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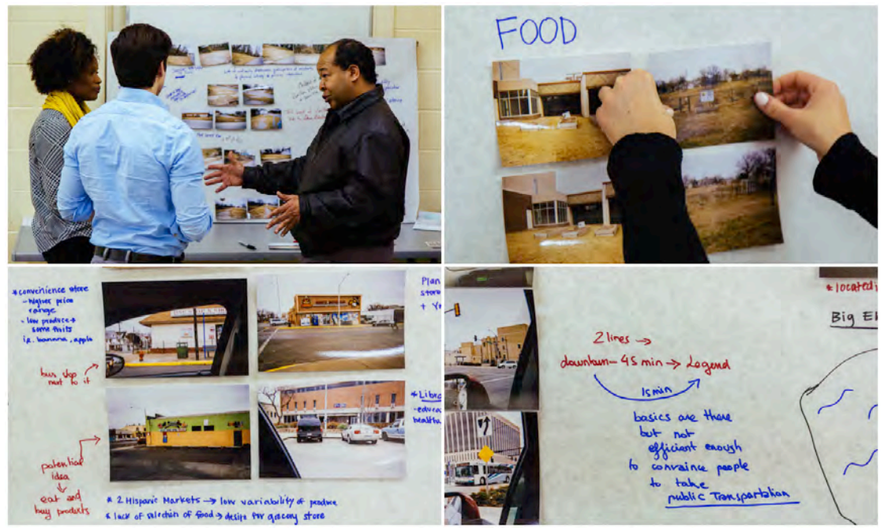
A future of massive population growth, ever-increasing shortages of affordable housing, material and energy demands, unpredictable climate changes and other 'wicked problems'1 present an unprecedented opportunity to design a more resilient and equitable world. What role does architectural education stand in the face of these challenges? How are we teaching our students and modeling alternative, multi-sectoral approaches? How does architecture meet the needs of those who don't have access or the capacity to hire an architect? How can architecture contribute to making the world more socially just and equitable?

In the early 1990s, as I was emerging as a practicing, licensed architect and starting graduate school, Ernest Boyer, through the Carnegie Foundation for the Advancement of Teaching, wrote two reports recommending significant changes in higher education: *Scholarship Reconsidered: Priorities of the Professoriate;* and *Building Community: A New Future for Architecture Education and Practice*. A key message,"(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,"[2] chal-

lenged the practice of the discipline and how we teach it at its core. It presented a way of reconceiving scholarship and how we teach. This paradigm shift influenced me in two areas: First, "(A)pplying disciplinary knowledge and skill to societal problems characterizes the-scholarship of application,"[3] an application and discovery of knowledge within and outside the architecture discipline, "while effectively making connections between architectural knowledge and the changing needs of the profession, clients, communities and society as a whole."[4] And second, "'Service to the Nation' to realize this last goal for renewal, schools should 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."[5]



Initiated in graduate school, I have focused upon interventions in the public realm that connected design thinking and tactical urbanism to the urban setting. Shortly thereafter, I took my first full-time teaching position at Mississippi State University School of Architecture and collaborated on a small project with Sambo Mockbee who ran Auburn's Rural Studio in remote Hale County, Alabama. Sambo was unique in his approach to immersing students in situations where they addressed his philosophy first-hand, "that everyone, both rich and poor, deserves the benefit of good design….(H)e cast a spotlight on an aspect of

our culture that most avoid while demonstrating that socially responsible architecture can delight the senses, inspire the masses and serve the soul."[6] His approach to teaching, relating students to community members in real places, real time, impressed me and made Boyer's theory tangible. In 1994, I was given the opportunity to lead a community outreach program that I named the Small Town Center where I connected students with residents in var-

ious communities throughout Mississippi.[7] Through teaching, setting up situations whereby students would engage others and reconsider the built environment, such as building a pocket park in Okolona, Mississippi, where my students, alongside Professor Nils Gore and his students (see above), were imagining spaces that could enrich communities and learn to more effectively communicate their craft and practice their discipline. They were effectively making connections between their architectural knowledge and the changing needs of communities and society as a whole, putting into practice the premise that Boyer laid out—and one that we have identified as 'participatory design.' This human-centered approach to the design of products, environments and systems expands the disciplinary boundaries, professional practices and relevance of architecture and other design disciplines in public spaces.

This emerging *field of research* combined with an evolving form of *teaching practice* strives to have tangible, positive impact (sometimes referred to as *impact design*) in community life. This field is focused on the transformation of social organizations and groups beyond the academy and extends across the academy-public community boundaries to include *trans-disciplinary methodologies* and *a multi-sectoral approach*. I place special emphasis on developing sustainable, community-based methodologies in pursuit of solving problems, assisting students to address specific health equity, resiliency, social and public life in the built environment for under-served communities. This practice is creating new opportunities for young professionals and students, creating and adapting methods that combine architecture, landscape architecture, planning and design discipline-methods

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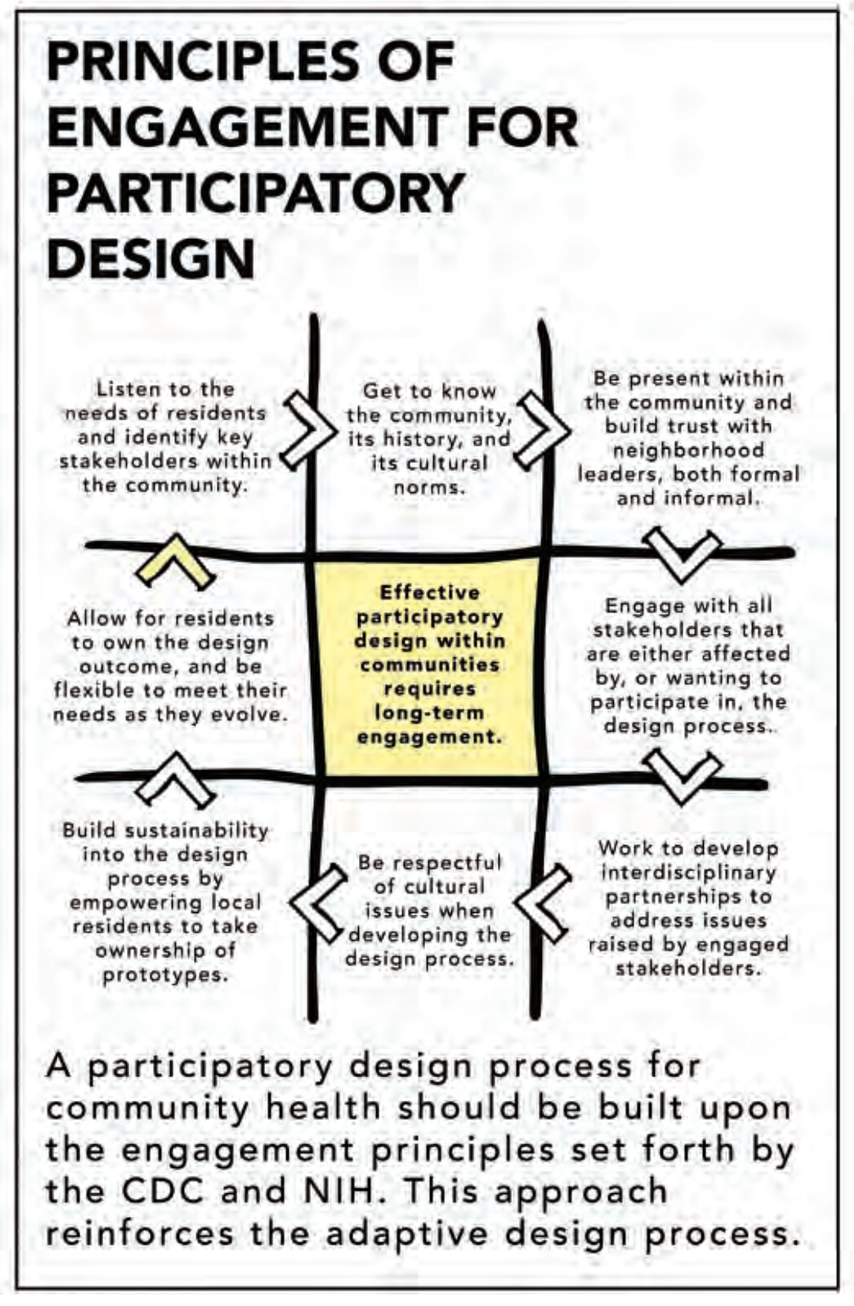


with social sciences, public health and community activism. Participatory design actively integrates knowledge from local people in everyday life situations with design tools and thinking that challenge dominant power structures and accepted privilege-practices. In 2015, I co-created and currently co-direct *Dotte Agency* to put in practice participatory design methods with my students and community partners.

Another significant contributor that has helped to shape this field of research is Imagining America (IA), where the "Continuum of Scholarship" framework " resists embedded hierarchies by assigning equal value to inquiry of different kinds. Inclusiveness implies choice…the work in the continuum, however various, will be judged by common principles, standards to which all academic scholarly and creative work is held…(where) the same principles of excellence apply to all kinds of scholarly work."[8]

"Publicly engaged academic work is scholarly or creative activity integral to a faculty's academic area. It encompasses different forms of making knowledge about, for, and with diverse publics and communities. Through a coherent, purposeful sequence of activities, it contributes to the public good and yields artifacts of public and intellectual value."[9] In 2017, in response to requests of schools of architecture to address the P&T framework, the Association of Collegiate Schools of Architecture selected me to chair the Research & Scholarship Committee that led to efforts where we compiled a comprehensive document on policies for tenure and promotion in architecture schools where we addressed the full range of architectural fields and modes. It was designed so that ACSA member programs can use this statement as a reference point for the development of their own tenure policies and faculty can use it to set their individual, scholarly agendas. The document addresses multiple forms of scholarship, including the scholarship of design, the scholarship

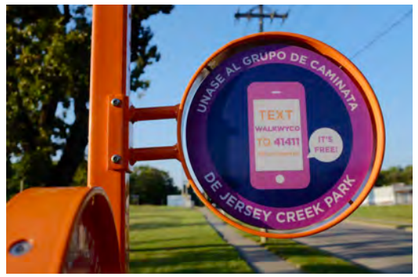
continued on page 9

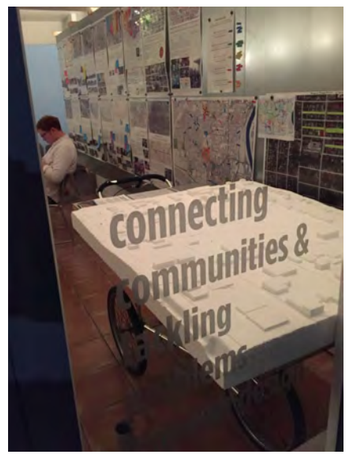
The KU Mobile Collaboratory (moCOLAB)

The moCOLAB is a repurposed 1972 31' Airstream Land Yacht that was conceived and designed to be KU's community classroom on wheels. It was born out of recognition that there are many faculty and staff on campus whose work is firmly embedded in community issues, from design and urban planning, to public administration, to public health and clinical child psychology. Furthermore, that work needs close cooperation and reciprocal collaboration with community partners who share a common public good goal. It is designed with a high degree of flexibility through the use of movable carts and seating. This work was co-designed with Professor Gore and fabricated with students in his design/build studio. We frequently use the moCOLAB with our community partners for exhibits, educational workshops and other performative events--immersing students and emerging ideas into community events.

Dotte Agency

Dotte Agency (http://www.dotteagency.org) is a multi-disciplinary design collaborative engaging neighborhoods to shape the built environment in order to improve public health. Our collective of faculty (co directors include KU Professor Nils Gore, KU PhD candidate, Matt Kleinmann, and myself) and students provides agency to citizens through our creative processes, makes connections in the community—conceptual and organizational, and promotes design as a useful and important component in community problem-solving. Together with community partners we do this in order to improve food access and physical activity in the underserved, urban core community in the Unified Government of Wyandotte County/Kansas City, Kansas. This approach has allowed us to test ways in which we re-imagine how universities and communities can work together as partners and help to train students to find their skills useful to others. From targeted improvements to civic infrastructure (parks, streets, bikeways, sidewalks); to the development of various programs (walking clubs, bike events, park events); to data visualization through mapping to make problems and opportunities ev-ident; to designing buildings that support healthy community activities and affordable housing; to physical prototyping of elements (benches, bike racks, signs)--we use design to proactively make the case for an improved public realm.





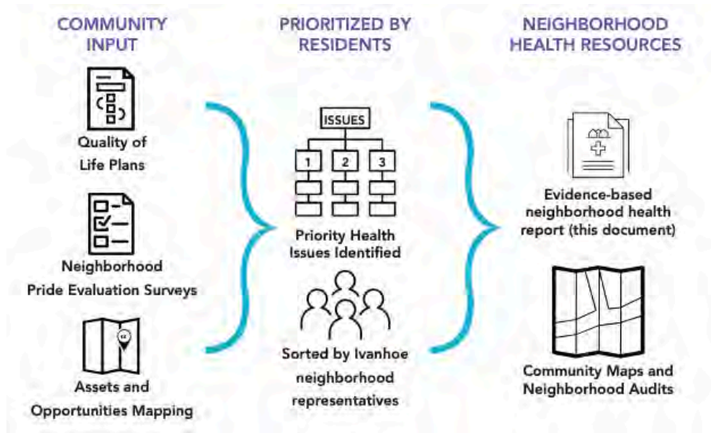
of engagement, and evaluating faculty practice projects. Our individual areas of expertise are often isolated and not optimized for relevance in a world where networking, relationships and connections are signs of a healthy, thriving society. As other universities and agencies across the country have recognized, academia is at risk to become marginalized, the 'real world' has much to teach us if we can make the opportunity to connect. And, there's a lot that we could share and test—ultimately providing alternate ways of thinking and implementing ideas in real places; the alternative values and working methods are developed on the boundaries where the work engages the community.

This emergent field of research has challenged how we validate academic prioritization and informed a set of recognizable practices—raising value for a hybrid academia/practice approach in this field—influencing and interacting with my career, such as: *Structures for Inclusion*, The *Center for Urban Pedagogy,* the *Biloxi Community Design Studio*, *MASS Design Group*, the *Impact Design Hub*, *Design Futures Public Interest Design Leadership Forum*, *Elemental* and others. Such examples, although there were/are many other notable influential entities, illustrate the progression of different forms of practices. These examples highlight where architecture and design have been expanded to be more inclusive, creating room in the design process for multiple participants, moving the discipline from employment by those with money and power to engagement with multiple publics and social issues. The exclusivity of professional knowledge as a closed loop accessible to those inside the profession is ideologically transformed in this field. It is one with a new emphasis on being

continued on page 15

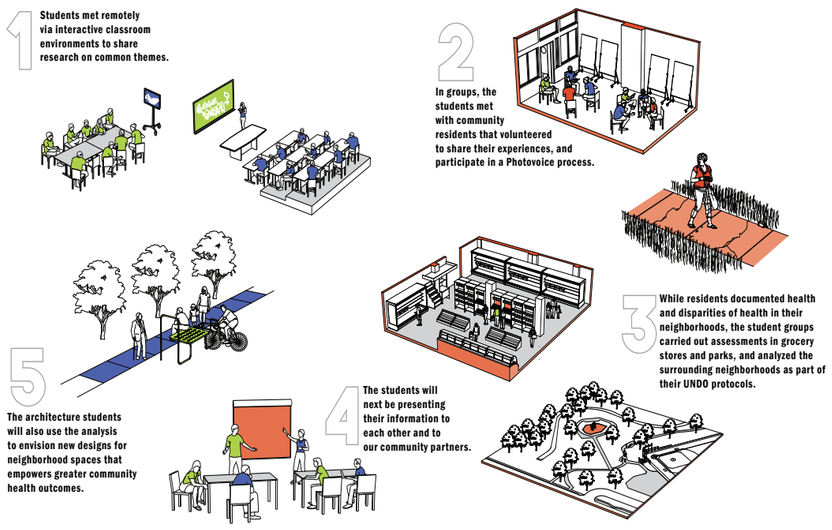
Tools of Engagement

Dotte Agency partners, students, community partners and I have collectively developed a series of engagement tools and strategies for building citizen participation. From pop-up panels, that allow us to take presentations on the road (or in the field); to a modified airstream trailer for mobile exhibitions and events; to a donated storefront for physical presence in the community, all of these tools allow us to make connections where the people are and where we can draw them in. We have learned that you have to place yourself where the people are and find ways to understand multiple perspectives. This approach to design attempts to actively involve a variety of stakeholders in the design process to help ensure the result meets their needs and is useful to them.



Insights through Inter-Professional Curricula

Within the same university, the School of Preventive Medicine and Public Health and the School of Architecture and Design developed a cross-disciplinary collaboration to improve population health outcomes and health equity. This course was initiated through the production of two professional courses that share syllabi, methodology, literature and other resources, survey methods, and an online teaching site toward the development of a shared, community-informed, design and health project in two neighborhood communities. This approach recognized that sharing these resources assisted both public health students and architecture students to acquire insights, tools and vocabularies of the other profession and to effectively learn through creative thinking and problem solving. Our program provided students the opportunity to substantively integrate perspectives and approaches by overlapping portions of our respective courses in each department—while providing each student with a strong foundation in their primary field. This approach has fostered innovation and transformative professional practice in both fields by creating a spectrum of opportunities for cross-disciplinary training that integrates populati on health concepts and concerns through community-based engaged scholarship.

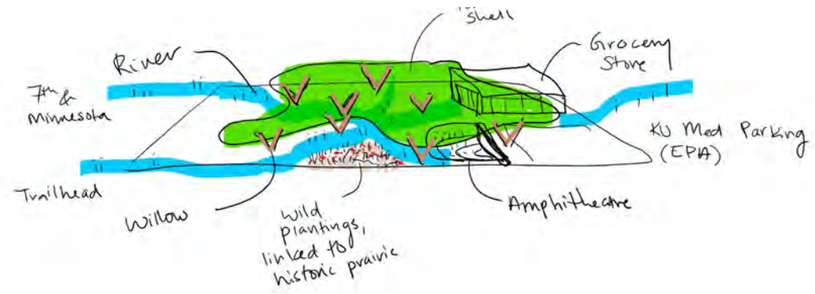


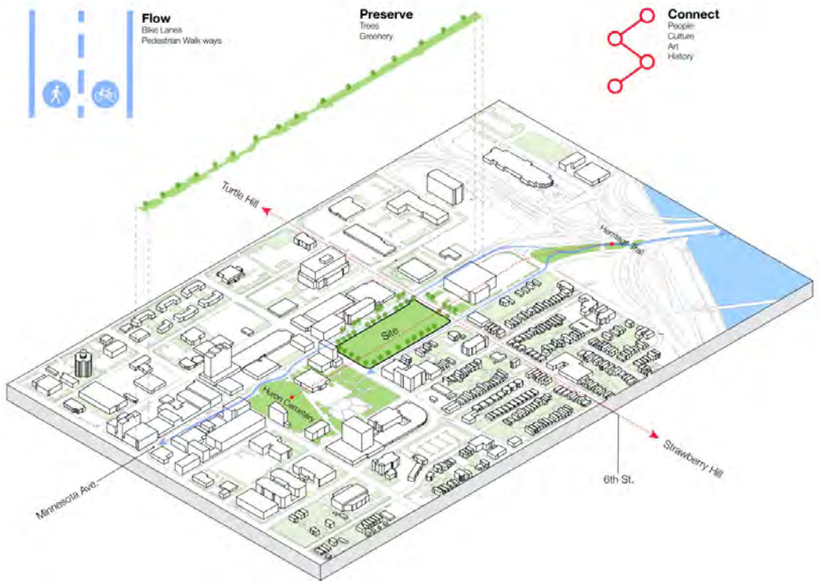
Insights through Cross-Disciplinary Curricula

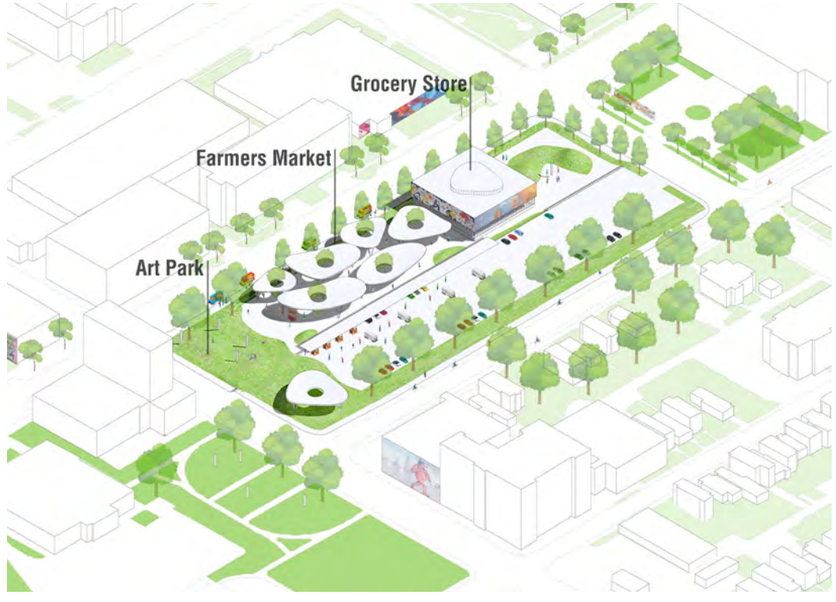
In 2019 Cultivate KC, a a locally-grown nonprofit working to grow food, farms, and community in support of a sustainable and healthy local food system for all, contacted Dotte Agency to see if we could partner in imagining a new incubator farm location for the New Roots for Refugees program. With no funding in place, I (with community partners) created a summer hybrid course, where online: innovative models of Urban Agricultural theory and practice, participatory design best practices and other readings and case studies provided new understanding of the role of social and community factors in food access challenges across diverse and underserved populations were introduced; and in-person tours and conversations with refugee farmers on their farms prepared students with necessary insight. Participatory tool kits were developed where students were joined with our non-profit partners leadership, refugee farmers, landscape architects, civil engineers, extension agents and others to participate in a design Charrette. Three design teams produced different solutions that were assembled into one document. This document was made available to our community partners and others to promote insight gained. A Request for Proposals was issued to design firms for further development of the project.

Collaborative Work with Students

Often, student-designed academic explorations in the design studio are recognized as having potential to build upon. In 2017, we were encouraged by the Kansas City, Kansas/Wyandotte County Planning administration to assist them with the development of a proposal for the Bloomberg Philanthropies Public Art Challenge to build in Jessie Jacobe's initial design studies in the area. The Orenda Market project brings sustainable art programming into a community with the lowest health ranking in the State of Kansas. A new co-op grocery store development planned on the same block supports the farmers' market, providing much needed access to healthy foods, and community event spaces. This project is envisioned as a community effort that will be representative of the residents of the area and inclusive of the history of earlier generations. It will include a farmers' market, public performance space, and perma- nent and rotating public art, such as murals, sculptures, and a fountain. This will emphasize and build upon the diverse community and neighborhood assets that are already in existence.







proactive and relational, engaging equity in everyday life and addresses critical contemporary issues including disaster resilience, poverty and political marginalization.

Contemporary public interest design avoids the large-scale socially determinist reforms of modernism in favor of local, small-scale, flexible interventions. Participatory design expands the architectural focus from strictly building form to process where the larger socioeconomic and ecological situations and breadth of diverse people involved help to make decisions. The architect's role shifts from purely form-maker and problem-solver to an expanded and adaptive one that requires "transformative action…to take into account the consequences of architecture as much as the objects of architecture."[10]

NOTES

[1]Richard Buchanan, Wicked Problems in Design Thinking. Design Issues, MIT Press, Vol. 8, No. 2, (Spring, 1992), pp. 5-21

[2]Ernest Boyer, Scholarship Reconsidered: Priorities of the Professoriate. (Carnegie Foundation for the Advancement of Teaching. 1990) p. xiii.

[3]Ibid.

[4]Ernest Boyer and Lee Mitgang, Building Community: A New Future for Architecture Education and Practice. (Carnegie Foundation for the Advancement of Teaching. 1996)

[5]Ibid.

[6]Rural Studio website: http://www.ruralstudio.org/about/purpose-history

[7]It is still an active outreach center now called the Carl Small Town Center https://carlsmalltowncenter.org

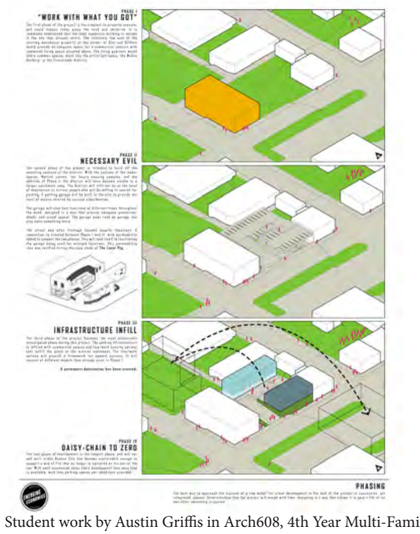
[8]Imagining America website: https://imaginingamerica.org

[9]Julie Ellison and Timothy K. Eatman. Scholarship in Public: Knowledge Creation and Tenure Policy in the Engaged University, A Resource on Promotion and Tenure in the Arts, Humanities and Design, 2008 https://ccrec.ucsc.edu/sites/default/files/tti_final.pdf

[10]Awan, Nishat, Tatjana Schneider, and Jeremy Till. 2011. Spatial Agency: Other Ways of Doing Architecture. New York: Routledge, p.43.

Spatial Agency

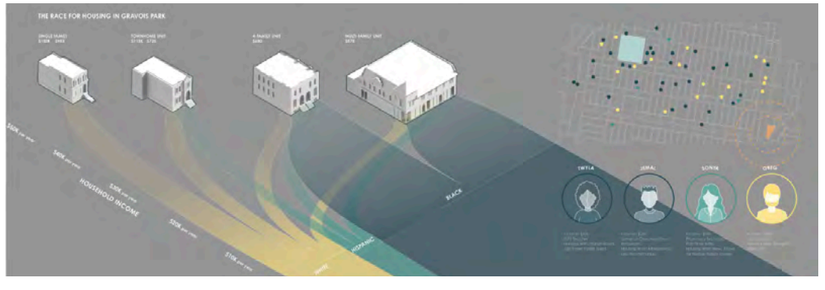
In my design studio courses, I develop coursework where students are required to think and design as 'spatial agents', where their skills and capacities are developed to imagine systems that are healthy and equitable for undeserved communities. From the initial phases of ideation and research to the development of new prototypes and policies, design thinking skills beyond a strictly architecture track—including policy making, urban design and planning and incremental element design. "Acting for and on behalf of others, spatial agency necessarily provides a planning process that is equal and open to anyone. But to achieve this we need a two-fold shift, not just on the side of the architectural profession but also in those who commission architecture: on the one hand an explicit call for architects to face up to their political and ethical responsibility, on the other hand a call for all those involved in the production of the built environment to engage with the precepts of spatial agency." (Spatial Agency: Other Ways of Doing Architecture, Awan, Schneider, Till). One of the most difficult aspects of urban design is becoming comfortable and conversant with the scale and form of the city – in all its incarnations and variations. Architects, Landscape Architects and Planners readily struggle with designing at the urban scale because of a lack of familiarity and facility with the spatial implications of physical form at a scale larger than an individual building. The only way to overcome this deficiency is by rigorously immersing students into learning to "read the city," an essential component of urban design praxis. I encourage students to make decisions about the what, how and where of their work based on rigorous analysis of demographics and geospatial relationships in the areas of social justice, ecology, politics, and economics.

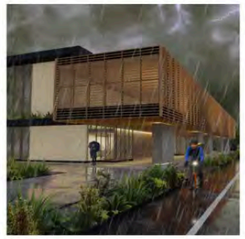
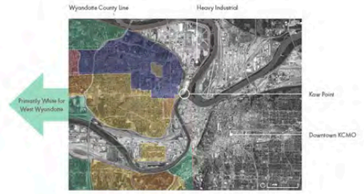
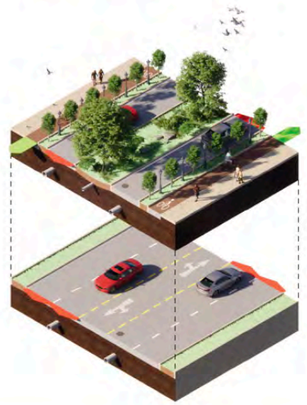
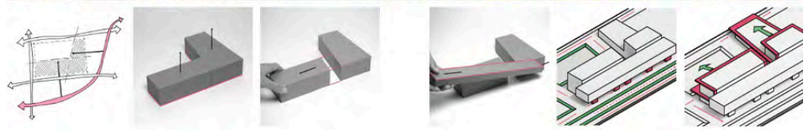


Student work by Austin Griffis in Arch608, 4th Year Multi-Family Housing Studio. 2014.

Attainable Urban Housing Studio

This fourth-year design studio explored the next generation of multi-family housing needs in under-served urban communities. One of the most difficult aspects of urban design for architecture students is becoming comfortable and conversant with the scale and form of the city--in all its incarnations and variations. The only way to overcome this deficiency is by rigorously immersing oneself in learning to "read the city" --an essential component of urban design praxis. Innovative models of housing with their demographic, social and economic variables, are changing the type of housing developed. With increasing construction and development costs, affordability continues to be an issue facing many households and communities throughout the nation. I have developed teaching materials that address equitable, attainable housing design practices aligned with current mixed-income/mixed-use housing in our region. Students are asked to develop proposals that reveal a layered city that is complex, incrementally developed and operates on a local level fulfilling understood everyday life. We also explore alternative emerging literature that address 'community benefit agreements' as part of the way we considering the power structures of financing housing. (Project below by Dylan Kennedy; project to the right by Isaac Taylor)



Sustainable Site and Context Studio

This second-year design studio explored the rich ethnic diversity of Kansas City, Kansas and its unique geographic location at the confluence of the Kansas and Missouri Rivers. From the Wyandot Indians, to ex-slaves that entered through an underground railroad across the Missouri River and settled in Quindaro in the north, to Latinos and Eastern Europeans who migrated here to work in the packing houses a century ago and now Asian and African refugee immigrants—this place holds a rich and diverse set of stories. Students are asked to develop a a coherent architectural project that demonstrates an understanding of design fundamentals, critical thinking, thoughtful and persuasive architectural representation and begin to demonstrate an understanding of how architecture can be informed by, and inform, health equity in communities. (Below is project by Madison Schaefer; to the right, by Jackson Bontty)