

Work produced for
AUDI URBAN FUTURE INITIATIVES, 2012
CURATED BY STYLEPARK

discussing MUMBAI'S FUTURE MOBILITY

CRIT Oct,2012

- 1. on mumbai
- 2. on futures

5. tools and possibilities

4. on approaching mumbai's future mobility

3. on mobility

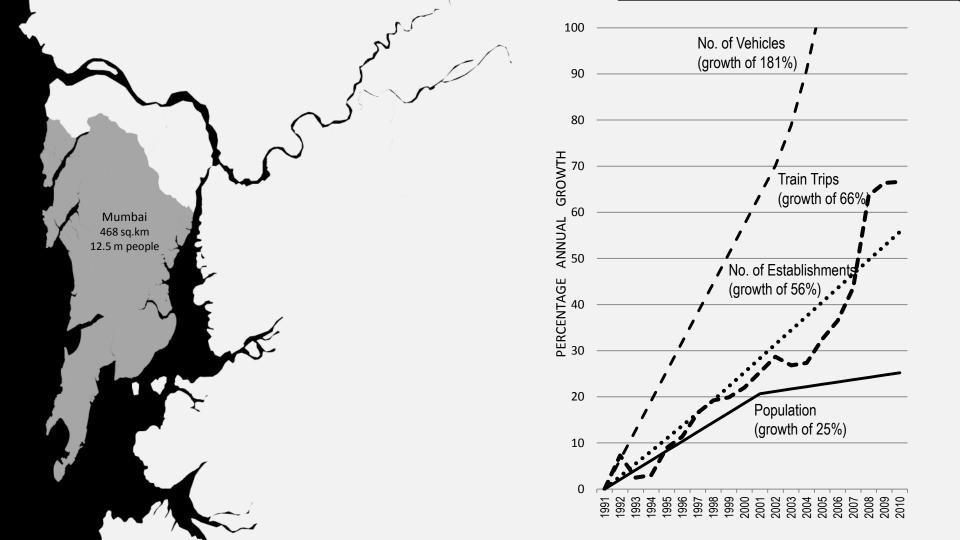
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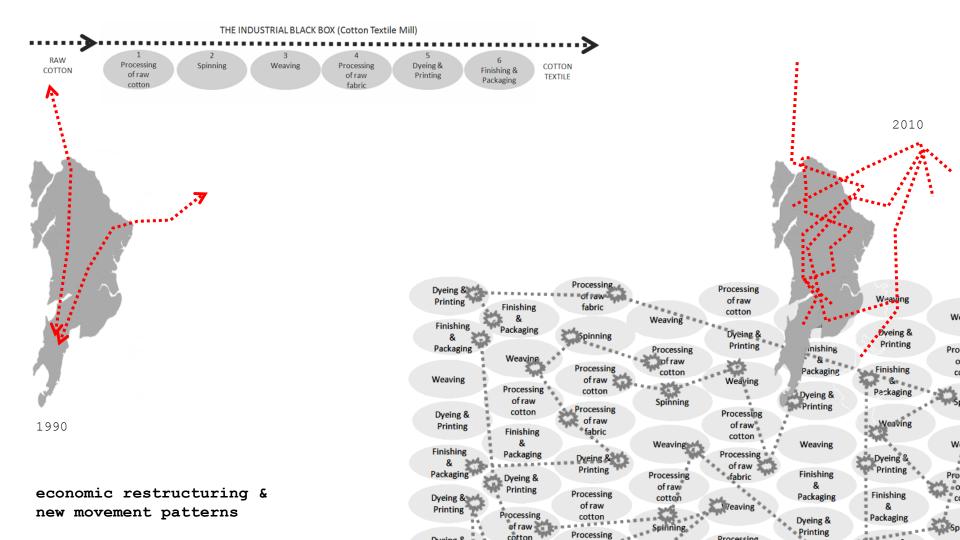
MUMBAI

Mumbai is considered to be the financial capital of India contributing 33% to the total income tax collection. 40% of the total foreign trade takes place from here.

Since the past two decades, Mumbai's population has been growing much lesser than the national population growth. However, while the population in Mumbai grew by 25% between 1991 and 2010, the number of people traveling by trains during the same years increased by 66% and number of vehicles grew by 181%. At the same time, the number of enterprises in the city increased by 56%.

All of this indicates a restructuring of the economy, where nature of work and movement has changed.







An Amway Agent's House with a variety of goods for selling



A vendor with exotic vegetables and fruits



A health parlor in a site and services scheme



An interior design work in a middleclass house



A Specialized Stationary Provider for architects



An Ayurvedic Dentist in Kalbadevi



A Computer Peripherals Shop in Lamington Road



A Chai-vendor in Juhu

new patterns of work emerged as the new entrepreneurs struggled to survive and settle. they occupied varied locations and blurred the distinction between formality and informality; legality and illegality as all of them produced legitimate commodities and services.

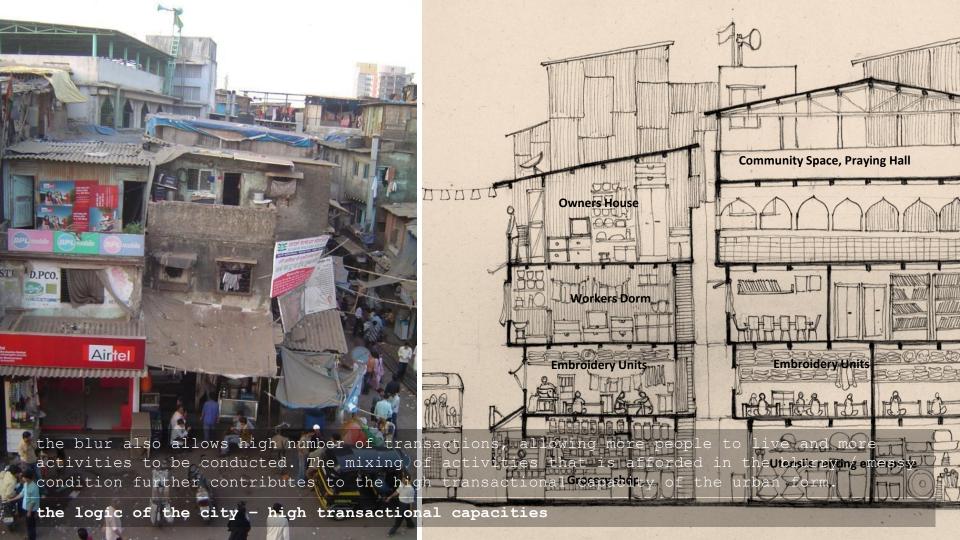
new patterns of work & living





in many cases, the actual boundary between the built-form and the street mutates to form the blur. this blur is the urban form of the city - emerging from the logics of production, work, living and movement. along with the street edges, the entrepreneurs also occupy other awkward spaces - claimed through a variety of tenures.

the logic of the city - complicated occupancies & mutating boundaries





in mumbai, spaces and forms blur allowing for high transactions between them this blur forms the logic of the city

2.

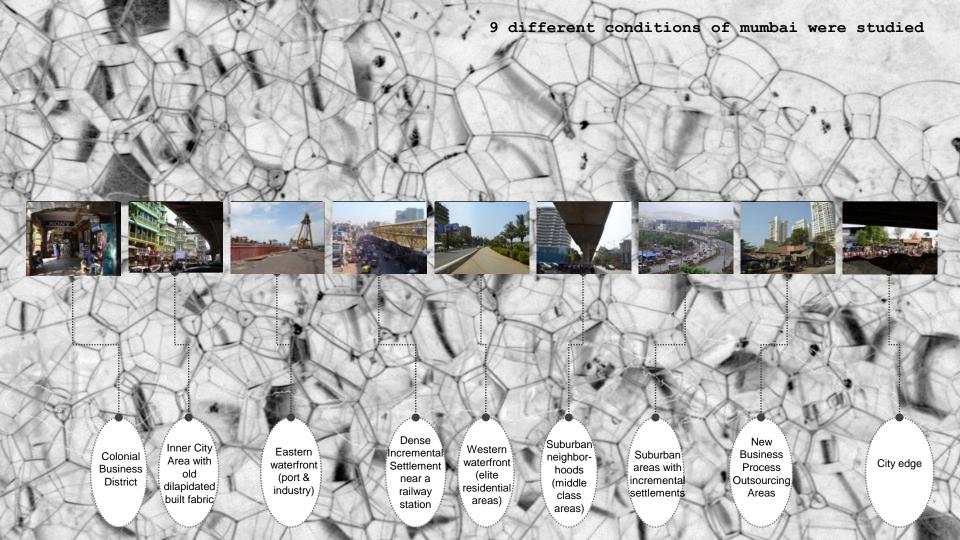
FUTURE

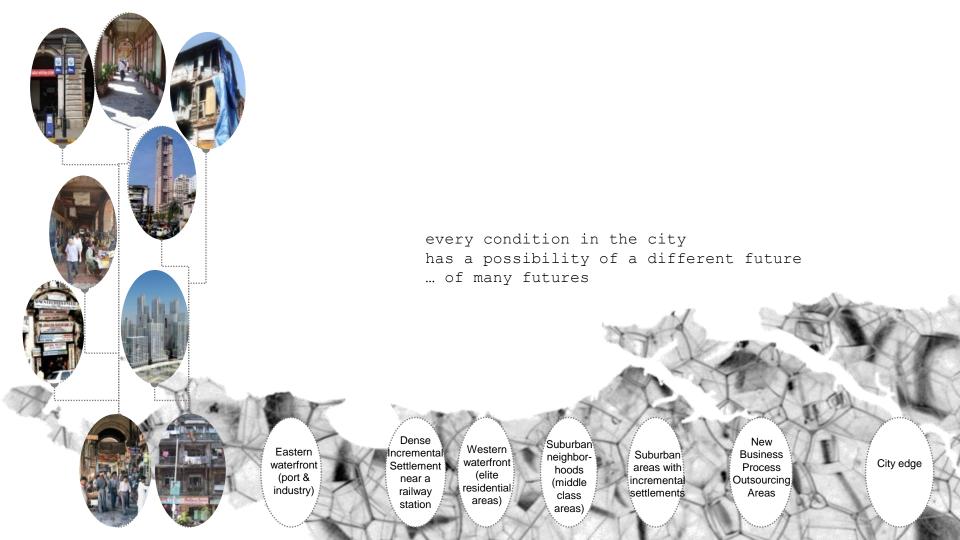
Ideas about future cities have been dominated by two imaginations: first, of a utopian coherence unified by robust information systems and coordinated by super infrastructure; and second, a city engendered by catastrophes of environment, poverty, and deterioration.

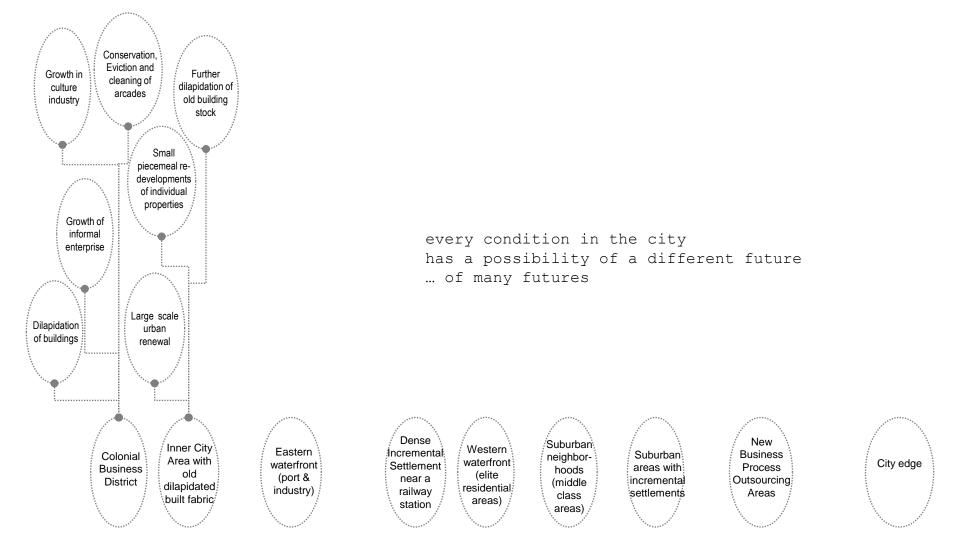
Inherent in these imaginations of coherence and catastrophes, is the idea of time as a singular linear rhythm, of space as an entity with fixed coordinates and of people as

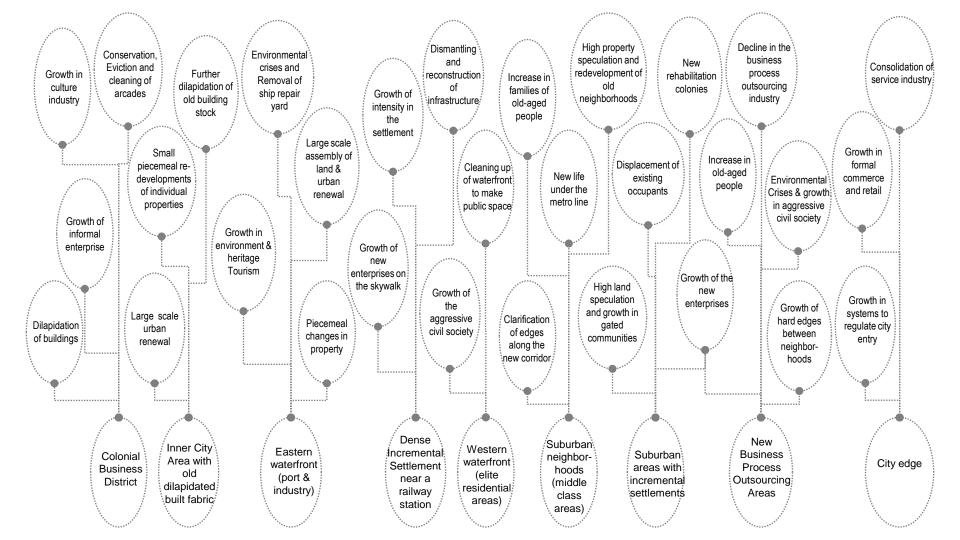
homogenous and inert mass.

The city, on the contrary, multiplies time(s), blurs boundaries, mixes categories, provides platforms, builds connections, and opens up probabilities to transact - creating possibilities for divergent future trajectories. To talk of "a" future for cities, be it utopian or dystopian, forecloses the possibilities that cities open.

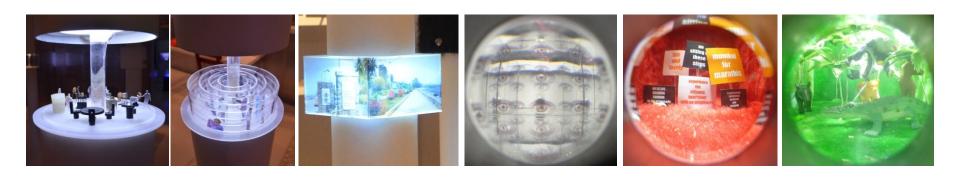




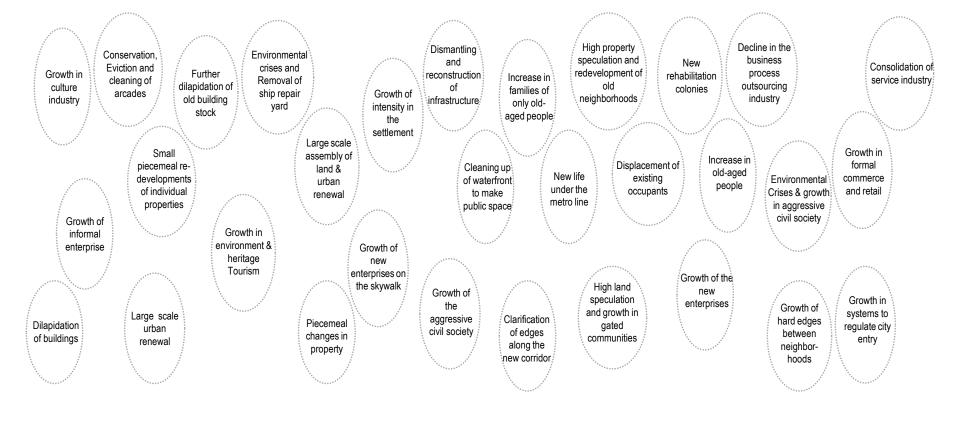




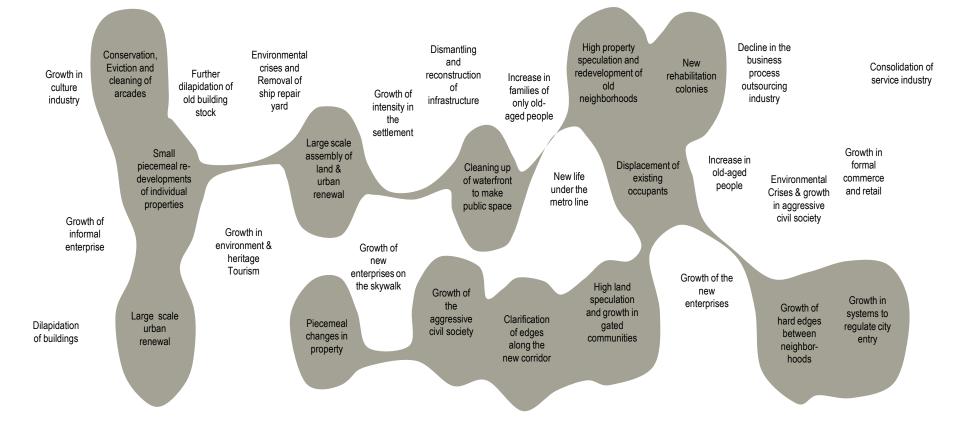




project is imag		imagining	' a '	future	as	there	could	be	many	futures	depending	on



however, patterns emerge from these, from which the trajectories of the future could be drawn



1. trajectory of high polarization - social and physical edges between communities will harden reducing the transactional capacity of the urban form. this is detrimental to the logic of the city

Resources

Social & physical infrastructure, space, etc.

Transactional Capacities networks, transactions, livelihoods, cultural settling, security, accommodation of diversity, etc.

Degree of Blur



Skyscraping Apartments



Apartment Blocks



Old Labor Housing



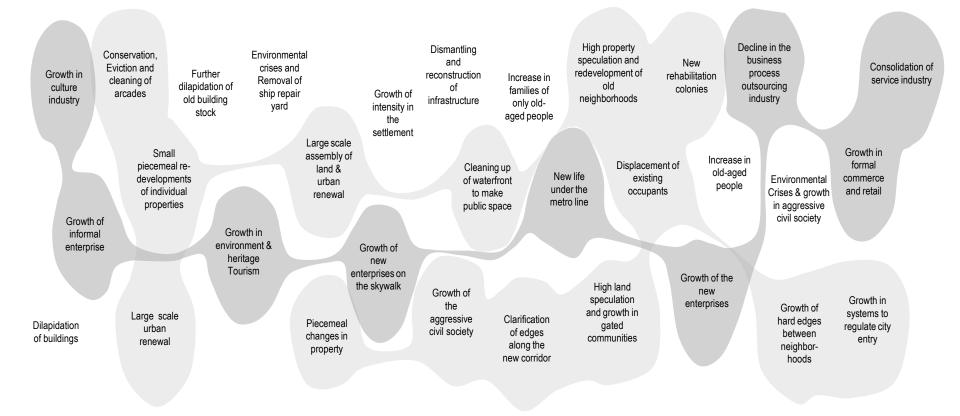
Dilapidated Bazaar Housing



Incremental Settlements



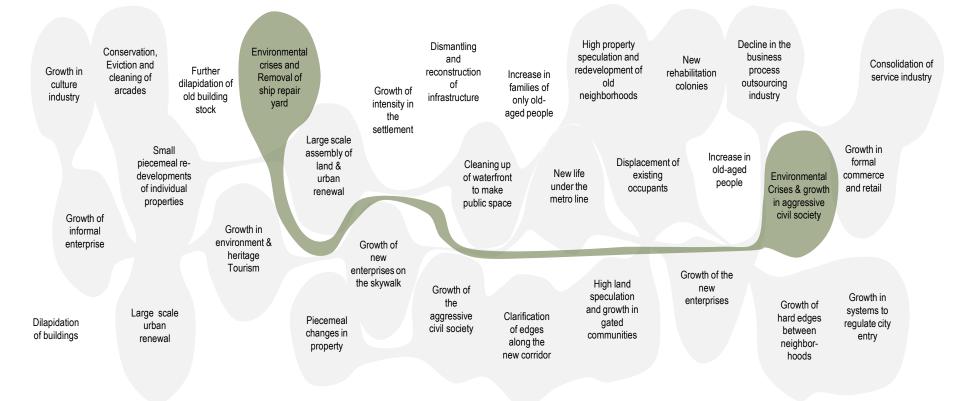




2. trajectory of economic restructuring - older economic generators of commerce, finance & business process outsourcing will decline and new enterprises related to culture, environment and old age will emerge

ECONOMY	Agrarian	Mercantile/ Administration	Industrial / Administration	Finance, Commerce, Retail / Administration	Culture, Environment, Health, Old Age / Administration	
REASONS FOR SHIFT	1.Establishi Port 2.Establishi Govt. HQ 3.Encourag Trade	ment of Develop 2.Demand textile (N & Intern	ments for National ational) cture of proc growth entrep 2.Liberal 3.Discou	need for proximity need for proximity need for proximity 2. New national / int businesses from N agement 3. The competitive a	developments will reduce the in conducting business ernational locations will displace lumbai dvantage of the city are its mental assets, film industry,	
	Pastoral Landscapes	Trade Nodes, Dense	Smoke Stack			
URBAN FORM	with incremental settlements of farmers & fisher folk	Inner Cities with markets, guesthouses,	Landscapes, industries, worker housing, incremental settlements	Commercial Blocks, redevelopment of	Urban renewals, resettlement colonies, conservation, gated communities	
MAIN ECONOMIC ACTORS	Farmers, feudal Merchants, colonial lords government		Workers, industrialists, government	Corporates, Entrepreneurs & Agents	Culture Workers, Environmentalists, Senior Citizens, Health Workers	
	Pre 1650s	1650s to 1850s	1850s t0 1980s	1990s to 2020s	2020 onwards	

changing economy of Mumbai



3. trajectory of intensification of environmental concerns

THE TIMES OF INDIA Mumbai

Mumbai records hottest March day in 55 years

Pratibha Masand, TNN Mar 17, 2011, 06,16am IST

MUMBAI: The city experienced its second-hottest March day ever on Wednesday, when the mercury soared to 41.6 degrees Celsius in Colaba. Experts called the hot, dry weather a "new phenomenon" in the city.

It was the hottest day of March in 55 years, with the previous high-also the all-time high-coming on March 28, 1956 when the temperature was 41.7 degrees Celsius.





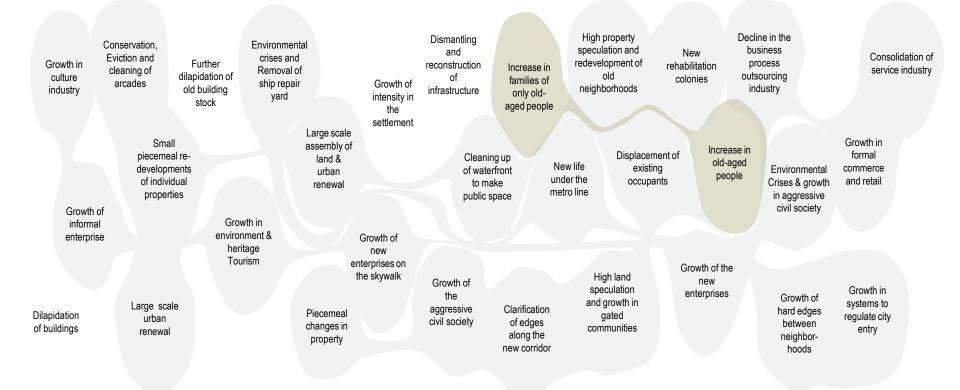




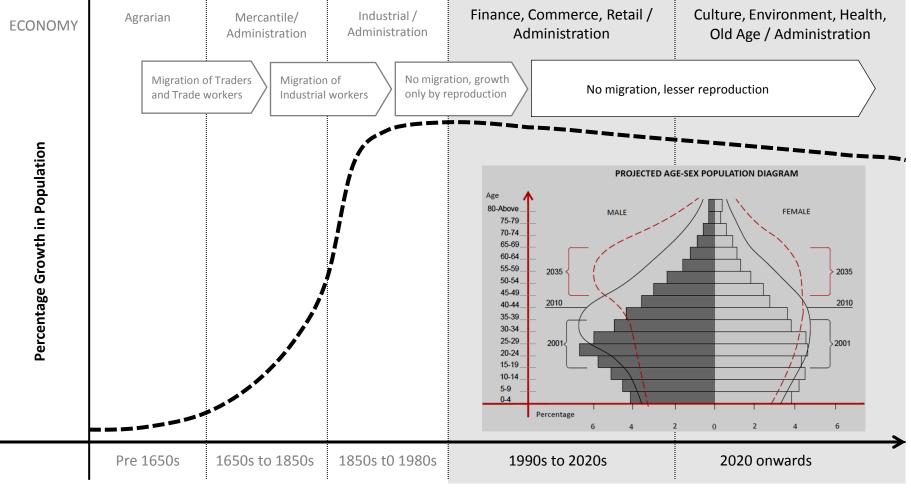




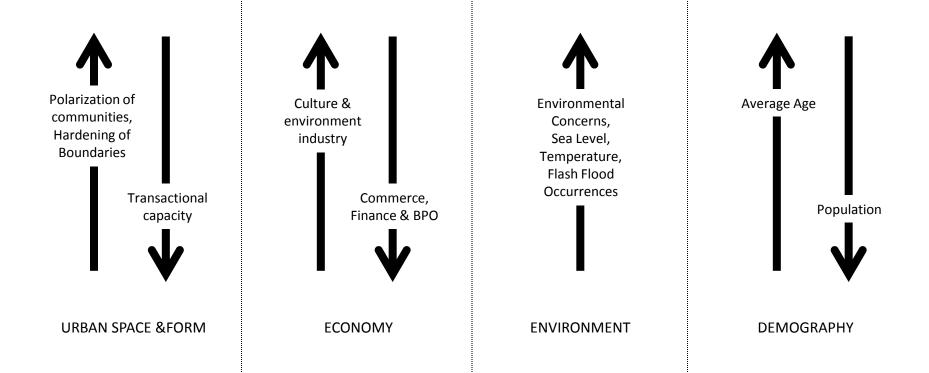




4. trajectory of higher average age of people - city of the old



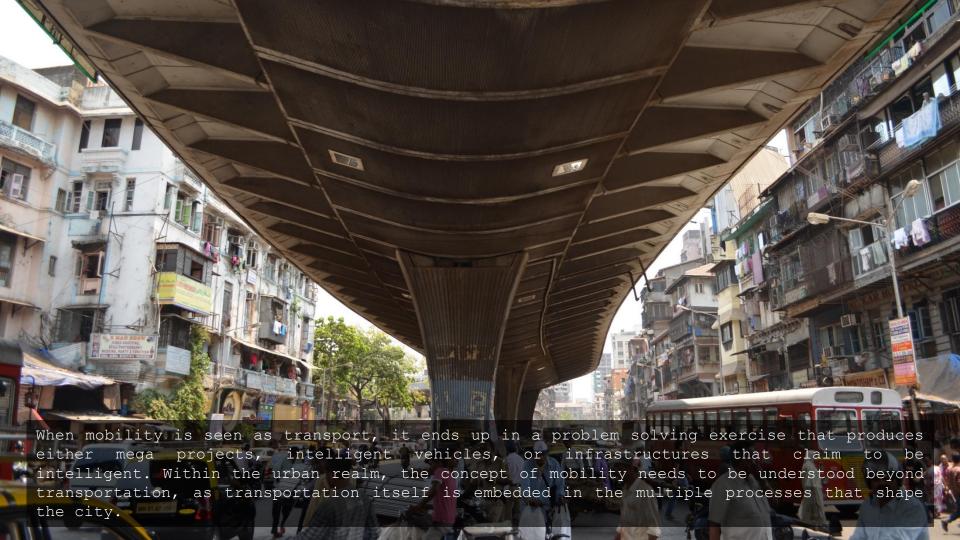
changing demography of Mumbai

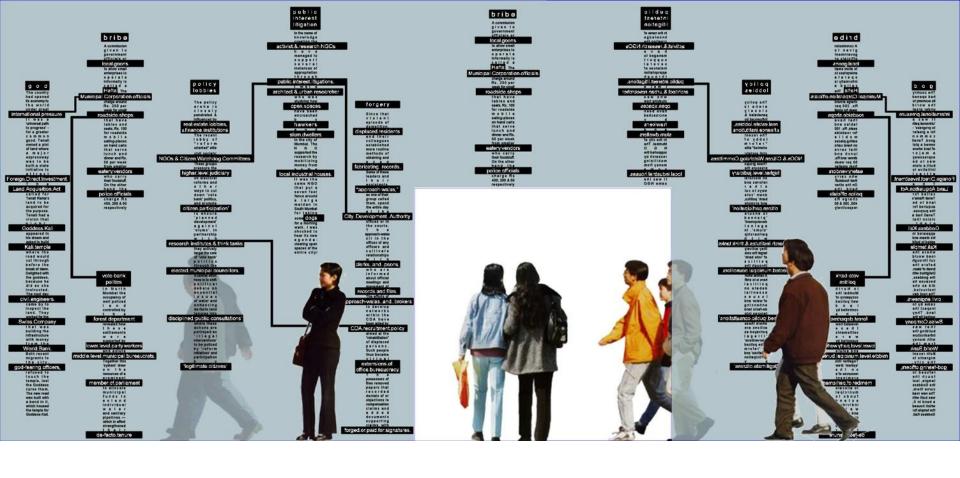


the trajectories for mumbai's future

3.

MOBILITY

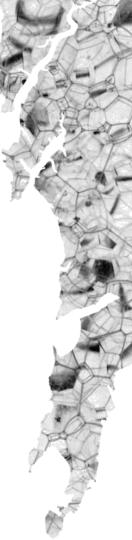




mumbai's urbanism is like a froth with overlapping ecosystems of geographies, legislations, claims, powers, kinships, friendships & information

For CRIT, mobility is a twofold concept. First, it involves the different kinds of movements that are brought about by urban transformations today. These include access, migration, gentrification, class movement, etc.

And second, mobility or to mobilize is the ability to navigate the complex urban ecosystem of geographies, legislations, claims, powers, relationships and information to construct one's path for the future amidst these movements.



4.
approaching
MUMBAI'S FUTURE MOBILITY

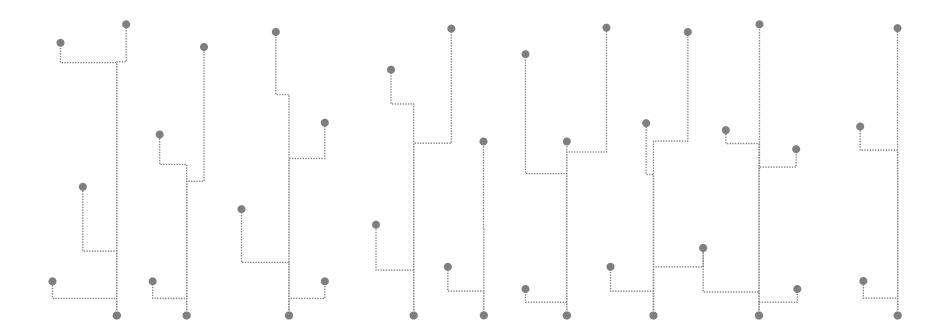
In the past two decades, Mumbai has seen some of the most innovative policies, institutional arrangements and projects planned to produce efficient and equitable urban systems for an intelligible future. Large-scale infrastructure projects, cross-subsidization of housing, geographical and demographic information systems and new urban (re)development policies, are being put in place.

But Mumbai, like any city, is a composite body, where spaces, identities, and forms constantly blur. Here, no form of policy, governance structure, or infrastructure can provide a platform for different groups to pursue their aspirations equally. Rather, they unsettle the city; create new ruffles, new possibilities, new actors, and new relationships. But the act of blurring creates interstices with high transactional capacities. It forms the logic through which the city opens for many to use and create their many futures.

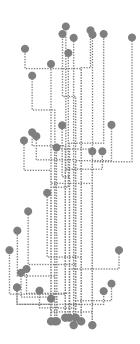


approaching the future with singular mega projects have created ruffles in the city that remain unsettled for a long time. as the city is highly connected, there are unseen implications of such large projects on large numbers of people for a long time.

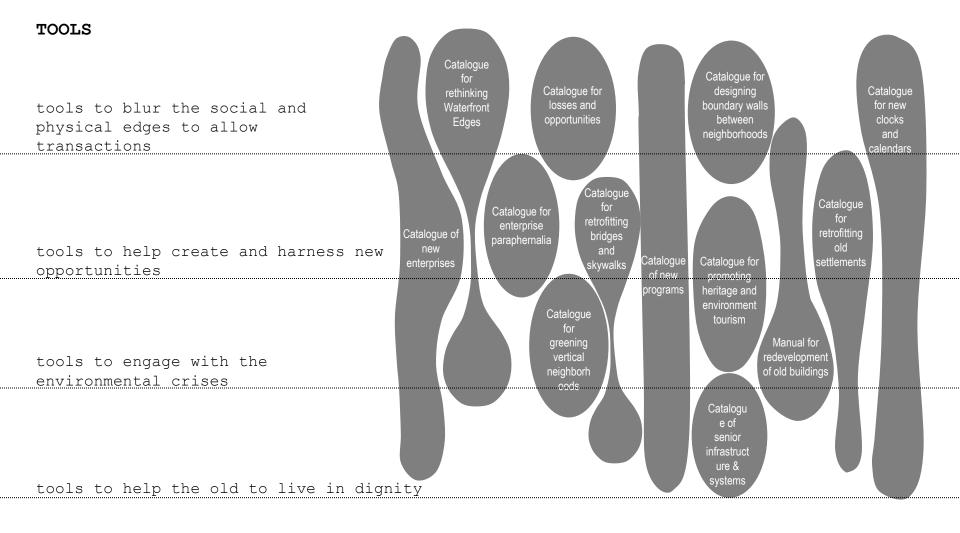




the project is not about imagining 'a' future. It focuses on the processes that are involved in imagining and making the future

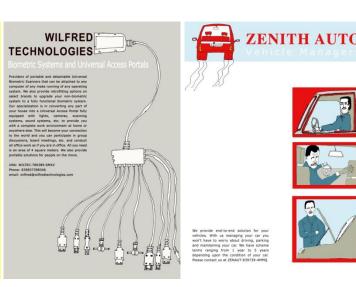


the project is not about aspiring for a utopia - but about devising **TOOLS** to engage with future trajectories - tools which different people can use to imagine and make their own futures

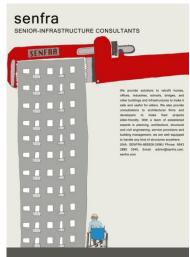


TOOLS AND POSSIBILITIES

enterprise 2030







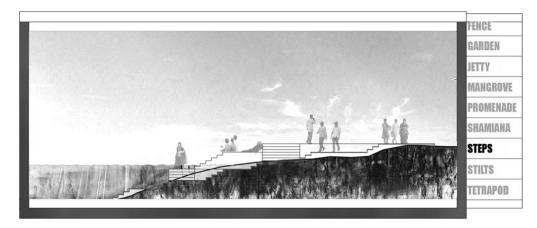
catalogue of new enterprises: the changes in the economy, environment, demography and intensified polarities will create a context for new entrepreneurships. this catalogue is a compilation of such enterprises.

POSSIBILITIES



dahisar checknaka: this proposal uses the catalogue of new entrepreneurship to explore possibilities of intervening in highly securitised areas of the city, where agents are developed to facilitate transactions across the boundaries.

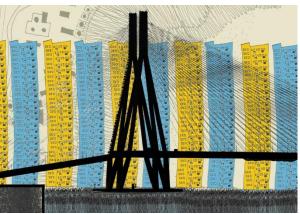


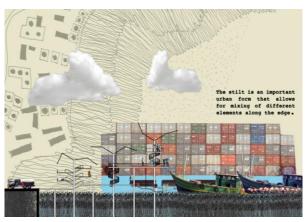


catalogue for retrofitting waterfront edges: in 2030 edges between water and land will be highly contested by interests wanting to use them for leisure, work and real-estate. This catalogue provides alternative architectural possibilities where multiple claims and activities could co-exist

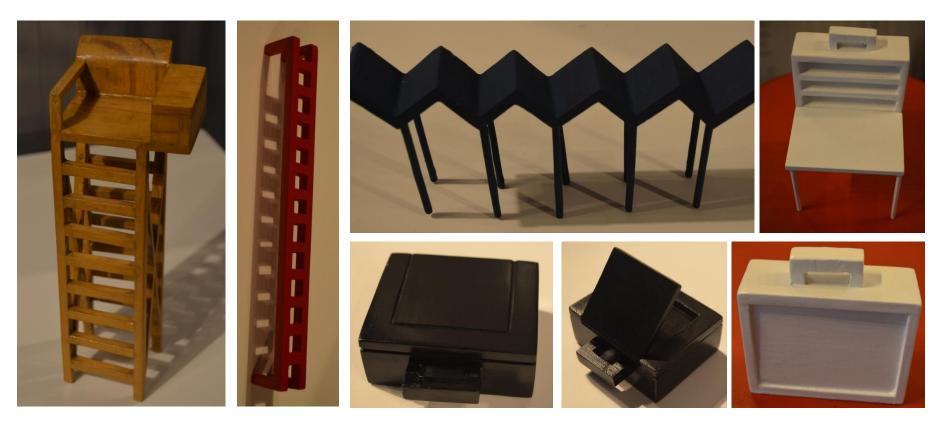
POSSIBILITIES



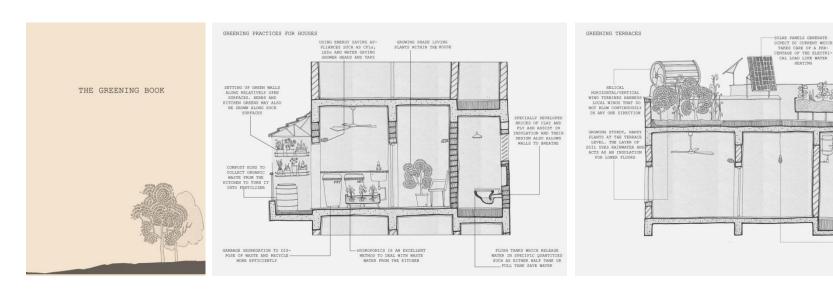




mumbai trans harbor link: this proposal uses the catalogue for waterfront edges, particularly the architectural strategy of the stilt, along the eastern waterfront of Mumbai. This strategy preserves the sensitive coastal ecology, provides space for work environments, and simultaneously allows for the growth of environmental tourism industry (bird watching). In doing so, it resists the speculation spurred by the proposal of the trans harbor link.



catalogue for enterprise paraphernalia - (from left to right and clock wise) - astrologer's high chair, painter's ladder cum bench, booksellers' reading section, suitcase shop that doubles as a seat, suit case shop that opens as a stand-alone shop



catalogue for greening vertical neighborhoods: in 2030, environment will be central to discussion on urban crises generating a context for greening vertical blocks. this manual is designed to convert high resource consuming apartments into green blocks.

CERTAIN VEGETABLE CROPS

CAN ALSO GROW AT THE

TERRACE LEVEL. THESE

MAY EITHER GROW IN SOIL

OR IN HYDROPONIC TUBE

SYSTEMS

THE TERRACE ACTS AS A

LARGE CATCHMENT SUR-

FACE FOR STORMWATER

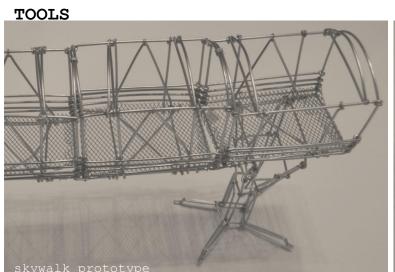
BUNGER WHICH CAN BE

HARVESTED EFFICIENTLY

AND STORED FOR DOMES-TIC PURPOSES IN

UNDERGROUND TANKS

ENERGY GENERATED THROUGH SUCH ALTERNA-TIVE MEANS CAN BE USED TO RUN LESS HEAVY APPLIANCES LIKE LIGHTS, FANS AND WATER HEATERS



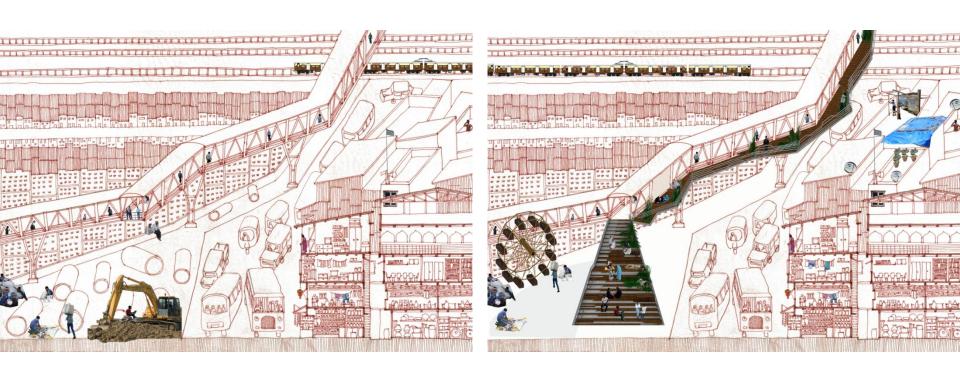




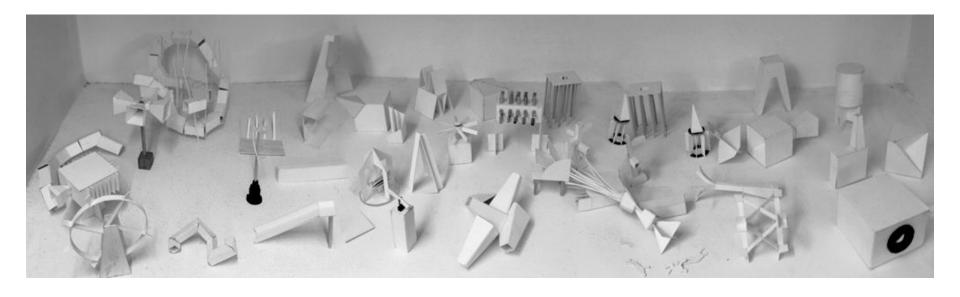


catalogue for retrofitting skywalks: mega projects often provide opportunities to accommodate activities other than transportation. This catalogue explores the possibilities of retrofitting skywalks to accommodate such new activities.

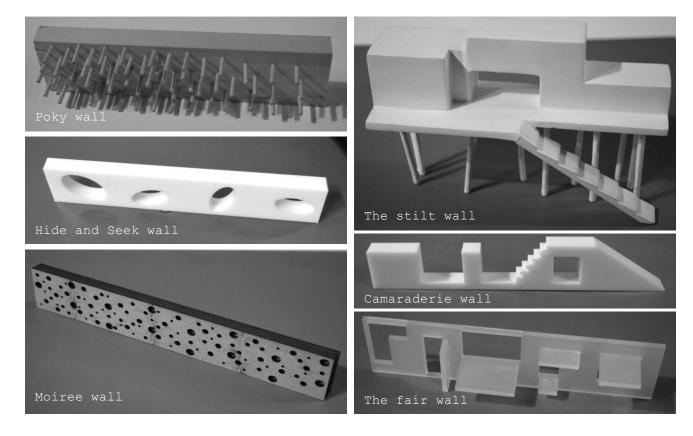
POSSIBILITIES



bandra skywalk - this proposal uses the catalogue for retrofitting old infrastructure to modify an existing skywalk. here the skywalk is re-imagined as a sky-garden and sky-lounge creating the much needed public space for the dense nearby slum.



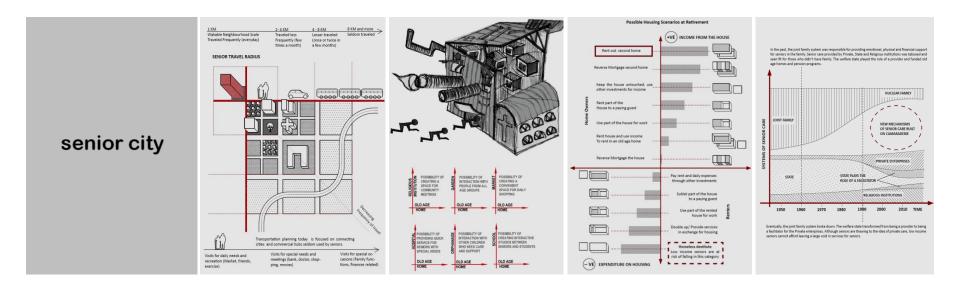
catalogue for new programmes: as mumbai's economy, environment, and demography will change to create a landscape of high polarization, newer programmes will have to emerge to manage the ruffles created by these changes for the city to readjust itself. this is a catalogue of such programmes.



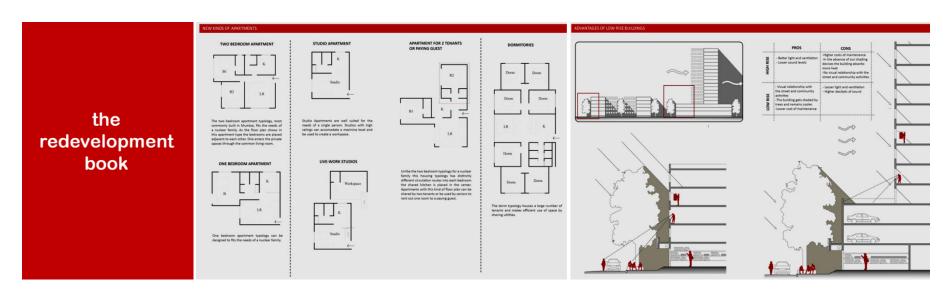
catalogue for designing boundary walls between neighborhoods: in an urban landscape where ambiguities of space, claims, and edges, which hold multiple activities and high transactional capacities have been clarified this catalogue offers possibilities to reshape boundary walls to increase transactional capacities



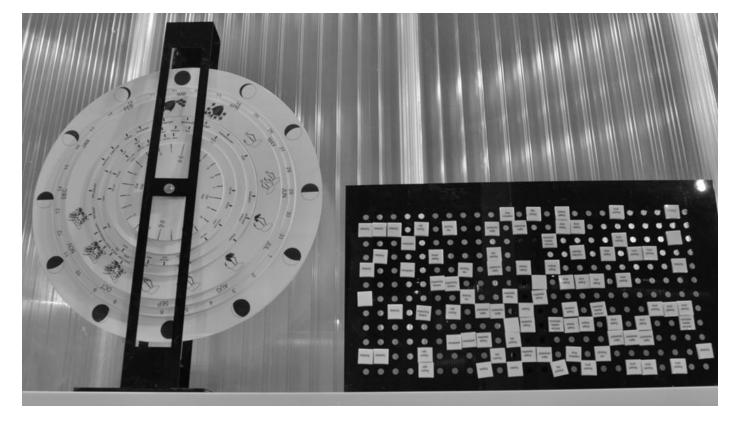
bombay bio diversity guide: this is a catalogue for promoting environmental tourism. a heightened sense of environmental crises and acute environmental stresses alongside the presence of a rich biodiversity in Mumbai provides an opportunity for proliferation of environment related enterprises. This book is a guide book to the various biodiversity-rich sites in Mumbai



senior city: this is a catalogue for developing senior infrastructure and systems. in 2030, mumbai will have many more old people. this catalogue is a compilation of new possible institutions, programmes, enterprises, infrastructure and systems that respond to the city of the old.

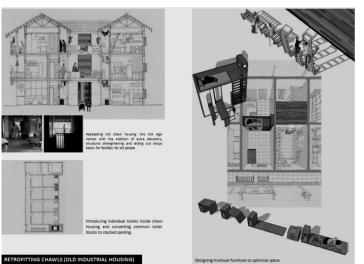


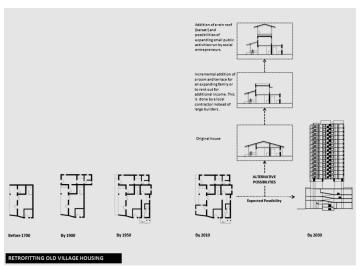
manual for redevelopment of old buildings: mumbai will be a site for constant redevelopment of old buildings. however, such redevelopments tend to be insensitive to local cultures and environmental aspects forcing the older occupants out. this manual is designed for the old occupants as a checklist of things that they should ensure while redeveloping their properties so that they are not forced out of the new developments.



timescapes - these are clocks to map city rhythms. a. polyrhythmic clock - to understand relations between different urban elements along the eastern waterfront of mumbai - tidal movements, lunar phases, daily lives, festivals, etc. b. activity clock - to map the time of streets at a typical transit node of mumbai. it shows the change in density and nature of activities (transactions) with respect to the transit node.







catalogue for retrofitting old settlements: in a context of large scale urban redevelopment and renewal the existing occupants of inner cities, slums and old buildings are threatened and often displaced. this catalogue discusses many ways in which such older settlements could be retrofitted.

POSSIBILITIES





mohammad ali road - this proposal uses the catalogue for retrofitting old settlements to develop a skin of staircases. these staircases provide not only infrastructural support and fire escapes to the dilapidated buildings, but also provide spaces to house new enterprises and everyday life.

POSSIBILITIES

METRO-CONNECT.

12 JANUARY 2032, MUMBAI CONNECT OF THE DAILY POLITICAL, SUPPLEMENT OF THE DAI

FASI: LIGHT AT THE END OF THE TUNNEL?



Landmark Building before it was covered in hoardings. Photograph taken by Farhin Baig, August 2012, Source: Daily Political Archives.

policy allowing hoardings on residential buildings, it is finally Authority had this to say about our question, 'I think it is a good introducing clauses in the policy to help regulate the rampant use development. No doubt, groups like Ad-Free Metro and GAS of hoardings that have become a menace to the housing societies; (Ghatkopar Air Society) prefer to have them (hoardings) especially tiresome for the residents who live on the same level as completely taken out. But this is impracticable (sic). We cannot the Metro. The Municipality is set to implement "FaSI," which, as compeltely remove them. We can, however, restrict them to the Supriya Dule of the AD-Free Mumbai campaign explains: "FaSI two floors that are on the same level as the metro. If you have stands for Facade Space Index, and it is very much the same as noticed, these levels are anyway no longer strictly residential. Floor Space Index, what we call FSI. So there will be a regulation More business is coming in as the street has moved from the on the area of the facade that can be used for advertising. This will bottom to the top. We have to take this patterns (sic) into mean that ads will mostly be restricted to the first floor of all consideration." housing societies." But would this be good for us? This will What began as a means to generate revenue many years ago has apartment complexes, but what about those who live on the same it create its own menace?

Nearly a decade after the BMC implemented the controversial Ms. Bhindiwala, an urban planner working with the Planning

definitely help bring in some light and ventilation into these become an urban menace. Will FaSI save these societies? Or will

LAXMI MITRA, METRO CONNECT

HAVE YOU INSTALLED RAIL-GUARD YET?



Unguarded construction site at Saki Naka. Photograph taken by Rukmini Sana.

Mumbailturs who live along the Metro Line have to deal with the risk of accidents and death on a daily basis. Only last week, two children were badly injured when they fell from the window of their home on to the train tracks. Fortunately, they were rescued in time by alect commuters waiting for the 3:30 PM local. There are several construction sites along the Metro corridor as the municipality is adding several new lines. The picture above shows an unguarded and open construction site in the Soki Naka area. This increases the danger of accidents and harm for the residents of the Metro corridor. The municipal engineers of our city have come up with an innovative solution for our urban problem.

While we may be confident of taking care of ourselves, it is our children and the elderly who are more susceptible to the dangers of posting trains, of the risk of injury from discarded objects and the constant stream of commuters. In 2024 alone, the BMC recorded 23 accidents on the Versova Andheri Chatkopur Corridor. Of these, 9 resulted in deaths, and 11 people were left paralysed and 2 had to have their limbs amputated. In light of this alasming statistic the government engineer have designed 'Rail-Guard,' an easy to

assemble, lightweight and flexible panel that attaches on to windows and doors of the buildings along the Metro. The municipality plans to distribute this at a subsidised cost to citizens. We spoke to Mr. Anees Ansar who is the chief designer for this novel product who said, 'I remember how excited I was when the Metro first started in the city, I went on a ride with my father and we used to go together to Ghatkopar every Sunday. It makes me proud to have designed something so useful to everyone. This punel has telescopic joints which means it can fit almost all sizes of doors and windows. It is not only uselful for those who live along the Metro but also for everyone else. My father was always sad to read about these daily accidents on the Metro. So I think if he were alive he would have told everyone to install this and provide a safe environment to their families."

DAILY COMMUTER, S MARCH 20

Let us hope that this cheap and easy to install panel replaces the risk and brings back the same excitement and joy to the metro.

David Ghose, Daily Commuter

THE DAILY (

THE FAC(AD)E PROBLEM

On Monday, the Municipal Corporation of Greater Regulation passed a new regulation that will allow housing societies to see facade space on their bruildings for advertising purposes. This new regulation is only applicable for residential spaces along the Metro Corridor. This controversial regulation comes in the wake of protests organized by housing societies demanding the right to rent advertizing space as a means to 'generate revenue'. Mr. D. Gambhir, the secretary of the VAG Ghar Sammelan (VAGGS) pointed out that commercial buildings along the metro corridor have been selling the space on their building facades ever since the Metro corridor was started seven years ago. He said 'It is high time that housing societies too get the right to earn money from such sources. Think about all the good that can be done with the money! We could upgrade our green spaces, install mechanical parking slots and increase the free space available to us. There are many good things that we can do, why should only they (commercial buildings) profit?"

Many others do not agree with this point of view. Mr. Sant from the Ghatkopar Air Society (GAS) had this to say. We cannot expect to turn the places where we stay into revenue generating machines. The municipality has overlooked several problems this could create. Think about it, right now, this law allows us to cover our buildings with hoardings, but there is no clarity on the amount of area hoardings can be allowed to cover. This will lead to bad light and ventilation in the building. No one is talking

Mr. Sant's objections are echoed in the city's leading environmental forum. The municipality has instituted new policy without thinking about the environmental problems it is going to create for its residents, this is very typical of the present goverment which has passed several policies without drawing up a detailed environmental impact assesment report." We went to the municipality office and met with the Chief Engineer for the BMC, Mr. Deshpande who has been crucial to the implementation of the policy, 'You have to think of this new policy as a new window of opportunity for he city, not just housing societies. Think about all the good things people can do with the money, this will mean a reduction in building maintenance costs and we can also think of introducing a municipal tax that can then be used to make the city better. These organizations who are saving that we have not thought of the future are completely incorrect. We have thought of the future. That is why we

It appears that the citizens of the city, will just have to wait and watch. But for those who commute on the Metro everyday, their view is about to be significantly altered. ANU GARG. MUMBA! NEWS NETWORK

future archive - in the context of mega-infrastructures like the skywalk and metrobridges changing the landscape of the city, this is an archive of the future that foretells city transformations

imagined as one vision. it requires multiple engagements by many actors.
mobility is about navigating different ecosystems of the city to make one's own future.
this project conceptualizes the city's ecosystems, future trajectories and tools for such navigation. it is also about making tactical interventions to settle the ruffles created by mega projects

the future has many dimensions and cannot be approached as one project nor can it be

After this we intend to:
1. Bring the project to Mumbai - it will inform the development planning process
2. Initiate full scale research to develop and resolve each of the tools
3. Take necessary actions to demonstrate implications of some tools

Collective Research Initiatives Trust (CRIT), practicing in Mumbai since 2003, is a network of individuals interested in developing areas of critical research in, and responses to the contemporary urban realm. The team for the project 'Being Nicely Messy' included: Rupali Gupte, Prasad Shetty, Prasad Khanolkar, Chitra Venkataramani, Rohan Shivkumar, Khyatee Kanchan, Anuj Daga, Jeet Dutta, Kartik Gala, Vinita Gatne, Shivani Shedde, Prachi Patel, Apurva Talpade and Namrata Kapoor with support and assistance from RR Planks, Addmake India and Lycodon fx.

crit.in

