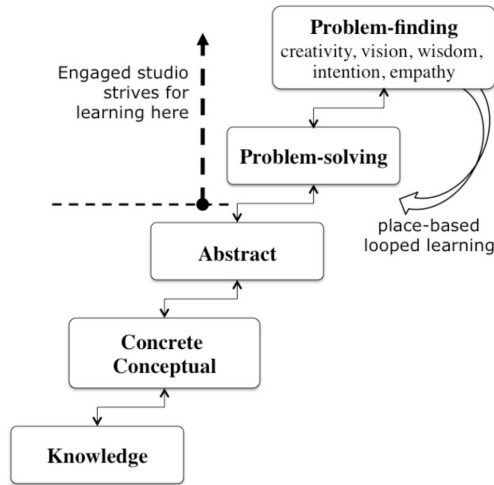


Figure 1. Engaged Studio Learning Tiers

As shown in the figure, the Studio model also calls for iterative feedback loops. As new data or insights arise, so do new design possibilities and participant responses. Each of these may prod a need to backcast, whether that entails further research or more interactions in the neighborhood. Thus, there is a staccato-legato learning rhythm that taps into cycles of divergent and convergent scholarship, and analytic, discursive, and creative modes of thought. The entire process is infused with design exploration of physical or programmatic forms. Unlike the excessively efficient version of “design thinking” that has recently been commoditized (largely outside the physical design arts), this kind of design is contingent and fairly democratic (Jacobs, 1961; Strauss & Fuad-Luke, 2011). Parts of the process occur in the neighborhood, with its contextual placefulness, and parts take place in technology-enabled campus facilities. The spatial situation of the Studio is discussed in more detail below.

In summary, intertwined learning science and public scholarship theory proved useful in conceiving this Studio. Notions of collaborative, collateral/cross-cultural, experiential, and confluent learning resonated as the course geared up. Of particular interest were the possibilities for co-creativity that would catalyze community improvement while impressing on young designers the diverse

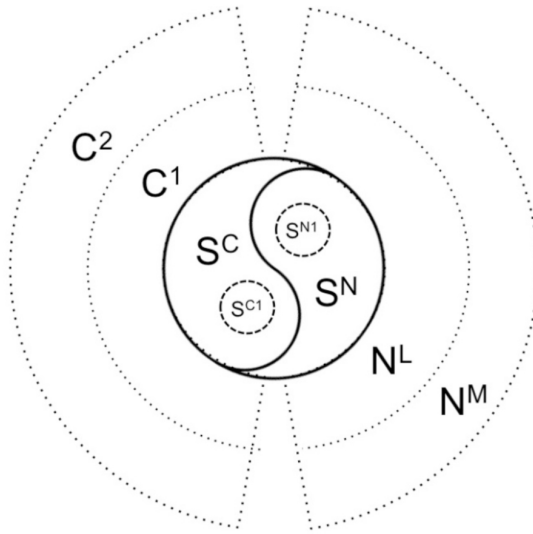
realities of the inner city and prodding them to ponder the role of such realities in their future practice.

Studio Conceptualization

In formulating a working model of the Studio, the primary intent was to achieve rigorous public scholarship outcomes within the limits imposed by time, distance, resources, and cross-cultural acclimation. As a free-ranging, experiential capstone studio chosen by advanced landscape architecture majors and promulgated in off-campus, real-world contexts, the course was not cast as a tightly controlled research study, and students and resident participants were not treated as research subjects. However, the Studio team made a concerted effort to document the course as a case study; project-based metrics and studio-wide achievements were compiled by both Studio faculty and the staff of the Penn State Center. Early on, the authors determined that the Studio would emphasize constructivist approaches, and would draw on the body of knowledge—and heightened maturity—acquired by advanced students during their college tenure. Meanwhile, the Center would leverage its social and institutional capital in its strategic role as matchmaker and facilitator between select neighborhoods and the Studio. By forging relationships in advance and through repeated visits, and by focusing on the problems and potentialities of the place, it was surmised that activating a neighborhood-as-studio approach was possible, where resident participants share place knowledge and aspiration, students share theory, design process, and form-giving skills, and both share imaginative creativity.

As the Studio jelled during its 2008 pilot, the authors conceived a loose model that builds on the Learning Tiers model (Figure 1) to include linked knowledge domains and collaborative realms. The model (illustrated in Figure 2) situates the Studio (S) astride two learning domains, the Neighborhood (N) and the Campus (C). Both are more or less open systems. The neighborhood-based form of the Studio (S^N) generates experiential, informal, and place-based learning. It is immersed in its Local Neighborhood (N^L) context, which is deeply tied to socioeconomic, political, human experience, and physical contexts of the surrounding metropolis (N^M). The intention is that the outcomes of S^N are reciprocal learning (residents and students teaching, and learning from, each other) and co-creativity (knowledge co-generation emphasizing innovative identification and solution of problems). The campus-based side of the Studio (S^C) draws knowledge from both the professional curriculum in the School (C^1) and the broader academy (C^2). C^1 emphasizes

professional theory, methods, and craft, while C^2 serves up mostly general education in the natural and social sciences and liberal arts. This model posits that the campus Studio is no longer the sole locus of design learning, separate from real-world application and action.



Key: S= Studio; N= Neighborhood; C= Campus; C^2 = General Education; C^1 = Professional Curriculum; S^C = Campus Studio; S^{C1} = Studio-seminars; S^N = Neighborhood Studio; S^{N1} = Neighborhood-based Charrette; N^L = Local Neighborhood; N^M = Metropolis

Figure 2. Pittsburgh Studio Learning Realms

Notice that S^N and S^C are intertwined to encourage learning integration and knowledge synthesis. A key node is the neighborhood-based charrette (S^{N1}), a kind of deliberative design workshop, during which students and community participants interact most directly and productively. Then back in the campus studio, ideas and new data may be scrutinized, or students and faculty may convene in Studio-seminars (S^{C1} ; discussed below). Problems are linked to theory or precedent, anecdotes are shared, and ethical and practical problems “imported” from neighborhoods are negotiated.

S^N learning tends to be tacit and S^C learning more formal, but multiple modes of learning may occur in each venue. For example, methodical research can take place in neighborhood archives that may be found in local libraries or the scrapbooks of amateur community historians. Conversely, valuable peer-to-peer learning takes place after hours in S^C studio as students share stories drawn from their neighborhood interactions. In general, however, the more vibrant and fitting ideas tend to spring up where the needs and visions are expressed most passionately: S^{N1} , after which these ideas are

given form and developed in SALA studios (S^C), where information technology facilities and scholarly critique are readily available. Both S^N and S^C studios have their own interactive personalities; each can accommodate outbreaks of negotiation, creativity, and improvisation at almost any time.

By straddling city and campus and the various speech communities they represent, students acting on their education move their horizon back in time from the future to the present. Students are compelled, sometimes emotionally, to gain fluency in community problems and potentials. The best neighborhood-based experiences occur when small groups of students and stakeholders work in a safe S^{N1} space where analyses and critique interplay with the group's growing "imaginal literacy" (*Dubin & Prins, 2011*). This is the kind of situation that engenders real praxis (*Freire, 1993; Gadotti, 1996*). While the grist (e.g., storylines and other deeply contextual local perspectives) originates with resident participants, the role of the students in spearheading the design process—with faculty coaching from the sidelines—is equally important. Students collaborate with local stakeholders to "create possibilities that nobody has thought of and would not have considered without rhetorical interventions by a designer . . . a space of possible actions" (*Krippendorff, 2007, p. 4*). This is the heart of the Pittsburgh Studio: a shared swirl of ideas that come primarily from residents and students who are inspired by each other and the experience of places understood in multiple ways, and informed by theory and first principles. Learning and action become more connected.

It is the intent of the S^N charrettes and on-site activities that residents come away invigorated and even surprised at their personal and pooled imaginations and their ability to mentor visiting young designer-scholars. As the semester progresses, a collective realization emerges that creative-yet-strategic consensus is an essential step toward a more resilient and convivial community.

But while residents would be "co-imaginors," they would not do design in the professionalized, narrow sense of the word. The students are trained as form-givers (*Tamminga et al., 2002*). Design development occurs both in the campus studio and as iteratively tested with community participants. Besides imparting place-based knowledge, the authors coach students to invite community participants to challenge the students' own preconceived notions on aesthetic or environmental values. Urban power politics and local-regional histories often surface in these conversations. This equates well with Tsoukas' (2003, p. 426) assertion that new knowledge comes about "when our skilled performance—our

praxis—is punctuated in new ways through social interaction.” It also puts into effect Eberly and Cohen’s (2006) call for more sophisticated and immersed forms of civic engagement between community and academy. When students become personally involved in the local (S^N and N^L), they are more likely to understand its ways, and respond with more appropriate design gestures. When resident participants share their stories and are involved in design thinking and process, they see greater possibility in the future of their place. Together, they begin to form a community of practice that promises more relevant design value than could any introverted campus studio. Finally, students become aware of the inseparability of community development from broader issues of power, race, and class. It is during this period of new realizations and creativity that double-loop, higher order learning takes place.

By now it should be clear that our concept of *studio* extends well beyond the physical. Analogous to the notion that *church* is less an edifice than a body of believers engaged in worship, the intention was for the Studio to transcend place to embrace a *network of collaborators* engaged in a catalytic *process* of analysis, discourse, envisioning, crafting, and action. Sometimes it involves small groups building on contributions from each individual, and sometimes it relies on the quiet ponderings of problems and possibilities by individual students and neighborhood participants. *Studio*, then, is a complex corpus of ideas, places, people, and processes.

In the engaged studio, *design* becomes a verb. An inclusive and protracted act, it draws inspiration and agency from the near-at-hand, where the community–studio (re)asserts its collectively held values of equity, beauty, utility, and resilience. It weaves together the two traditions of architecture (design as discovery) and engineering (design as rational process; *Agre, 2000*), but extends by seeing community design as primarily vested in the community. Solutions emerge from the local, rather than being miraculously delivered as gifts or commodities from elsewhere. *Agre* asserts that design involves

selective amplification of things we value. . . . Within every community is a force toward a higher level of community life. A community needs a shared identity, a collective memory, a repertoire of ways of doing things together, familiar genres of communication, ways of moving along from newcomer to oldtimer, places and landmarks, rituals, a language and a songbook. (*Agre, 2000*)

In this model, theoretical and place-generated knowledge inform the creative process to achieve skilled praxis. Students and resident participants get to experience the power of intentional design. Resident participants in S^{N1} studio mode, freed for a while from the concerns of the day, more clearly see potential in their surroundings. For some, this may initially be through the lens of analysis offered by the students. Then, if sufficiently vested in the process, resident participants begin to catch on to the sheer joy of seeing possibilities where previously none seemed evident.

This notion of studio becomes complete when the ethical dimension is considered. Sociologist Herbert Simon wrote that “everyone designs who devises courses of action aimed at changing existing situations to preferred ones” (1969, p. 55). Krippendorff expands:

If designers realize that they cannot force their conceptions onto others, and that whatever they propose must resonate with stakeholder conceptions, the questions that designers need to ask are implicitly ethical. The only ethical principle I would add is to avoid monopolizing design in a profession and instead delegate the practice to as many stakeholders as possible. Design is a basic human activity to which everyone should have access. (2007, pp. 7–8)

In Studio, students become aware that the “disciplinary parochialism” (Kincheloe, 2001, p. 684) they are accustomed to on campus is counterproductive in their chosen neighborhoods. *In situ*, they learn not only about what street corners are safe or which vacant lots are owned by nuisance landlords, but also which sub-communities possess certain kinds of situated knowledge, what Goldacre (2008, p. 20) refers to as “propriatorialized common sense.” They learn the nuances. Such experience “arouses curiosity, strengthens initiative, and sets up desires and purposes that are sufficiently intense to carry a person over dead places in the future . . . a moving force” (John Dewey in Green, 1998, p. 127). Excitement about ideas, collaboratively explored, becomes intertwined with feelings of empathy and humility. Motivation grows as the semester progresses. Invariably, students come to see that good design in the inner city is both a just cause and achievable.

The Studio’s selective mix of theory, research, and practicality is akin to what anthropologist Claude Lévi-Strauss terms *bricolage*: “enlightened tinkering by people who can see with different eyes and

utilize what exists” (in Nader, 2004, p. 773). The concepts generated through student–neighborhood participant collaboration center on new landscape and place typologies at the neighborhood scale. They work at site and sub-systems scales in promoting the collective vision defined in community-level workshops (Studio structure is discussed below). Project foci have included adaptive re-use of vacant lots (community gardens, orchards, rain catchments, biomass and renewable energy production, carbon sequestration), newly interpreted civic spaces, enhancements to transit and bike infrastructure, green technology training hubs, revitalized local parks, restored remnant ecosystems, outdoor performance spaces, vacant buildings repurposed as greenhouses and community centers, neighborhood greengrocers and other cherished land uses, pedestrianized safe streets, socially and bioregionally expressive play space and public art networks, rediscovered riverfronts, and more. Most projects are linked to show how each has greater value as part of a composite geography, rather than isolated as detached gestures. Projects are compiled on the Penn State Center website (PSC, 2012), so that communities can easily access the entire cache of refined and tested concepts to further catalyze environmental regeneration, social conviviality, and economic development.

Clarified roles for campus studio and seminar.

Back in the campus studio, students process their neighborhood studio experiences in the classic studio-as-workshop mode of making: design development and testing in the studio through online research, computer visualization, desk critiques, and pin-up sessions in small groups. Students also coordinate their next foray to Pittsburgh. This part of the Studio is rich with convergent, peer-to-peer learning, and perhaps a foretaste of the engaged professional studio.

The idea of a “studio-seminar” evolved during the first 2 years of the course. Initially, the class had agreed that, as advanced students, each of them would individually conduct the independent theoretical and precedent research necessary to inform their own project. This was based on an assumption that students tap into the literature as a habit instilled during previous studio-linked seminars. When it became clear that such was not always the case, the 2009 class suggested a more formal seminar. Thus, the 2010 and 2011 Studios expanded from several informal seminars to a series of four 2–3 hour thematic studio-seminars and several more post-event, group retrospective seminars. The structure now includes readings from pooled faculty and student selections, shared

reflective writings, and seminar discussions. The project addresses themes that are directly applicable to crafting regenerative strategies in the inner city neighborhoods, including (i) prominent design activists, (ii) participatory design technique, (iii) design for resilience, and (iv) green entrepreneurship.

Reflective seminar discussions help students process neighborhood-based experiences and dilemmas, thus converting tacit knowledge to explicit, conceptual, and generalized knowledge (Brockbank & McGill, 1998). This reflection on action, or *co-generative dialoguing*, is precisely the approach found effective by activity theorists (Roth & Lee, 2007). At the same time, theory informs, affirms, and contextualizes neighborhood-based work. Themes commonly addressed in SALA Studio have included design thinking (Nausbaum, 2011), safe cities (Wekerle, 2000), conviviality (Illich, 1973), liminal spaces (Waldheim, 2006), green infrastructure (Hendrickson, 2009; Tamminga, 1997, 2008), resilience (Folke, 2006), regenerative design (Lyle, 1994; RCFTW, 1992), participatory urbanism (Hester, 2006), slow design (Jacobs, 1961; Strauss & Fuad-Luke, 2011), and design and power politics (Miles, 2000; Orr, 2004).

Figure 3 shows the outcome of a keywording activity during a fall 2011 charrette in South Homewood. The blend of local sensibilities and theory is evident. For example, resilience theory was identified with residents' desire for neighborhood "staying power." After discussion, residents picked the synonym *robust*. These meaningful words then served as informally codified first principles, guiding design and decision making later in the process.

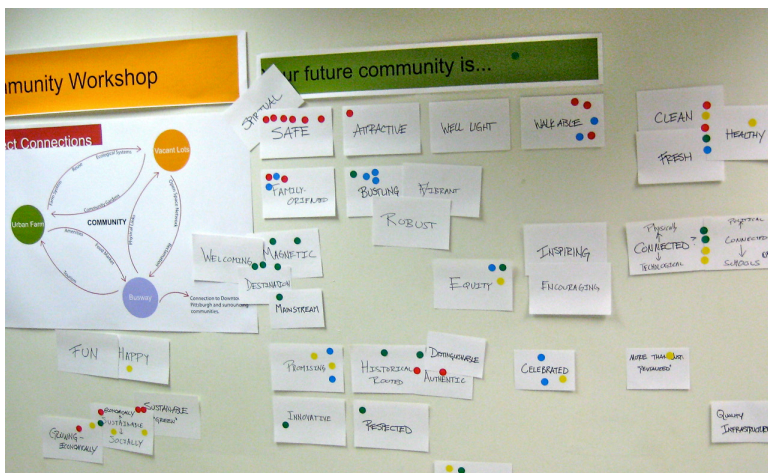


Figure 3. Local aspirations and theory blend to form keywords that will guide design; fall 2011 Homewood charrette.

After rapport with stakeholders is established several weeks into the project, students become adept at communicating concepts and precedents in straightforward terms, using local examples of possible application. Resident participants realize that students possess design skills (analyzing, graphic rendering, etc.) and appreciate students' refreshing honesty. They become comfortable with students' growing ability to translate theory and precedent. As participants adopt a more strategic vocabulary, they feel empowered to dig more deeply into the process of co-creation. Students facilitate, but never drive, the design process. Yet each student becomes, for a while, the *community's designer*. Though relatively brief, students achieve a placeful understanding, or "indwelled knowledge" (Helbrecht, 2004; Moore, 1996; Polanyi, 1962). Some students focus on the idealistic, and some on the pragmatic. Residents perceive these leanings in "their" student collaborators, and gain prowess at considering a diversity of ideas and approaches. Few professional designers achieve this kind of relationship, and it is hoped that the transformative joys and challenges of this special position will carry into professional practice.

Course structure and approach.

Planning for and executing the Studio has evolved since the inaugural offering in 2008. Beginning in 2009, a balance was struck in which two communities with four or five project possibilities each were available for selection and study by each student, in collaboration with neighborhood partners. An outline of Studio lead-in, execution, and post-Studio evaluation phases, with methodological highlights included, is provided in Appendix 1.

A participatory approach to designing the Studio's flow and planned project venues encourages community partner buy-in in several ways. The most important is that it allows for ample time to develop a trusting working relationship in advance of the first student-resident meeting, and provides a space for the neighborhood core team to anticipate their role as co-teachers in the neighborhood-based form of the Studio (S^N , see above). An ample pre-Studio planning phase provides local facilitators time to gather data and confirm study sites, and encourages "incubation" during which key contacts can build social capital by assembling a core constituency of local Studio advocates and informants. This robust preparation pays dividends during Weeks 1–7.5 (Start-up and Research & Analysis phases; see Appendix 1): Relationships between students and local participants are quickly formed, data is forthcoming, and students are welcomed as friends and allies of the neighborhood.

The mid-semester Stakeholder Charrette (see Figure 4) serves as the fulcrum between analytical and synthetic/creative functions of the Studio. It is at this point that participants are strongly encouraged to shift from their role as local teachers and data suppliers to collaborating with students in the re-conceptualization of their neighborhood and its place within the larger metropolis. During the Design and Design Development phase (Weeks 7.5–14) an iterative and interactive process of idea generation takes place in the S^N Studio, while technical concept development and testing occurs simultaneously in the S^C Studio. A public Open House concludes the Studio although, as noted previously, faculty and Penn State Center staff continue working with participating neighborhoods indefinitely after the semester.



Figure 4. Homewood stakeholders develop local vision during the mid-semester charrette, 2011 Studio.

Impacts of the Studio Model of Teaching and Learning

In modeling product evaluation for service-learning projects, Zhang et al. (2011) suggest a combination of techniques to assess a comprehensive set of outcomes. This is particularly apt for complex and multi-constituent projects such as the Pittsburgh Studio. A listing of Studio outcomes and achievements is given in Appendix 2. This categorical approach follows Driscoll, Holland, Gelmon, and Kerrigan (1996) in assessing impacts on students, faculty, community, and the institution.

Appendix 2 provides a sense of the comprehensive range of outcomes associated with student, faculty, community, and institutional constituents of the Pittsburgh Studio. Much has been accomplished since 2008, not only in neighborhood and campus-based studio settings, but also within institutional and governmental organizations looking to more effectively and sustainably support interactions between the university and underserved urban communities in the Commonwealth. There is evidence that advanced, higher-order learning has taken place in the students. Student Ratings of Teaching Effectiveness were high, with project outcomes exceeding both Landscape Architecture Accreditation Board standards and expectations set out in syllabi and problem statements. Students' end-of-semester reflective writings implied transformative learning, with several stating their appreciation for designing *with* rather than *for* the community. They also expressed their experiences publicly, helping solidify Studio-neighborhood relationships. A 2009 Larimer student relates, "It felt great to see the local people get excited about their community and about what it could become. And we benefited, too. Through visits, talks and volunteering, we forged friendships with these incredible people" (*LaJeunesse*, 2011a, p. 7). The spring 2010 issue of *Penn State Outreach* cites a moment returning from an evening workshop: "As we drove back home, a student piped up from the back row, 'I love Beltzhoover.' Several others murmured assent" (*LaJeunesse*, 2010, p. 26). Sentiments like this were common, and replaced the initial feelings of trepidation expressed earlier in the process.

Although end-of-semester evaluations from students typically have been positive, two significant adjustments have been proposed. As noted above, students of the 2010 Studio called for an expansion of the Studio-seminar idea, including more frequent and formal injection of theory than was occurring ad hoc in studio. This advice was adopted during the 2011 Studio. In 2011, students in the Homewood group suggested a second mid-semester stakeholder charrette, in addition to informal individual and small-group interactions already occurring. As with the Studio-seminar notion, the authors were gratified that students were so intent on rigorous engagement, despite an already demanding studio format. Possibilities to further heighten the level of interaction with local participants are under consideration for the 2012 Studio venues of Wilkensburg and the North Side. The collaborations also helped inject much-needed energy and proactive self-determination within communities that have historically been underserved by city and regional authorities.

For instance, after the 2008 Open House, the *Pittsburgh Post-Gazette* (Nelson-Jones, 2008) reported,

What was for them [students] a semester studio was, for residents, the chance to see old problems “solved” by fresh eyes. “I’m loving this,” said [the] vice-president of the Beltzhoover Neighborhood Council, reacting to [a student’s] depiction of a vision the Council has—a re-enlivened McKinley Park and the “paper street” of Haberman Avenue turned into a pedestrian greenway, with water features and whimsical lighting. “I believe it can happen.”

The Beltzhoover Neighborhood Council compiled and adapted the 2008 and 2009 Studio results to leverage public funds for catalytic projects. Johnson (2009) reports on the Beltzhoover Neighborhood Council’s follow-up to the 2009 Studio:

Instead of waiting for the Green-Up Initiative to materialize or their councilman to put the long-neglected neighborhood on a priority list, the Beltzhoover Neighborhood Council has decided to be proactive and put together their own plan to revitalize the hilltop. They call it *New Life for Beltzhoover*. With technical assistance provided by Penn State students, residents have completed a feasibility study for a proposal that garnered support from numerous agencies and public officials.

The president of the Beltzhoover Neighborhood Council, Inc. (at the time) reflected on the collaborative nature of the Studio and the interplay between resident vision and student skill sets:

I was so very proud of the great work you did for our community. Not only did you *get* that we are truly ready for change in Beltzhoover, you were able to capture a lot of our vision in your presentation. . . . Thank you, thank you, thank you for helping us take our vision and turn it into a plan! (*LaJeunesse, 2011a, p. 7*)

Reponses to the 2009 Studio work in Larimer took a slightly different twist. Already active in community-based planning using professional services, our key Larimer partners, the Kingsley Association and the Larimer Green Team, incorporated a series of ideas generated during Studio collaborations into the

neighborhood's official planning document. The *Larimer Vision Plan* intention, "To achieve the goal of establishing Larimer as a state-of-the-art green community, Larimer should take steps to set itself apart as innovative and green" (*Strada Architecture, 2010, p. 34*), can be traced to 2009 Studio work. The plan also reflects the full range of 2009 Studio solutions, including a village green, a green corridor along East Liberty Boulevard, an Environment and Energy Community Outreach Center, an urban garden/farm on Larimer Avenue, and connections to Highland Park.

The 2011 Studio's Carrick neighborhood succinctly portrayed Studio objectives through their Community Council website (*Carrick Community Council, 2011*):

This Fall, Penn State Landscape Architecture students descended upon Carrick to create professional-quality designs for three areas of the community: Phillips Park, portions of Brownsville Road, and our vast Greenways. The students began their project by learning about the rich cultural history of the area, and then talked with local residents. Some of you may have even run into them on Brownsville Road, surveying passersby. Their goal was to take community history and perception into consideration when creating their designs. This way, the designs reflect the wants and needs of the community, and will serve as inspiration for the evolution of Carrick.

Institutional outcomes are similarly positive. The central administration perceives the Studio as a strategic pilot project supported through the Penn State Center. Considering dwindling university budgets across the Commonwealth, it is remarkable that funding has been so readily forthcoming. Firm commitments for a fifth, fall 2012 semester Studio have been made at both institutional (i.e., facilitation and transportation) and departmental (i.e., teaching assignment) levels and, as mentioned above, planning for Fall 2012 Studio locations in Wilkesburg and the North Side are ongoing. As an engaged scholarship precedent, the initiative has been shared at all-College meetings, as well as a series of panel sessions and workshops under the aegis of the central administration. Both the innovative partnership between the Studio and the Center and the engaged studio model itself seem to have captured the imagination of the broader university community. It is hoped that they may continue to serve as inspiration over the coming years.

Conclusion

This article presents an effective and sustainable approach to creating advanced, engaged studio learning environments, which inculcates the habit of double-loop learning by both students and community participants. From this model, the authors have gleaned 14 best practices that readers might apply to their contexts.

Aim for the upper part of the learning continuum (see Figure 1). Community-based studios are time-intensive; do them only if higher-order learning is the goal.

Use the advanced studio as a means to transitioning from introductory service-learning offerings to more rigorous public scholarship. With willing partners, and if well-conceived, capstone courses can demand a level of student maturity and a degree of commitment that can engender transformative experiential learning.

Work through an agent who is trusted by the community. Organizations such as the Penn State Center described above understand student learning objectives and are able to match community needs with studio intents.

Search out neighborhoods that will present students with cross-cultural challenges outside their comfort zone.

Assert learning imperatives with community partners. By periodically reminding residents of educational goals, faculty can cultivate in local constituents a taste for free-ranging, co-generated scholarship that can lead to creative solutions.

Keep the budget smaller rather than bigger. This minimizes administration and keeps the focus on learning rather than funded deliverables; remember that students are not consultants.

Limit class size to match local capacities, timing, and range of project choices. Smaller class sizes also enable faculty to more effectively guide students and understand local contexts. Typically, six to seven students per neighborhood strikes a balance between productivity and relational efficiencies.

Connect strongly with a dedicated community core group. Pre-studio planning sessions in and with neighborhood participants are a prerequisite to forming positive working relationships (faculty-residents, students-residents). Early and strong relationships motivate local facilitators to build a

Studio (S^N) constituency even before students arrive on the scene. Conversely, involve external organizations and agencies judiciously, since local residents often perceive them as part of the problem.

Involve local facilitators in establishing neighborhood participant networks. It's their advocacy and networking that cultivate a broader sense of authorship and buy-in.

Keep a loose leash on students. Once they and community participants have established a rapport, there is usually less need for faculty oversight on the internal workings of specific projects. As nascent professionals, upper-year students are generally eager to assume greater responsibility for their own project management than those earlier in the curriculum.

Prepare in advance. At least 3 to 4 months are needed as lead time, as are several meetings and site reconnaissance visits prior to Studio start-up, to build solid working relationships with local constituents and work out logistics.

Promise something practical. Good ideas must be developed to some level of detail in order to help local partners visualize what they need to do next. Purely conceptual studio formats that promote professional training but offer little substance for leveraging on-the-ground initiatives diminish the "real world" achievements that are critical in motivating student-resident collaborations. While steeped in theory and principle, engaged studios are practical studios.

Anticipate over-extended community partners. Community leaders and activists in low-income, stressed environments may be stretched thin in terms of time and creative energy. Even the most enthusiastic resident participants will at times be unavailable. Discuss this phenomenon with students in advance to head off surprises and frustrations.

Build in a seminar component. Reflective peer-to-peer learning, supported by theory and precedent, boosts meta-cognition and promotes double-loop learning.

The Pittsburgh Studio adds to a growing list of successful initiatives supported through outreach and Extension organizations such as the Penn State Center. Such community-engaged studios can contribute to the scholarship and praxis of more resilient and convivial inner-city neighborhoods. The key is a mutually held commitment

to constructive relationships, reciprocal learning, co-generation of knowledge and creative solutions, and sustained collaborations that provide tangible benefits to partner communities.

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About the Authors

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Appendix I. Studio Lead-in and Structure

Pre-studio Preparation:

- 3–4 months prior to beginning of semester, Penn State Center compiles possibilities for involvement from potential participating neighborhoods
- authors discuss pedagogical objectives for the upcoming year, review community demographics and issues, and select short list of candidate neighborhoods
- initial meetings and on-site reconnaissance take place to select participating neighborhoods (usually 2)
- meetings with resident leaders of select communities to identify preliminary list of issues and project areas/sites and confirm key contacts, semester flow, and key dates

Week 0–1.5:

- campus-studio overview of communities and issues
- students choose community (studio splits into 2 groups of 6–7 students each)
- conduct Community Contexts charrette (research history, spatial geography, socioeconomics, demographics, and current issues)

Start-up Trip:

- class meets with Penn State Center representatives for orientation and introduction to each community and its specific needs and sensibilities
- class meets with community contacts to confirm goals, schedule, stakeholders, contact and information sources; conduct brief site visits of potential project areas

Weeks 2–7.5: Research & Analysis

- students select their project areas
- each student develops a work program (methods, tasks, key events, products, and outcomes), in consultation with faculty and peers
- studies of project site and neighborhood contexts; interviews with key stakeholders; local archival work; site inventories and analysis; user observations (typically 3–5 day-trips)
- campus-based research, including theory and precedent analyses; sharing of analytical and participatory findings in campus-studio
- two Studio-seminars are conducted during this phase
- student groups prepare summary findings for presentation at upcoming Stakeholder Charrette

Mid-semester Stakeholder Charrette:

- presentation of background research findings to stakeholders and interested community participants
- students lead charrette; formats may include game-playing, asset mapping, keywording, etc.; issues are identified and goals formulated; ideation (concept brainstorming) generates initial cache of design possibilities

Weeks 7.5–13: Synthesis, Design, and Design Development

- students and faculty reflect on charrette in campus studio; adapt design inquiry process to suit emerging realities and aspirations
- students and key neighborhood participants collaborate on and test project-scale ideas; students re-visit sites as necessary to fill in information gaps and flesh out place-based inquiry (typically 3–5 day-trips)
- students conduct campus-based design development and implementation strategies, giving form and action to ideas
- two Studio-seminars are conducted during this phase
- students prepare to present and interact at upcoming Public Open House

Public Presentation and Open House:

- students give a coordinated overview of approach, research findings, goals, and individual projects in a public meeting format
- community Open House follows, allowing one-on-one examination of “final draft” solutions
- students record Open House participant inputs for consideration in next steps

Weeks 14–15: Project Wrap-up and Reflection; concurrent Design Charrette

- Studio-seminar retrospective on Public event experience
- faculty review and critique of final draft projects
- students revise and finalize projects based on Open House inputs and any post–Open House stakeholder and faculty inputs
- students compile final projects into one digital volume per community and submit to Penn State Center for distribution to communities and key stakeholders
- concurrent Pittsburgh Green Innovators charrette serves to reinvigorate Studio prior to semester’s end; design brainstorming of green technology installations at the to-be-renovated Connelley Training Center; includes jury presentations
- semester concludes with final Studio-seminar; reflection and prospects

Post-Studio Evaluation and Prospects:

- 2–3 months post-studio, faculty and Penn State Center staff assess outcomes, reflect on semester’s accomplishments, confirm successes and strategize on improvements, and discuss prospects for the following year’s Studio
- dialogue between Penn State and community constituencies continues, including follow-up assistance on select student design recommendations.

Appendix 2. Outcomes, Pittsburgh Studio, 2008-2011

Metric / Indicator	Specific Outcome
Students	
Engaged Studio learning tiers attained (Figure 1)	Studio-seminar reflective writings and project evaluations by faculty indicate strong higher-order learning
Student-resident participant interactions conducted	Students of 2008–2011 Studios designed and led series of well-received and productive community-based workshops and open houses; convened many informal sessions
Public scholarship principles attained (<i>Yapa, 2006</i>)	Case experience indicates substantial progress on most precepts; more data needed on longer-term career choices
Meritorious recognition	Award of Honor, 2012 student team (6 students), Community Service category, for Refocus: Homewood South, Pennsylvania-Delaware chapter of American Society of Landscape Architects
	Award of Honor, 2012 student, for The Wood: Homewood South, Pennsylvania-Delaware chapter of American Society of Landscape Architects
	Award of Merit, 2011 student, for the Corliss Art Corridor project, Pennsylvania-Delaware chapter of American Society of Landscape Architects
	Second Place, 2011 student, Penn State University Undergraduate Exhibit, Public Scholarship category, for <i>Coraopolis Riverfront</i> , Pennsylvania-Delaware chapter of American Society of Landscape Architects
	Award of Honor, 2010 student, for Larimer Community Square, Pennsylvania-Delaware chapter of American Society of Landscape Architects
	Award of Merit, 2010 student, for Larimer Technology Hub, Pennsylvania-Delaware chapter of American Society of Landscape Architects
	2008–2011 Studio compiled project reports submitted to official at city and county level, and distributed to all neighborhood constituency groups
Work disseminated	<i>Larimer Studio exhibited at the Kingsley Center, Spring 2009 to present</i>
	Two students (2010 and 2011 Studio) invited as featured presenters at Outreach Appreciation Banquet, Penn State University, September, 2011
	One student (2011 Studio) invited to present to the Penn State Service-Learning/Student Engagement Task Force, Sept. 2011
	Connelley Center charrette 2010 and 2011 compiled projects presented to Pittsburgh Penguins redevelopment organization and Green Innovators group
Student Rating of Teacher Effectiveness	All Studios earned Student Ratings of Teaching Effectiveness 6.0+ average score on a response scale of 1 (lowest rating) to 7 (highest rating) for both "quality of course" and "quality of instruction" (College-wide averages: "quality of course" 5.7; "quality of instructor" 5.8; Linse, 2011)
Landscape Architecture Accreditation Board accreditation standards (BLA and MLA degrees)	All Studios surpassed Landscape Architecture Accreditation Board's Standard 6: "Outreach to The Institution, Communities, Alumni, and Practitioners" (LAAB, 2010)

Internships acquired	Three Studio alumnae, with the Penn State Center, Summer 2010, Spring 2011, Summer 2012
Studio-associated thesis work	2009. <i>The Ecology of Vacancy: Exploring the Use of a GIS-based Tool for Evaluating the Urban Ecology Potential of Vacant Land in Pittsburgh, Pennsylvania</i> 2011. <i>The Urban Edible Schoolyard: Case Study Evaluations in Pittsburgh, Pennsylvania</i> 2011. <i>Community Revitalization: The Methods and Means to a Systematic Design Approach</i>

Faculty

Meritorious recognition	Community Engagement and Scholarship Award, Penn State University, 2011 C. Peter Magrath University/Community Engagement Award, Association of Public and Land-grant Universities, 2011 (Northeast region; national finalist) Appointment, Public Scholarship Fellow, Provost's Office, Penn State University, 2011–12 Juror, Council on Engagement Selection Committee, 2012 Scholarship of Engagement Award and Community Engagement & Scholarship Awards, Penn State University Faculty Marshall, invited by spring 2010 and 2011 Student Marshalls and Pittsburgh Studio alumnae, College of Arts and Architecture convocations, Penn State University
Dissemination	Presentation, Penn State Service-Learning/Student Engagement Task Force, November, 2011 Presentation and videodocumentary screening, Penn State Council on Engagement, October, 2011 Presentation and videodocumentary screening, All-College Meeting of the College of Arts and Architecture, September, 2011 Presentation and videodocumentary screening, National Outreach Scholarship Conference, 2011
Continuity and support	Continuation of LArch 414 teaching assignment; endorsement of department head, Stuckeman School of Architecture and Landscape Architecture director, Arts and Architecture Dean, 2008–present Continuation of Studio support from the Penn State Center, 2008–present

Community

Community-based organizations engaged	2008 Studio: Beltzhoover Neighborhood Council, The Hill House 2009 Studio: Beltzhoover Neighborhood Council, Kingsley Association, Larimer Green Team 2010 Studio: Storehouse for Teachers, The Meter Room (West End artists' coalition), West End-Elliott Citizens Council, Coraopolis Community Development Corporation 2011 Studio: Rosedale Block Cluster, Carrick Neighborhood Council, Pittsburgh Parks Conservancy
Site-specific project collaborations	2008 Studio: Beltzhoover (3), The Hill District (3), Neville Island (2), Hays/Lincoln Place (2) 2009 Studio: Larimer (4), Beltzhoover (3) 2010 Studio: West Pittsburgh (4), Coraopolis (3) 2011 Studio: Homewood (3), Carrick (3)

Article, "Design in the Real World: A Penn State Program Promotes Community Outreach," *Landscape Architecture Magazine* (Stack, 2011)

Overview, "Penn State Landscape Architecture Students Carrick Presentation," Carrick Community Council website (CCC, 2011)

Presentation and videodocumentary screening, National Outreach Scholarship Conference, 2011
