The Politics of Number

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Debatably considered one of Asia's and Mumbai's largest slums, Dharavi has for long been an integral part of the city's cultural memory and economic history. In recent years it has also become part of the city's international identity. With population densities and land prices that are some of the highest in the world, Mumbai is essentially an island operating in the absence of a clear, city-wide public housing policy. This makes Dharavi a complex urban condition that brings together land, money and people with several interdependent layers of political, economic, social and communal reality that are difficult to separate or isolate. Since the announcement of a redevelopment plan for Dharavi by the State Government of Maharashtra in 2004,[1] Mumbai has received research and design proposals from international and local organizations, academic institutions and architectural practices that span two very extreme reactions: one that wants to preserve the slums and their density as an independent urban condition; and another that wants the slums completely cleared because of their status as illegal occupations of state owned land.

Within this discourse, all attempts at documenting Dharavi for research and design have brought to the fore its state of *flux*, a condition that is reflected in its constantly altering geographical limits within the city and its ever-changing population count: oscillating between 600,000 to 1 million.[2] This state of flux is largely due to Dharavi's status as the preferred locus for migrant workers who relocate from all over the country to Mumbai. They often move in with families, living in structures that vary in size, height and building materials. Within the slums are small scale industries that include leather tanning, garment making, potteries and plastic recycling plants. Each of these industries have established spatial typologies that are essentially a response to overbearing social and space regulations. Against this intrinsic state of flux, the documentation of Dharavi is a static process that is repeatedly open to dispute.

The Dharavi Redevelopment Project (DRP) is a set of development guidelines that were determined by a state appointed architect [3] for the state government. The establishment and evolution of these guidelines has led to an urgent demand for documentation in the form of surveys, maps, recorded statistics and future projections that are constantly being verified, revised and updated to accommodate the transience, making architecture's engagement with Dharavi a tryst with numbers and accuracy operating apart from any design narrative.

This essay understands Dharavi as emblematic of similar urban conditions around the world that are in a constant state of transience, where a grid of finitude and measurability is achieved through the regulated criteria of data and its apparent layer of permanence. In the case of Dharavi, any kind of intervention into its many complex and heterogeneous realities leads to an eventual confrontation with its state of flux. In reaction, the collection and organization of data generates datum and constants that connect the disparities and more importantly, ultimately control the resultant responses. This is apparent with Dharavi's census numbers: when faced with the challenge of counting the exact number of households in the Dharavi slums, the government had to first determine who exactly qualified as a 'permanent' citizen of Dharavi, permanent enough to warrant a newly reallocated flat in the redevelopment.[4] To resolve this issue, the year 1995 was established as a datum;[5] if you lived in Dharavi any time before the year 1995 you are considered a *bona fide* resident. This cut-off year has since been much-debated, its arbitrariness an issue of dispute. Similarly, the size of the reallocated flat was decided to be an area of 300 square feet, a number that stems from predefined codes set up by the Slum Redevelopment Authority of Mumbai.[6] 300 square feet is the size of every new flat irrespective of existing occupied areas. This numerical determination has again been disputed given the organic nature of the current live-work areas.

Here, numbers such as 1995 and 300 are raw data that are instrumentalized and contextualized through external representational modes[7] to be converted into information that is considered objective; a process that is as questionable as data's enunciation, collection and representation at its core involves some form of subjectivity and interpretation. This objective data is then spatialized in time and projected into the future offering a sense of predictability. Predictability allows data to be organized around a language of cause and effect that once again asserts itself through charts, tables, maps and diagrams.

The census data and square feet areas are a part of a large collection of data on Dharavi that is encapsulated in the DRP. The DRP has been envisioned by the state government as the operational base, the official voice, a kind of brief for all subsequent proposals. This state organized, data-heavy document sets the initial context for Dharavi by delimiting the project with a grid of arbitrary square feet areas that have since defined and controlled the comprehension, constraints and design of the project. The DRP is developed on the idea of a *tabula rasa*, a position that does not negotiate the complexity of the existing, but rather requires complete erasure. It breaks Dharavi into 5 sectors that are products of existing, unplanned road patterns, with no relation to cultural or economical definitions.[8] Within the 5 sectors, less than half of each of the pieces of land would be used for rehabilitation, with the rest set aside for market sale construction by developers. The rehabilitation would comprise the repetition of a single standard residential high rise typology with a three-story podium as the solution to the entire site, each flat measuring the pre-defined number: 300 square feet.

The numbers in the DRP offer precision and measurability by complying with a regulative ideal or a normative standard that is often defined and controlled by an *expert system*. The expert system, as defined by Anthony Giddens in his *The Consequences of Modernity,* is a 'system of technical accomplishment or professional expertise that organize[s] large areas of the material and social environments in which we live today.'[9] Dharavi's expert systems are the centralized state government and its allied agencies, all of which wield tremendous influence on information and its dissemination. They take abstract data, contextualise it through seemingly objective modes of representation – census charts, square footage codes and future projections – to comply with established normative standards, and then release the transformed data into society as a mode of organization and knowledge. For example, the differing population numbers cited by governmental agencies and nonprofit organizations led to the state government's new survey of Dharavi households, this time using *GIS based biometric data.*[10] Here, the abstract data is distinct and specific based on the expert system and its mode of collection, contextualization and representation.

Dharavi's redevelopment has been 'in work' for a decade and is still being disputed for its details by all the groups involved: the state government, the city, its Slum Redevelopment Authority, developers, volunteer and non-governmental organizations and the people who live in the slums. As the city of Mumbai does not contribute operating capital towards Dharavi, the project is motivated by economic factors above all others. The census data, the square footage of new flats, the square feet area of the sectors and the resultant number of towers – these are all abstract numbers that have become tools for measuring the economic success and validity of the project.

Dharavi is symbolic of architecture's problematic engagement with a complex, global urban condition that is inherently volatile and heterogeneous. Here, in the absence of a larger architectural narrative that could connect all the disparate layers of realities and smaller narratives of opportunity through the insight and innovation of design, there is a reliance on numerical data as the agent of connection. Numbers combine the disparate procedures of design and construction operating from a place that is assumed to be firmly located within regulated 'real world' contingencies. As a project that has been the center of all discussions on Mumbai, Dharavi deals with the key urban issue of housing and it cannot avoid numbers. However in the case of Dharavi, the various agencies involved use numbers as a way to project selective realism, homogenized universal responses and collective desires and risks. This is symptomatic of architecture's apparent inability to reflect urban organicism and flux without falling into the trap of data, its verification and amendment, inadvertently burying itself under an excess of empirical knowledge without a larger purpose.

Notes

1 See 'Dharavi.organic,' last modified February 24, 2009, http://www.dharavi.org/B._Introduction.

The latest plan to redevelop Dharavi was elaborated a decade ago by US-based architect and consultant Mukesh Mehta and approved by the state government of Maharashtra in 2004

2 'Life in a Slum,' *BBC News*, accessed March 5, 2010, http://news.bbc.co.uk/2/shared/spl/hi/world/06/dharavi_slum/html/dharavi_slum_intro.stm.

3 *Ibid*, 'Dharvi.organic'.

4 The Dharavi Redevelopment promised new apartmentsfor the existing dwellers in return for the land they occupy.

5 See Meena Menon, 'Supreme Court Order Cheers Dharavi Residents,' *The Hindu*, June 4, 2008 accessed December 4, 2011, http://www.dharavi.org/F._Press/B.2008/E.2008.06.04%3A_Supreme_Court_order_cheers_Dharavi_residents.

6 *Ibid.*

7 External representation modes refers to processes of representation like charts and diagrams that situate, compare and organize data into a language of cause and effect.

8 *Ibid*, 'Dharvi.organic'.

9 Anthony Giddens, *The Consequences of Modernity* (Palo Alto: Stanford University Press, 1971), 27.

10 'Dharavi's Real Estate Threat,' India Environment Portal, accessed November 25, 2011, http://www.indiaenvironmentportal.org.in/node/25536.

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Deepa Ramaswamy is an architect from Mumbai currently based in Chicago. She recently completed her MA in Histories and Theories from the Architectural Association in London. Her research interests stem from examining architecture's modes of production and representation, especially when they are determined by processes that organize and classify statistics to shape the perception and comprehension of the city. Deepa has taken part in design studios in Mumbai and Chicago. Beginning in the spring of 2012, she will be a PhD candidate in the History and Theory of Architecture at MIT.