



Hacia una epistemología de la forma de la ciudad informal

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ISR

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Poverty



Violence

Hacia una epistemología de la forma de la ciudad informal

Hacia una epistemología de la **forma** de la ciudad informal

- La escala del problema o **porque nos debe importar.**
- Como ideas y acciones suceden en el espacio de la informalidad y desarrollo de ideas y proyectos muestra
- Nuevas perspectivas de investigación
- Intervención en áreas informales el proyecto no como objeto sino **como proceso**

**porque nos debe
importar ?**

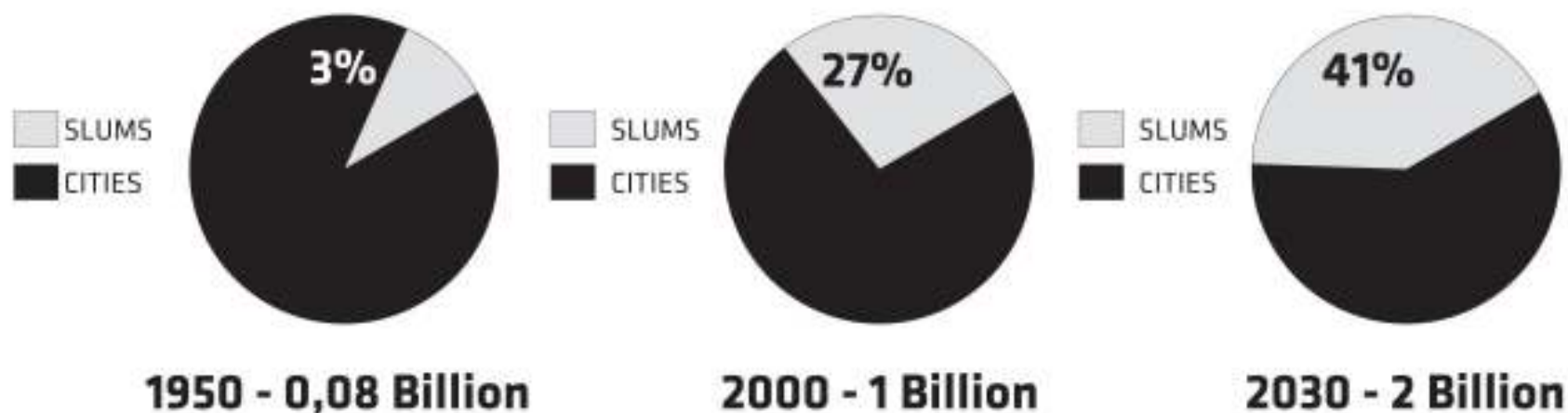
División de la población mundial

Rural

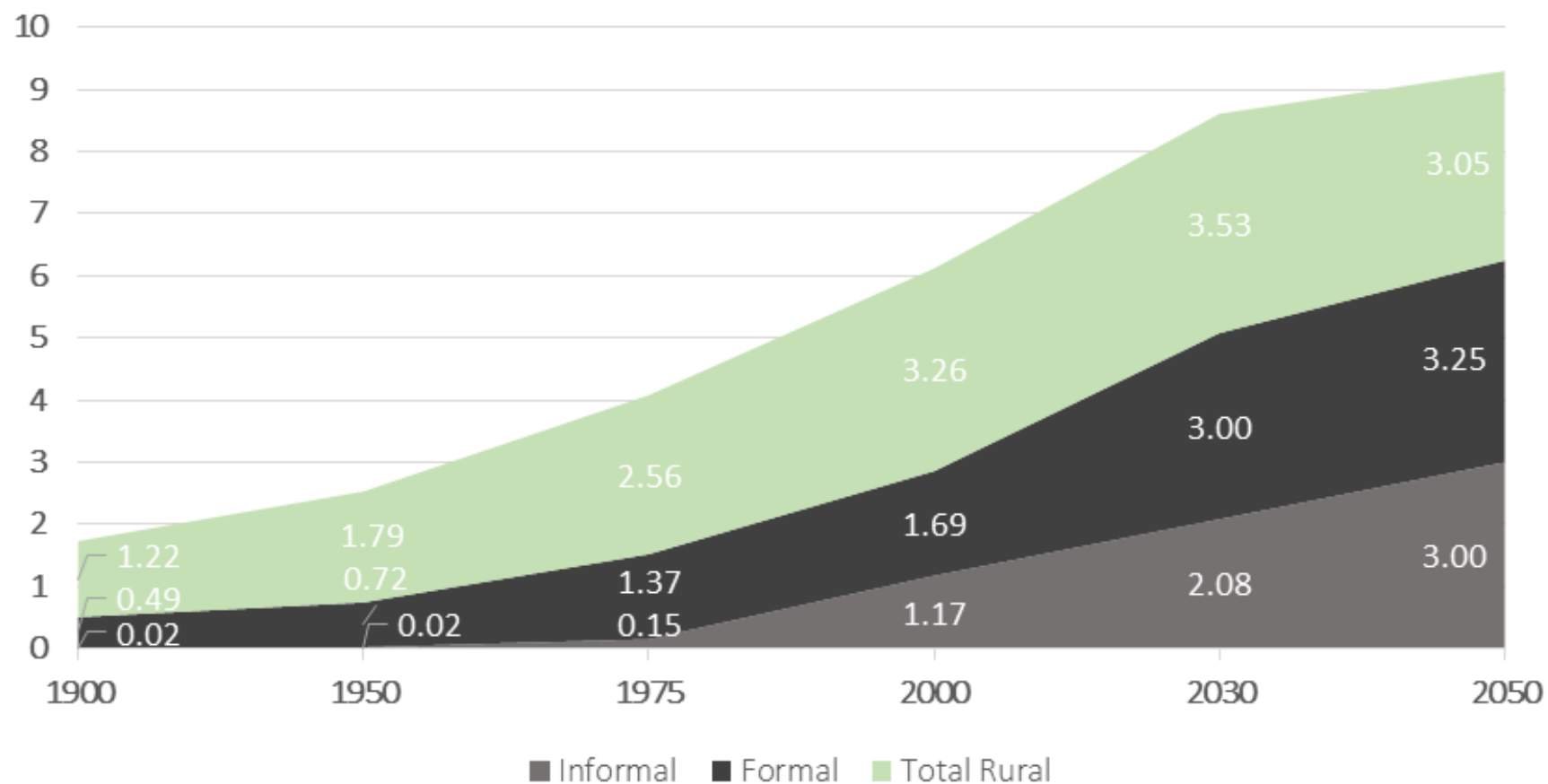
Urban

Slums

Proportion of the population living in slums on the total urban population

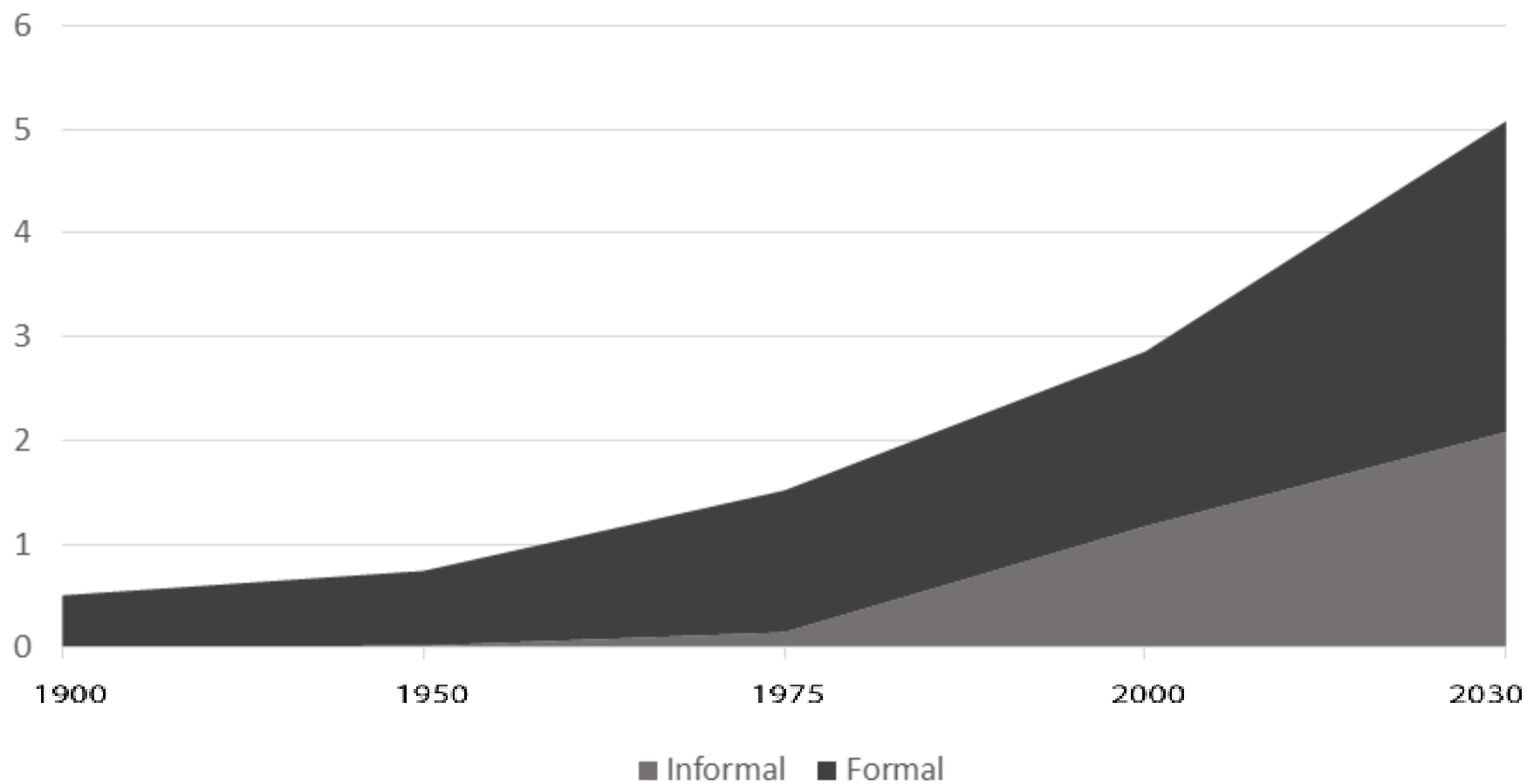


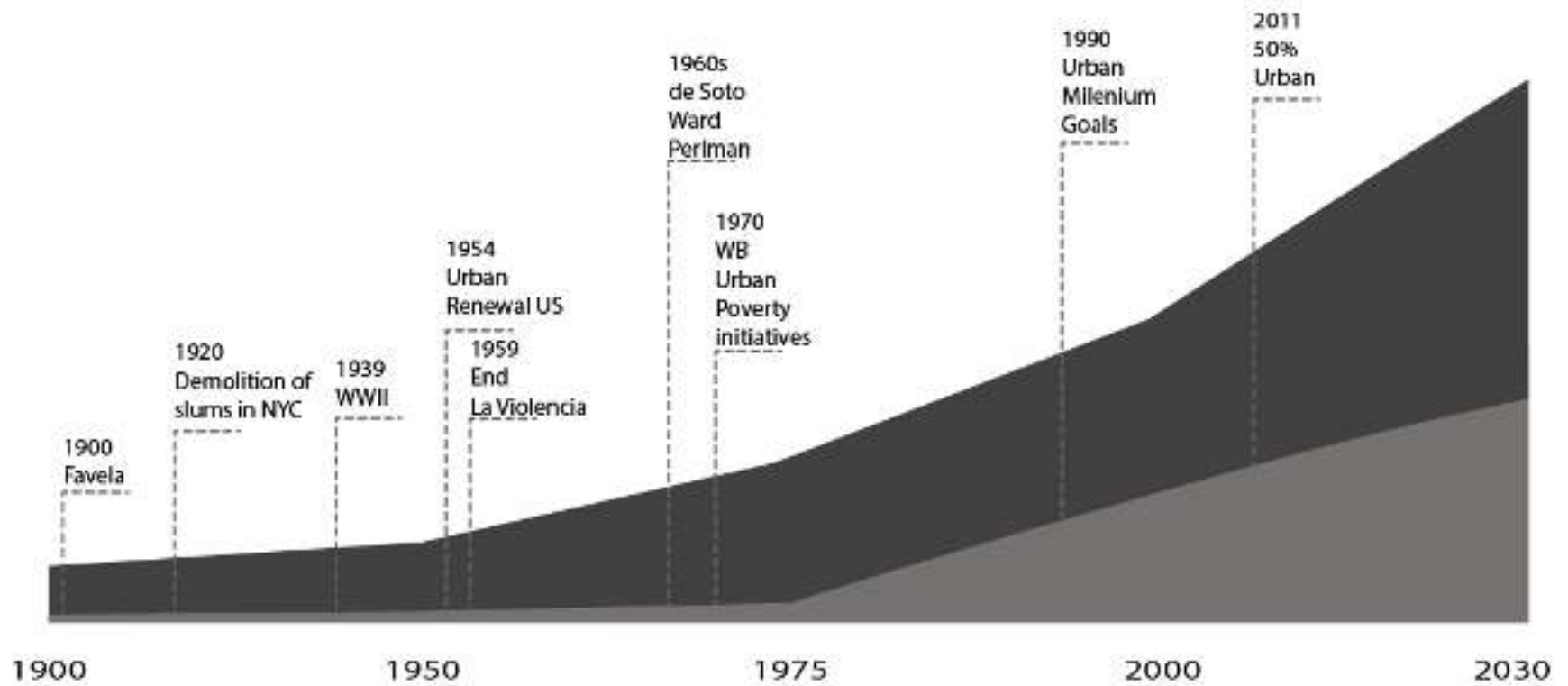
Rural vs. Urban formal vs. Urban Informal



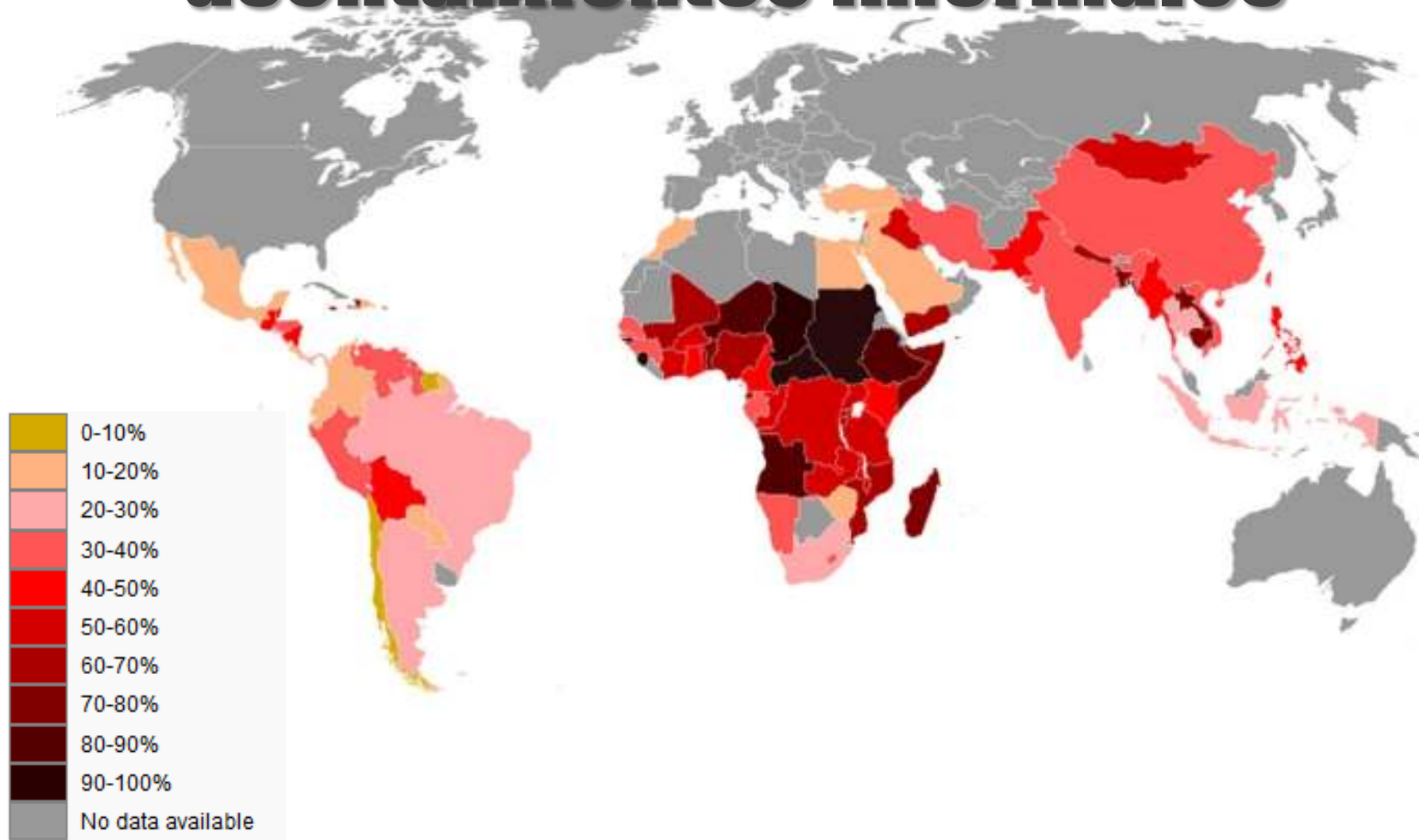
Source: United Nations, Department of Economic and Social Affairs, Population Division (2012). World Urbanization Prospects: The 2011 Revision, CD-ROM Edition. And World Urbanization Prospects the 2005 revision United Nations

Urban Population Formal Informal

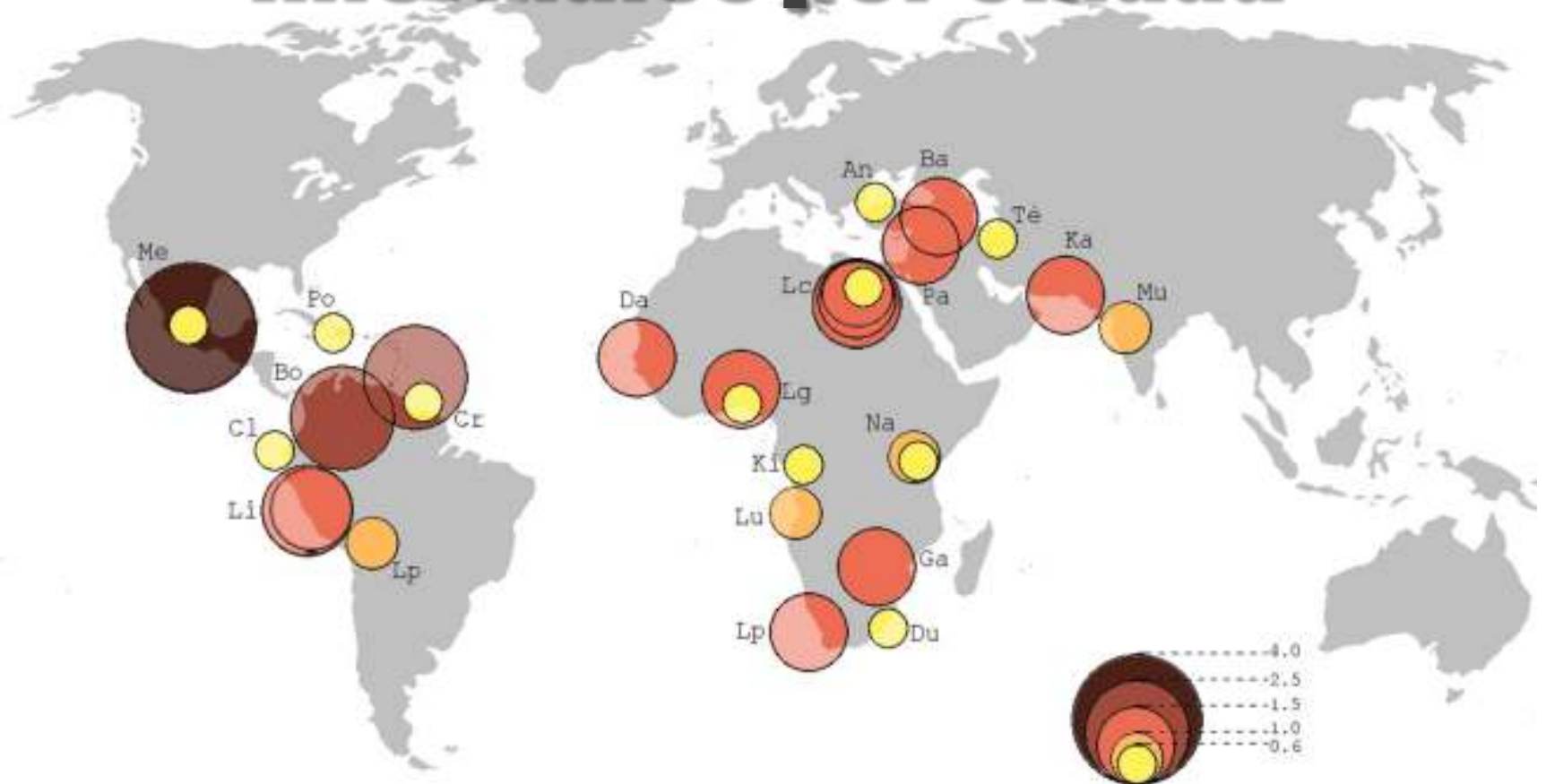




Población urbana viviendo en asentamientos informales



Población en asentamientos informales por ciudad





VPRO

NR. 2
11 JANUARI 17M
17 JANUARI 2003
€ 0,98



GIDS



REM KOOLHAAS IN LAGOS

**Como ideas y
acciones suceden
en el espacio de
la informalidad**

Planning
ideals

International
lending
agencies

Developing
nations and
cities

Communities



A. De renovación urbana a lotes y servicios

Housing policy development in developing countries. C. F. Pugh

B. Hacia prácticas no espaciales de intervención

C. Intervención multisectorial

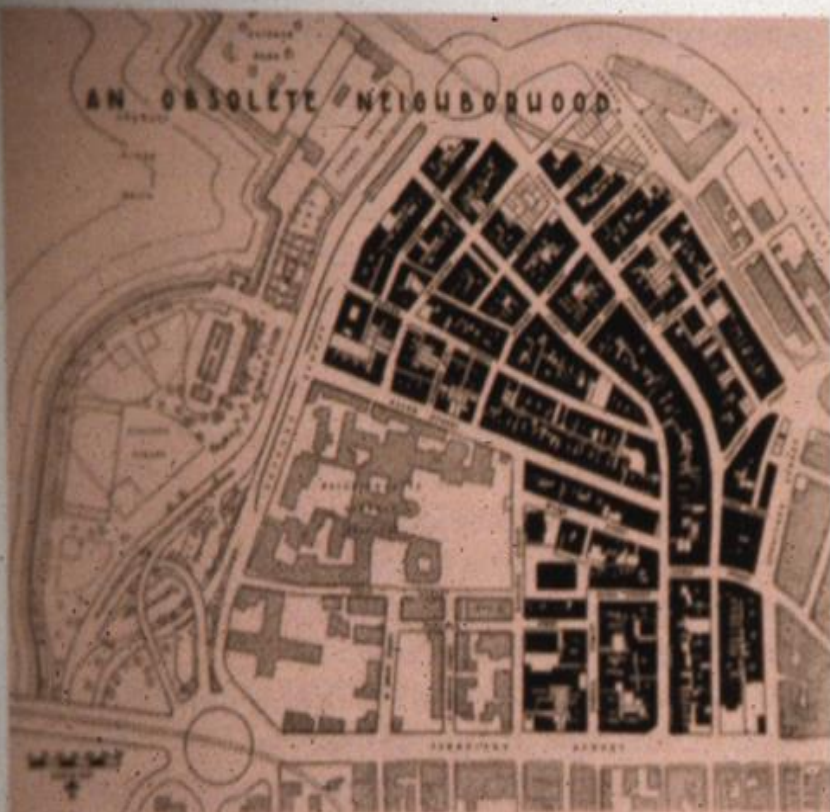


Figure 1 Evolution of World Bank housing policies

**Desarrollo de
ideas y proyectos,
una muestra**

A. De renovación urbana a lotes y servicios

AN OBSOLETE NEIGHBORHOOD.



MAP 6

LAND SHOWN

DENSITY — 12 THOUSAND PER NET ACRE

MAKING CITY BLOCKS 100'

EXISTING BUILDINGS

EXISTING BUILDINGS

EXISTING BUILDINGS

NATURE DATA

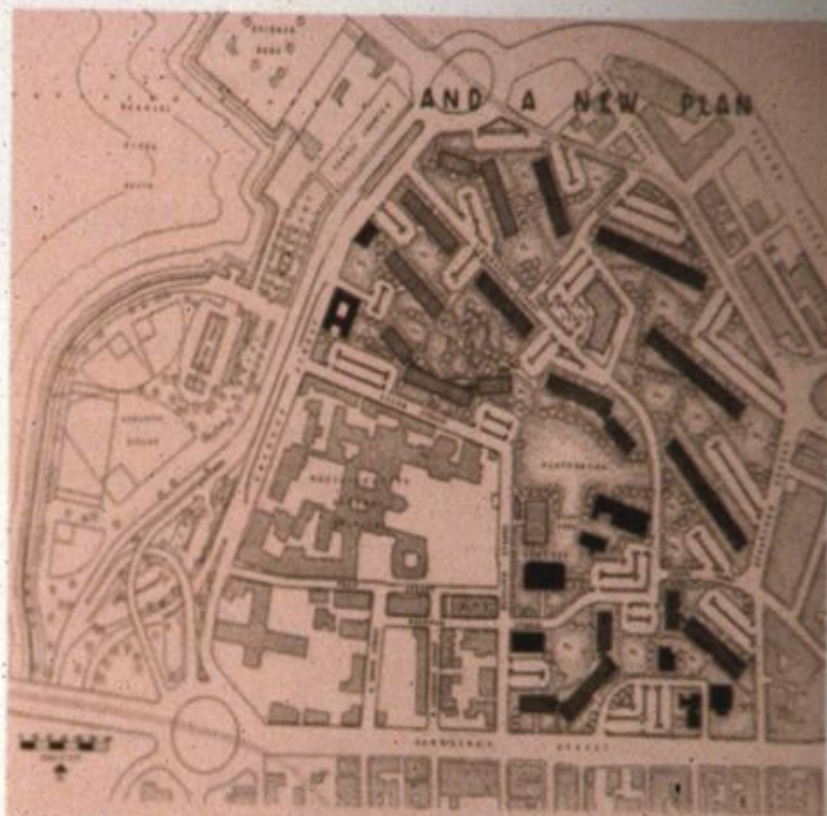
NATURE DATA

NATURE DATA

This crowded housing area is in the West End, actually in the heart of the city. Its proximity to the business and government center helps to justify its high population density, but the extremely high building coverage does not allow sunlight and air to enter dwellings, and affords no possibility of a view. There are no pleasant open spaces within the area where children may play, or where adults may enjoy the outdoors. The parking space is small, except for narrow streets and travel lanes.

Such an environment undoubtedly impairs the mental and physical health of its inhabitants, and certainly there are indications that such an area is a deficit to the city in terms of cost of city services versus tax receipts.

AND A NEW PLAN



MAP 7

LAND SHOWN

DENSITY — 40 THOUSAND PER NET ACRE

MAKING CITY BLOCKS 100'

NEW APARTMENT BUILDINGS

NEW APARTMENT BUILDINGS

NEW APARTMENT BUILDINGS

NEW APARTMENT BUILDINGS

NEW APARTMENT BUILDINGS

OTHER NEW BUILDINGS

OTHER NEW BUILDINGS

OTHER NEW BUILDINGS

EXISTING BUILDINGS 10'

This scheme utilizes economically efficient 6, 8 and 12 story apartment apartments of exciting contemporary design. Building coverage is thereby reduced 60%, but with only 40% lower densities. Some existing buildings of sound construction and historic value are retained, along with only 15% of the old streets, while no new streets are added. The result is ample open space for play, along with a pleasant recreation center for adults. Landscaped interior walkways afford pedestrian circulation systems which cross a minimum of streets. Buildings are screened for sunlight and views of Battery Park, Hudson River, and Liberty Park. Off-street parking is provided for more than 30% of all vehicles.

We now have an environment which suggests good mental and physical health, and an area which should be one of a financial bonus to the city in the long run.







Figura 1
Unidad de Habitación Cerro Grande
(1952-1954). Perspectiva.

Fuente: BO, Venezuela Exposición 1951-1955...







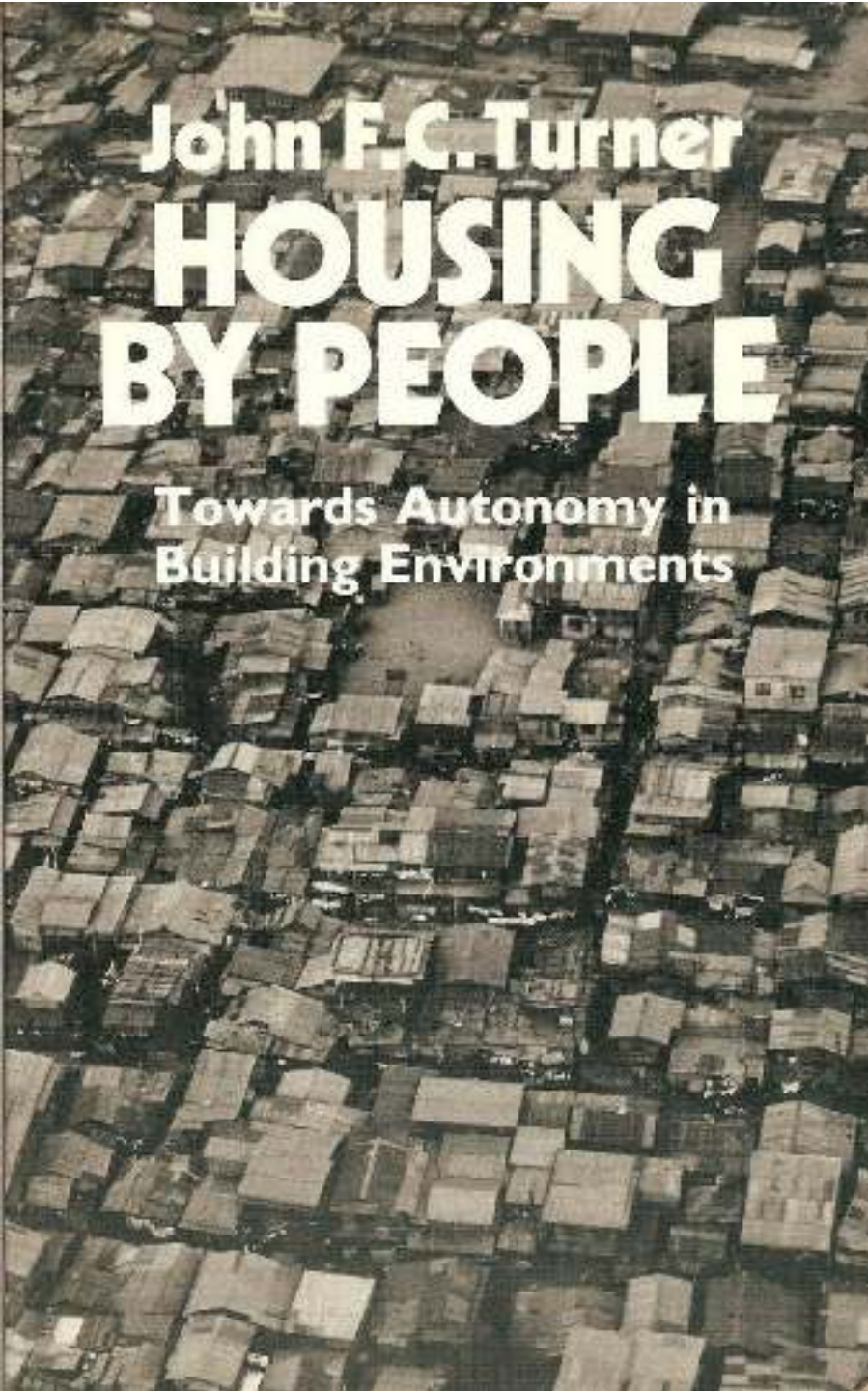




B. Hacia prácticas no espaciales de intervención

Freedom to build; dweller control of the housing process

Turner, John F. C., and Robert Fichter. 1972.



John F.C. Turner HOUSING BY PEOPLE

Towards Autonomy in
Building Environments

"La objeción más común a los cambios en las políticas públicas que aumenten el control del usuario de la vivienda, a expensas de las instituciones centralizadas es que los estándares se reducirán en consecuencia. Los estándares de los objetores tienen en cuenta, sin embargo, no son algo que puede ser lograr con los recursos disponibles, sino, más bien, representan la noción del objetor de lo que la vivienda debe ser".

- John Turner, Freedom to Build

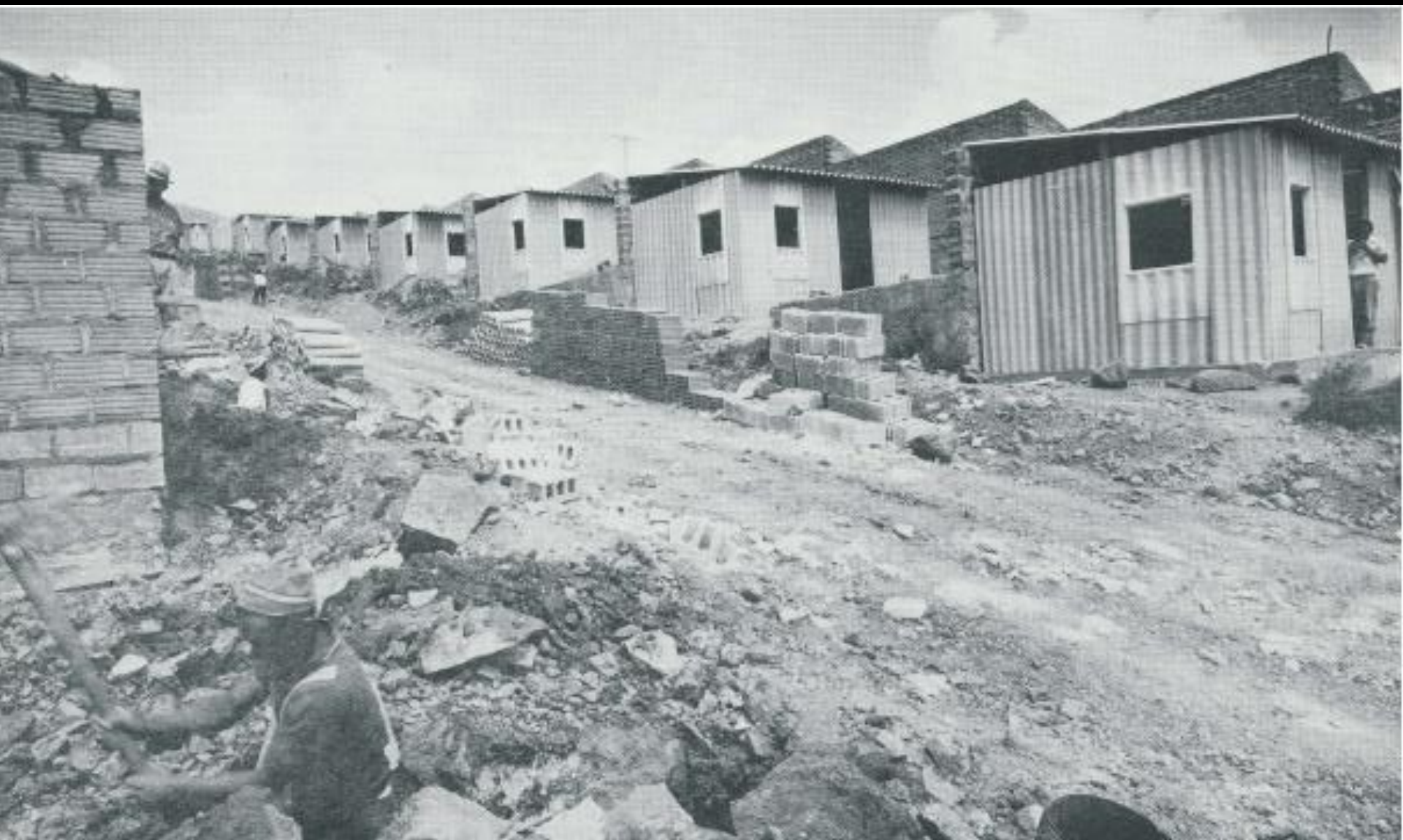
Six misconceptions about squatter settlements

Perlman, Janice E. 1986.

1. **Squatters as losers.** Estos individuos son altamente motivados y recursivos
2. **Minimizar** los gastos para la vivienda con el fin de **maximizar el estilo de vida.**
3. **Individuos optan por economías informales** en lugar del empleo formal
4. La naturaleza de los **asentamientos informales, son muy integrados y organizados.**
5. Al contrario de lo que hacen las agencias del gobierno, la **inversión en vivienda del sector informal va a la mejora de las viviendas existentes.**
6. **La vivienda como uso mixto.** Infraestructura de producción y no de consumo



Villa del Socorro 1967



Doce de octubre 1971



Doce de octubre 2011

Land Tenure

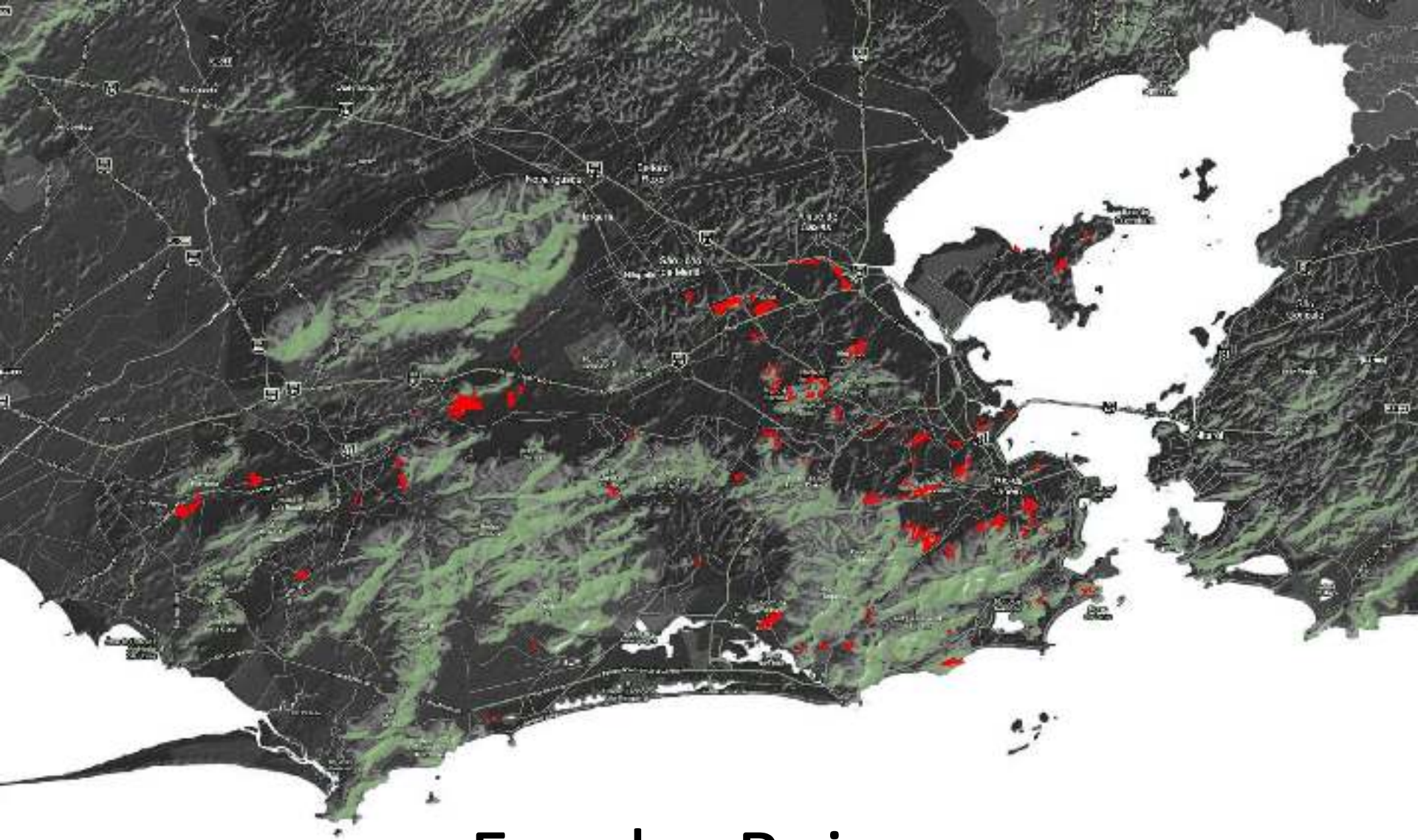
de Soto, Hernando. (2000). The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else. New York: Basic Books

.

Los derechos de propiedad es un sistema de representación que "crea plusvalía"

1. La situación y el potencial de los pobres **debe estar mejor documentada.**
2. Todas las personas **son capaces de ahorrar.**
3. Lo que los pobres están perdiendo son **sistemas de propiedad legalmente integrados que pueden convertir su trabajo y ahorro en capital.**
4. La **desobediencia civil y las mafias de hoy no son un fenómeno marginal** sino el resultado de personas marchando por los miles de millones de la vida organizada en pequeña escala a la vida en una gran escala.
5. En este contexto, **los pobres no son el problema, sino la solución.** La **implementación de un sistema de propiedad que cree capital** es un desafío político, ya que implica ponerse en contacto con la gente, **restableciendo un contrato social, y la revisión del sistema legal.**

C. Intervención multisectorial



Favela- Bairro

Rio de Janeiro, Brazil

WIDENER
HN WESB G

FAVELA, UM BAIRRO

PROPOSTAS METODOLÓGICAS PARA INTERVENÇÃO PÚBLICA EM FAVELAS DO RIO DE JANEIRO



Ilustração Jota Samper

RIO
PREFEITURA
CIDADE
MARAVILHOSA



pro
editores

ORGANIZADORES
CRISTIANE ROSE DUARTE
OSVALDO LUIZ SILVA
ALICE BRASILEIRO

Houses and workshops
for samba artists

Potable water
tank

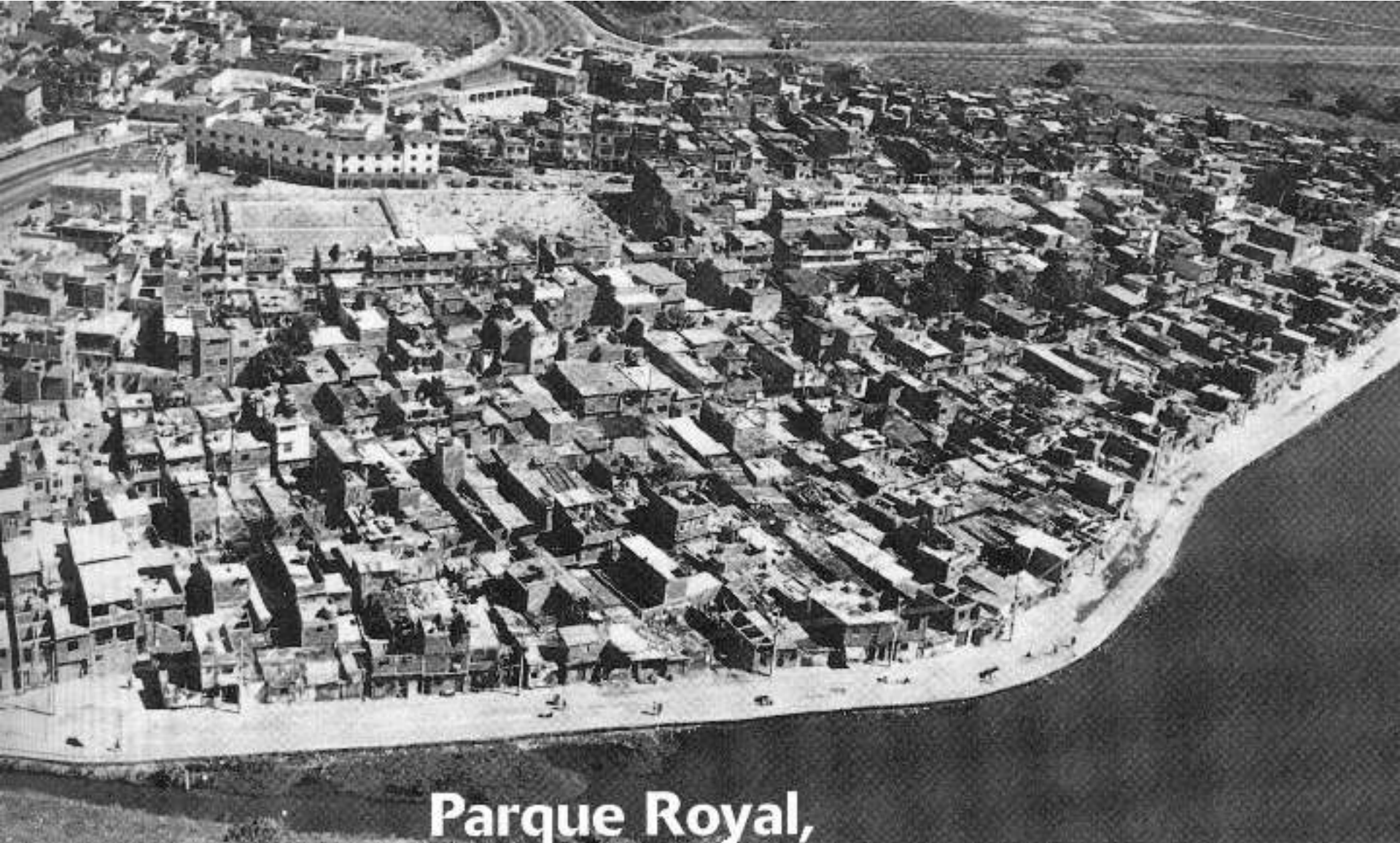
Water pumping
station

Cultural centre
and open air theatre

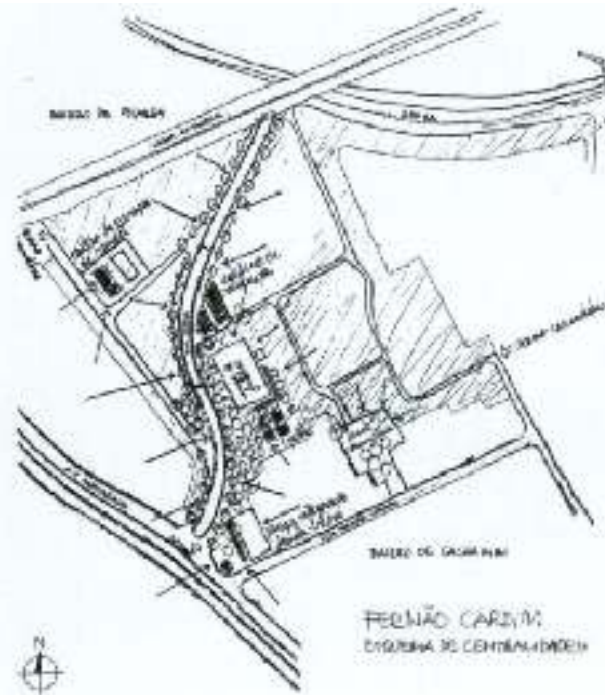
Nursery and
school improvements

- Paved roads
- Paved sidewalks
- Parks and recreation areas
- Resettled households
- Schools
- Cultural activity areas





Parque Royal,



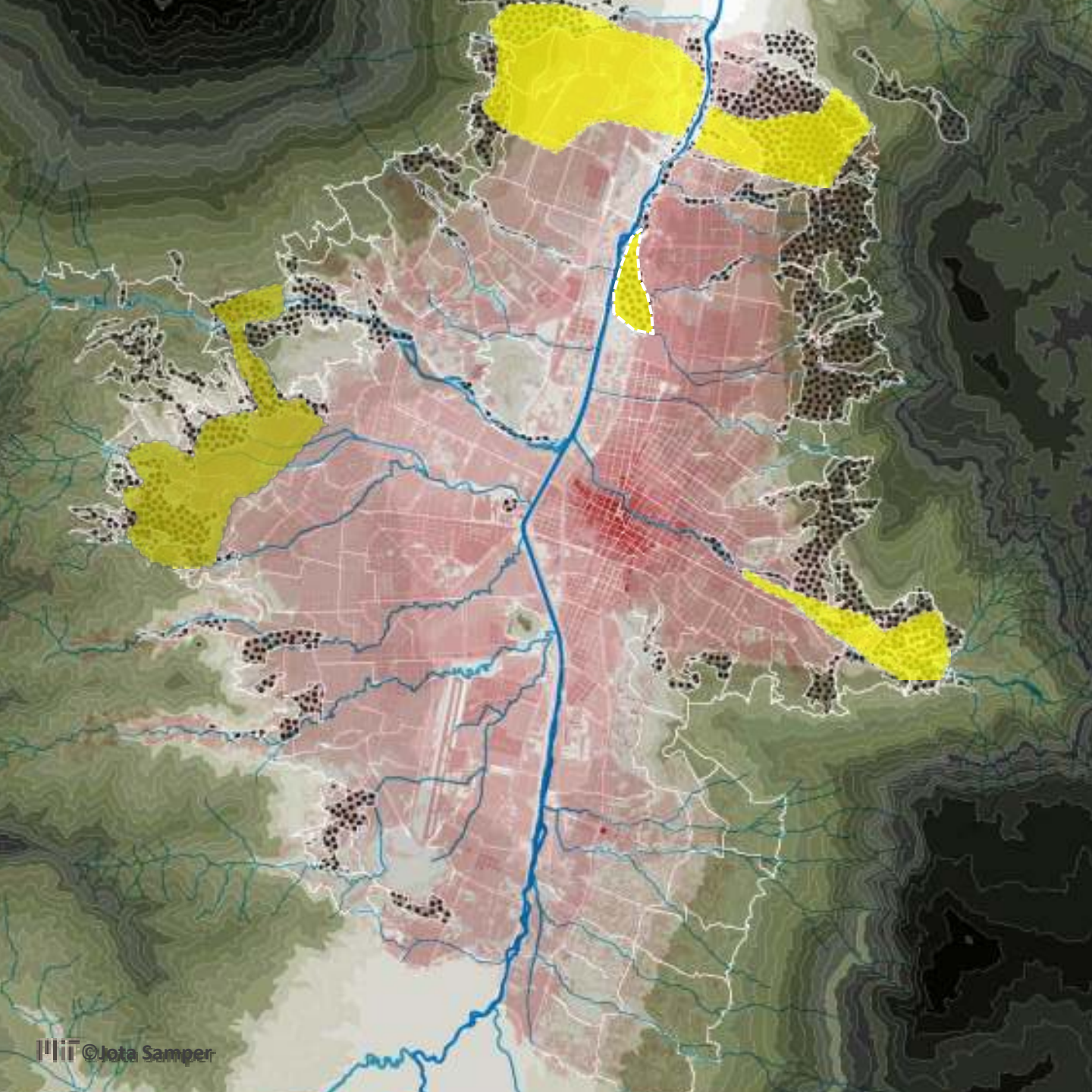
Projeto: P. A. A. - J. Jáuregui/H. Casé

Jorge Mario Jáuregui Diagrams (areial, sketch and project plan) of FERNÃO CARDIM Source: Favela - Bairro Uma outra historia da cidade do Rio de janeiro

Design and public space

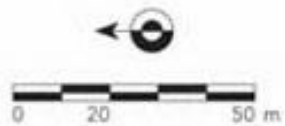
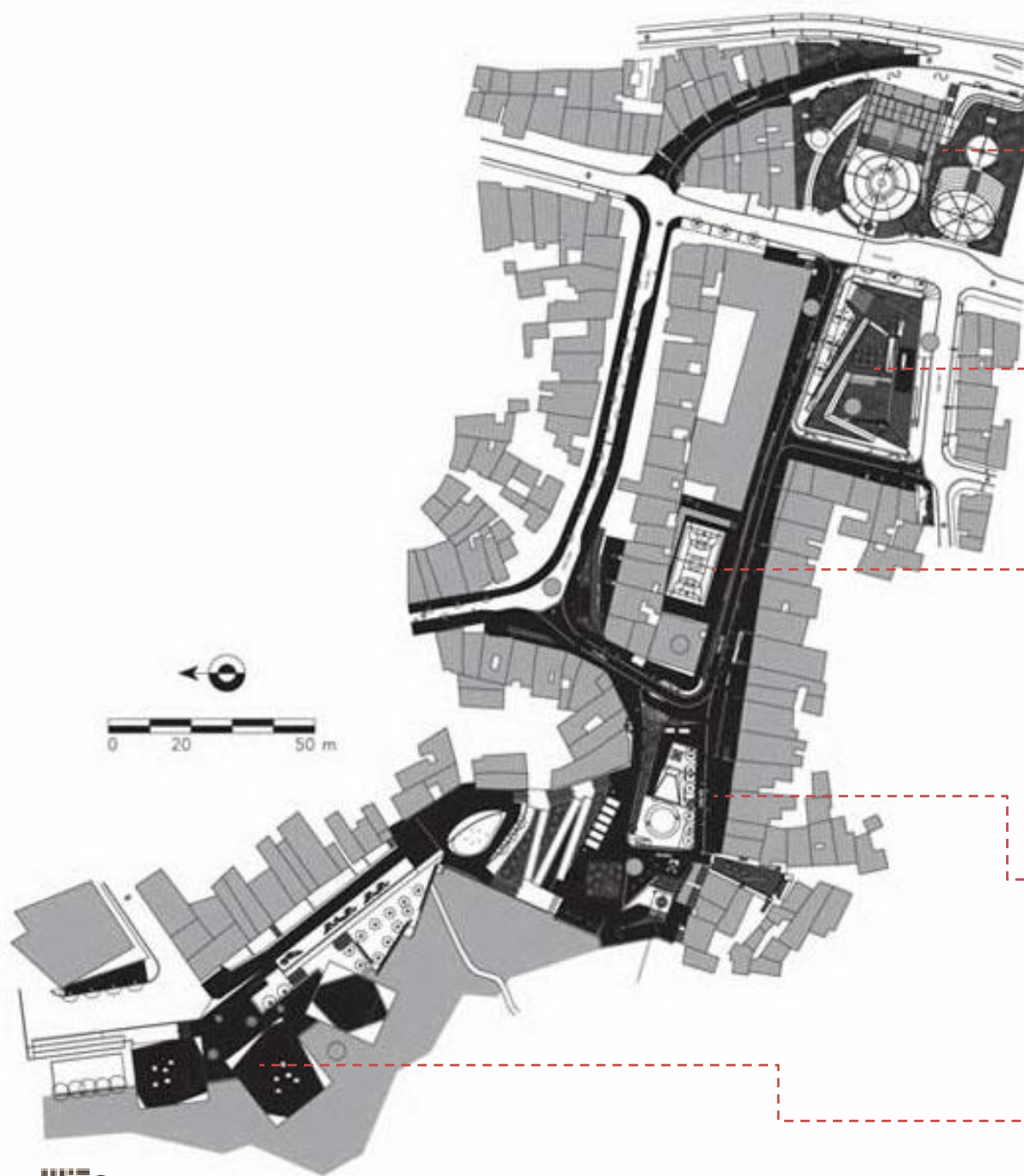
Integrated Urban Project IUP

Medellin, Colombia



-  Integrated Urban Projects
-  Local government gradient of control
-  Informal settlements





Morar Carioca

Rio de Janeiro, Brazil



O Rio Passa por aqui

Favelas Isoladas em Áreas planas



ESTIMATIVA DE REMOÇÕES

12%

das unidades habitacionais



ESTIMATIVA DE RELOCAÇÕES

100%

das unidades habitacionais removidas, dentro da própria área de intervenção



Tipologias verticais

Tipologias de complementação

CRIAÇÃO DE ESPAÇOS LIVRES

10%

da área de intervenção



ESPAÇOS LIVRES

Estabelecer, nos limites dos novos edifícios, uma frente comercial e de serviços públicos (sempre de escala regional) para gerar animação, segurança e integração social entre os bairros.



As estimativas apresentadas foram realizadas sobre elementos parciais do território, de forma a exemplificar as possibilidades de relocação das edificações removidas em função das intervenções propostas. e, portanto, não se caracterizam como percentuais absolutos que deverão ser seguidos na elaboração dos projetos específicos de cada área.

Conventional Housing Programs



Sites and Services



Upgrading



Incremental



Nuevas perspectivas de investigación

Cómo construir un asentamiento informal















land available for invasion
pirate urbanizer organizes the
invasion



invasion happens at dawn,
invaders carry materials for
start-up shelter



first consolidation takes
advantage of leftover
materials



recycled materials are
incorporated



progressive consolidation of
a family dwelling



La vida en un asentamiento informal



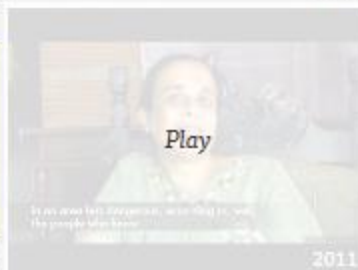
Documentación de los asentamientos informales mediante la creación de un Proyecto de la Memoria Histórica

<http://mobility17.com/medellin-mi-hogar/>



so we started collecting sticks and materials and began
building our new home





My Home Medellín | Medellín Mi Hogar

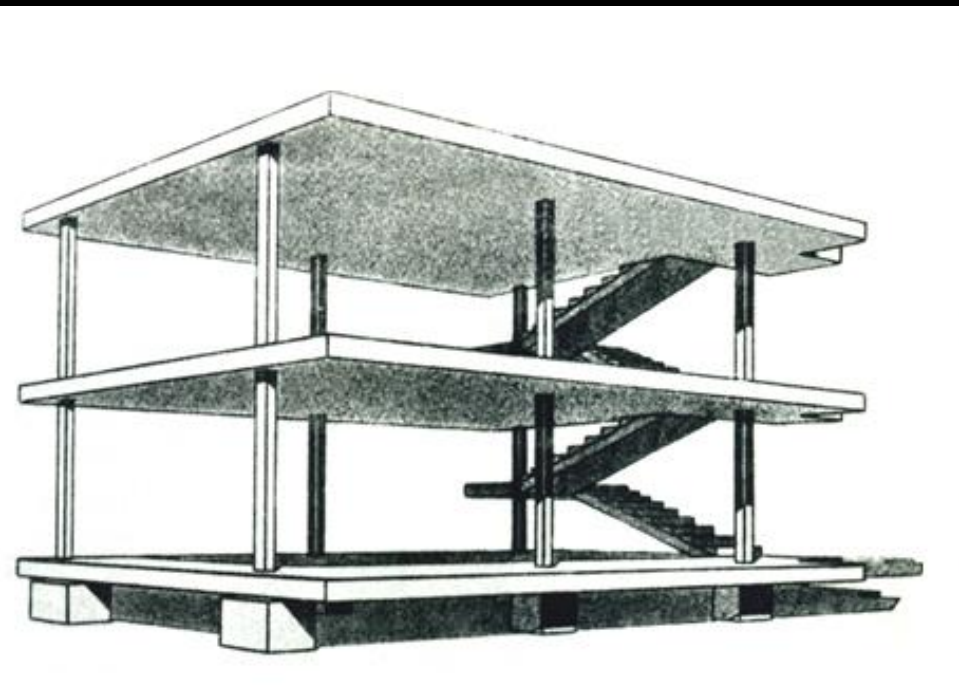
What happens when the “official” and the “popular” stories about your hometown do not match what you archive in your family album? ... This project is an alternative narrative force that complicates the archival landscape of the City of Medellín.

These are stories about how cities are made by the people who (really) make them. [Read more...](#)

If you have trouble viewing these videos, [click for our YouTube page.](#)

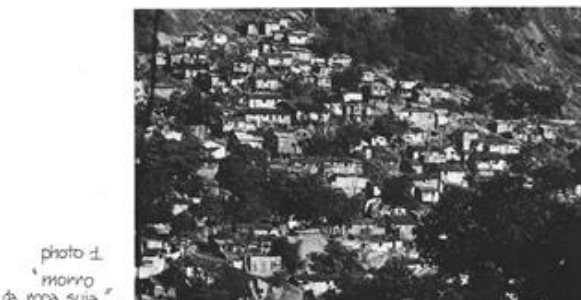
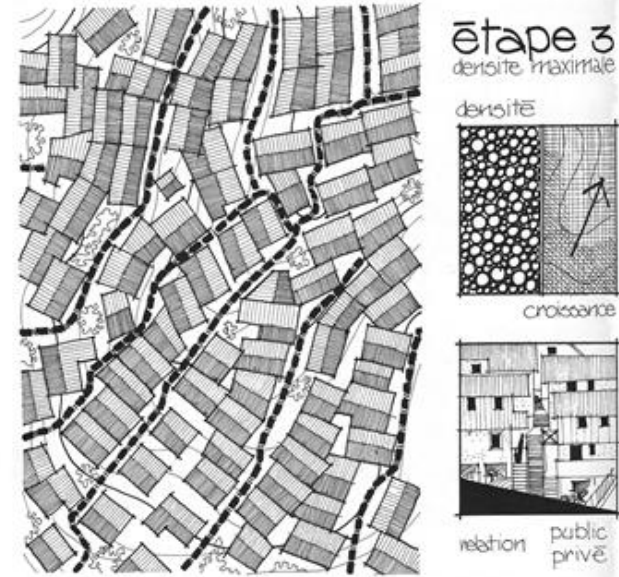
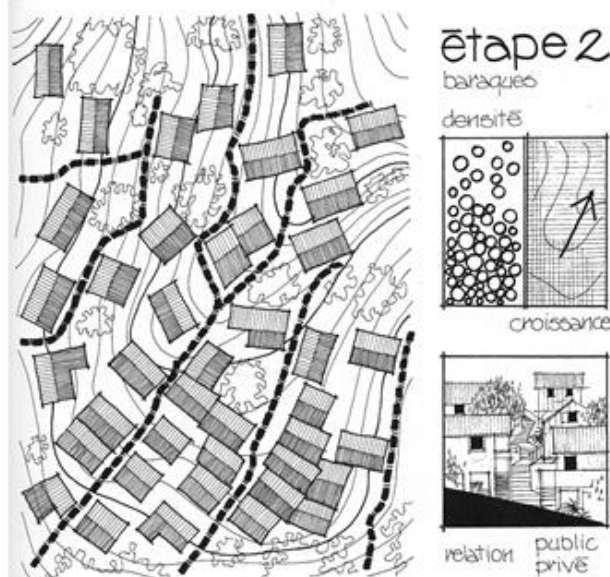
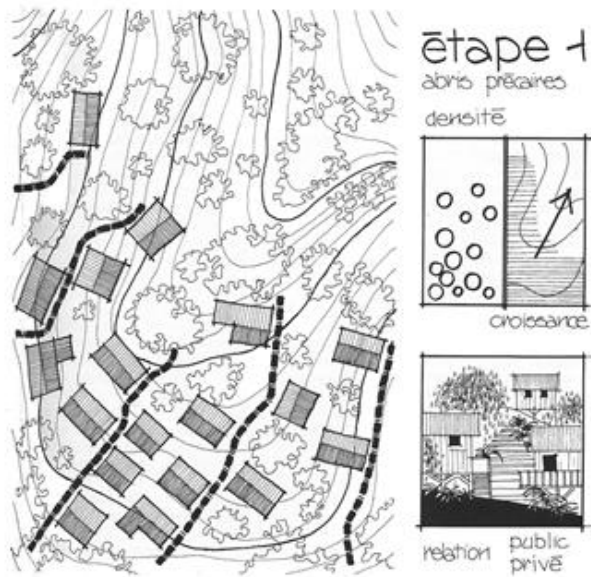
View by: [Thumbnails](#) | [Descriptions](#)

**The urban logic of
informal
settlements**



Domino Scheme of Le Corbusier and unit under construction in Favela Roshinia in Rio de Janeiro. Source: photo by Rahul Srivasta & Matias Echanove





Architectes des favelas Didier Drummond phases of evolving consolidation phase one "implantation precarious shelters" phase two "transformation of shelters to sheds" phase three "solid construction" source: (Drummond 1981)



Fernão Cardim before FB, 1990's after implementation of the Favela Bairro project and as it stands in 2011 Source (Samper 2011)



A picture of a stair path before and after community members built the sewer paths and stairs to access their homes source: Marta Libia Velez Yepes in Jota Samper and Tamera Marko, Medellin mi hogar / my home Medellin



Incremental Housing Typologies mixed economies and urban landscapes



KUCCHA 1 STOREY

Estimated cost:
1500 - 2000 Rps.

A cheap basic shelter using mainly reclaimed and low cost materials.

KUCCHA 1 STOREY

Estimated cost:
20 - 30,000 Rps.

A basic dry brick structure and CGI roof. A bamboo structure can be seen in front which is a type of outdoor toilet.

KUCCHA 1 STOREY

Estimated cost:
45 - 60,000 Rps.

This house has been plastered which adds cost and also has a sturdy door and window grill. The CGI roof means you can not put anything on the roof such as outdoor sleeping during the summer months and a water tank.

PUKKA 1 STOREY

Estimated cost:
100,000 Rps.

This house marks the transition stage where the roof is capable of taking another floor. Many houses at this stage have put staircases in place ready for the next stage.

PUKKA 1.5 STOREY

Estimated cost:
150,000 Rps.

This house has not put a toilet in their home preferring to use the ground floor as a shop and the 1st floor as their living space. A typical addition now would be to include a toilet on the 1st floor and live on a new second floor.

PUKKA 2 STOREY

Estimated cost:
150,000 Rps.

This house has done a typical 1st floor toilet with a toilet underneath the ground floor shop. Its space will be tight with washing, cooking and sleeping happening on the first floor they will be looking to add even.

PUKKA 2.5 STOREY

Estimated cost:
200,000 Rps.

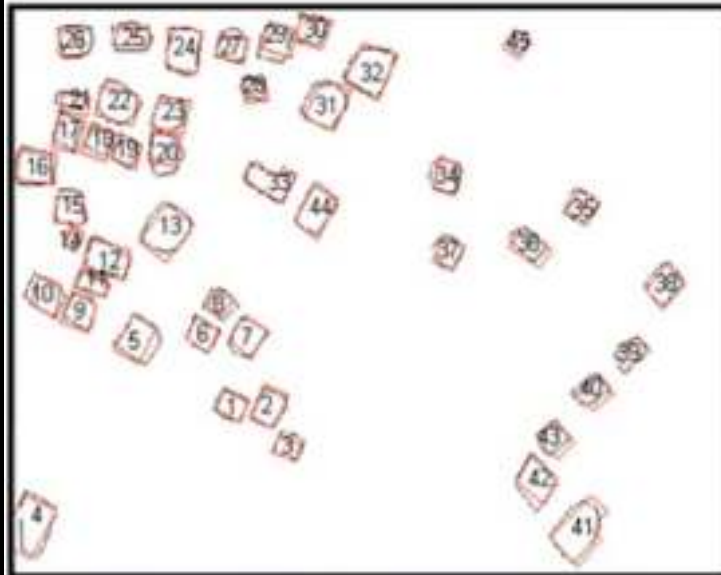
Reaching the upper spectrum of incremental development this house offers enough living, work and sanitation (toilet).

Incremental Housing

Sigus



(a)



An aerial photograph of a sprawling, densely packed informal settlement, commonly known as a slum, built on a steep hillside. The structures are tightly clustered, with many buildings featuring corrugated metal roofs and some with blue water tanks mounted on top. The terrain is rugged, and the overall appearance is one of extreme overcrowding and lack of formal urban planning. In the background, a large, forested mountain rises under a cloudy sky. The word "Slumulation" is superimposed in large white text across the center of the image.

“Slumulation”

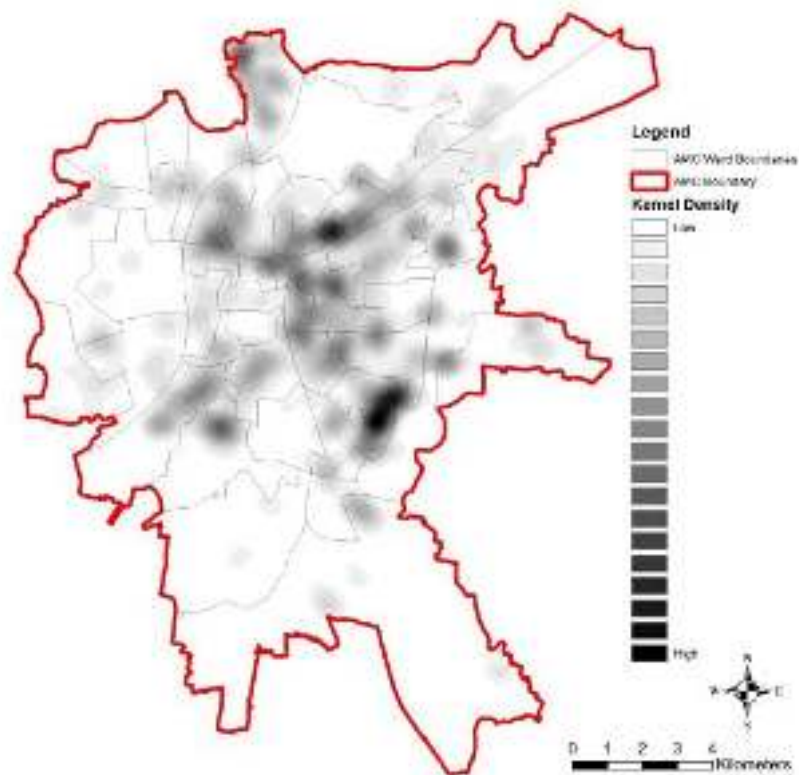
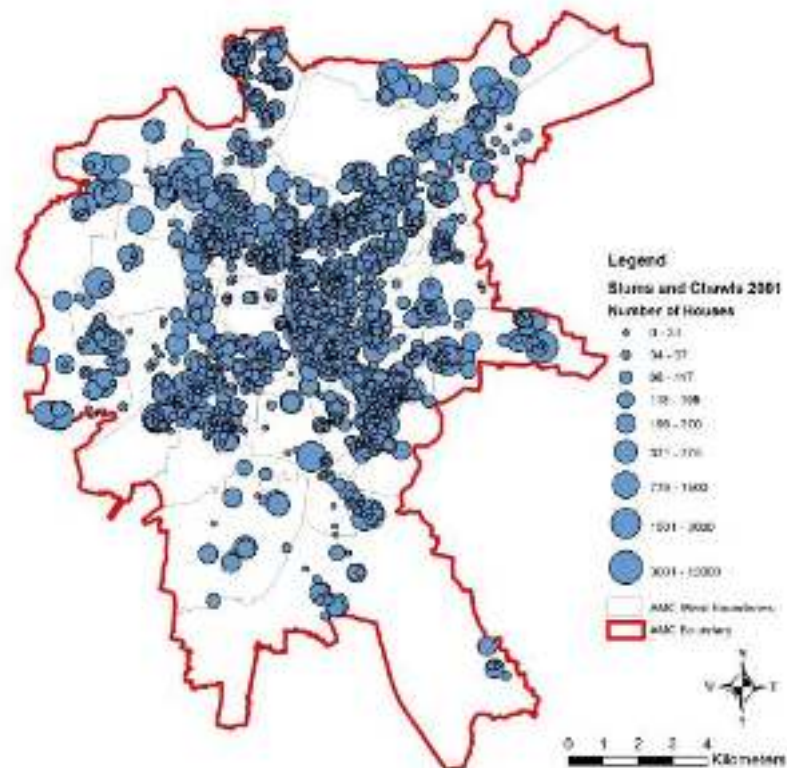


Figure 5: Clustering of Slum Locations in Ahmedabad, 2001



1975 - 1980



1975 - 1990 Simulated



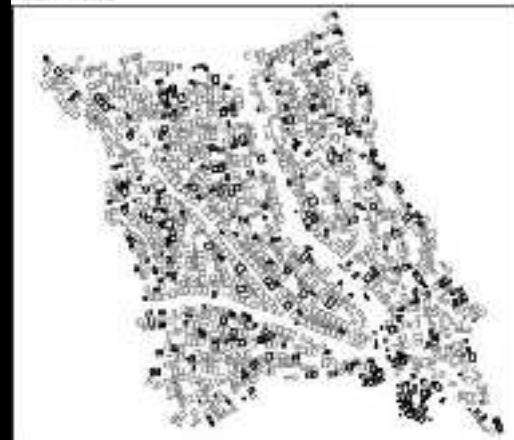
1982 - 1987



1982 - 1987 Simulated



1987 - 1993



1987 - 1993 Simulated



Dos fórmulas para hacer asentamientos informales

Extension of the settlement area

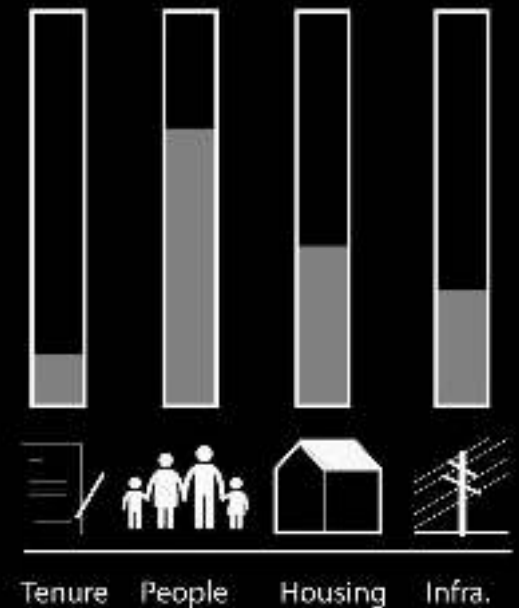
$$MD = \sum_{i=1}^n \sum_{j=1}^{n-1} \frac{\sqrt{(x_i - x_j)^2 + (y_i - y_j)^2}}{n(n-1)},$$

Infilling

$$SI = \sum_i \frac{Perimeter_i}{\sqrt{Area_i}},$$

**Intervención en
áreas informales
el proyecto no
como objeto sino
como proceso**

Building urban Informality is a process

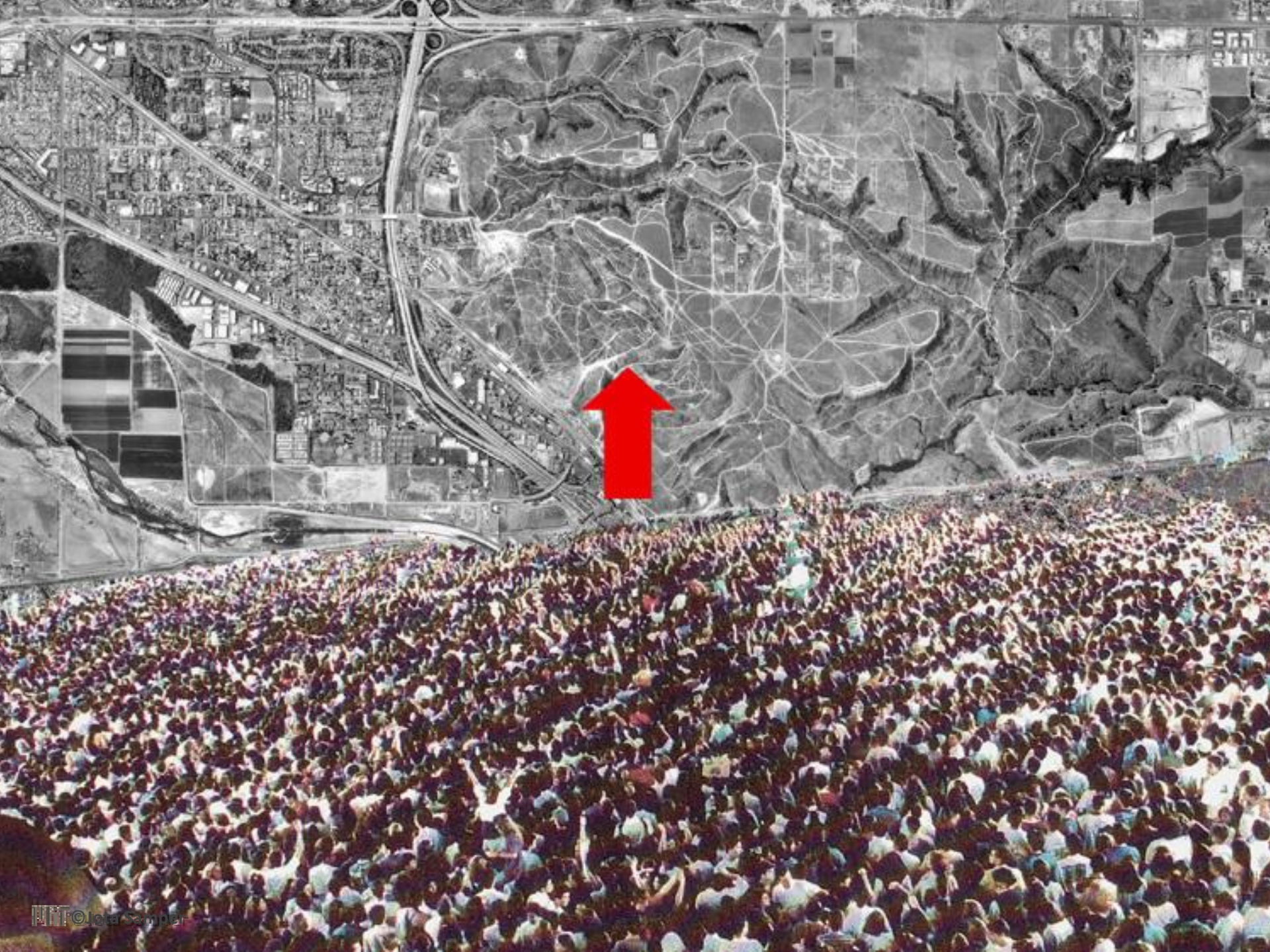


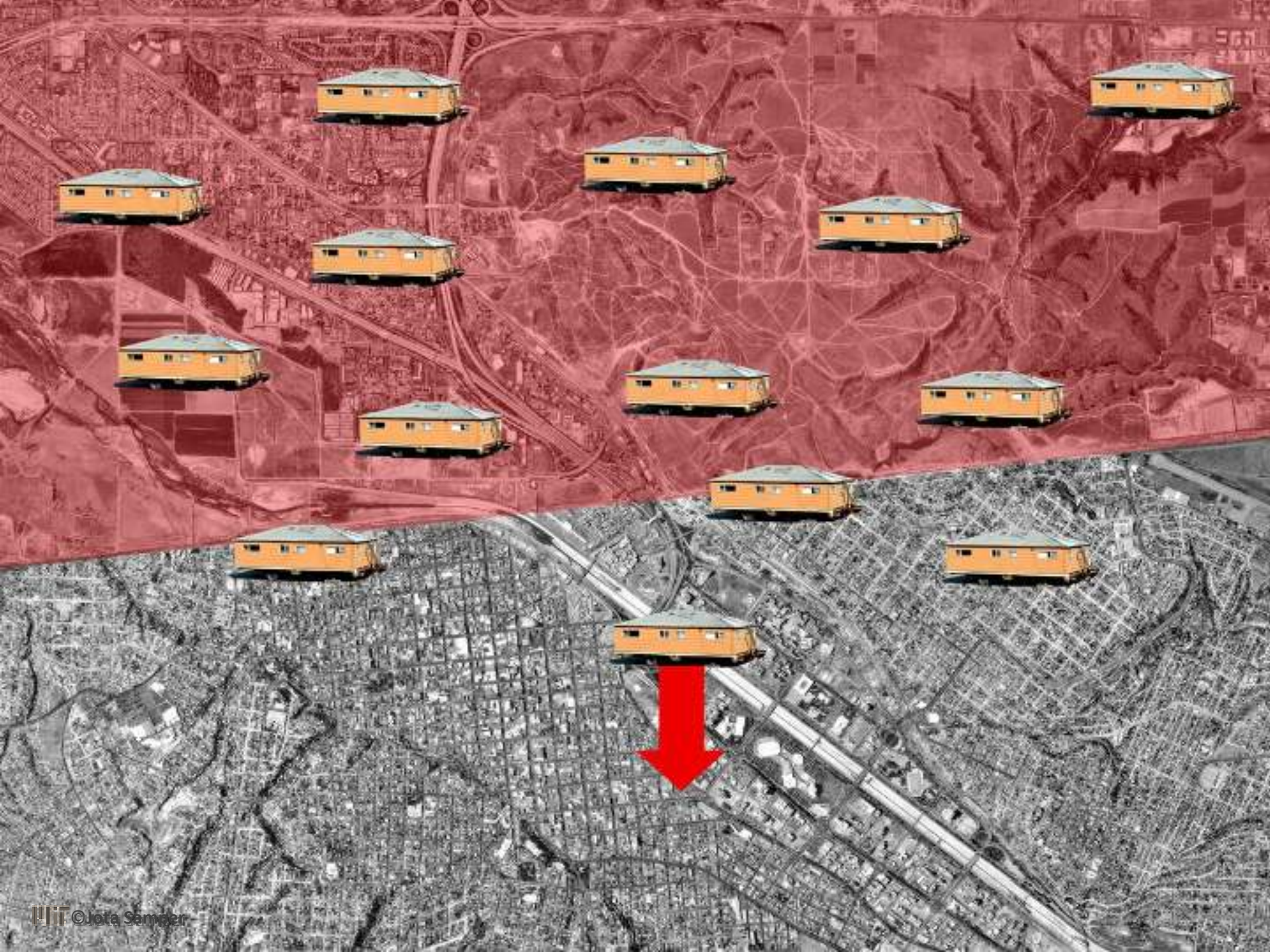
Two Case studies

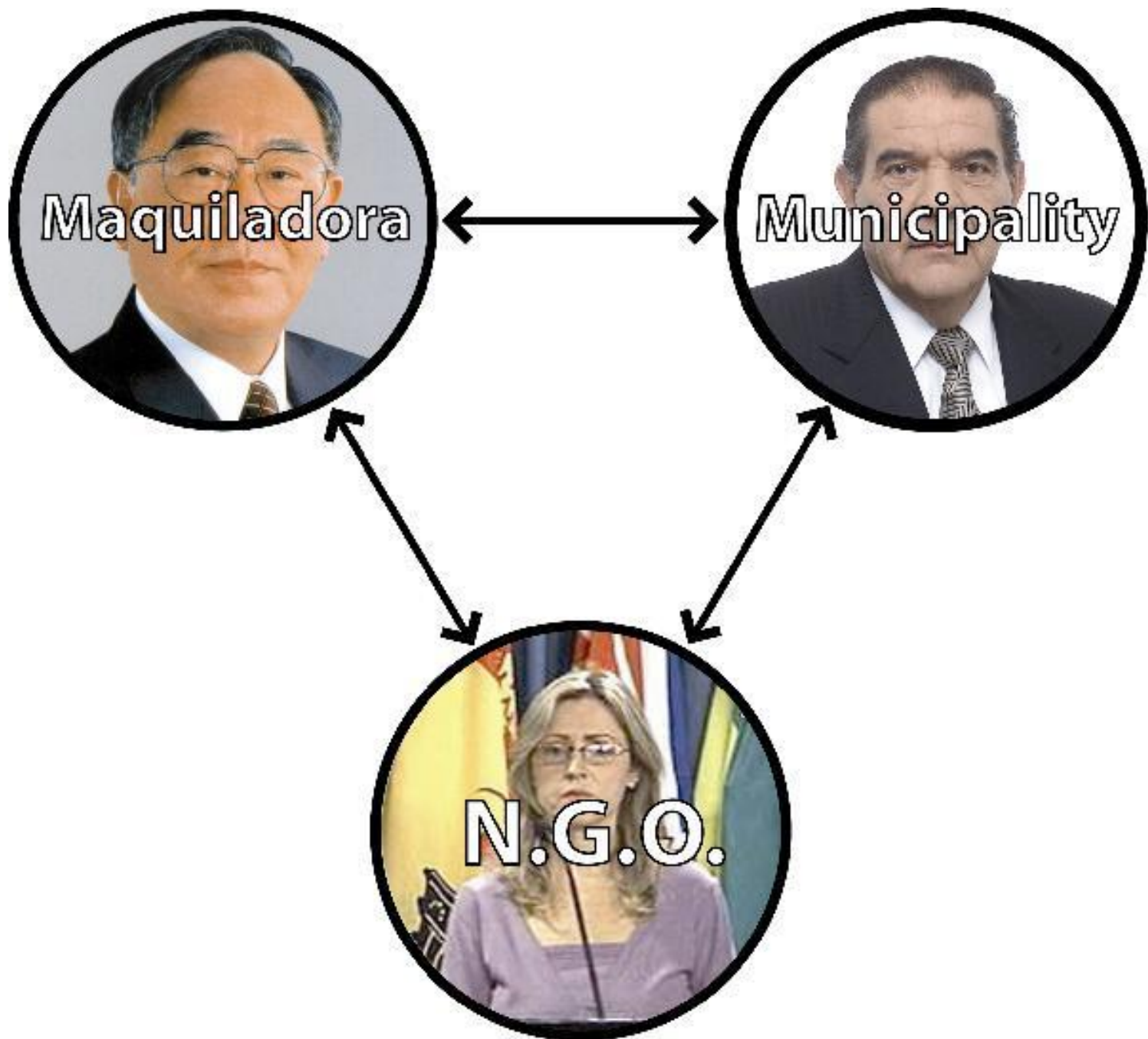
Manufacturing Housing

estudio teddy cruz with Jota Samper









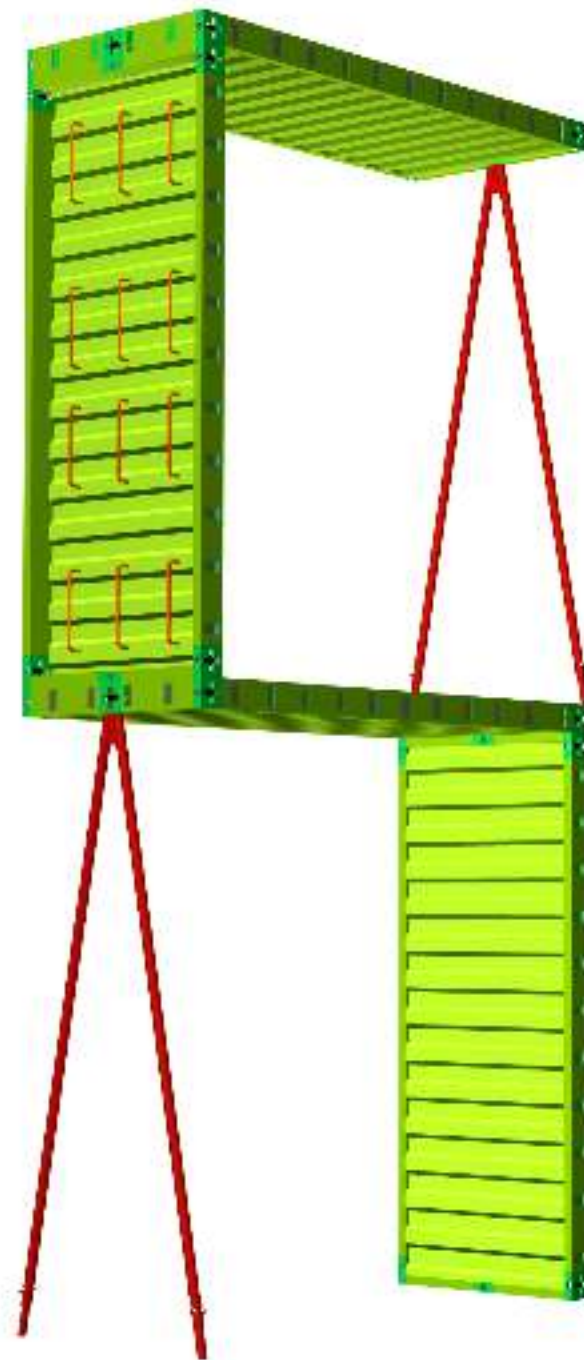


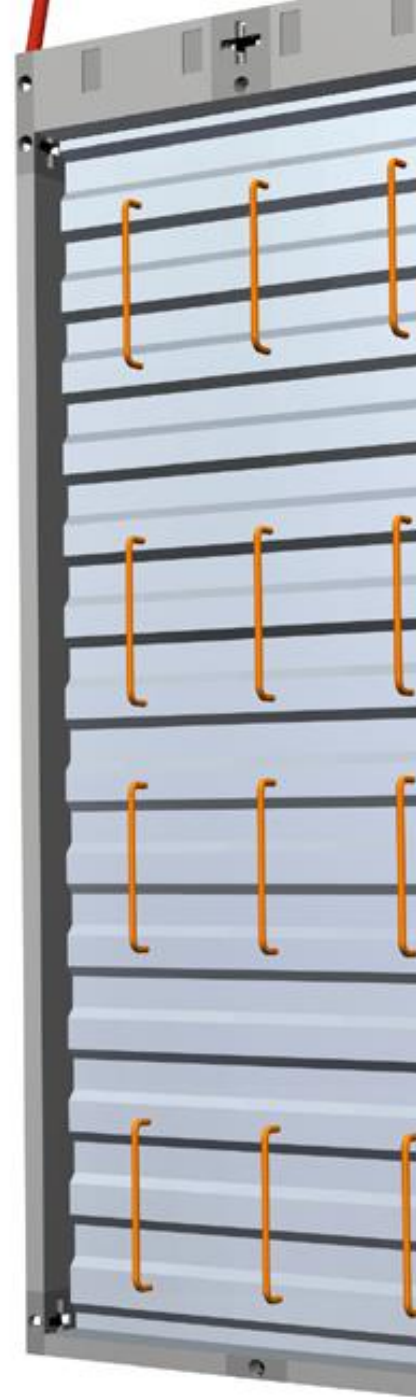
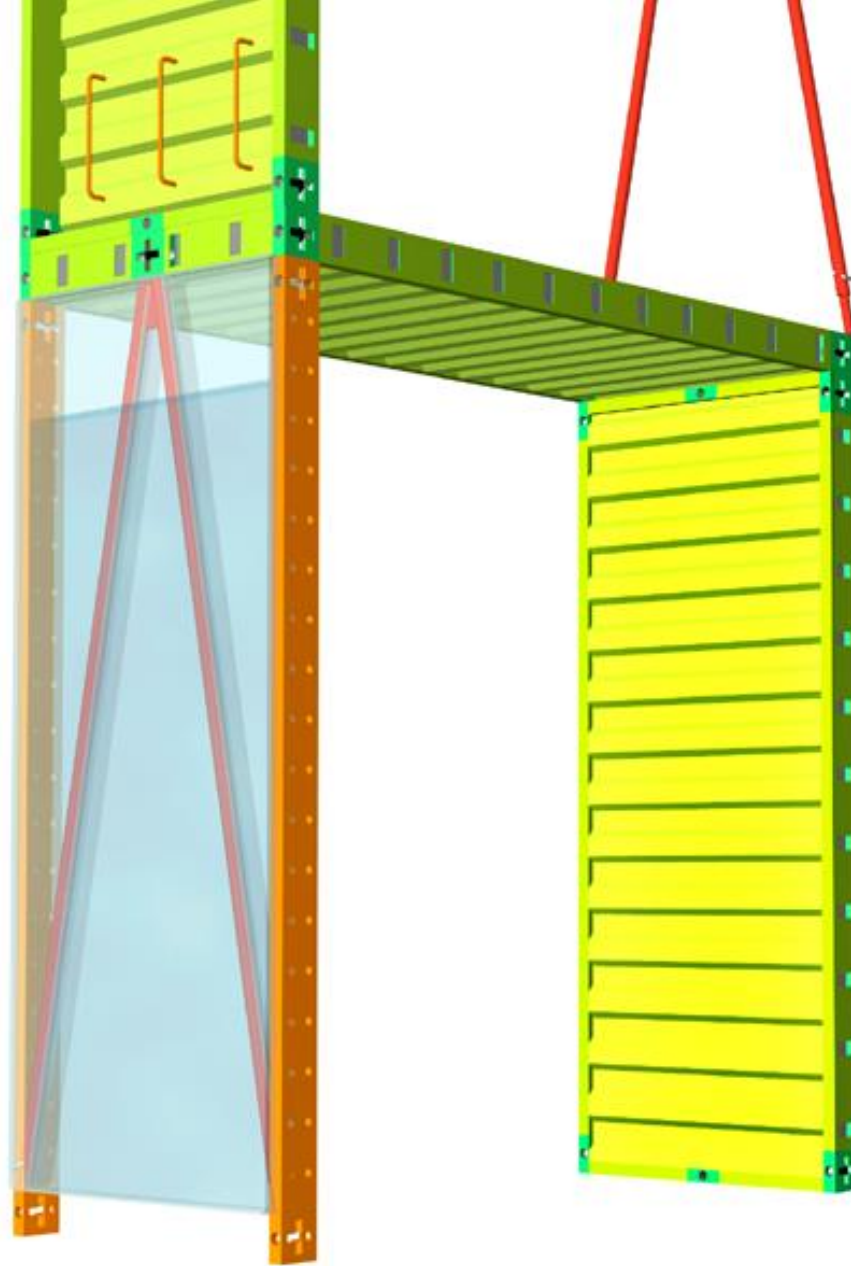




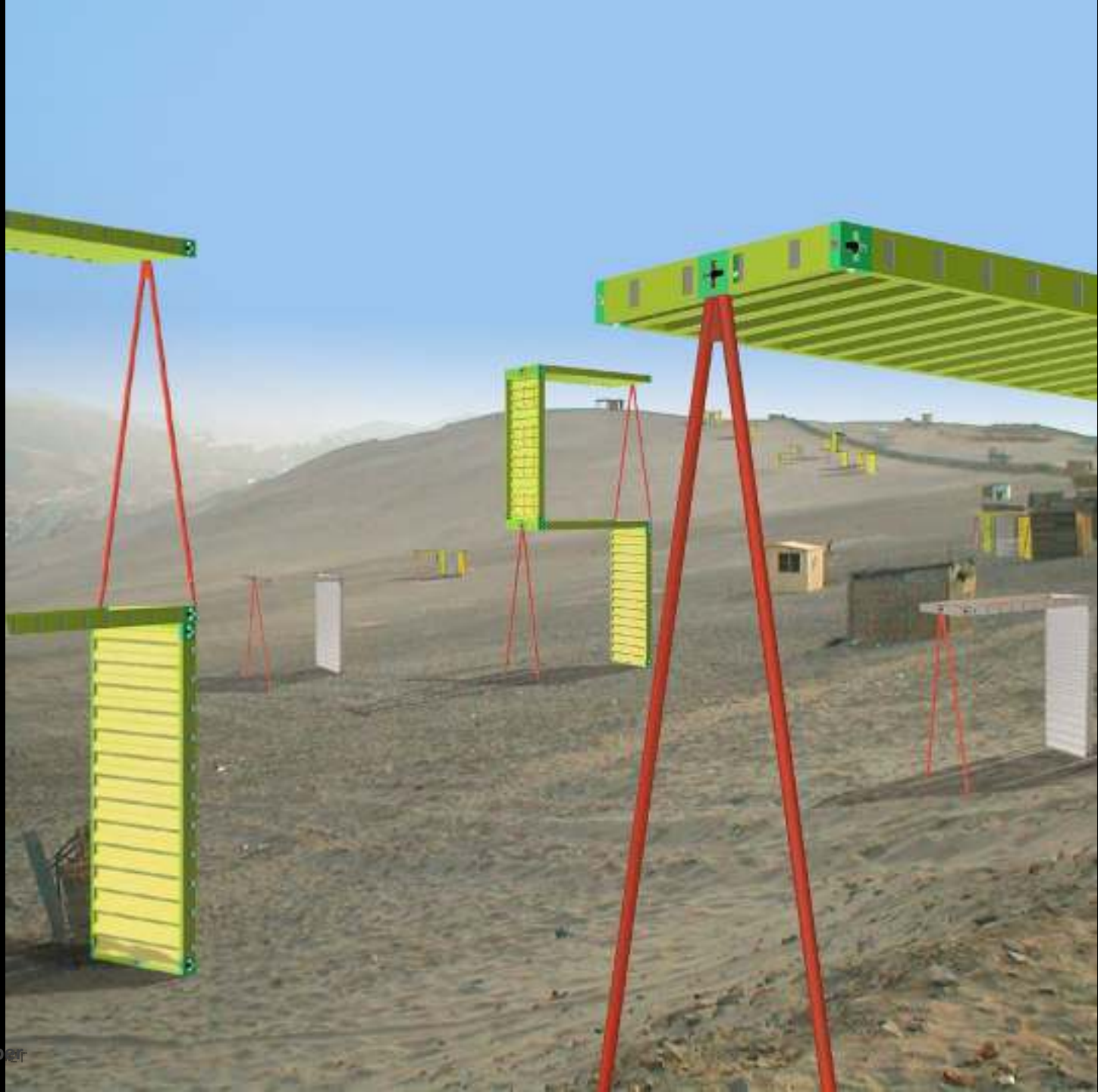
















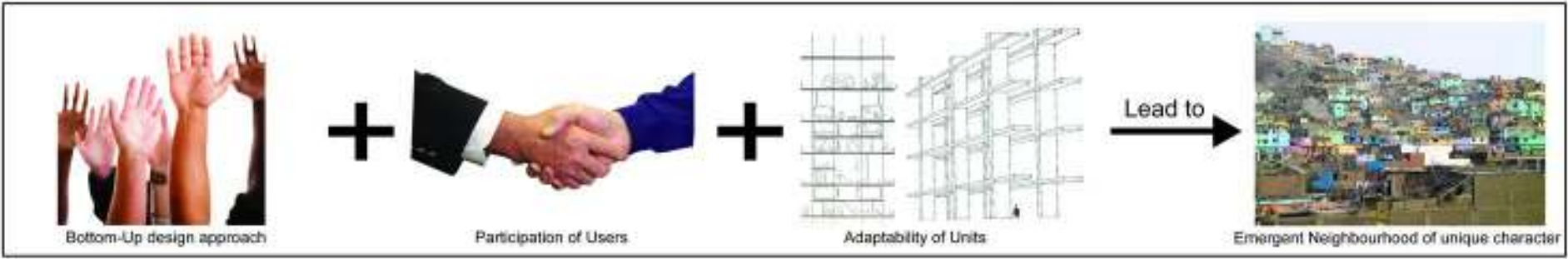






The Emergent Neighbourhood

Emergence: The way complex systems and patterns arise out of a multiplicity of relatively simple interactions



Strategy of implementing Emergence

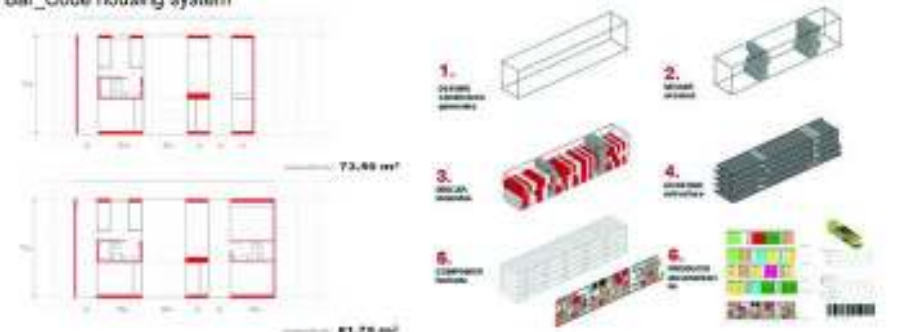


System





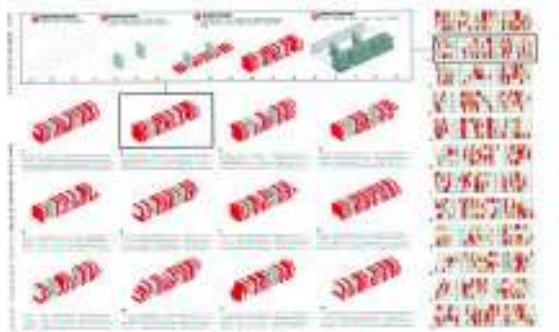
Autonomy



Bar_Code housing system

Each house is made with the addition of a spacer of module a(120cm). This will enable flexibility and adaptability.

Each block is then an aggregation of each unit. The block is kept at 4 storey high so that it would be unnecessary to have elevator.



Steps the system take to design the building block. 1-determine population, 2-determine access, 3-customising of units, 4-structure, 5-facade, 6-documentation



Learning from the Informal Settlements
Teddy Cruz: Manufactured Sites

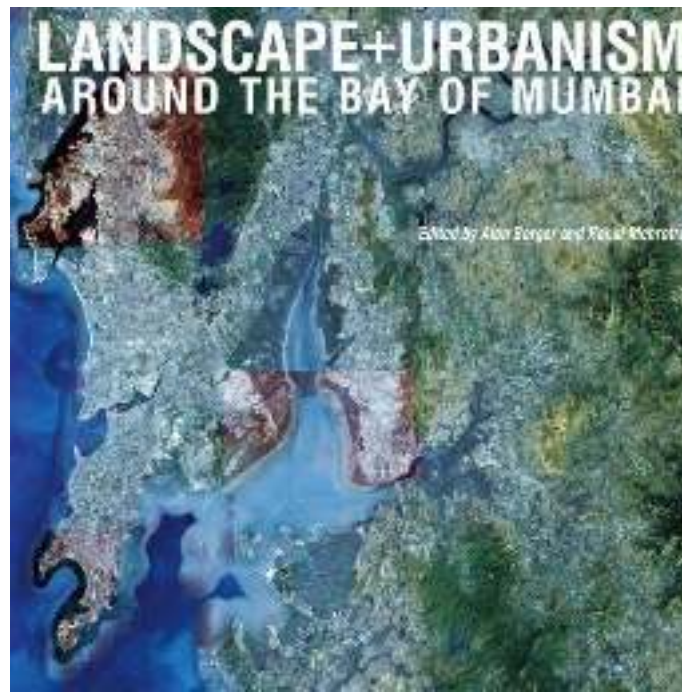
As shown in the images, The components will be delivered to the site. The community can then use the various components in varying combinations to construct community facilities or extension to their home. This will produce a result of emergence, in which pre-planning played little role in determining the end result. And the end result arose from the simple interactions between neighbours.



FORECAST, ANTICIPATE AND CONDITION: BUILDING IN THE MANGROVE

MUMBAI

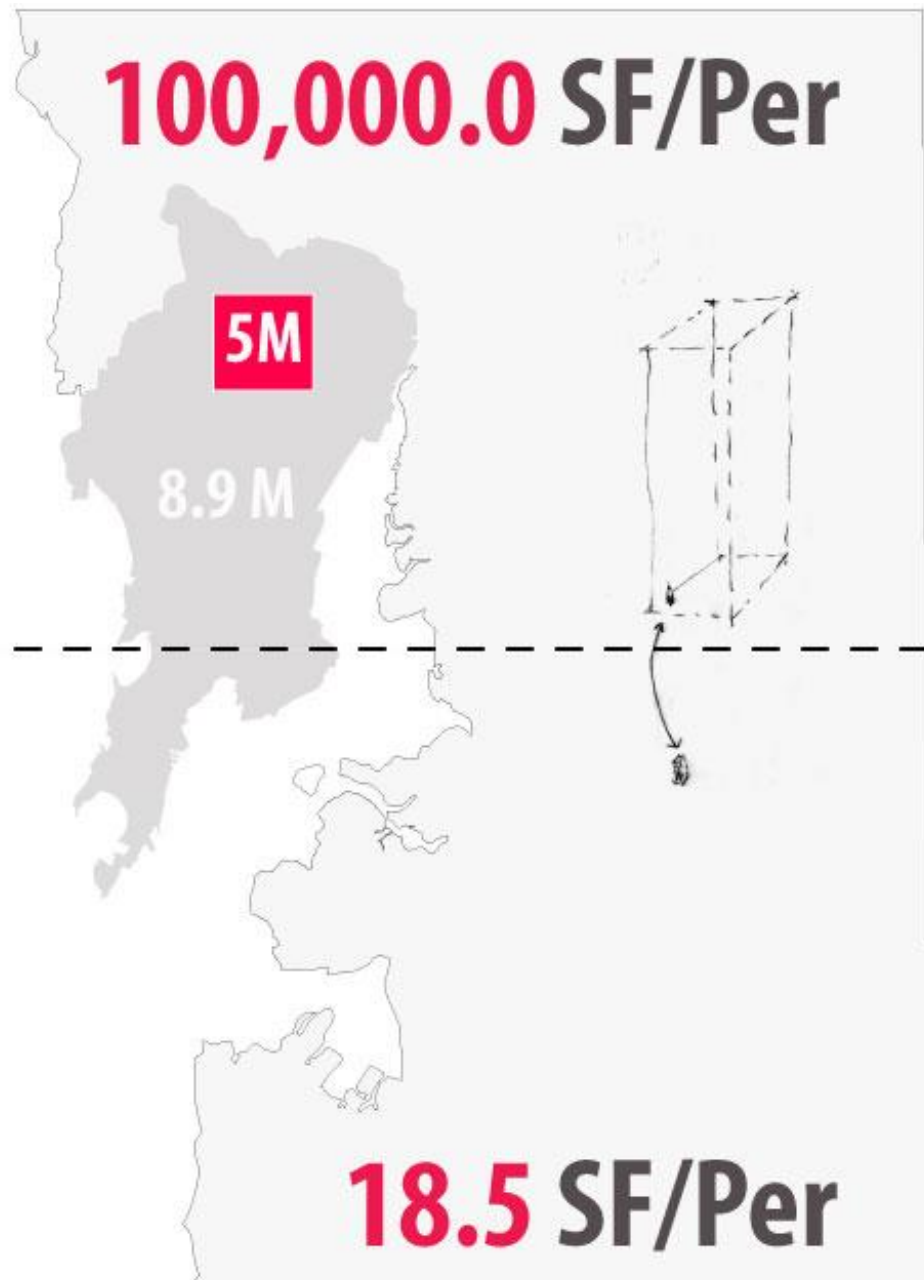
Urban Design Studio



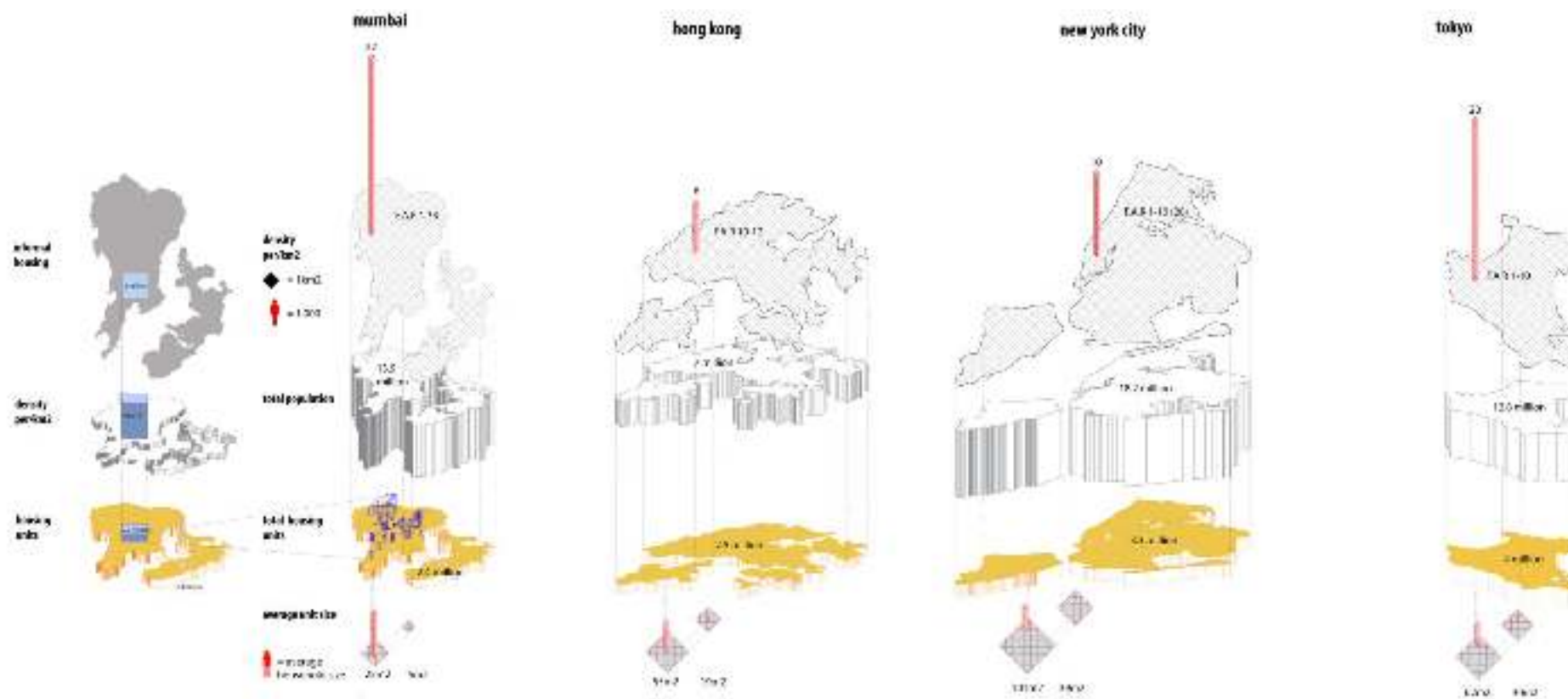
URBAN GROWTH PEOPLE PER HOUR



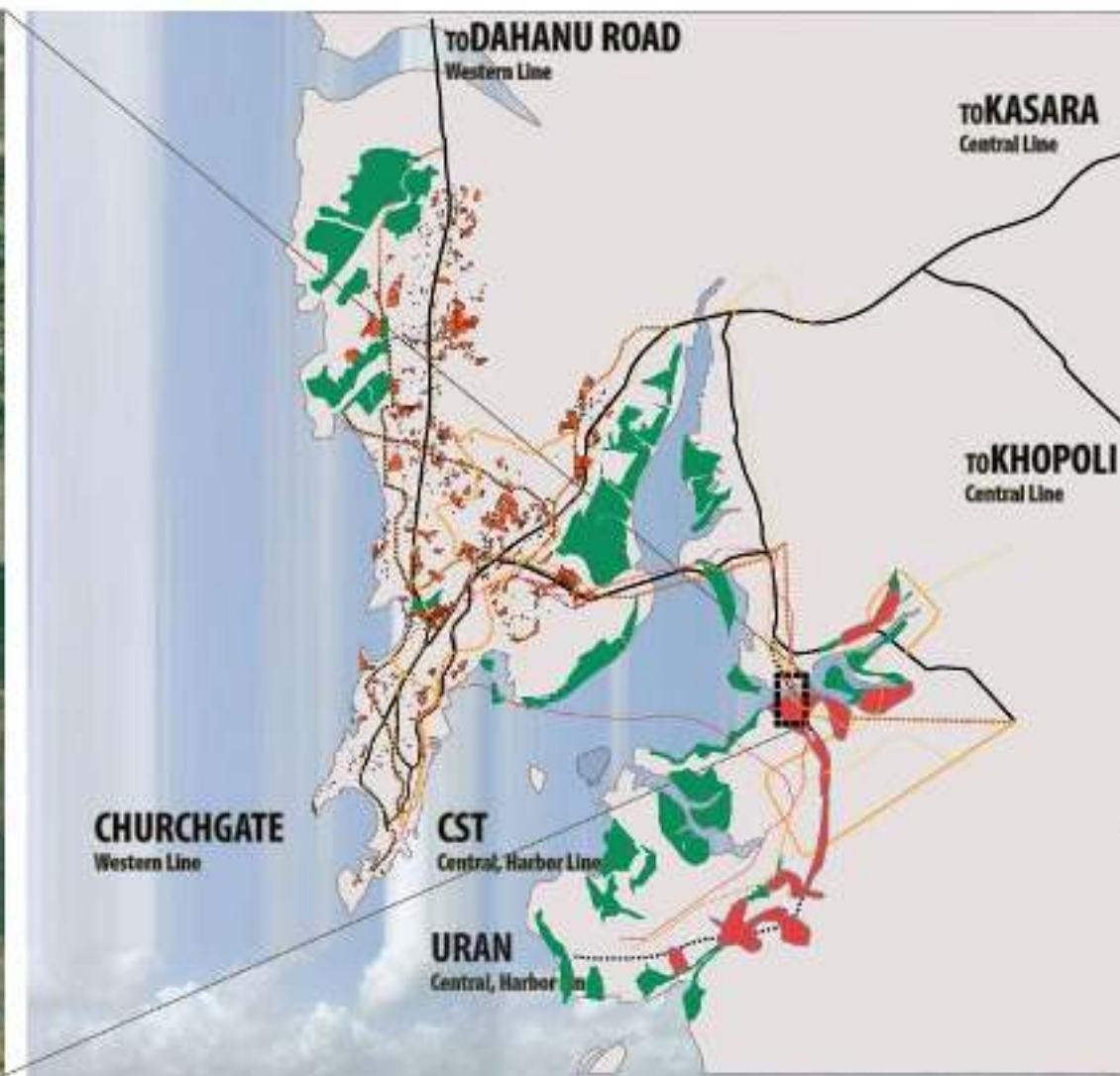
MUMBAI DENSITY HOUSING DENSITIES



WORLD CITIES DENSITY HOUSING UNITS



FUTURE SLUM TRANSIT + ECOLOGY



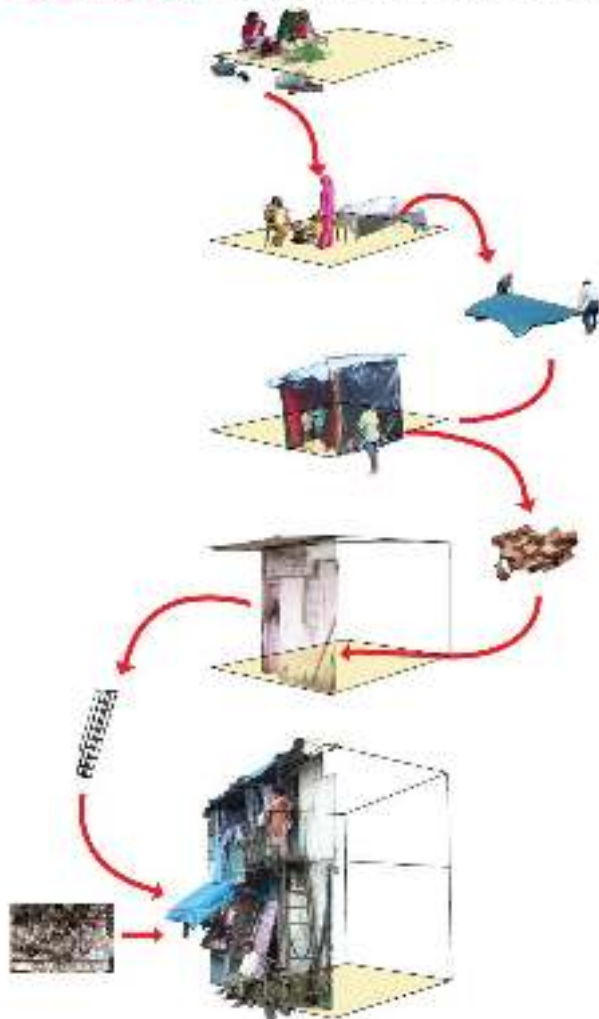
SLUMS

- EXISTING SLUMS
- AREAS OF FUTURE SLUMS

TRANSPORTATION

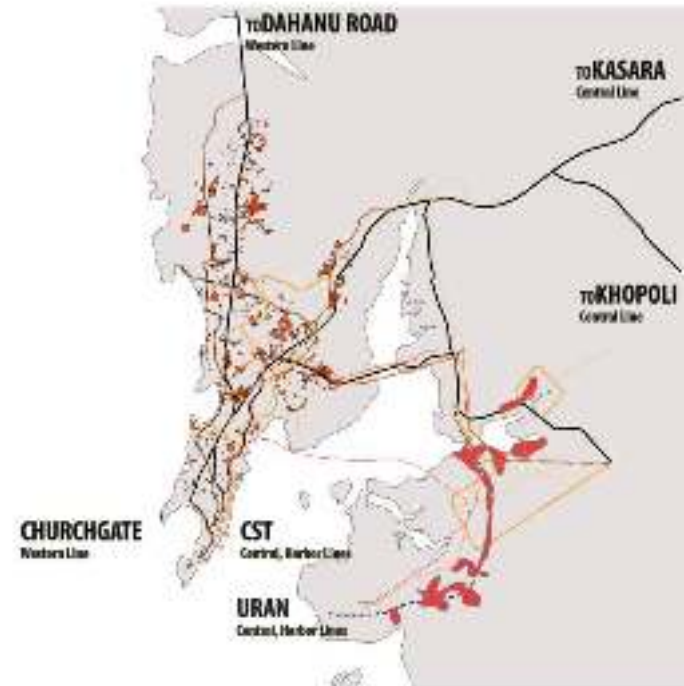
- EXISTING LINES OF TRAIN
- PROPOSED LINES OF TRAIN
- PROPOSED LINES OF METRO

SUCESION HOUSING + ECONOMY



SLUM

SLUM
 EXISTING SLUM
 NEW SLUM
 TOTAL SLUM
 EXISTING SLUM
 NEW SLUM
 TOTAL SLUM



Life and Death of an Informal settlement



Mankhurd 2000-2009



Mankhurd 2000-2009



Mankhurd 2000-2009



Size 01, 2000

Mankhurd 2000-2009

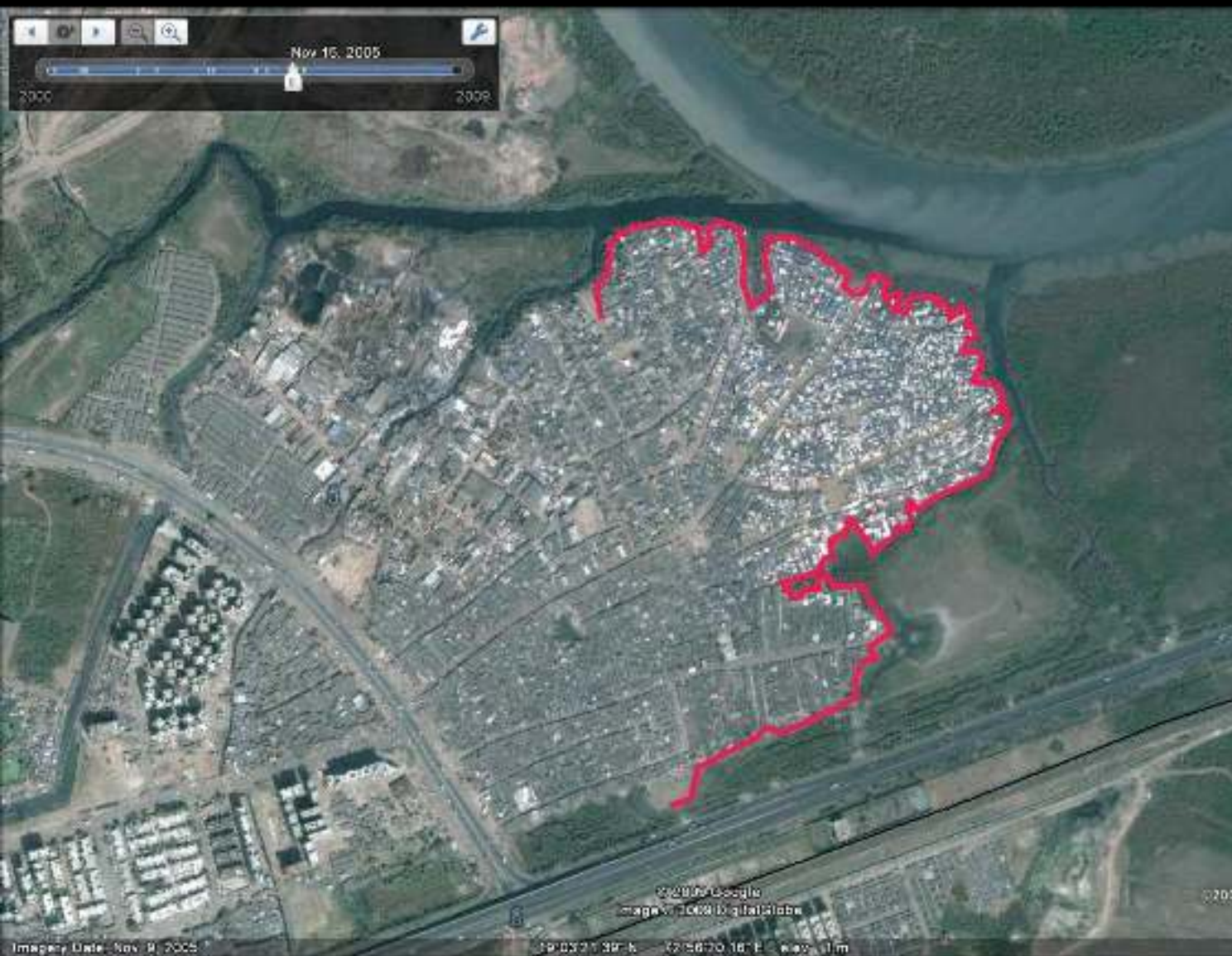
© 2009 Google
Images 2009 DigitalGlobe

Imagery Date: Feb 25, 2002 - Nov 12, 2009

19°03'21.39" N 72°58'20.18" E elev: 11m



Mankhurd 2000-2009



Mankhurd 2000-2009



Mankhurd 2000-2009



Mankhurd 2000-2009



Mankhurd 2000-2009





100,000.0 SF/Per

FORMAL VS. INFORMAL

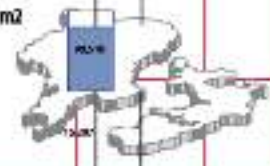
MUMBAI MAP Probable SUSCEPTIBLE AREAS



informal housing



density per/km2

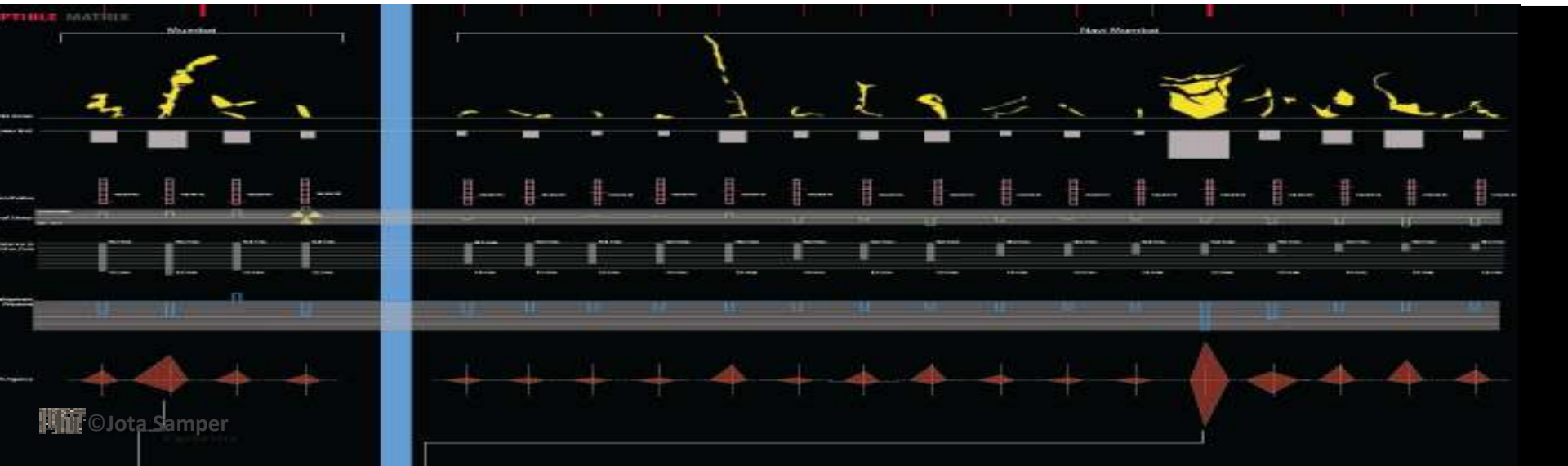


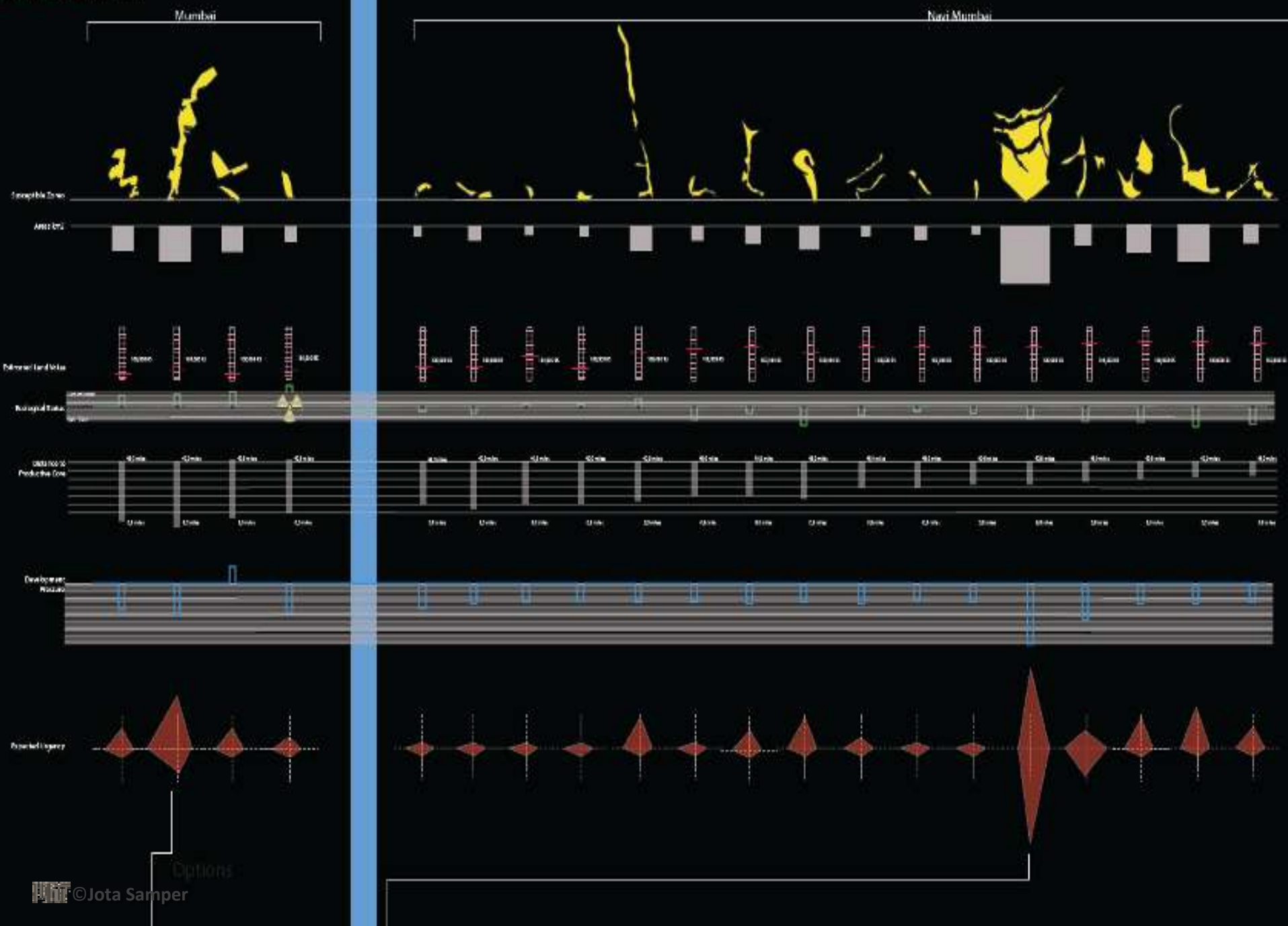
housing units



18.5 SF/Per

- AREA 1 - AREA 10
- POP DENSITY 100000 / KM2
- POP DENSITY 50000 / KM2
- POP DENSITY 25000 / KM2
- POP DENSITY 12500 / KM2
- POP DENSITY 6250 / KM2
- POP DENSITY 3125 / KM2
- POP DENSITY 1562 / KM2
- POP DENSITY 781 / KM2
- POP DENSITY 390 / KM2
- POP DENSITY 195 / KM2
- POP DENSITY 97 / KM2
- POP DENSITY 48 / KM2
- POP DENSITY 24 / KM2
- POP DENSITY 12 / KM2
- POP DENSITY 6 / KM2
- POP DENSITY 3 / KM2
- POP DENSITY 1 / KM2
- POP DENSITY 0 / KM2





Area Selected

Port of Mumbai

Sewer

Historical Pressure



SELECTED SITE



SUCESION HOUSING + ECONOMY



All Development following topography systems



Internal development and road network



Internal crossing



All development



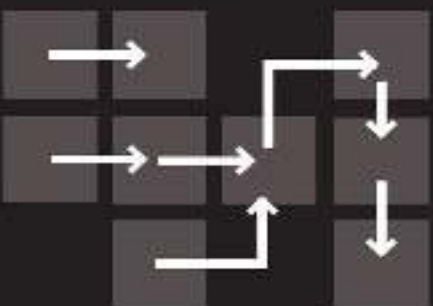
Development within and around



Internal development and edges



Edge developed and internal development



Development within and around

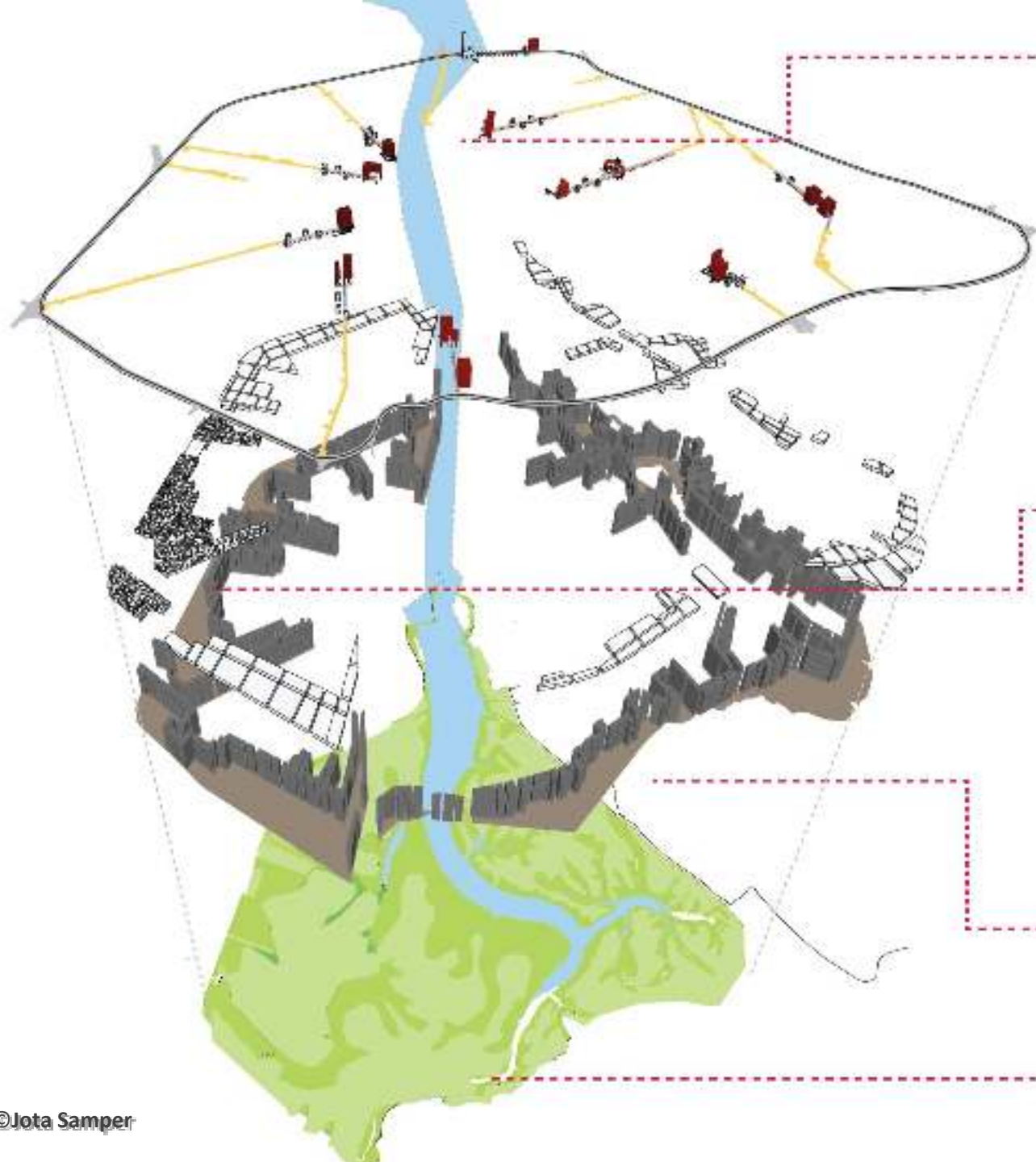


Development within and around



Development within and around





INSTITUTE STRUCTURE



TECHNOLOGY + MATERIALITY



PLAYGROUND - HOUSE EDGE



DISCIPINARY LANDSCAPE PLANNING



PHASING: PROPERTY RIGHTS + NEGOTIATION



PHASE 1

Initial planning and development of the project.

PHASE 2

Initial planning and development of the project.

PHASE 3

Initial planning and development of the project.

PHASE 4

Initial planning and development of the project.

PHASE 5

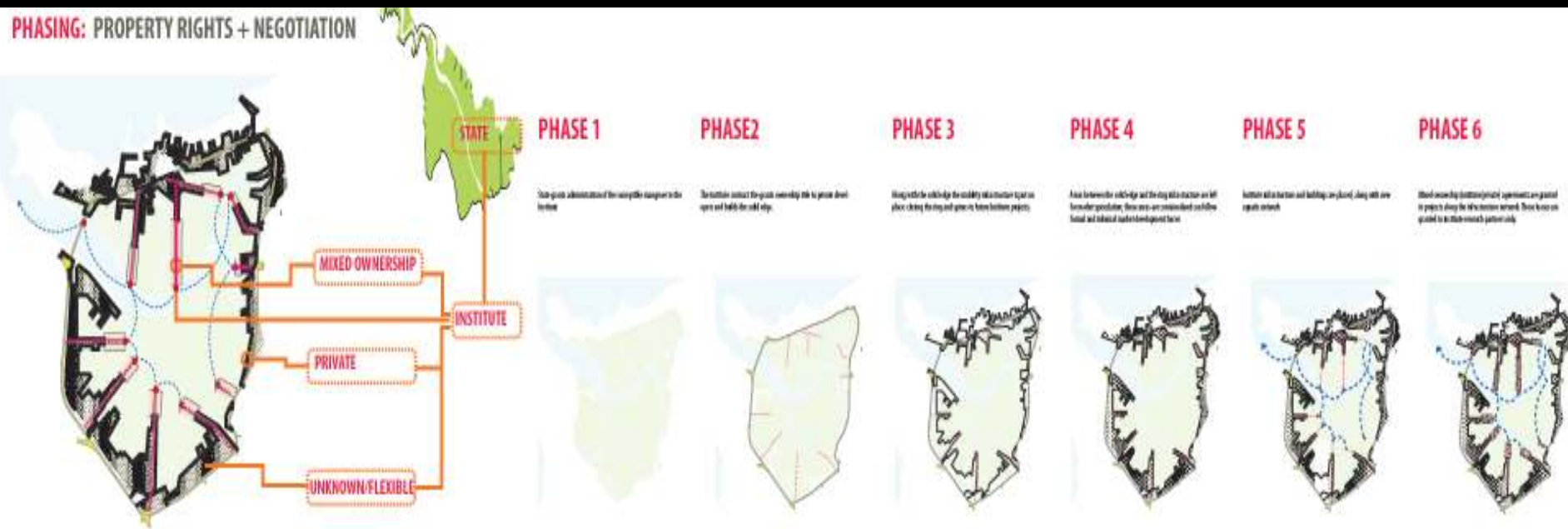
Initial planning and development of the project.

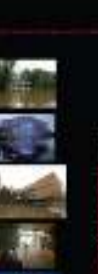
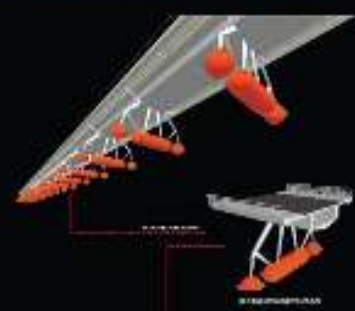
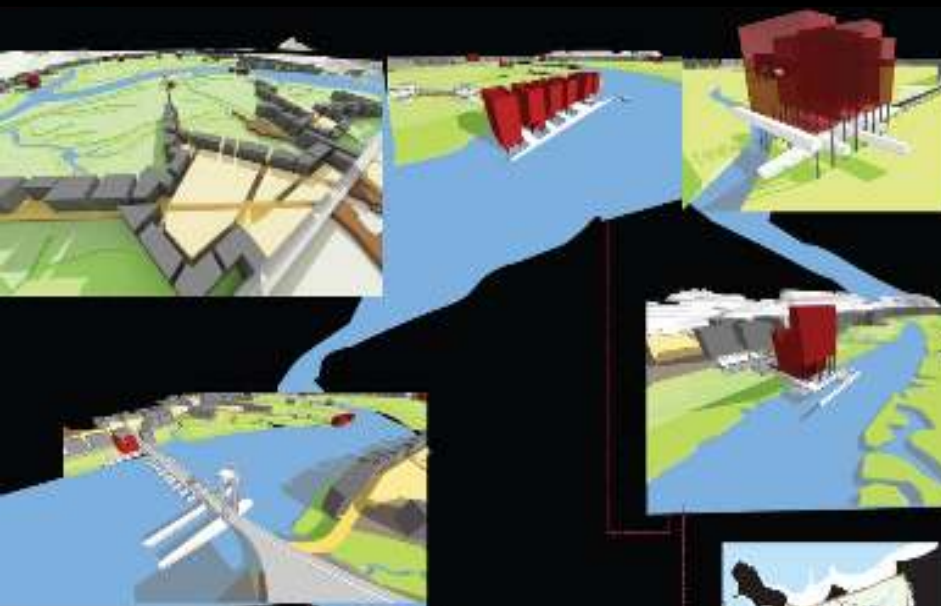
PHASE 6

Initial planning and development of the project.



PHASING: PROPERTY RIGHTS + NEGOTIATION





CONTEMPORARY DESIGN

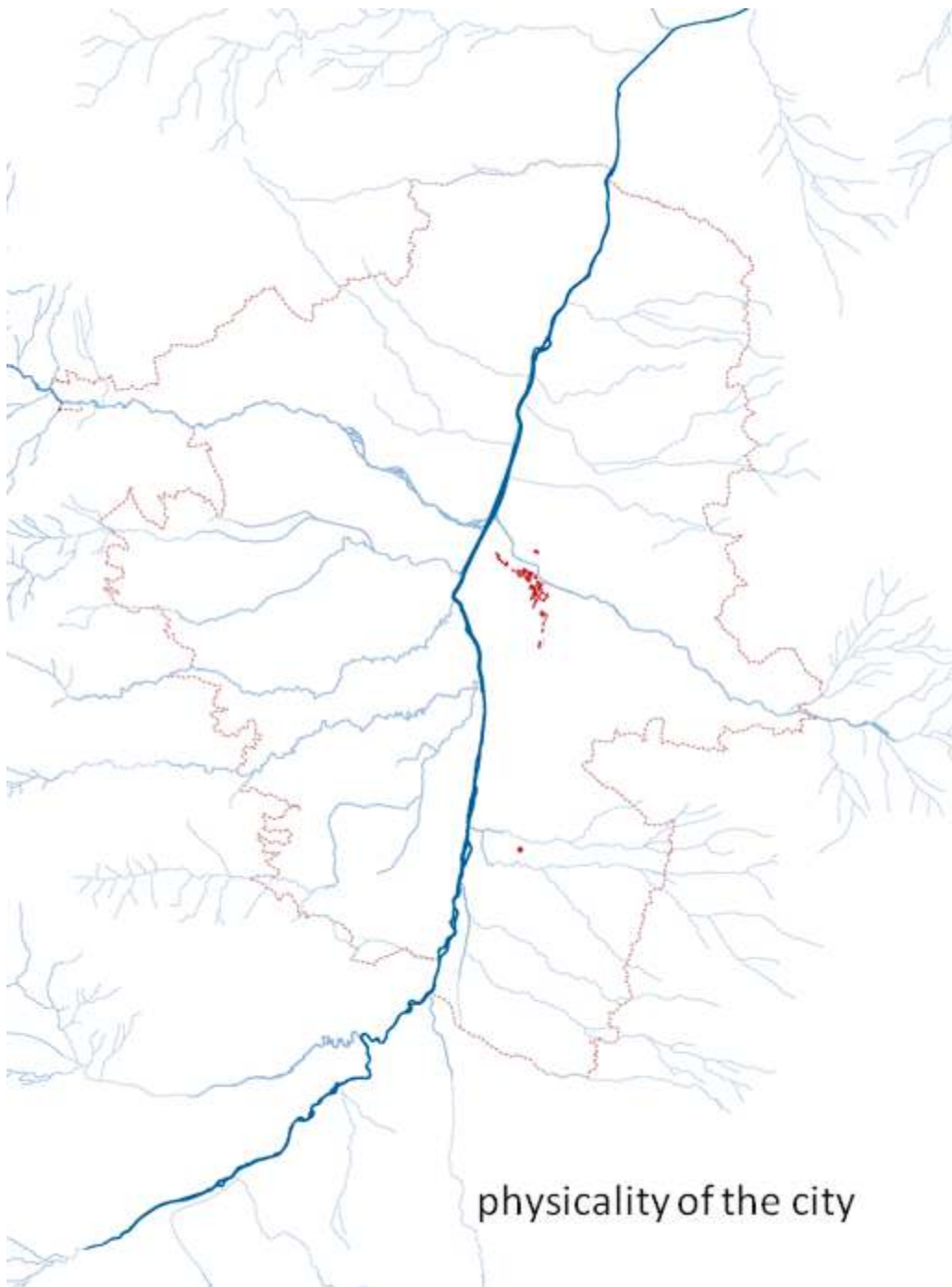












1700

physicality of the city

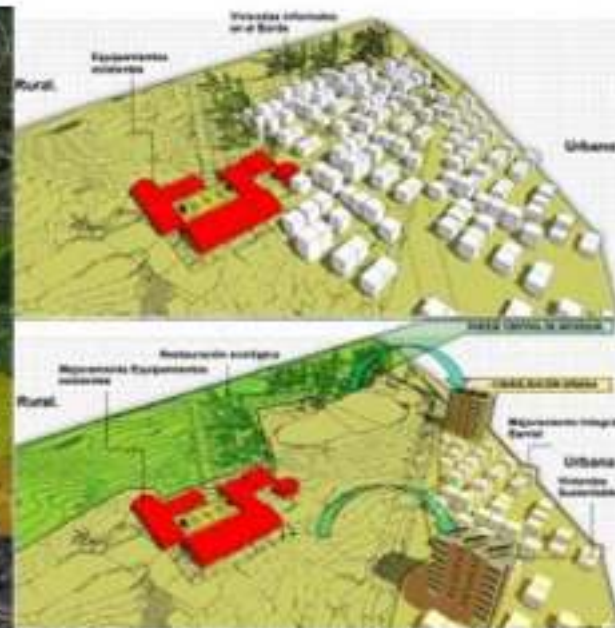
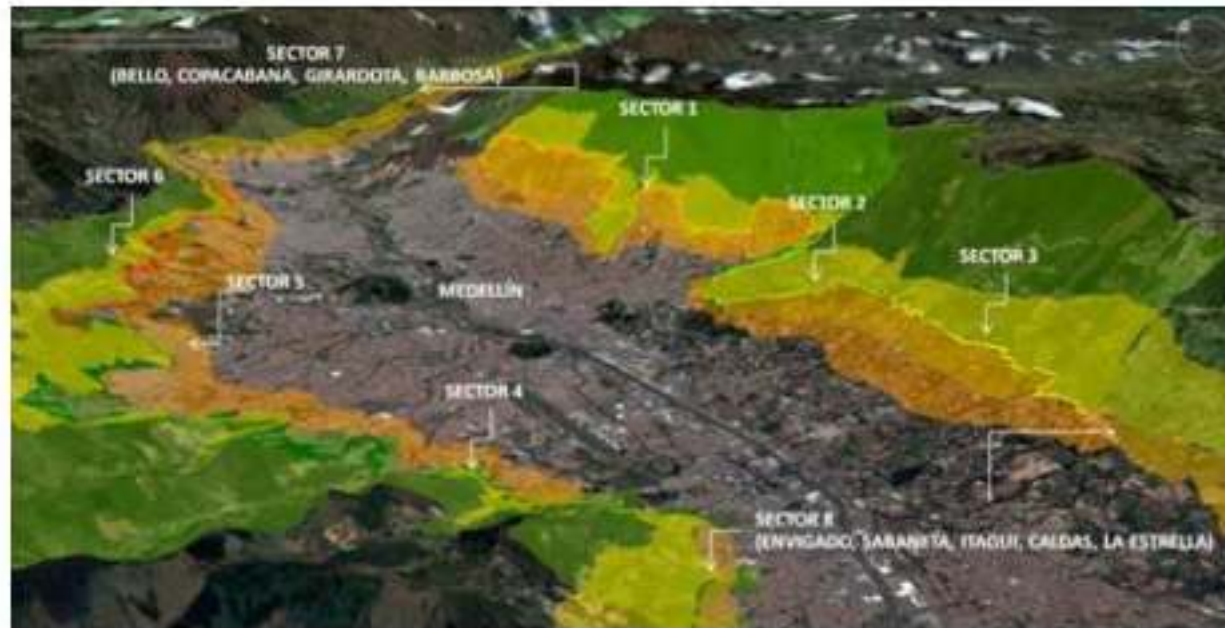
Medellin, Colombia Workshop



Mapping, forecasting and acting informal settlements

Practicum Proposal (Fall 2013)

(Spring 12 Units + IAP 3 Units Field work in Medellin, Colombia)



Green belt proposal (showing on the Images areas to be Intervene by the project) Source: EDU

Gracias

