NOTE: This article, “Architecture as Acupuncture” appears in PUBLIC: A Journal of Imagining America. V. 2 #2. It is presented as a multi-media slideshow, with voiceover, here: http://public.imaginingamerica.org/blog/article/architecture-as-acupuncture/

Following find the script for that presentation

**Architecture as Acupuncture**  
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**ABSTRACT**

Project-based learning serves as a vehicle for new forms of cross-disciplinary engagement by promoting meaningful connections through slow, discursive and evolving spaces. By harnessing this synthetic approach, an expanded, integrated understanding of local culture and values are made as a result of spatial, class and racial differences. Operating outside of professional, academic and singular disciplinary boundaries, new reciprocal relationships and partnerships are made. New forms of cross-, multi- and trans-disciplinary can benefit from an ability to respond, adapt and evolve to best fit the interests and needs of the public. New vocabularies and capacities to operate more broadly are sharpened in order to be usefully engaged in the world at large. New forms of innovation and entrepreneurship are possible when the network is expanded and when synthetic connections and actions are made through space. Spatial agent Jeremy Till, artist Theaster Gates, civic leader Jaime Lerner and anthropologist David Harvey demonstrate the effectiveness of diverse-thinking-tactics that open up access to design and facilitate its power as an agent of change. By rehearsing new spatial relationships, a new working paradigm is formed that expands the operative role of design.

**SCRIPT**

This presentation will discuss efforts to pro-actively engage in disciplinary innovation and evolution, through project-based learning, in community settings with community partners. We come to this as members of a discipline—architectural design—and as members of 2 different Professions (with a capital P). We are members of the licensed architectural Profession, and we are also members of the academic profession, engaged in the teaching of future architects-to-be. As we reflect on the base assumptions and premises of our design discipline and our 2 professions, and the incentives that shape the direction of our work in each, we see opportunities for synergy between them and we sometimes find conflicts as well. This presentation will explore some of those opportunities and
conflicts. Many of us employed in the academy face the same problem, as we attempt to meet the expectations of our institutional employers at the same time as we work according to the assumptions of our individual disciplines. Adding on the challenge of collaborating with colleagues in yet other disciplines and professions complicates things even further, but at the same time offers opportunities for learning and discovery that, in our experience, make it worth the effort.

The work we will show all takes in place in the context of experiential learning, which we believe provides exceptional opportunities for architecture students to learn valuable lessons by engaging in projects in the world, working with actual constituents in actual places. Our belief is that these experiences make the lessons stick better, because the consequences of their work are readily evident in its impact on the clients and contexts, and just as importantly—the clients and context impact the student.

We also believe that, beyond our particular discipline, these projects demonstrate that even in a large university setting, experiential learning can offer students alternative ways of imagining their futures in other disciplines—and as citizens—after they leave school. We believe that the core principles we adhere to can be of use to those in other disciplines and professions. So in this presentation, we will first take a look at some of the professional and disciplinary premises that guide our work, then at particular principles and lessons that we’ve derived out of the projects. It is our hope that academics in other disciplines might be able to translate these lessons in their ownwork, with students in their disciplines.

To start let’s talk a bit about our particular DISCIPLINARY CONTEXT and why it makes sense for our discipline to take students into communities for experiential learning. Architecture is an ancient discipline with roots in the earliest civilizations. Buildings of most any size or complexity, beyond simple dwellings, needed attention from people who organized their spaces and understood how to build them. Education was almost exclusively experiential—learned on-the-job, in apprenticeships in the construction trades, or to an architect. Much of design knowledge is tacit in nature; that is why the design studio is the absolute core of an architectural education. It is a place of synthesis, where new design solutions come into being—in response to problems in specific contexts. Medical education, with its emphasis on clinical learning, is similar, as are the sciences and engineering with numerous laboratory experiences. But as a modern, organized, and regulated Profession—with a capital P—architects go back to just the late nineteenth century. By the middle of the twentieth
century, the job of educating architects fell to the university system, in professionally-accredited schools such as ours.

One might think of a Profession as the monetization—or commodification—of a Discipline, using codified systems and processes for delivery of services. Discipline, on the other hand, speaks to a deeper kind of tacit, embodied knowledge and way of relating to the world of one’s disciplinary practice. In the context of our work, this distinction between discipline and profession, with a capital P, is significant. It is possible to have a Discipline without Professionalization. The opposite, a profession without an associated, disciplinary body of knowledge and premises, is—if not impossible—hollow. But we don’t just work exclusively in our own discipline. So we need to talk about our INSTITUTIONAL CONTEXT as members of the academy, and some of the premises and assumptions that come along with that for our role as professors:

We teach in an accredited, professional school of architecture in a large state institution. Our university is a flagship Research 1 institution with a large student population, a diverse set of academic disciplines on campus, and an institutional structure not unlike many universities with a similar profile. Institutional inertias run strong and are ingrained in curricula, incentives, habits and mindsets to promote a kind of stasis that often inhibits innovation. For instance, looking at the standards for promotion and tenure at the university level, we see this CV form, with categories and expectations that exist for everyone in the process, university-wide, regardless of discipline. At some level, physicists, sculptors, historians, lawyers and mathematicians are all expected to behave the same in order to succeed in the academy. The standard allocation of effort for most faculty is 40% each for teaching and research, and 20% for service; and a series of activities that fit within each category. The assumption is that there should be a fairly bright line between the areas and that, to be very clear, we allow NO DOUBLE DIPPING so that review committees—who may be unfamiliar with the internal characteristics of your discipline—can be sure that they understand the work you do. For many disciplines on campus—particularly the traditional academic disciplines that produce knowledge in the form of writing—these assumptions work pretty well and are relatively easy to live by. But at the same time, these promotion and tenure assumptions contribute to the perception of self-focused disciplinary silos that inhibit community-engaged work, where the outcome of the effort may not be a traditional scholarly product.

People, everywhere, respond to incentives, and when the incentives don’t clearly delineate a path towards interdisciplinary engagement, it decreas-
es the chance that it will happen. The incentive structure of the university almost guarantees it, and only the most determined professors will break out of the mold and take a chance on doing community-based work as scholarship and creative practice.

INTERDISCIPLINARY CONTEXT

Anyone paying attention in recent years to news outlets like the Chronicle of Higher Education, Inside Higher Ed—or sometimes even the mainstream media—will have seen articles like these, calling for more inter-disciplinarity in academia. Others assert that such calls are misplaced and that things don’t need to change much; that the academic disciplines are fine just as they are. This is nothing new; it’s the hallmark of a vigorous and healthy habit of self-analysis. It’s how cultures and sub-cultures of all types have always evolved.

In our professional subculture of architecture, we find the same thing. The Great Recession of 2008—the deepest financial crisis of the past near-century—stimulated much soul-searching and self-analysis within the practice of architecture. Buildings are costly things financed by debt, and when credit tightens, our profession suffers. Coupled with emerging business models, innovations in computing, and new modes of building fabrication, there is significant cause to ask deep questions about the base habits and assumptions of the profession.

In both cases—in academia and in the architectural profession—calls for inter-, cross-, and transdisciplinarity are intended to bolster the relevance of the enterprise in the eyes of the culture by promoting meaningful connections between disparate parts of the culture. Calling for interdisciplinarity is one thing, actually achieving it, and understanding how it works is another. Disciplinary silos exist for valid reasons. But in our experience, if one can make interdisciplinary work, it can be rewarding and take projects to places that they wouldn’t otherwise have gone. The rest of this presentation will talk about some of the ways we have found to make interdisciplinary work, and some of the outcomes of those reciprocal partnerships.

NEW INSTITUTIONAL EFFORTS

Our own university, in response to the same pressures and self-analysis, in
2010 announced a new university-wide strategic initiative entitled Bold Aspirations. The thrust of the document is to chart a path to transform the university into a more self-sustaining, relevant and meaningful entity. Out of 6 overarching goals, Goal #4 has direct relevance to our interests here: “Engage local, state, national, and global communities as partners in scholarly activities that have direct public impact.” Goal 4 is accompanied by strategies and action items that will be important if it is to succeed. If we are to follow the model for architects envisioned by our capital P Profession, it looks something like this. Our role is strictly defined by the lines and boxes on this chart. We are trapped within the linear chain of capitalism as a contracted agent who designs buildings. This strict definition of what we do keeps us constrained to roles in a world that is changing – a fast-moving world that works through diverse networks, opportunistically and with open-source connections. We could be operating differently in spite of our professional restrictions. The discipline offers more than the profession can deliver.

If we try to expand our idea of what architects do as a discipline (rather than a profession), we can get to the idea of thinking and acting spatially rather than building-centrically. Spatial imagination can apply to buildings, landscapes, furnishings, messaging and networks, all merging together and clouding the boundaries between different entities. Such an approach encourages inclusivity and collaboration between disciplines and with stakeholders who wouldn’t be included in the boxes-and-lines diagram shown earlier. Such a framework focuses on being human-centered, rather than thing-centered. It provides an understanding of a community’s needs in new ways, finding innovative solutions to meet those needs and deliver solutions with financial and ecological sustainability in mind.

Encouraging participation involving all potential stakeholders in the design and planning process from the very start of a project increases the capacity for the community to inform and direct the project and take ownership over its progress. It serves to empower the stakeholder. These concepts greatly expand the discipline, where “public-interest-design” emphasizes the ability of designers to discover new relationships among products, environments and systems with a human-centered approach. At its best, the design must be resilient to withstand anything from limited budgets to environmental disasters, with the ability to respond, adapt and evolve to best fit the interests and needs of the public. Developing the vocabularies and capacities to operate more broadly and be participatory are essential.
In the book, *Spatial Agency: Other Ways of Doing Architecture*, Jeremy Till says that “we must engage with the world as expert citizens, working with others, the citizen experts, on equal terms.” We share the enterprise of possibility—the possibility of the landscape, abandoned and under-utilized buildings, the possibility of under-supported human intelligence and capacity, the possibility of something greater than the sum of its parts. If we can utilize our ‘expertise’ and align it with others’ ‘expertise’—our discipline will have greater value and contribute to quality of life for all (not just for those that can readily purchase it). We are in the position of assisting with capacity building, effecting change through the empowerment of others, “allowing them to engage in their spatial environments in ways previously unknown or unavailable to them, opening up new freedoms and potentials as a result of reconfigured social space.”

But where do we find citizens? How do we define the problems to be solved? Communities are complex and there are no ready-made ways to ‘define the problem’ nor readily available citizens to help us. Naturally, designers go to community leaders to represent community opinion. These key voices have invested their time and energy into representing the community’s ideas and needs. However, their ‘top-down’ voices cannot be the only ones sought and incorporated as stakeholders. There are others that live, pay taxes and use the public realm everyday who also are stakeholders. A ‘grassroots’ perspective is critical to truly understand the problems that need to be and can be solved. Finding that voice is difficult. But a democratic, full range of input in defining the problem is critical to designing for a healthy public life. Finding that full voice is a wicked problem.

Richard Buchanan, in “Wicked Problems in Design Thinking,” defines a wicked problem as a “class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing.” Designers must become comfortable with wicked problems that are a result of a clash of cultures and complex places. The “problem” is naturally understood differently from a variety of perspectives.

An analogy that may help to understand how wicked problems can be framed and understood is to consider the concept of Acupuncture. Jaime Lerner, an architect and civic leader from Curitiba, Brazil, likens the city to a living organism that evolves and requires necessary, focused, incremental changes to keep it vital—a sort of acupuncture one might call it. Conceptually relating the body to the city form, he asserts “according to
the very principles of acupuncture...the lines of action must be simple, produce an immediate effect, at reasonable cost and applicable to any situation to facilitate the daily life of citizens...” “as well to cope with urgent needs, be it in the heart of cities or in peripheral areas...in ecological terms, the limit is always the livelier and richer place because it is there that the forces of different systems meet each other, where the effects of a network can occur.”

We live in trying times. “Many cities are losing the battle against degradation and violence because they are settled for the view that difficulties were too big and could only be dealt with after all planning instruments and financial resources were in place.” In addition, around the world, mass migration and natural disasters are contributing additional stress. Meanwhile municipal budgets are constrained as energy prices increase, building materials become more expensive and fresh water supplies decline. Massive redevelopment projects such as those that transformed open spaces like Millennium Park in Chicago ($475m) are not an option for cash strapped communities.

Understanding those elements that seem problematic can be turned into opportunities. Being opportunistic is often read as taking selfish advantage of circumstances. Although it often has a negative connotation, it may also be defined to adapt to changing circumstances to maximize selfinterest and in fact be considered honorable. It is entrepreneurial in nature and making a ‘foothold,’ responding to a wholly new opportunity and acquire a new role. New advantages or potential benefits emerge and when coupled with neglected and under-utilized landscapes and buildings, it is possible to seek funding partners and rally volunteerism to support a ‘fundable’ idea.

[In the theory of evolution, “evolutionary opportunism” refers to a specific pattern of development in the history of a species. The behaviour, culture or body part of a species that long ago evolved to serve a particular purpose or function may subsequently lend itself to a very different positive purpose or function that helps the species to survive.[15] Thus, in a new stage of evolution, a longexisting behaviour, culture, or physical characteristic can respond to a wholly new opportunity and acquire a new role. It turns out to have new advantages or potential benefits the species previously never used—and, therefore, the species retains an adaptation even if the original purpose it served is long gone.]

“Small bets” are low-stakes problems that are achievable and can demonstrate change at a local level. David Harvey redefines urban ex-
istence, “the freedom to make and remake our cities and ourselves is, I want to argue, one of the most precious yet most neglected of our human rights.” Given the treacherous environmental predicament, many artists, activists, planners and architects are seeking ways to reconsider the city in more socially connected and sustainable ways. Any city can be transformed for better if we embrace a generous and inclusive approach to it. Strategic, precise “acupuncture” interventions can insert a new energy into a tired, worn situation—insightfully placed, an intervention will trigger positive chain-reactions, helping to enhance the whole system. This work is interested in immediate and inexpensive ways that individuals and groups satisfy their needs and in ways that are low investment, have great impact, and serve to make the general public aware of alternative, sustainable practices. Design is a necessary means to reveal problems and possibilities, to engage a varied community and contribute effective, insightful solutions—ultimately, design is an effective means to manifest and contribute to human meaning. Focused on the day-to-day, small changes add up to have greater impact and effectively do so when outside cultural authority and within local agencies of individual authority.

Here are three distinct ways—through student work in communities with stakeholders—where small bets have been achieved, and professional and disciplinary boundaries have been stretched:

1. Through the act of making, we can produce a Tactile / Physical Manifestation that provides opportunity for a revised social relationship in a physical space: It’s tactility frames human interaction, encourages engagement and lingering because it provides shade on a hot summer day—enticing others to sit, linger and possibly meet someone new. This project reveals the changing diurnal and annual movement of the sun and its endurance of time through the size of the wisteria and the amount of shade it offers. It is a living testament to creating a space of gathering.

2. Through the act of visualization and drawing, A Imaginative / Idea Manifestation has the potential to rally opinion and debate through images and models. Ultimately, a set of drawings, models and other means of representation can evolve to rally buy-in for a future project, move people to participate and become involved with a project in some way.

3. A Generative / Mobile Manifestation builds a network of spaces for exchange and gathering. It can serve to anticipate events and bring people to gather in a variety of places, serving to establish a network of relationships. It serves to link a variety of users that may not have met or worked together before.
In each of these scenarios, the process to make a product in effect activates a community to transform, resolve, collaborate or come together. In looking at successful spatial thinkers, such as Chicago-based artist Theaster Gates, we see an expanded practice that includes space development, object making, performance and critical engagement with many publics. He strives to create spaces, (especially physical ones), that allow for cultural production to occur where it wouldn’t otherwise and has coined a phrase, “To Make the Thing that Makes the Thing”. Gates says of the things that he makes: “It would act as a kind of gesture in lots of different kinds of communities, especially in communities where a creative, entrepreneurial action would be kind of smart. I want to build real creative corporations that are harnessing local talents and creating new business structures.” This concept is productive as a concept to apply to the discipline of architecture. In this expanded case, Architecture, rather than being just a building, is a tool to generate community action, is an agent for change.

Here are some of the key principles that we’ve found to be beneficial in our expanded spatial practice, and which could be useful to those in other disciplines. This paper proposes that the disciplinary evolution can occur through three identifiable means as its basis:

1. Slow Space: Although most would imagine that an expedited process would be beneficial (cash in hand, land available, everyone on board for a project), we would argue that the opposite is most beneficial. Having obstacles that require resolute commitment, that require consensus building, where the stakeholders are not clearly defined, where buy-in has to be earned and trust gained are assets to a project. A project that develops slowly, even has difficulties to be overcome in the pursuit of completion, is of great value. Because, as the project develops and many people become part of the process, the project proves to have commitment once it is completed, supportive to an enduring programs that inhabit the thing.

2. Discursive Space: By having the capacity to digress from subject to subject; to be digressive and open-ended allows room for debate and increases the capacity for a greater network of diverse interests and capacities. Architecture as a discipline has the capacity to be active and transformative—“the role of the architect can be extended to take into account the consequences of architecture as much as the objects of architecture.” (Spatial Agency) We must be inter-disciplinary and share frames of meaning across cultural contexts through space and elements in space. A mosaic of small, spatial relationships increases the capacity for a greater network of relations. Possible small moves can add up to something
larger and more meaningful as a result.

3. Feedback Loops: A process by which information about the past or the present influences the same phenomenon in the present or future, as part of a chain of cause-and-effect, informs and strengthens a product through use. It is a generative process and helps to evolve a community’s relationship through use of the object. A project that evolves, with development through trial-and error serves to re-tell the story, building momentum along the way.

Project-based learning serves as a vehicle for new forms of cross-disciplinary engagement by promoting meaningful connections through slow, discursive and evolving spaces. By harnessing this synthetic approach, an expanded, integrated understanding of local culture and values are made as a result of spatial, class and racial differences. Operating outside of professional, academic and singular disciplinary boundaries, new reciprocal relationships and partnerships are made. New forms of cross-, multi- and trans-disciplinary can benefit from an ability to respond, adapt and evolve to best fit the interests and needs of the public. New vocabularies and capacities to operate more broadly are sharpened in order to be usefully engaged in the world at large. New forms of innovation and entrepreneurship are possible when the network is expanded and when synthetic connections and actions are made through space. Spatial agent Jeremy Till, artist Theaster Gates, civic leader Jaime Lerner and anthropologist David Harvey demonstrate the effectiveness of diverse-thinking-tactics that open up access to design and facilitate its power as an agent of change. By rehearsing new spatial relationships, a new working paradigm is formed that expands the operative role of design.

IMAGES

Traffic jams in Dhaka Street: http://www.flickr.com/photos/lain32/8130992407/
favela: http://www.flickr.com/photos/lain32/8130992407/
everyday life: http://farm3.staticflickr.com/2270/2039095103_9712f61c23_o.jpg
mass migration: http://www.bloomberg.com/image/iVeGTjpQzxfU.jpg
natural disasters: http://farm6.staticflickr.com/5540/10104246305_1109e-0be38_o.jpg

view of Chicago—MilleniumPark: http://upload.wikimedia.org/wikipedia/commons/6/6d/View_of_the_Chicago_skyline_from_340_on_the_Park.jpg

energy costs: http://upload.wikimedia.org/wikipedia/commons/3/3a/World_energy_consumption.svg


theater gates: http://farm9.staticflickr.com/8075/8410926454_dd42f-01b9a_b.jpg

http://upload.wikimedia.org/wikipedia/commons/d/d8/ProfessorsAcademicDress.jpg

http://upload.wikimedia.org/wikipedia/commons/c/c2/UG_Student_Group.jpg

http://upload.wikimedia.org/wikipedia/commons/d/da/Studio_upstairs.JPG

http://farm6.staticflickr.com/5134/5570666405_a09aa261bf_b.jpg

http://farm4.staticflickr.com/3345/3233965180_86299ec872_o.jpg

http://upload.wikimedia.org/wikipedia/commons/e/ee/Lyons_Architects_Office.jpg


http://upload.wikimedia.org/wikipedia/commons/5/5d/Drawing_of_Normal_Selfe_harbour_bridge_proposal.jpg


http://upload.wikimedia.org/wikipedia/commons/7/74/Group_activity_at_Regional_Ambassadory_training_5,_2011-07-07.jpg

http://upload.wikimedia.org/wikipedia/commons/thumb/1/19/Professors.


11:25 Favela: http://upload.wikimedia.org/wikipedia/commons/7/7e/1_rocinha_favela_closeup.JPG

11:28 Favela 2: http://farm7.staticflickr.com/6140/5920954662_7f5c-55fa54_o.jpg


11:41 disaster: http://farm6.staticflickr.com/5540/10104246305_1109e0be38_o.jpg


11:51 Precipitation: http://upload.wikimedia.org/wikipedia/commons/f/f6/Projected_change_in_annual_average_precipitation_for_the_21st_cen-
tury, based_on_the_SRES_A1B_emissions_scenario, and simulated by the_GFDL_CM2.1_model.png

12:00 Millenium Park: http://upload.wikimedia.org/wikipedia/commons/6/6d/View_of_the_Chicago_skyline_from_340_on_the_Park.jpg


13:24 Candy Chang project: http://farm9.staticflickr.com/8005/7162485254_02b94bca28_o.jpg

16:31 Theaster Gates: http://farm9.staticflickr.com/8075/8410926454_dd42f01b9a_b.jpg

16:38 Performance: http://farm8.staticflickr.com/7227/6934987652_430343c1da_b.jpg

16:43 Dinner: http://farm8.staticflickr.com/7275/7544964976_938021325b_o.jpg
