

Praveen Subramani
praveens@mit.edu
30 March 2009

The Evolving Temporality of Cities

As emergent themes of urban innovation change the landscape of our world at a rapid pace, the broad urban vision shared by architects and planners is evolving simultaneously. Urban planning has traditionally been thought of as a practice of permanence resulting in structures and landscapes designed to withstand the test of time, the elements, and harsh patterns of use. Developers, designers, architects, and planners have struggled to predict the future, identify the needs of communities and people who are not yet born, and create built form that is intended to last for decades or more. But as we move forward into the 21st century, the practice of urban design is developing into a fusion of science and art that exudes a sense of transience and temporality. New digital cities such as Media City: UK in Manchester, Digital Mile in Zaragoza, and the Digital Media City in Seoul offer exciting new prospects for responsive interaction between the cities and their residents. Fixed billboards, advertising space, public signage, and informational postings are evolving from static, tangible elements to LCD screens and projection-based signs that offer constantly changing dynamic content.

Meanwhile, wireless communication, broadband networks, and teleconferencing technology allow more people to work from home, a trend that forces us to reconsider the very definitions of workplaces and offices. The office of the future is inherently temporary in nature; it exists everywhere, and nowhere, simultaneously. Already with pervasive wireless networks expanding to every corner of the developed world, work is being accomplished in transit systems, coffee shops, public spaces, and everywhere in between. Simultaneously, concerns about global climate change, dwindling natural resources, and a constantly limited energy supply

have catalyzed the development of new approaches to sustainable building technology and landscape architecture. More and more designers are eschewing the rigid brick and concrete mentality of the past century in favor of modular structures that harness their own energy from the natural environment and offer flexibility through mixed-use developments.

These types of developments are increasingly indicating that our environments cannot responsively meet the needs of their inhabitants without growing more temporary and relying less on permanent, traditional infrastructure. For example, cities and regions that are devastated by natural forces such as New Orleans and China's Sichuan province must rebuild with the knowledge that an equally severe disaster may be imminent in the near future. Instead of investing heavily in rigid built form, planners are examining the use of flexible designs which can be quickly rebuilt, reassembled, or modified to best serve their users in the face of an unpredictable world. In "A Machine Crafted Home of the Future", Kent Larson describes the possibilities of flexible architecture that allows for temporary and dynamic uses:

"A young couple looking to build a new home begins the process at one of a number of internet home sites, where they play design games and select from options presented to them...they select options for the conversion of the husband's office to a formal dining area for the parties they will host every few months, and also to a guest suite with fold-down bed for the occasional overnight visitor."¹ This idea of mass customization may eventually apply not only to housing but also to large scale projects such as skyscrapers, major development complexes, and even landscape design developments such as public parks and spaces. In the same spirit, our cities must grow progressively more responsive to the changing environment and natural landscape, so urban designers and architects are pioneering methods to integrate their structures into the natural world rather than conflicting with it.

¹ Larson, Kent. "A Machine Crafted Home of the Future." *Architecture and Urbanism*. June 2000.

This trend of temporality presents several interesting challenges for the fields of urban planning and architecture. Certainly these trends do not imply that the developed world will one day live in fully temporary environments such as tent cities or floating villages. But as technology effectively reduces physical distances and the environment becomes less predictable and hostile, planners and architects face the challenge of creating cities and structures that can adapt to people who are constantly on the move, shifting environmental conditions, and a world packed with incessantly changing digital content. Furthermore, a diminishing supply of natural resources is forcing everyday citizens to consider alternatives to traditional models of transportation planning, suburban development, and patterns of use. While designers, scientists, and engineers are collaborating to create effective ways of harnessing power within the city through distributed energy systems and innovative solar and wind energy technologies that can be integrated directly into buildings and infrastructure, most cities are a long way from being self-sufficient.

Additionally, the mid-20th century American ideal of a spacious house in the suburbs with a white-picket fence and an ample garden has given way to the values of a new generation of young professionals who are energized by the intersection of ideas, goods, and information that takes place in dense urban centers. Instead of families occupying single suburban homes for extended periods, more people seem to be content with the comparably flexible lifestyle afforded by residency in apartments or large housing developments which are often rented or leased on long-term agreements. While this trend may help to alleviate the problem of sprawl and low-density fringe development, it introduces a number of new challenges related to a spike in urban population such as providing adequate transportation and infrastructure for electricity, water, gas, and other basic necessities.

As urban designers and architects plan and develop for the next century and beyond, it will be essential to recognize that structures and landscapes cannot be thought of as permanent. The fields of architecture and planning must expand to accommodate the fact that human lives are becoming more dynamic and unpredictable due to a combination of volatile natural forces, new development models such as mass customization, dwindling resources, and the pervasion digital media and technology. Each of the emergent themes of future cities may potentially revolutionize the way we live, commute, work, and interact with each other and the surrounding environment. From the power of the digital city movement to create highly realistic virtual experiences to promising renewable energy technologies for urban energy-harvesting, new innovations in science and technology are catalyzing responsive urban growth, especially in rapidly developing regions and New Century City developments. Ultimately, these trends will result in cities that rely increasingly on temporary functions, mixed-use developments, and dynamic content.