

01. The Kumbh Mela, the World's Largest Public Congregation: A Paradigm for the Sustainable Use of Land.

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Abstract :

Architect Subhay and Sama emphasizes the imperative of enhanced biopsychosocial considerations and policy implementations to safeguard the urban environment. Using India's diverse cultural landscape as a model for intercultural harmony and sustainable practices, the article highlights the Kumbh Mela¹ as a significant example of sustainable land usage. Proposing a shift towards ecological sustainability, the paper advocates for recognizing and regulating ecosystem services to benefit both people and the environment. Drawing inspiration from the Kumbh Mela, the paper encourages large-scale events to prioritize resource reduction, reuse, and recycling along with a redesign of contemporary public spaces, transforming them into multipurpose settings that foster healthy urban living. The article concludes by urging readers to assess the ecological impact of their decisions, promoting a conscious approach to land use and fostering a harmonious relationship between humans and the environment.

Keywords:

Land, Alternate scenarios, Management Perspective, Revitalization, Redevelopment.

Across the globe, land is treated as a secure commodity and rarely viewed as an ecological asset with veritable environmental impacts. Likewise, in India, we seldom account for the impact of raw materials before they manifest into their utilitarian forms, posing a looming threat to the environment. This implies the need for better biopsychosocial considerations and policy implementations to safeguard urban ecology in the emergence of climate change in the global South today. India is a land that nurtures a vast ecosystem of culture, language, and religion that encompasses a range of festivities to celebrate its secularity. Therefore, it sets a template for environmental communication, intercultural and social cohesion, and sustainability strategies to boost eco-friendly practices in a framework that is currently out of practice or lost in translation. Here, land transcends the idea of a commodity and margins of governance that anchor its life force. We are continuously inundated with stories of the rising water crisis in the global South and yet fail to address some of its roots that are embedded in the mistreatment of land. For instance, sand is the second most extracted natural resource on earth, harvested by strip mining our rivers and beaches, often illegally and unsustainably. This sets off a chain reaction that feeds back into systemic urban problems.

There is a pervasive influence of the industrial global North in how we manage our connections to culture and life in public realms through the land on which it thrives. Furthermore, our society is structured with the need

for security. Communities are often synonymous with the idea of permanence that bleeds into urban planning facets of inhabited spaces. The Kumbh Mela¹ sets an important precedent in dealing with similar quandaries through lessons gleaned from Indian traditions and social cohesion that demonstrate how we can formulate new interventions today to address climate change. Land is often regarded with a sense of stability and inanimation that is not in its nature where even on fallow land, the soil is alive and brimming with purpose.

The Kumbh Mela, a precedent for sustainable land use:

We revisit the century-long tradition of the Kumbh Mela, to reflect on its planning process, as it sets to present key ideas for the sustainable use of land in our public spaces. The Mela is situated at the confluence of the Ganges, Yamuna, and Saraswati Rivers in Allahabad, Uttar Pradesh, India. As the Monsoon arrives, the river morphs into its monthly phases from September to December and culminates in housing festivities from January through March.

The river bed and its banks are brought to the forefront by the receding water levels to serve as the foundation on which a boundless cultural centre is concocted— for a congregation that has taken place since the Gupta² dynasty. The Mela goes through morphogenesis on land that includes stages of planning, construction, assembly, operation & disassembly, deconstruction & reabsorption that are reminiscent of the Hindu belief in the cycle of Samsara³.

¹Kumbh Mela: a Hindu festival and assembly, held once every twelve years at four locations in India, at which pilgrims bathe in the waters of the Ganges and Jumna Rivers.

²Gupta: The Gupta Empire was an ancient Indian empire which existed from the early 4th century CE to early 6th century CE.

³Samsara: the cycle of death and rebirth to which life in the material world is bound.



Image 1: Aerial View of the Kumbh Mela. Source: Lars Hanf (picture)

The first monsoon phase (September to December) is one of preparation, where the receding water proffers agricultural land to be leveled; and roadways to be marked. Materials for the pontoon bridges are transported to vacant spaces near the floodplain. The transforming land is now referred to as Nagri and will anchor the largest public gathering on Earth. The Nagri is 23.4 Square kilometers of kaleidoscopic imagery of tents that nurture a rich heritage celebrating the pilgrims' religious and spiritual life. The festival is regarded as the only place on the planet where ascetics and lay people from theologically disparate traditions co-exist and work together to manifest this massive economic event of commerce and entertainment. For its visitors, that includes musicals, theatre performances, and demonstrations of spiritual accomplishments by yoga practitioners.

In the following months, the infrastructure is set up in a planned grid to ensure easy navigation for circulation and population distribution from densely to sparse areas allowing a comprehensive mobility plan to be established. Gradually, it reveals streetlights and electric poles, bridges, and enclosure systems for a wide range of

congregational spaces to crop up. Other aspects include civic amenities like water supply, sewage system, and CCTV cameras for security. The grid pattern consists of uniform distribution of public and social infrastructure of clinics, hospitals, and other emergency services, based on Corbusier's idea of sectors which makes for easy navigation and implementation of technical systems (sanitation, electricity, etc) and most importantly, the ecological restoration and treatment of land. The perimeters of the Nagri are the only areas that house permanent structures. This fugacious compact grid city is planned to facilitate the Hindu community's long-standing religious celebrations and bathing fair that occurs every twelve years with smaller editions every four years.

Furthermore, the Mela is a public space that is pre-programmed from its planning stage to house specific activities in the zones they are classified into that are at times activated simultaneously to dictate certain experiences and human behaviour; it also controls the movement of the gathering based on their interests, something is offered to everyone apart from the tradition of bathing ritual.

Post the Mela, all the soft infrastructure systems are dismantled either entirely or reused for other construction works. Of the remainder, some (like the reed roads) are reabsorbed by the returning water, and the rest are recycled for the next Kumbh Mela. A structured deployment and deconstruction employing sustainable practices ensures that time does not propagate fear, but a gradual acceptance that public space must be transitory where the framework of design aligns with the sustainable use of land. This idea is best reiterated by Andrea Branzi, a famous Italian urban planner, who suggests that good urban design implements reversibility with adaptable solutions subject to change where permanent solutions are reimagined as new protocols that can be "constantly

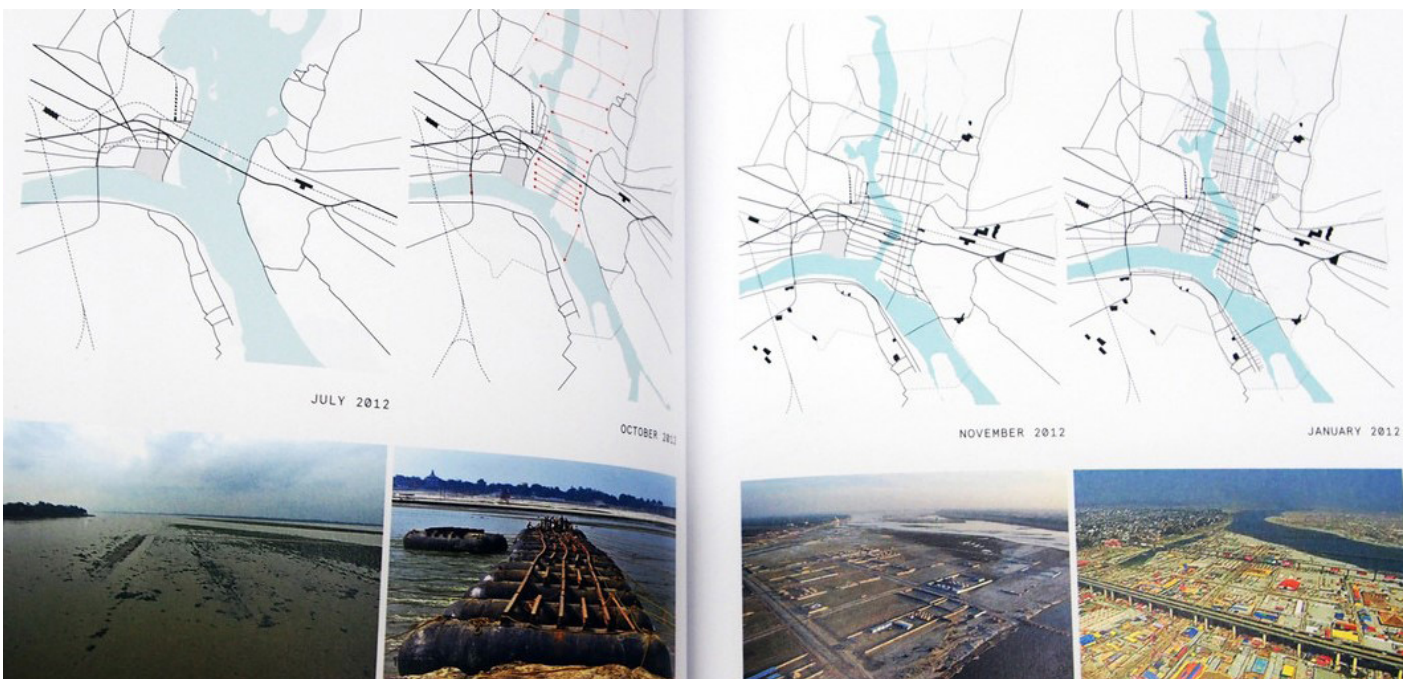


Image 2 : Land Morphology Maps to Visual at the site of Kumbh Mela. Source: Archdaily, Pages 108 and 109 from Kumbh Mela: Mapping the Ephemeral Megacity by Rahul Mehrotra and Felipe Vera; Image courtesy: Felipe Vera. (picture)

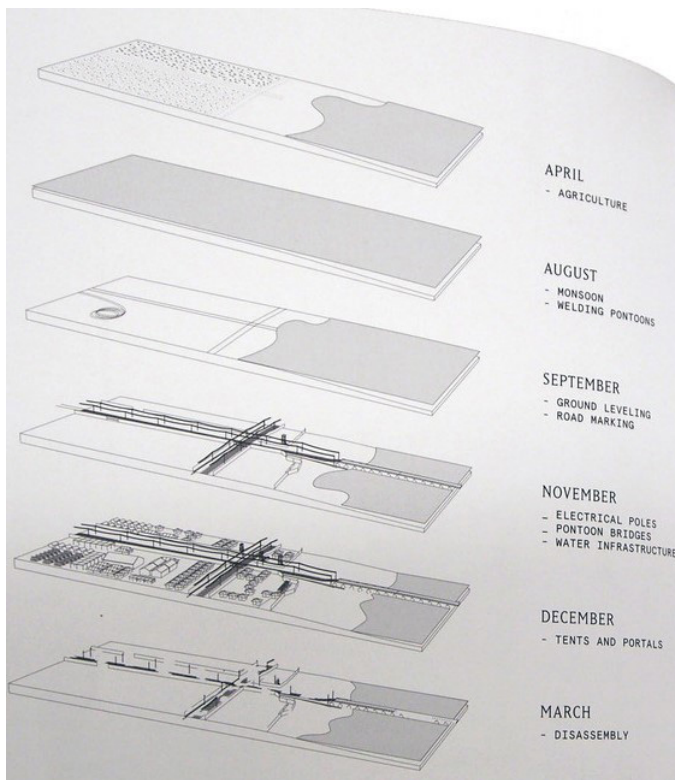


Image 3 : Land Morphology illustration at the site of Kumbh Mela. Source: Archdaily, Page 270 from *Kumbh Mela: Mapping the Ephemeral Megacity* by Rahul Mehrotra and Felipe Vera; Image courtesy: Felipe Vera. (illustration)

reformulated, readapted, and re-projected in an iterative search for a temporary equilibrium that reacts to a permanent state of crises.” (Mehrotra, R. 2021)

The major drawbacks of such a transitioning cityscape, as the Mela, are tedious as they require colossal work and financial aid for its construction and deconstruction (about INR 155 crores). The planning of the Mela also limits the imagination of how spaces can be utilised apart from their predetermined function, for example, one cannot rest in the market space as they are intended to be spaces for commerce and movement which houses functions such as shops, games etc.

The entire process also employs trained staff and volunteers to operationalize different phases of this public event until the land is returned to its original state- including crowd management and displacement- which is a herculean administrative task. Similarly, so is the sourcing of materials for various phases of this event, especially temporary infrastructure for enclosures that are assembled by using bamboo, corrugated metal sheets, tent fabric, metal anchors, and ropes.

However, The Kumbh Mela tackles all the technical as well as the socio-cultural aspects of a festival at this scale while respecting the ecosystems of the region to avoid land pollution- which no other festival across the globe is in a position to deliver. In the end, the land is left to transform into a place that nurtures food sources through seasonal farming practices until it is time for monsoon where water submerges the land allowing it to replenish its soil with nutrition.

An example of Human Flourishing through Ecological Sustainability:

Seetha Low reiterates environmental sustainability as defined by the United Nations World Commission, saying it “presupposes the goal of improving the quality of human life while remaining within the carrying capacity of current ecosystems and stabilising the disruptive relationship between human culture and the biophysical world”. (Low, S. 2022, pg.126).

Ethnographic fieldwork on numerous public space typologies indicates that ecological and environmental sustainability is a factor of human flourishing. We need a paradigm shift from the fallacy that afforestation is a panacea for the global climate crisis to focusing on the coherent management of our ecosystem services. In what ways can we evolve from environmentally sustainable practices to devising ways for ecological sustainability to ensure healthy ecosystems for future generations? Seetha Low further explains in her book, that the Earth’s ecosystems are interconnected to allow certain groups of species to thrive and their existence is essential for certain “micro-processing” to take place which determines the quality of basic elements of life like air, water, soil, and climate systems. Thus, the argument considered allows us to establish a thought on the ephemeral state of an ecosystem to include a diverse set of species and not limit to a single group; an extension that permeates beyond the human-centric approach.

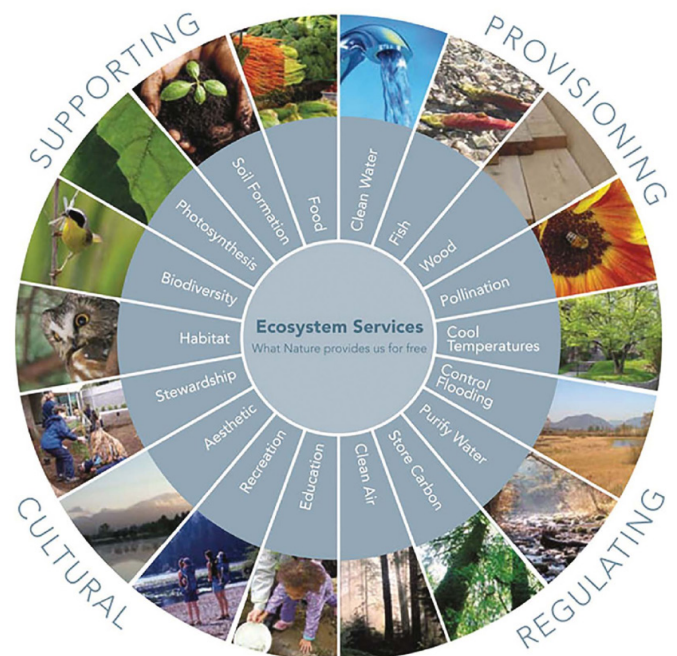


Image 4 : The Millennium Ecosystem Assessment (MEA) organises ‘ecosystem services’ into four broad categories. Source: Metro Vancouver (illustration)

The Kumbh Mela’s inadvertent adherence to ecologically sustainable factors could proffer a template for modern public space gatherings. It successfully satisfies at least two types of ecosystem services as stipulated by the MEA (Millenium Ecosystem Assessment), namely, the Cultural and Supporting services. By this, we mean that the Mela nurtures the human-ecosystem relationship by providing

for social development through the congregation and supports ecological life by allowing for the cycling of nutrients in the soil through the use of biodegradable materials and honouring seasonal conditions.

“Land is emotive, social and intensely political but it is also very concrete and material.” - (Nikita Sud, *The Making of Land and The Making of India*, Oxford Press.)

The honourable treatment of land:

A biopsychosocial approach to the problems of land use is that land and honour are not synonymous in the current industrial zeitgeist. If there is a modicum of honour, it is reserved for that which is owned. Therefore, the land is highly commodified and politicised often subjecting it to ill-treatment and misuse leading to inevitable abandonment and spoiling. Riverside developments, agricultural land, manicured parks: are these paradigms for the honourable treatment of Land?

The indigenous American botanist Robin Kimmer in her book *Braiding Sweetgrass*, talks about a restoration plan that sprouts from understanding multiple meanings of land: “Land as a sustainer, land as identity, land as a grocery store, land as a pharmacy, land as a connection to our ancestors, land as a moral obligation, land as sacred and land as self.” Moving from the divisive sustainable strategies that are mostly siloed to phytoremediation, we as urban planners/architects must consider nurturing a biocultural strategy. This means that we need to reconsider the relationship between the people and the land, just as much as efficient hydrology or decontamination. Thus, public spaces when frequently used provide meaningful social engagements like shared ideologies, traditions, and cultural interests that establish a deeper connection with the land itself. Here, The Kumbh Mela (space) is situated on the delta land of the rivers (place) that holds a deep and significant space-to-place connection channelled through shared memories via recurrent spatial experiences that transcend commodification through ‘spirituality’.

What the Kumbh Mela can teach the world is to effectively use its materials and resources, whether it be land or the soft infrastructure on it. The Mela also reinforces the popular idea of recyclability, reducibility, and reusability, by challenging the notion of large-scale sustainability paradigms while serving as a template for navigating one of the biggest challenges in public spaces/gatherings: catering to a diverse culture and accompanying needs

Urban Lessons from the Kumbh Mela:

Large-scale events like Music festivals can espouse a universal system where governments can build a repository of materials to be repaired and reused. Re- envision what development means in a sustainable city by modelling some of the practices from the Kumbh Mela. Primarily, that of working with an ecological quotient of the land. The only con of this idea is that it would be environmentally deterministic.

Could we reimagine our current public gathering space?

To take a current example of one of the largest congregational spaces in the City of Bengaluru, India: Palace Grounds, situated on about 400 acres of land. It is a prime location for eco humanistic intervention in the urban planning of the city. The Palace Grounds currently distributes its activities seasonally and leaves large acres of land barren in the heart of the city.



Image 5: Bangalore Palace Aerial view. Source: Times of India; Image Courtesy: OYO Hotels.(image)

In the early aughts, the Supreme Court of India decreed that no permanent structures be built on the grounds and allowed temporary structures to remain for a few days. In an article by Citizen Matters, Bengaluru, Naresh Narasimhan, Principal Architect, Venkataramanan Associates, says about the events in Palace Grounds, “Why should it be treated like a private property? The government should convert it into a big botanical park with the biodiversity of Karnataka.”

In line with this, the hope is to espouse the approach of an “adaptive reuse project”. By that, we mean envisioning different uses of land off-season contrary to on-season (as per auspicious times for weddings and religious festivals). Like the Kumbh Nagri, temporary structures are erected to hold gatherings as needed and with a similar deployment and deconstruction concept. Guerilla urbanism, as it is termed, could revive Palace Grounds as a lung for the city while also emphasising the self-organised reuse of vacant land and buildings to give way to ecological housing, alternative cultural centres, nutrient cycling agriculture that can function as community gardening or urban farming projects.

The city of Bengaluru continues to see rapid urban expansion, but what happens to the city when it has reached its limit? The general consensus is to try to find answers in suburban sprawls. However, Charles Correa, an eminent architect, believed that there was a limitation to sub-urbanisation and solutions had to come from solving urban crowding and sprawl. Palace grounds provide an opportunity to be the perfect case study for insurgent space interventions that revamp the quality of public life contributing to healthy living conditions in the city.



Image 6: Imagination of insurgent public space in Palace Grounds by the citizens. Source: AI-generated image-stable diffusion/Sama's stable-diffusion.(image)



Public space occupancy must be viewed as transient and therefore, must employ alchemical design interventions. Creative sustainability is understood as a means to develop places and communities in ways that do not lead to rapid gentrification but gentle transitions between urban modalities.

Are we, as a conscious species, actively making deliberate choices to influence the relationships between ecosystems and reevaluating our approach to land?



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