Kinetic Urbanism. An alternative imagination for the urban practice

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ABSTRACT
Currently the challenge for design in both, practice and research, is related in how to intervene an increasing "Kinetic Intensity" that has progressively acquired more agency that "Static Density" in the transformation of the urban space. Coming out of a tradition that has been developed with the focus in understanding legible and permanent urban morphologies, western urbanism has developed an imagination inspired in the hard city. This has left a gap in what refer to the understanding of open ended processes associated to softer urban tissues. This article discusses Rahul Mehrotra´s notion of the Kinetic City, as an interpretation of Indian cities urbanism arguing that such concepts and ideas are that useful also for addressing problems in the realms of design and planning outside the Indian subcontinent.

ETHNOGRAPHIC VIGNETTE: VARANASI[1] AND THE ERASING GANGA FIELD NOTE CONSTRUCTED FROM SCRATCH NOTES TAKEN BETWEEN JULY AND OCTOBER 2012[2]

The second time I got to Varanasi, there were no ghats, no boatmen, no children selling flowers on the border of the riverbank. There were no cremations at Manikarnika terrace[3]; indeed, there was not even a Manikarnika terrace.
I saw less than thirty people bathing at Dashashwamedh[4], a place where I had once seen hundreds submerging in the sacred river. "It is the monsoon" my driver said, "you came to Varanasi in the wrong time". He was right. I did not take the monsoon into account while planning my fieldwork. Actually, I even did not know that what I came to study, the ancient Ghats, completely disappear every year for some months when the river rises. All the buildings, the countless steps, old palaces, widow houses, statues of Ganesh, Shiva Lingam[5], cremation grounds and even the path that connects different Ghats were completely hidden under the torrential Ganga. Varanasi was a city as any other, on its border there was no incandescent fire, no sitar music, no ringing of bells and no worshiping ritual at Assi Ghat. The river was "too powerful during the rainy season" as Pinku told me some days after. Due this fortunate mistake, my fieldwork at Varanasi evolved into a long wait for the river to be calm again, and sacredness to return to the border. I had to learn how to manage my impatience and respect the uncertainty of a geographical process without schedule.
As expected, with the passing of time, the level of the river started to decrease slowly, uncovering few steps per day and leaving tons of dark grey clay to be cleaned up by children. It was four and a half in the morning when I got to Assi Ghat. Prya and Raju, eight-year-old children, were cleaning the clay from the steps. In some ways this was a replacement for their work as flower sellers. They told me that they made fifty rupees, which is nearly a dollar, each day before going to school, working from four to nine in the morning. This is the same amount of money they normally make during the high season selling candles to tourists. "A very good deal" as Raju's sister Nisa would tell me often.
The river had gone down some more meters the previous night and as every day, I sat beside them as they pumped water on the clay, and asked them questions. That morning, Raju told me that he was happy because after finishing cleaning there was going to be enough space on the steps for performing Puja and he could return to sell flowers, a job he liked more. He was correct. A couple of days later a stage was mounted and Puja, the daily adoration of the river, began to be performed at a large scale on a daily basis. The morning fire, the music, people and floating flowers returned to the border.
Despite having the connecting path still under water, celebration returned to the Ghat. People started to receive what they called "showers" in the river and brushed their teeth, sleep in boats and sought out tourists again. The unveiling space and the repopulation of the borders, courtesy of the retracting river, were back. It took eight weeks for the connection between Ghats to be completed, and I started

seeing saints walking on the streets again. Dressed in orange silk, black cotton or completely naked depending on their Akhara, holy men came back to the border to contemplate from high on the steps the river that had just flooded every sacred space in the city.

FROM AN URBANISM OF PERMANENCE

It seems to be that the notion of permanence, as it exists now in the imagination of western design, urbanism and planning, obstructs the fluid metabolism of the urban space.

For instance: In architecture, timeframes are not correctly anticipated and change is not properly factored. Buildings are though to last as much as they can, and therefore transformations, weathering and obsolescence are not properly incorporated to our designs. (Mostafavi & Leatherbarrow, 1993). We resist to think that the buildings we create are there to last only a specific amount of time. This has impulse us to develop a highly articulated technology for constructing and assembling buildings, which every day gets more complex and efficient, however almost nothing has been written and thought in relation to the dissolution, disassembly and deconstruction of the things we build. Demolishing, has been there generalized answer that technology has given for opening space to city change and the fulfillment of the needs that softer urban tissues have. For this reason we waste tremendous amounts of embodied energy demolishing buildings in moments in which the lifecycle of their materials indicates that they can still last for several years.

On the other hand, expression of the same imagination is that preservation cannons and the regulatory apparatus associated to it advocates for freezing time (Koolhaas, 2004). As if the died historical value could stop the natural weathering of materials, or as if written history were more important than lived memory in modulating the pace of change of the urban fabric ((Nora, 1989). We produce several land use plans that are designed with the focus placed in defining buildings proportions instead of facilitating the systems and mobile processes that these deploys in the regions they are inserted in (Forman, 2008). We just have to see how basic are our planning tools for understanding that we are designing cities as if they were static postcards for embellishing our refrigerators; absolute irrelevance. This is done as if the expected outcome of large-scale design - aimed by planners and urban designer - could remain fixed in a future time after their goal is reached, knowing that every time a plan gets implemented it is probably already obsolete due to pressure of highly changing contexts.

The same incapacity for anticipating temporalities is expressed in planning and anticipation for natural disasters. Shelter in cases of natural and man made disaster are designed as temporary structures when it is already well known that they quickly become permanent. Alternative, more ephemeral solutions are ride away dismissed belittling the potential of ideas, which are much more aligned with the processes that cities experience after dramatic disintegrations.

It is also worth describing the lack of validation that temporal configuration have that appears in moments in which the soft city takes over .We often do not consider as part of architecture and urban design responsibility the creation of spaces for impermanent activities such as temporal markets, demonstrations of the civil society, massive celebrations, and crowded religious festivals (Bishop & Williams, 2012). They all struggle to find their way into stable cities that are designed as hard structures created for the static and repetitive iteration of controlled processes, which actually are much more entropic and disruptive of what we envision.

All of these broad examples are just some amongst several others that symptomatize an incomplete understanding of the nature of design processes, and also regarding the nature of cities as their final product. We think of those as producers of built outcomes when they are actually generators of new dynamic processes. In fact, when cities are analyzed in large temporal spans impermanence emerges as an always-present property of urban components. Let me argue – then - that if we recognize the context in which we actually operate, that means to accept that everything in cities is in constant transformation, then it is time for design to find a way by which effectively include ephemerality as an active part of its imaginary repertoire. The conflicts described above claim for a more comprehensive imagination in relation to issues of time, movement and change. Such approaches are progressively emerging in theoretical discussions that slowly are informing the practices of design and planning,

especially in the increasing value that has acquired what Mehrotra has named as the notion of Kinetic City. We could interpret what Mehrotra is doing with issues of kinetic intensity as the same operation that Koolhaas did with New York's urban density at the ends of the seventies. He is writing a retroactive theoretical framework for an extreme urban phenomenon that having a lot of built evidence lacks of theoretical manifesto. Years after Koolhaas published Delirious New York, Manhattanism became the condition "by default" of big urban zones. Perhaps what we could expect from a manifesto written for slums, temporal cities and reversible cricket camps?

TOWARDS A KINETIC URBANISM

Cities in India seem to be in the other end of the spectrum. Apparently they are constructed from mobile and light materials, grow densely in the horizontal and host much more quantity of soft elements that what we are used to see concentrated in other places. They do not hide the weathering of materials and reformulate the space usage almost in daily bases. They present to us as elastic and flexible fabrics made of impermanent components. As said, this conditions are not result of any design manifesto or speculative agenda. The foregoing, particularly due to the fact that these are places in which the issue of permanence does not seem to raise evident conflicts and where urban fabric is built as an accelerated urban form that changes at a much more rapid pace, tolerates high levels of disruption and plastically mutates constantly.
They have been built, and are continuing being built, from a complete different paradigm, one in which time is not linear but cyclic, and where creation is not understood as a consequence of aggregation but as result of iterative processes of destruction[6]. Here we have not space for digging deep in the nuances of Indian city making, therefore I will ride away refer to the idea of Kinetic City which has been considered as a comprehensive theoretical framework that had interpreted Indian cities from within design culture assembling a highly operative formulation, even outside the context of the subcontinent.

The notion of Kinetic City treated by Rahul Mehrotra in Negotiating The Static and Kinetic Cities: the Emergent Urbanism of Mumbai (2008), recently emerged as a manner for referring and validating alternative expressions of the urban, much more accelerated, reversible, weak, elastic and contrary to what one could see at first sight: robust. It argues that the object of modern urbanism –monumental buildings and the residential tissue- is incomplete if the lenses are not enough widened in order to incorporate non-static elements of the urban environment, creating a framework for thinking about temporality as critical for design. He claims that the previous not only occupies but actually forms the urban fabric creating with that a paradigm in which temporality is included as a key element of every component of the built environment. Mehrotra revises several examples, finding formality in the apparently informal dynamism of slum's materiality, unfolding logics of street vendor systems, claiming the usefulness of big void spaces named in Hindi Maidans[7], such as cricket fields being reversible places converted at night into venues for other activities, as for instance celebrating weddings. In addition he argues that the spectacle of the city always emerge not as monumental architecture but as massive celebrations, such as the Ganesh charthurthi, diwali, dussera, davrathri and muhharam festivals in Mumbai or the Durga puja in Calcutta, that serve to equalize the social divide challenging what he often calls "the city of the impatient capitalism".
In Mehrotra's words the Kinetic City can be understood as a metaphor that describes elements of different nature in Indian cities. Describing each category, he argues that:
"Today, Indian cities comprise two components that occupy the same physical space. The first is the formal or Static City. Built of more permanent materials such as concrete, steel, and brick, it is comprehended as a two dimensional entity on conventional city maps and is monumental in its presence. The second is the informal or Kinetic City. Incomprehensible as a two-dimensional entity, it is perceived as a city in motion –a three-dimensional construct of incremental development... It is not necessarily the city of the poor, as most images might suggest; rather, it is a temporal articulation and occupation of space which not only creates a richer sensibility of spatial occupation but also suggests how spatial limits are expanded to include formally unimagined situations in dense urban conditions." (Mehrotra, 2008, p. 8)

However, the Kinetic City as the space of multiple urban negotiations goes beyond the plastic materiality of temporal constructions of the slums or for hosting

massive gatherings, it also comprises a softer city formed by people in movement, social networks and even memory as drivers of change and urban dynamism. In the case of India, The Kinetic city is not present only in the horizontal density of big urban agglomerations as Mumbai, Delhi and Cacutta, but it is also taken into extreme in specific occasions and is present in the texture of daily life in other cities at various scales.

In my opinion, there are two key examples that juxtaposed help us to really understand how powerful is the Kinetic City in Indian urban life: the firsts is Varanasi the place in which the introductory vignette to this article was written. We can learn from Varanasi how the hard city gives space to mobile and dynamic processes, leaving its own limits open and indeterminate for both in function and morphology. Varanasi that being the more ancient and holiest Indian city I got to consider -after a long period of fieldwork in India- as a highly indicative example of an imagination that deals with dissolution, disintegration and destruction as a matters of every day life, specially in its relation with the sacred river Ganges.

The second example refers to one among many of the religious celebrations that happens every year in the subcontinent, but that certainly is the biggest in scale and impact. We refer to the Kumbh Mela the biggest public gathering in the world, which generates a mega ephemeral city that is assembled and disassembled in matter of weeks. The Kumbh Mela is a religious festival that every twelve years deploys the biggest ephemeral city of the world, that according official figures last year received more than one hundred twenty million visitors. The festival happens in four cities in which, according to sacred Indian texts, the Amrit (sacred nectar of immortality) fell, during a battle between goods and demons right after the burning of the ocean. Therefore, every three years, following astrological calendars, crowds of people will come for taking sacred bathes in one of four designated places: Ujjain, Nasik, Haridwar and Allahabad, next to a holy body of water, a sacred river that will acquire great potential for providing spiritual benefits. Every twelve years, "the festival of the pot" is celebrated at the Tirtharaja, the King of all Tirthas[8], in Allahabad, which becomes the most sacred and, provisionally, the most populated and expanded congregation of pilgrims out of all four iterations of the Kumbh. This event deploys a mega scale camp that lasts as long as the duration of the festival. The ephemeral city is built in weeks, right after the level of the Ganges goes down when the monsoon is over, and comprises roads, pontoon bridges, tents of many different sizes and several typologies of social infrastructure, such as public dinning rooms, hospitals and social centers, all of which replicate the functional elements of a more permanent city. The aggregation of units converge in an endless texture of cotton, plastic, plywood and several other materials organized by a smart infrastructural grid for roads, electricity and waste. As a sterling example in elastic urban planning, the Kumbh serves two to three million people for about forty days, and to an additional flux of ten to twenty million, who goes for cycles of one day on the main bathing dates. As a moving city, the Kumbh is in continuous transformation. During each of these stages, simultaneous activities and tasks directly related to the morphological expression and physical materialization of the dynamic and religious intensity that drives the pop up settlement unfold. Once the festival is over, the city is disassembled in parts and reutilized or storage. An ephemeral city as the one deployed for the Kumbh Mela could only be possible and constructed under an imagination in which the Kinetic City - as a framework for the urban – predominates; in which building a tremendous urban fabric for lasting some months is not incoherent or insane. This is a city that is quickly assembled where nothing was there and that actually operates as any other city.

REFLECTIONS REGARDING AN EMERGENT IMAGINATION

Opposite to what happens in India, where the manifest is written as a response to the built evidence, in this part of the world the raise of an approaching to an urban development that factors better temporality is still under development. It is for this reason that is useful to contextualize the idea of Kinetic City amongst some recent developments in western theory and practice, as a way to give account for this conceptualization not as an isolated example, but as a symptom of a evolutionary tendency of the discipline.

As Mark Wigley reminds us in his article Network Fever, mobile/impermanent design is a topic with which design culture has flirted several times already (Wigley, 2001). For instance, the Japanese architectural group Metabolist[9] already extensively wrote in the sixties about architecture as a system of biological characteristics capable of constant responsiveness and self-adaptation

to the metabolism of the city as well as other groups had explored several times inside the domain of the utopia. In last years there had been generalized efforts for situating more properly the changes within both design processes and products, at various different scales, from the same material of the module to the understanding of the city or from the architectonic to the landscape scale[10]. Likewise, the work of experimental researchers as Neri Oxman regarding Digital Morphogenesis questions the same properties and responsiveness of the materiality forming the environment that surrounds us[11]had make several effort for breaking the dictatorship of the static city. In a similar direction, people like Nashid Nabian (2010)1 and Carlo Ratti (2010)2 at the MIT SENSEable City Lab have developed tools for anticipating change on the physical structure of cities through the use of sensors and hand-held electronics that in recent years have allowed real time approaches to the study of the built environment. In the last years, not only research but also practice had slowly incorporated the management to the soft city into the architectonic design. For instance there had been experiences as Elemental's in Quinta Monroy, in which, working in a more traditional format within the realm of architecture, factors time and modulates successfully change as undeniable force acting on the final design outcome, making explicit the incompleteness of the architectural construction.

In the same line in parallel to many development of this kind, in the last decades there has been also a disciplinary realignment affecting the disciplines of landscape and urbanism. The so-called "Landscape as Urbanism" (Waldheim 2006) emerged as a manner of situating change not only as a context condition but also as an inherent property of design outcomes. As a relevant moment in design's history, the convergence of these two traditions has been described by Stan Allen -in his essay "Mat Urbanism: The Thick 2-D- as the inflection point in which Landscape supplants the historic rol of architecture as the basic block for the urban design (quoted in Waldheim, 2006). For the seek of the argument we are building here we could interpret that moment as when the tradition that better deals with change overtakes the role that urbanism has had in city-making, making evident the anachronism of an static discipline; the one that Rem Koolhaas has described as leaded by "specialist in phantom pain, doctors discussing the medical intricacies of an amputated limb"(Koolhaas, 1995, pp. 963).

It is true that we could enumerate several other trends, more theoretical than practical. However, with the exception of a few cases, architecture, urban design and city planning still do not provide enough built forms or practical implementation that really expresses what at a speculative level we have been able to produce and question. Nature inspiring architecture still inhabits a utopian space[12]. The knowledge we are acquiring from cities through new technologies do not really increase city planning's ability for anticipating and designing morphologies, densities and fluxes. Incremental Architecture –or anyhow we would want to name an architecture that is explicitly an unfinished work- is not the option of many, but it really remains a celebrated exception within the work of few. Landscape Urbanism that really has produced exquisite writing and speculations has been very ineffective when we ask for projects that embody its dharma. Our capacities for projecting weaker forms is still very restrictive and the cities we produce continue to be unsustainable expression of a control-freakiness that doesn't responds to the dynamic, aging and aggressive environment in which those are inserted.

The notion of Kinetic City raises several questions and presents multiple challenges. Reflecting and addressing them we could advance in the production of a more sustainable and fluid urban development. Some of these questions could be: How can we accommodate things in a more flexible manner, providing space for rapid transitions, fugacity and the increasing fluidity of the cities we are called to design? How can we use cities more elastically, building a more robust and sustainable urban fabric? How can we, as designers, move toward a more adjustable urbanism capable of hosting what is impermanent? How do we think about issues of preservation within an imagination that accepts destruction and dissolution as inherent properties of reality? And also...How do we break the illusion of permanence by taking design decisions that incorporate weathering, lifecycle of materials and disassembly, not as manifestation of the dissolutive nature of time, but as opportunities for creation and the modulation of change.
As we can see, in the global south the acknowledgement of the particular imagination raised by the Kinetic City might be seeing as a call for surpassing physical density and bolstering urban intensity in the production of the urban

fabric. It claims for a move toward, a more holistic urbanism, one that we could call a "(w)holy urbanism" but Wholly with a W, by which we mean inclusive, open to embracing, that which is outside the outcomes of material permanence. m

NOTES

(1) Even thought the English name of the city is Banaras, we keep the original Sanskrit name which is currently better known.

(2) This is an extract of multiple field notes produced at Varanasi during the month of July and October of 2012, under the framework of a research on the holy ecologies of death in the state of Uttar Pradesh.

(3) Manikarnika is one most important cremation ground at Varanasi. It is said to be the favourite place of good Shiva and the only standing place after Shiva's destruction of the world. Thousand of bodies are cremated every day at this Ghat

(4) Dashashwamedh is the most popular amongst the Ghats for performing the morning bathes at the Ganges. Hundreds of people arrive every day before the sun raises to submerging in the holly river.

(5) All over Varanasi one can find Shiva lingam, which are the symbol of the good Shiva and his wife Parvati. It is a phallus shaped vertical volume situated on a leaf shaped horizontal form.

(6) This can be considered as an exacerbation of the phenomena known as "schöpferische Zerstörung" described by Werner Sombart and treated later by David Harvey under the category of creative destruction, using it not only for describing capital flows but actually as a form of understanding better the material condition of cities and landscapes give space to change.

(7) The typology of the public space known as Maidan (a big open space in the middle of the city) and its relationship with the urban metabolism has been described with particular sophistication by Anuradha Mathur. See: Mathur, 1999.

(8) The word tirtha means "ford" in Sanskrit, and these fords can be cities, as is the case with Varanasi, Ayodhya, Haridwar or Allahabad, or natural places such as Kailash, the only "tirtha of ice". The sum of these places constitutes a web meaning. Present in the Vedas and Puranas, they participate in a grammar of sanctification through the tales of gods and heroes related to them. These might be either places touched by the gods, to which they descend from heaven or into which the spring from the earth. For instance, Jyotirlingas are cities associated to Shiva; Kumbh cities are places where it is said that drops of a sacred nectar fell; Mokshadayaka are cities that are capable of liberating people from the reincarnation cycle.

(9) Note from the editor: Influenced by Archigram, Marxism and biologic processes, the metabolist movement was known internationally after the 1959 CIAM, when Kenzo Tange shown two projects of Kiyonori Kikutak, one theoretical, "Tower-shaped City"; and one built, Kikutake owns house in Tokyo ("Sky House", 1958). See: Zhongjie, 2010.

(10) Indicative of this tendency is the recent article by Preston Scott Cohen and Erica Naginski. See: Cohen & Naginski, 2010.

(11) For more detailed information regarding this work revise the work of the mediated mater group at the MIT Media Lab leaded by Neri Oxman. See Oxman & Rosenberg, 2007.

(12) Even if outside speculation bio-inspired architecture has not fully succeeded, there has been sever achievements and advancements especially in the domain of technology. Relevant is the work done by the Wyss institute for biological inspired engineering at Harvard University. See: Ingber, 2010.

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