# Design and the Sustainable City: Approaches to Deprived Inner City Context

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Ill. 1: East Los Angeles

## THE COMPETITION

Gerald D. Hines, Houston developer, provided financial underwriting to the Urban Land Institute to hold a national competition: The ULI Gerald D. Hines Student Urban Design Competition. This graduate interdisciplinary competition "strives to encourage cooperation and teamwork – necessary talents in the planning, design, and development of great places – among future real estate professionals and the many allied professions, such as architecture, landscape architecture, urban planning, historic preservation, engineering, real estate development, finance, psychology, law, and others." Thus, the teams must be interdisciplinary, and include non-designers as key decision makers. A typical team might include a graduate in real estate finance, planning, architecture, landscape and urban design.

In 2006, the competition location was a 100 acre site in inner St. Louis, Missouri. It spanned the proposed Chouteau Greenway, currently a polluted industrial riverbed with adjacent rail lines and a metro-link center, and encompassed an elevated I-64 freeway. This disaggregated area, with significant level changes, incorporates the north and south campuses of St. Louis University, scattered other buildings, and adjacent eroding neighborhoods. Competition entrants were challenged to design the Chouteau Greenway and links to adja-

cent areas; integrate the university environment; stimulate appropriate mixed use infill and new urban places; and develop a sustainable framework
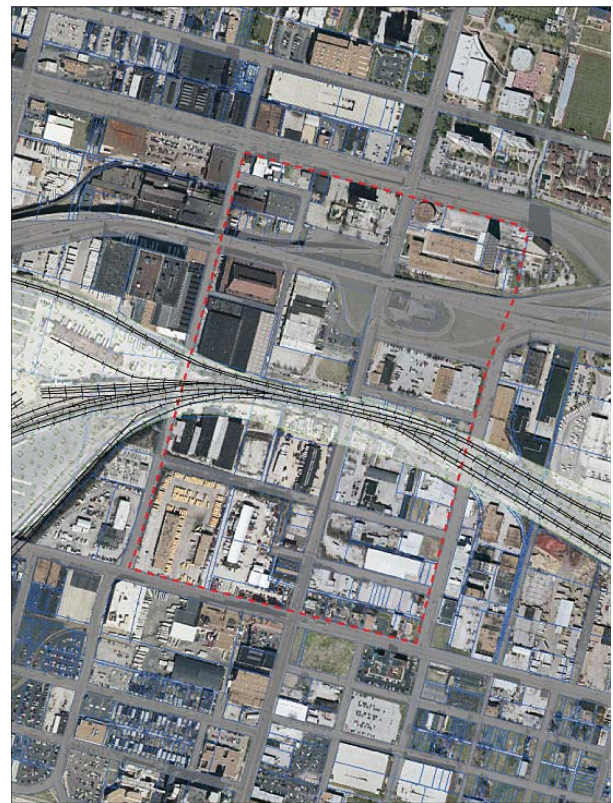


Ill. 2: Site of St. Louis Competition

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Ill. 3: Los Angeles Site & Mariachi Plaza Redevelopment Site

for urban development and change.

This year's competition, the fifth, concerns the planning, design and redevelopment of East First Street in Los Angeles. First Street will see extension of the Gold line rail corridor in the immediate future, linking the downtown to the east, through a proposed "Mariachi Plaza", with adjacent hospital. First Street is currently characterized by large cleared sites and many poor and unused commercial buildings, and is crossed by a freeway.

The First Street Bridge, which crosses the Los Angeles River, a vast concrete basin filled with graffiti, flanked by a large expanse of rail lines and sidings, is to be considered for public access and revitalization with a "greening" emphasis. Areas to the south are characterized by rail sidings,

warehousing, and industries, but warehouses to the southwest are being adaptively re-used and provide a base for an emerging artists colony.

What unites these two competition locations is that they are typical of wide expanses of blight and urban decay in the inner city, or what could be seen as an extension of the concept of a brownfield condition. They have neither the attractions of emerging downtown enclaves, nor the apparent allure of more suburban locations. Furthermore, they are complex; you cannot immediately put your finger on one or a range of interventions that will 'solve' the problem. Also, they are daunting in their unattractiveness and lack of human quality, with few positive features to 'latch' onto. And yet, this is the context to the houses, workplaces, shops, and social and educational provision of many Americans living in the inner city, and in search of the 'American Dream.'

**A BASIS TO A SUSTAINABLE URBANISM**

This suggests a first 'battery' of propositions that can form a positive backdrop of understanding when addressing the issues of a sustainable urbanism.

1. Dysfunctional Interpretation. One must understand the characteristics of a dysfunctional context, and the views of those living and working there. Fieldwork that can assess the nature, scale, and overlap of negative human and environment issues is required. This could be viewed as an 'inverse McHarg', where sieve mapping of say, diminished accessibility, danger, lack of iden-



Ill. 4: Los Angeles River

tity, unused and dilapidated property, treeless areas, barriers, visual intrusiveness, noise and air pollution, etc. can take place.

2. <u>Interdisciplinary Insight</u>. At the same time, 'threads of hope' can be identified where, with creative intervention, there is a seed of opportunity to be potentially exploited through creative intervention[1].

The above simply will not happen, or will be limited, if approached from the viewpoint of one discipline area or professional group. This is what is so challenging and exciting to the pedagogy of the competition. We clearly need to develop more complex and insightful means of viewing and recording urban phenomena, as well as new modes of intervention. The interdisciplinary team offers the basis for doing so, as well as developing those discipline areas, in themselves, to further levels of understanding. The scope of connection, or middle ground, between discipline areas changes. Counter to the more recent academic traditions of putting up 'firewalls' between discipline areas, it is their association that matters, and transforms them from positions of relative isolation to more comprehensive, and hence more relevant opportunities for urban interpretation, leading to more appropriate action. For example, the association of a transportation planner and landscape architect would lead to greater understanding of spatial barriers towards mobility, and in turn, which was certainly the case with the competition, have landscape architects understand the particular landscape needs of stations and transit corridors. Links between real estate finance and architecture can identify 'soft buildings' capable of adaptive re-use, opportunities for new buildings to help alleviate negative environmental impacts, etc. This in turn reinforces those professional discipline areas. In the limited example given, a transportation planner includes the environmental quality of stations, bike and pedestrian ways; a landscape architect develops interest in new spatial agendas; architects understand the market place, feasibility and building finance; and people in real estate develop a greater understanding of interpretations of the existing built environment.

3. <u>Urban Catalysts</u>. It might be argued that this is all well and good, but the chances are that an area that has been 'eroding', and facing socio-eco-

nomic stress over many years, is more likely to continue going down rather than up. Alternatively, from the well-researched literature on 'urban invasion and succession', at least in the American context, an area, if with potential, is more likely to be taken over and 'gentrified'. An understanding of the potential roles and intervention of agencies that can stimulate the first stages of an urban renaissance, and at the same time offer it both protection and opportunity, is a key to urban sustainability. This is what Bentley[2],[3] refers to as the "socially conscious developer", providing greater protection, social and environmental benefit, and also stimulating opportunity for the 'informal' and lower income job sectors. This is a key to bringing about a greater sense of equity, which is one of the prime understandings of moving towards a more sustainable society. In the case of the 2006 Competition, this, in the understanding of some of the teams, was the University of St. Louis, a Catholic, largely commuter university, offering a wide range of part time learning opportunities, and capitalizing on an adjacent station of the light rail system. Not only could the improvement to the 24-hour environment of their university increase opportunity, but an urban campus can stimulate programs that bring benefit to an adjacent community and environment. This year's competition saw an extension of a light rail line and consequent stations in Los Angeles. This will stimulate greater opportunity for people to visit and benefit from any future economic enterprise in the area, as well as providing residents and workplaces with greater contact with the wider city. This 'putting on the map' appears to be an important characteristic of redressing blight. Equivalent work in London, for example, has found a correlation between economic and social distress and the relative lack of public transportation[4]. In the case of Los Angeles, stations mean opportunity for small scale economic enterprise, accessible housing, and adjacent learning environments.

**NEW AGENDAS**

It is clear that sustainable urbanism, and the emerging substance of urban design and development, requires entirely new agendas. The interconnection between a multiplicity of decision areas needs to be recognized. This can lead to a counter-sorting of relative costs and benefits, an appropriate balance between competing objec-

tives, and focuses upon a clear set of goals to bring social and environmental benefit.

The idea of catalysts, both greater and smaller, and their ability, under the right circumstances, to harvest a multiplier effect, bringing benefit to adjacent areas and enterprises, is a key to understanding this potential. This is a further reason for overcoming professional boundaries, which becomes paramount in gaining insight into other 'modes of thinking', and a wider potential for urban innovation and resource management.

A further value is to recognize approaches that may be referred to as 'urban healing'. Here a vital interplay takes place between form, movement, environment, economy, and human benefit towards healing wounds, removing barriers, replacing missing pieces, overcoming pollution, and heightening opportunity. This position is not new, Christopher Alexander, Hajo Neis, Artemis Anninou, and Ingrid King develop it in "A New Theory of Urban Design"[5]. Here the group advocate that each increment of construction must be made in such a way as to make the city whole. The 'healing' takes place through incremental growth to build larger wholes that conform to a clear vision, a key objective being the creation of meaningful public places.

In moving to revised agendas both socially and environmentally based for interdisciplinary decision making, and incremental change towards a more wholesome urban fabric, a new set of principles for urban understanding and intervention present themselves. These move beyond transit, and longer life, less resource intensive buildings, however important, towards six critical positions where the above values can be embraced, and there may be prospect for a more sustainable urban future.
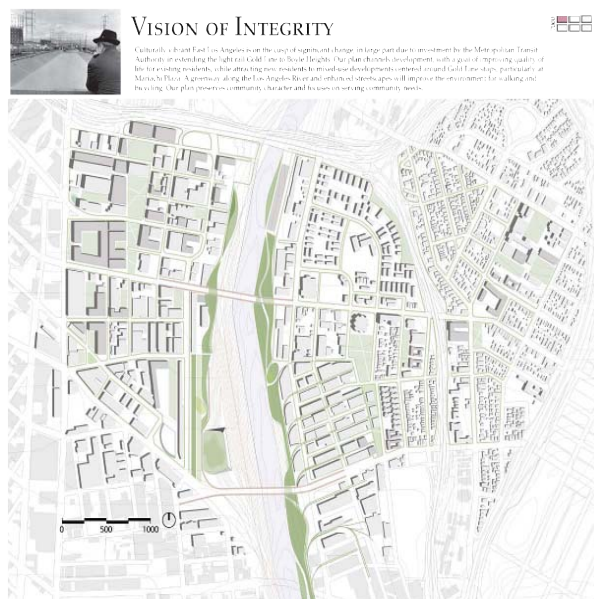
1. <u>Re-Connecting the City</u>. This is the act of putting back together, through revised criteria for **less invasive**, **and more egalitarian forms of movement**. As one of the competition teams (3333)[6] put it, - "experience, opportunity, connection", principles that can be placed in any order, or the key act of "linking people and place", team (9953). Environments for walking and biking become a significant consideration in recognizing a population that is aging, seeking healthier life-

styles, has limited resources, and can be encouraged to be more dependent on transit. In "The Social Logic of Space"[7], Hillier and Hanson suggest that space is a network of choices leading to ways to measure the integration and connectivity of those spaces. Components of isovist, axial, and convex space describe a process of navigability or wayfinding, in some ways not dissimilar to Cullen's intuitive townscape analyses.



Ill. 5: 1818 -   Linkages



Ill. 6: 7000 -  Connections through 'Green Corridors'

Ill. 7:  1818 -   Mariachi Plaza with wall murals



Ill. 8: 6234 -  Community High School - rail *stop, shared resources, greenway  connection*

In summary, the relationship between place, opportunity, and integrated movement offers a network for human experience, particularly encouraging a society with open opportunities.[8]

2.  Re-Energizing is the act of **bringing local intelligence to key areas of opportunity**, **and opening up new points of contact**, **information**, **and culture**.  Take the position of the traditional ghetto, it may not have had outstanding amenity but it did have established social networks offering one on one contact, and points of information as a means to a more open society with greater opportunity.  Mariachi Plaza, one of the points of focus in this years competition, literally has Mariachi players waiting to be hired, teams 6234, 4197, 1818, and 8206 in particular, saw the need to accentuate that as a re-energized place, where through introducing adjacent cafes and performance space, people would be attracted to come to them.  Ideas such as micro retail incubators (9953), bike based policing (9953), centers of adult learning, the internet, job center, daycare, community-based high school (i.e. sharing resources) (6234), local museums, are each examples of the principle of re-energizing.

3.  Closeness  is the principle of **designing urban fabrics that layer**, **associate and mix**, and yet respect individuality, offering societies engagement and experience.  This interrelates with the previous principle but focuses upon appropri-ate grouping to find ways to associate alternate economies and fabrics of retail, work, and housing through interventions in the market place, the leveraged market place, and agencies or urban change.  Central is the principle of re-claiming the block (8206), stimulating live/work space, capturing opportunity to place grocery stores and banking facilities close to a wide range of housing, grouping intelligence and social facilities close to transit stops, stimulating new micro economies close to transit stops (i.e. wider community related high school), considering much greater integration of all uses.

4.  Urban Energy  is embodied in many aspects of the urban life and fabric, just waiting to be 'mined'. The encouragement of walking and biking is an urban energy system, but now, at last, attention has begun to focus on the urban environment as a latent energy system.  Largely brownfield and eroded environments can be viewed as potential energy farms, with the particular benefit of being close to their users.  The first areas of investigation are in fabrics and built form that can generate energy, -- from highways through car movement, movement of rivers, industrial roofs, and particularly expansive open industrial areas (above rail lines, for example) can be adopted for solar generation.  A good example of this design approach is that of 3333 who realized the potential of existing electricity pylons to house water tanks,

The "genetic" material for revitalizing East Los Angeles is already latent in the existing block structure. The challenge therefore is to introduce new uses that both compliment and capitalize on existing uses.
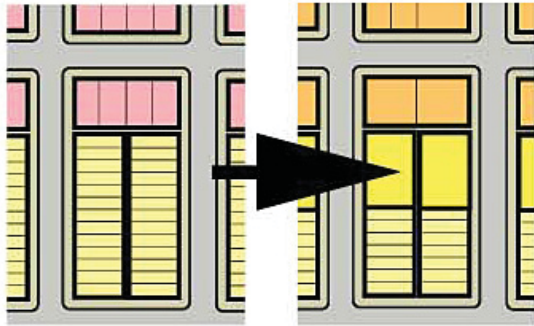


Reclaiming and updating the current block morphology -- the "T-head" block with a commercial front and residential spine -- is key to our redevelopment strategy.

Utilizing the current block typology and mixed use development provides for a hierarchy of densities that rejuvenates the street character and urban life.

Ill. 9: 8206

with water pumped from the river by photovoltaics. This water to be used for a local car wash enterprise and urban agriculture, while the towers became marker beacons building local identity.

Urban energy, strangely, can be seen in an entirely different form by keeping the opportunity and skills of low income workers in the inner city, - a difficult goal to achieve. Many cities are now experimenting with compulsory affordable housing provisions, even more difficult to achieve
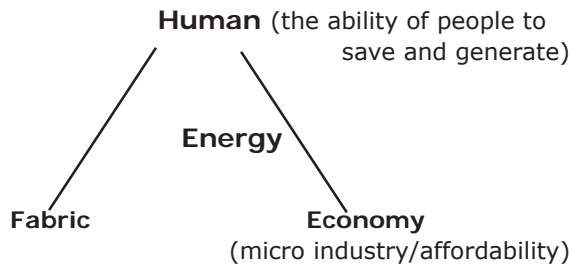


Ill. 10: 8206 -  Accessible mixed use Mariachi Plaza
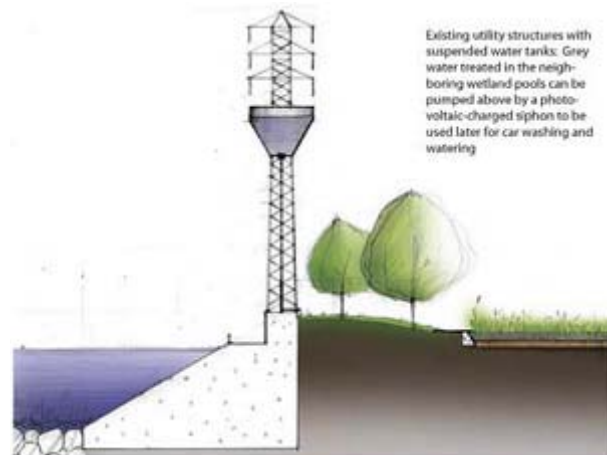


Ill. 11:  3333 -  Water Re-Cycling

with a limited market place. This introduces the wider function of a transit authority. By purchasing more land than needed for transit and station construction, a land bank is offered to obtain greater housing mix. In this case, calculations of each team showed that at least twenty percent of housing could be in that category. One team (1818), went further in proposing that the 'energy' of the affordability be maintained forming limited equity co-ops. Here the principle is that the quality of home is maintained, but changes in the market place have little impact on the next generation of home makers. This revised agenda for urban energy indicates a close relationship between human capability, the potential of the urban environment, clearly, in part a development of the Schumacher thesis.[9]

*of us can put up the sail, so that when the wind comes we can catch it."[10]*

**Human** (the ability of people to save and generate)

**Energy**

**Fabric**

**Economy**
(micro industry/affordability)

*"Perhaps we cannot raise the winds, but each* roofs, movement, wasteland, rivers, etc)



Ill. 13:  9958 -  Wasteland to Parkland

5.  Greening the City, places a greater emphasis upon **amenity**, **heat sink reduction**, **the walking environment**, **recreation**, **and ability of cities in food and plant production**.  The lack of "green" can be seen as one of the prime indicators of lack of equity in the city.  Take, for example, the map of London, large, famous parks grace the west, whereas the inner southeast and east not only lack park space, but are characterized by polluted brownfield sites.  "Greening" should therefore firstly be seen as a social force providing linear greening of main and secondary streets (8206, 9953), and offering parks, amenity and recreation space in areas that are currently empty, and forlorn (2211, 1818).

An interesting theme, "seed, grow, replant, harvest" is both metaphor and principle for implementing: river basins, tree supply (2211); hydrology and industrial greening (2211); regenerative wetlands (3333); urban farming for the production of local produce (1818, 9953); farmer's market (for produce grown in and adjacent to the area) (9953).  The act of "greening" can thus be seen as follows.



Ill. 12: 1818 -  Green corridor reflecting the Industrial Geometry of the Inner Corridor

**Social** (amenity, connection, recreation)

**Production**
(food, trees)

**Sustainable**
(heat reduction, pollution control, hydration, etc.)
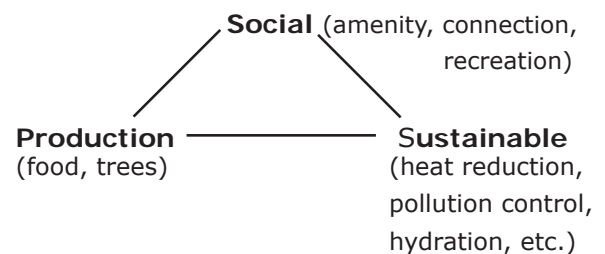
Landscape interventions begin to break down concrete surfaces in specific areas without altering the functionality of the channel. By widening and staggering the channel embankment with vegetated strips, the design allows for recreational trails and stormwater infiltration while retaining the channels capacity for stormwater conveyance. Landscape units reference the industrial forms of the railyard and channel while providing space for vegetation and recreation. Select vegetated strips function as bioretention units, retaining water and addressing stormwater issues exacerbated by urbanization at multiple levels. Allowing infiltration before water enters the channel assists in the reduction of peak flood discharge and increases opportunities for infiltration.

PERFORMATIVE LANDSCAPE

RAIN WATER FLOW DIAGRAM

Ill. 14: 9958
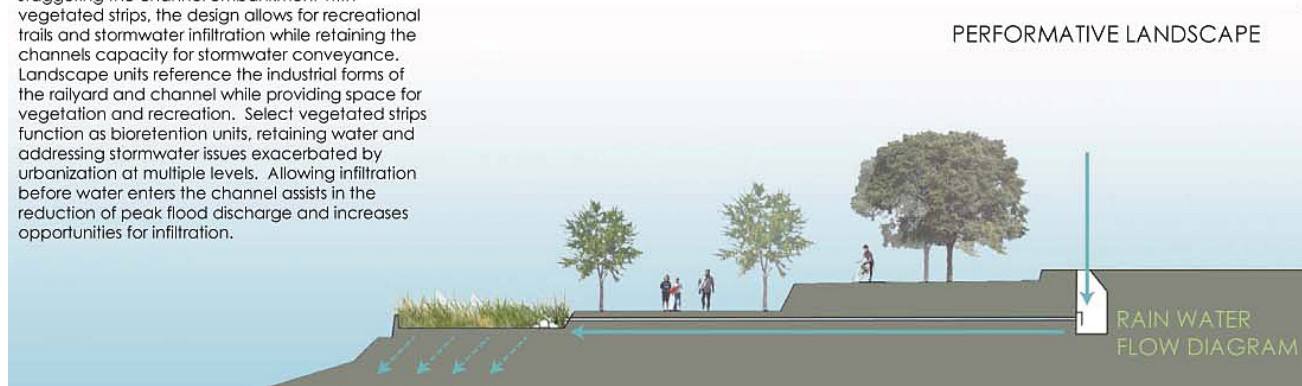


Ill. 15: 8206 -  Green Corridors
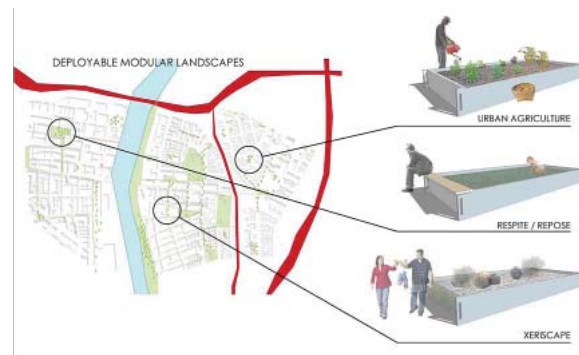


Ill. 16: 9958 -  Community Gardening

6.  <u>Identity</u>, is the means by which a city gains **integrity**, **meaning**, **and senses of belonging**. Making places a central aspect of identity also reinforces the act of bringing people together, thus defining a democratic community.[11],[12] This suggests a new form of critical regionalism where local character, event, and morphology are key to creating an identity of the particular.[13]  As such, industrial legacy should not be shunned, or representation of local cultures.  In the competition context, groups developed wall murals capturing local character (1818), promoted local art, and introduced a flee market  (3333).

**CONCLUSION**

Now one can agree that this does not add up to much, as there is no "test" condition to "prove" that these propositions have any validity.  They are not, however imperfect that process might

Ill. 17: 9206 - Water Harvesting
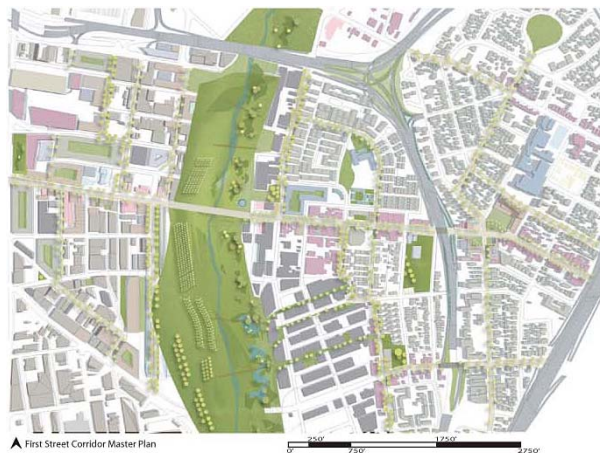


Ill. 18: 2211 - River Park and Green Linkages
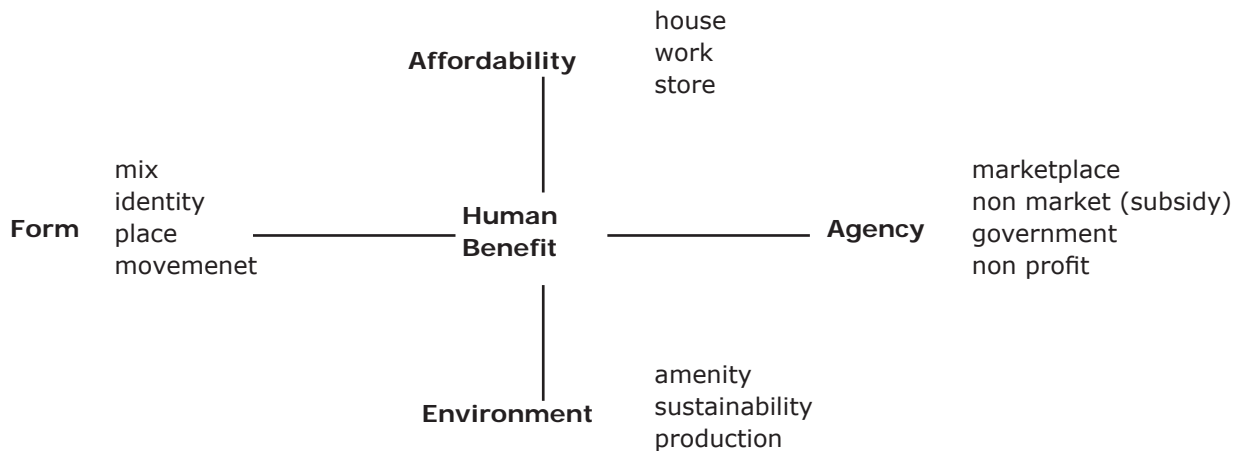


Ill. 19: 3333 - 1st St. Bridge Flea Market

be, the outcome of a participatory process, and clearly could be subject to bias. How do we progress with revised strategies and alternative design thinking? There is no clear answer or means to advance pedagogy, which raises a key theoretical dilemma, as it could be argued that most change comes from stylistic polemic. The "test," then, is, "I like it", or "I like this design case study" as precedent for future design intervention. Is it a reasonable initial proposition that the evolution of a series of values becomes the basis to action? But

where do they come from, particularly when, still lingering, are examples of the forcing of architectural values on society? I suggest that these are a combination of problem solving and goal setting strategies working in combination. For example, a relief of traffic congestion is an example of problem solving, and green space for recreation is an example of goal setting. It is the debate of these values that this paper seeks to stimulate. Put at a different level, this introduces two characteristics sadly lacking in our striving for significance: common sense; and analysis of context. This latter specifically suggests a much closer look at how existing resources and impediments form a basis to sustainable thinking, as we move to more sensitized frameworks for implementation. Much more has to be adaptively reused, and intervention carefully positioned. A focus upon combined efforts to improve the human condition, the built fabric, and the environment must therefore offer a framework for future thinking.

One could take the position that intelligent and creative graduates act as a responsive filter. Why would well over 100 teams form nationally, if there were not an understanding of the need for interdisciplinary thought and action? Equally, why search through voluminous information on a

An index towards urban sustainability

house
work
store

**Affordability**

mix
identity
place
movemenet

**Form**

**Human
Benefit**

**Agency**

marketplace
non market (subsidy)
government
non profit

amenity
sustainability
production

**Environment**

*"That attitude – that you can sacrifice small things, young things, and a diversity of things for some great success – is sad."* Jane Jacobs.

problematic part of the city, unless there is now an understanding that the interpretation of context is critically important?

Perhaps more significantly, of the ten teams surveyed, each made reference to, and developed planning and design approaches towards the six criteria. This set of ideas for reconnecting, reenergizing, closeness, energy, greening, and identity of the city would appear to be the common ground for further design inquiry towards the sustainable city.

To state the obvious, the above indicates both the seriousness and urgency of considering revisions to program format and curricula, as well as the agenda addressed in studio and seminar. Mixed curricula, joint programs, teamwork, reaching out to new adventures in alternative urban contexts, must become the norm.

**ENDNOTES**

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4. Hall, P. and Ward, C. *Sociable Cities.* Wiley, 1998.

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6. Team 3333 (Bricker, Scarfe, Rojas, Zhou, Haby); Team 9953 (Braun, Eckerman, Moore, Luecking, Metta); Team 5467 (Moss, Kim, Yang, Donoso, O'Hair); Team 6234 (Surat, Stern, Gladstone, Li, Egner); Team 4197 (Chen, Kone, Roberts, Humphry, Hu); Team 1818 (Trachtenberg, Roy, Finn, Biehle, Gully); Team 8206 (Devereux, Ballas, Buentello, Huie, Johnson); Team 2211 (Raab, Antozzi, Cox, Curulla, Duan).

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