

حدود المدينة



CITY EDGES

CITY EXPANSION

Edge Definition

Edge Activities

Edge History

Boundary Character and Case Selection

INFORMAL EXTENSION OF THE OLD TOWN

Actors and Development

Law and Informal Housing Strategies

Informal Construction and Building Techniques

Trouble of Informal Settlements

PUBLIC HOUSING ON THE EDGE

Actors and Development

Typologies of Public Housing

Site-and-Service Project

SYMBIOSIS BETWEEN INFORMAL AND FORMAL

Actors and Development

Decaying Village and Public Housing

Booming Informal Housing

BOUNDARY BALANCE

Tradition as Background

Prices as Activator

Calibrating Informal and Formal

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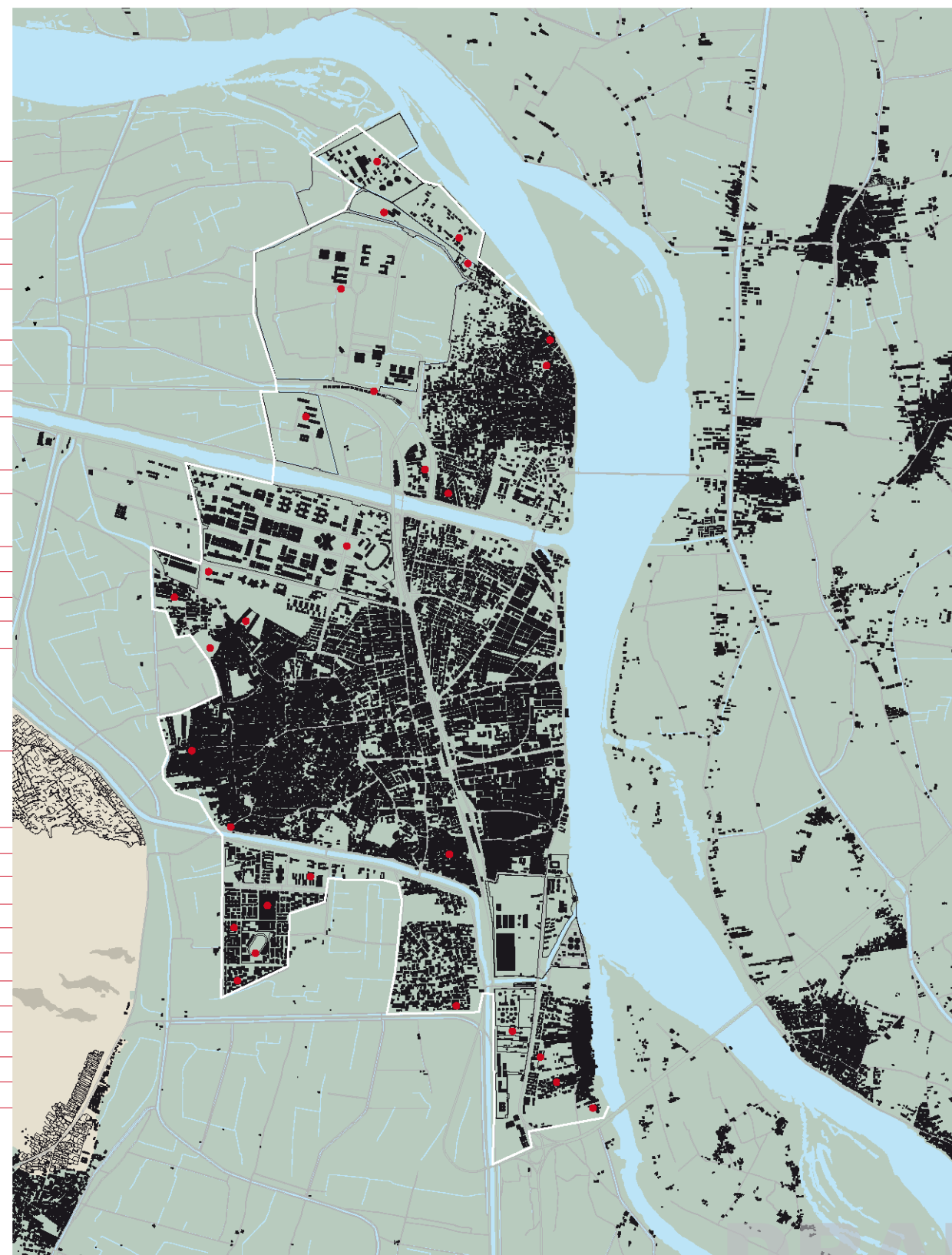
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CITY EDGES

Assiut lies in the middle of the Nile Valley—almost in the middle of Egypt—with a perimeter about 24 km, and a population of 40,970 growing at 2.6% per year. On the amorphous zone between urban and rural, the most active energy and dynamics are contained under a banal surface. Here, a struggle between city expansion and agricultural land protection, a competition of uncontrolled and controlled developing, and a pendulum of lifestyle between traditional and modern are happening.



			power station
private housing			
housing of power station	girls' primary school		
	al-azhar university		
informal housing			
el wilidya old village			
public housing	dormitory of university		
		medical center	
nasr highrise			
	assiuat university		
	hospital of university		
informal housing		girl's city	
		vacant land	
informal extension of old town			
		fruit market	
informal housing	decorative industrial school		
site and service project			
economic housing		stadium	
intermediate housing			
moalmeen housing association			industrial area
public housing			
informal housing			
el nazle old village			



Edge Definition

City Edges without Zoning Plan?! In 1985, the city edge was defined as the limit for outermost building. The rigorous prohibition of building beyond this edge impacted informal housing on the edges. But the pressure inside the border is almost unendurable.



A Wall



D Waste



B Old village



E Informal housing and agricultural land



C Highrise buildings

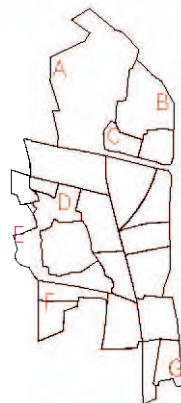


F Public housing



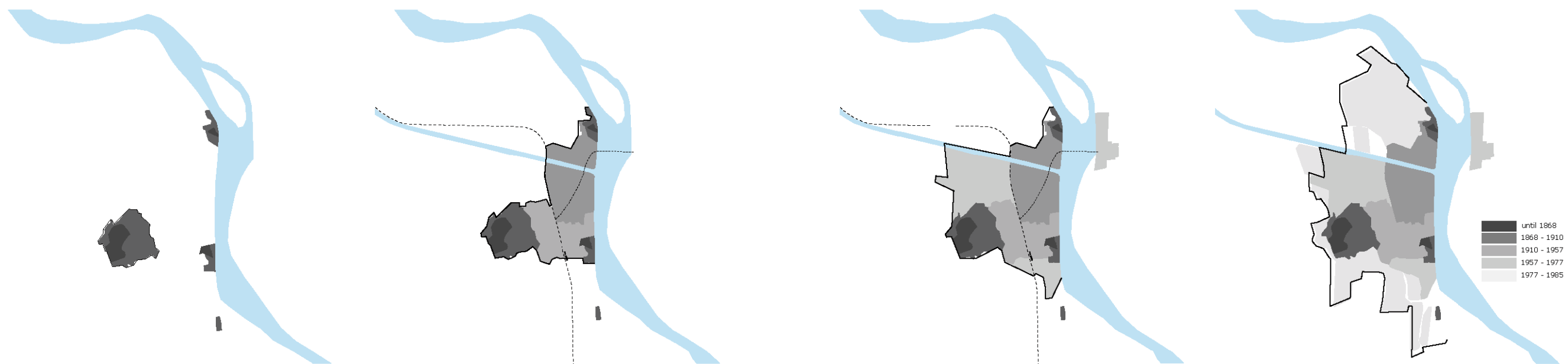
Edge Activities

Due to a strong population increase since the mid-20th century and ongoing urbanization of the entire valley, Assiut is constantly expanding into surrounding agricultural land. Most of such developments are informal. During the 1970s and 80s, the government tried to direct city expansion by developing different types of public housings, but these efforts are now largely diminished.



G Riverbank



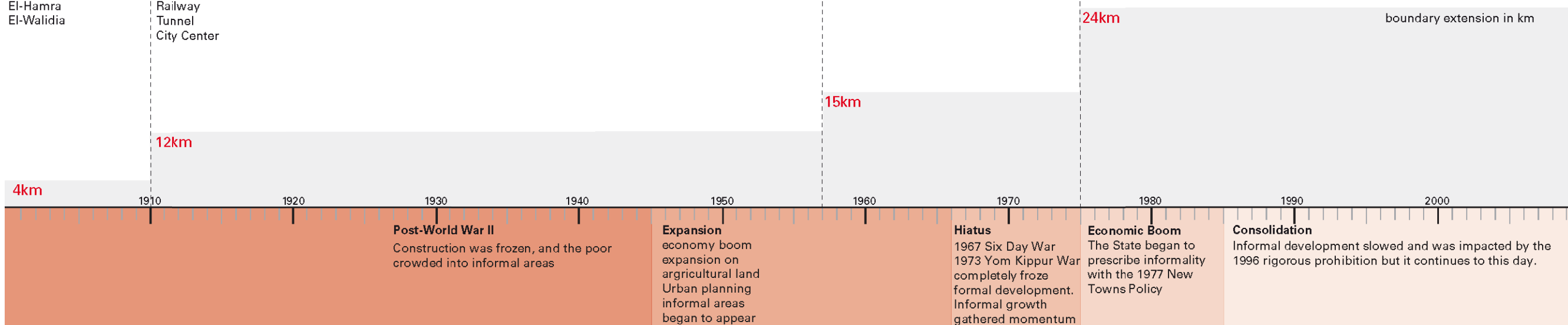


old town 52.7m
above the sea level.
El-Hamra
El-Walidia

Ibrahimia Canal
Assiut Dam
Railway
Tunnel
City Center

1957 Assiut University

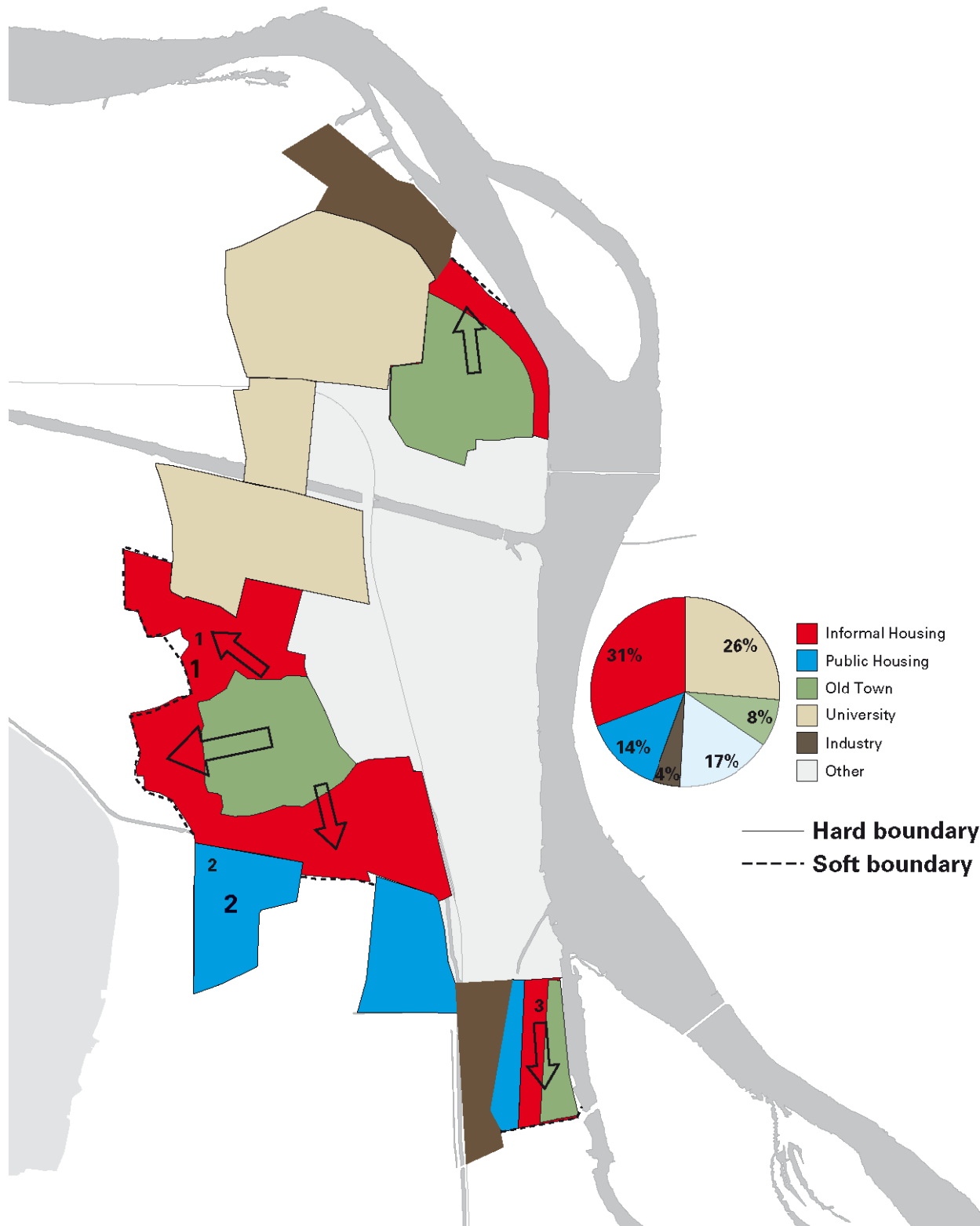
1975 Al-Azhar University
Public Housing Project



Edge History



A Visible Boundary?



Boundary Character and Case Selection



Case 1: Informal Extension of the Old Town in City West

Informal expansion on mostly agricultural land continues at a rate which is three times that of "formal" expansion.



Case 2: Public Housing on the Edge in Arbeen

The planned residential satellite town neighboring the city was built in 1970 on Assiut's prime agricultural land.



Case 3: Symbiosis between Informal and Formal in El Nazle

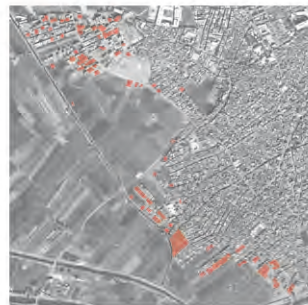
As public housing and the old village decay, the informal development in between continues at an amazing speed.

INFORMAL EXTENSION OF THE OLD TOWN

Informal settlements on agricultural land are defined as private residential buildings constructed on land purchased from farmers in areas where there were no subdivision plans and where building permits were not given. At the edge of the old town, people are building up their living area with their own hands, under a traditional ideal image. When a boundary was set; some buildings became illegal and some legal. Under pressure of over-population and land limitation, the image of an ideal life in the city becomes distorted. The ideal environment shrank to a large enough house, a well-furnished room, amidst slum-like surroundings.

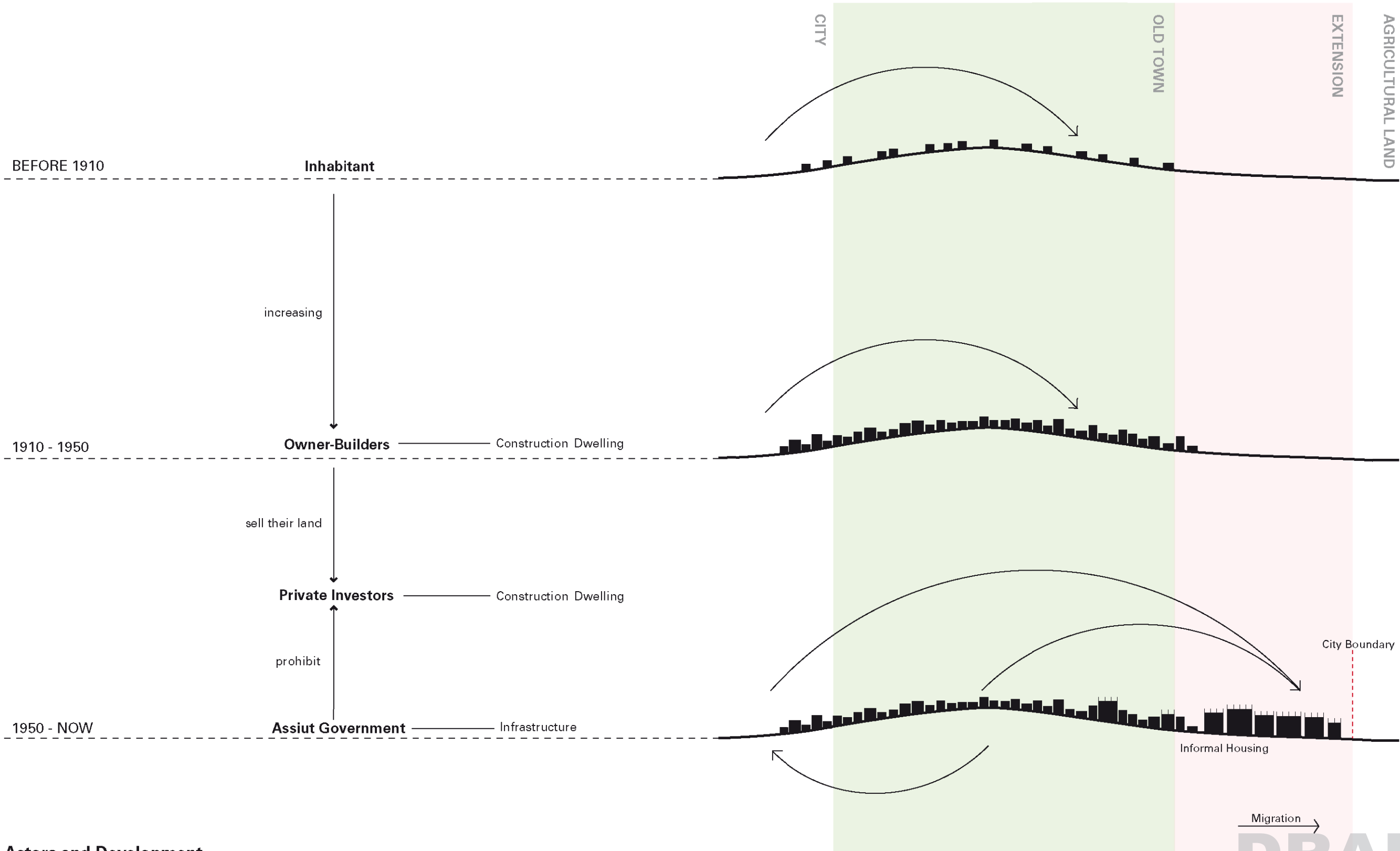


2002

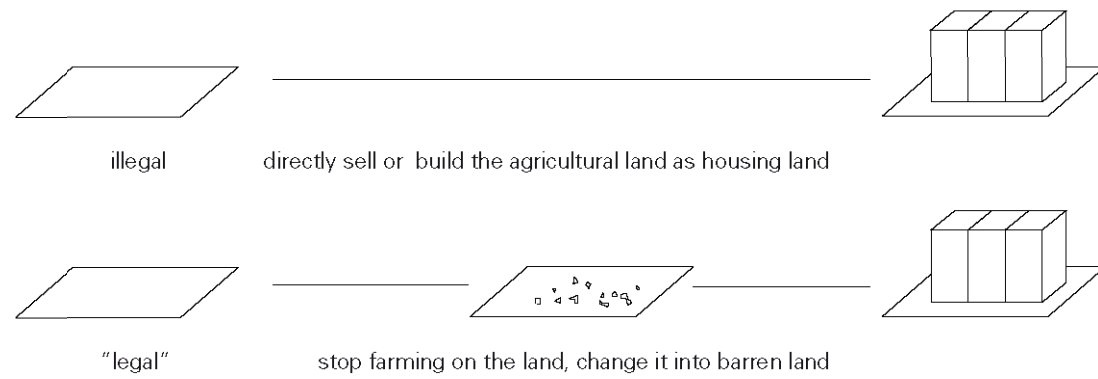


2009





Actors and Development



AGRICULTURAL LAND



BARREN LAND



INFORMAL HOUSING

In Egypt, about 70% of informal houses are built on agricultural land. Faced with urbanization pressures, owners stop cultivating the land for a period of time until it becomes "Bur" or barren land, a status that they seek to officially document through complex, bureaucratic, time-consuming, and costly procedures to circumvent laws prohibiting construction on agricultural land. The land is then subdivided and sold for housing construction. These figures reveal how agricultural landowners have largely succeeded to manipulate laws, in a process that is subject to much rent-seeking.

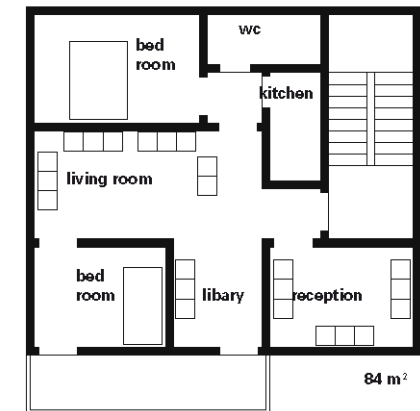
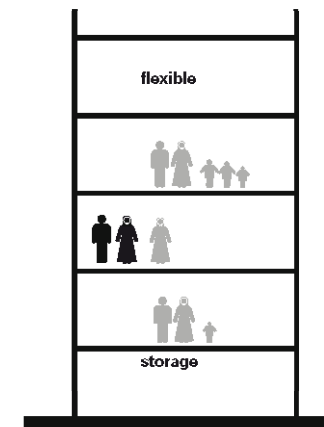
The planning law: "PHYSICAL PLANNING ACT (eg) / PROVISIONS OF THE ACT " Article II states that it is forbidden to establish any building or facilities outside the boundaries of the approved urban areas of the cities, villages or regions that have no approved strategic planning. The division of lands outside the approved urban areas is also forbidden with exception of the following:

- a) Lands used for projects that help in developing agricultural and food industries...part of the framework plan issued from the Council of Ministers after submitting it to the Minister of Agriculture.
- b) Agricultural lands located outside the boundaries of towns and villages upon which a private house or public building after the approval of the agriculture minister.



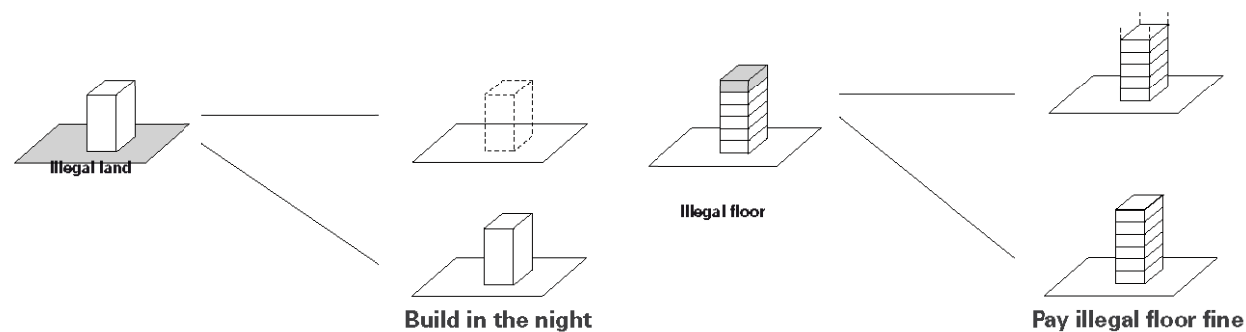
The Use of Barren Land

A rubbish lot and a playground for children.



An Image of Ideal Dwelling

This family formerly lived in the old town and came here in 1998 to build their new house; construction continues today. Three generations live in five floors with an area of 85 m² over a 110 m² plot. The fourth floor is illegal. Over-height buildings are common; as land prices increase, everyone makes full use of the land. The sweet family enjoys city west life and are proud of their salon-like reception room and painted frontage. They describe their ideal house, in the same way that many would tell: "The whole family lives together, close to relatives. Parents build up a house, each floor as a complete unit: one floor for themselves, and one floor for each son. As more sons come into the world, they add more floors to the house. Sons marry in this house. When their children grow up, they will build a new house as their parents did for them, generation after generation. The most beautiful time is when the whole big family sits on the roof terrace, enjoying the summer nights of a city on the Nile."



Illegal Land Building Strategy

After introducing the law to protect arable land from un-planned occupation, it is now illegal to build on agricultural land. The informal house on agricultural land should be removed without question. But when it is finished, there may also exist a back-stage "trade" to accept its existence.

Building Extension Strategy

According to the construction law, the maximum building height is 1.5 times the width of the street. The over-height floor would be removed if the government finds it under construction, however, if it is already finished, the owner can choose to pay a fine to keep the floor.

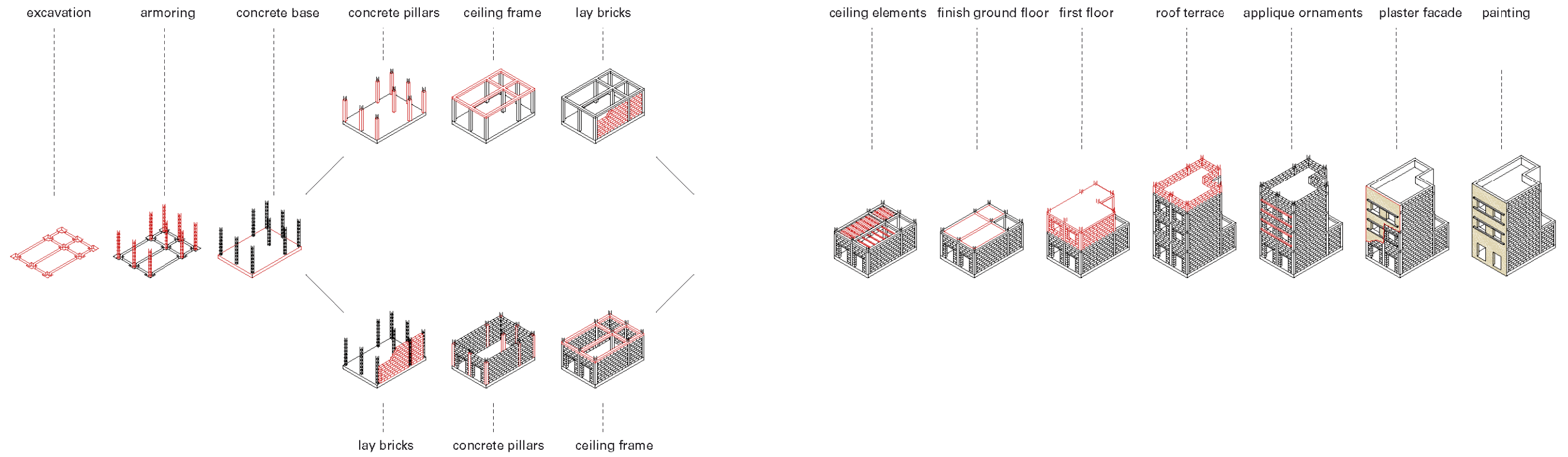


Informal Construction and Building Techniques

The owner-built housing construction process is financed entirely by individuals and families. Financial sources include savings, informal loans from friends and relatives, conversion of family assets, and auto-finance through sale or rental of early units. Remittances from Egyptians working abroad have been an important source, especially in the 1970s and 80s. The dominant mode of progressive building—room by room and floor by floor—allows the rate of investment to be tailored to family finances. The owner-builder normally relies on local masons or engineers for design, and will purchase materials, hire labor, and supervise construction themselves. They invest considerable time and effort in understanding the details of the process and local market realities. As a result, building costs are less than similar construction by the private sector and government. They avoid heavy costs of building permits, although this is somewhat offset by the need to pay bribes to local authorities. Good construction is more or less guaranteed since it is the builder himself who will own and “consume” the product.

Organization of Owner-built Housing

Construction began 20 days ago. The floor of the basement is just finished. The owner of the house is retired and comes to the site almost every day. The cost to build a house varies greatly. The construction from of a ground floor from start to finish generally costs 30,000 LE. Sample prices of most often used materials are as follows: bricks produced by a factory in small village 25 km from Assiut city, 220 LE/100 bricks; steel produced by a large factory in a new town such as Sixth of October, 3200 LE/ton; gravel from quarries found in many cities of Assiut governorate within a 9 km radius, 300 LE/m³; cement produced by Cemex, 520 LE/ton.

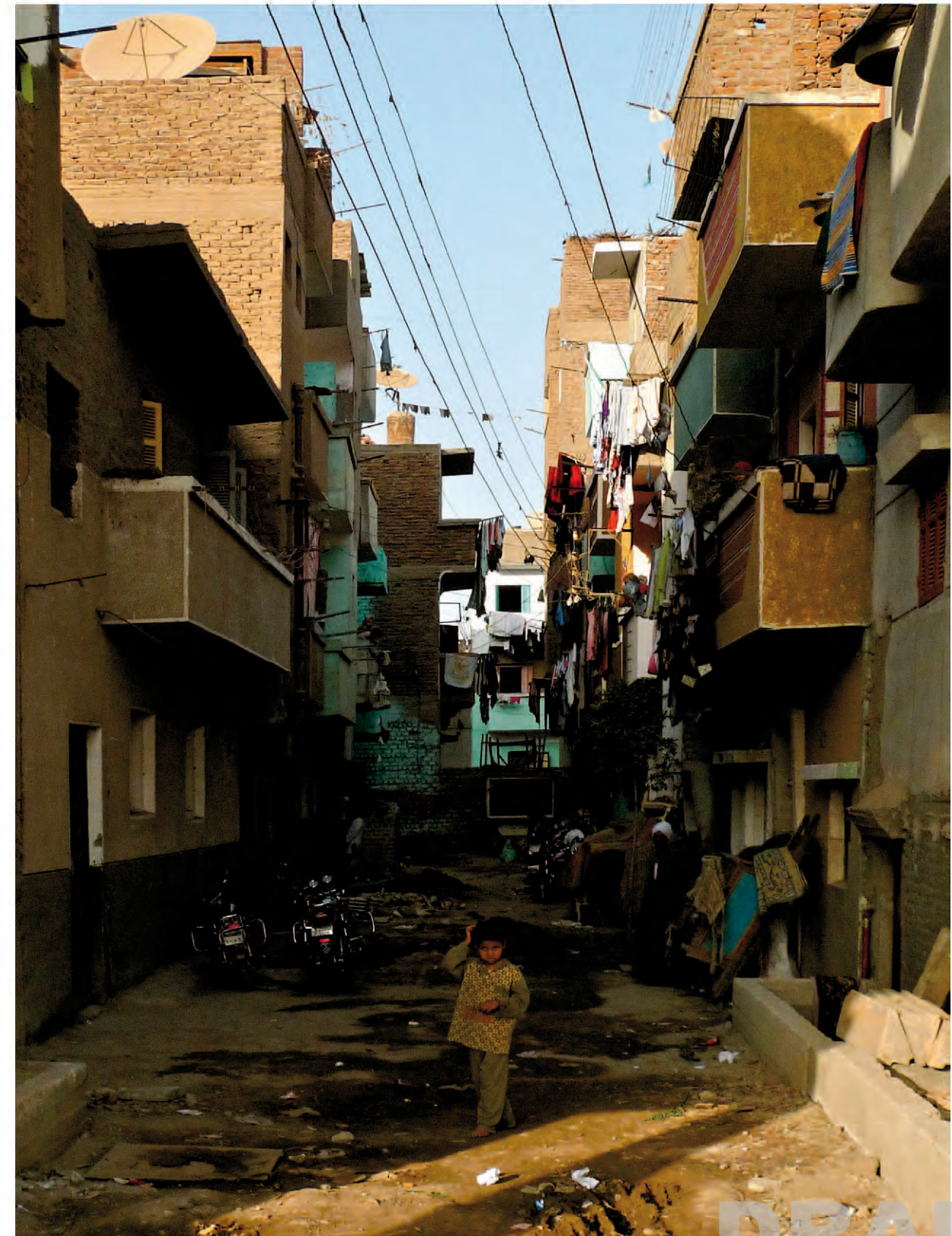


Informal Construction Process



Trouble of Informal Settlements

The main characteristics of informal areas are a product of their extra-legality, i.e. the complete lack of physical planning or control. These areas lack neither organized street patterns nor public space. Most streets are very narrow (2-4 m wide), except where canal and road right-of-ways allow for arterial streets. Land parcels are generally small, averaging from 80 to 120 m². Buildings have no set-backs, and the entire parcel of land is built upon (except for narrow light wells). Informal settlements suffer from poor accessibility, extremely high residential densities, and insufficient schools and other government services. Also, due to the ever-increasing densities, water and wastewater networks are seriously overloaded. Municipal authorities tend to concentrate road paving, traffic and solid waste collection services in “formal” parts of town, leaving the informal areas to fend for themselves.





Good Condition of Infrastructure in Informal Area Signals Formalization

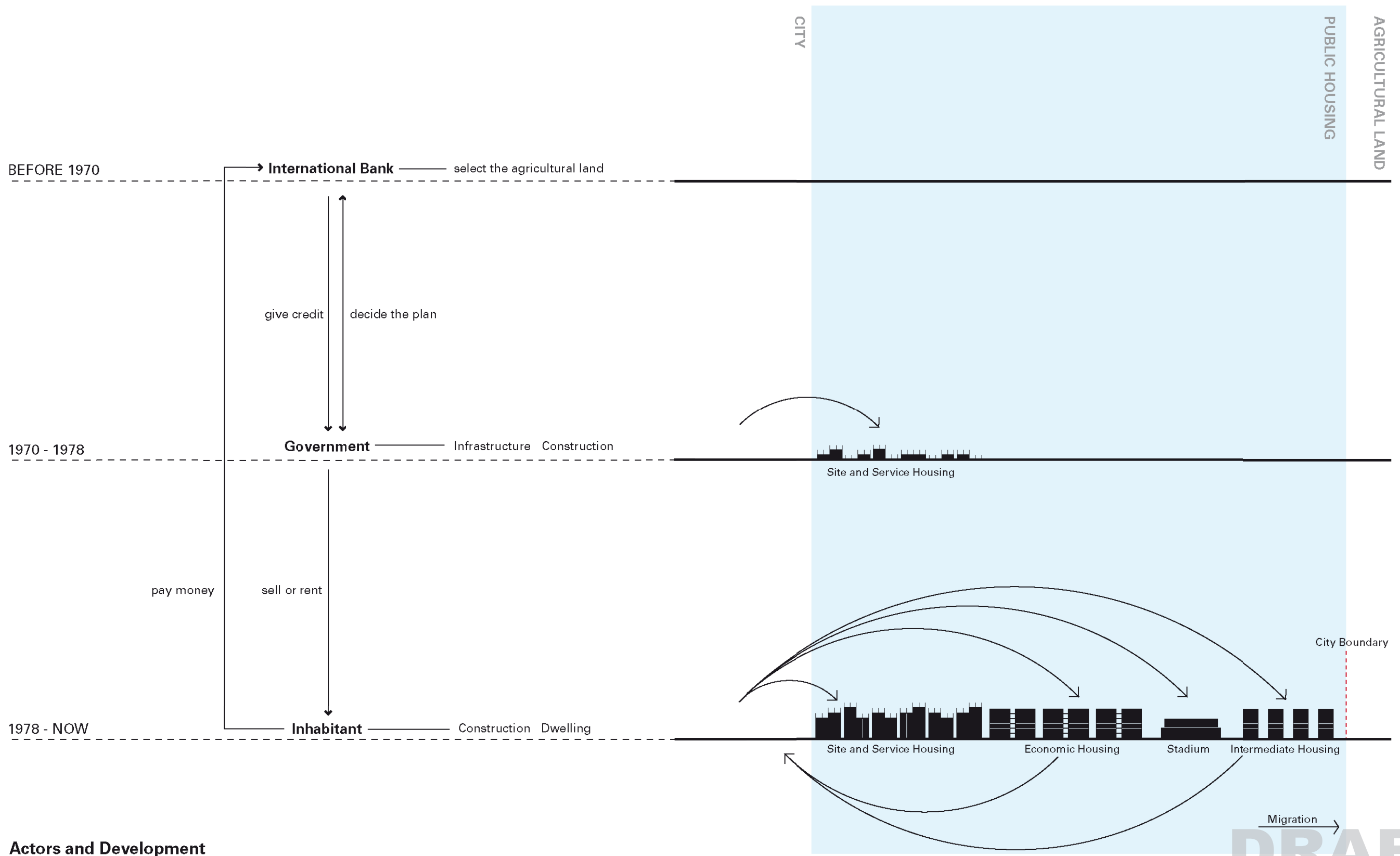
PUBLIC HOUSING ON THE EDGE

This 65-feddan-large project lies in the south of Assiut, bounded by the Naja Hammadi canal (formerly al-Mallah) in the east and a 20-meter-wide main road. Another 50-m-wide main road lined with a 132-kilovolt power line sets the northern boundary. To solve the housing shortage and protect agricultural land from desertification, the government and the International Construction Bank signed a contract of cooperation in 1978. The site of the project happens to fall on the best agricultural land in Assiut, and this point rises many questions regarding why this location was chosen by experts of the International Bank; these projects are in the first phase and already the frame of development is transported to a frame of destruction. The original land-owning farmers lost their land in the beginning of a new urban dwelling experiment. On the formerly best agricultural land, these dwellings commence a clearly defined boundary. The chosen beneficiaries are acclimatizing themselves to it.



2009



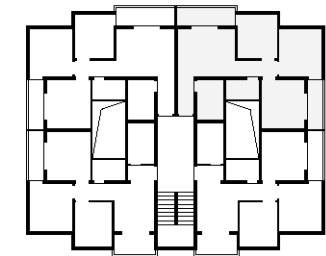


Actors and Development



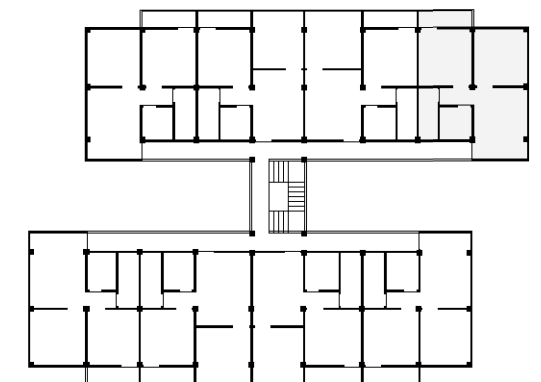
Intermediate Housing

6 floors, 120 m²/unit, 3 bedrooms and 1 living room



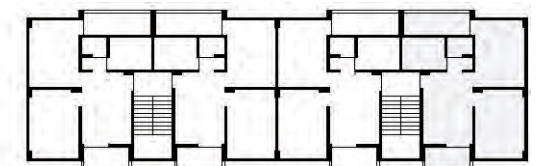
Low-income Housing I

6 floors, 30 m²/unit, 1 bedroom and 1 living room



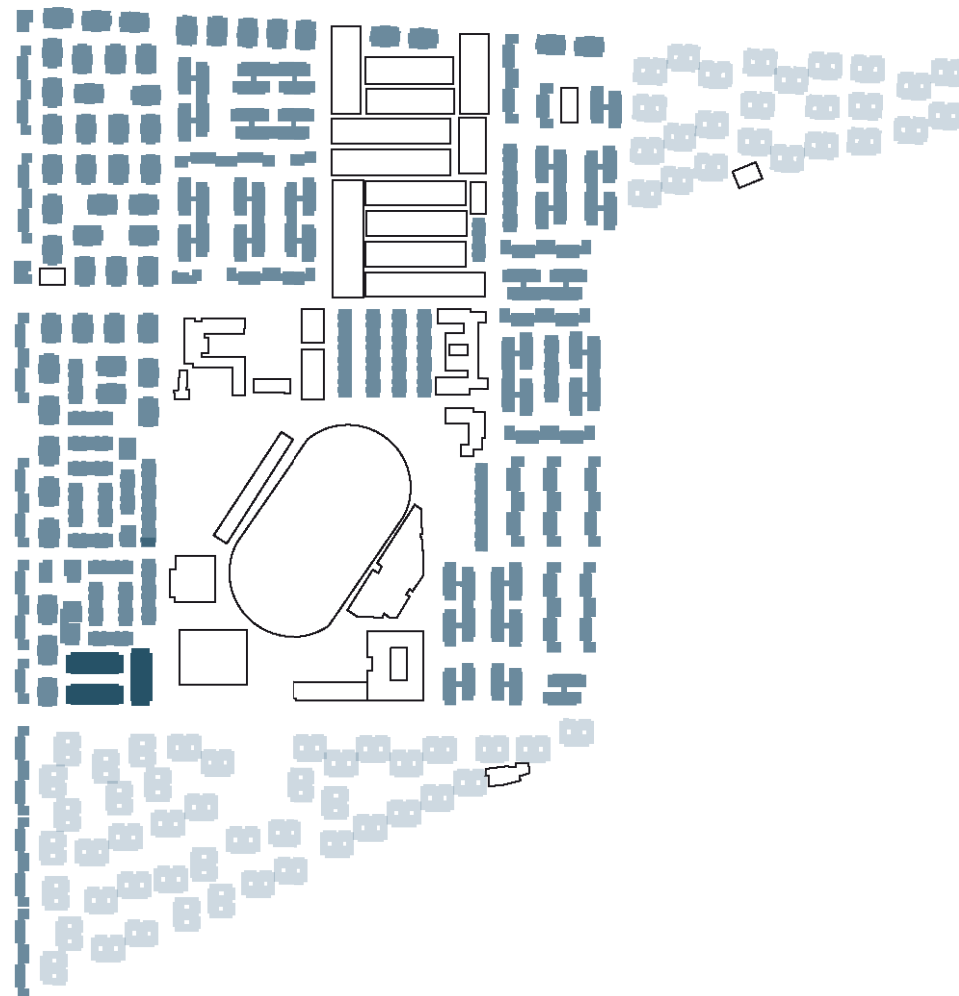
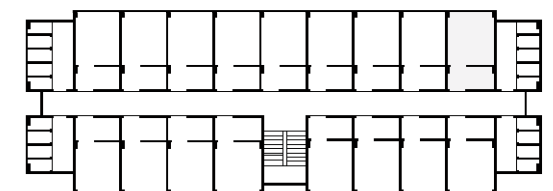
Low-income Housing II

6 floors, 75 m²/unit, 3 bedrooms and 1 living room



Emergency Housing

For homeless, 25 m²/unit, bathroom at the end of corridor



Public Housing Typologies



Quality of Life in Intermediate Housing

Better structured than affordable housing and some private gardens is available.



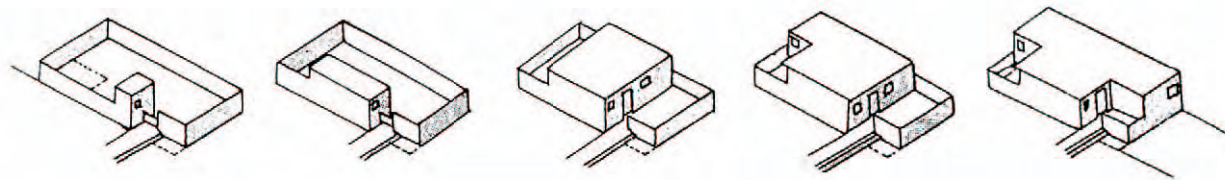
Quality of Life in Low-income Housing

Only the building structure was built by the government; residents had to build their own balcony, window, and interiors.



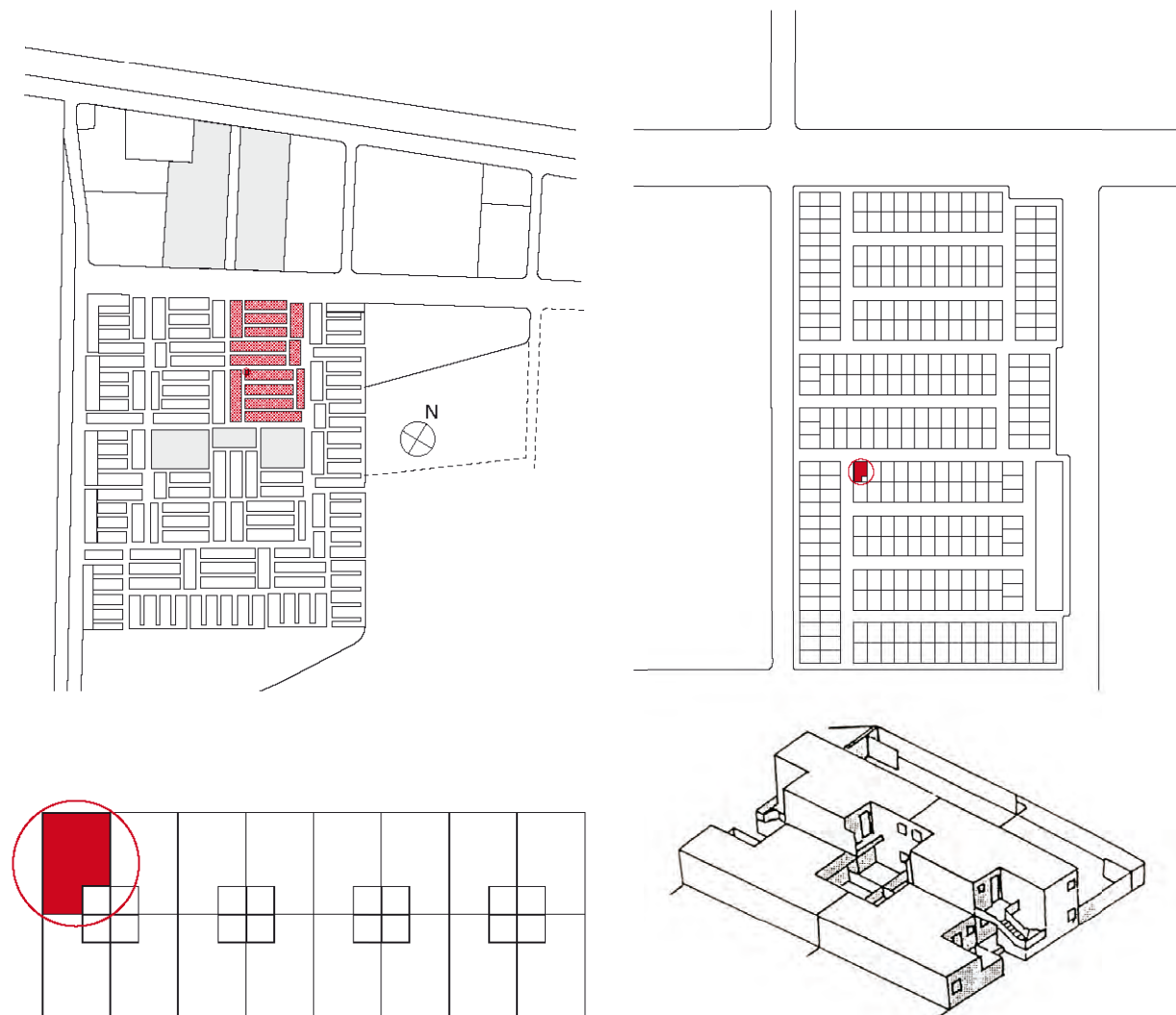
Mobile Market and Ground Floor Shop

Kitchen Extension and "Do-It-Yourself" Balconies



Site-and-Service Project

The site-and-service project in Assiut is one of three chosen projects for urban development. Its development is directed by the International Bank—through loans—in Egypt (Cairo, Alexandria and Assiut). The contract to start the work was signed in August 1978 between the International Bank and the Egyptian Government on the basis that the Doksiades office would be an associate for the general structure of the construction planning by preparing the first plan for the project. The first costs were estimated to 2,668,500 LE in 1977.



The project contains 2,637 planned site-and-service housing units, but only 293 units were constructed horizontally (dimensioned at 9x6 m), and 579 vertically. The local authority of Assiut governorate withdrew from finishing the project, even though there was full infrastructure in every level of the project. The disagreement between respective experts of different governmental authorities contributed to the lack of completion. The lack of conviction to follow through with the site and service-housing concept is unfortunate, considering how such housing could lead to the area's transformation by providing much more housing units, which would be advantageous for inhabitants.



Success and Failure

The project succeeds in cutting investment costs to the minimum and allowing individual households to tailor the housing development according to their own circumstances. The cost structure minimizes subsidies while at the same time relates to household affordability levels, neither creating slums nor causing a huge fiscal burden on the government.



Site-and-Service Project in 15 Years

Ground floor usage for trade activities has developed to 63 lots from 34 in the past 10 years. A portion of the ground floor has been used for trade activities like grocery stores, restaurants, coiffeurs, shoe-repair, and these activities are concentrated on the main streets. In 63% of the lots, the density quote is very high while 26% are considered of medium density, 8% low, and 3% uninhabited. The population of the entire site is 16,087 inhabitants belonging to 287 families, averaging 5.7 persons per family. As this project is rapidly increasing, on the other hand, the rate of buildings in good condition reached only 31% compared with 69% of ten years past. Some lots correspond with the common level of private public housing pieces in the city of Assiut, and some of them exceed it. But the average condition is decreasing due to lack of maintenance.

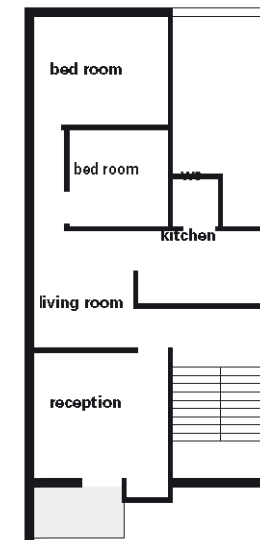
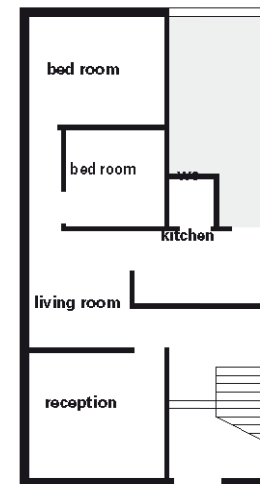
1994

2009

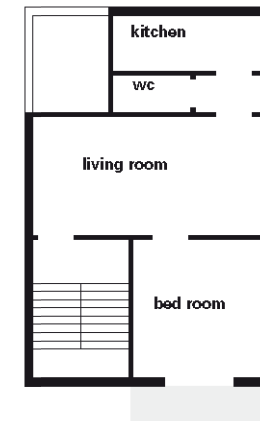
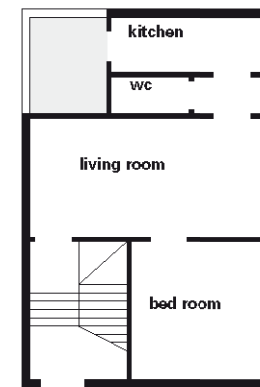


“I am very satisfied with my house.”

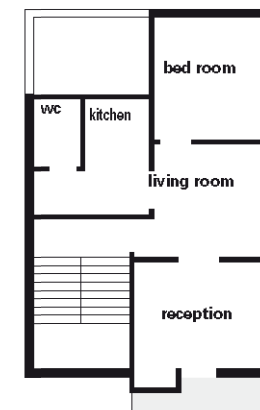
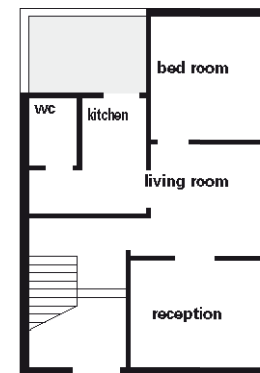
An old couple has lived here since 1986. They have a 54 m² plot and built the house step by step. As of now, their house has four above-ground floors, with the first floor for themselves, two floors well-furnished for two sons, and a top floor for flexibility. The four daughters will later marry and move elsewhere. The self-built house gives them the feeling of private ownership and complete independence, with the possibility of expansion in the future. Also the life here is quite convenient with nearby shops and public services. However, there are still some points of dissatisfaction such as the lack of water pressure and proper ventilation of middle rooms. The house was constructed through the self-initiated efforts of individuals without governmental financial support and it is still developing.



72 m²



54 m²



45 m²

Ground Floor

First Floor

Reference House Types

SYMBIOSIS BETWEEN INFORMAL AND FORMAL

Together with the decay of public housing and the old village, informal development in between continues at an amazing speed. At the south end of Assiut city, an old village has lain on the Nile for more than 700 years. In a parallel location, a band of social housing was built for city homeless people 25 years ago. The social housing and the village share weak infrastructure and insufficient service. The area in between was uncovered as a place with less strict construction control and was thus deemed the ideal location to continue the construction of dream dwellings. The whole district was later adopted into the city. During urbanization, some come, some leave, and some must stay.

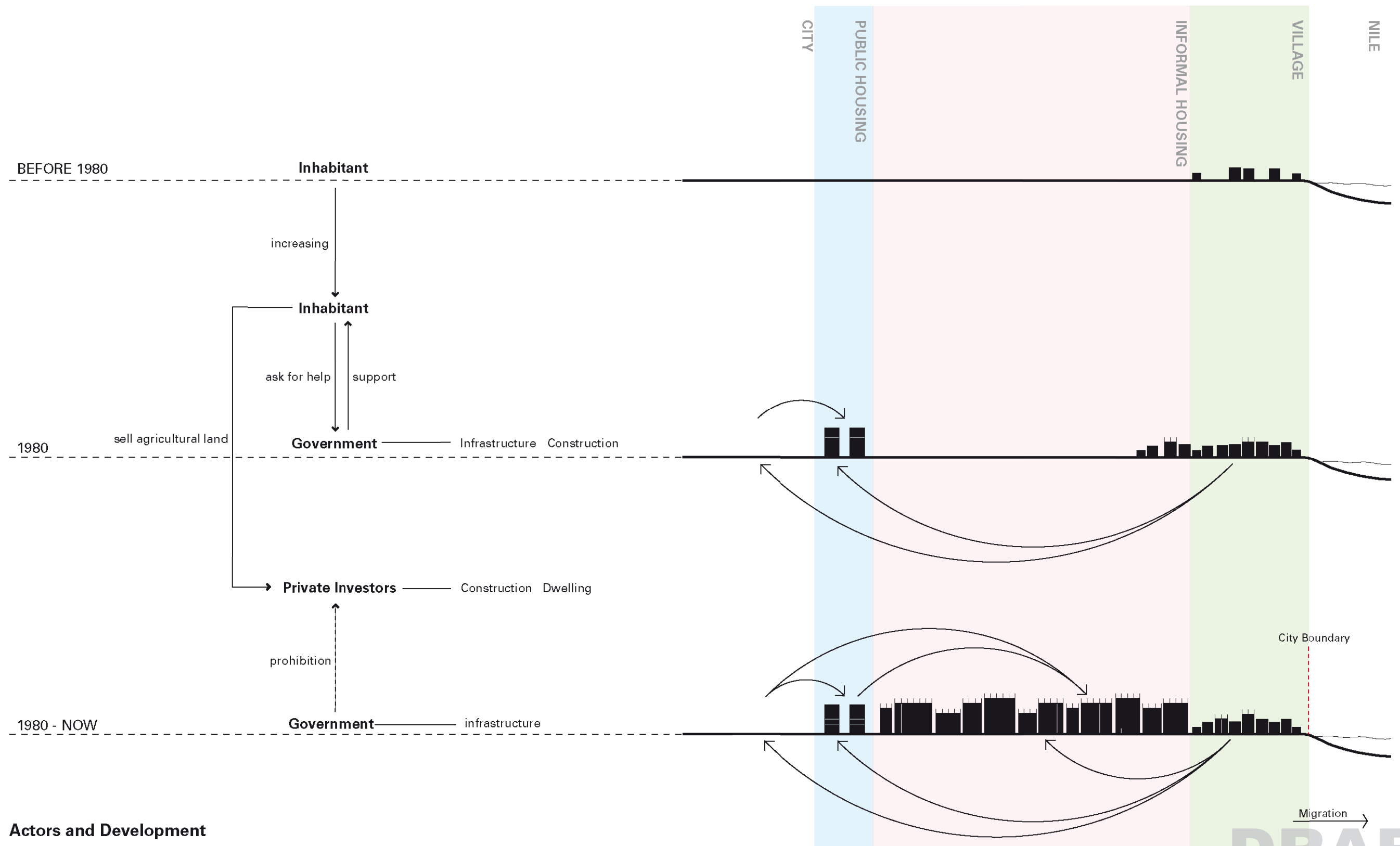


2002



2009





Actors and Development



A Decaying Village



Decaying Public Housing



“We would leave if we had money!”

A family with one old mother with her four married sons live in an old house on the Nile. The house has only one floor with one bed room and one living room. The entire village can access electricity, but not every household connects to water supply and drainage facilities. This family could not afford to build a pipe; they handle plumbing the traditional way, using two deep holes in the courtyard: one for drinking water and the other for waste water. For them, the beautiful landscape of the Nile is not attractive anymore. It is only a river, forever there. As farmers they can hardly feed the family, necessitating that other family members find jobs in the city. Suffering from lack of services and basic infrastructure, increasing numbers of villagers are selling the land and moving out, leaving the village behind.



“Public housing is temporary for us.”

An old woman lives with two sons in a 75 m² apartment, with two bedrooms and one living room. Her husband died in an accident. With government subsidies and financial income of one son, the family makes ends meet. The family has lived here for about 25 years since their old house in the city collapsed. There is not much communication between public housing inhabitants and the villagers. People mostly work in the city and farmers come only to sell land production. The government built the house and rents it at very low price to people who lost shelter as a result of structural failure/collapse and in the aftermath of natural disasters (earthquakes, floods, etc) or wars. After 25 years, the buildings are old and some structural steel is exposed. But the only thing the government can do is paint the wall along Main Street.



Booming Informal Housing



“I have never lived with another family in one house, and I never will!”

The man standing on his own construction site lives in another nearby house. He bought a piece of land about 170 m², and is building a house with four floors for his three sons. 15 years ago, the family moved here from the city. Compared with the public housing here, the man prefers to live in a self-built house because of its flexible quality, since there is only one type of public housing, which he deems too small and inflexible. Basic infrastructure such as electricity, water, drainage is already covered in this area. There are no construction permits. Everyone just buys a piece of land and builds a house. This was a village, and recent years it was adopted to the city. There are no building laws here.

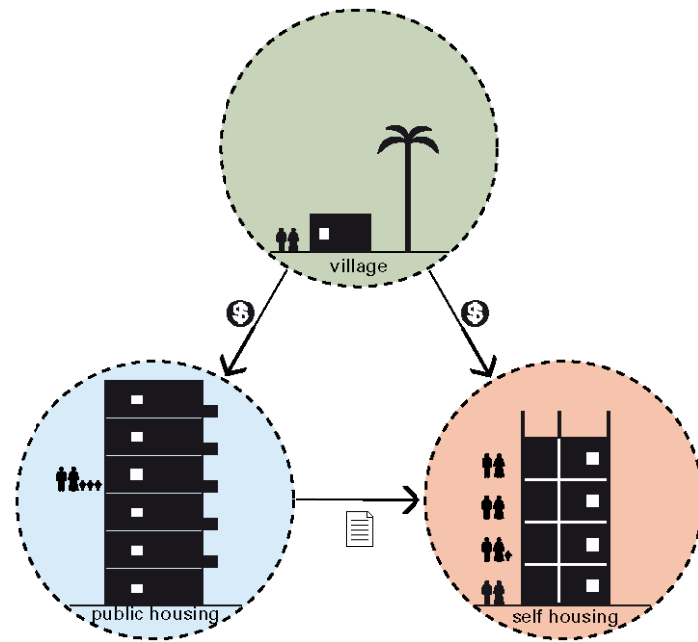


“It’s much cheaper to build a house than to buy a modern apartment in city.”

The farmer lives with his wife, four sons and daughter in a newly-built house with three floors on a 100 m² plot. He came from the village and moved here because the old house was too small. The new building high-rise apartment buildings are very attractive to him with their new construction and modern life, but they are also too expensive. It is much cheaper to buy a piece of land and build the house himself, and also very comfortable.

BOUNDARY BALANCE

Between 16 and 21 million urban inhabitants today live in informal areas and squatter settlements (depending on the definitions used), amounting to 45-60% of the urban population. In Egypt, there is a great difference between living in cities and leading a distinctively urban way of life. Merely living in the city does not always mean living in an urban way, for many towns and cities lack a distinctively urban character. From the national point of view, it is possible to identify two patterns of living: urban and rural. Within a definitely urban area-Assiut for example-one usually finds a portion of the population living in rural pattern. Conversely, within a rural area one may find people whose lifestyles are urbanized. "Urban villager dwellers" can be found in urban Egypt, and likewise "village town dwellers" in rural areas. Urban village dwellers constitute a large proportion of migrants from rural areas.



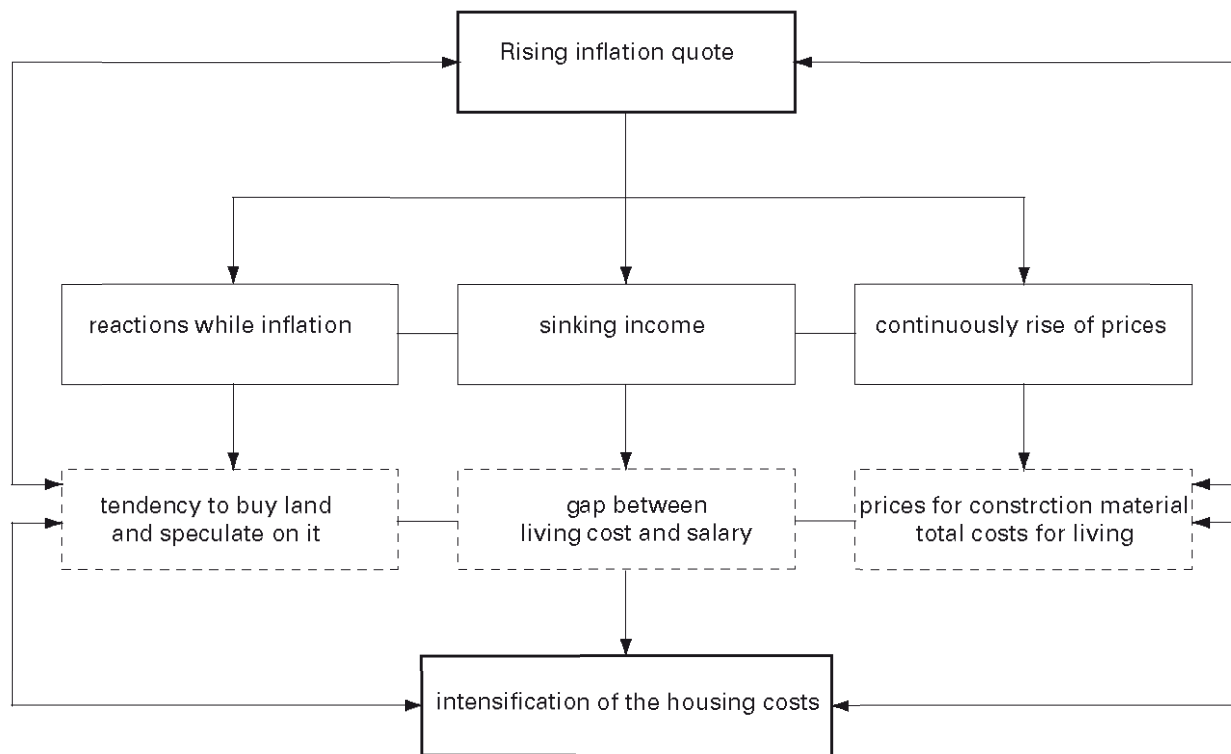
Tradition as Background

First of all, it is important to realize that the Egyptian population tends to stay where it is. As seen in concurrent investigations of Egypt's housing sector, there is little urban residential mobility, housing choices are unaffordable to the vast majority, housing markets are partly dysfunctional, and for most Egyptian families, the move to a new location is often a once-in-a-lifetime decision, usually at the point of marriage. Urbanization in Egypt began with the increase of population. Urban development is constructing in the village. In housing shortages, some people moved into public housing, a transition space for them. With the growth of family size and improvement of family situations, they moved again; some chose to live in informal housing and the traditional way of living. Families care about home ownership, they dedicate themselves to a house for the family and forthcoming generations.



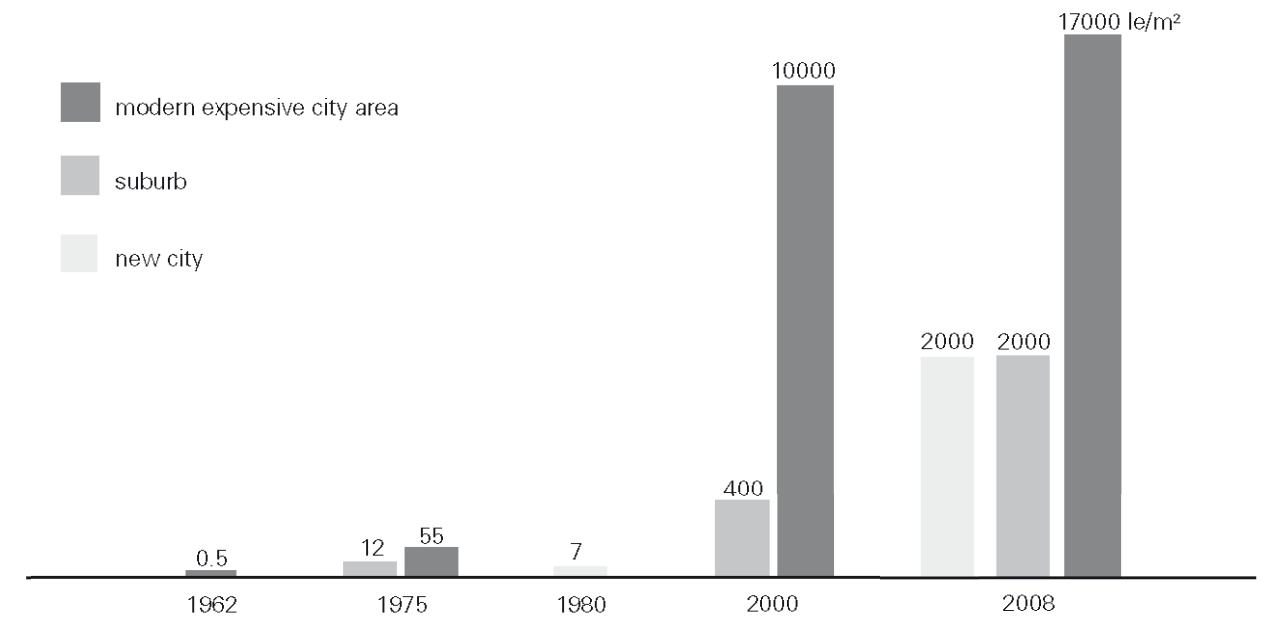
Distribution of Informal Housing, Public Housing, and Old Villages

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Mutual Reflection of Inflation on Housing in Egypt

Costs Activate Informal Development



Land Price in Egypt on Formal Market

Tremendously Real Estate Prices

Why are the prices of building lands getting so tremendously high and why doesn't the appearance of new cities halt the increase? Engineer Mohammed al-Dimirdash, senior secretary in the Ministry of Housing answered: "The pricing of the new lands is decided through specialized committees in the Ministry of Housing. The rules of pricing are fixed according to the location and the use... In general the suitable average prices to the square meter in new cities should not exceed 600 pounds. But the problem is that a number of some people who get land in the new cities try to sell it afterwards, and they ask brokers to assist in sales; this affected real estate prices in Egypt and made them twice the average international price rate. The real estate prices in Egypt increase 14% annually while the international rate is 5-7%. The Housing Ministry is not a supervising authority. All we can do is add more land, so that the offer will increase and the prices decrease. That's why we've recently added 35,000 new lots in new cities with suitable prices. But land brokers are earning money by increasing building land prices in the new cities. This will continue for 2-3 years. During these years, the rate of urbanization in the new cities will increase; then the land seller will be able to sell directly to buyers without a broker. In this case, land prices will decrease dramatically." The Ministry started a new ambitious plan to achieve this goal, which is based on connecting the new cities with the old cities and supporting the transportation between them, what will ease the process of urbanization."

1. Informal Area
buy land: 270 LE/m²



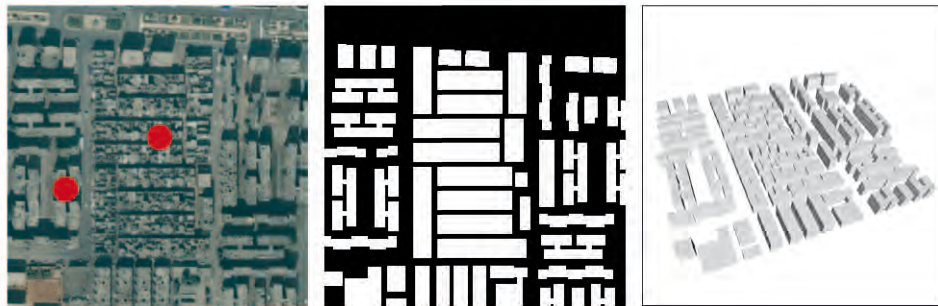
2. Nasr Highrise Project
buy apartment: 3400 LE/m²



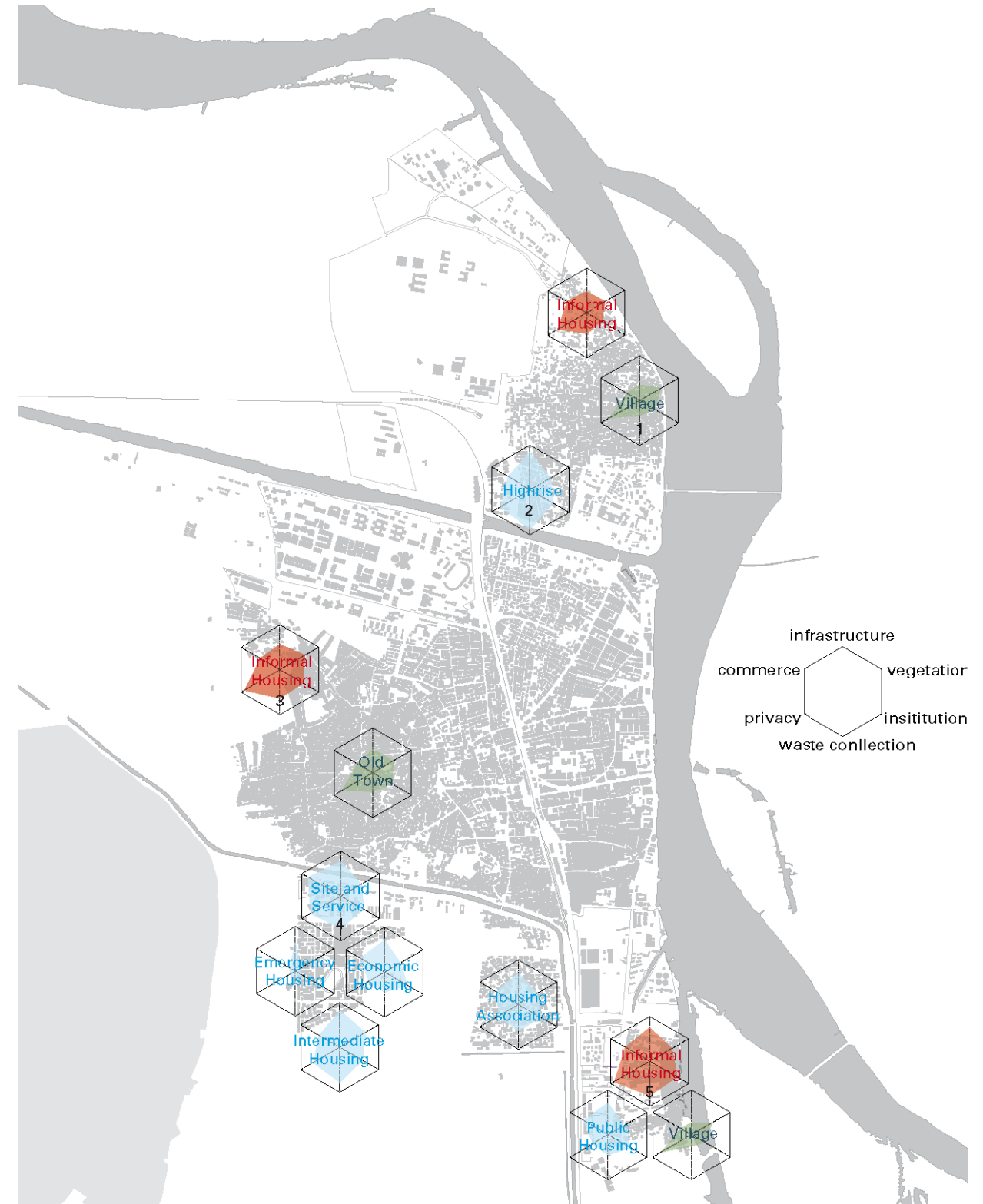
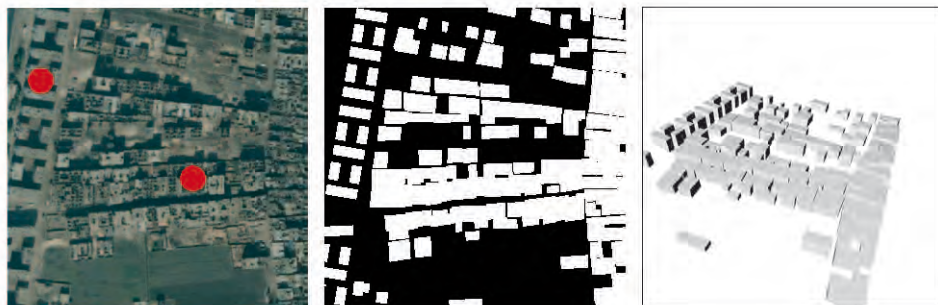
3. Informal Area
buy land: 500 LE/m²



4. Low-income Housing
buy apartment 65 m²:
0 down payment, 30 LE/
month x 25 years in 1980s
Site-and-Service
buy land: 10-20 LE/m² up
to 200 LE/m² in 20 years

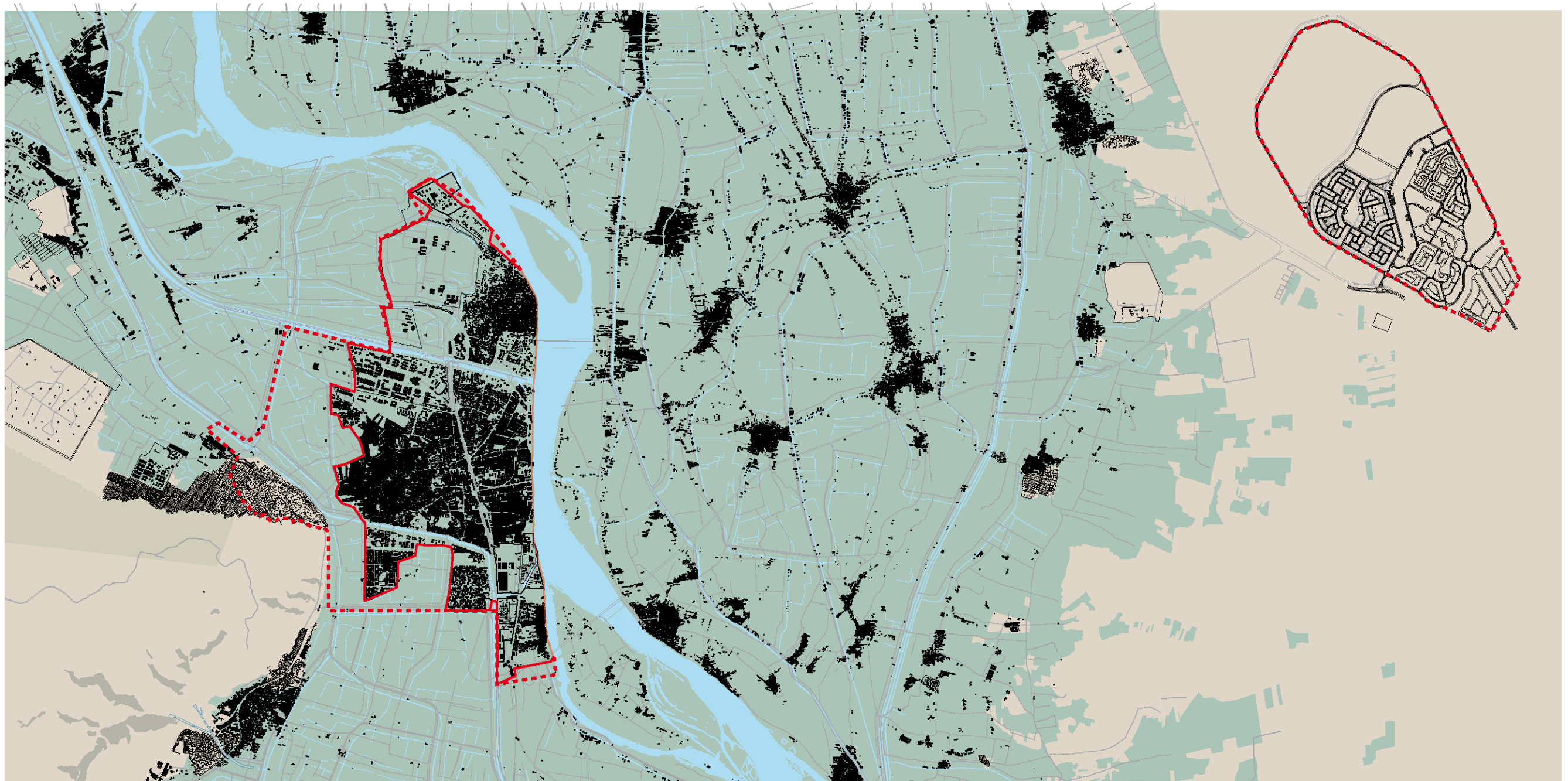


5. Social Housing
rent apartment: 0.21 LE/m²
per month
Informal Area
buy land: 350 LE/m²



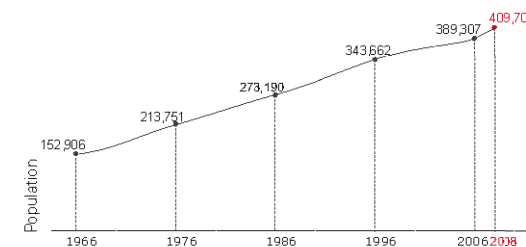
Comparison Different Types of Housing

DRAFT
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Towards a New Life or a Potential Pressure?

Because of limited agricultural land, the Assiut government has given up expansion of the city edges and instead, launched the New Assiut project. Regardless of the huge investments required and the pathetic record of success in term of population attraction, the policy of creating modern planned desert settlements was and still is offered by government as the ultimate solution to the phenomenon of urban informality, one in which alternatives that are offered will absorb the millions who inhabit or would otherwise go to informal areas of Assiut. But as we know, there is not an “appropriate home” in New Assiut. Will this problem enact another source of pressure on Assiut city in the future?





The ideal city image of government shows persons lost in the city.



The ideal city image of the people is composed of architecture without architects.

Controlled Laissez-Faire: Calibrating Informal and Formal on the City Edges



They are happy, they are living in a village.



They are happy, they are living in affordable housing.



They are happy, they are living in informal housing.



They are happy, they were experiencing life in Assiut.

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IMAGE CREDITS

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