Reversibility

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Today, the physical structure of cities is evolving, morphing, mutating and becoming more malleable, fluid and open to change than the technology and social institutions that generate them. At a time in which change, and the unexpected are the new normal, 'reversibility' seems to be a critical question for articulating more sustainable forms of urban development. This is something we see in the everyday urban settings, in the geographies of South Asia or Latin America where the temporal landscape forms a large portion of the urban condition. The Kumbh Mela, in India, which results in the biggest ephemeral mega city in the world is an extreme case in this condition and forces us to reflect deeply about the way we think of cities more broadly. For, this example raises a nuanced set of questions about how 'reversibility' could be better imagined in the production of future cities.

In matter of weeks, the biggest public gathering in the world, the Kumbh Mela deploys its own roads, pontoon bridges, cotton tents serving as residences and venues for spiritual meetings, and a spectrum of social infrastructure —all replicating the functions of an actual city. This pop-up mega city, which arises for a Hindu religious festival at the confluence of the Ganges and Yamuna rivers, held every 12 years, serves 5 to 7 million people who gather for 55 days and an additional flux of 10 to 20 million people who come for 24-hour cycles on the five main bathing dates. Once the festival is over the whole city is disassembled as quick as it was deployed reversing the constructive operation, disaggregating the city to its basic components and recycling a majority of the material used.

Without seeing images of the Kumbh Mela, one could hardly believe that a complex mega city of such extensive scale could be even deployed using all the technological and disciplinary instruments that we currently possess. However, it is precisely in the lack of technological specificity and the reversibility as an a-priori constraint for deployment, imposed by the expiry date, is where lies its robustness. Hence, one of the most valuable lessons offered by the Kumbh Mela, is in the implementation of tactics that allow the deployment of a whole city as a holding strategy for temporary urban processes, which does not aspire to be permanent. It is in the non-permanent solution for a non-permanent problem that is the raison de etre of the city. This alignment between the temporary nature of the problem (in this case to house 5 to 7 million people for 55 days) and that of the solution, is something, we could -and should- incorporate as a basic protocol for the cities we reshape and create in the future.

Reversibility can be examined in two contrasting dimensions. On one hand its material aspects, which translates in a physical reversibility of the constructed armature that supports the existence of the Kumbh Mela. And on the other hand is the immaterial agreements that frame a reversible political and institutional framework that supports the construction and organization of the ephemeral city. While in the context of more permanent settlements, institutions associated with urban processes, take time to form and are created often not as malleable and flexible structures. However, in the case of the Kumbh Mela a flexible temporary governance system is created. It plugs into a pre-existing urban management system at the state level and draws its expertise from existing institutions - often pulling together, for a short period of twelve months, the best administrators in the state. During the festival, the area of the Kumbh Mela in terms of its institutional framework becomes an autonomous city managed by several temporary governmental agencies that have jurisdiction over the site. The institutional structure that manages the city evolves depending of the stage in which they operate. The deployment of the city can be then divided in four main stages that affect the nature of its governance. The four phases are first an initial phase of planning, which is held outside the physical space of the Kumbh, and that involves government authorities that range from the local to the national level. This is followed by Implementation that happens both in the peripheries of the site while the river is still high and on site when the river Ganges and Yamuna recede. Thirdly the process of Management which correspond to the period in which the city is in operation in which besides the challenge of handling the crowds of people the administration has to deal with a river that might fluctuate or shift in its trajectory by thirty feet per day. And finally the deconstruction stage which starts after the last bathing day and is the process that reprograms the space into agricultural fields for a few weeks before the Ganges floods again in the monsoon to reclaim the site of the city.

The administration of the city is implemented by an organizational structure that is not only impermanent – which is something one could expect given the temporal condition of the city - but that is also flexible, allowing the progressive appearance of transversal links of communication across diverse hierarchies. This is clear when one examines the nature of the meetings and the authority each member has during different moments of the city's deployment. Relations of power and connections vary depending of the

Picture by Felipe Vera

stage of the deployment. During the planning stage interactions are framed in departmental meetings, which are small in scale and where the authority mostly resides in representatives of the state. In this process from the state of Uttar Pradesh are engaged twenty-eight departments and well as seven different central departments from the national government. Over time, when the implementation stage arrives, the governance system gets more dynamic articulating constituencies at different levels that get represented on-site. During this stage diverse mechanism of feedback among different levels within the hierarchies get set up in order to deal with the need for quick decisions of adjustment in the materialization of the plan. The dynamism of the structure reaches its climax while the city is in operation. At this time authority shifts from the high levels of the pyramid that operate at the state and regional levels into the grounded administration of the Kumbh. Crucial is the fact that the Kumbh administration meets on the ground each evening during the festival in a dynamic that connects with every single level of the otherwise hierarchical administrative structure, This gives the administrator for the event the capacity to react to any unpredicted incident or requirement of the city quickly and effectively bypassing inefficient clearances processes when necessary. Once the whole process is over, administrators are often promoted and get reappointed again in the pre-existing governmental structure, and the institutional frameworks that supported such an enormous operation vanishes like the traces of the city when the river washes them over the terrain during the flooding that results from the seasonal monsoon rains.

Reversibility is also the main attribute that supports the physical deployment of the city. The implementation strategy which is generic, and employs low-tech constructive technics allow to shape the most amazing buildings and morphologies leaving open the possibility of reversing such operations once the festival is finished. Thus allowing the materials to be reincorporated into regional economies and local industries. Today, the introduction of digital tools in the production of the built environment undoubtedly has become an unstoppable force behind innovation in architecture. However, looking at the Kumbh Mela one is reminded that perhaps the most revolutionary opportunities for redefining the ways in which we produce the built environment perhaps lie in much simpler low-tech tactics. What is most remarkable about the Kumbh is not that it is constructed in such a short period of time but also that it has the ability to get disassembled as quickly. Multiple highly heterogeneous

structures are organized around combinatory system that relies on minimal building strategies. The construction techniques used also allow greater degrees of flexibility. The generic condition of basic element like sticks connected by rope or simple nails in both orthogonal and diagonal relationships offer infinite possibilities of recombination. The strength is in the capacity of achieving specific and determinate forms with a couple of indeterminate solutions applicable in different contexts and that are re-adjustable at any moment. On account of this 'a kit of parts' approach, the material used for erecting tents, gathering spaces and even monuments that are several meters high can be afterwards reused in other constructions.

Each of the few building techniques implemented at the Kumbh are based in the repetition and recombination of a basic module with simple inter-connections. This is usually a stick (aproximately 6 to 8 feeet long) that by aggregation generates diverse enclosures in a wide range of forms from small tents into complex building paraphernalia that give expression to diverse social institutions such as theaters, monuments, temples, hospitals etc. All of them are constructed out of the same elements, bamboo sticks used as framework to laminar materials such as corrugated metal and fabric. The simplicity of the building systems not only facilitates the attributes for assembly, reconfiguration and disassembly on site but also facilitates the logistics and channels of distribution for each component and piece. One person or groups of people provide the modulation of every material in a way that can be carried and handled in absence of heavy machinery. Material components are small and light enough to be easily transported and distributed to every corner of the settlement in a rapid and efficient manner facilitating both, construction and reconstruction as well as formation and reabsorption into the various ecologies and geographies of the region. Everything is constructed, and afterwards deconstructed with equal ease.

This reversible condition becomes counterpoint to our contemporary building culture. The one aspect that has been notoriously absent from the contemporary debate is the afterlife of the things we build once they are not useful anymore. Today buildings are constructed to last as long as possible and usually the need for transformation, the smart incorporation of weathering and the provision of options for reconfiguration in cases of obsolescence are not appropriately factored in the designs. We have developed a highly articulated technique for constructing and assembling all sorts

of structures, which allow us to handle more complex and efficient construction processes. However, very little has been imagined in relation to advancing in the development of more efficient ways to disassemble and deconstructing the things we build. Paradoxically, what we can learn from the Kumbh Mela is that the most unsustainable practices do not rely on the construction of the built environment, but in how inefficient we are in dealing with the reconfigurations of the space that we already have built. Unfortunately, in more permanent settings demolishing has been the generalized answer for opening up space that the city requires for growth and adapting to new needs. In short, the lack of incorporation of strategies for disassembly as an inherent part of the design imagination as well as construction protocols, obstruct the fluid and sustainable metabolism of contemporary urban space.

Looking at these two dimensions of the Kumbh and thinking about how we can learn from this occurrence, one could suggest that it is time for urbanism and design more generally to find new ways for effectively factoring in reversibility as a critical component of its institutional and technological repertoire. For engaging in this discussion, the exploration of temporal landscapes opens a potent avenue for research by questioning permanence as a univocal solution for the urban conditions. Instead one could argue that the future of the cities depend less on the rearrangement of buildings and infrastructure, but more in the ability for us to imagine material, technological, social and economic landscapes in a more reversible way. This is to say that we should perhaps design cities (or at least parts of cities) as holding strategies, which grow out of a close alignment of the temporal scale and solutions we conceptualize in our urban imaginary.

Kumbh Mela III, Allahabad. 2014. (Picture by Felipe Vera)

Kumbh Mela IV, Allahabad. 2014. (Picture by Felipe Vera)

Kumbh Mela VI, Allahabad. 2014. (Picture by Felipe Vera)

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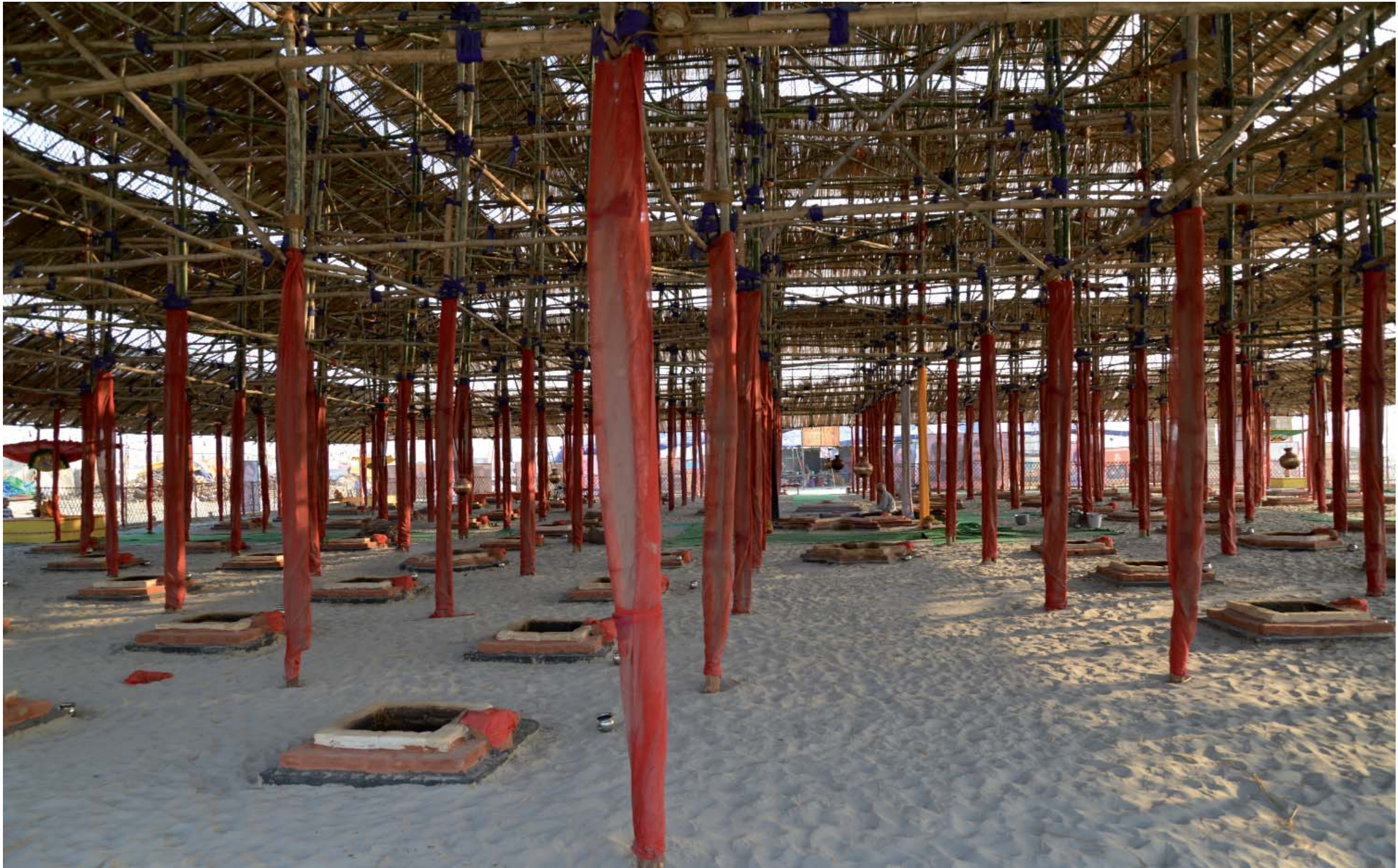
Picture by Rahul Mehrotra

Kumbh Mela V, Allahabad. 2014. (Picture by Felipe Vera)

Kumbh Mela IX, Allahabad. 2014. (Picture by Vineet Diwadkar)

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Kumbh Mela XI, Allahabad. 2014. (Picture by Vineet Diwadkar)

Picture by Namita Dharia

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720 is the occasional pamphlet of FunctionLab, the think tank of Farshid Moussavi Architecture.

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