

## 3x4: Exploring metaspace platforms for inclusive future cities

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### Abstract

In megacities such as Delhi and Mumbai - and within one of the fastest growing cities within the world, Ahmedabad - more than 50% of the population live in informal urban settlements. 3x4 metres is the plot size seen to be provided in some resettlement colonies, a government initiative which relocates people within informal inner-city settlements to vacant land on the periphery. In a collaboration between Professor Paul Sermon at the University of Brighton, Dr Claire McAndrew at The Bartlett, UCL, Swati Janu a Delhi-based Architect and photographer Vivek Muthuramalingam from Bangalore, 3x4 looks at informal settlements differently where informality is not viewed as a problem, but a promising new model of urbanism for the global south. 3x4 uses an immersive telematic networked environment to provide a playful, sensorial exploration of new hybrids of digital space. Merging two 3x4 metre room installations in Delhi and London through mixed-reality, this transnational dialogue intends to set an aspiration for developing metaspace platforms in megacities of the global south. It builds upon practice-based research conducted as UnBox LABS 2014 Fellows in Ahmedabad, India; which used an immersive installation to explore the qualities and values built through self-organised communities that are lost in the resettlement process.

### Keywords

Informality, metaspace, telematic, resettlement, communities, videoconference, urbanism, population, India, cities.

### Introduction to UnBox LABS

3x4 is an AHRC funded research project that seeks to identify a future cities *metaspace*, with a view to connecting communities and contributing to dialogue on informality in the global south; ‘informality’ in the context of this project refers to anything that does not fall within the purview and planning of the civic authorities. It is the component of the city that is not formal i.e. organized and planned, and consequently considered illegal. The project offers an alternative way of seeing informal settlements that prefaces their ingenuity in the face of adversity, over their illegitimate status. Such a perspective becomes necessary as informality gives rise to a new type of urbanism, one that is fuelling the growth of megacities in the global south and redefining temporal narratives of progress.

With an interdisciplinary team of researchers and creative practitioners, 3x4 seeks to embrace the informality

of the global south and re-imagine new hybrid platforms. Through creative practice we have used the 3x4 metre resettlement plot size as an interface to identify an alternative *metaspace* platform. This initial 3x4 project concept was arrived at through our collaborative participation at the UnBox LABS Future Cities workshop at the National Institute of Design in Ahmedabad, March 2014. [1] Our interdisciplinary range of subject specialisms and practices were first brought together and explored in a scoping project that culminated in the development of a prototype video installation, consisting of a 3x4 metre muslin-covered bamboo structure (see fig. 1) exhibited at UnBox LABS. [2] This installation incorporated video projections of images and quotes sourced directly from informal settlements and their inhabitants, focusing on the role of networked technologies within these communities. The combination of the 3x4 plot size and verbatim comments clarified an opportune sense of informality and signalled the need to further explore new systems of communication within future cities of the global south.



Figure 1. Bamboo structure for 3x4 scoping project installation at UnBox LABS 2014. ©Sermon, P., McAndrew, C., Janu, S.

### 3x4 Research Context

We now stand at the fulcrum of urbanisation with 55% of India’s population expected to be living in cities by 2050. [3] Millions in the global south are leaving their rural homes in a mass movement toward the cities as they hope for a better life. [4] As cities swell under this surge of migration, informal settlements are proliferating to accommodate for the large numbers that are unable to find affordable housing. Viewing them as eyesores without

understanding the predicament of the inhabitants, the civic authorities have been seen to raze such settlements, sometimes leaving thousands homeless overnight. [5]

In a drive for ‘beautification’ of the city, those that are evicted are forced to resettlement colonies at the periphery of the city, with little or no infrastructure and in plots of land as small as 3x4 metres. Fast-tracking the creation of ‘slum-free’ cities and without addressing the larger issues at hand, the authorities in Delhi have started relocating people into high-rise buildings within the city. [6] The failure of such experiments in the West are many, from the Pruitt Igoe housing in St. Louis to the Aylesbury Estate in London. Without learning from the mistakes of the global north, Indian cities, like many other cities in the global south, aspire to be ‘world class’ cities such as New York or Dubai, overriding the requirements of a majority of their populations.

What is lost in this process is the strong sense of community and qualities that make informal settlements a productive and integral part of the city. These settlements need not be viewed as eyesores or problems within a city, but as self-made solutions by communities. It is arguably the DIY nature of such settlements that have helped communities survive in the face of government apathy. This iterative quality of informal urban settlements is necessary for empowering people to make their rightful claim to the city and bring about development. It seems the global north has much to gain from dialogue with its southern counterparts, with the conceptual development of 3x4 metre solutions as a sustainable and affordable solution to UK housing. [7] 3x4 provides a new way of viewing informality and our relationship to megacities as we envision the Future City.

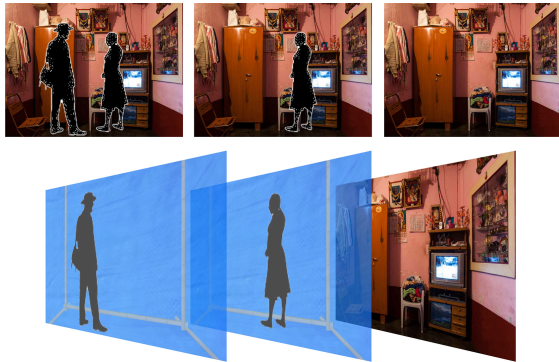


Figure 2. Chroma-keying process used in 3x4 installation to composite images from Delhi and London together with computer generated background. ©Sermon, P., McAndrew, C., Janu, S.

### 3x4 Research Project

This next iteration of 3x4 contributed to the UnBox Festival in Delhi, 12 to 14 December 2014. [8] Using a live telematic videoconference connection, the installation functioned between two geographically distant audiences located in separate 3x4 metre blue-box room installations

at Khoj International Artists Association in Delhi and Southbank Centre, London. The audience groups in these two blue-box spaces were captured on camera and brought together through a system of live chroma-keying (see fig. 2) and were placed onto a computer-generated background image. The complete composited image was then displayed simultaneously on large LCD video screens in both locations. As the merged audiences started to explore this shared telepresent space they encountered the digital background environment they now both coexisted within. These background scenes were co-created by online participants in London, Delhi and across the globe via a 3x4 project web portal and shared Google drive. [9] By uploading an image or downloading other people’s contributions and using elements of them in their own, they created the environments displayed within these rooms, whatever they imagine that to be, directly referencing their combined social setting, ranging from informal settlement dwellings and Delhi environments to contemporary compact interior designs, micro living solutions and virtual worlds; asking what does a co-created 3x4 metre London/Delhi living space look like? In addition to occupying digital 3D models and photographed living spaces audiences were provided with chroma-key blue fabric and invited to bring objects and props into the 3x4 room to further explore their telepresent coexistence in this new *metaspace* platform.

The 3x4 installation in Delhi was located in Khirkee urban village at Khoj International Artists Association and opened directly onto a busy street (see fig. 3) within reach of a broad audience demographic, providing equal access to all local community participants, ranging from the inhabitants of informal settlements and urban villages to residential home owners and commercial businesses. The connected 3x4 installation at Southbank Centre London was equally situated in a public space, located in Festival Village at street level it also encountered a broad cross-section of public that inhabit and pass through the space daily. Spanning five time zones, the installation was connected six hours a day from 10.00am to 4.00pm in London and 3.30pm to 9.30pm in Delhi, combining two cities not just spatially but temporally, from the start of one person’s day to the end of another’s. The opportunity for the audience participants in Delhi to decorate and customise the interior of their 3x4 space played a pivotal role within the installation. Items of furniture, domestic objects and a means of self-construction were introduced and made available to explore how subjective design interventions influence the user experience and their creation of multidimensional spaces.

The networked convergence of these two physical 3x4 metre structures and their urban locations allowed these diverse public audiences the opportunity to explore networked spaces as new mixed-reality hybrid environments. It made it possible to experience, not only the presence of geographically distant participants, but also

a sense of coexistence with them. Using the embodied platform of open interaction as an alternative networked communications protocol, enabled them to define the context and narrative of what followed. Both audiences responded enthusiastically through their interactions with the installation, particularly in Delhi, with over 500 participants and return visits over three days the intervention made a significant and memorable impact on the community.



Figure 3. 3x4 at Khoj Studios, Khirkee village, Delhi. Dec 2014. ©Sermon, P., McAndrew, C., Janu, S., Muthuramalingam, V.

Through the design of 3x4, its methods of connection and representation, the layering of London over New Delhi provided comment on the domination of the global north and rising of the global south. And yet, the co-creation of built and imagined landscapes offered opportunity to redefine collective futures, a critical visual commentary on living spaces, racial segregation, informality, underground culture and contemplative fantasies. Occupying a part-demolished building via 3x4, took the matters of informalising architecture, contested space and merciless destruction to a global audience (see fig. 4). Not just imaginings, 3x4 also morphed into a playground of spontaneous and undirected play. Children, for whom the street and the objects it contain form a recreational landscape, shifted their space of play to this metaspaces. Using their bodies as an interface, they even shared a digital chair – emblematic perhaps, of this approaching inversion and shared digital future. 'Playing the city' it seems, can bring built and imagined spaces closer together, creating new typologies of architectural space that shape lived experience in novel ways.

### Play is in the eye of the beholder

3x4 is a temporal and spatial timecode; reduced to its ephemeral elements it consists of 18 hours of memories and reflections in the minds and collective recollections of those who participated in it, played out over three days on 12, 13 and 14 December 2014 from 10:00-16:00 GMT / 15:30-21:30 IST daily. Ultimately what remains as its

legacy is a story told in and between two cities consisting of human encounters and events that unfolded in a state of flux between London and Delhi. Whilst every effort was made to document this transitory happening through photographs and video footage the single most important recording was from the line out video feed (see fig. 4); the final composited or chroma-keyed image of the audience participants displayed within the installation itself. When watching this recording we are taking up the position of the persons within it; we are looking directly at the very same image that caused the effect we are now contemplating for ourselves.

From beginning to end, the entire recording represents a 1080-minute data stream upon which we can now study and apply our own minute-by-minute layer of metadata based on observations, reflections and analysis, as we look the participant in the eye through this 'two-way mirror' recording. This video contains memorable moments upon which we can now reflect, such as when a young boy in Delhi enters the space and initially waves to participants in London, staying for over an hour perfecting his interactions and gestures as he invents and plays new games. Or when three ladies in Delhi enter with two babies greeted by participants in London eager to hold and play with them, who appear to be memorized by this lacanian moment of realization as the babies stare into the screen (mirror) [10].



Figure 4. Video still from line out recording of interaction in 3x4 installation. Dec 2014. ©Sermon, P., McAndrew, C., Janu, S.

### Impact and Legacy

This public legacy represents a pathway to future cultural, social and economic impact that goes beyond its academic context, and has the opportunity to help shape the future cities of the global south. This legacy pathway draws on an analogy with other examples of significant research impact that have helped create the networked communities and technology industries of the United States west coast. This impact has resulted from the legacy of pioneering interactive media artworks and public interventions from the 1970s and 80s. Including seminal artworks such as *Hole-in-Space* by Kit Galloway and Sherrie Rabinowitz from 1980 [11] that linked live public

audiences in Los Angeles and New York, the *WELL* (Whole Earth 'Lectronic Link, 1985) network which was one of the earliest independent virtual communities based in San Francisco, [12] and pioneering projects such as *Send/Receive* by Liza Bear and Sharon Grace in 1977 involving public participation in some of the first interactive satellite art events. [13] These are among many examples of networked interventions and happenings that are often cited as the beginnings of the Internet and set a stage for the continued influence of the United States west coast today. In the same way, the 3x4 installation in Delhi and London aims to capture the collective imagination of its public audience to create its own legacy and similar level of impact albeit in relation to the inclusive needs of future cities in the global south.

In the context of informal settlements in megacities of the global south, the 3x4 installation provided many public participants with their first encounter of a networked platform. Through this unique engagement public audiences acquire new knowledge through their lived experiences that present a possible vision of a future city *metaspace*. These first time encounters and experiences can be used by the participants to influence future projects, define methods for using this new knowledge to inform themselves, who in turn tell their family, friends and colleagues of this new experience, motivating others to engage in similar experiences in future projects. The intention of this legacy is to inform a critical public community that impact on future network protocols appropriate to the needs and requirements of a future cities *metaspace*. At the same time it seeks to identify its relevance in the global north. The dialogue between Delhi and London is a critical pathway in connecting communities and contributing to dialogue on informality in the global south and its symbiotic relation to future cities in the global north.

The success of the 3x4 has led to the Southbank Centre London inviting the installation back for inclusion in Alchemy Festival from 15 to 25 May 2015 and Web We Want Festival from 28 to 31 May 2015, linking the Royal Festival Hall in London and India Habitat Centre in Delhi.

## Acknowledgements

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## Authors Biographies

Paul Sermon (<http://www.paulsermon.org>) is Professor of Visual Communication at the University of Brighton. He has worked for over twenty years as an active academic researcher and creative practitioner, primarily in the field of telematic arts. Having worked under the visionary cybernetic artist Professor Roy Ascott as an undergraduate Fine Art student, Paul Sermon went on to establish himself as a leading pioneer of interactive media art, winning the prestigious Prix Ars Electronica Golden Nica in Linz, Austria, shortly after completing his MFA at the University of Reading in 1991. An accolade that took Paul to Finland in the early 1990s to develop one of the most groundbreaking works of his career Telematic Dreaming in 1992.

Dr Claire McAndrew is a Research Associate and Chartered Psychologist (CPsychol) at the Institute for Environmental Design and Engineering, The Bartlett UCL's Faculty of the Built Environment. Combining social science insight with design-led thinking, she is interested in the possibilities of design and digital technologies to facilitate connections between people through urban space for transformative effect. Her research since 2008 has focused on the embedding of design interventions in public spaces to shape cognition and behavior in the contexts of human wellbeing, security and resilience, and future workplaces as they extend beyond buildings into the fabric of the city.