The LARCH 315 / 817 Community Design Studio explored the role of the designer in addressing systemic socio-ecological “wicked problems” in urban areas. The students grounded their investigation of place recognition in the community of Braddock in southeast Pittsburgh, PA, a disadvantaged yet complex community rich in multiple histories, creative pursuits, and grassroots placemaking. This primarily Black and low-income community faces issues of disinvestment, decline of population and infrastructure, food insecurity, and poor human and environmental health. Yet its rich history, rooted in the influence of the Carnegie family (a universally admired library/community center, and one of the last remaining steel mills in the United States) and impressive community pride and grassroots efforts provide much opportunity. After extensive community listening, students designed catalyst projects that drew from community input and tied into an overall neighborhood plan for the community.

**A Listening Tour**

The studio began with listening to the community’s thoughts on their issues, their opportunities, and their hopes for the future. Students digested documentaries of Braddock and borough planning documents to understand past and present community needs and challenges. They also took a field trip to Braddock to experience the community and to talk to residents and community advocates about their experiences. In total, students chatted with more than 20 people who lived or worked in Braddock via in-person or Zoom video conferences.

**Community Workshop and Exchange**

With the support of the Hamer Center, nine youth from the Braddock Youth Project visited the Penn State University Park campus. The students, who expressed interests in horticulture and art, toured the Stuckeman Family Building and the arts classrooms and got a personal tour of the Arboretum by the director. In addition, the Braddock youth joined Penn State landscape architecture students in a community workshop to provide feedback on the students’ preliminary designs. This community-university exchange was designed to address the often extractive nature of academia.

**Humanizing Data Using AI**

Students cross-referenced community-identified needs with maps and charts showing GIS spatial, historic, and demographic information in Braddock. In addition, by using tools such as ESRI Tapestry and Neilsen Claritas, students could capture the essence of the community’s sub-demographics and dynamics encompassing factors such as economics, social preferences, and spending habits. Students analyzed this data in charts and maps, but also humanized this data by generating character scenes using AI (Midjourney and Adobe Beta) based on the data analysis.

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Module 1: Wicked Problems + Opportunities

Students familiarized themselves with the people and places of Braddock and learned about the community’s concerns, hopes, dreams, and aspirations for themselves and their neighborhood. Students then diagrammed out “Wicked Problems and Opportunities,” or a systemic and complex set of issues and opportunities that they would like to address through their design projects. “Wicked” problems ranged from Redlining and racism, to disinvestment in physical infrastructure, green spaces, transit, physical and mental health issues, and more.

Module 2: The Vision

During “The Vision” assignment, students worked in groups to identify a neighborhood vision and develop a plan to address concerns of the community of Braddock while enhancing its opportunities. These community-scale visions created by students could be used by residents to communicate their needs and desires to the borough its residents in the future.

Module 3: The Catalyst

The studio concluded with each student designing a smaller-scale “Catalyst Project” that responded to the place recognition needs of the community. There was a wide range of student projects: community parks, healing gardens, transportation corridors, economic investments in local businesses, maker spaces, green spaces for festivals, sports fields, community gardens, food-based centers, and more.

Community Response

The course had two final reviews: an internal in-person design review with faculty, and an external online presentation for community member who spoke to the class. Students learned the value in receiving community feedback, and community members had an opportunity to engage in conversation about their future with other residents who live and work in Braddock.