

COMPARATIVE STUDY OF GLOBAL INCREMENTAL HOUSING SYSTEMS

This study examines how different incremental and non-incremental social housing types are produced, vary spatially across cities and relative to particular contexts, and feature different constructive, programmatic, use, morphological, and typological differences. Drawing on google street view studies, we modeled each building, and animated its phases and systems to compare how incrementalism operates differently in different contexts.

In the 1970s, incremental housing was introduced by international aid agencies as a socially, economically, and technically viable approach to low-income community development in high-growth regions of the global south, because it was a model that users could expand incrementally over time and as resources permit. A range of incremental housing models was disseminated by international aid agencies in rural and high-growth areas, where these models took on different shapes and sizes, as they adapted to diverse geographies, building cultures, and political economic regimes.

In parallel, architects designed non-incremental social housing models, from modern (context independent) and, upon acknowledging informality, postmodern (context dependent) perspectives.

Both approaches are responses to the uneven development of housing.

To capture these comparative dimensions of incremental and non-incremental housing types, the study undertakes a an analysis of housing projects and their urban context, to (1) identify the boundaries of the city and district – neighborhood; (2) delineate the spatial (structural) organization of each; (3) identify the components, layers, and patterns that contribute to the district-neighborhood’s social, technical, and biophysical context, character, and modes of human life; and (4) categorize the course’s set of cases into smaller typological sub-groups. As a distillation and edited, comparative study of 26 cases, the diagrams should not represent all information, but only the information necessary to formulate research questions, and systematically compare the spatial, zoning, circulation, and typological variations across the incremental and non-incremental housing models listed below.

Comparative Cases

	INCREMENTAL SOCIAL HOUSING		NON-INCREMENTAL SOCIAL HOUSING	
	Community	City, Country		
1	Villa El Salvador	Lima, Peru	Mariaplaats, Utrecht	Bob van Reeth, AWG Architecten
2	São Francisco	São Paulo, Brazil	Quinta da Malagueira-Evora	Alvaro Siza
3	Heliópolis	São Paulo, Brazil	Alcácer do Sal Housing	Aires Mateus
4	Colonia El Pepeto	El Salvador	Sa Pobla Social Housing	Ripoll-Tizon
5	Ciudad Netzahuacoyotl	Mexico City, Mexico	Pedregulho Social Housing	Affonso Reidy
6	Solanda	Quito, Ecuador	Caraíba Social Housing	Joaquim Guedes

7	Noukchott	Noukchott, Mauritania	Madrid Housing	Morphosis
8	Dalifort	Dakar, Senegal	Silodam	MVRDV
9	(Various)	Lusaka, Zambia	Gifu Kitagata	SANAA
10	Dagat-Dagatan	Caloocan, Philippines	Mulhouse Social Housing	Lacatan and Vassal
11	Ciudad Bachue	Bogota, Colombia	Bamburral Social Housing	Brasil Arquitetura
12	Independencia	Lima, Peru	Khayelitsha Social Housing	Urban Think Tank
13	La Presita	El Salvador	Mirador Housing	Morphosis

Drawing categories four scales (city, district, block, building)

D1 Urban Boundaries Urban context

Draw the city's urban boundaries – political economic and physical expansion; historical urban core and or ports (delineate the block structure), primary circulation networks, water systems, the district boundary (as a polyline), and the district streets.

Consider: how are different layers and/or systems experienced and organized in the district? How does the context (buildings, blocks, land uses, and trees) inform geometry, pattern, and volume? What does the district connect (or block)? What significant streets, public spaces, or buildings intersect or feed into the district? What are the edge conditions?

Drawing Type: Plan 1:100,000

D2 Connections District context

Delineate the formal organization of the district, its streets, and main physical characteristics. Draw the buildings, blocks, and other elements (such as public transport stops, public buildings, civic spaces, lighting) that define the district. Identify the incremental or non-incremental housing blocks (as a polyline) and their morphologies.

Quantify for each (Incremental and non-incremental) case:

Total # of case blocks (incremental housing types may be distributed – how many blocks are there?)

Total square meters of case blocks

Consider: What are the broad consolidation patterns across the case? What are the edge conditions? Are there clear boundaries between different land uses? Compare the morphology of your case relative to these conditions.

Drawing Type: Plan 1:1000

D3 Social life and organizations Block context and types (1:500)

Extrude the following layers into a series of volumes: blocks, buildings, walls, etc. Insert trees. Distinguish specific volumes, land uses (residential, commercial, industrial, civic), and tenure (ownership) that contribute to the district's cultural character, social use, spatial qualities, and urban function.

How many houses have been fully consolidated?

Quantify for each (Incremental and non-incremental) case:

Incremental

 Within selected block

 Total # of lots

 # 1 story

 # 2 story

 # 3 story

 # 4 story

 # > 5 story

Lot square meterage

Total # of housing units in each block

Total # of housing units

Unit square meterage

Consider: What are the different morphological (urban fabric) characteristics? What are the edge conditions? What is the transition between the street, block, surfaces, and building edges? What is the sequence of access?

Drawing Type: Aerial and Axonometric 1:250

D4 Narrative Lot evolution (1:100)

Draw on literature and use the time lapse function in google earth to draw and model your cases as they have evolved in time. For incremental types, clearly identify the core, and use google street view to identify housing expansion: construction phases, material changes, volumetric changes. For non-incremental housing types (buildings), clearly identify the site's former use (was it a field? An industrial site? A landfill? Other housing?)

Second, write a 100 word synthetic narrative that introduces your cases, their location, similarities, differences, and why their key spatial operations were appropriate when they were built, and if they remain appropriate given housing conditions today. Identify the gap. State the lesson learned.

Consider: where is the core, and what is the build out? What was the goal of this model? What was it trying to achieve as a response to informality and the crisis of housing? What was the reality? And is the model viable (in amended form) for today?

Drawing Type: Plan and Axonometric 1:100