Materialization of Information

Mumbai, India
Knowledge City
Information and Public Space
Deployable Architecture

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Studio Structure

An <u>integrated studio</u>, combining Studio Design, Fabrication Design, Full scale construction, in site Workshop and the cultural Kinne trip.

Theory - Knowledge City

It is estimated that half of the world population is living in urban centers. But what is the actual purpose of such a high density city at the beginning of the XXI Century? With the advent of new technologies the storage, transmission and management of information has become quasi spaceless. With a resulting brutal contraction of time and space, not to say an almost complete disappearance of the notion of distance for data transmission in the Information Age we have arrived again to the possibility of delocalization. So why are we paying so much rent to live in the center of cities like Paris, New York, Tokyo, Mumbai or Cairo?

What is the city of the XXI century offering to us that we believe is so valuable? And in that regard, what is the model of the new city of the XXI century?
New technologies and their impact on the constructed environment is the essence of the studio research. Initial theories of the relation between the Internet, and urban density had predicted the dislocation of the city. Information and communication would melt the dense city center as information was accessible from any point on the globe.

But the opposite has proven to be the rule, as information without context is meaningless. Government and powerful corporation have monopolized the production and dissemination of information until very recently, allowing them to provide some conveniently packaged information. The city and its plurality has become the interface between

the virtual and the physical, with architecture finding its new role as an interface between the mind and the body.

The new role of the city has become a "Knowledge city", confronting the dislocated data with the physical and human context. Is the Knowledge city a human oriented Network, or an information oriented network? It brings us back to the initial question, regarding the relationship between the Virtual and the Physical in architecture. *If the main "raison d'être" for a city is its production of immaterial information, how does the physical constitution of the city encourage and enhance this non physical production?*

There is a paradoxical relationship between the build environment and its attempted finality. On the other hand we all accept this condition, as our current experience of the city is a condition of "interface" where the build environment allows us to understand better abstract "information". Personal experiences and shared experiences in the city becomes a decoder of the artificially produced information and Architecture finds a new role as an Interface between the Virtual/ Immaterial and the human body.

This is where we need the city; as *a physical interface contextualizing Virtual information into a Physical space*, negotiating between dimensions, and in return producing information and knowledge. The future of the city in the information age is not the dissolution of the physical space into the ether of digital bits, but rather an essential tool to understand and interface information: It is what I call the "knowledge city". The City should be considered as an interface between stored knowledge and active users, as well as between active users themselves, and between active users and the surrounding space. It is the place for the possibility to exchange knowledge, to learn from each others. It is the place for chance encounter, the un-programmed, the un-mediated, and the unexpected.

The structure of power of production and dissemination of information has recently been challenged by the new platform of information exchange, such as Facebook, Youtube and Twitter. Every cell phone has become a camera and an editing studio, as well as an uploader of information on the world network. Suddenly, the concentrated power of the media has been challenged by the everyday user, armed with one's own recording device, challenging the realities propagated by the state information apparatus. For the last few decades, information has been concentrated in the hand of fewer and fewer sources, where at the turn of the century, five major company were
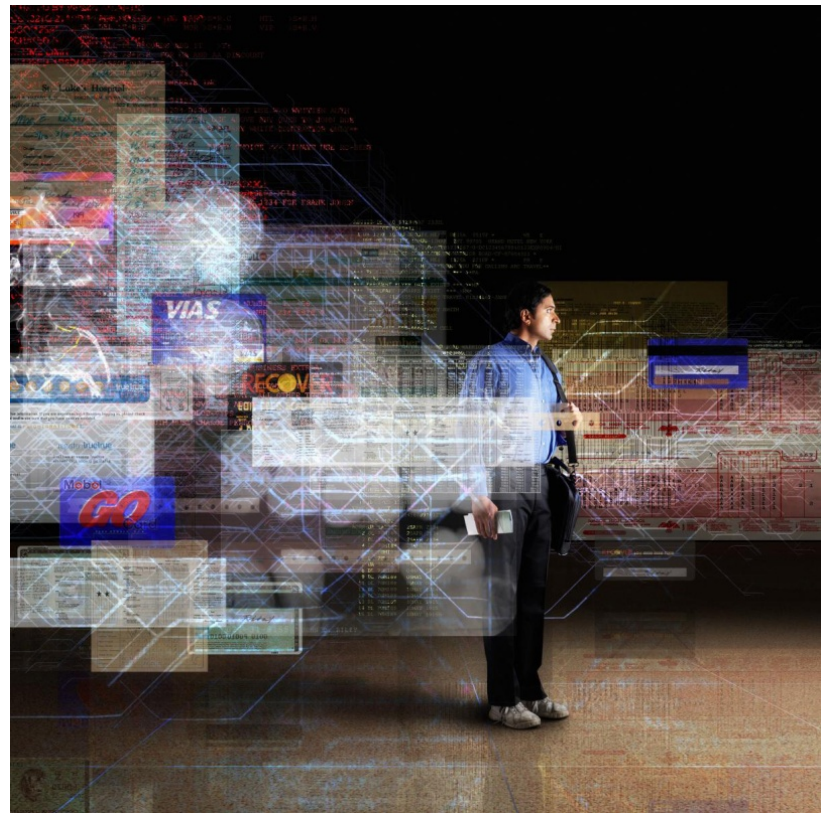
controlling most of the world flow of information, from music industry to television channels to cinema production.

Nevertheless, with the advent of the internet and the proliferation of miniature recording devices, the democratization of the capture and dissemination of information has been unparallel in our history. In fact this destabilization of the structure of power and control of the information has generated an incredible destabilization of the political structure of power itself. Since a year now, we have witnessed an impressive uprising in very controlled and centralized states, most of them located in the Middle East and North Africa. Tunisia, Egypt, Bahrain, Libya, Yemen and Syria, are in the mist of very serious revolutions, while Saudi Arabia, Iran, Israel and Jordan have seen varied levels of popular oppositions movement. All of this, generated by an ubiquitous access to and dissemination of information.

The urban flux and attraction to the dense city center has been directly correlated to the development and the dissemination of information, as well as the construction of the "Virtual". But the response has been a response of resistance and an attempt a decoding "Information", as information without context is nothing, just data.

Can we design a more integrated urban environment, where the network of the Virtual, the Visual and the Physical interact efficiently and progressively? Can we produce an environment responding to event and evolution?

Human Network – Street Furniture

The most impressive condition in the hyper dense Mumbai is the multiplicity of use of the public space. A sidewalk can have half a dozen functions per day, changing every other hours. The space is unstable in its function as it is activated by the dense Human network. Elements are transformed and adapted to ever changing situation. From the major change of the season, to the rhythmes of Festivals, to the rush hours, Mumbai has a contrast of very permanent building and very soft public space.

We will try to work at an intermediary scale, where street furniture can emerge from the urban landscape, where benches and canopy can create a meeting space, where people and information can be exchanges within a specific space.

The workshop will attempt to reconcile the diverse layers of: the build environment, the mechanical environment and the digital environment, with the design of the public spaces around the beach promenade of Downtown Mumbai.

Deployable Structure + Interactive Surfaces

How does architecture answer to this extreme speed of interaction? How does architecture integrate this notion of the Event, of the additional layer of "augmented" reality, of this additional virtual or informational presence? Architecture has always been a very slow and heavy process, requiring massive amount of investment, long decision process and enormous inertia. The construction materials for traditional architecture have also been extremely static, with stone, concrete, steel and glass as the main elements.

The notion of Event Architecture is not entirely new and from Cedric Price to Bernard Tschumi or Guy Debors, the idea of an event based environment has been proposed in a number of projects. Bernard Tschumi "Fireworks" for the AA or the Park de la Villette are clear examples of "dematerialized" events.

The studio will explore two avenues toward this responsive architecture. On one hand, the reduction of the volumetric condition to a condition of complex surfaces, and on the other the usage of information layered on top of the surface. The resulting aggregation of these strategies is leading to a condition of the Hypersurface, both as a digital as well as a complex topological surface.

The production of space through light two dimensional surfaces has been explored over decade by the research of Frei Otto. From intersecting soap bubbles to full scale tensile structure - such as the Munich Olympic complex - the studio will look at the potential of deployable tensile structure in the city as a way to strategically suggest space, rather than absolutely define space.

Space traditionally is defined by a controlling mechanism of property right. The main maps we have of the city – such as the Sandborn register in New York – are black on white definition of property right only stipulating the owner and its property for insurance purpose on profit on the increased value of property. There is absolutely no indication of existence of trees, of community activity, of the density of happiness, noise level, social interaction or any visual enjoyment. Most importantly, the possibility to gather information and acquire knowledge is not considered

Questioning these types of boundaries is essential and the city as a Knowledge City needs to be understood a generator of events, information display and spatial experiences. Museums, parks and coffee shops have become the new geography of a contemporary urban city.

An ephemeral occupation of the space can be strategized and designed, with temporary surfaces, video projection and sound projection.   We need to be able to rethink our environment, as a flexible and adaptable one, where boundaries are allowing people to meet and to learn rather than to separate

Projection of light has been used over the last century, sometimes by artists, sometimes by state institutions such as the Cathedral of Light in Nuremberg or the World Trade Center Tribute in Light in New York. Many artists have challenged the boundaries of the Museums by projecting on building facades, and entire cities are now orchestrating luminous show to enhance their skyline presence. Projection is relatively cheap and affordable and allows a redistribution of the dominant system of information distribution.

In addition literal information can be projected enhancing the rather abstract architectural language.

Program: Human Network – Street Furniture

The process of the studio will be slightly different than usually, starting with the small scale of an Information Hub/Street Furniture, to be expended for the second part of the semester into a network of such Information hubs. In collaboration with the Fabrication Lab, the Municipality of Mumbai, Studio-X Mumbai and the University of Mumbai, the first part of the semester will consist in designing a project with materialization strategies at full scale, to be constructed during the Spring break in the Mumbai Site.

The combination of a deployable / re-appropriable architecture with the possibilities of projection and information exchange becomes a receptacle for potential content to be projected on. The site is located on the edge of the city, at the promenade, and even if it is extremely urban, it has an informal infrastructure

The projects will address a multiplicity of scales, from the Urban Network strategy to the specific "interface scale" of the Information Hub. In this regard, knowledge and culture do not exist only in designated areas but rather as a network culture, overlay within the city existing infrastructures.

Project Site: Mumbai Promenade

Mumbai is one of the largest city in the world, with a population 14 million residents. It is India's political, cultural and commercial centre of the second most populous country in the world.

Such density creates all sorts of overlap of programs and usages, where the natural and constructed spaces come together in a complex negotiation.

Ultimately, the studio is a research in contemporary culture and the future of the urban city center. In this regard, Mumbai is a fantastic laboratory, even if some of the conditions might look more dystopian than utopian. The Mumbai promenade is a strange space, sharing at the same time a position at the center and at the edge of the city. Unscripted programs occur all the time and the local authorities have allowed us to propose a street furniture program that could enhance the multi-purpose edge of the urban megalopolis.

Collaboration

The studio will be highly collaborative, in New York as well as in Mumbai. At the GSAPP, the Studio will be working in collaboration with the fabrication workshop, directed by Phillip Anzalone.

In Mumbai, the director of Studio-X Mumbai, Rajeev Thakker, will organize discussion with the local academic community and decision makers. The construction of a full scale "Information Hub/street furniture" will be made possible through a collaboration with the local authorities, sponsors, contractors and university students.

Trip

The studio will be traveling to Mumbai during the Kinne week, from March 08-22. From Mumbai, a trip to the ancient city of Jaipur and the Taj Mahal will be organized. Discussion of projects with members of the local community and representative of the city urban development will be organized in Mumbai by Studio X.

The Fabrication Workshop will take place during the week of the Spring Break, from May 18-23. It will be the construction in the site of a full scale project.

The construction will stay in the site as a temporary structure and its interactions with the local population will be transmitted to us through the Studio X Amman organization. This feedback should influence the continuation for the second part of the semester.

Suggested Studio Readings

Henry Bergson   Matter and Memory   1896

Guy Debord   Society of the Spectacle 1967

Robert Venturi   Learning from Las Vegas 1972

Marshal Mc Luhan   Understanding Media   1964

Marshal Mc Luhan   the Medium is the massage 1967

Rem Koolhaas   Delirious New York   1978

G. Deleuze & F. Guattari A Thousand Plateaux   1980

Bernard Tschumi   Architecture and Disjunction 1980

Jean Baudrillard   Simulacra and Simulation 1995

Paul Virilio   Speed and Politics   1993

City of Bits   William Mitchell   1996

Jonathan Crary   Suspension of Perception 2000

George Katodrithis   Metropolitan Dubai – the rise of the Architecture Fantasy 2006

Sanford Kwinter   Architecture of Time: Toward a Theory of the Event in Modernist Culture, Cambridge, MIT Press
                                        2001
Bernard Tschumi   The Pleasure of Architecture – Question of Space, London, Architectural Association, 1990

Jean Baudrillard   Radical Thought, Sens& Tonka, Collection Morsure, Paris 1994

Manuel Castells   The rise of the Network Society 2010   New York, Wiley-Blackwell

Gilles Deleuze   "Postscript on Societies of Control" 1992   October 59, MIT Press
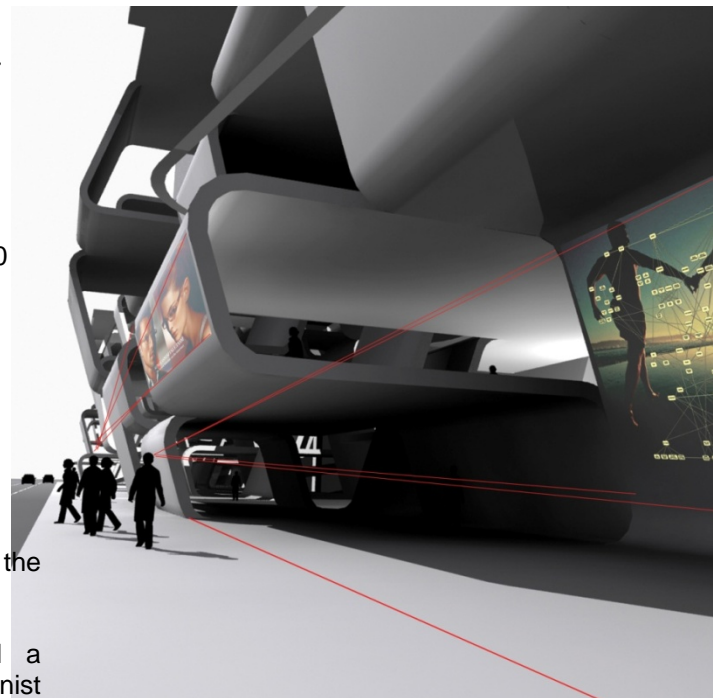
Guilain Denoeux	Urban unrest in the Middle East 1993 Albany State University of New York Press
Saskia Sassen	Global Networks, Linked Cities2002 New York Routledge

Interactive facades Precedents:

1. Times Square   ABC Studios - Reuters Building
2. Graz Kunshalle – Peter Cook & Fournier
3. Times Square   Nasdaq Sign
4. Allianz Arena - Herzog& Demeuron, Munich
5. Freemont Street Experience – Las Vegas
6. Uniqa tower in Vienna Mader Stublic Wiermann
7. Freelandbuck Slipstream

   http://blog.archpaper.com/wordpress/archives/44929#

8. Volkan Analkoglu – Subdivision,

   http://blog.archpaper.com/wordpress/archives/53606

Semester Schedule

1   Studio Presentation
Wed   Jan 22 Studio Presentation - Lottery
Fri   Jan 24 Studio Introduction –Urban Spring - Knowledge City + Precedents + Texts

2   Precedents + Readings
Mon   Jan 27 Desk Crits
Wed   Jan 29 Pin-up Facades Precedents
Fri   Jan 31 Desk Crits

3   Surface - Volumes - Materialization of Information
Mon   Feb 03 Pin-up Film Festival Precedent & Urban Spring Precedents & Texts
Wed   Feb 05 Surface - Volumes – Materialization of Information
Fri   Feb 07 Surface - Volumes – Materialization of Information

4   Materialization of Information + Materialization of Surfaces
Mon   Feb 10 Pin up Surface - Volumes – Materialization of Information
Wed   Feb 12 City & Program Strategy
Fri   Feb 14 City & Program Strategy

5   City & Program Strategy
Mon   Feb 17 Desk Crits – City & Program Strategy

Wed   Feb 19 Desk Crits - City & Program Strategy
Fri   Feb 21 Pin up City Strategies

6   Interactive City center Project– urban strategy
Mon   Feb 24 Desk Crits
Wed   Feb 26 Desk Crits
Fri   Feb 28 Pin up Interactive City Center Project

7   Mid term review
Mon   Mar 03 Desk Crits
Wed   Mar 05 Mid term Review
Fri   Mar 07 Post Mid term Desk Crits – out to India

8   Site travel - Kinne
Mon   Mar 10 Mumbai
Wed   Mar 12 Mumbai
Fri   Mar 14 Agra

9   Spring Break – Fabrication Workshop
Mon   Mar 18 Fabrication Workshop- Mumbai
Wed   Mar 20 Fabrication Workshop- Mumbai
Fri   Mar 22 Fabrication Workshop- Mumbai

10   Project definition – urban scale
Mon   Mar 24 Desk Crits
Wed   Mar 26 Pin Up
Fri   Mar 28 Desk Crits

11   Project definition – Building Scale
Mon   Mar 31 Desk Crits
Wed   Apr 02 Pin Up
Fri   Apr 04 Desk Crits

12   Project definition – Building Scale II
Mon   Apr 07 Desk Crits
Wed   Apr 09 Desk Crits
Fri   Apr 11 Desk Crits

13   Interior spaces
Mon   Apr 14 Desk Crits
Wed   Apr 16 Pin Up
Fri   Apr 18 Desk Crits

14   Project development
Mon   Apr 21 Desk Crits
Wed   Apr 23 Desk Crits
Fri   Apr 25 Desk Crits

15   Final review Week
Mon   Apr 28
Wed   Apr 30
Fri   May02 Final review