
IGNITING COMMUNITY THROUGH ENGAGED TEACHING

Shannon Criss, Professor, scriss@ku.edu

School of Architecture and Design, University of Kansas (KU), Lawrence, Kansas, USA

Nils Gore, Professor, ngore@ku.edu

School of Architecture and Design, University of Kansas, Lawrence, Kansas, USA

ABSTRACT

Much of what we consider to be traditional teaching practices have been formed within the limits of a classroom setting, buried within a disciplinary focus. Yet, our students face great societal, economic and environmental challenges. We must ask what are we educating our students for? Do traditional models prepare our undergraduate and graduate students for a dynamic and changing world? Service learning gets students involved in thinking creatively in the context of real-world issues for how to address pressing community needs in partnership with community organizations. In this paper, community-engaged teaching and service-learning will be illuminated by highlighting four diverse pedagogical approaches. This paper will provide new considerations of how to integrate or advance service-learning through courses: 1) learn by designing and making; 2) learn by cross-disciplinary engagement; 3) learn by engaging in other fields and cultures; 4) learn by serving in the pipeline.

Keywords: Community Engagement, Design Build, Service Learning,

1. SOCIETAL, EDUCATIONAL AND DISCIPLINARY CONTEXT

In the early 1990s, as we were emerging as practicing, licensed architects and starting graduate school, Ernest Boyer, through the Carnegie Foundation for the Advancement of Teaching, issued two reports recommending significant changes in higher education: *Scholarship Reconsidered: Priorities of the Professoriate*, a call for re-thinking higher education in general; and a separate one for architectural education in particular, *Building Community: A New Future for Architecture Education and Practice*. A key message in both, “(T)he work of the scholar also means stepping back from one’s investigation, looking for connections, building bridges between theory and practice, and communicating one’s knowledge effectively to students....” (Boyer, 2014) Boyer emphasized making meaningful connection between theory and practice to the students’ benefit, but also the value of providing service, whereby “schools ... help increase the storehouse of new knowledge to build spaces that enrich communities, prepare architects to communicate more effectively the value of their knowledge and their craft to society, and practice their profession at all times with the highest ethical standards.” (Boyer and Mitgang, 1996) In the intervening years we have had ample opportunity to practice some of what Boyer recommended through

community-engaged scholarship and service learning projects, working with partners in a variety of community settings and for different ends. This paper will examine lessons learned during that time, and place them in context of a rapidly changing society and a changing architecture discipline. We will discuss four factors which influence the ways we teach architecture, attempting to address Boyer's call to change the way we train a new generation of architects: 1) radical societal challenges in recent history; 2) virtual learning; 3) shifting ways of practicing architecture; and 4) pedagogical shifts in how we define an architectural education, and share some of the projects that we have completed in our way of working.

1.1 SOCIETAL CHALLENGES

Climate change, economic insecurity and inequality, economic globalization and local disinvestment, increasing world population, fossil fuel and natural resource depletion, and spiralling educational costs make our world today a very different social, political and economic environment to be educating students in. Just as we were delivering this paper at the School of Thought conference, the coronavirus pandemic was breaking loose; and now as we are finalizing this paper, the re-emergence of wide-spread protests against police brutality and systemic racism are at the forefront. What does it mean to educate architecture students in this context?

1.2 VIRTUAL LEARNING

Higher education can be delivered in many forms outside of the traditional campus environment. Content delivery via the internet has expanded learning opportunities for many people who might not otherwise be able to access education. From single courses to entire degree programs, virtual learning can deliver learning materials in an enriched manner through audio and video, synchronously and asynchronously, at a time responsive to students' circumstances. Though many in the academy hadn't tried to expand their arsenal to include virtual learning, most were forced to at some level—and continue to— during the coronavirus campus shutdown. These learning experiences, coupled with rich experiential learning opportunities, offer expanded ways of teaching and learning for students' benefit.

1.3 DISCIPLINARY SHIFTS

The practice of architecture has changed significantly since we entered this profession. Digital computation for design and building information modeling, the emergence of new business models and building delivery systems, digital fabrication and manufacturing, and evolving economic pressures have complicated our work, both as architects and as educators. When we were in school in the early 1980's it was probably sufficient for us to be trained as a typical architect, who would be presumed to be working on buildings in a "design/bid/build" model of building delivery. Today that's probably not sufficient. In 2010, following the collapse of the financial system, Martti Kalliala and Hans Park described the "shrinking polar ice cap of traditional practice," and visualized a new landscape of

occupations that architects would be involved in, outside of traditional, building-based architectural practice. “(T)he fragmentation of the building process into the hands of specialist consultants and the shift from architects being in the service of public to private capital, has made a lot of the work and responsibilities that traditionally belonged to them simply disappear or move to other professional domains. This is why newly graduated architects have difficulties finding jobs that match their education, creative ability or ambition – not to mention the thousands of students facing an increasingly uncertain future.” (Kalliala and Park, 2010) (See figure 1)



Figure 1: Image from Kalliala and Park, “New Architect’s Atlas” (<http://helsinkidesignlab.org/blog/new-architects-atlas.html> CC BY-SA 3.0 license)

1.4 PEDAGOGICAL SHIFTS

Again, when we were in school our studio education consisted of hand drawing images on paper, and building cardboard models. We never touched a real material in the context of our education, and we never engaged with anyone outside the academy. The studio briefs were highly fictional and theoretical, and we believe, not atypical for most architecture schools at that time. Today, we find a very different architectural education landscape. A majority of schools have some kind of hands-on component in their curriculum, along with community engagement, internships, study abroad, and a variety of studio activities to provide for an enhanced educational experience. (Erdman et al., 2002)

2 COMMUNITY ENGAGED SCHOLARSHIP

2.1 A NEW UNIVERSITY MODEL

At the university there is constant pressure to increase the number of students while doing this with less resources—often the quick fix seems that virtual learning is the answer. Is there a tipping point where higher education without engagement is hollow? Engaged learning, place-based, designing and building in collaborative ways and building relationships in general is one of the greatest values of a place-based institution and fulfills the civic-minded

education we need most to guide young architects and designers forward address society's most pressing needs.

2.2 DISPLACE THE CENTER TO MEET PEOPLE WHERE THEY ARE

In order to fulfill this goal, we have to be prepared to meet people where they are—the community member, the underserved, those that would value the voice that design thinking offers. They aren't going to travel to your campus to find you in your office or campus-centered space. Instead, we have to be prepared to meet community members in the public realm at, for example, community events, in church basements, and/or creating opportunities to engage in public parks to meet people where they are—often we are required to find translators to effectively communicate. KU is located in Lawrence, KS and forty minutes from downtown Kansas City, Kansas (KCK) in Wyandotte County. In order to meet our engagement goals, Professors Shannon Criss and Nils Gore, and Matt Kleinmann (PhD student) formed Dotte Agency, a multi-disciplinary collaborative that engages neighborhoods to shape the built environment in order to improve public health.

2.3 DOTTE AGENCY: CREATING SPATIAL AGENCY IN WYANDOTTE COUNTY

We have defined the area with which we work through public health data that defines Wyandotte County as home to one of the most racially diverse counties in the country. However, according to the Robert Wood Johnson Foundation's County Health Rankings, Wyandotte County also ranks last among counties in both health behaviors and for social economic factors of health. (County Health Rankings, 2012) The backstory on that goes deep, to the 1930's Federal Home Owners' Loan Corporation home refinancing patterns where neighborhoods were "redlined" for home investment ranked from "A" ("desirable") to "D" ("hazardous"). (See Figure 2). Dotte Agency has focused its efforts to the underserved, disinvested (mostly minority and low-income population) neighborhoods where home loans were difficult or impossible to obtain and still impact community lives today—we see the impacts on public health through data and visible signs of a distressed built environment.

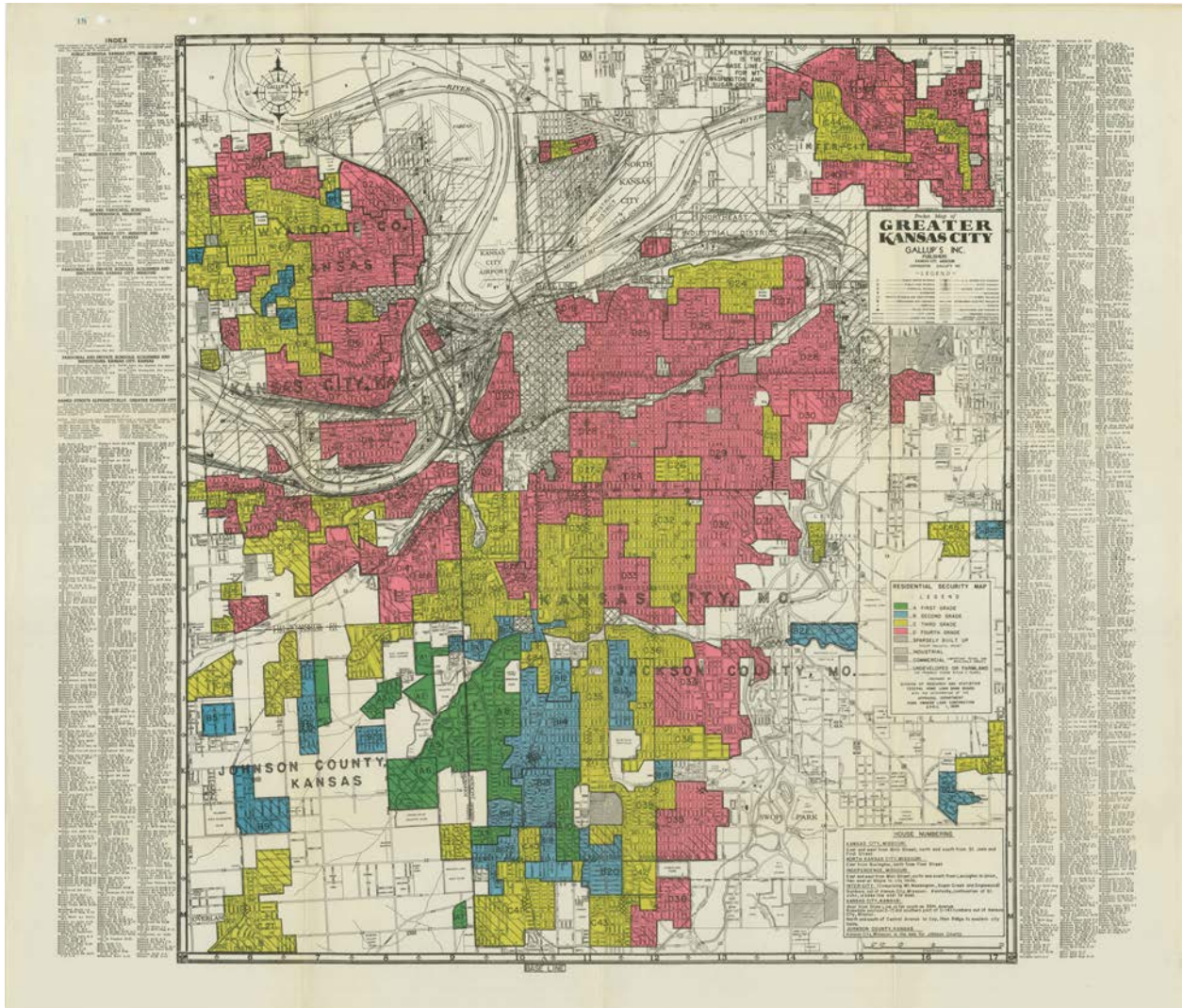


Figure 2: Kansas City Redlining Map. (Source: [Mapping Inequality Project, University of Richmond CC BY-NC-SA 4.0](#))

2.4. IDENTIFYING NEW WAYS OF WORKING

We have not operated as standard practice in academia or the profession—but instead a way of working in the community that is through the knowledge and experience of others. We have learned to rely upon our health equity experts—residents, neighborhood leadership, foundation investors and professional, public health experts. By aligning with others’ frameworks, we are better able to be useful and part of a larger conversation. We have aligned the work of Dotte Agency around supporting environments and policies that promote equitable opportunities for healthy eating, active living and healthy public life. If we as a discipline choose to genuinely listen, we can learn a lot and be better designers. The Health Forward Foundation in Kansas City has created a [Healthy Communities Theory of Change](#) that provides guiding principles, strategies and guides to achieve short- and long-term outcomes when working with communities. Three core strategies: 1) equitable engagement, 2) mobilization for action, and 3) multi-sector collaboration have guided our Dotte Agency work. We have found that by “engaging community members in the conversation and finding solutions for building healthier communities, environments and policies” we are keeping their

interests and needs at the center of the conversation. We have also received external support in an effort to organize and equip individuals and organizations to take action or influence policy—whereby we mobilize community individuals and groups to take action and build support that catalyzes and accelerates others’ interests. And, finally, we have engaged with non-traditional partners across multiple fields and sectors to assist in creating a stronger, unified voice—this has effectively changed and expanded our abilities to be better informed and able designers.

To effectively do this work, we work hard to build trusting relationships within the community. By being there, a community partner offered us the use of an empty storefront over the course of three years, where we could have an expanded classroom (community members as fellow students and faculty) and offer it as a place for community partners to use, create public events and raise awareness of how design can facilitate and activate community voice. In flipping design as active agent to make ideas visible and serve to create prototypes that play out others’ ideas, we believe we provide spatial agency where we are helping community residents and leadership see their spaces in new ways and for us to see their challenges and possibilities through their eyes. We are citizen experts that bring skills, knowledge and capacity to a given problem and the community serves as the expert citizens that direct the work through deep knowledge embedded in place and history. This approach when involving students offers them new ways of understanding their role and has the potential to change the trajectory of the profession as they take these practices forward—ultimately a new citizen-architect.

2.5. THINKING WRONG

In a typical design setting, the role of the designer is to communicate their decisions regarding the shape and function of any given proposal. Designers tend to be limited, however, by their preconceived notions of what tools and strategies they need to employ for any given design challenges. In order to overcome these basic assumptions, graphic designer and educator John Bielenberg asks his students, “to get a new definition of the problem, not simply a new range of possible solutions.” (Zolli, 2005) When designers use their training to re-contextualize systems of public health, they are capable of proposing alternative definitions of the problem for which new, and potentially more effective, solutions may become more readily apparent. By giving design proposals tangible form, the model can elicit feedback at an earlier stage of development, thus allowing for a greater potential solution as the designer response to the criticism. When utilized in communities, this process has the potential to invite non-professional residents to give richer feedback, not based on empirical evidence, but rather upon their tacit knowledge as members of their community’s culture and context.

3.0 FOUR NEW CONSIDERATIONS OF HOW TO INTEGRATE AND ADVANCE SERVICE-LEARNING THROUGH COURSES

To effectively do this work, we have developed four modes of advancing service-learning through coursework. This approach to teaching and scholarship is hard work. Not only does the trust-building require a lot of (essential) work, but setting up specific opportunities to

incorporate students into the work—who are inexperienced with listening and sensitively working through collecting information and building design responses, collaboratively, within limited means and within tight (semester-by-semester) timeframes. On top of that, as faculty, it is not enough to teach, but seeking external funding, developing the community network to successfully pull off community-based projects, and then to find ways to gain external review to legitimize this work in an academic way that institutionally favors individual achievement (to gain promotion and tenure for this work is evolving in universities) is not easy. However, we have identified four basic ways to work: 1) learn by designing and making; 2) learn by cross-disciplinary engagement; 3) learn by engaging in other fields and cultures; 4) learn by serving in the pipeline.

3.1 LEARN BY DESIGNING AND MAKING

Design Thinking begins with empathy with a deep human (and non-human) focus so that insight can be gained, revealing new and unexplored ways of seeing and understanding. To design requires reframing the perceived problem or challenge at hand and *listening* to others' perspectives. This approach allows a more holistic look at the path toward the 'solution.' Collaboration, multi-disciplinary teamwork can leverage the skills, personalities and ways of thinking of *many* in order to solve multi-faceted problems. By engaging early exploration of selected ideas, and rapidly prototyping solutions encourages learning by doing. This allows multiple voices and perspectives to gain additional insight into the viability of solutions before too much time or money has been spent. This feedback process tests the prototypes and identifies those further to remove any potential issues. Through iteration, empathetic frames of mind assist in redefining the challenge as new knowledge and insight is gained along the way. While it starts off chaotic it can steamroll towards points of clarity until a desirable, feasible and viable solution emerges.¹

Inherent in the design school format is the relatively limited time students have to digest the problem, explore initial concepts and then begin fabrication towards a final design solution. Rather than take on larger scale projects, Dotte Agency instead encourages students to think in terms of 'small bets,' whereby they can reasonably meet the objectives they and the community set for themselves at the beginning of the design process. This approach allows the students to propose alternative solutions to otherwise invisible problems. For example, the Centers for Disease Control and Prevention was prohibiting the use of funds for Dotte Agency to build a park bench as it was considered sedentary behavior, despite community engagement indicating that infrequent walkers needed adequate sitting to take breaks in the park. The students then re-imagined their design as a hybrid bike rack and fitness station, allowing for the designate move towards reality. (See Figure 3).

¹ [Interaction Design Foundation](#)



Figure 3: Mayor Mark Holland cutting the ribbon on exercise station prototypes designed and constructed in a 3rd year design studio course. (Source: Dotte Agency)

3.2 LEARN BY CROSS-DISCIPLINARY ENGAGEMENT

In 2011, the Healthy Communities Wyandotte (HCW) was launched by adopting a theory of Collective Action. HCW began convening multidisciplinary stakeholders into action teams focused on key health issues. Through the 1422 Grant from the Centers For Disease Control and Prevention, and in partnerships with the Community Health Council of Wyandotte County, Dotte Agency supports the placement and promotion of greater access to health in the built environment in order to reduce the risk of type-2 diabetes for Wyandotte County residents. By working with interdisciplinary partners, Dotte Agency utilizes design as a tool to improve access to fresh food in food deserts and increase safe and walkable places to be physically active.

Over the last six years, Dotte Agency has begun to bring resources to these issues by connecting students from the KU School of Architecture and Design (ArcD) with students and faculty from the KU School of Medicine, Department of Preventive Medicine and Public Health, as well as students and faculty in the KU School of Business and KU Department of Applied Behavioral Sciences. These courses are typically available to students on an ad hoc basis, relating the changing needs of our community partners for specific resources to take on original projects.

In 2017, Dotte Agency received external funding from the ASPPH to support a cross-disciplinary collaboration between ArcD and Public Health departments by developing two professional courses taught simultaneously. The course was designed to facilitate a shared understanding of the interplay of design and health as it relates to neighborhood food access, walkability and active living. Through an approach that centered on both didactic and experiential learning, students learned about each other's respective disciplines as they relate to the built environment and health and completed an applied project that included neighborhood assessments and interaction with community members. The culminating experience was a community exhibition in which students presented back to the represented

communities a summary of their findings and attainable design solutions for improving food access and walkability. This course-project has opened all sorts of conversations with academics, other public health agencies and community leaders that have expanded our capacity to teach students in a variety of ways. (See figure 4)

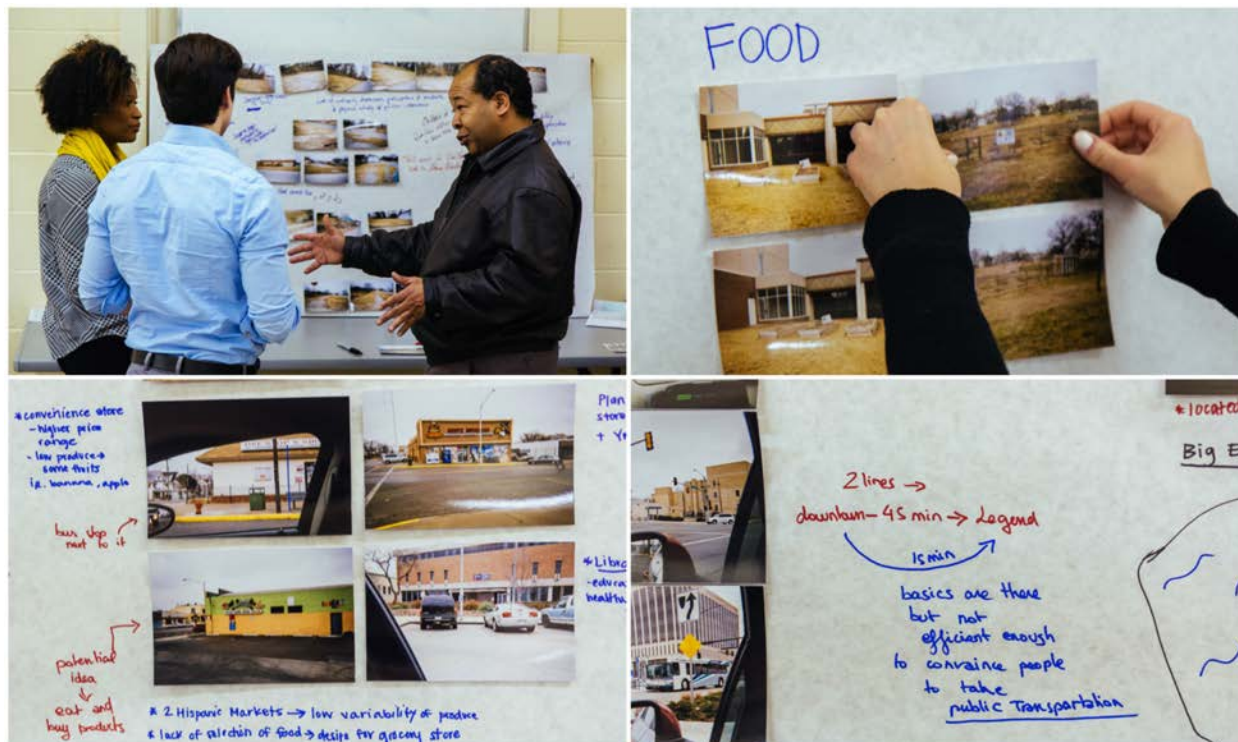


Figure 4: Photovoice project exploring food access issues in a cross-disciplinary course of KU architecture students and KU public health students. (Source: Dotte Agency)

3.3 LEARN BY ENGAGING IN OTHER FIELDS AND CULTURES

In 2019 partnering organizations, Cultivate Kansas City (KC) and Catholic Charities of Northeast Kansas, approached Dotte Agency seeking assistance in design advice on how to best develop a newly acquired 50-acre parcel to develop urban agriculture programs in Kansas City, Kansas. “Cultivate KC is a locally-grown nonprofit working to grow food, farms and community in support of a sustainable and healthy local food system for all.”² They work to create a democratic, just food system that is resilient and adaptable to provide equitable access to healthy food. Their partnership with Catholic Charities of Northeast Kansas has made it possible for Cultivate KC to expand their mission to train refugees with agricultural experience to become independent farmers.

With very limited funding but social capital available from our partners, current refugee farmers, local practicing architects and landscape architects, extension agents and others invested in the local food policy network, Dotte Agency was able to create a course that 1) educated students about the economic and social development of urban agriculture and expose them to case study examples of food-distribution practices and best practices on how

² <https://www.cultivatekc.org/our-work/about-us/>

to support local, food insecure community members—learning that the best practice are inclusive ones that engage a variety of ‘expert’ partners; 2) created a 2-day immersive-workshop that included urban agriculture tours, discussions with community partners, and three groups teaming with multi-disciplinary partners for a “design charrette”; and 3) taught students how to collect their research, workshop design results and conclusive discussions into a shared document. This document then was made available through our community partners and others to promote insight gained through this experience and serve as a product to advocate and gain support for the real development of this project.

Through this experience, students gained the capabilities to learn how to use their abilities to research different models of urban agriculture and enable them to be better listeners and apply their knowledge directly to a design experience. In preparation for the design charrette, we developed a toolkit that included a scaled, physical model, program template parts and other elements (like a board-game) to make all participants designers—ready to bring their expertise to the conversation. The students were able to support the effort by listening, restating and taking notes, ultimately able to bring the ideas together in a presentation to all that participated. By engaging with others they were able to test and apply learned design skills in another way—enabling design agency for others. (See Figure 5.)



Figure 5: Sharing a bike-based farm utility vehicle prototype with potential users in the New Roots for Refugees program in Kanas City. The bike was developed in a seminar with KU architecture students and KU Industrial design students. (Source: Dotte Agency)

3.4 LEARN BY SERVING IN THE PIPELINE

With the city as our classroom, our students are exposed to a broad cross-section of people, young and old, racially diverse, differently-abled. We learn from each other, and gain insights into the experience of people often unlike ourselves. With recurring experiences in place, we can start to imagine a pipeline of people and activities that grows over time. Some of the young people in communities may be exposed to the act and discipline of design for the first time. Through mentoring the university students may be able to help younger students to the possibilities and promises of design to affect their daily lives, as well as the historical, political and social factors that have made communities the way they are. In the most optimistic case, a student who starts young as a community member participating in a project, might end up going to architecture school, then participating as a college student mentoring younger citizens, then after graduating becomes a mentoring professional to both college students and younger community members. By consciously constructing the pipeline, and encouraging repeat participation in it, a culture of understanding and re-creation can be forged in the service of true systemic change.

4. CONCLUSIONS AND FUTURE WORK

In the years that we have been doing community-engaged work, we have learned the following:

1. There is a fluid, sustainable link between teaching and scholarship, as envisioned by Boyer when he said “Theory surely leads to practice. But practice also leads to theory. And teaching, at its best, shapes both research and practice. Viewed from this perspective, a more comprehensive, more dynamic understanding of scholarship can be considered, one in which the rigid categories of teaching, research, and service are broadened and more flexibly defined....(T)he work of the scholar also means stepping back from one’s investigation, looking for connections, building bridges between theory and practice, and communicating one’s knowledge effectively to students.” (Boyer, 2014)
2. The most meaningful and successful work, by most any standard is integrated and informed by community engagement and citizen insight (citizen-expert)
3. Beyond the ostensible disciplinary lessons learned, perhaps more valuable are the soft skills that students need to address local/global challenges. In discussing with students long after the semester is complete, it’s clear that there are even more fundamental lessons learned about the nature of citizenship, and the larger responsibilities we have as citizens in our communities. Tangible lessons in leadership, collaboration, ability to communicate, empathy/understanding/awareness are lessons not easily learned in the absence of clinical field experience.
4. The work capitalizes on the strengths of a place-based university, with bodies experientially-engaged in the world. But we also are able to use virtual learning to connect with each other, our community partners, and partners elsewhere in the world for an expanded reach to connect and incorporate diverse insights.

ACKNOWLEDGEMENTS

2020 Movement

Association Of Schools And Programs Of Public Health

Catholic Charities Of Northeast Kansas City

Central Avenue Betterment Association

Community Health Council Of Wyandotte County

Community Housing Of Wyandotte County

Cultivate Kansas City

Downtown Shareholders

Friends Of Jersey Creek Trail

Health Forward Foundation

Historic Northeast Midtown Association

Latino Health For All Coalition

Menorah Heritage Foundation

New Bethel Church Community Development Corporation

Unified Government Of Wyandotte County Parks & Recreation Department

Unified Government Of Wyandotte County Health Department

Wyandotte Health Foundation

Youth Build Kansas City, Kansas

KU School Of Architecture And Design

KU School Of Medicine Preventive Medicine And Public Health

KU Department Of Applied Behavioral Sciences Work Group

KU School Of Architecture & Design (Over 300) Students

Boyer, Ernest L. "Scholarship Reconsidered: Priorities of the Professoriate." Princeton, NJ: Carnegie Foundation for the Advancement of Teaching, 2014.

Boyer, EL and LD Mitgang. *Building Community: A New Future for Architecture Education and Practice. A Special Report.* Princeton, NJ: Carnegie Foundation for the Advancement of Teaching, 1996.

"County Health Rankings 2012." at <https://www.countyhealthrankings.org/>

Erdman, Jori, Robert Weddle, Thomas Mical, Jeffery S. Poss, Kevin Hinders, Ken McCown, and Chris Taylor. "Designing/building/learning." *Journal of Architectural Education* 55, no. 3 (2002): 174–79.

Kalliala, Martti and Hans Park. "New Architect's Atlas," In *Double Happy (8+8=19) – Views on Architecture in Finland and China*, edited by Anni Puolakka and Jenna Sutela

Zolli, Andrew. "John Bielenberg: "Solving Problems." *Graphis: the international journal of design and communication* 61 (2005): 102–17.