

Mobilizing for Better Health through Prototyping Park Infrastructure

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This paper discusses lessons learned regarding the improvement of public parks in Kansas City, Kansas (KCK) in Wyandotte County, a low-income community and home to a population (largely made up of Hispanic, African American and refugee residents) with limited healthcare resources, underemployment, a large number of under-utilized parks, open spaces, neglected public ways, and abandoned, deteriorating buildings. Wyandotte County ranks at the bottom in numerous health and poverty indicators with the population at 50% pre-diabetic and with 34% of adults considered sedentary. New ideas on the creation of healthy communities are emerging, but the means to engage citizens through a participatory process, equitably involving community members, organizational representatives and partners in all aspects of the evaluation process is lacking. This project has developed methodologies to both enhance the understanding of the given phenomenon of current use and conditions of the parks, and integrate the knowledge gained with specific actions to improve the health and well-being of the community members involved.

INTRODUCTION

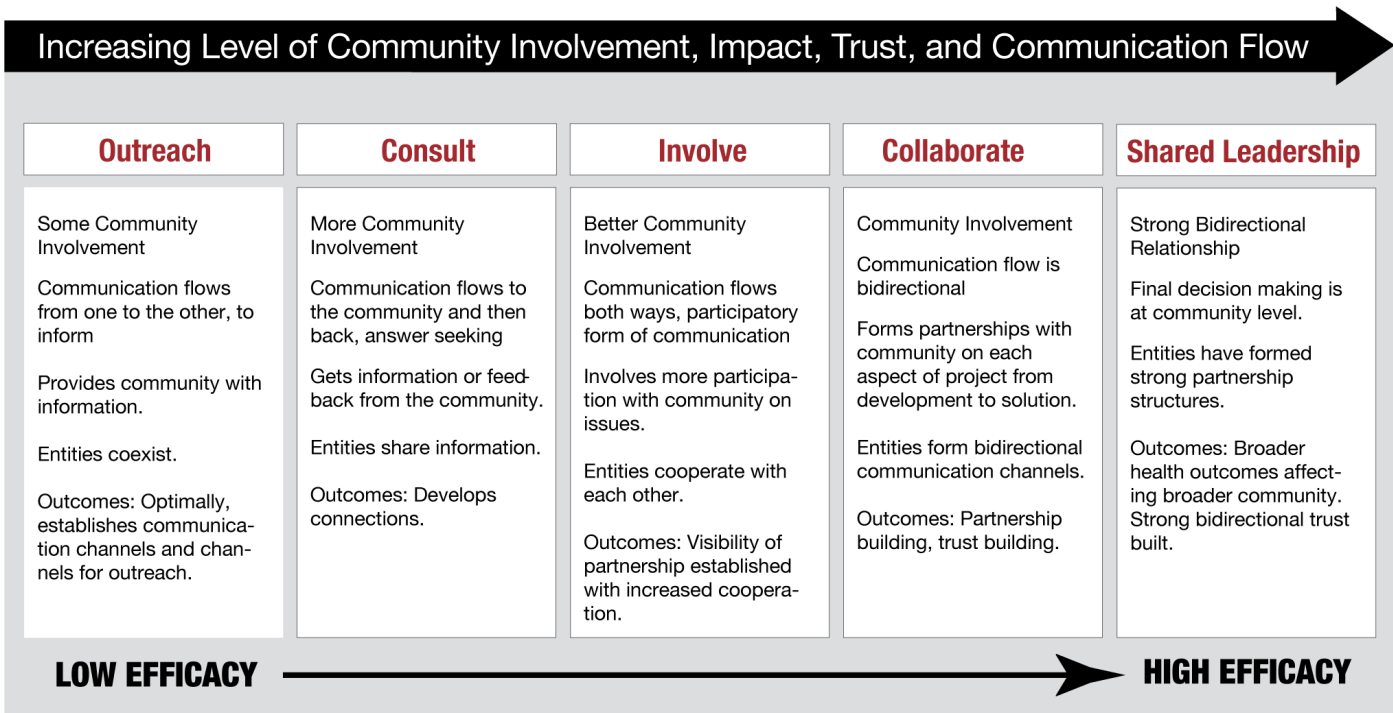
We believe that the advancement of architecture is not a goal in itself but a way to improve people's quality of life. Given life ranges from very basic physical needs to the most intangible dimensions of the human condition, consequently, improving the quality of the built environment is an endeavor that has to tackle many fronts: from guaranteeing very concrete, down-to-earth living standards to interpreting and fulfilling human desires, from respecting the single individual to taking care of the common good, from efficiently hosting daily activities to expanding the frontiers of civilization.¹

With these lofty words, Alejandro Aravena, the curator of the 2016 Venice Architecture Biennale introduced the theme of the

exhibition. Known for the reach of his practice in Chile, working for both elite, institutional clients as well as the desperately poor, Aravena called for Biennale projects focusing attention on “issues like segregation, inequalities, peripheries, access to sanitation, natural disasters, housing shortage, migration, informality, crime, traffic, waste, pollution and participation of communities.”² (emphasis ours)

Immediately after the exhibition's opening, reports from the Biennale on social media and in online publications targeted the USA pavilion's for criticism, faulting much of the work for being superficially formalistic, and arguing that it insufficiently represented the interests of a broad range of Detroiters. Detroit Resists, “a coalition of activists, artists, architects, and community members working on behalf of an inclusive, equitable, and democratic city,” argued in a press release that the work exhibited “indifference to its political context,” and that “the U.S. Pavilion, precisely as an attempt to advocate ‘the power of architecture,’ is structurally unable to engage this (urban) catastrophe and will thereby collaborate in the ongoing destruction of the city.”³

A back-and-forth between Detroit Resists and the US exhibition's curators ensued in the media, leading to no real settlement, but serving rather, in our mind, to highlight the bubble that many elite architects work inside of, with no real background, training, knowledge, or tools for engaging the diverse constituencies who live and work in all cities, and who have a bona fide stake in the future of those cities—not just the ruling class of political and business decision makers typically employing those architects. Simply put, most architects have never been trained to do community engagement; sadly, it's not a normative part of professional practice. It should be no surprise that it didn't occur in this case—especially considering that, with one exception, the architects selected to present at the Biennale weren't actually from Detroit, but tended primarily to be from urban and academic centers on the coasts.⁴ Insufficient community engagement is a problem that exists everywhere in our profession, not just in Detroit. This instance merely brought it the world's attention through the media hype surrounding the Biennale. The question going forward is, what can we learn from this experience?



Reference: Modified by the authors from the Centers for Disease Control and Prevention, NIH Publication 11-7782.

Figure 1: Community engagement model showing escalating levels of citizen involvement and leadership.

COMMUNITY ENGAGEMENT MODELS FOR PRACTICE

Community engagement can mean many things to many people. For our general purposes, “(c)ommunity engagement refers to the process by which community benefit organizations and individuals build ongoing, permanent relationships for the purpose of applying a collective vision for the benefit of a community.”⁵ The salient principles embedded in this definition are those that we have bolded in the description above, indicating self-determination in an evolving process over a long period of time. Furthermore, for our particular purpose in seeking to improve the built environment for public health benefit, we look to the model of engagement provided by the Centers for Disease Control and Prevention (CDC) which has as one of its goals the notion of community engagement “grounded in the principles of community organization: fairness, justice, empowerment, participation, and self-determination.”⁶

Figure 1 shows a range of engagement tactics and the associated efficacy that one could potentially achieve through the different levels. The levels are Outreach, Consult, Involve, Collaborate and Shared Leadership. In our experience, each level has its place in the lifespan of a project, and is important in the establishment of trust and the development collaborative working methods that all successful projects have. The key is to know what to expect—and what not to expect—out of each tactic, and to strive for the ultimate goal of Shared Leadership, for therein lies the promise of the highest efficacy and impact. It’s important to recognize that not all projects

proceed all the way to the end, but in general we find that the natural evolution from outreach and through the intermediate levels to shared leadership is a worthy goal to pursue. “Over time, a specific collaboration is likely to move along this continuum toward greater community involvement, and any given collaboration is likely to evolve in other ways, too. Most notably, while community engagement may be achieved during a time-limited project, it frequently involves—and often evolves into—long-term partnerships that move from the traditional focus on a single health issue to address a range of social, economic, political, and environmental factors that affect health.”⁷ Projects are able to evolve in complex ways, thus gaining buy-in from multiple partners and citizens, and leveraging those relationships to increase the likelihood of success.

WORKING THROUGH CROSS-DISCIPLINARY PARTNERS

We started working in KCK the Fall of 2013, building on existing relationships established by the University of Kansas (KU) Work Group for Community Health and Development, our academic social behavioral science partners who had been working for many years to support community health and development through collaborative research, technical support and capacity building with resident partners. Through sponsored project support by a CDC REACH grant, their work seeks to promote healthy behaviors and reduce risk for disparities in chronic disease by creating and strengthening community spaces for community members to access healthy foods, opportunities for physical activity and find culturally-appropriate services for chronic disease management. In this community, Hispanics are 1.7 times more likely to be diagnosed with diabetes

compared to non-Hispanics and Whites,⁸ and they are 2 to 4 times more likely to experience cardiovascular disease.⁹ Non-Hispanic blacks have the highest rates of obesity (48%) followed by Mexican Americans (43%). The CDC seeks to eliminate barriers to achieving full health potential despite social position or other socially determined circumstances. With the REACH Foundation support, the KU Work Group has increased programmed activities and built relationships with resident partners through community-based, participatory approaches to identify, develop and disseminate effective strategies for addressing health disparities. Our work as architects in this collaboration centers on the built environment as one of the social determinants of health, based on abundant evidence that the quality of the physical environment promotes physical activity.¹⁰

By partnering with them, it has afforded us the capacity to strategically understand the underlying social determinants of health in the community and target specific needs. Through this partnership we have identified both strategic, systemic means of understanding how to operate and tactical, directed means to generate small, incremental changes. We bring our disciplinary design thinking processes and capacities to visualize and translate data and narratives into new forms of knowledge dissemination and distributing it. Students have been able to identify and assess building and public space needs, directed by conversations with neighborhood leadership and resident opinion. New forms of knowledge are created through outreach, where communication flows from one to the other and through representative means, and the community is provided with new forms of information in community created spaces. Outreach happens in the informal spaces (an interactive table at the end of a community organized parade and event) with our community partners. This sort of interactive space is less intimidating, where familiar community faces, within already established networks, allowed us to capture ‘insider’ information. It is a form of consulting where communication flows to the community and then back, where connections are developed and information is shared in a way that is familiar.

CITIZEN EXPERT / EXPERT CITIZEN

We are in a unique position to be both educators and practitioners when we place our students and ourselves in community spaces. We move between these two roles, prioritizing the interests and needs of everyday people seeking co-created solutions to spatial problems. The shifting function of the user from a state of passivity to one of engagement delivers a new promise for the social role of design. Notions of inclusion, authorship and decision-making bring the user and the practitioner closer to level playing fields.

It is a collaborative approach in which agents act with, and on behalf of, others. We build on the concept of citizen expert/expert citizen by placing our students in places where such exchanges can be recognized and valued as basic to the development of our work.¹¹ Our inquiries as students and academics allow us into spaces where we are benign and non-predatory and where we can establish these spaces of exchange. In these spaces students learn to challenge

their preconceptions as they sit at the table with citizen experts, made highly visible and forced into open dialogue, in real conversations where jargon is awkward. This direct exchange triggers a new sense of responsibility for the interpretations and translation of information where their ‘expert-citizen’ position is equal to the ‘citizen-expert.’ This participatory approach to making requires an indeterminate approach, where we learn by doing, working face-to-face, where all participants are driving our approach to the production of space and form. Students and community members find confidence in the roles they can play in the production of doing. They learn from each other, becoming active producers of space working with local needs, capacities and potential capabilities to transfer the work in direct ways—ones where small acts can have great impact. By involving all interested parties, communication flows both ways and entities cooperate with each other.

AGENCY

Building on Awan, Schneider and Till’s concept of ‘spatial agency’ we look for opportunities to deploy the potential and knowledge of architectural processes to support our community partners, to explore the possibilities of space, and to take control of the space they inhabit. Through participatory processes, community residents and advocates are seeing new ideas and fresh responses to spaces in the city they hadn’t considered before. Questions about private ownership, policy and rights to public spaces have been raised. New conversations about possibilities have been made. Students have been given agency in addressing community life through resident opinion in ways that they typically don’t in traditional classroom settings. Residents and community representation have been given agency to see their community spaces in ways that they typically don’t. These new practices that seek to explore new power relations and challenge private claims to space have generated new directions in who and how to occupy public spaces. New tactics and strategies that use existing policies and buildings for purposes other than those they were designed for are possible. ‘What if’ possibilities are made visible and available through collaboration between expert-citizens (students) and citizen-experts.

PROCESS

What is the best way to approach the work? In looking generally at the built environment in this community, the county is like a peninsula with the majority of its bounded area defined by either the Kansas or Missouri Rivers, (See Figure 2). Within that space multiple watersheds have impacted the development and division of neighborhoods, with challenging topographical landscapes resulting in numerous public parks. Many of these are situated in the urban core neighborhoods where according to the 2010 Census Data, more than half of the population resides (85,000 out of 158,000 total residents). Like other US urban centers this area suffered from white flight, and a loss of urban core support over the last 60 years. An atrophied landscape surrounding and inside the parks, connected to a decline of budgetary funding to adequately maintain—let alone improve—them. In these places lack of investment fosters lack of

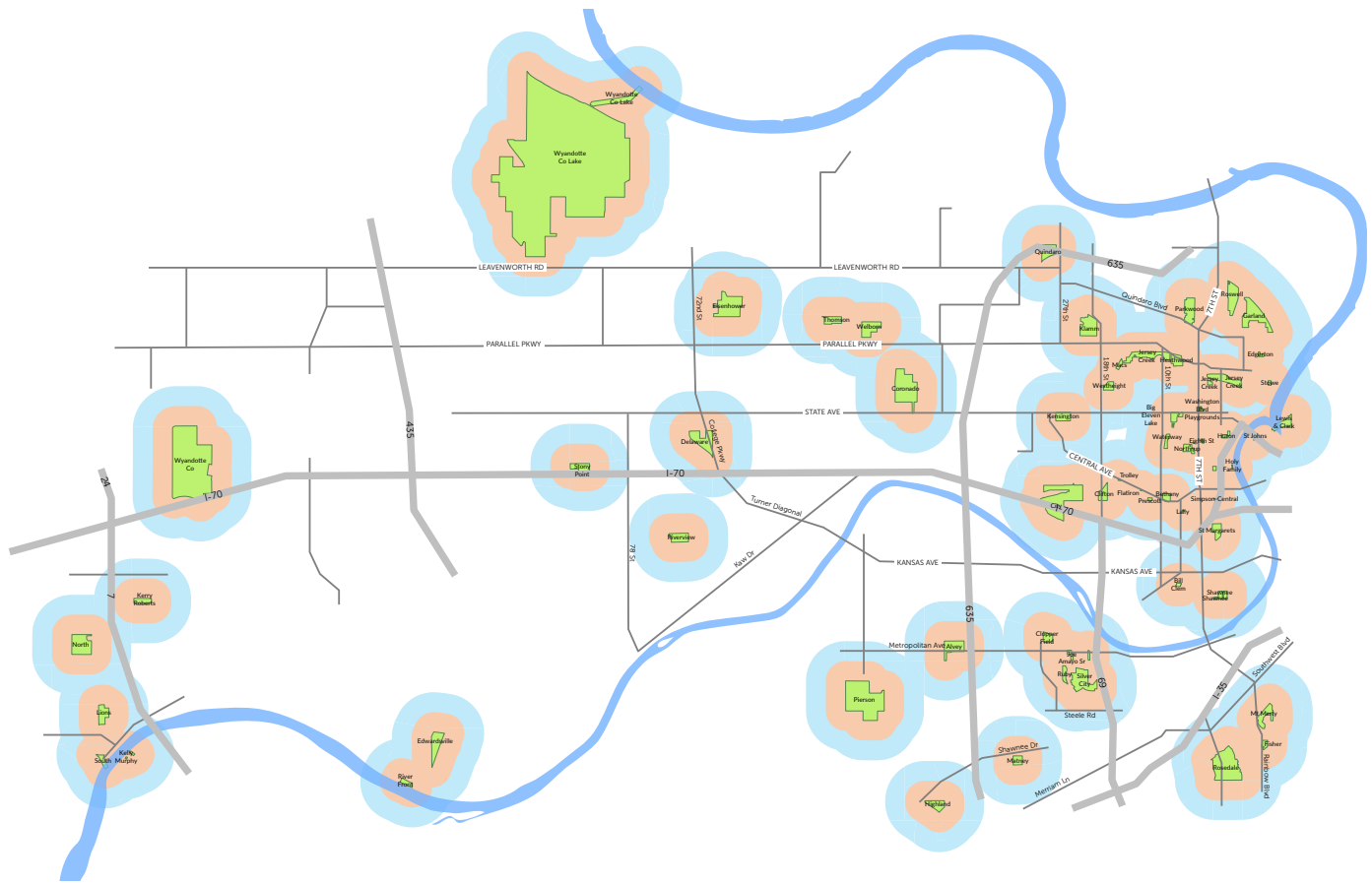


Figure 2: Map showing parks with a half-mile buffer around them, showing the numbers of residents who live near parks. Some of the smallest parks in KCK have the most residents living near them, indicating that investments in those parks will have the greatest potential health impact. Jersey Creek Park has approximately 20,000 people surrounding it, making it the single most impactful park. Credit: Matt Kleinmann

interest and perceptions of danger for ones' personal safety. The city Parks & Recreation department, advised by the police, doesn't encourage people to 'linger' in parks—fearing vagrancy and illicit activity—leading to a decline in such things as benches and other amenities that would encourage use. It is a vicious cycle of disinterest and decline. Yet at the same time the need for support for publicly shared spaces and physical activity is there, and the number of those likely to be diagnosed with diabetes, heart disease and related chronic diseases reside in the same neighborhoods. (See Figure 3)

If we are to work towards eliminating barriers to achieving full health potential for communities, then understanding the potential of parks and their impact on resident health is critical to understand and respond to. It became imperative that our critical process and finding be made visible so that ultimately we could identify the top set of parks to work with, involving a variety of stakeholders [define residents and how we find them—at public events, simple engagement, sharing stories; define community advocates and how we find them—at organized meetings, where they work on the behalf of public

good and represent foundation public good interests; civic representation—geographic distribution] so that everyone felt the correct choices on where to exert our capacity (foundation funded capacity to: support coursework, hiring local park mobilizers to initiate 'walk club' programming, materials and fabrication of elements for the parks, designer-interns to develop work, overhead, etc.)

The number of people proximate to 65 parks is described in Figure 3. We also surveyed each park to identify the conditions of the parks and the assets that they hold, with special attention to sidewalks and trails within them. Through numerous engagement events and participating in community advocacy and civic meetings, we gathered insight from as many residents, community advocates and civic representatives as possible at various events to gain their perspectives on what are the spaces that they value most and those spaces that are having greatest impact (good and bad). Through a process that took several months, we were able to discern what parks had the most interest and support to engage volunteers for future use and events within the parks. It was a layered and long process to identify the parks and networks of trails and sidewalks that would have the local interest and political buy-in to have the greatest impact—connecting various neighborhoods. Through the process, we learned that data becomes visual and that there is power in a shared idea. These 'concept maps' were recognizable as the stakeholders' (expert-citizens), but distinct and made possible by those with capacity to design and distribute (citizen-experts).

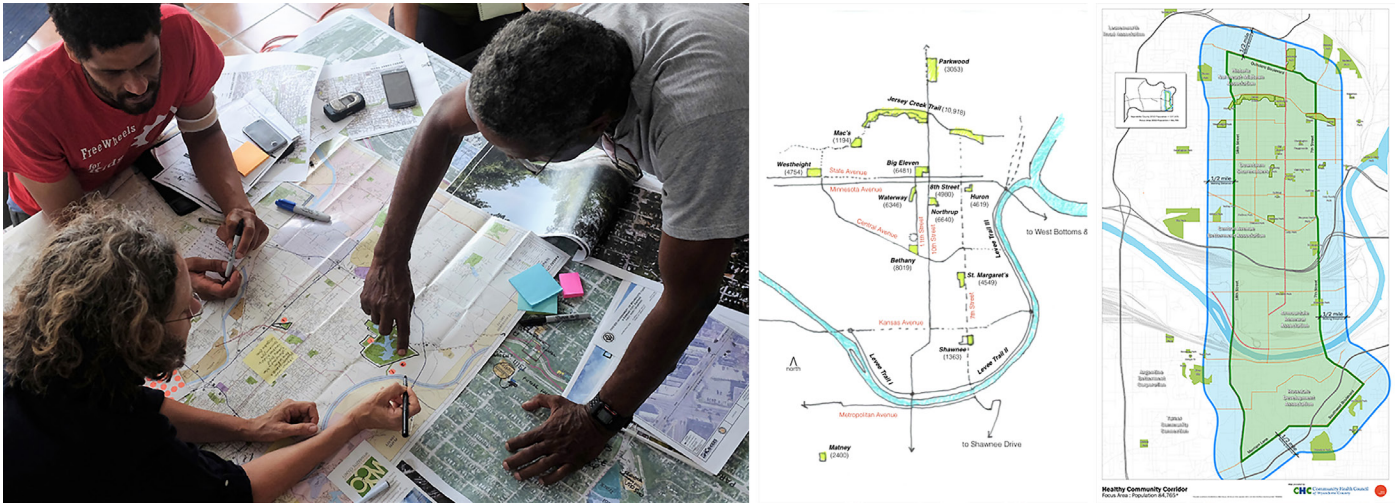


Figure 3 Through direct participation we are able to transform disparate thoughts on multiple maps, to a concept sketch, to a finished strategy of a “Healthy Community Corridor that encompasses close to 50% of the county’s population, contains approximately 20 parks, and includes the districts of 5 county commissioners. Credit: (from left) Matt Kleinmann, Shannon Criss, Matt Kleinmann



Figure 4: Engagement tools: (clockwise from upper left) pop-up panels, map-cart, Dotte Agency storefront, moCOLAB. Credit: Matt Kleinmann, Shannon Criss

METHODS

Knowing that the spaces within which we practice and relate to our stakeholder-experts, we know that being remote at the university campus can isolate ourselves from others in our “ivory towers.” If we are careful, these essential connections that we generate can be isolated and not optimized for relevance in a world where networking,

relationships and connections are signs of a healthy, thriving society. Academia is at risk of becoming marginalized; the “real world” has much to teach us if we can make the opportunity to connect.

As we have been learning how to best engage the community in a variety of locations, we have developed a set of basic engagement tools: pop-up panels and map-cart, the Mobile Collaboratory (moCOLAB) and Dotte Agency (donated storefront building). (See Figure 4). The six pop-up panels and map-cart were developed to be used

in a variety of settings: at place-based meetings where the displayed content helps to illustrate the findings, proposals and set within the space itself with community members. The proximity allows us the capacity to look at the existing space and allow comparisons and discoveries to be made with the stakeholders. Also, these pop-up panels have been deployed in church basements, community centers, city halls, public libraries and the like. We attempt to create focus group discussions and individual conversations around these panels in settings that others have created—in their place, in their time, within their networks. The principle behind them is meet the people where they are.

The Mobile Collaboratory (moCOLAB) is a 32' long Airstream trailer that was renovated and adapted by a class of students to be a 'community room' on wheels—taking scholars and students to the people to support needs and make connections that foster design-thinking in collaborative processes where an inclusive event incorporates all talents and perspectives towards a shared result. This has been delivered to a variety of spaces—again, where community stakeholders have made their community available through their orchestrated events, within their networks and where we are able to draw them in to capture their stories and share information for feedback. The Airstream creates a kind of spectacle at public events, capitalizing on the principle of draw people in.

The Dotte Agency storefront is a space that has been made available for our work through a particular community partner, Community Housing for Wyandotte County. Through their generosity we were invited to reside in a storefront space that they weren't using and unable to rent. With sweat equity and minor investment we are able to operate out of this central location practically free of charge. We have given many keys away to various 'public good' partners to use for various meetings and exhibits. This space has served as an important intersection for extended dialogue where ideas emerge that are provocative and out-of-the-box—where every idea has merit. By gathering diverse minds and perspectives focused on a given situation, a range of ideas is established and serves to identify next-steps for a community group to take, with partnerships identifies and in place proximate to this location. There's a lot of good ideas to be shared and tested—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."¹²

Through support of local foundations, we've been able to hire Park Mobilizers for five of the essential parks in the network of parks outlined—to be able to connect to local residents encouraging regular use of the park and the capacity to determine insight about the assets and challenges of the built environment. With this effort, each park has been able to encourage neighboring residents to meet 2-3 times per week to walk together, building a social network to support capacity for a healthy lifestyle for individuals together. Since this effort was started last April, we've seen a growth of number of walkers in each park—directly involved in the walking clubs and

independently. In addition to the adding programming, we've created pocket maps to encourage the mobilizers to gather insight on the needs of the park and nearby public walkability and neighboring properties. Clean-up events, 5K runs, health fairs and other related programs are contributing to this unified effort.

Other related needs have arisen to further extend the capacity of the work:

- need to communicate effectively with those associated with the network through a new WALK-WYCO text-share program we developed;
- need to communicate shared, planned events through fliers, post-cards, newsletters that we have designed and distributed directly and through others' websites;
- need to capture stories about changes walkers have made as a result of the regular walking through photographs, narratives and starting to tell through video story-telling;
- need to continue to build other forms of communication to support bicycling networks through BIKE-WYCO texting program and signage/bike racks.

Out methods of building networks of programmed activities, communications and prototyping small installations has been developed through collaboration where communication flow is bidirectional and we have formed partnerships with community stakeholders on each aspect of the larger project from development to small incremental solutions. With this partnership building we have built visible trust.

PHYSICAL PROTOTYPING

Our professional architecture degree curriculum has a requirement for students to take a "materials and tectonics" design studio where part of the investigation has to take place with real materials at actual size. These projects vary widely, from the scale of a single piece of furniture, to experiments with building assemblies, to small buildings installed for clients. Funding for projects also varies, coming in some cases from the students in the course to externally-funded client-driven projects. In every case the aim is for students to take a project from conception through to completion so they can see the implications of design decisions play out in real time. (The moCOLAB, described above, was one such project, completed before we began our work in KCK, but which has proven to be essential in our work there.) For the work in KCK we've developed, with our partners, a concept of physical prototyping of proposed elements, with installation in the city for testing and resident feedback. Elements prototyped so far include bike racks, trail markers, informational signage, benches, fitness stations, a demonstration kitchen pulled by a bike, store shelving to promote healthy food access in convenience stores, and bike-hacks to demonstrate other kinds of pedaled transportation for those without cars. By conceiving and describing them as prototypes—both to ourselves, our partners, other community stakeholders and residents—we are able to be slightly more experimental and take advantage of user feedback for future prototypes

and “final” elements. Research has shown that this concept works well as an instructional tool, for both students and our community.¹³ (See figure 5)

CONCLUSIONS

Though our work in KCK is still young, we are able to start drawing some conclusions from what we’ve learned there.

Product validates process: As we have installed prototypes in the city the response has been very encouraging. The simple act of paying attention to a long-neglected park brings some optimism with it> On the day we started installing the fitness stations in Jersey Creek Park, two different people literally stopped their cars in the middle of the street and asked what we were doing, they were clearly excited by the vibrancy of the stations, but perhaps more so by the intentions behind it. Several walking clubs have been started by area churches to exercise in the park, and annual 5k walk/run events have been started.

Professional attitudes need to be challenged: The idea of “agency” is clearly one that is important to our work. Anthony Giddens writes: “[Agency] means being able to intervene in the world, or to refrain from such intervention, with the effect of influencing a specific

process or state of affairs.... Action depends on the capability of the individual to “make a difference” to a pre-existing state of affairs of course of events.”¹⁴ A generation (or more) ago we were trained to believe that the architect should be the sole decision-maker—the very concept of professionalism in our culture is rooted in that notion.¹⁵ “A better definition [of ‘agent’] in relation to spatial agency is that the agent is one who effects change through the empowerment of others. Empowerment here stands for allowing others to ‘take control’ over their environment, for something that is participative without being opportunistic, for something that is pro-active instead of re-active.”¹⁶ With these experiences it is our hope that the next generation of architects might be able to imagine a different way of being an architect—one that is more responsive to the idea of reciprocal engagement and thus, less inclined to suffer from myopic thinking about the need for a more generous and responsive design approach to pressing urban problems. Time will tell if that’s the case.

Figure 5: Fitness Station prototypes in Jersey Creek Park. Each unit contains a bench, a bike rack and an exercise element. Five prototypes were installed in May 2016. Credit: Nils Gore, Matt Kleinmann



ENDNOTES

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