Insurgent Infrastructure: Leveraging Public Works as a Form of Architectural Activism

LINDA SAMUELS
University OF California, Los Angeles

Robert L. Reid in January 2008's "The Infrastructure Crisis" defines infrastructure as "that vast system of highways, bridges, airports, rail lines, pipelines, power lines, dams, waterways, water treatment plants, parks, schools, and other publicly owned or publicly regulated facilities that make it possible for Americans to enjoy what is widely regarded as the highest standard of living in the world." His "Special Report", published in the online magazine of the Society of Civil Engineers, is a response to the now much-publicized *2005 Report Card for America's Infrastructure* which graded the "condition and capacity" of our fifteen primary infrastructure systems.[1] In 2009, the star student was solid waste (such as landfills and recycling facilities) with a C+, meaning around 78% of all engineer-evaluated solid waste systems were in good working order. Bridges were next with a C, Parks and Recreation and Rail each received a grade of C-, and everything else (other than an Incomplete for Security) was D-rated or below. This link between infrastructure and a particularly American quality of life is rarely so explicitly expressed and the failing grades of aviation, dams, drinking water, the national power grid, hazardous waste, navigable waterways, roads, schools, transit and wastewater call into question the sustainability of our highly touted standard of living if we continue to ignore the most basic demands of our infrastructure backbone. Yet quality urban environments - much of which are constructed through our public infrastructure - should go far beyond the merely functional to be beautiful, ecological, equitable, and meaningful. Architects, urban designers, landscape urbanists, and planners must ask: how might design be leveraged in the conceptualization and implementation of public works to encourage a radically different twenty-first century metropolis?

Until recently, the less then mediocre status of our national networks has typically gone unnoticed until a system failure occurs. At the local level, that can be as small but inconvenient as a downed power line or a traffic detour for road repair. At the regional or larger level that can mean chronic airline delays or the collapse of a major connector bridge. When they are working successfully, we expect the visible components of our infrastructure to construct our cities formally and symbolically as well as functionally, serving as ordering and orientation devices as well as conduits for various scales and types of meaning. The loss of all three - functional, formal, and symbolic - as in the collapse of levees and flood walls, the submergence of the street grid, and the severing from the national interstate system in the Gulf Coast due to Hurricanes Katrina and Rita, raises the system failure to the level of catastrophe.[2]

New Orleans is most certainly a primary example cited when considering the sorry state of our public works, yet seeing the Gulf disaster as an infrastructural failure is often muddied by the compounded catastrophes of nature, government inaction, media, and human loss. Infrastructure failure was but one slice of that awful pie, one that seemed unfortunately inevitable against the mounting and compounding of odds. A more isolated event like the collapse of the I-35W bridge in Minneapolis where 13 people died and over 100 were injured can be seen as a direct result of lax standards of maintenance, upkeep, and replacement. As cited in numerous reports, the I-35W bridge was noted as

"structurally deficient" since 1990, yet "engineers with the Minnesota Department of Transportation did not believe that the bridge was in danger of imminent failure".[3]

Said Patrick J. Natale, the American Society of Civil Engineer's Executive Director when addressing the 2007 ASCE Annual Civil Engineering Conference, "Years of deferred infrastructure investments and maintenance and [the] failure of public officials to act on infrastructure needs place the public at risk and hinder our country's economic growth and competitiveness. It is a true crisis."[4] According to the ASCE report card, an investment of $1.6 trillion over a five year period is needed (as of 2007) to adequately address the already existing deficits of neglected infrastructure. Reid makes an explicit argument, category by category, of the growing needs in miles traveled, flights taken, energy used, security demanded, etc. Where China and India spend 9% and 5% of their GDPs respectively on infrastructure, US spending had dropped to a paltry 2% when his essay was published.[5]

As Stephen Flynn, author of *The Edge of Disaster*, argues, "the only way to solve the nation's infrastructure problems 'is with presidential leadership that uses the bully pulpit to help make the repair and maintenance of our infrastructure a national priority.'" In January of 2008 this seemed a near impossibility, and now, less than two years later, we have the American Recovery and Reinvestment Act of 2009, part of which aims to invest $150 billion in new infrastructure. Though still nowhere near sufficient, the Recovery Act is the largest increase in infrastructural funding since the Federal Highway Acts of the 1950s.

The fear, of course, like the TARP and thousands of other good intentions before it, is that these billions will go to mundane, shovel-ready projects without them being truly shovel-worthy. Referred to often as the new WPA, it is most certainly the hope of architects, urban designers, landscape urbanists, and planners that what comes from the Recovery Act and the new Infrastructure Bank takes into account a design-consciousness not seen since the WPA combined necessity with creativity to produce a built legacy of projects that were intended to fulfill functional needs and lift the spirits of a suffering and sluggish populace.

The original WPA - by the very nature of its invention - also considered the link between infrastructure, architectural form, art, and social agendas. Founded on the belief that paid work was preferable to charity ('relief'), the WPA program employed nearly 8.5 million individuals over the course of its 8 year existence (July 1, 1935 to June 30, 1943) focusing on building projects that served to strengthen the national infrastructural fabric and service projects that supported education, health, nutrition, recreation, literacy and skills advancement.[6] The construction accomplishments included a phenomenal 651,000 miles of roads, construction or renovation of 125,110 buildings, 16,100 miles of water mains and 24,300 miles of sewerage facilities plus numerous landing fields, runways, and airport terminals.[7] Projects were sponsored by local communities, but often collaboratively developed with WPA officials to meet the skill level of workers available, to comply with WPA criteria, and to assure solid engineering.[8] In light of that collaborative process, the quality of the design work was often a combination of local material availability with some contextual influences and basic urging from the WPA for simplified form and low skill construction, encouraging - somewhat accidentally - the geometricized ornament and reinforced concrete we now often associate with WPA projects.[9]

INSPIRING WPA 2.0

With the optimism of the Obama administration, those broader expectations of public works are, again, emerging. But, what does it mean to be WPA 2.0? How are architects, landscape architects, urban designers, and planners collaborating in ways that produce a new form of infrastructure, one that goes beyond mundane function to bring a new design sensibility to the city; one that is not just relevant, but engaged in the formation of a new public, new public space and public rights? A new optimism is one aspect of the slowly changing tides, combined with changes in the urbanism discourse, sentiments of activism and altruism within the design professions, a rise in creative capitalism, and a growing track record of infrastructural projects that are both beautiful and economically successful.

Trends in the urbanism discourse indicate a move away from the corporate, commercialized, and overly privatized (i.e. postmodern, neoliberal) city towards a city with a more broadly public agenda

- an agenda of inclusivity, environmental sensitivity, grassroots influence, and optimism. Everyday Urbanism, grounded in the work of Henri Lefebvre, Michel de Certeau and Guy Debord, argues that the city is a social product, shaped more by the practices of common daily activities than the colonization and commodification of big business and top down policies.[10] If, according to Lefebvre, "every society produces a space, its own space" then the heterogeneous, multicultural city of the twenty-first century is currently in spatial negotiations. In a related vein, the multi-ethnic city, where the once marginal are now mainstream, is being spatially adapted through practices of flexible capitalism (like street vendors and gatherings of day laborers), appropriated surfaces (through graffiti and murals), and the creation of intermediary zones between the public street and the private house that create new zones for informal commercial activity along with extended zones of social interaction.[11] A third urban movement, landscape urbanism, also rejects the rigidity of the city of the 80s and 90s, supporting instead a systemic urban ecology based on the ground plane and its green components as primary organizers of the 'field condition' and its flexible, perhaps unpredictable, 'effect'. Each of these schools of urban thought rejects the pessimism and economic-dominance found in the 'death of public space' treatises of the 90s, but brings with them new dilemmas of either design implementation or potentially totalizing master plans that resemble the same kind of dominance and homogeneity rejected by postmodernism.

An additional, less formalized movement is targeting the same dilemmas of a greener, healthier, more diverse and inclusive city from the grassroots perspective. These insurgent urbanists like REBAR out of San Francisco, Heavy Trash in Los Angeles, Object Orange in Detroit, City Repair in Portland, or numerous urban agriculture / guerrilla gardening movements encouraged, in part, by the success of Fritz Haeg's *Edible Estates*, are both highlighting the faults in the existing city structure and proposing solutions - though typically small in scale - that fall outside the normative realms of architecture and planning. The objectives of insurgent urbanists go beyond the physical and attempt to also engage the sociopolitical problems of economic disparity, access, health, and rights. These are descendants, in a way, of 1960s activist architects such as Ant-Farm, theorists and antagonists such as the Situationists, and conceptual artists such as Gordon Matta Clark. Like their precedents, these prodigies share a real grounding in the physical environment, but also a collaborative spirit, a wielding of media and its powers, and a sense of playfulness and wit.

These insurgent urbanists run parallel, yet not exactly in synch with, what might be called the altruistic architecture movement. These good deed/good designers are chipping away the gold-plated armor of the starchitect, by-passing the formal processes of bids and dues, and attacking relevant infrastructural problems with ingenuity and often entrepreneurialism. They are, in some ways, the social and economic opposite of top-down public-private partnerships, attempting to empower the actual public rather than amalgamate government and enterprise. Architecture for Humanity leads these efforts in scale of impact with its 4,650 design volunteers working in 25 countries organized into 80 local chapters.[12] Their efforts started in Kosovo refugee housing in 1999 and grew, just two years later, to sponsor a competition for a mobile HIV/AIDS clinic which attracted 530 entries from over 50 countries.[13] Their efforts now span the range from better quality schools to programs like Football for Hope, which utilizes the ubiquitous acceptance of sports as a social legitimizer for once stigmatized health education and disease treatment.

Not unrelated is the idea of creative capitalism, which combines the "do good" effort with a "do well" business model, linking altruism with business success that can then feed more altruism. One of the more well-known retail models is the (RED) campaign, developed by Bono with input from Bill Gates, which allows companies like the Gap and Dell computers to create special (RED) project versions whose profits go to fighting AIDS in Africa. Another, Toms shoes, donates a pair of shoes to a needy child for each pair purchased. The effects are exponential; rather than a slice of profit being siphoned for philanthropy, profit and philanthropy become interdependent, pleasing socialist and shareholder alike.

Urbanistically the creative capitalism model can be interpreted in numerous non-normative ways that cyclically interrelate economic investment and urban improvement, sometimes with a decidedly social agenda. First are projects that set out to create a mini-Bilbao effect through the influence of trendsetting architecture and star power. For example, Greensburg, Kansas, the first fully eco-friendly city

in America, turned its disaster-created tabula rasa into an opportunity for reinvention. In addition to generating architourism, the town's brilliant green branding, including Leonardo DiCaprio as a public relations spokesperson, is also a life size advertisement for green planning and eco awareness. Brad Pitt's Make It Right project in New Orleans utilizes his star power to bring renewed attention to both the post-hurricane housing crisis and the generations-old social injustices in the Gulf while at the same time generating financial contributions to the rebuilding cause. A third and slightly different approach, Greyston Bakery designed by Maya Lin in a blighted area of Yonkers, combines an altruistic corporate model ("We don't hire people to bake brownies, we bake brownies to hire people.") with an equally enlightened design policy in both its eco and its urban objectives. In addition to being a key component of the neighborhood's revitalization - and a primary employer for many considered unemployable - the building intentionally opens its public spaces to the larger community to serve as shared social space for support and interaction. Green roofs and eco-friendly baking processes combine with open hiring, fair pay, extensive job training, and inside promotions. Greyston's profits return to the community in the form of affordable housing for low income workers and the homeless, support of public transit, childcare, and healthcare for those with HIV. All combined, Greyston - the bakery, the foundation, and the building - serves as a role model for the development of integrated inner city infrastructure which recognizes the business and community benefits of doing good as a part of doing well.

Finally, a handful of new projects are making a tangible case for the viability and design appeal of once purely functional urban moments. Diller + Scofidio's High Line collaboration with Field Operations is proving to be another real estate boon for its lower west side neighborhood where property values have skyrocketed since the unveiling of the initial proposal. Though seemingly park-like, and some distant kin of other rail to trail projects, the High Line is unmistakably architectural in approach, juxtaposing a variety of programmatic components, contrasting materiality, and framing and reframing the surrounding context. A set of projects by NL Architects - WAS 8, basketbar, and A8 - exemplify the hybridized programming model that is allowing designers to blur the differentiation between architecture and infrastructure. WAS 8 (Warmte Overdrachte Station 8) in particular takes what could have been a mundane heat transfer station and instead recycles the water used in cooling from a nearby electrical power station to supply the heat and hot water needed for the adjacent town while at the same time being an aesthetically exquisite Braille climbing wall, bird habitat, lookout point and basketball court.

Together, these seemingly disparate moves - a new optimistic and diverse urbanism discourse, trends of playful insurgency and architectural altruism, creative capitalism at the scale of the city, and successful new projects that exemplify the potential of alternative public works - bolster the case for the next generation of public works to accomplish far beyond an elevated grade for 'good working order.'

SEEKING WPA 2.0

Some convergence of these forces is captured and spurred on by a prominent set of near simultaneous competitions intended to kick start design involvement in infrastructure in the hopes that design-worthy becomes the new government standard. Three competitions run over the spring and summer of 2009 - WPA 2.0[14], Pamphlet 30, and SCIArc's New Infrastructure - called for innovative, design-based thinking in response to these emerging questions about the role infrastructure could and should play in the next phase of urban redevelopment. Culling entries from WPA 2.0 and Pamphlet 30 in particular, it became evident that the simple redesign of existing infrastructure is not the answer, but is replaced instead with the creation of new forms of infrastructure (data clouds for example), the complete reinvention of existing forms of infrastructure (water towers become urban nodes), dramatic adaptive reuse (post offices turned energy banks), and the dispersal of infrastructural functions into multi-part solutions (all things aqua from toilets to fueling stations). A consciousness of environmental issues, particularly water reclamation, storage and reuse, predominated, as did urban agriculture, parks and related landscape urbanism gestures.

The winner of Pamphlet 30 and one of the six finalists for WPA 2.0, Infranet Lab / Lateral Office (Mason White and Lola Sheppard), summarizes the new urgency in infrastructure's reinvention as follows, referring to their proposal *Coupling: Strategies for Infrastructural Opportunism*:

> ...It is the 21st century that will need to project not only how to address crumbling and insufficient infrastructure, but also how to position new infrastructures that confront urgent issues of climate change, sustenance inequality, and our increasingly urbanized world. 21st century infrastructure should create a new public realm, enrich political policy, and embed productive processes. *Coupling* strategizes new formats for the physical infrastructure required in the wake of these shifting conditions. ...
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> Rather than a New Deal approach of massive engineering or iconic infrastructure, *Coupling* employs adaptable, responsive, small-scale interventions whose impacts are global in scale. Easily upgraded, this vision for infrastructure creates new sites for production, recreation, and civic life. The ambition is to supplement human and natural ecologies at risk rather than overhaul them. Shifting away from monofunctional infrastructure, the proposed visions meld existing landscapes with emergent infrastructures in order to catalyze new ecologies, economies, and, most significantly, a new social infrastructure.

UrbanLab (Sarah Dunn and Martin Felsen), the other team that is both a finalist in WPA 2.0 and a runner-up in Pamphlet 30, takes as its starting point the disconnect between water supplies and population growth. In their WPA 2.0 proposal, Free Water District, this is a geographical disconnect, where they speculate on relocating residents of arid climates running out of water to Great Lakes-adjacent shrinking cities that have hemorrhaged population yet have access to millions of gallons of wasted water resources. Their Pamphlet submission, Growing Water, invents new waterway infrastructure called Eco-Boulevards for the city of Chicago that cleans wastewater and stormwater through a giant living machine for reintroduction into Lake Michigan, ultimately making the city's water expenditure equal its water recycling and reclamation.

Of the four remaining WPA 2.0 finalists, Carbon T.A.P.//Tunnel Algae Park (PORT - Andrew Moddrell and Christopher Marcinkoski), also argues for radical interventions in the name of climate and ecology. Two others - HYDRO-GENIC CITY 2020 (Darina Zlateva and Takuma Ono) and Local Code: Healing the Interstitial Landscape (Nicholas de Monchaux & Collaborators) recognize the 'public' in public infrastructure by creating new urban nodes (the former) and new urban parks (the latter). Local Code utilizes a parametric formula to sort local data which then determines site-specific program. Follow-up internet interactivity serves as a method for revisions through more specific community input.

Only the remaining finalist, Border Wall as Infrastructure (Rael San Fratello Architects), imbues its infrastructural ambitions with an overtly sociopolitical commentary. Recognizing the high cost, limited effectiveness and unintended natural consequences of the new, multi-layered US/Mexico border wall (disruption of animal habitats, diversion of water runoff that has caused new flooding in nearby towns), this proposal names 30 alternatives (covering nearly the whole of the Mexican alphabet, literally from Aqueduct wall to Zen wall) that might better combat the energy, labor, environmental, and humanitarian crises evident at the border as well as the missing creative vision and lack of cross-cultural appreciation likely in the government sponsored version.

What is clear in all the finalists' solutions is that the next generation of infrastructure must be integrated with the city rather than segregated and autonomous, multi- rather than mono-functional, and flexible and adaptable rather than rigid and fixed. The winning professional entry by PORT, Carbon T.A.P.//Tunnel Algae Park, capitalizes on the detrimental waste from concentrated auto emissions as an opportunity for infrastructural reinvention. Their pivoting piers spanning the East River combine innovative scientific thinking that utilizes CO_2 for algae farming and biofuel production with new public park space, wildlife habitats, alternative transit and recreation options for access between Manhattan and Brooklyn and - one thing the jury particularly noted - a rather dramatic reinvention of the urban waterfront. In other words, 2.0 infrastructure becomes transformative of the city in its own right.

DEFINING WPA 2.0

If WPA is both the old acronym - Works Progress/Project Administration - and the new one - Working Public Architecture - then the question asks both what is the state of architecture's contribution to the public realm (the latter) and the role of the government or state in that contribution (the former)? In both cases we question what it means for the built environment to be *put to work* (reminiscent, perhaps, of the pragmatists' position), and what it means in the twenty-first century metropolis to be *public* (with implications of equity, accessibility and rights). In this survey of competition projects, I would argue that the 'working' aspect of the new WPA is certainly evident. In most cases,

the projects expect to do double and triple duty, serving environmental causes, offering multiple programmatic opportunities, being adaptable to local and universal conditions, and contributing some form of public space.

The least studied aspect, though, is the construction (in Lefebvre's terms) of that publicness. Though all the proposals offer accommodation of public program, its meaning, with one exception, is taken normatively. If, in fact, the urban revolution of the twenty-first century takes seriously the death of the neoliberal city and the return of urban optimism, heterogeneity, and equity, then the proposals, though strong on combating environmental crises, do little to consider the social or political controversies that are undoubtedly brewing.

I would argue that the leveraging of infrastructure as a form of design-based insurgency is a key component in the transformation of the recovering metropolis. The next generation of public works must operate, quite unlike the 'public' works of the 80s and 90s, in ways that are more inclusive, collaborative, ecological, technological, accessible, beautiful and truly public. Less limited and more malleable, they must not serve the wealthy at the expense of the poor and are perhaps just as likely to be small, everyday, and integrated than grand, spatially expansive and all encompassing. They might, in fact, be as much subtractions from the city as they are additions. Like WPA 1.0, a fully explored WPA 2.0 challenges the city to exemplify not only the economics of contemporary society, but its ingenuity and its values.

The first WPA was a make work project, intended to combat skyrocketing unemployment by providing options to government assistance that would solve infrastructural problems and social ones simultaneously, as well as boost morale. The point was as much to create an atmosphere of resilience and recovery as a tangible expression of one. The 2009 Recovery Act has much the same intention, yet the world is nothing like that of the depression era 30s. In "Unemployment Nation" Joshua Cooper Ramo says "In the 1930s, you could throw 10,000 people with shovels at dam or road projects. Today the work of 10,000 shovels is done by a few machines - and it was a lot easier to persuade farmers to switch to ditch digging than it would be to get laid-off hedge-fund traders to switch to sewer repair, appealing as such an idea might be."[15] Yet, keeping in mind such proposals as UrbanLab's Free Water District, Ramo does mention the highly skilled machinist work force in the American midwest recently unemployed with the drastic downtown in the auto industry. The abundance of water resources highlighted in the proposal combined with new forms of eco-industry that can capitalize on those machinists' skills, if constructed in a creative capitalism model, might actually transform one of the shrinking cities into a Greyston Bakery-like example of thriving spatial equity.

Yet questions remain as to how such projects might be encouraged and then implemented. On November 16th, cityLAB, originators of the WPA 2.0 competition, hosted a symposium on the same topic in Washington DC at the National Building Museum with presentations by finalists, jurors, and policymakers.[16] The following day, they took the ideas to Capitol Hill to meet with agencies and politicians to further broaden the audience for design-enriched public works. In addition to the star architects, engineers, and landscape architects of the jury who attended the full day symposium, keynote speakers included Ron Sims, Deputy Secretary of Housing and Urban Development (HUD), and Adolfo Carrion, White House Director of Urban Affairs. Both reminded the audience that their presence at the event alone was a signal to designers that the "livability initiative" is a priority of the current administration. Yet, does connecting those at the administrative top with those at the creative edge have tangible results? Could the presentation of Carbon T.A.P. to David Burney from the New York City Department of Design and Construction ultimately generate a ground-breaking new infrastructural project on the East River? Will showing this work to Directors at DOT, HUD, EPA, National Parks Service, as well as various Congress people and Representatives have a trickle-up effect? If those routes prove productive, then perhaps the top down and bottom up are not as distant as they have been in the past.

There are grassroots examples that tend to support this position. Heavy Trash's Aqua Line is one. A fictitious subway line generated by the architectural collaborative was promoted through official looking construction signs along a hypothetical new transit route. A phone number for comments was included on the signs which received hundreds of calls over the short course of the signs' existence. Ultimately, through public and private enticement and media

coverage, the project was successful in reigniting the conversation about mass transit in L.A. and the current subway to the sea proposal is a near duplicate of Heavy Trash's Aqua Line. Interpol has had similar success with their 'blot' proposals in Detroit, where neighbors with vacant lots next door first illegally appropriated them for alternative uses like parking and gardening. By collecting and formalizing these lot combinations - blots - and documenting the advantages of increased maintenance and use, the process has been legalized and formalized by the city. Toronto's 'Abandonment Issues' initiative is similar where a group of activist planning students through research and writing have been instrumental in the development of key policy that turns underutilized structures into affordable housing through public/non-profit collaborations. The urban agriculture movement is exploding, with projects like Farmlab/the Cornfields producing acres of food within sight of downtown Los Angeles, or urban homeowners supplementing their store-bought sustenance through gardening, raising animals, even producing biofuels in their back - or front - yards. Home solar and wind production, particularly when supported by tax breaks, is getting more and more common. New initiatives in flexible zoning allow for the kinds of small, home- and street-based industries more common in Latin American countries, legitimizing a secondary layer of alternative, more nimble and more inclusive economies.

In each case, if government truly has set transit, economic recovery, and affordable housing as real priorities, then changes in policy and process will ideally support the equity initiatives emerging from the bottom. Undoubtedly, New Orleans will be a test of this negotiating distance. Insurgent planning practices have already mobilized to support homeowners' rights of return in low lying areas and very small infrastructural changes like the inclusion of bike lanes on newly paved roads are small but symbolic attempts to more fully mobilize the populace.

Infrastructure does, whether consciously or otherwise: reify the values of our society; exist not in isolation but as part of the spatial and social construction of the city, layered and across time; serve to add or subtract to a neighborhood's and a populations' equity; provide more than a conduit for goods and services; benefit from hybridization and integrated rather than segregated systems; demand the implementation of high technology; and, from the inclusion of collaborative, cross-disciplinary design input promote ecological sensitivity, design integration, spatial and formal beauty, technological and material ingenuity, and encourage a greater degree of 'publicness'. The trick, it seems, will be for designers to come to the collaborative table with planners, politicians, investors, philanthropists and perhaps community members to create a WPA 2.0 that actively influences the next generation city in a more equitable, sustainable, and beautiful direction.

ENDNOTES

1. *2005 Report Card for America's Infrastructure*, American Society of Civil Engineers, http://www.asce.org/reportcard/2005/page.cfm?id=203. *2009 Report Card for America's Infrastructure*, American Society of Civil Engineers, http://www.infrastructurereportcard.org/.
Robert Reid, "The Infrastructure Crisis," *Civil Engineering Magazine*, January 2008, http://pubs.asce.org/magazines/CEMag/2008/Issue_01-08/article1.htm.
2. Linda Samuels. "Infrastructural Optimism." *Places*, 21, no. 1 (2009).
3. Robert Reid, "The Infrastructure Crisis," *Civil Engineering Magazine*, January 2008, http://pubs.asce.org/magazines/CEMag/2008/Issue_01-08/article1.htm.
4. Ibid.
5. Ibid.
6. "This means that during the 8 years in which the program was in operation nearly one-fourth of all families in the United States were dependent on WPA wages for support." (*Final Report on the WPA Program, 1935-43*; US Government Printing Office, Washington 25, D.C.)
7. Ibid, iii
8. Ibid, 48.
9. Ibid, 52.
10. The revised 2009 printing of *Everyday Urbanism* by Chase, Crawford, and Kaliski indicates a continued interest in this topic.
11. James Rojas. "Los Angeles - The Enacted Environment of East Los Angeles, *Places,* 8, no. 3 (1993).
12. Architecture for Humanity, http://www.architectureforhumanity.org/about (accessed November 22, 2009).
13. Jackie Craven, "Architecture for Humanity: Building a HIV/AIDS Clinic," http://architecture.about.com/cs/socialconcerns/a/humanity_3.htm (accessed November 22, 2009).
14. WPA 2.0 consists of a competition, symposium and forthcoming web exhibition run by cityLAB, an urban think tank out of UCLA's Department of Architecture and Urban Design directed by Professor Dana Cuff and co-directed by architect Roger Sherman. In full disclosure, the author is a Senior Researcher at cityLAB and worked extensively on both the WPA 2.0 competition and the symposium. Tim Higgins is cityLAB's Associate Director.
15. Joshua Cooper Ramo, "Unemployment Nation" *TIME* September 21, 2009, 31.
16. More information on the WPA 2.0 symposium, competition finalists, and the WPA 2.0 brief and exhibition can be found at the WPA 2.0 website: http://wpa2.aud.ucla.edu/info/.