

# OBUS

## *Intent & Inhabitation*

by

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## **AUTHOR'S DECLARATION**

I hereby declare that I am the sole author of this thesis.  
This is a true copy of the thesis, including any required  
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# ABSTRACT

First proposed by Le Corbusier for the city of Algiers in 1932 but never built, the *Plan Obus* is Le Corbusier's ultimate city planning project. The forerunner of the megastructures projects of the 1960s, it sits squarely within the high modernist notion of technological utopianism, yet also within the context of colonialism, standing as a summation of a hundred years of cultural hybridization and the dynamics of colonial power. As such, the *Plan Obus* was a project rooted in a modernist attempt at decolonizing the colony, deterritorializing its native inhabitants and shaping them into compliant subjects. But if built, the inherent freedom of its 'generic frame' may have allowed Algerians to reclaim the structure for themselves in the years after independence.

This thesis investigates such a scenario with an illustrated story, testing the projection of a probable past and what we might expect the evolutionary history of a structure to be. One part typological analysis and one part fictional travelogue, it examines the processes of hybridization in the intended and real uses of architecture, during and beyond the years of colonialism. An investigation into an evolutionary history of this emblematic, yet enigmatic structure might offer a template for future studies in how architecture can be projected—whether into an uncertain future, or an unfulfilled past.



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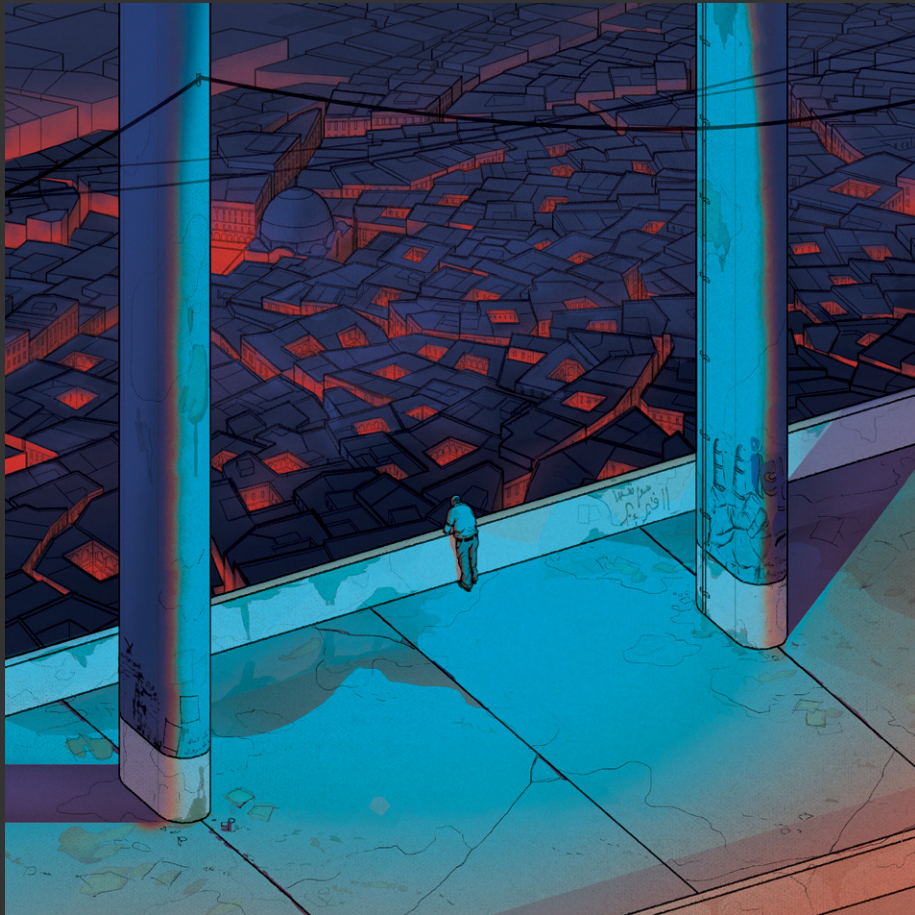
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**P**  
**B**                      **R**  
**A**

*“Paris, Barcelona, Rome, Algiers. A unit extending from north to south along a meridian, running the entire gamut of climates, from the English Channel to Equatorial Africa, embracing every need—and every resource.*

*Algiers ceases to be a colonial city; Algiers becomes head of the African continent, a capital city. This means that a great task awaits her, but a magnificent future too. This means that the hour of city planning should strike in Algiers.”*

Le Corbusier, Letter to Mayor Brunel, 1933 <sup>1</sup>



*Figure 1.1 Plan Obus A*

# 1 VISIONS OF THE FUTURE

- 1 Le Corbusier. *The Radiant City* London; New York, Orion Press (C1967); New York: London: Faber; 1967: 228.
- 2 Banham, Reyner. 1976. *Megastructure: urban futures of the recent past*. London: Thames and Hudson. 8.

Of all the vast attention dedicated to the work of Le Corbusier over his sixty years of work, we pay relatively little attention to his work during the 1930s-1940s. Beyond the years of the white cubist forms and functionalist machine cities of the 1920s, but before his diverse sculptural concrete work of the 1950s and 60s, this period is often considered a period of relatively scarce built work—yet this era yields the final evolution of Le Corbusier’s visionary utopian urban designs- the *Plan Obus*.

First proposed by Le Corbusier in 1932 for the city of Algiers, during the heyday of French Algeria, the *Plan Obus* was never built, or even accepted by society at large, even after a decade of work lavished on it by Le Corbusier. Contained within a unified form stretched across an entire city, the *Plan Obus* was an urban framework that could be incrementally filled with homes for both the native Algerians and the French. In combining the aesthetic qualities of Algerian vernacular architecture with his pioneering Modernist forms, the notion of this ‘generic frame’ would prove to be an enduring theory, often echoed decades later in the megastructuralist projects and theories of the 1960s.<sup>2</sup>

Indeed, the thesis began exploring the ‘what if’ of the megastructural vision, in what would have transpired were they built and inhabited. A fundamental question emerged:

*How would people inhabit such a structure?*

The megastructural movement produced powerful visions—visions in hindsight which became trapped in time, as the circumstances that led to their creation also discredited their implementation. Our contemporary cities are littered with countless lesser visions, but these schemes, too, are often trapped between their original architectural intent and the realities that have transpired in the years since their construction and inhabitation.

The initial investigation began as a surface-level exploration of various megastructural visions. Like many megastructures, it is the unbuilt quality of the *Plan Obus* which makes it fascinating, offering an opening for a continuation of its story. And like many of its later relatives, the *Plan Obus* offers powerful imagery and an aspiration of what that future may resemble.

Where the *Plan Obus* diverges, however, is in its context. While many megastructural projects vaguely situate themselves in ambiguous territories—on some form of the *tabula rasa*—the *Plan Obus* impresses itself onto a city with already deep and powerful narratives, forming a second layer over the existing city. Sweeping through the entire city, the *Obus* inevitably gets caught up in its context, opening the question of how its open framework could be filled.

Many studies of the *Plan Obus* start with its inception after Le Corbusier's first visits to French Algeria, and conclude with the rejection of the first variants in 1934, or its final cancellation in 1942. The views of the *Plan Obus* are solely in its virgin, idealized (and colonial) form—sweeping lines, light traffic and pristine landscapes—much like the idealized views of architecture that still persist, or the reconstructive representations of long-gone monuments in their victorious heydays.

Rather than repeating this route, I explore the evolution of a megastructure had it been built, echoing the way in which architecture evolves according to the needs of the inhabitants. The thesis looks to



*Between the dazzle of a new building and its eventual corpse, when it is either demolished or petrified for posterity as a museum, are the lost years- the unappreciated, undocumented, awkward-seeming years when it was alive to evolution.*  
- Stewart Brand<sup>3</sup>

peel away the glossy visions of megastructure repeatedly championed as solutions for future ills, exposing them to the corrosive nature of time and the inherent conflict between intent and inhabitation.

Moreover, a second point of interest lies in the manner in which colonial modernism has been appropriated by its inhabitants as they navigate a world defined by its systems. As Marion Von Osten writes in *Colonial Modern*, this is a process in which “*this modernity has been appropriated and used against its aforementioned original intentions.*”<sup>5</sup> In this manner, the concept of hybridity can be described along the lines pioneered by Homi K. Bhabha, referring to the space “in-between the designations of identity.”<sup>5</sup>

This term, as noted by Felipe Hernández, refers to the site of cultural productivity appearing between cultures, where the process of rearticulation and reconstitution in cultural elements is expressed.<sup>6</sup> Here, architectural hybridity is a testament to the complicated procedures involving the social, political, historical, and economic conditions around it—the same forces from which it first emerged.<sup>7</sup> In many instances of colonial architecture, the processes of design and inhabitation were driven by hybridization—in the European appropriation of vernacular forms during urbanization process, and the indigenous rewiring of these same spaces years later, after independence.

In this thesis, the term ‘colonial’ should also be understood as a state of being and a time period rather than a coded word, albeit one with an enormous impact on those caught up in its context. Furthermore, the colonial context should not be understood as a set of diametrically opposed relationships, due to an ambivalent nature in the positions of the colonizer and colonized.

As Zeynep Çelik writes, this ambivalence is connected to hybridity, and each element in the relationship is often rewritten and transformed by the other, through incongruences and misreadings that occur during the process of encounter and transliteration. This process ultimately

3 Brand, Stewart. *How Buildings Learn: What Happens after They're Built*. New York: Penguin Books; 1994.

4 Osten, Marion Von. “In Colonial Modern Worlds”. In: Osten M, Karakayali S, Avermaete T, (Eds.). *Colonial Modern: Aesthetics of the Past, Rebellions for the Future*. London: Black Dog Pub; 2010: 21.

5 Bhabha, Homi K. *The Location of Culture*. London, New York: Routledge, 1994. Stanford, Accessed February 16, 2019.

6 Hernández, Felipe. *Bhabha for Architects*. New York: Routledge, 2010, 58.

7 Ibid, 87.

produced elements that no longer fit perfectly into the originals, instead emerging as something different.<sup>8</sup>

In the third to fifth chapters, I explore the first half of the Obus's story, from the history of the conquest and the colonization that produced the Algiers that Le Corbusier encountered in 1931, and his precedent and then-contemporary works and beliefs. As the 'real' half of the story, the Obus will be situated against the historic context of French colonialism, which not only established the conditions necessary for its creation but also informed the character of French Algeria until its end.

While in this chapter, I largely summarize the historical development of Algiers and Le Corbusier's background, it is a crucial element in understanding the nature of the city of Algiers, and the subtle narratives guiding the design and initial direction of the Plan Obus. As part of a colonial empire, a complex social order defined Algiers between the French settlers and the native Algerian populace. And like all colonial cities, the uneven relationship between the colonizer and the colonized determined its spatial framework.

But even as the social order of a city may evolve with time, its spatial framework preserves prior relationships and can continue to perpetuate them. I explore here the concept of hybridization as a form of unilateral appropriation undertaken by the French authorities in understanding and pacifying its conquered territory.

In the sixth to eighth chapters, my exploration peels away from the Plan Obus, while continuing to explore the urban evolution of a post-independence Algiers. As hybridization in this period took the form of a recoding of vacated colonial space, Decolonizing Architecture Art Residency (DAAR)'s categories of decolonization will be used to unpack both the processes occurring in post-independence Algeria, and global instances of the reuse and reappropriation of built forms.

*The simple principle that there is re-appropriation as soon as there is a dispossession of a geographical, religious or cultural territory.*

- Kader Attia<sup>9</sup>

8 Çelik, Zeynep. *Urban Forms and Colonial Confrontations: Algiers under French Rule*. Berkeley: University of California Press; 1997: 5

9 Attia, Kader. "Conceptualising Modernist Architecture in Trans-Cultural Spaces, Interview with Kobena Mercer, 2011." Kader Attia; 2011.

Though a projection of these forms of hybridization upon the Plan Obus may seem open-ended at first, instances of reappropriation within differing contexts and uses can hint of potential processes. If we can understand the Plan Obus as a generic frame born out of a French mindset that is placed within a colonial context, then the consequent history that fills it may also be projected through these precedent lenses.

The final chapters reiterate the central thrust of the thesis in its exploration of inhabitation and intent. These are synthesized into a fictional traveler's account of the Obus today, encountering its various forms, conditions, visitors, and inhabitants. The story of the Obus is seen through the everyday, rather than the grand gestures of history—in the end, it is the inhabitants of a structure who deal with its successes or failures in design, and who adapt the structure to their needs.

Accompanying these chapters are a series of photographs documenting Algiers from the Casbah to its eastern suburbs, and a set of charts that explore elements of Algerian typology, history, ideology, and appropriation in further detail.



*Figure 2.1* Arrival in Algiers, 1931

# 2 ARRIVAL IN ALGIERS

1 Conjecture based on *L'Algérie de Le Corbusier, Les Voyages de 1931*, thesis by Alex Gerber, and writings by Christine Boyer in *Le Corbusier, Homme de Lettres*.

2 McLeod, Mary. "Le Corbusier and Algiers," *Oppositions*, no.19/20, 1980: 57.

3 Famine struck Algeria in 1930 and lasted for a decade, creating scenes of suffering that Albert Camus would later record in his writings.

May 1931. An ocean liner lazily pulls south into the Bay of Algiers. The sky is clear and dotted with sea birds. A stiff sea breeze whips up sprays of saltwater. Slowly, the city comes into view, a faint stroke of white materializing out of the distant haze.<sup>1</sup>

A spectacled, middle-aged man emerges onto the deck, surveying the scene before him—Charles-Édouard Jeanneret, or Le Corbusier as he would prefer it.

There it was; the city of Algiers, "*Alger la Blanche*" as the French would have called it. Home to 250,000, two-thirds European and one-third Muslim,<sup>2</sup> Algiers was the largest city in the French Empire and the capital of Algeria, an integral part of France. The ancient Casbah, glowing white beneath the Mediterranean sun, climbed the steep hills towards the ancient fort to the west; the European city of the French Empire stretched south and east, clinging to the coastline beneath the hills, wrapping the Bay of Algiers in a great natural amphitheater.

Already renowned within the architectural circles for his pioneering theories on modern architecture and urban planning, The *Les Amis D'Alger* (Friends of Algiers) association had contacted Le Corbusier for two architectural talks discussing the future of Algiers, especially regarding the problematic Marine Quarter.

These talks took place during the 1931 centennial celebrations organized under the administration of Mayor Brunel, celebrations commemorating the French conquest and colonization of Algeria. There were native protests in the hinterlands over the worsening deprivation of the Great Depression and the recurring famines gnawing away at their society, but those felt far away, even distant.<sup>3</sup> With tricolours fluttering in the streets and a festive mood in the air, it was time to celebrate a century of progress, at this moment—now.

The short trip to Algiers was a respite from France. These were fresh, virile grounds, free from the entrenched bureaucratic and capitalistic forces thwarting his ideas of social capitalism, forces which he had seen transform modern architecture into a stiff, unimaginative form.

Le Corbusier had already been to South America in 1929, flying over the Pampas and Brazilian landscapes, mingling with the elites of Latin America and even Josephine Baker. He had drawn up many ideas for Buenos Aires, Montevideo, São Paulo, and Rio de Janeiro, yet that trip yielded little in terms of contracts or firm commitments. Perhaps this one would be different.

As the steamship draws into harbour, Le Corbusier writes in his sketchbook “*Louanges a l’Algerie*” (Praise to Algeria), referring to the stiff modern government palace built a few years prior. The *Plans d’Urbanisme* were underway with bold goals to completely alleviate the housing shortages in Algiers. He is glad to see the seeds of modernization planted in raw African soils so far away from home.

Looking towards the shore, on the quays beneath the monumental arched *Arcade des Anglais*, the Italian, French and Algerian workers mill about, busy loading the hulking freighters with wheat, cotton, sugar, and wine to be shipped back to Metropolitan France. These were true instances of imperial planning!

Above the arcade, the grand Hausmannian blocks of the *Rue de la Republique* rigidly march along in a parade; Le Corbusier pays no attention to these—they are no different from the unimaginative blocks stamped all over France. He checks into the Saint George hotel in the hills above the port, but he is already disturbed by the amount of time needed to travel a short distance within the city—the *site* had infinite possibility, yet the city had squandered it so far, greedily devouring the rolling green coastline as it sprawled, uninhibited and unplanned.

4 Algeria became enormously wealthy during the last half of the 19th century due to its vineyards, after phylloxera destroyed vines in France.

4 Le Corbusier. *The Radiant City* London; New York, Orion Press (C1967); New York: London: Faber; 1967: 230.

5 Ibid.

6 McLeod, Mary “Le Corbusier and Algiers”: 57.

But during his stay, the sights draw him back as he wanders across the city, sketching the houses, the women, and the landscapes.

No, the European city was an affliction, the *real* Algiers, the Casbah, rose above the European city in its ancient and exotic splendor. It was the fabled white city that he had sought in Athens and Istanbul, and it had been in French hands all along.

Algiers was the Mediterranean muse Le Corbusier had longed for. He would write extensively of the Casbah, considering the vernacular morphology superior to the imported forms of the European city.

*Pure and efficient stratification of the casbah. Among these terraces which form the roof of the city, not an inch is wasted.*<sup>4</sup>

From the rooftops, the panoramic views inspired him deeply—he saw the native populace inhabiting a superior space to the Europeans.

*O inspiring image! Arabs, are there no peoples but you who meditate daily in the splendid sunset hours? Sky, sea and mountains. Beatitudes of space. The power of eyes and mind carries far.*<sup>5</sup>

In his writings, Algiers was possibly “*the most beautiful site in the world.*”

<sup>6</sup> Le Corbusier is intoxicated by its duality, by the unfamiliar customs and cultures, of the scents and colours, and of the frontier between the modern world and the ageless Mediterranean lands. Most of all, the spectacular site entralls him, a space denied to him elsewhere, finally made available through the absolute power of colonialism.

During the two four-hour lectures, Le Corbusier declares he would come up with a proposal for Algiers that would cure it of its urbanistic problems and unlock its true magnificence—a true break from the tired neo-classical masterplans long foisted upon the city!<sup>7</sup>

After spending two additional weeks beyond his original planned trip, Le Corbusier made final sketches from the deck of the ship as it departed for Marseille, of the summit of Fort L'Empereur, the rolling Sahel hills running south, the *Arcade des Anglais*, and finally the Casbah.<sup>8</sup> These would be the anchors of grand plans to come.

7 Ibid.

8 Crane, Sheila. "Mediterranean dialogues". In: Lejeune J, Sabatino M, (Eds.). *Modern Architecture and the Mediterranean : Vernacular Dialogues and Contested Identities*. London ; New York: London ; New York : Routledge; 2010: 96.



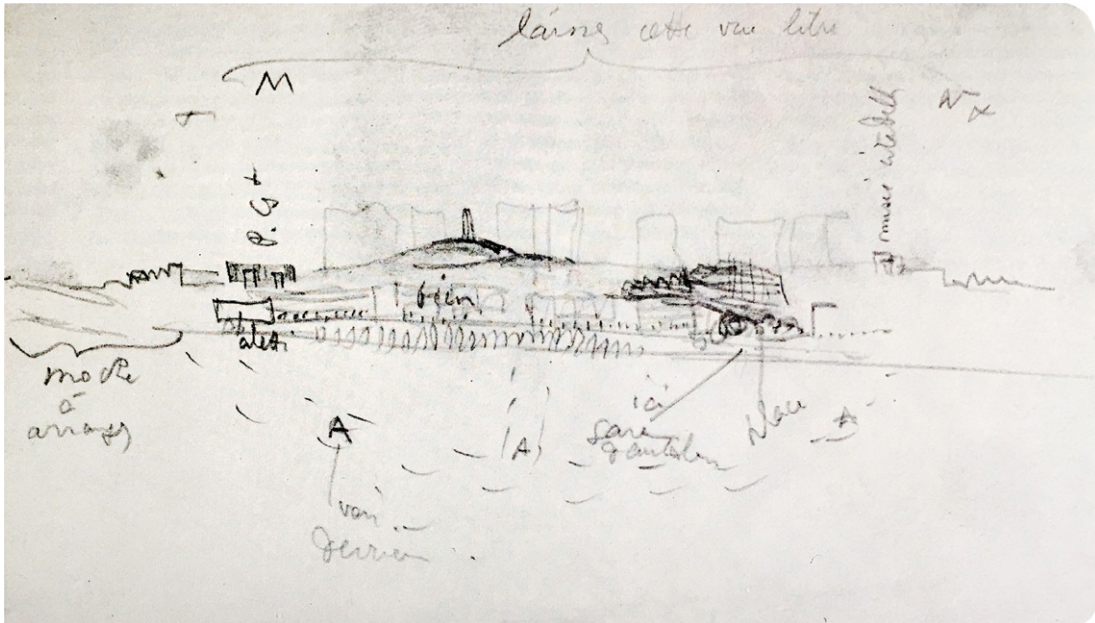


Figure 2.2 Sketch from the deck of the ship Gouverneur Général Chanzy, with notes on Algiers.







# 3 ALGER LA BLANCHE

1 Çelik, Zeynep. *Urban Forms and Colonial Confrontations: Algiers under French Rule*. Berkeley: University of California Press; 1997: 1

2 Ibid: 2.

3 Fanon, Franz. *The Wretched of the Earth*. New York: Grove Weidenfeld ; 1991: 38.

To understand the conditions which led to Le Corbusier's designs for the *Plan Obus*, we need an understanding of the spatial framework of Algiers is necessary. By the time Le Corbusier had arrived in Algiers, the city had already witnessed a century of demolition, construction, and appropriation in its transformation into the capital of French Algeria. As the oldest colony in Africa, Algiers was the 'most cherished heart' of France's possessions,<sup>1</sup> and the origin of many urbanistic practices that were consequently exported throughout the rest of its empire.

As the cultural sphere plays an important role in imperialistic colonialism while architecture and the urban form are key players for the development and the identity of the city,<sup>2</sup> the colonial era was all-important in establishing the spatial frameworks of the city. Throughout the era of French rule, urban development was primarily driven by immediate French needs, yet was also influenced by their cultural views. In the writings of Frantz Fanon, the colonial world is compartmentalized; where the colonialists' world is a world of order and plenty while the town of the natives is a world of need, where the colonized live out their short lives in cramped quarters, one on top of another.<sup>3</sup>

This powerful image of contrast was the manner that the French perceived Algiers, but also the manner in which they carried out their planning of the city—ultimately producing a visual and spatial framework of separation.

# 1830-1900

## Historical Events & Ideology

### Nationalism

### Political Islam

### Capitalism

1803-1815 Algiers sells grain to France during Napoleonic Wars

April 1827 Fly Whisk Incident, France refuses to pay debts

1827-1830 French blockade of Algiers

1830-1834  
War of Conquest

1830-1870 Colonization and Resistance

14 June 1830 Landing of French Invasion Fleet

7 July 1830 French Occupation of Algiers

15 July 1830 Exile of Hussein Dey

1832-1847 Resistance movements by Abd al Qadir

1834 Annexation of Algeria as a French colony

1843 France appropriates religious endowment lands

1847 French control over Algeria achieved

1848 French Constitution makes Algeria a *département* of France

1852 Siege & Massacre at Laghouat

1854-1857 Resistance movement of Lalla Fatma N'Soumer

1516-1830  
Regency of Algiers

1830-1848  
Kingdom of France

1848-1851  
French 2nd Republic

1852-1870  
French 2nd Empire

## 1516 Urban Typologies

1830

Military Clearances

1840

Neoclassical (*style du vainqueur*)

1850

1850-3 Théâtre National built  
Quartier D'Isly developed

1860

Casbah vernacular

Suppression of vernacular architecture in Algiers



Plan, Casbah

### The Casbah

Algiers's nucleus is the Casbah, founded in 900 AD by the Zirid dynasty and rebuilt in 1516 by the Ottomans, both as a bulwark against the European powers and as an operating base for Barbary Corsair activities.

Over the 300 years of Ottoman dominion, the city spread upwards over the hillside within the Ottoman fortifications, and was divided into two sections- the largely residential Upper Casbah, and the administrative Lower Casbah.

The urban typology in the Casbah developed organically, with diffuse urban networks and vertical growth within the confines of the fortifications.

### Occupation & Colonization

In 1830, in light of a diplomatic dispute, the French occupied Algiers. The establishment of the Place du Gouvernement marked the start of formal planning in Algiers. Throughout the 1830s-1840s, urban planning revolved around military needs.

Immediate needs involved the seizure of property for the housing of soldiers, while in the longer term, the Lower City was extensively reconfigured and became home to the European settler population. The French erected a new fortification defending Algiers against native rebellions, replacing the old Ottoman walls.

By the 1840s, planning had started to move away from military considerations, and towards economic expansion with the enlargement of the port of Algiers.

Despite this, the military was still in control of the city, and developments largely occurred within the French walls, mainly to the south of the Casbah.

## 1870-1930 The Hegemony of the Settlers

"Protector"

1860 Kaocen revolt in the Sahara

1863 Sénatus-consulte law allows for the break-up of tribal lands

1863 Napoleon III introduces methods aimed at assimilating the colonized

1866-8 Famines wipe out 20% of the native population

1870 Crémieux Decree introduced, allowing Algerian Jews to become French citizens, Muslims remain as subjects

1871-2 Kabayle Revolt

1872 As collective punishment, more land is confiscated from the Kabayle, and the entire region is placed under harsh rule

1881 Code de l'indigénat introduced, allowing Colonial officials to tax the native population

1892 A commission led by Jules Ferry denounces the exploitation of the native populace in Algeria and suggests reform, but none is taken

1870-1940  
French 3rd  
Republic

1860

Boulevard de la République built

1870

1872 Notre Dame d'Afrique built  
Neo-Moorish (style du protecteur)

1880

Port expanded  
Military walls demolished

1890

Mustapha District developed  
Railways built

1900

Vernacular survives in countryside



Plan, Place du Gouvernement

By the 1860s, emerging Orientalism brought a renewed appreciation for the vernacular architecture in Algeria. Napoleon III explicitly forbade further demolition in the Casbah, seeing that prior urban developments had diminished the 'exotic' nature of the city.

However, simultaneous land reforms confiscated land from the native populace as both an incentive for settler immigration, and as collective punishment for any revolts. This ultimately produced serious food insecurity throughout the countryside.

The 1870s brought about a series of armed uprisings, all of which were put down. With the failure of these movements, the native populace withdrew into itself, emphasizing a racial and cultural segregation from the European population, with Islam as the common unifying force.

With the end of any armed resistance to French rule, the military fortifications around Algiers were demolished to make room for new commercial growth.

Algiers expanded towards the south and east throughout the late 19th century as the export economy flourished. Housing was largely directed towards French colonialists (*colons*) and acculturated Muslims and Jews.

Most Muslims remained in the countryside as subsistence farmers or in the Casbah. As industrialization increased, migrants began to arrive from the countryside, overcrowding the Casbah.



*Figure 3.3* View of Algiers and surrounding hills from the sea, 1816

### 3.1 The Casbah

- 4 Clancy-Smith, Julia, "Exoticism, Erasures, and Absence: The Peopling of Algiers 1830-1900". In: Çelik, Zeynep, Julia C-S, and Frances T, (Eds.). *Walls of Algiers : narratives of the city through text and image*. Los Angeles: Getty Research Institute; 2009: 23.
- 5 Çelik, Zeynep. *Urban Forms and Colonial Confrontations*: 14.
- 6 Ibid: 27.

Since the 16th century, Algiers and its surrounding coastal realm had been the domain of the beys—largely independent, with only a tenuous link to the Ottoman court in Istanbul. The city had already existed for six hundred years as a town under the Zirid dynasty, which had refounded the settlement over the ancient Roman ruins of Icosium. The population of pre-1830s Algiers comprised all walks of life, with old Moorish families comprising the merchant and artisanal classes, Kabyles forming the working classes, and the remaining population consisting of Jewish tradespeople, European consuls, Saharans, and Christian slaves.<sup>4</sup>

The form of the Casbah as such represented the Islamic society contained within; public space taking the form of meandering alleyways and narrow streets occupying the leftover space from urban development. These arrangements revealed a logic of filtered accessibility<sup>5</sup> that produced intensely private quarters, segregated spaces for different genders, and the incorporation of mosques and public institutions within the dense urban fabric.

In the immediate aftermath of the siege and occupation of Algiers, extended political uncertainty over the fate of the newly-occupied territory meant the city would remain under the control of the French military in the first decades after the conquest. As a result, city planning during this period was largely dictated by military engineers and driven by military concerns.<sup>6</sup> During this period, the dominant political messaging invoked the role of France as the conqueror and Algeria as a territory which had to be forcibly 'civilized' through the *mission civilatrice* (civilizing mission).

Recognizing the role of the built environment as an expression of culture, the French government declared an ideological war on the Casbah, and sought to impose a new spatial and architectural order that emulated the 'civilized' classical styles popular throughout France at the time.





**Figure 3.4** View of the newly-established Place du Gouvernement, 1839



Left:  
**Figure 3.5** Postcard of the Maison F. Dorez Frères, Exterior

Right:  
**Figure 3.6** Postcard of the Maison F. Dorez Frères, Interior



7 Hadjri, Karim, Mohamed Osmani. "The spatial development and urban transformation of colonial and postcolonial Algiers". *Planning Middle Eastern cities: an urban kaleidoscope*. New York: Routledge; 2009: 3.

8 Çelik, Zeynep. *Urban Forms and Colonial Confrontations*: 27.

9 Çelik, Zeynep, "A Lingering Obsession: The Houses of Algiers in French Colonial Discourse". In: Çelik, Zeynep, Julia C-S, and Frances T, (Eds.). *Walls of Algiers : narratives of the city through text and image*. Los Angeles: Getty Research Institute; 2009: 137.

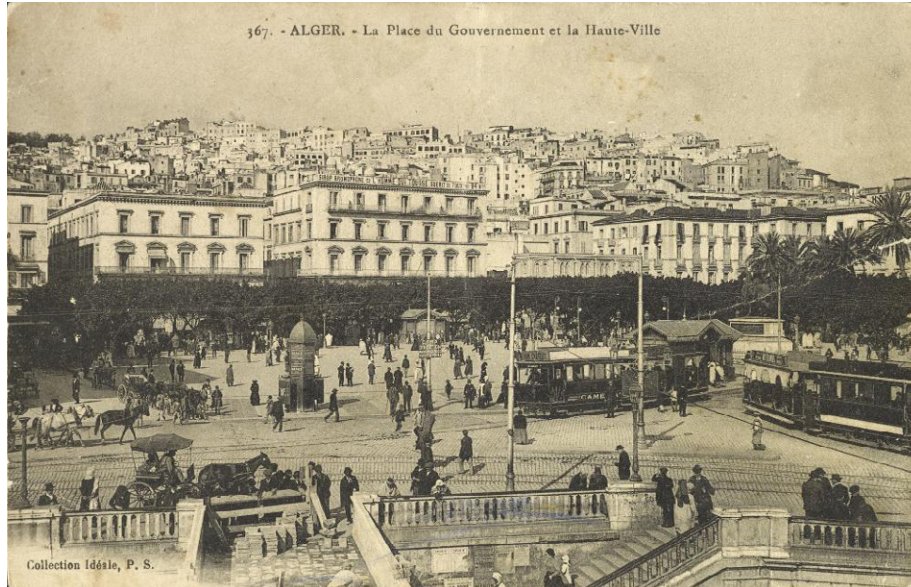
As one of the French administration's first actions, the lower half of the Casbah was systematically reordered starting in 1831, with the goal of military access in mind. These impositions would involve the creation of wide, straight roads and centralized squares within the existing urban fabric—new spaces designed with the consideration of large-scale military movement through the city.<sup>7</sup>

Further action enforced the seizure of houses, shops and workshops, and the heavy modification of these structures for military needs.<sup>8</sup> Other symbolic structures like the souk and the multitude of palaces were simply demolished to clear space and deprive the inhabitants of their social and economic spaces.

In the following decades as the first *colons* (settlers) arrived from Europe, the buildings lining the new roadways were often further recladded with European facades according to the needs of their new inhabitants. As Zeynep Çelik writes in *The Walls of Algiers*;

*With a straight line as the guiding principle, the buildings were adjusted to widen streets and, whenever possible, appended with an arcade on the lower level and an entirely new facade with large and regularly distributed windows. [...] These rehabilitation designs present double identities as witnesses of the early realm of occupation when abrupt acts of modification aimed to define a new urban image by throwing a French mantle over the 'Islamic' city.*<sup>9</sup>

This appropriation of the existing pre-colonial urban fabric produced the first forms of architectural hybridization in Algiers, where a French identity was produced on a foundation of appropriated physical space.



*Figure 3.7* The Place du Gouvernement and the Upper City, early 20th century



*Figure 3.8* View from the Admiralty, early 20th century

10 Evans, Martin, and John Phillips. *Algeria: Anger of the Dispossessed*. New Haven; London: Yale University Press; 2007: 27.

11 Ibid: 33.

12 Ibid: 31.

13 Djiar, Kahina Amal, "Symbolism and memory in architecture: Algerian anti-colonial resistance and the Algiers Casbah", *The Journal of North African Studies*, 14:2; 2009: 187.

With the reason for the occupation shifting from military needs to economic extraction by the 1850s, the Second French Republic voted in 1848 to integrate the lands of Algeria as *départements* of France, equal to any on the mainland. Algeria was now formally part of France, but this produced further contradictions for the native population, as French policy vacillated between complete subjugation and cultural association.<sup>10</sup> While all *colons* became citizens of France as a result, the Muslim population largely remained as subjects under the *Code de l'indigénat*, being offered few of the civil rights and electoral preferences the *colons* enjoyed<sup>11</sup>—the rights of *Liberté, égalité, and fraternité* enshrined in the French constitution.

While the administration continued to invoke the need for the *mission civilatrice*, the economic system of Algeria was being rearranged in the background, transforming into an export economy linked directly to France. New connections into the hinterland plantations replaced the political system of regional tribal capitals, with power centralized in the port cities and the hands of the *colons*. Meanwhile, large-scale land dispossession, high taxes and the overall dismantling of native society meant the Muslim population lost many of their traditional means of support, exposing them to famine.<sup>12</sup>

This structural inequality produced a European settler class which became increasingly powerful, all at the expense of the native population. Simultaneously, the seizure of religious land endowments and an overt lack of investment pushed the Casbah to further decline into a slum. Faced with complete French domination and the failure of armed resistance, native resistance took the form of a self-imposed segregation and retreat into religion. Residents banded together in communal efforts to save their houses from decay, forming closed communal systems separate from the French.

Along with the gradual elevation of the Casbah into a national symbol of resistance, this closed culture laid down the foundations of a national cultural resistance.<sup>13</sup>



132 ALGER. — Le Boulevard Laferrière et la Poste. — LL.

Figure 3.9 Laferrière Boulevard and the Post Office, early 20th century

## 3.2 The Politics of Association and Segregation

14 Graebner, Seth. *History's Place: Nostalgia and the City in French Algerian Literature*. Lexington Books; 2007: 17.

15 Djar, Kahina. "Location Architecture, Post-Colonialism and Culture: Contextualization in Algiers". In: Osten M, Karakayali S, Avermaete T, (Eds.). *Colonial Modern : Aesthetics of the Past, Rebellions for the Future*. London: London : Black Dog Pub; 2010: 30.

With the *colons* comfortable in their hegemony and Orientalist offshoots emerging out of the Romanticist movements of the 1860s, colonial policies began to shift towards social and political pacification via cultural association and away from the forcible assimilation of the past.

In public and commercial structures, the *style du vainqueur* (conqueror's style) was superseded by the *style du protecteur* (protector's style); these new buildings 'dressed' in neo-Moorish decorations would be symbols of a new "politics of association."<sup>14</sup> In this era, the nature of architectural hybridization evolved yet again as the forms of appropriation shifted. Rather than seeking styles popular in France, these new buildings sought to differentiate and contextualize themselves through the conspicuous duplication and application of an aesthetic 'Algerian' veneer onto European floor plans and programs.

During this period, Algiers experienced a period of rapid growth as the European population moved out of the Casbah into the new districts springing up south and east of the existing city. The Upper Casbah, previously subject to incursive attacks on its urban fabric, would now be preserved in isolation as an exotic relic extolled for its now-picturesque state of decay;<sup>15</sup> instead, the new city took the form of a distinctly European form separate from the Muslim city. This produced two cities within Algiers—one for the Europeans, and one for the Muslim population.



# 1900-1940

1870-1930 The Hegemony of the Settlers

## Historical Events & Ideology

Capitalism

"Civilizer"

1901 Touat, Gourara and Tidikelt are annexed by the French

1902 The Turegs are defeated at Tit

1903 Algiers reaches a population of 138,240, the majority of whom are Europeans

"Protector"

1914 Start of the First World War

1919 Several reforms in favor of the Muslim population are codified in the Jonnart Laws

1918 End of the First World War

1916 Revolt in Aurès

Nationalism

1870-1940  
French 3rd  
Republic

## 1900 Urban Typologies

1901 University of Algiers built

1901-9 Galeries de France built

1910

1910 Grande Poste d'Algier built

1912 Jardin D'Essai turned into public park

1920

Rural migration begins to the city



Plan, Place de La Grande Poste

### 1900 A New Century

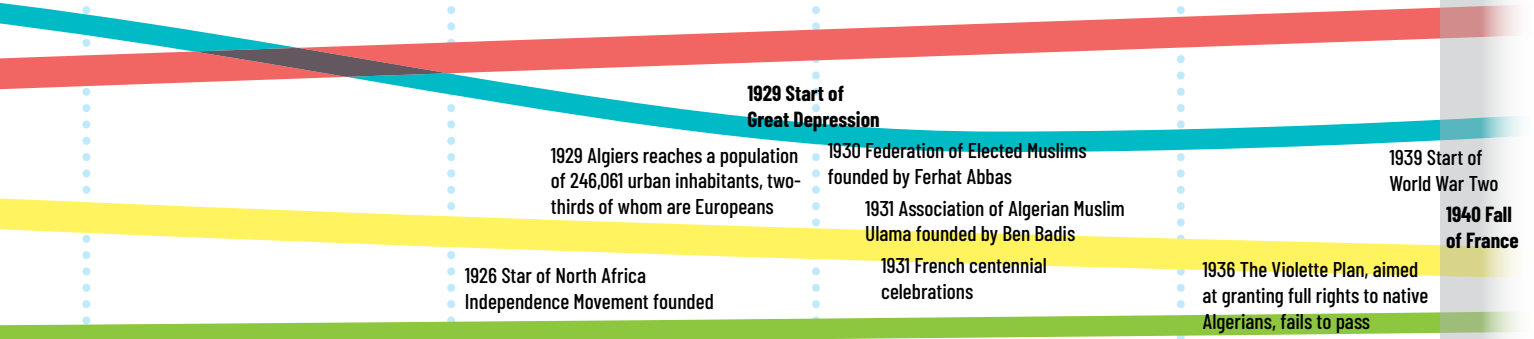
At the turn of the century, Algiers grew explosively but often without a masterplan. This produced a largely disconnected urban fabric, characterized at the time as "chaotic"

Throughout this time, urban planning remained centered around beaux-arts norms, but an exterior Moorish architectural was often applied to European plans, the result of a majority of architects in Algiers being Europeans, and most building activity being destined for European consumption.

The most significant era of city-building occurred from 1896 to 1914, as the city built sixty-six new roads and erected large civic structures.

From the 1910s onwards, the emergence of vehicular transportation brought with it the emergence of the first suburbs of the city. During this time, the city continued to develop not only further south but also west up the hills, as former garden villas were rebuilt as apartment blocks.





1920

Emergence of Suburbs  
Modernisme

Plans D'Urbanisme  
1932 Palais du Government

1930

Le Corbusier's work in Algiers

1940

Emergence of Bidonvilles, reemergence of vernacular



1931 Proposal for the Marine District

### 1930 Colonial Housing

Housing issues continued into the 1930s when the *Plans d'Urbanisme* were mandated for municipalities with populations over 100,000. Henri Prost develops the first modern urban plans. Le Corbusier opposes Prost's plans, and develops his own, producing the *Plan Obus*.

As the first regional master plans, these continued to apply European planning norms, following the stylings of Stripped Classicism and Streamline Moderne.

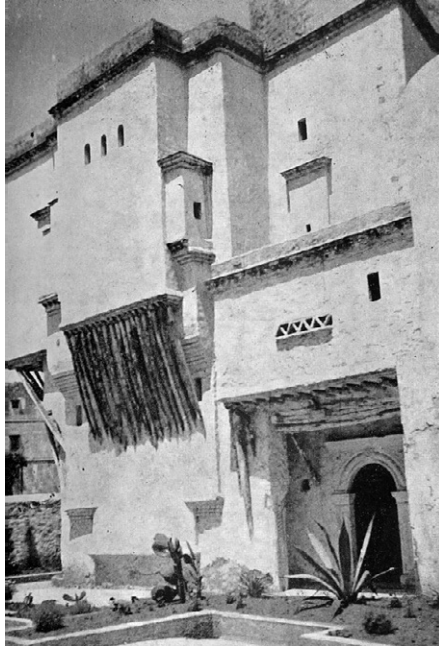
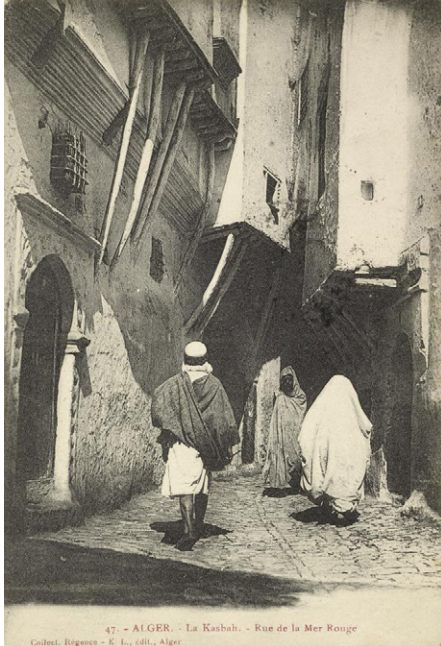
Interest in the "Indigenous House" began to emerge at this time, and an example was built by Léon Claro for the 1930 Centennial Celebrations. These early anthropological studies were co-opted and applied to housing design and urban planning.

Fundamentally, the self-imposed segregation by the Muslim populace was interpreted in the creation of distinct zones for the housing of Algerians, a pattern that would be repeated in later urban plans.

While early planning in Algiers revolved around military control and economic expansion, the last masterplans in Algeria, made throughout the 1930s-50s were concerned with social control and pacifying the population via housing typology.

During the era of the Great Depression, the mechanization of the plantations and a lack of job security for the Muslim populace led to the creation of several social organizations, which formed the nascent roots of the later independence movements.





Left:  
**Figure 3.11** Casbah, Rue de la Mer Rouge, 1909

Right:  
**Figure 3.12** The Indigenous House of the Centennial, Léon Claro, 1930



**Figure 3.13** Cité indigène project, François Bienvenu, 1936



### 3.3 The Indigenous House

16 Çelik, Zeynep. *Urban Forms and Colonial Confrontations*: 108.

17 Ibid: 96.

Though there had always been an interest in the vernacular architecture of the Casbah, by the 1930s, French policymaking started to promote ethnographic studies of the domestic architecture, studying the patterns of daily life and the status of women within the households. From this research, an ideal ‘indigenous’ house was designed by Léon Claro for the 1930 Centennial Celebrations.

Despite this research, the idea of an indigenous house was rooted in an idealized exoticism, ignoring the cultural hybridization that had inevitably occurred during the prior hundred years of colonization. Celik writes that by the 1930s, wealthy Muslim families had long-commissioned houses in modern European styles and filled them with an eclectic mixture of European and Arabic furniture, while European-style chairs and fixtures were common in even the households of the poorest families.<sup>16</sup>

Furthermore, from an assumption that a homogeneous design did not apply to all native Algerians, these typological differences were translated into a ‘kit-of-parts’, derived from the most common features found during the studies. Finally, from the considerations of cultural accommodation, there emerged a notion that Algerian and European housing had to be physically separated due to assumed differences in spatial needs—producing spaces that physically segregated Europeans and Muslims in terms of the spatial arrangement and siting.

Despite these misunderstandings, this body of scholarship would constitute a fundamental resource for the development of new housing designs for Algerians, and in urban planning in the decades to come.<sup>17</sup>

### 3.4 1931: The Apogee of French Algeria

By the time Le Corbusier made his first visit during the Centennial, tensions were palpable throughout Algiers. With a new wave of national consciousness made possible by the emergence of a small-but-outspoken class of educated Muslim Algerians, the Muslim population began to clamor for equal rights, decrying the National Assembly's inability to pass comprehensive reform.

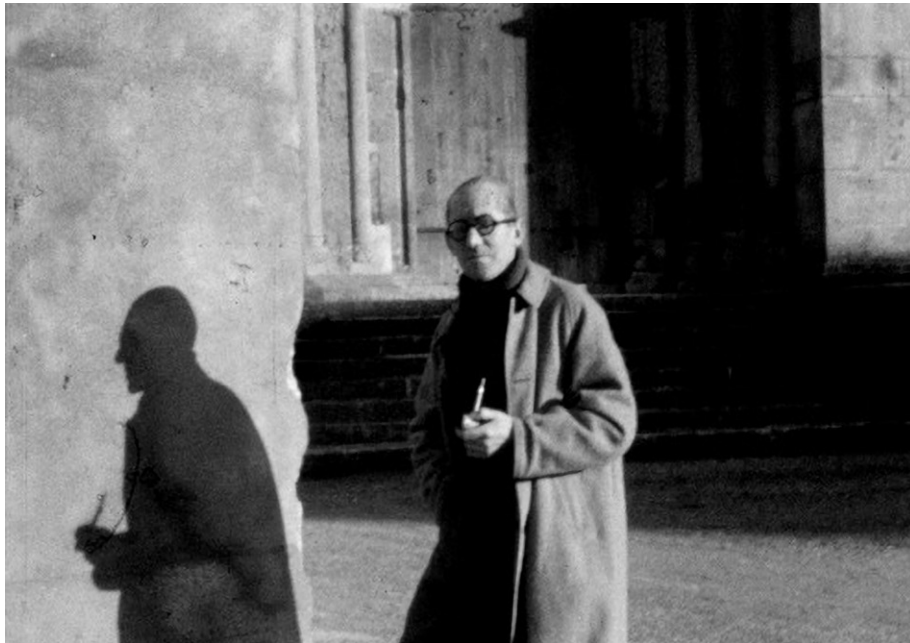
18 McLeod, Mary "Le Corbusier and Algiers": 57.

Meanwhile, the dispossession of many rural Algerians produced a massive stream of landless peasants moving from the interior towards the coast. Many had crowded into a rapidly industrializing Algiers in search of employment, only to find squalid accommodation on the fringes of the city or single rooms in the overcrowded Casbah. Yet elsewhere throughout Algiers, gleaming new cultural and housing developments—more modern than even those in France—had sprung up for the elites of the city.

This was Algiers as Le Corbusier saw it, a city of a quarter-million, two-thirds European, with the remaining third comprising a motley mixture of the Arab, Kabyle, and Jewish populace who remained after the conquest, or who had recently migrated there seeking work.<sup>18</sup> It was a confused city of ancient traditions, colonial cultures, and visions of modernity. And it was here that Le Corbusier decided to apply his unwavering faith in architecture's ability to foment change, in creating a world of the future.



*Figure 3.14 Algiers from 600m, Walter Mittelholzer, 1930*



*Figure 4.1 Le Corbusier in Vézelay, October 1936*

# 4 LE CORBUSIER

Within Le Corbusier's repertoire of work, the Obus represented less a work of realized architecture, than an evolutionary step between the ultra-rational Cartesian schemes characterizing his early career, and the more sensual plastic forms defining the projects of his later life. Throughout his early career, Le Corbusier subscribed to Taylorism, which had emphasized the utilization of modern scientific management to improve industrial capitalist productivity.

Within the confines of Taylorism, he believed that progress would alleviate societal dissonances brought about by the modern world, where all segments of society would share in a so-called spirit of collaboration. These years would produce the *Ville Contemporaine* (1922) and the *Plan Voisin* (1925), the first of his urban visions which embodied scientific efficiency through technical planning and design.

Yet this early optimism had given way to a general malaise by 1930, as Le Corbusier became increasingly disillusioned by the role technology played in precipitating the capitalist crises of 1929 and the rise of Fascism.

At this time, Le Corbusier became involved in the Syndicalist movement, an anti-capitalist social movement which emphasized decentralization and economic regionalism. During these years, he began to abandon the rigid formalism of the *Ville Contemporaine*, ingraining syndicalist ideals and eventually producing the *Ville Radiueuse* (1930) as a model for societal reform.

Furthermore, the Modern Movement had also developed fundamental contradictions in its effective application and limitations in poetic expression, problems that had emerged in the process of its widespread adoption and standardization. Le Corbusier sought to reevaluate and adjust his views on architecture, emphasizing the poetic and artistic in the search for a more intuitive approach.

In a 1929 reply to the Czech critic Karel Teige, Le Corbusier rejects his former prescription that the house is a machine for living, instead

declaring that “the function of beauty is independent of the function utility.”<sup>1</sup>

Beyond this point, Le Corbusier began to seek the poetic in lands far beyond Europe, devoting much of his time toward the development and promulgation of his urban visions. He increasingly embraced ‘Mediterraneanism’, openly disavowing the European city and its urban arrangements of *corridor-streets*.

Mediterranean architecture was central to Le Corbusier’s beliefs, especially in the beliefs of its spiritual relation to the light, wind and sea, and in its unadorned plastic forms and pure functionality which allowed people to freely walk and live on the rooftops. This was a point he would reiterate throughout his life, especially when he wrote *When the Cathedrals Were White* in 1937;

*In the course of years, I have myself become more and more a man of everywhere, with, nevertheless, one strong root: the Mediterranean, queen of forms under the play of light; I am dominated by the imperatives of harmony, beauty, plasticity.*<sup>2</sup>

In 1929, he would make several trips to Latin America, and from that point, Le Corbusier began to synthesize a new urban form.

Inspired by the rich topography seen throughout the trip, the first of his urban linear urban concepts emerged, an elaboration and conceptual sibling to his *Ville Radiueuse* schemes. This concept would be repeatedly refined and promoted throughout Le Corbusier’s Latin America travels; but it was only in Algiers, where these theoretical concepts and prior urban visions finally converged, reaching their logical conclusion.

1 McLeod, Mary “Le Corbusier and Algiers”: 55.

2 Le Corbusier. *When Cathedrals Were White*. Trans. Hyslop, Francis E. Jr.. New York: McGraw-Hill Book Company; 1947: 30.

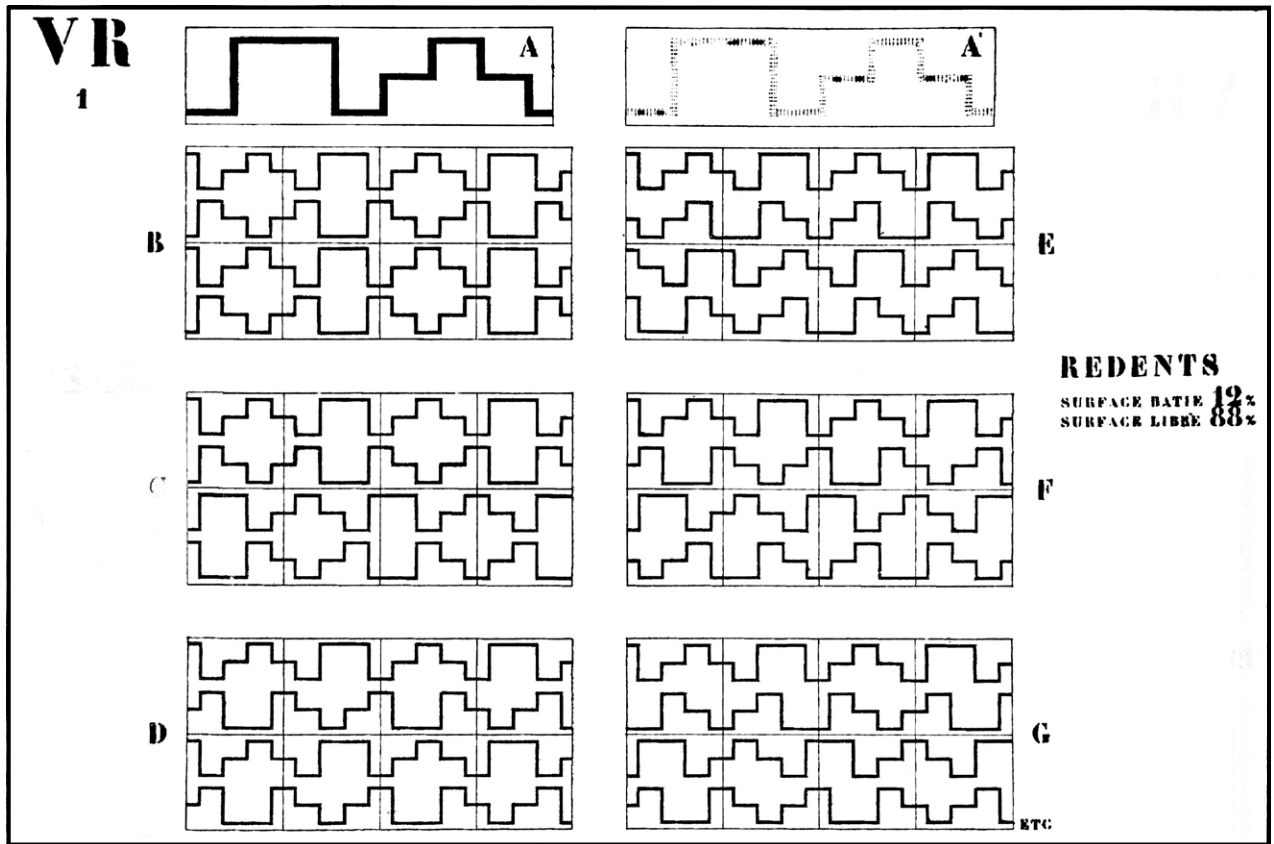


Figure 4.2 Various linear redent layouts for the Ville Radiueuse

# LE CORBUSIER 1920-1940



Figure 4.4 Proposal for Rio de Janeiro

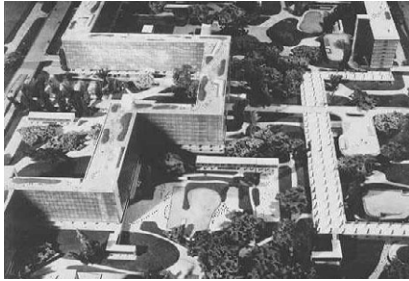


Figure 4.5 The Radiant City

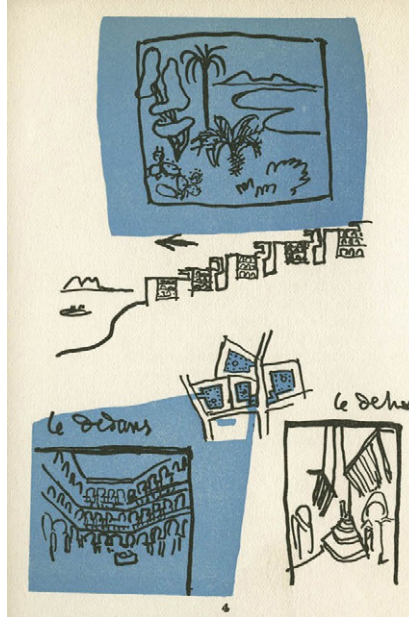


Figure 4.6 Le Corbusier's Algerian sketches



Figure 4.7 Obus B



Figure 4.8 Obus D

1870-1940  
French 3rd  
Republic

1920

1925

1929 Start of Great  
Depression

1930

1931 French centennial  
celebrations

1935

1923 *Toward an Architecture* published

1928 Founding of CIAM

1931 *The Radiant City* published

1931-34 Obus 'A', 'B' & 'C'

## Urban Origins

From the 1920s onwards, Le Corbusier began to turn his vision of living towards urban planning. With the publication of the *Ville Contemporaine* in 1922 and its evolution into the *Ville Radieuse* in 1930, Le Corbusier began to develop his *L'Unité* housing block concept.

In 1929, Le Corbusier visited Latin America. The natural landscape of Rio de Janeiro, seen from above, inspired him to conceive a linear city in the form of an urban expressway—essentially the *L'Unité* housing block stretched into a continuous form.

## Trip to Algiers

In early 1931, Le Corbusier was invited by the *Les Amis D'Alger* organization for lectures during celebrations organized for the Colonial Centennial.

Taken aback by the natural beauty and potential of the site, he vows to come up with a proposal for Algiers by next year. He remains two weeks beyond his planned stay, visiting and documenting the Casbah. During the summer of 1931, Le Corbusier returns with his cousin for a twenty-six-day trip through Spain, Morocco, and Algeria.

## Initial Studies

In 1932, Le Corbusier submits his first plan (*Obus A*) for Algiers, to be displayed at an architectural exhibition later that year. However, city officials and *colon* citizens reject the plan, considering it too “utopian” and over-scaled compared to the rest of the city.

Undeterred by the rejection and despite a lack of payment or an official position in the ongoing masterplanning of Algiers, Le Corbusier continued to work on his proposals, gradually diminishing the scale and limiting the intervention on the subsequent plans (*Obus B, C*).





Figure 4.9 Obus E



Figure 4.10 Plan Directeur

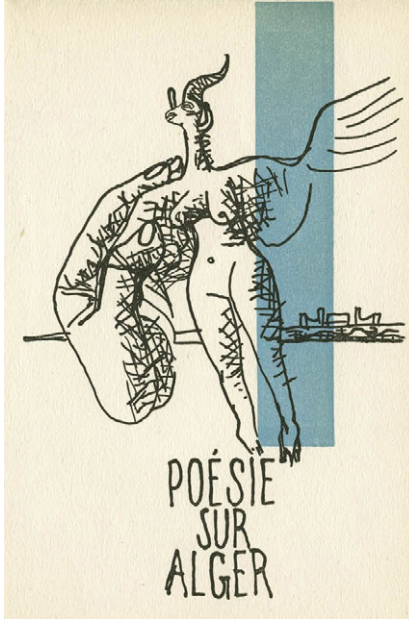


Figure 4.11 Poésie sur Alger



Figure 4.12 Unité d'Habitation at Marseille

	1940-1942 Vichy France	1942-1945 Free France	
1935	1940	1945	1950
	1940 Fall of France	1945 Sétif & Guelma Massacre	
	1941-42 Operation Torch		
	1942 Poésie sur Alger Published		
Le Corbusier's work in Algiers	1938-39 Obus 'D' & 'E'	1941-42 Plan Directeur	1947 Unité d'habitation (Marseille)

In 1937, Prost's previously approved masterplan was overturned, and Le Corbusier was finally appointed to the Regional Planning committee. He developed two further plans (*Obus D & E*), now focused entirely within the Marine District.

However, Le Corbusier's ideological differences with the committee led to an end to his participation in the committee.

### The End of the Plan Obus

In 1941, hoping for a more productive outcome under the new Vichy regime, Le Corbusier developed the *Plan Directeur*, working with Vichy officials. Ultimately, the invasion by the Americans and municipal rejection led to the end of the project in 1942.

With the writing of *Poésie sur Alger* in 1942, and reflecting upon the last decade of lost work, Le Corbusier makes no further references to Algiers.

### Beyond the Plan Obus

In 1947-1952, the *Unité d'Habitation* at Marseille was constructed. Although it returns to a rectilinear form, the *L'Unité* housing block contains several elements present within the *Plan Obus*, namely an elevated framework complete with interior services and circulation, into which apartments are conceptually slotted. Overall, it remains a structure that aims to provide the services of a community under one roof.

Mediterranean Sea



St Eugene

Bab el Oued

El Biar

Telemy

Alger Centre

Mustapha

Bay of Algiers

Mustapha Superior

Belcourt

El Hamma

Hussein Dey

Birmendreis

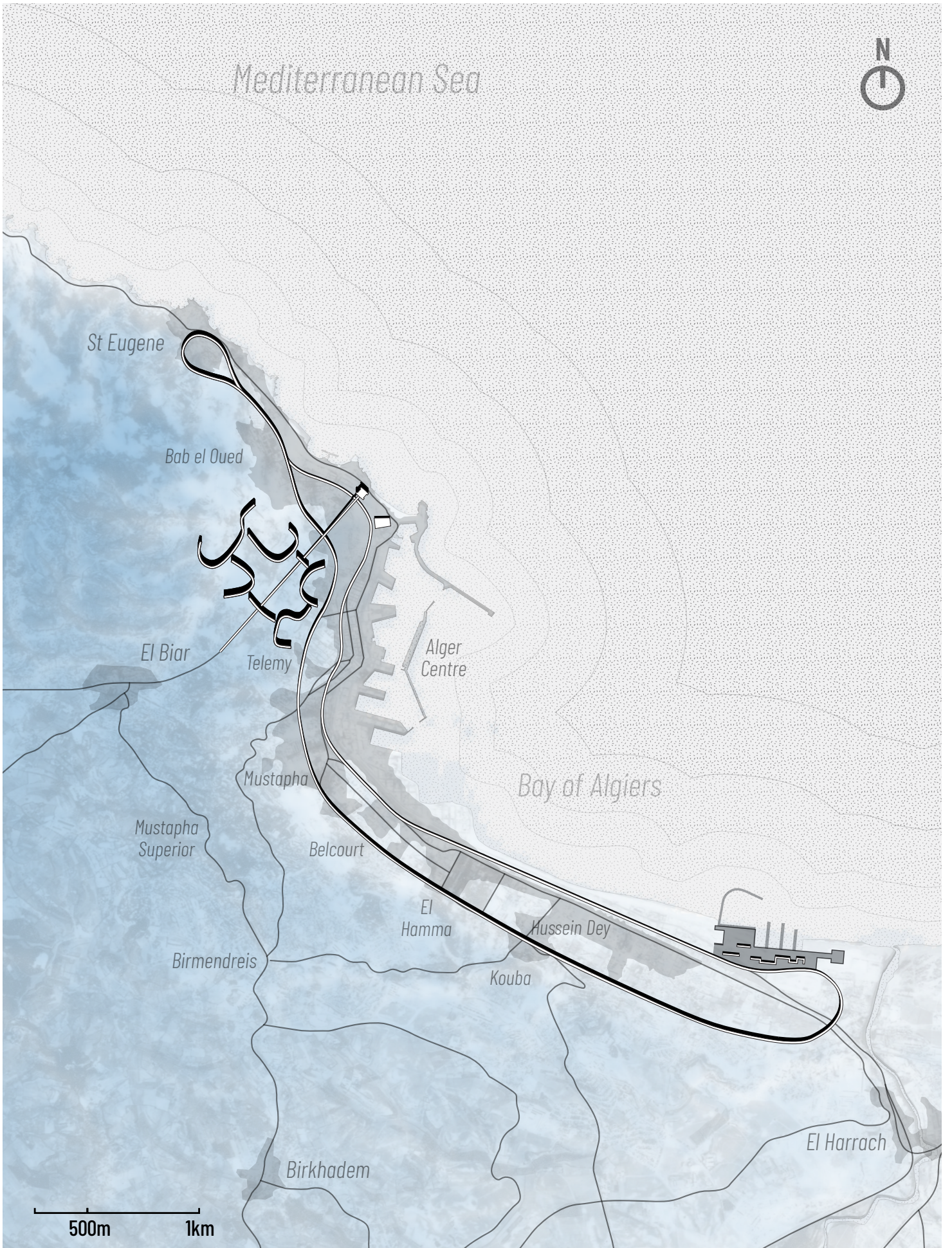
Kouba

Birkhadem

El Harrach

500m

1km



# 5 SYNTHESIS OF A DESIGN

1 Le Corbusier returned in June with his cousin, driving to Algeria through Spain and Morocco. During the trip, he would visit the M'zab Valley and famously discover the vernacular typologies he would apply in his later projects.

2 Tafuri, Manfredo. *Toward a Critique of Architectural Ideology*. Contropiano. 1969: 127.

After a return trip in the summer of 1931 for further research,<sup>1</sup> Le Corbusier begins to formulate over the following year not just an urban masterplan, but a systematic reordering of Algiers.

Ignoring the site confines of the Marine Quarter and disavowing the sequence of *site-quarter-city* and its limitations on buildable space, this new form would be a unified statement within a total setting—where the entire city became the site.<sup>2</sup> The *Ville Radiueuse's* basic urban block, the *Unité*, was elongated and transformed into the city itself.

Further combined with the monumentality of his abortive South American proposals, this plan would envision a new sculptural form merging both infrastructure and architecture into a singular ensemble while integrating the climate and geography of Algiers into its design.

Le Corbusier would call this the *Plan Obus* (Projectile Project), nicknamed not only for the curving arc of an artillery shell, but for the implications of an explosive entry into the neoclassical urban planning in Algiers. In his view, this was not only an opportunity to elaborate on his theories of city-building and sculptural poetics, but also to promote an entirely new vision of urbanism.

Thus in 1932, Le Corbusier would return with the most radical of his proposals, the *Obus A*.



## 5.1 Obus A

As the *Plan Obus* was a continuous design study where plans evolved into one another, the demarcation between schemes was often blurred. Here, a transitional version of *Plan A* is chosen for its refined approach and integral ideological thrust—and also that it was the last recurring image in the Obus chapter of *The Radiant City*, perhaps a sign that this scheme was the ideal version of these first plans.

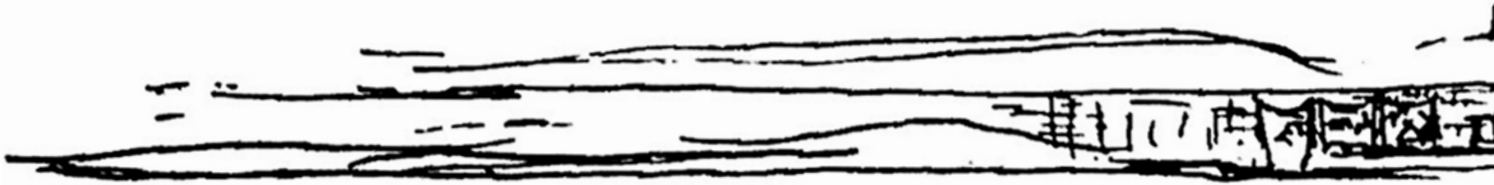


Figure 5.2 Sea view sketch of the Plan Obus, from *La Ville Radieuse*, 1935

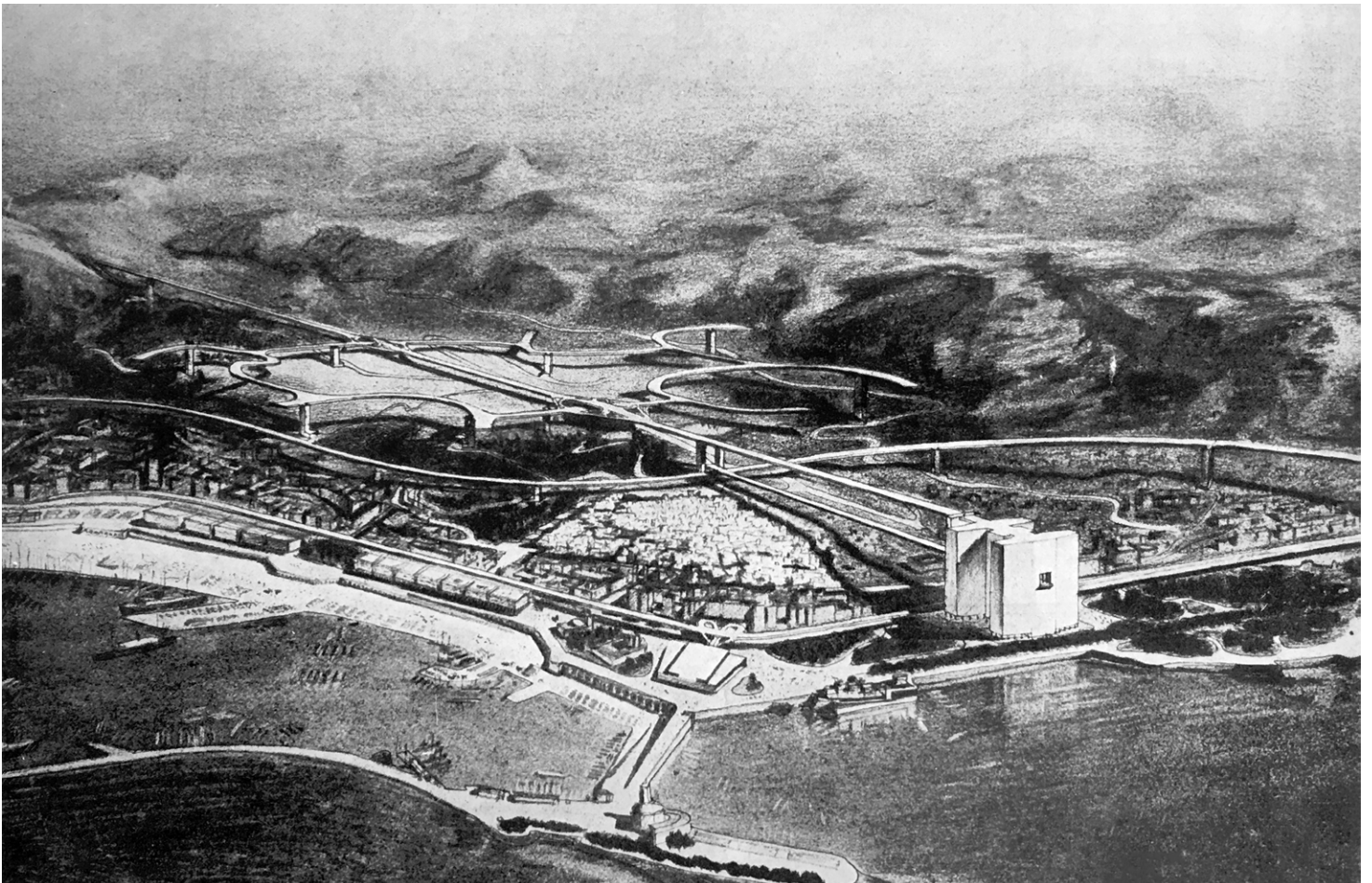


Figure 5.3 Circulation diagram for Plan Obus A

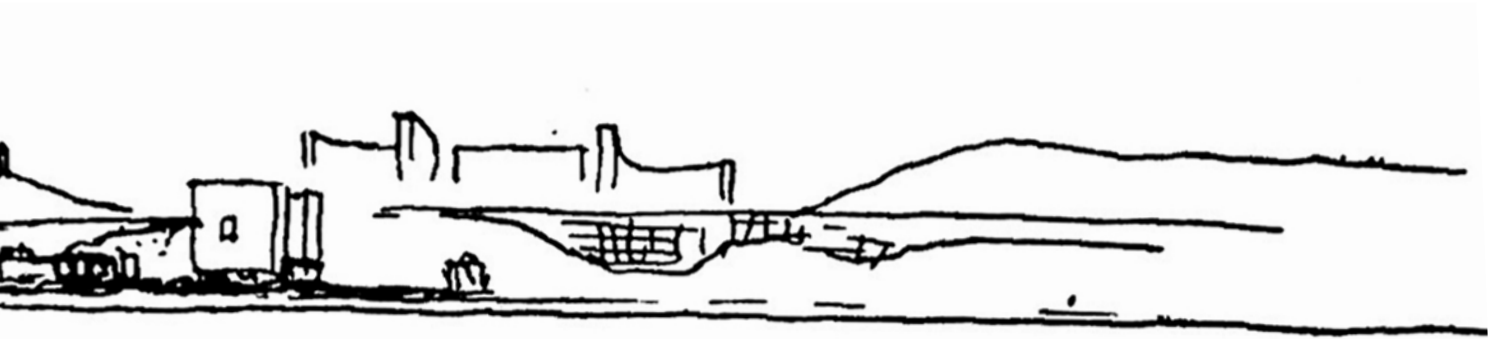


Figure 5.4 Plans for Algiers and "cité-jardin verticale" (vertical garden city) drawing made during a lecture in Chicago November 27, 1935

## 1 The Bureaux- *Zone D’Affaire*

Replacing the Marine Quarter, the bureaux comprised a new business centre serving as Algier’s new city centre. Though Le Corbusier disliked capitalism’s waste and selfishness, he also recognized the need to provide Algiers with a centre to serve as a locus of its civic life.<sup>3</sup> A tensostructure bridge would connect the *bureaux* to the redents.

## 2 The Redent- *Zone D’Habitation*

Perched upon the underdeveloped heights of Fort L’Empereur were a series of curved ‘shelves’ for villas, housing 220,000 of the middle-to-upper-class citizenry. With uninterrupted views of the sea and a direct connection to the bureaux via an 150 metre-tall elevated roadway, these structures formed what Le Corbusier saw as a “Tiara placed upon the head of Algiers.”<sup>4</sup>

Le Corbusier explained the main three principles he used to determine the architectural design of the redents—to be able to view the horizons from all units, to find the lowest-lying points and maximize internal volume, and finally to respond to the landscape properly. This produced a plastic form that he justified as being designed “To respond to the landscape’s invitation, an event of plastic creativity: response to horizons carries further; response to winds and sun is truer. A lyrical event, the climax of a rational procedure.”<sup>5</sup>

## 3 The Viaduc- *Zone de Circulation*

Recalling Le Corbusier’s fascination with speed, the redents consisted of an elevated twenty-eight kilometre ‘inhabited’ highway connecting Algiers to its suburbs. At a height of 100 metres, the *viaduc* ran separately below the *bureaux* and *redents*. Like the *redents*, the *viaduc* too was underlain with floors that would be incrementally filled with housing and shops for its 180,000 working-class inhabitants.

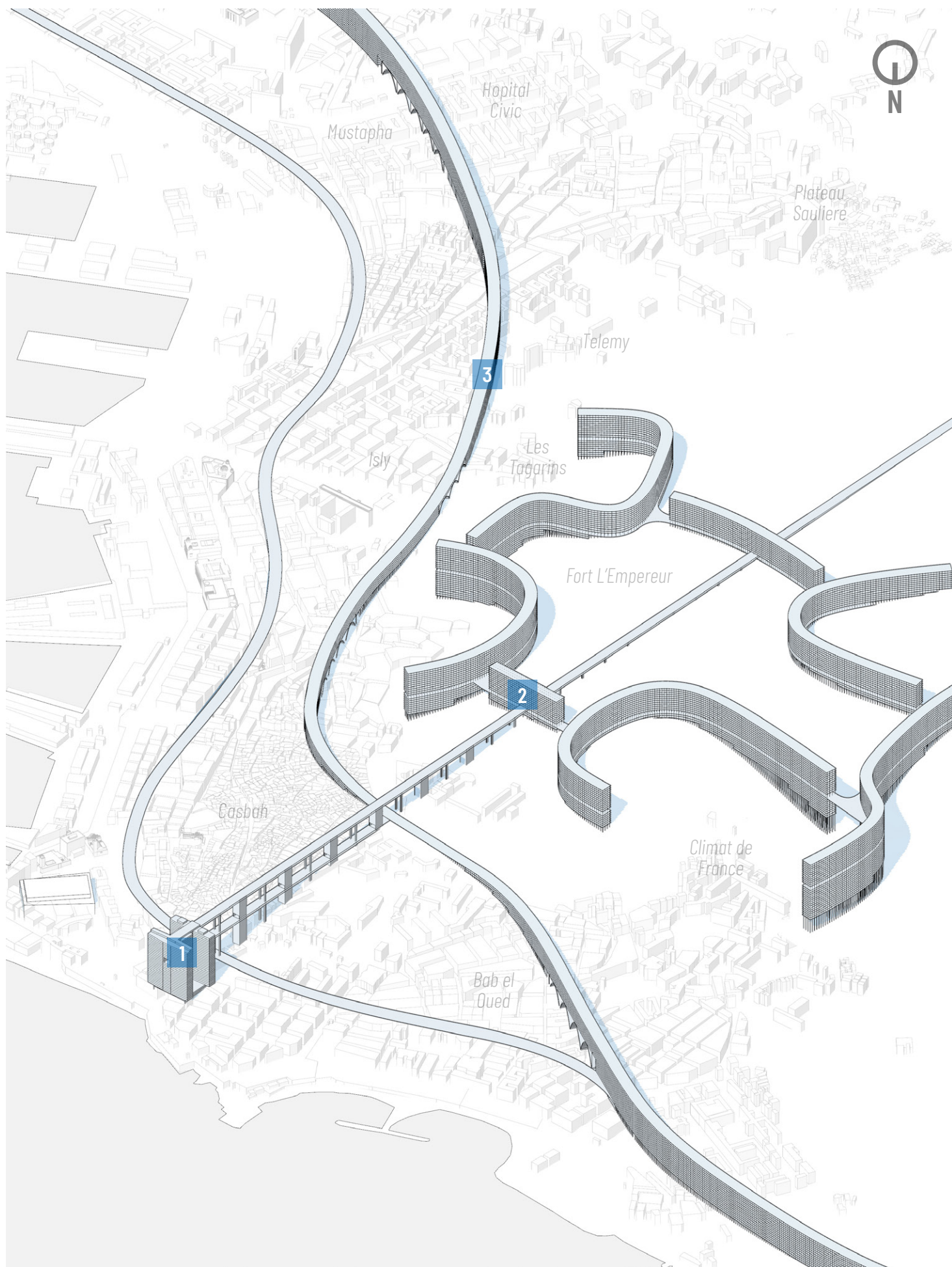
3 McLeod, Mary “Le Corbusier and Algiers”: 70.

4 Le Corbusier. *The Radiant City*: 260.

5 Ibid: 237.

*Figure 5.5 Axonometric of Algiers city centre*





Hopital Civic

Mustapha

Plateau Saullere

Telemy

3

Les Tagarins

Fort L'Empereur

2

Casbah

Climat de France

Bab el Qued

1

Finally, the plan would clear the Casbah of its unnecessary European accumulation and set it aside as a cultural museum and landmark preserved in perpetuity. Within the Obus, pedestrian traffic would be separated from vehicular circulation, while the vertical stacking of residences would eliminate the 'street-corridor'.

Floating above the ground level on elevated *pilotis*, these structures would sweep across the contours of the hills, emphasizing access to air, light and natural beauty and optimized floor area, while preserving the landscape beneath it.<sup>7</sup> Unlike the *Ville Radiueuse*, this plan would not impose an architectural order upon the landscape, rather the architecture would be a 'lyrical' reinterpretation of the topography.<sup>8</sup>

## 5.2 The Open Plan

To Le Corbusier, the solution to Algier's issues of urban sprawl and land speculation lay in the creation of new connections and new *terreins artificiels* (artificial sites)—elevated building plots which transformed the city from a two-dimensional film into a three-dimensional configuration free to expand beyond topographical limitations, while still retaining the overall organizational form.

The space created out of this frame would be the essential form of the *tabula rasa*. Free of pre-existing site constraints or context, these spaces emphasized freedom on an individual basis. In the plan, both the redents and viaduc were 14x14m structural frameworks of open concrete floors spaced 4.5m floor-to-floor, allowing two-storey housing cells of any shape and style built according to their inhabitants' needs.

*Independent skeleton, open plan, free facade. Modern techniques leading to useful results.*

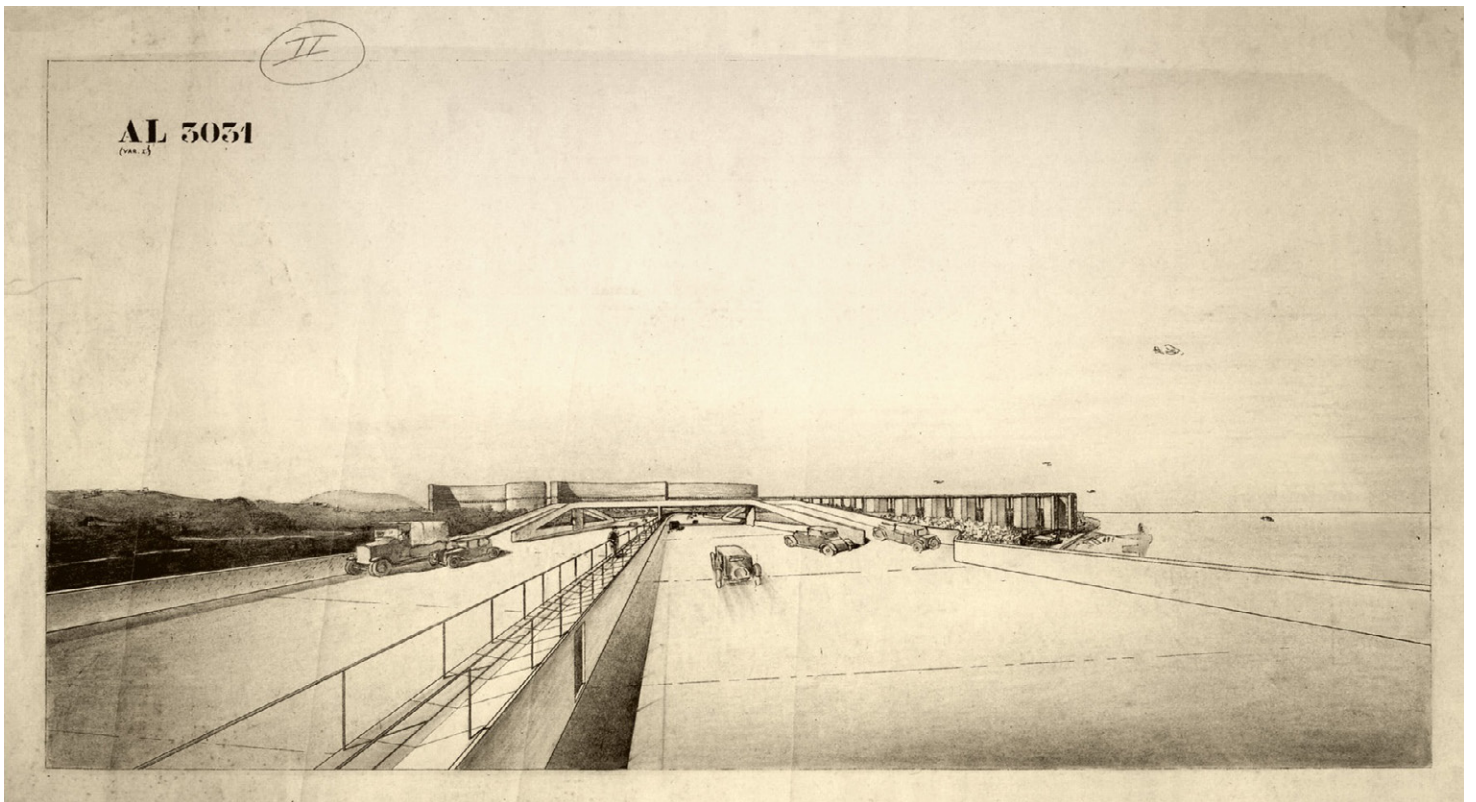
-Le Corbusier<sup>6</sup>

6 Le Corbusier. *The Radiant City*: 246.

7 Ibid: 229.

8 McLeod, Mary "Le Corbusier and Algiers": 65.





*Figure 5.6* Perspective of the elevated highway, Obus A, 1932

Bernard Leupen describes this space as “the open space defined by the frame signifies the generic, the unspecified; it is generic space.”<sup>9</sup> The Plan Obus would be an instance of a ‘structure-as-frame’, where a distinct division could be perceived between the ‘carcass’—the underlying infrastructural concrete frame, and the ‘finish’—the inserted structures and uses within the frame.<sup>10</sup>

9 Leupen, Bernard. 2006. *Frame and Generic Space*. Rotterdam: 010 Publishers: 26.

10 Ibid: 158.

11 Le Corbusier. *The Radiant City*: 230.

12 Tafuri, Manfredo. *Toward a Critique of Architectural Ideology*: 131.

### 5.3 Visions of Collaboration

In addressing the societal tension long inflaming the city, Le Corbusier turned to his syndicalist beliefs and the cellular organization of the indigenous housing he had observed on his Algerian voyages. To Le Corbusier, solving the issues of class and race hinged on the creation of a collective identity based on the individual housing cell and the implementation of large-scale communal accommodations. He would write:<sup>11</sup>

THE KEY = THE CELL  
= MAN  
= HAPPINESS

In Le Corbusier’s vision, the European *colons* and Algerians would live side by side in a communal harmony within the generic frame, in their own houses built to each individual’s corresponding personal tastes and needs. In the public’s design of their own houses within the frame, Manfredo Tafuri notes that Le Corbusier recognized the issue of class within the modern city, and sought to integrate the public into their new environment through “an invitation to become an active participant in the designing of the city.”<sup>12</sup>

# CRÉATION

**AUTOSTRADÉ**

**GARAGES**


**ASCENSEURS COMMUNICATION VERTICALE**

**STATIONS**

**SERVICES COMMUNS**

**TECHNIQUE MODERNE** • **INSONORISATION AIR EXACT**

**CAISSE MUNICIPALE**

**TEMPS GAGNÉ =** 

**LES TRAVAUX URBAINS SONT UNE VASTE ENTREPRISE BÉNÉFICIAIRE.**

**DU TERRAIN AMÉNAGÉ EN CITÉS JARDINS VERTICALES**

**UN LOGIS-**

**PLAFOND ÉTANCHE**

**PLANCHER**

**PLANCHER FONDÉ**

**1. m<sup>2</sup>**

**REVIENT à 320 frs**

**L'AUTOSTRADÉ ÉTANT PAYÉE**

Figure 5.7 Diagram describing the viaduc scheme's benefits, 1932

This would have provided the working classes with a supposed right to the city, through the application of a free plan.

*And this deflection from the egoistic property instinct towards a feeling for collective actions leads to a most happy result: the phenomenon of personal participation in every state of the human enterprise [...] If you show us such plans, then the old dichotomy between 'haves' and 'have-nots' will disappear. There will be but a single society, united in belief and action.*

- Le Corbusier<sup>13</sup>

Tafuri summarizes Le Corbusier's intentions where the architecture became an instrument of collective integration<sup>14</sup>—the new Algiers would be a city where societal issues would be reconciled via architecture.

Meanwhile, the unified city plan would preserve and rationalize the terrain of Algiers, transforming it into productive territory while maximizing efficiency and circulation. This new urban plan would no longer be purely European. Rather, it would seek to hybridize the best elements of each culture and return Algiers to a long-lost equilibrium. Indeed, Le Corbusier proudly states,

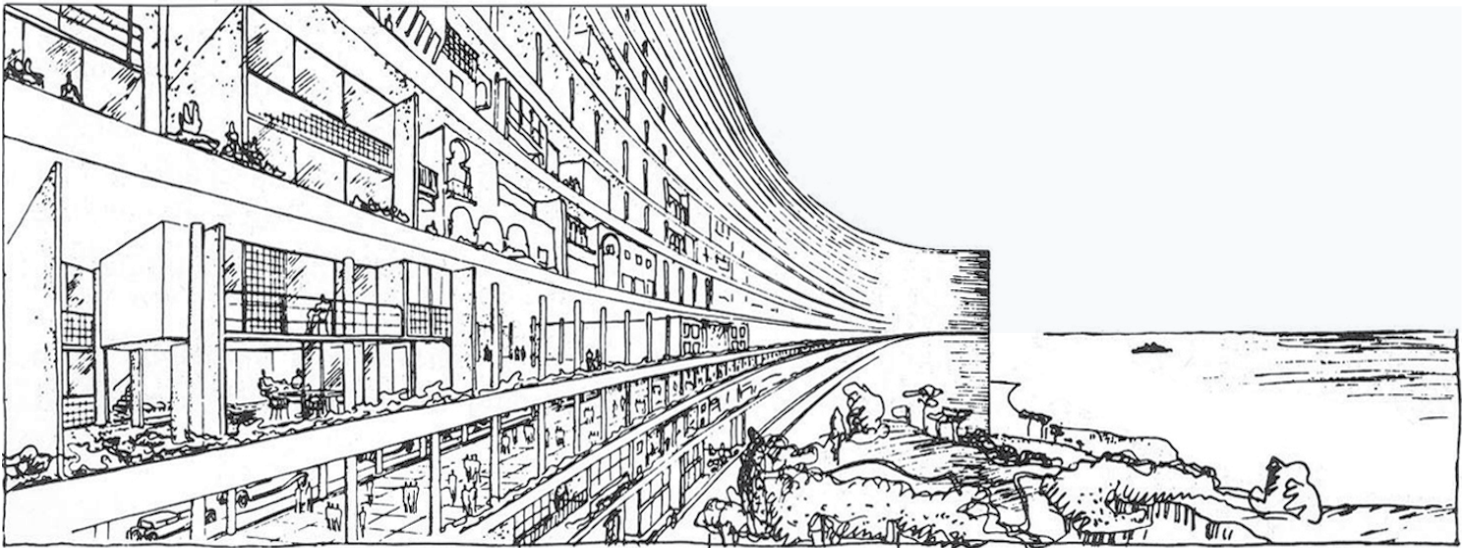
*We see that the principles fundamental to the layout of the Moorish dwellings have been reinstated: contrasts of various heights, the patio opening on to a garden surrounded by high walls, the view of the sea. Now, that is good regionalism!<sup>15</sup>*

Writing to Mayor Brunel, Le Corbusier recounts the unifying power of the Mediterranean as a common thread between the cultures bordering it. Upon the completion of this plan, Algiers would ascend to its role as a great Mediterranean capital city, shedding its past as a colony and finally becoming a place of peaceful reconciliation between the West and the East.

13 Le Corbusier. *The Radiant City*: 177.

14 Tafuri, Manfredo. *Toward a Critique of Architectural Ideology*: 143.

15 Le Corbusier. *The Radiant City*: 247.



*Figure 5.8* Drawing of a fully built-out redent, Obus A, 1932

## 5.4 Staging

For the *Obus A*, Le Corbusier provides a rough staging plan, though without a formal schedule. In essence, the *bureaux* and the *redents* are constructed first, with the *viaduc* built afterward. Further additions to the *redents* are continuously made afterwards, while the substructure of the *viaduc* is gradually filled in “*year after year*”.<sup>16</sup>

In the original scheme, the areas enclosed by the *redents* would be gradually deurbanized, and ultimately transformed into a pastoral natural setting for the structures.<sup>17</sup>

### 1 Stage 01

The first stage entails the construction of the business centre and its parking garage at the Marine District, the bridge connecting the tower to Fort L’Empereur, and the substructures of the first *redents*. The axial roadway on Fort L’Empereur would be also connected to El-Biar, connecting the first stage of the *Obus* to the rest of Algeria.

### 2 Stage 02

In the second stage, the *viaduc* is constructed but left as a raw, uninhabited frame. Only selective portions are fitted out and made available for gradual inhabitation. Back at Fort L’Empereur, a second grouping of *redent* substructures are erected upon the summit.

### 3 Stage 03+

In the third stage, the superstructure of one *redent* grouping is erected, and the *viaduc* continues to be gradually inhabited. This cycles onwards as a continuous process for many years until the *redents* and *viaduc* are fully inhabited.

16 Le Corbusier. *The Radiant City*: 240.

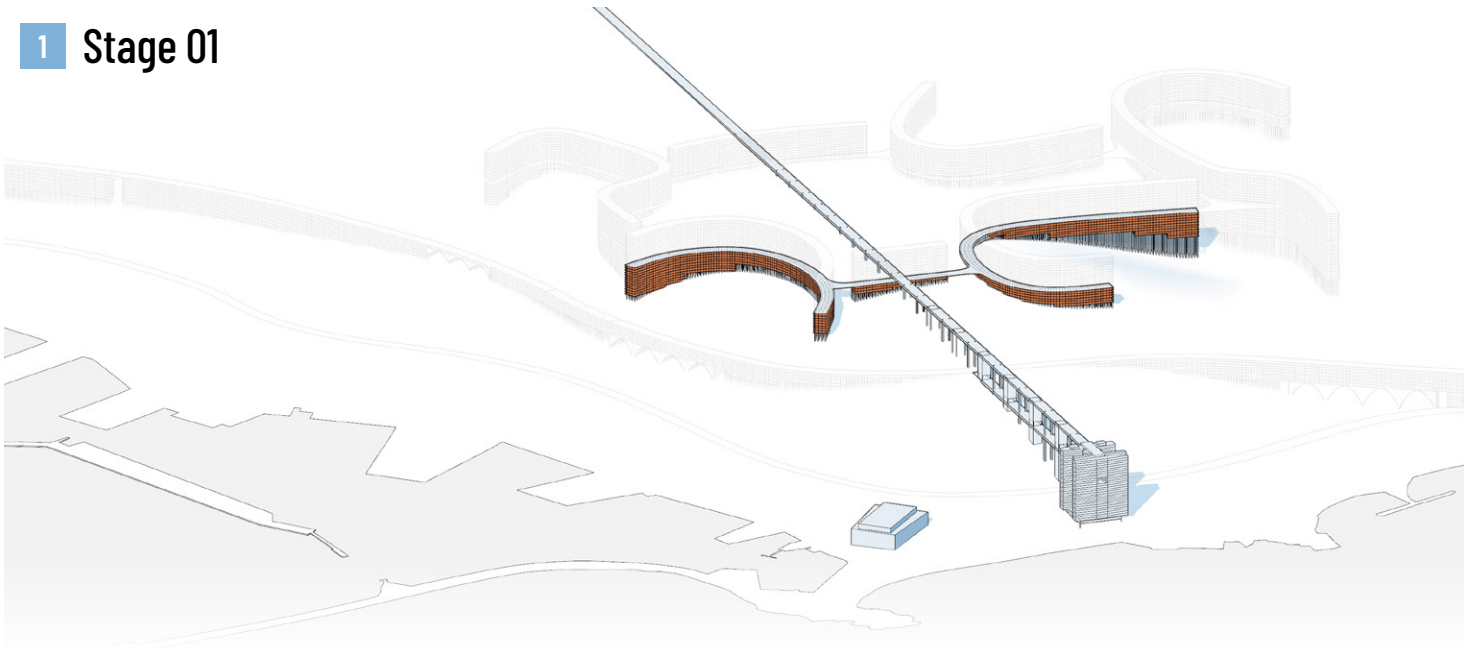
17 Ibid: 237.

 Sections made available for inhabitation

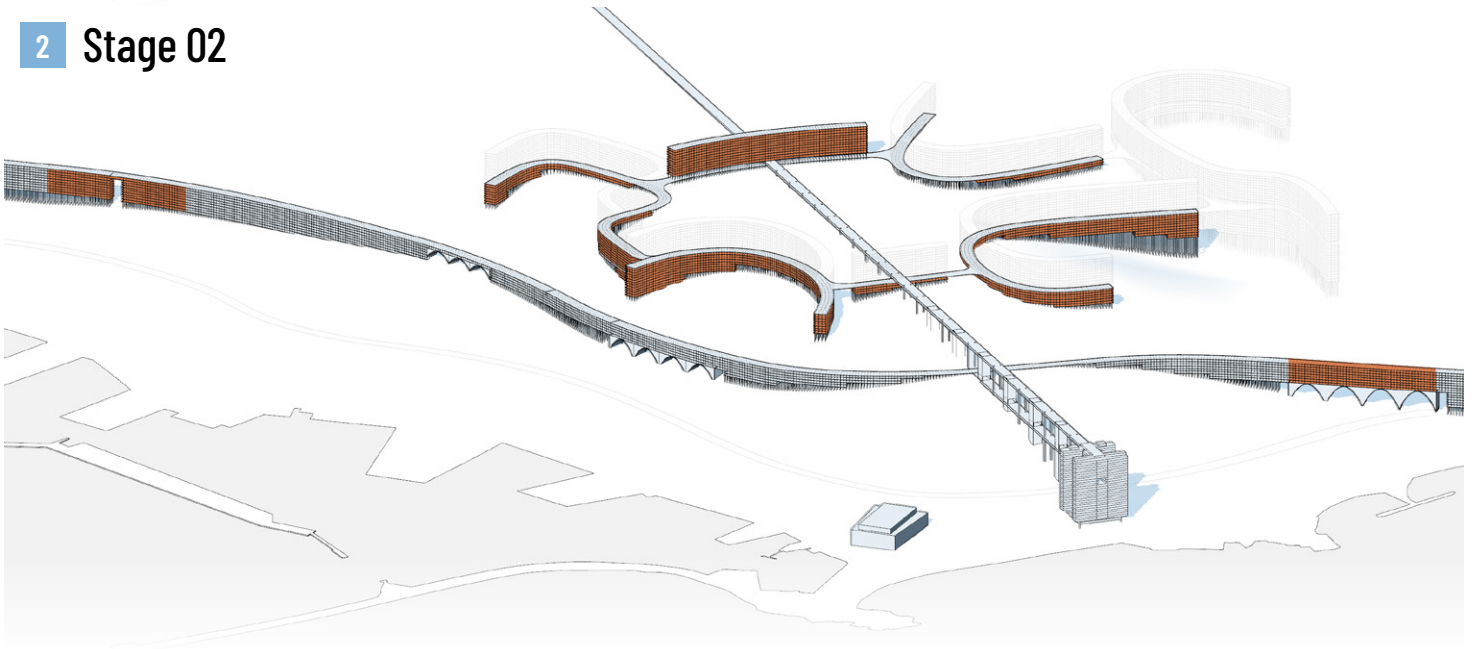
**Figure 5.9** *Obus A*  
Construction Phasing



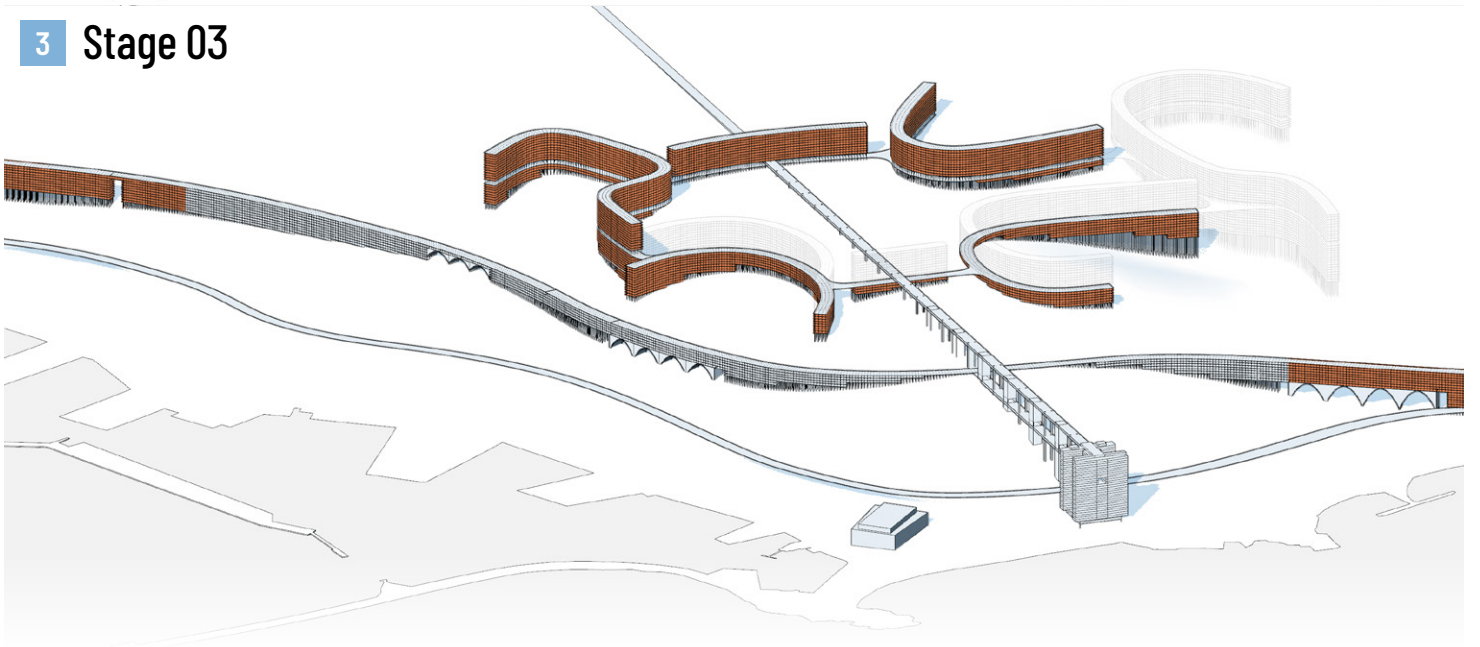
**1 Stage 01**



**2 Stage 02**



**3 Stage 03**



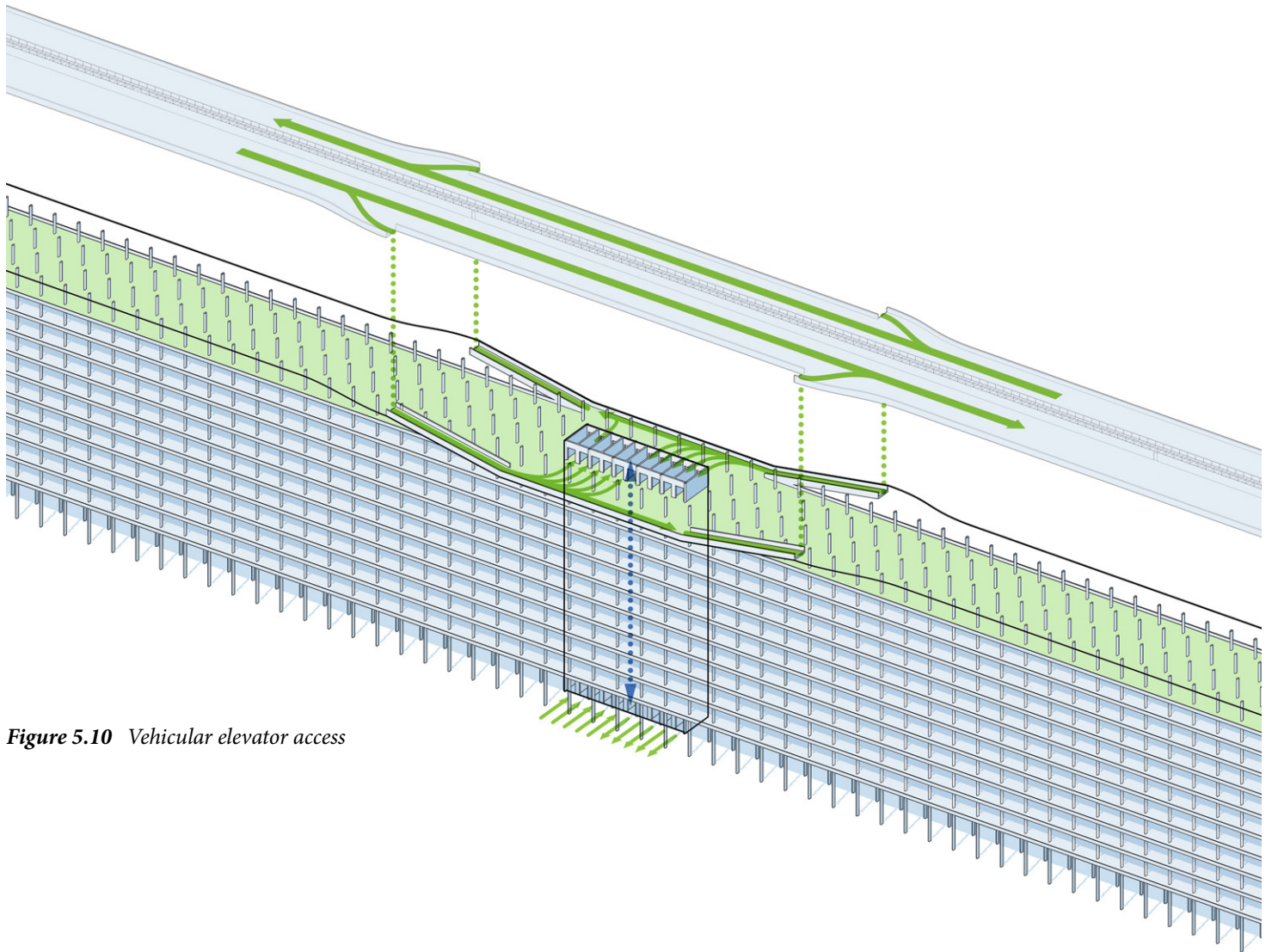


Figure 5.10 Vehicular elevator access

## 5.5 Circulation

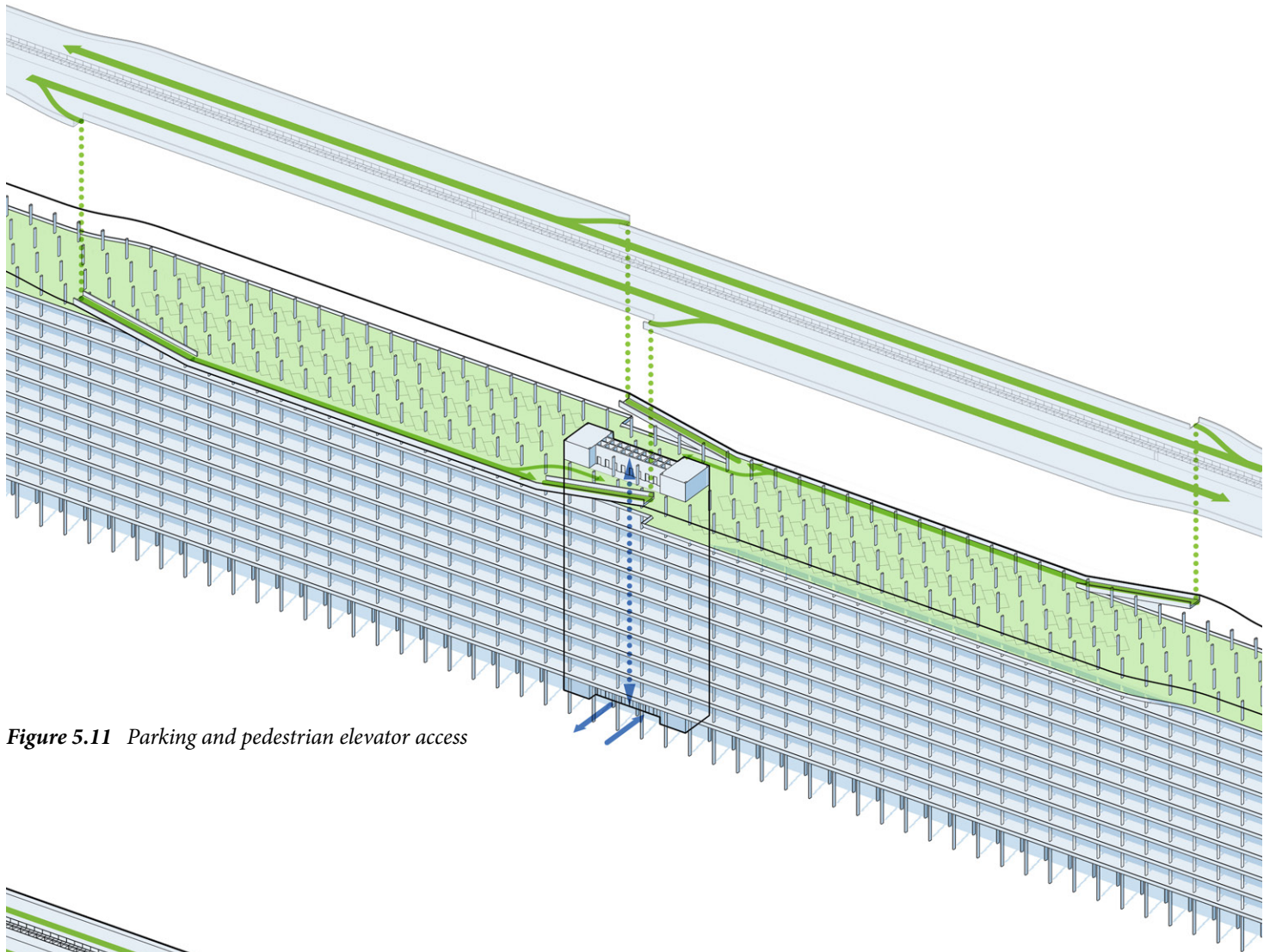
Though some details can be gleaned from existing preliminary diagrams and from Le Corbusier's precedent inspirations and contemporary projects, the details of the *Obus A's* overall circulation systems remain vague. Immediate inspiration for the design came from the 1923 Fiat factory test track in Turin,<sup>52</sup> which Le Corbusier transposed to an urbanistic application.

The *viaduc* system forms a loop running from Bologhine southeast through the city centre, before curving eastwards to the Oued El Harrach River. Access to the highway is provided through horizontal and vertical connections through secondary bridges between the tops of the hills and the highways, and from the street level through banks of vehicular elevators.

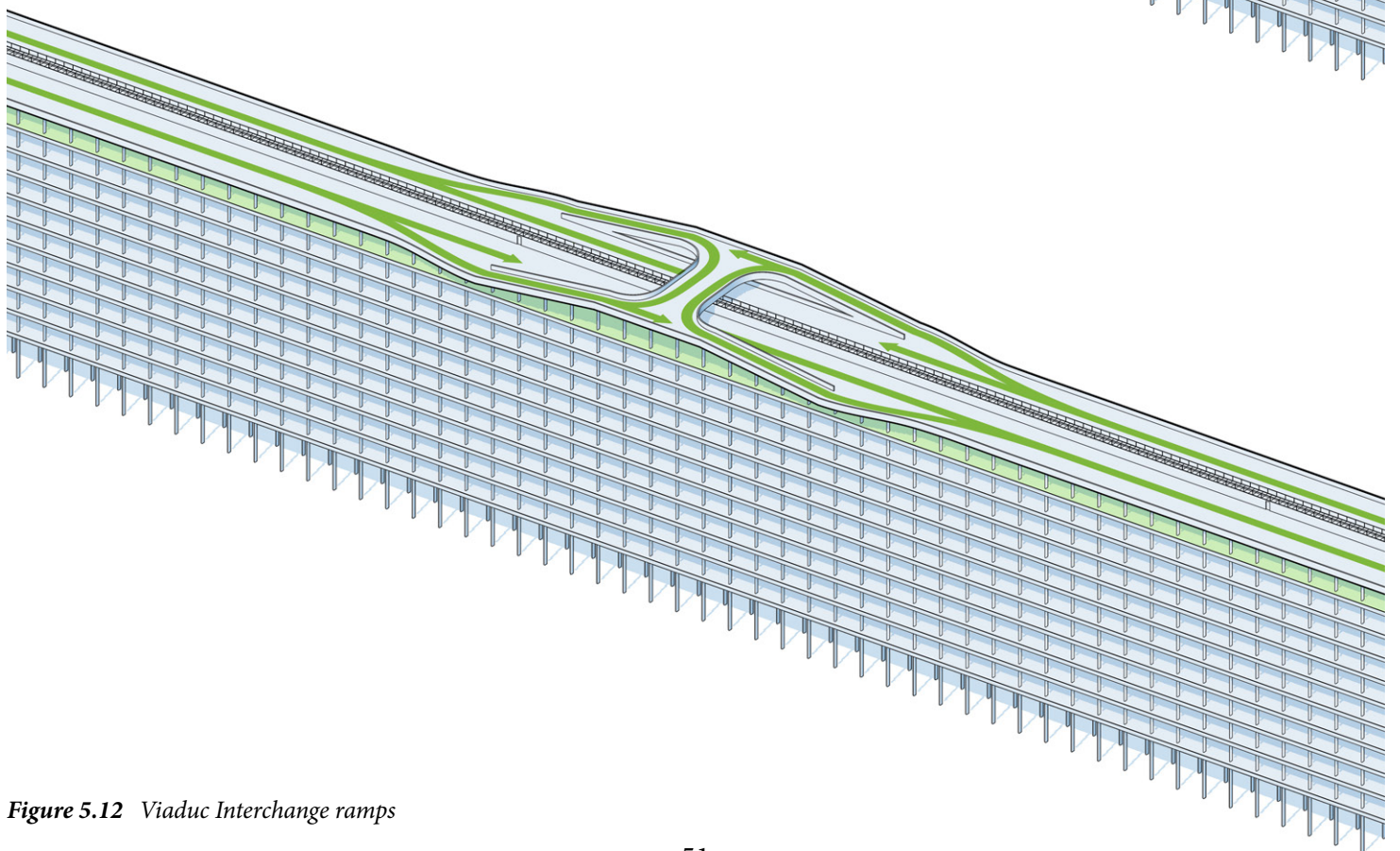
52 Le Corbusier. *The Radiant City*: 241.

- Vehicular circulation
- Vehicular Parking
- Pedestrian Circulation

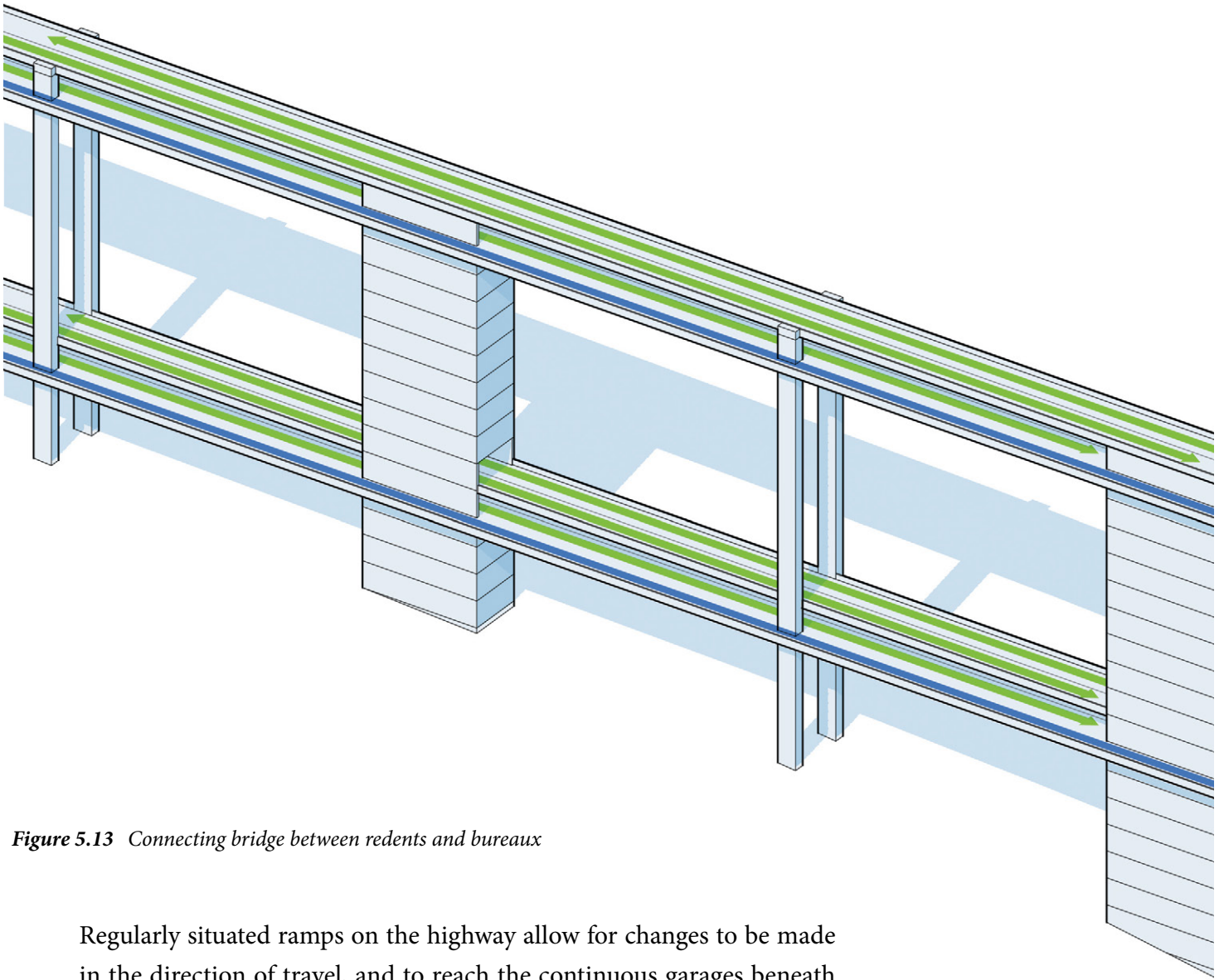




**Figure 5.11** *Parking and pedestrian elevator access*



**Figure 5.12** *Viaduc Interchange ramps*

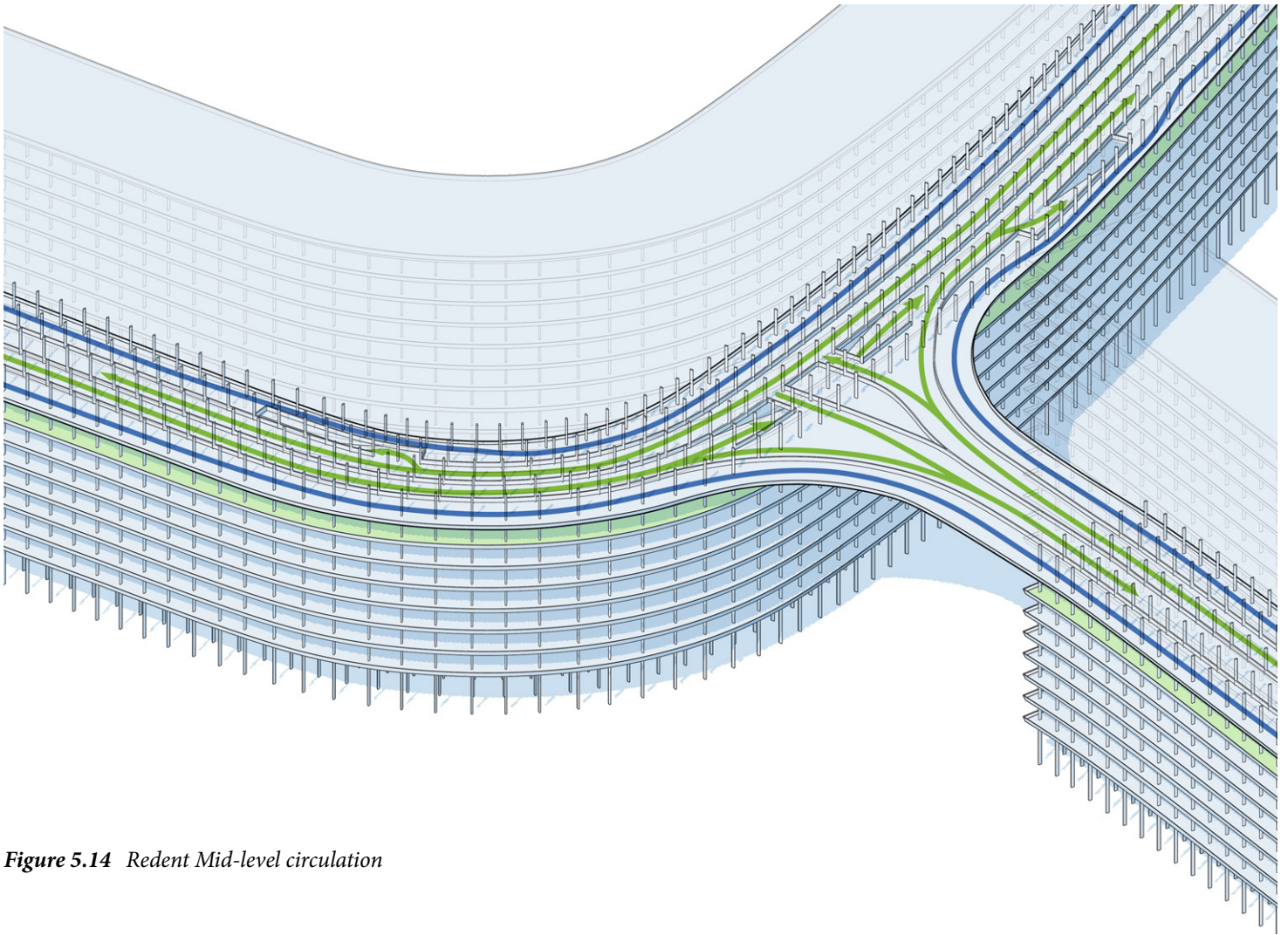


**Figure 5.13** *Connecting bridge between redents and bureaux*

Regularly situated ramps on the highway allow for changes to be made in the direction of travel, and to reach the continuous garages beneath the highway. Pedestrian elevators accessing the garages are situated at regular points, serving as the main interface between pedestrian and vehicular modes of transportation.

A tensostructure bridge connects the *redents* to the business centre at two levels, one at the height of the *redents* at 150 meters, and one at the level of the *viaduc* at 100 metres. This bridge is accessed by a set of vehicular elevators that connect down to highways at the city level, and pedestrian elevators that connect down to the street level for pedestrians. In some schemes, the larger support structures essentially form the cores of additional office structures, which are later constructed as needed.





**Figure 5.14** Redent Mid-level circulation

- Vehicular circulation
- Vehicular Parking
- Pedestrian Circulation

In the *redents*, the position of the structures at the top of the hills sets the highway system at the midpoint of the structures. A similarly designed network of roadways provides vehicular access to the structures while pedestrian walkways on the outer edges serve as the main public spaces for the structures. Furthermore, the redents are completely detached from the topography, with the space below serving purely visual and recreational pedestrian uses.

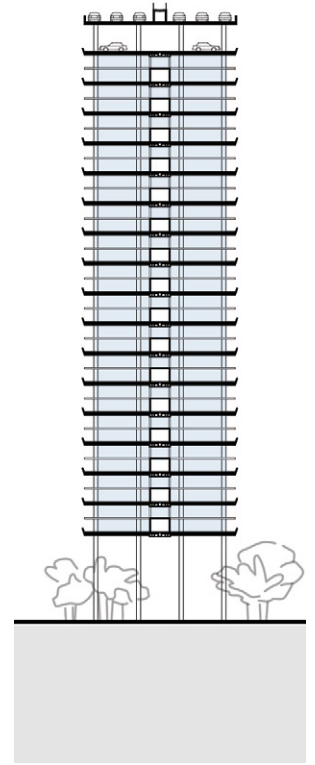
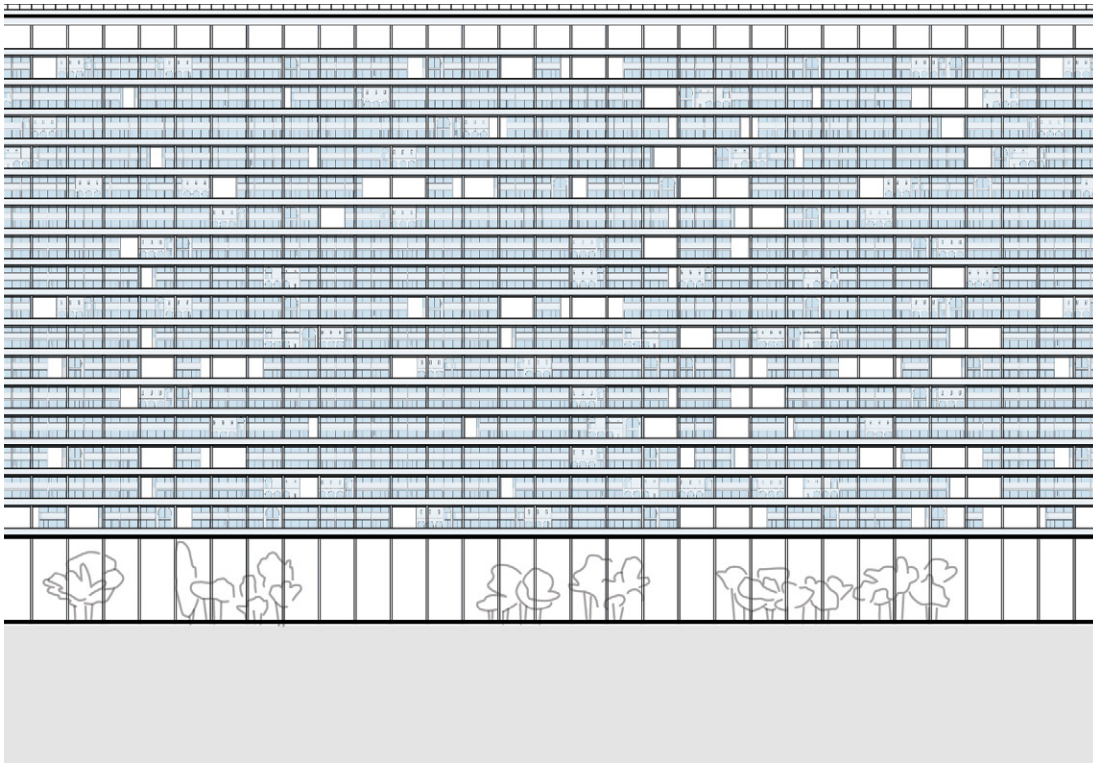


Figure 5.15 Viaduc Type 1 (Pilotis)

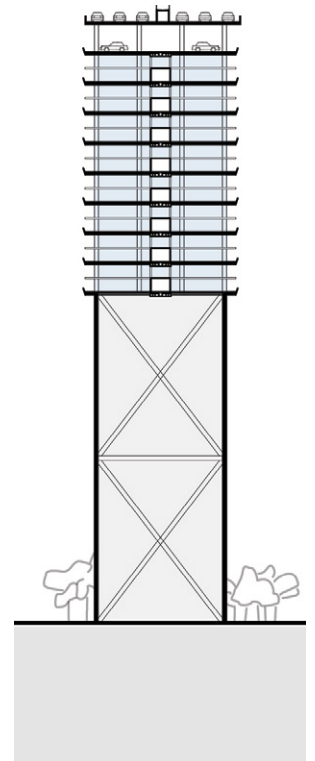
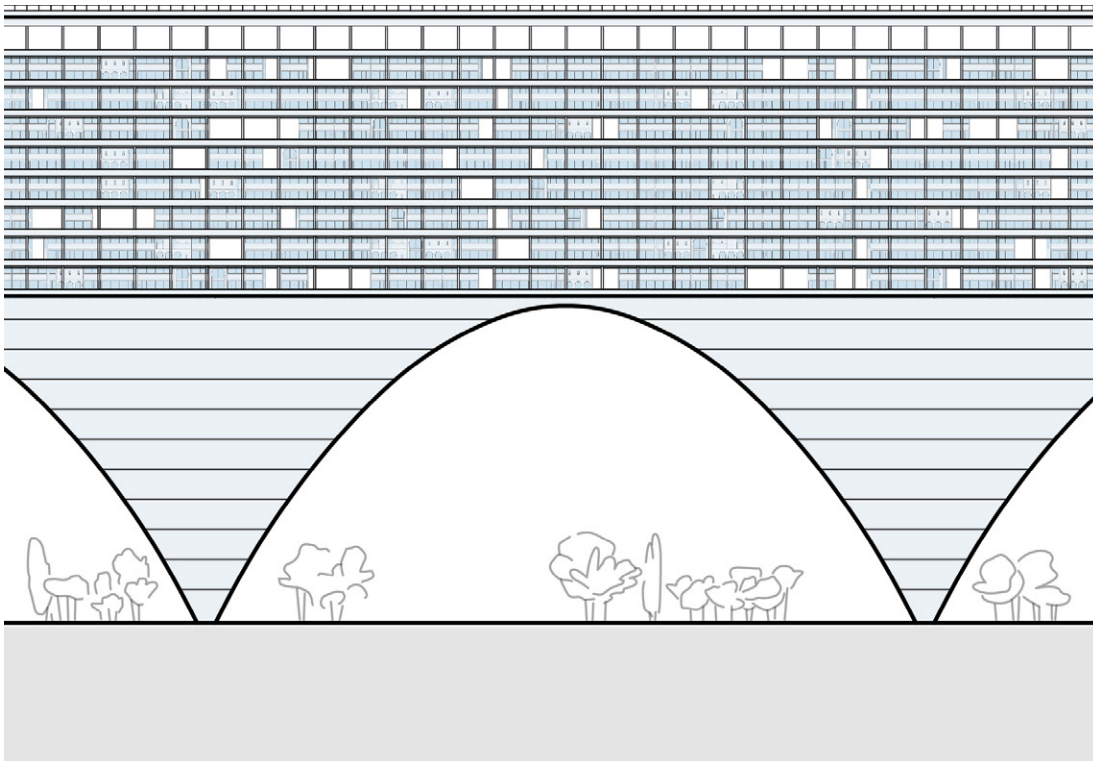


Figure 5.16 Viaduc Type 2 (Arched supports)



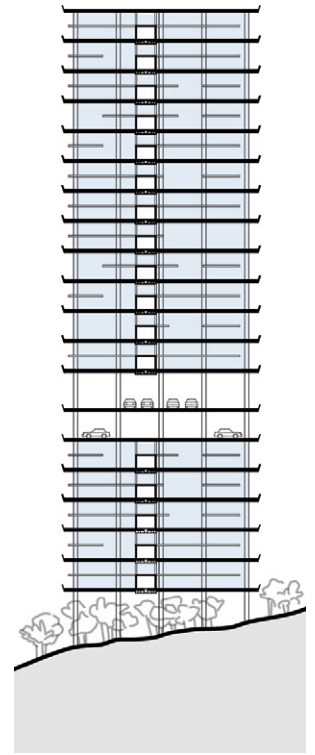
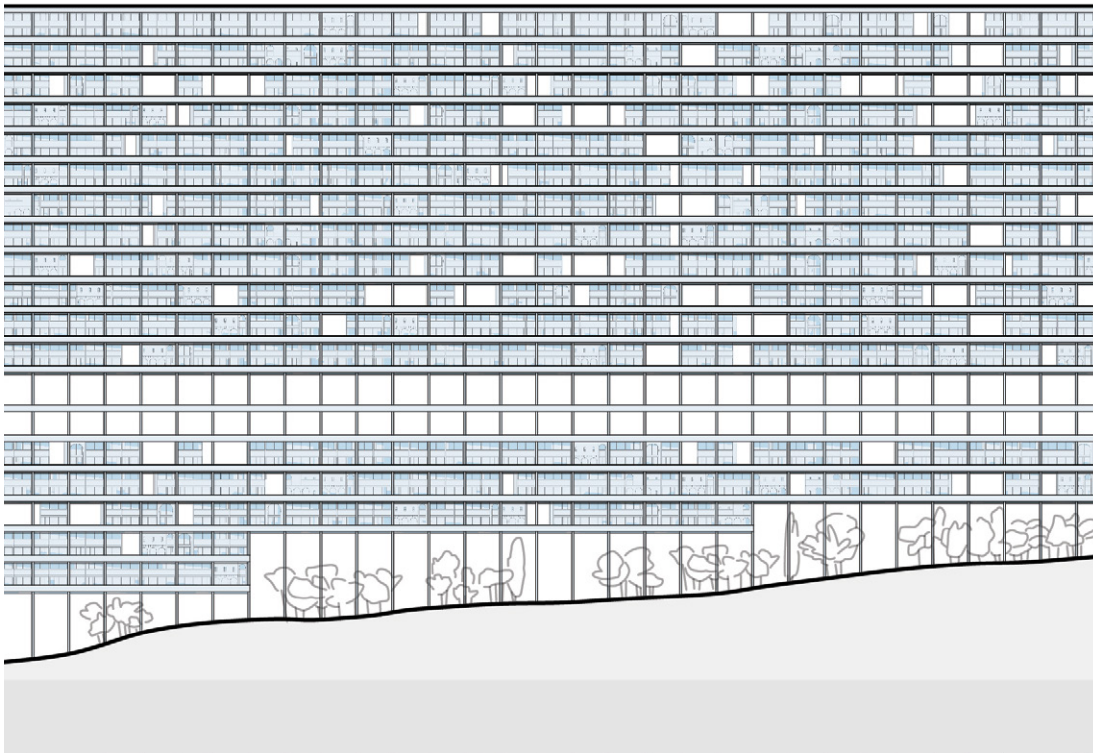


Figure 5.17 Redent

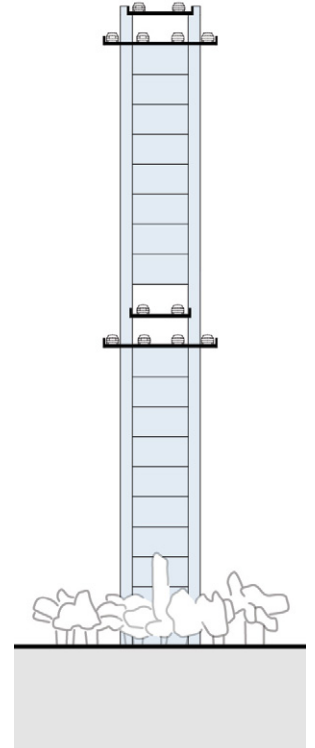
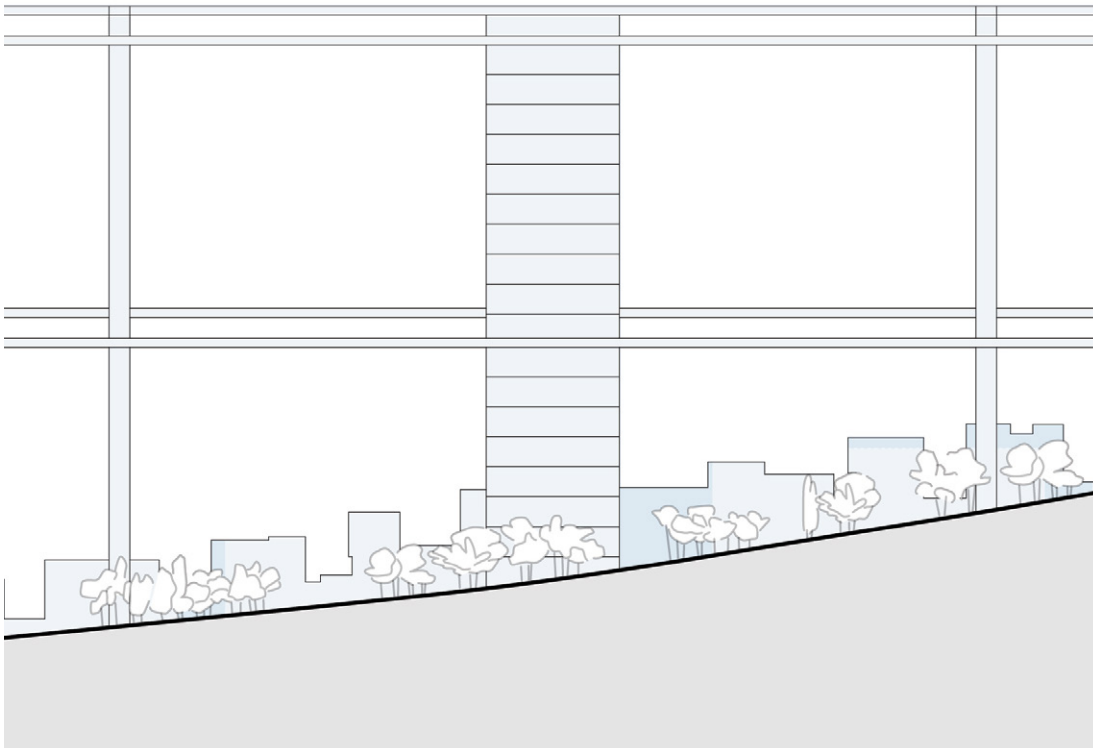


Figure 5.18 Tensostucture bridge between bureaux and redents



Figure 5.19 Typical plan and cell dimensions of the viaduc, showing potential unit designs.

## 5.6 Units and Utilities

Fundamentally defined by a two-storey 3x11 metre grid, the cells form the basic level of organization within the viaduc structure, with an average of 14 square metres allotted per inhabitant. The typical floor-to-floor height was 4.5 metres. Units of any design would be inserted into the grid, and multiple cells occupied as necessary to form larger units. Little information is given on the presence or programmatic arrangement of social or civic services in the *Plan Obus*.

These units would be accessed by a skip-stop internal corridor every two floors, under which would run electrical, water, sewage and forced air systems. These would be connected to the rest of the city at regular intervals with vertical utility shafts and service rooms.

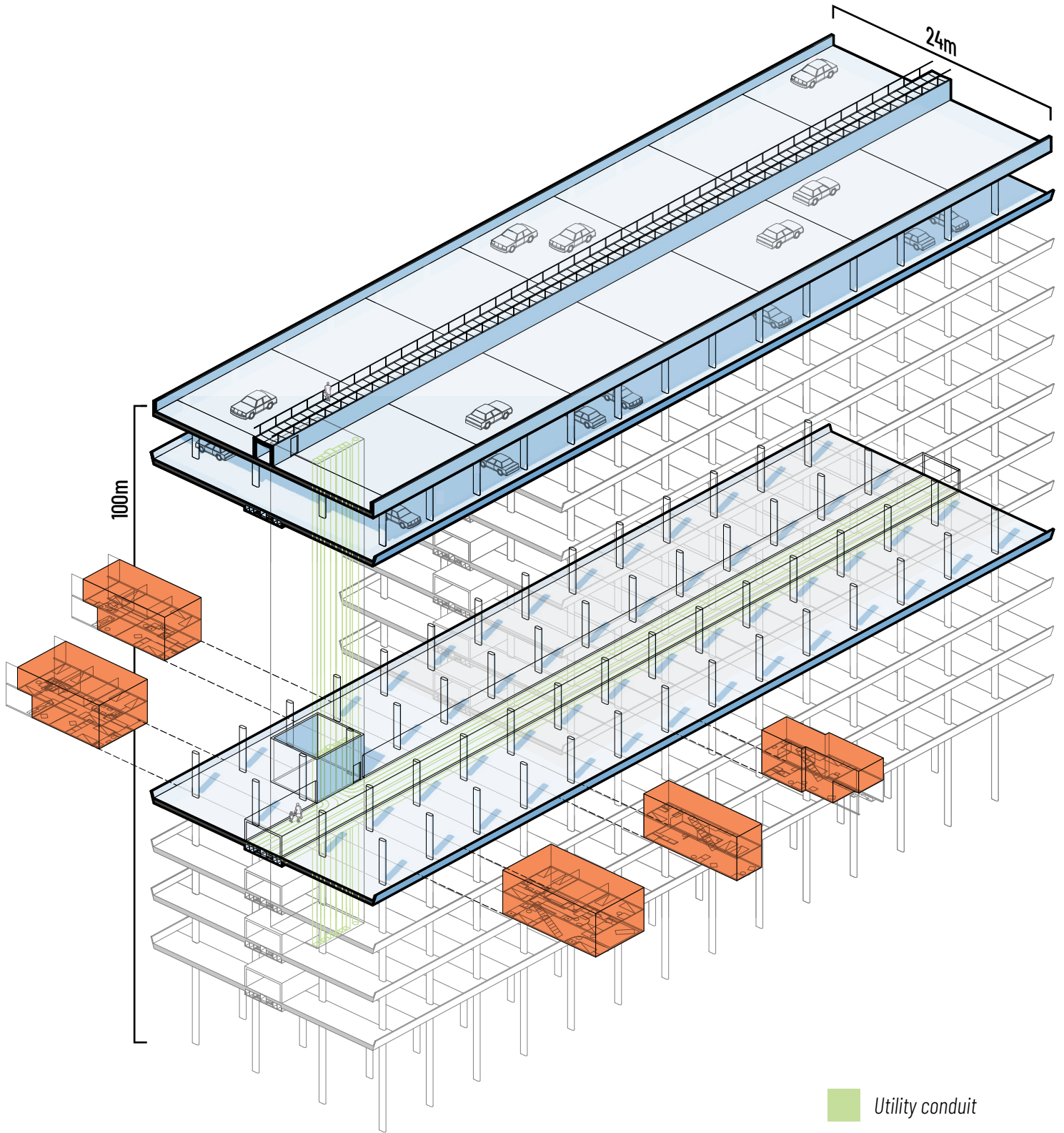


Figure 5.20 Exploded axonometric of a typical viaduc segment, showing internal hallways and utilities.

## 5.7 Colonial Underlays

Despite its supposedly participatory nature and conciliatory blending of European and Algerian typologies, the overall design of the *Plan Obus* reflects a far less egalitarian vision than it would imply.

Le Corbusier's notion of "the Mediterranean" as a singular unit created a "white blind spot" that obscured racial and colonial differences.<sup>2</sup> Throughout the history of French Algeria, depictions by the government portrayed France as being the "bearer of civilization" to the native populace; and in the case of a commonly held colonial narrative, the history of Algeria only truly began in 1830. Before that, Algeria was a space devoid of civilization—made productive only through the efforts of the *colons*.<sup>3</sup>

This viewpoint normalized the exploitative practices of the army and settlers, while legitimizing the subjection of the indigenous inhabitants. As such, this "white blindspot" would dissimulate the racial tensions in French Algeria while also preventing any sort of meaningful analysis.<sup>4</sup> Le Corbusier like many, could only presume that the native populace had accepted French rule, ignoring all signs of discontent. In his writing, Le Corbusier recalls; "It appears that one has protected the Arab dignity and there is no hate, but only friendship."<sup>5</sup> In his view, Algeria was an undisputed extension of France, and its role as a great capital would be of a fundamentally European nature.

In the *Plan Obus*, the overall urban plan would have reinforced the class structure prevalent in Algiers at the time. The plan glorified the (French) elites, placing them above the city in their *redents*, with the Muslim population kept a safe distance below. The redents, on the summit of Fort L'Empereur overlooking both the viaduc and Casbah, reinforced both the symbolic and actual separation of power structures. The upper class would be topographically separated from the lower class; meanwhile, the redents were a quick drive from the bureaux, being directly connected to the halls of power and commerce.

*The Arab discovered his  
educator, his instructor.  
He did not bat an eyelid  
of doubt. With two hands  
outstretched, leaving all his  
hopeless deceit behind, he  
loved, admired, understood  
the new times, and  
respected France with all  
his convention. Architecture  
and urbanism can be the  
great educator.*

- Le Corbusier <sup>1</sup>

1 Le Corbusier. *When Cathedrals Were White*: 46-47.

2 Boyer, Christine. *Le Corbusier, Homme de Lettres*. Princeton Architectural Press, 2011: 553.

3 Evans, Martin, and John Phillips. *Algeria: Anger of the Dispossessed*: 4.

4 Boyer, Christine. *Le Corbusier, Homme de Lettres*: 554

5 Ibid: 563.



Le Corbusier also designated the areas of Algiers which would be dedicated specifically to working, sleeping, industry and recreation, compartmentalizing the city into rich and poor zones—one where the principles of design and zoning by-laws would keep these compartments separated from one another, running contrary to the intensely heterogeneous nature of Algiers at the time.

The automotive network, a vision of modernity and speed, was an instrument that not only extended colonial control but also served to rapidly transport goods produced with cheap native labour. This tied back to Le Corbusier's long-standing fascination with the use of city planning as a means of expanding economic output, rather than truly creating social equity.

Along with the class separation apparent in its zoning, this would also unwittingly cement the racial segregation of the city. At the time, the French *colons* inhabiting the European quarters generally occupied the upper and middle classes of Algiers, while the working and impoverished classes were largely native Algerians. Yet this was not a formalized division—Algiers was separated not by walls, but by an intricate and invisible division of customs and laws that produced communities that often lived side-by-side but hardly interacted.<sup>6</sup> Algiers was socially two cities in one. The *Plan Obus* would have transformed this into a physical one, all but formalizing the division.

In addition to the explicit separations of class and race, the *Plan Obus* was also representative of the ongoing attempt at decoupling native Algerians from their vernacular built form; a process which had been official French policy since the inception of the *mission civilatrice*. “Algerianess” was merely facade decor of choice, rather than the intricate spatial organization Le Corbusier had observed earlier in the Casbah. Within the layers of the *viaduc* and *redents*, it is notable how abstracted his design elements were from the lifestyles and economic means of the native populace. The ‘fundamental principles’ of vernacular architecture,

<sup>6</sup> Evans, Martin, and John Phillips.  
*Algeria: Anger of the Dispossessed*:  
39.

which Le Corbusier had championed in his earlier observations, were transliterated into the urban concepts of clean air, open space and natural beauty.

These were concepts of European extraction, ignoring the underlying social and religious organization of space prevalent throughout native culture.<sup>7</sup> Within the *Obus*, the emphasis on automobile ownership, the compartmentalization between and within units, the loss of the roof and shared courtyard as communal space, and the strict divisions of public and private space meant Algerians would live within an entirely European spatial order.

Though perhaps the result of naïve aestheticism, rehousing the Muslim populace in hybridized spaces had long since been an explicit goal of colonial city planning, and had also appeared in the *Plan Obus's* contemporary, the *Plans d'Urbanisme*. Colonial authorities, with the pretense of providing social housing, aimed to identify, register, and control the population.<sup>8</sup> Kader Attia summarizes that in these projects, there was a conscious attempt to undermine the social structures reinforcing communal loyalties by moving the native populace en masse from their self-built houses to fixed social housing that had the trappings of the vernacular—but none of its meaning.

Finally, the Casbah which Le Corbusier had so admired earlier would have become an object of aesthetic consumption, rather than a living urban form respected for its spatial arrangements. This was, in essence, the dominant power exerting its own values to determine what had historic value and what was to be preserved<sup>10</sup>, criteria originating from the *mission civilatrice*.

Rather than providing its citizens with an equal right to the city, the *Plan Obus* would have perpetuated an existing unequal relationship of colonizer and colonized. As in his later *Unité* projects, Le Corbusier presumed human beings as being malleable like clay, rather than as individuals with pre-existing customs and habits. The result transformed

*The Colonial administration transformed them from subjects to objects of the place where they lived. This was a strategy where modernism played a part in the political goals of seeking better control of the colonized – having a monthly rent, electricity, water, and other bills to pay, meant that colonial subjects became the consuming objects of their apartments.*

- Kader Attia<sup>9</sup>

7 Lamprakos Michele. "Le Corbusier and Algiers: The Plan Obus as Colonial Urbanism." In: AlSayyad, Nezar, (Eds.). *Forms of Dominance: On the Architecture and Urbanism of the Colonial Enterprise*. Aldershot: Avebury; 1992: 200.

8 Attia, Kader. "Conceptualising Modernist Architecture in Trans-Cultural Spaces, Interview with Kobena Mercer, 2011."

9 Ibid.

10 Lamprakos Michele. "Le Corbusier and Algiers: The Plan Obus as Colonial Urbanism?": 196.

native vernacular architecture into a visual aesthetic applied upon a European framework, functioning as a one-way architectural and cultural transfer from France to the colony.

It is befitting that in his appeals to the mayor of Algiers, Le Corbusier declares that “It (The *Plan Obus*) would become reality simply through a governmental decision.”<sup>11</sup> He invokes the overriding power of imperialism and its ability to make choices irrelevant of the population’s wishes, to “act, undertake, achieve.”<sup>12</sup> Perhaps more revealing was the disposal of the Obus’s initial humanistic vision in its later iterative versions, as Le Corbusier repeatedly sought approval from the colonial authorities and finally—from the Vichy regime. The *Plan Obus* was ultimately a project that could only be implemented through imposition, be it colonial paternalism or totalitarianism force.

Though it might be unfair to judge Le Corbusier retrospectively, as an independent Algeria was unimaginable to the French at the time—there was no question of the fundamental nature of the colonial relationship. Rather than a bold shot across the bow of urban planning in Algiers, the Plan Obus was a direct extension of that trajectory.

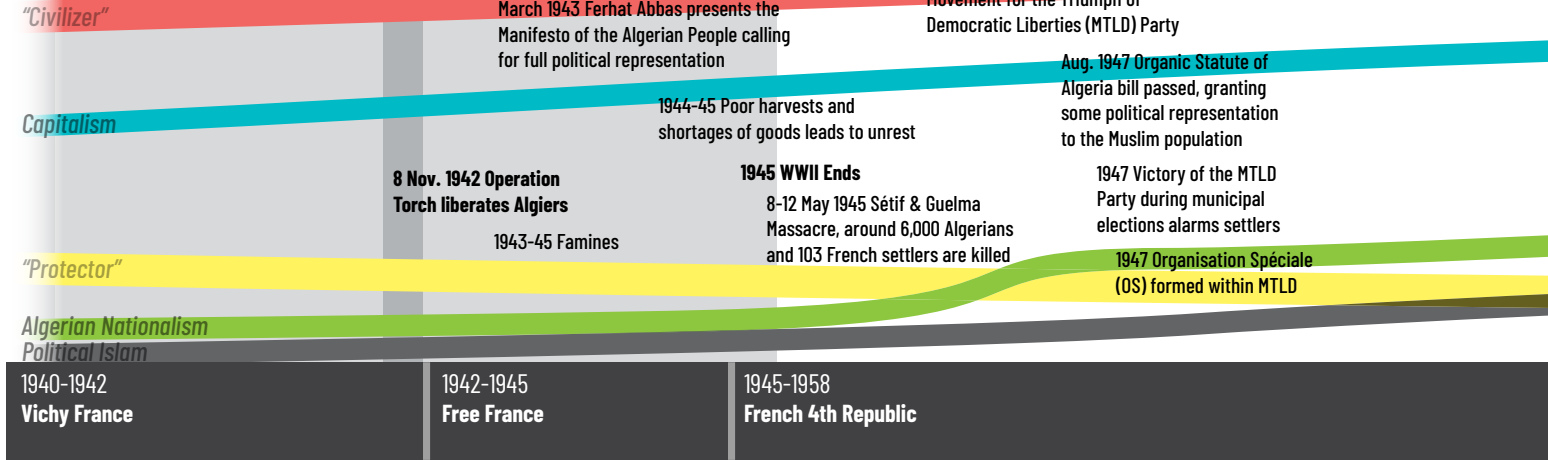
<sup>11</sup> Le Corbusier. *The Radiant City*: 248.

<sup>12</sup> Ibid: 249.

# 1939-1962

1945-1952 Mobilization for Autonomy

## Historical Events & Ideology



## 1940 Urban Typologies

Le Corbusier's work in Algiers

1940 Marine Quarter demolished

1945

1950

Spread of Bidonvilles throughout Algiers



Plan, La Mahieddine

### Bidonvilles

During the late 19th-20th century, Algerian farmlands were turned over to export crops, leaving many rural Algerians dispossessed. Many left for the urban centres, where they saw opportunities for employment in the growing industrial sectors.

From the 1920s onwards, these migrants formed large informal settlements called *bidonvilles*, often on marginal sites ignored by authorities. Despite the differences in construction and formal typologies, the organic nature of the *bidonvilles* was similar to the Casbah; structures often housed extended families, and on sloping grounds, the doors of the houses often opened out onto the roofs of the houses below.

### 1942 WW2 & Free France

Following Operation Torch and the landing of American troops in November 1942, Algiers was freed from Axis control and became the capital of the Free French government-in-exile. During this period, French resistance and military operations were planned in Algiers.

However, during this period, all planning and construction activity came to a virtual stop with nearly all resources dedicated to the liberation effort.

### 1945 The Road to Independence

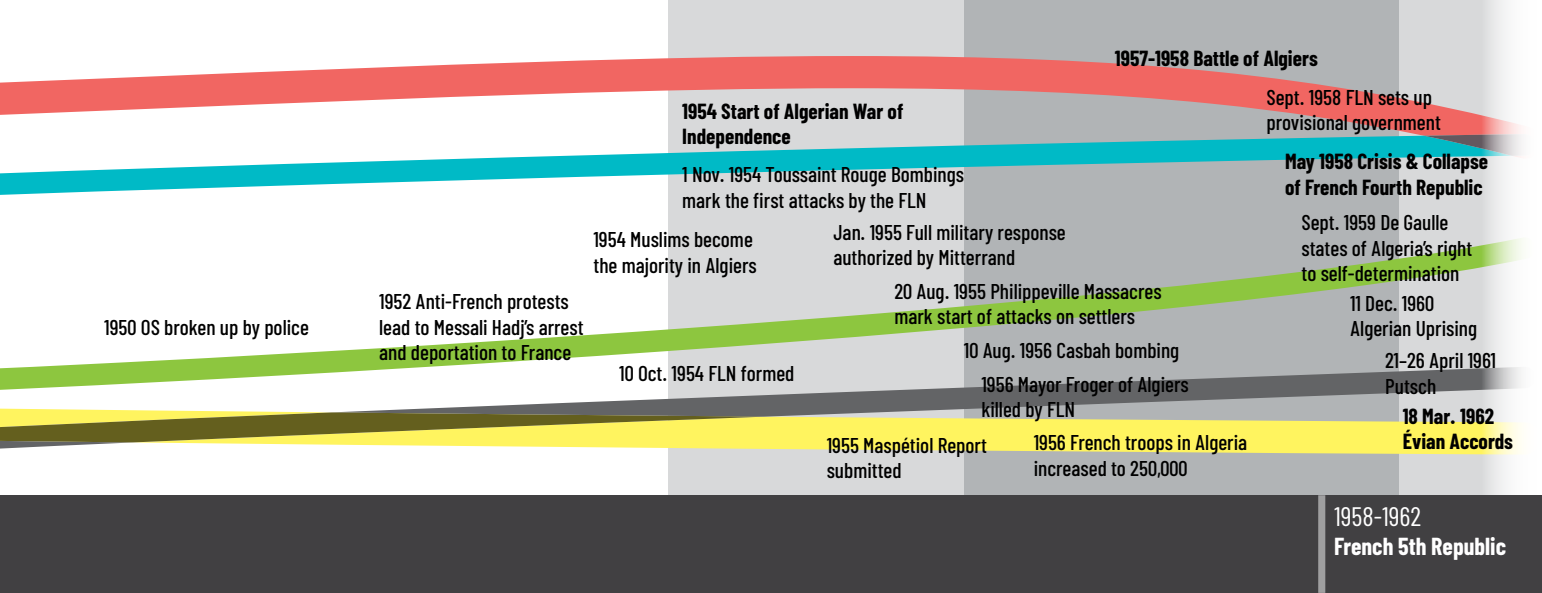
Though there was no serious independence movement before the war, the defeat of France in WWII had demonstrated how fragile France's hold over its colonies was; Algerian nationalist leaders began to see a path towards independence as a realistic possibility. The position of the French settlers had also hardened, with some opposing even basic civil rights for Muslims.

By this time, the native Algerian population of Algiers began to outnumber those of the Europeans, with continued rural migration swelling the population of the *bidonvilles* & Casbah.



1952-1954 Calls for Independence

1954-1962 Algerian War of Independence



1950

1955 Immeuble-Pont Burdeau built *Grand Projets*  
1954 Climat de France built

1955

1955 Diar el Mahçoul built  
1955 Aéro-Habitat built

*Plan de Constantine*  
1958 Les Dunes built

1962



Plan, Climat de France housing project

1954 The Grand Projets

With WWII disrupting the implementation of any masterplan, Algiers had continued to grow uncontrollably, resulting in worsening housing shortages and the spread of *bidonvilles* across the city.

In 1954, a group from Algiers presented a groundbreaking ethnological study of the *bidonville* at the 1954 CIAM meeting. The same year, the Algiers administration under Jacques Chevallier initiated the *Grand Projets*, a series of masterplanned housing developments dedicated towards native Algerians that would utilize the CIAM findings.

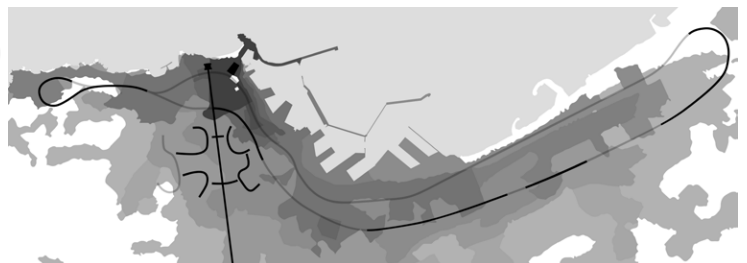
1954-1962 The War of Independence

Despite French efforts to pacify the population, the War of Independence began in 1954. With hostilities spreading across the country, the French authorities looked towards more final measures to solve the crisis.

Towards this end, the 1958 *Plan de Constantine* masterplan was the culmination of these last efforts. Neighbourhoods like Diar El Kef and Hussein Dey were subject to large scale slum clearances and are replaced with monolithic pre-fabricated housing blocks aimed towards mass rehousing, rather than urban finesse and cultural consideration as seen in the *Grand Projets*.

During the later stages of the War of Independence, construction activity in Algiers virtually ceases as the French colonial government relocates to Rochet Noir, a settlement 50 kilometers east of Algiers.

Regarded as being protected from the war, the settlement ultimately served as the home of the government for only a few months before Algeria's independence.





*Figure 6.2 A soldier guards a militia barricade during protests in 1960*

# 6 TOWARDS THE END OF FRENCH ALGERIA

1 Le Corbusier. *The Radiant City*: 228.

2 McLeod, Mary. “Le Corbusier and Algiers,”: 71.

3 *Poésie sur Alger* was Le Corbusier’s last mention of Algiers. It was written in 1942, and published in 1950.

4 Avermaete Tom, Loekx André. “Architecture ou Révolution: Critical Moderns and the Search for a New Urbanity in 1950s Algiers” In: Osten Mv, Karakayali S, Avermaete T, (Eds.). *Colonial Modern: Aesthetics of the Past, Rebellions for the Future*. London: Black Dog Pub; 2010: 172.

5 During WW2 celebrations, protesters in the town of Sétif were attacked. Subsequent indiscriminate violence resulted in the death of 103 French colons, and between 1,030 and 45,000 deaths native Algerians, with most historians using 6000 as an extrapolated number of deaths.

6 Evans, Martin, and John Phillips. *Algeria: Anger of the Dispossessed*: 52.

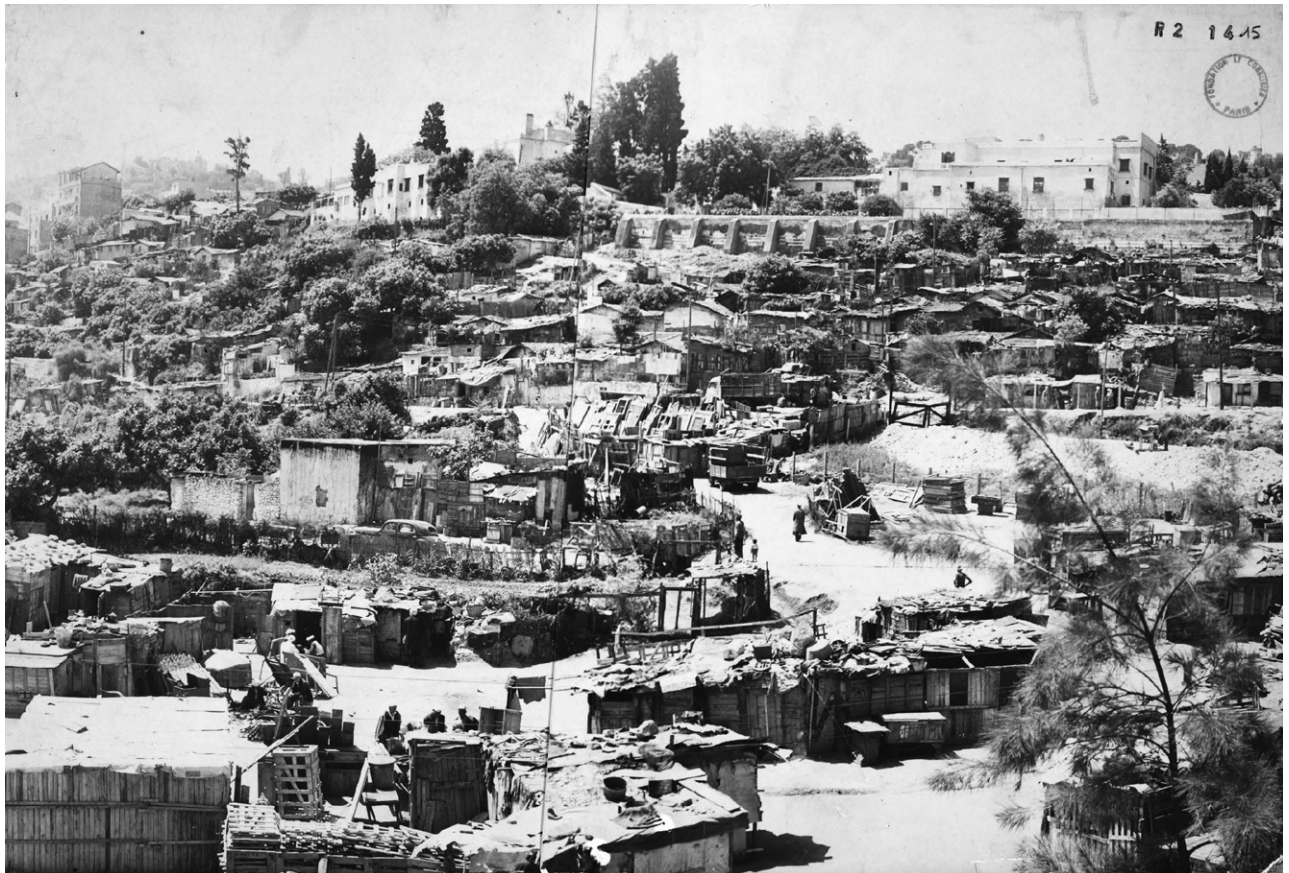
Ultimately, the first iteration of the *Plan Obus*, the *Obus A*’ would be quickly rejected in 1932, with many of the French *colons* dismissing it as a plan too large and disruptive—nevermind the fact that Le Corbusier never had a real commission or role on the city masterplanning committee in the first place. Mayor Brunel would deem it overly expensive and radical, as “a plan for a hundred years from now!”<sup>1</sup> Even his supporters, like the newspaper critic Jean Cotereau called it “*Un nouveau bombardement d’Alger*.”<sup>2</sup>

Despite this setback, Le Corbusier modified his plans and continued to develop schemes in the hopes of finding more receptive ears. But this would come to nothing—with the continued economic depression, political turmoil and the consequent world war, resources and capital were needed elsewhere. A decade and five abortive plans later, Le Corbusier hangs up his spectacles and never mentions Algiers again.<sup>3</sup>

Though there was no serious independence movement before the war, France’s defeat in WWII had shattered its image of invincibility and demonstrated how fragile its hold over its colonies had been. It was at this time that the native population also began to outnumber the European population in Algiers,<sup>4</sup> bringing about a great sense of unease among the *colons*, bruised by France’s defeat in the war. Heavy-handed attempts by the authorities in 1945 to re-exert control in the aftermath of famines and protests for independence resulted in the brutal Sétif & Guelma Massacre.<sup>5</sup>

Even as an uneasy peace returned to Algeria, the feelings between the two sides had hardened.<sup>6</sup> The opinions of the *colons* had hardened, with some opposing even basic civil rights for the native populace, while many Algerians who had previously supported the French were now beginning to favour nationalist movements.





*Figure 6.3* La Mahieddine bidonville, CIAM Alger, 1953

7 Çelik, Zeynep. *Urban Forms and Colonial Confrontations*: 110.

8 Lamprakos Michele. “Le Corbusier and Algiers: The Plan Obus as Colonial Urbanism”: 193.

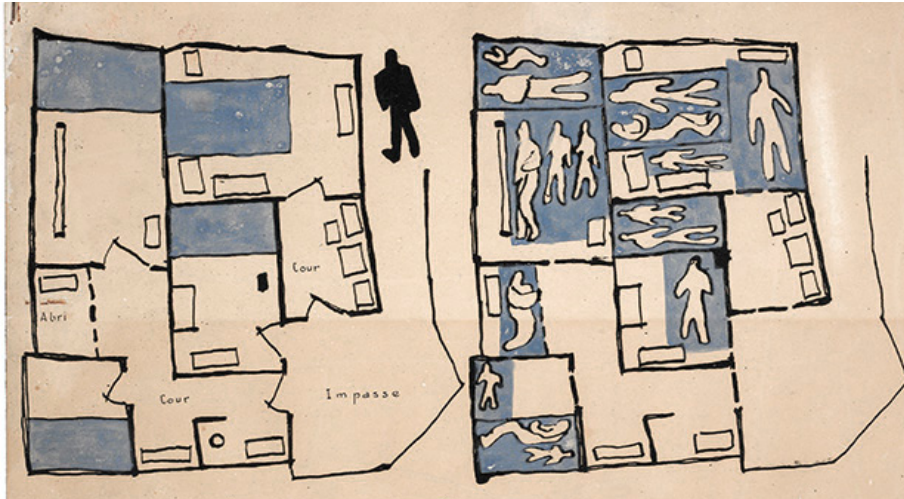
The underlying resistance, repeatedly suppressed and undermined, would consolidate into the FLN (*Front de Libération Nationale*), a political movement whose goals were explicitly for independence, and little else.

## 6.1 The Bidonville

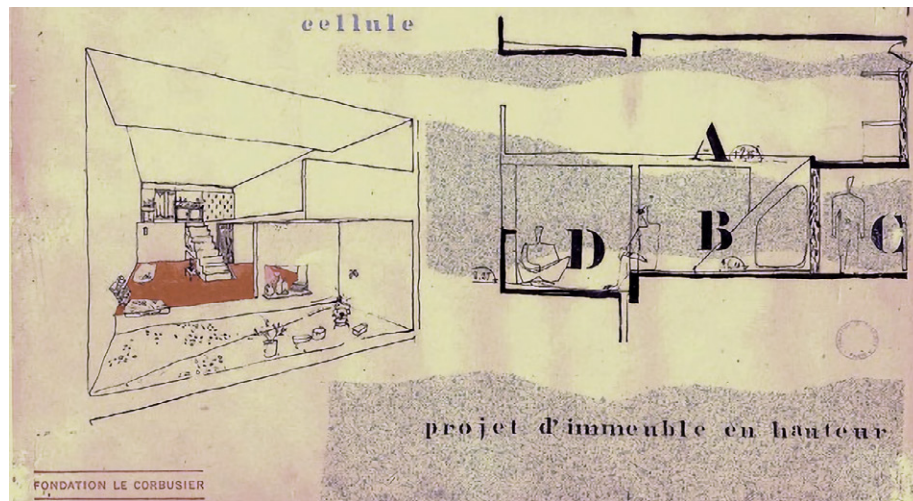
Emerging from the recent loss of Indochina, the French saw the discontent among the native population as a fundamental threat to the stability of French Algeria. During the postwar period in Algiers, housing issues remained precarious despite the building activity; the *Plans d'Urbanisme*, with their piecemeal implementation and disruption by the Second World War, were unable to alleviate the issue to any great effect.

With continuous migration into the city, informal settlements called *bidonvilles* had started to appear. Named after the metal gas containers (*bidons*) they were built out of, these shantytowns had sprung up all over the city, in the outskirts and on marginal lands. In 1954, 41.5% of the Muslim population lived in squatter settlements.<sup>7</sup> Poorly built and serviced, these impoverished sites became bastions of nationalist support. Unlike the Casbah and its long-established relationship with the European population, the *bidonvilles* were filled with newcomers of an uniformly impoverished rural class who had relatively little contact with the Europeans, raising fears of a rise of a “native proletariat”, even as early as 1946.<sup>8</sup>

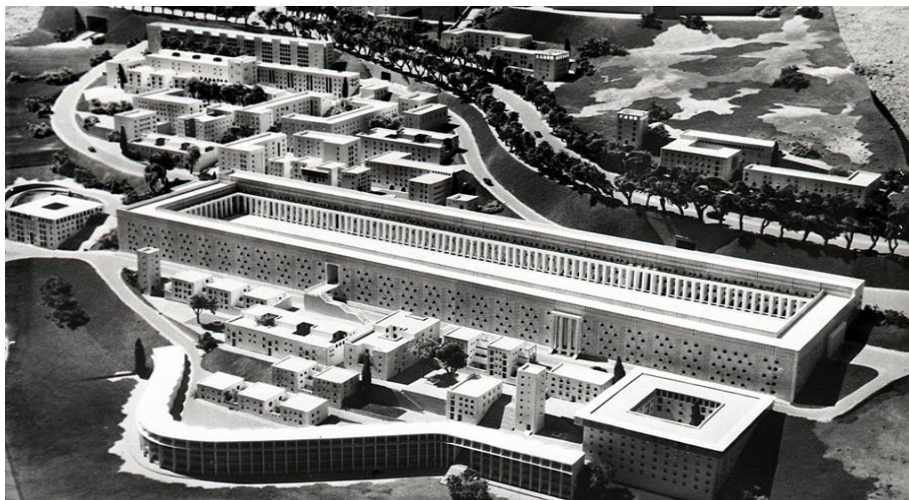
Furthermore, between 1926 and 1954, the population of Algiers had grown from 266,268 to 570,000; in Algeria, the European population has risen by 168,000 people whereas the Muslim population had exploded by 889,000.<sup>9</sup> This demographic imbalance produced consternation in the government, and to Jacques Chevalier, elected as mayor in 1953,



*Figure 6.4 Bidonville plan, CIAM Alger, 1953*



*Figure 6.5 Model room design for Algerians, CIAM Alger, 1953*



*Figure 6.6 Model of Climat de France, a Grand Projet, 1954*

- 9 Çelik, Zeynep. *Urban Forms and Colonial Confrontations*: 110.
- 10 Von Osten, Marion,. "In Colonial Modern Worlds". In: Osten M, Karakayali S, Avermaete T, (Eds.). *Colonial Modern: Aesthetics of the Past, Rebellions for the Future*. London: Black Dog Pub; 2010: 30.
- 11 Djar, Kahina Amal. "Locating architecture, post-colonialism and culture: contextualisation in Algiers." *The Journal of Architecture*, 14:2, 161-183, 2009: 174.

housing became the absolute priority of the administration. As such, the *Grand Projets* were initiated in 1954 to address these issues.

To this end, an architectural solution was sought for the social problem. In July 1953, the CIAM Alger group presented a study of La Mahieddine, the largest *bidonville* in Algiers at the ninth CIAM meeting. This was the first ethnological study of this native housing typology in detail and in their view, the study of the *bidonville* was a crucial investigation of native settlement forms transferred into an urban context.

Grouped around courtyards much like earlier courtyard houses but re-articulated through scavenged modern materials, the *bidonville* was considered a form of the native Algerian vernacular; an adaptable house built according to the development of a family or a community.<sup>10</sup> The group documented the dimensions of the fundamental 'cell' of the *bidonville*, and more importantly, the daily processes of living in the *bidonvilles*.

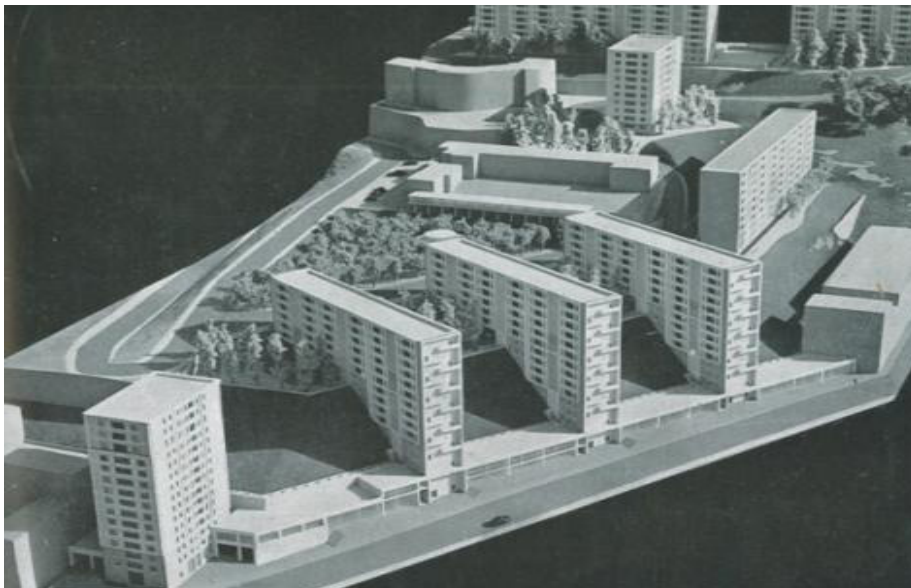
These studies would go on to inform the housing topology in the *Grand Projets* and other colonial social housing projects throughout French Algeria. In the view of its administrators, pacification meant resolving the housing issue and inducing a change in the spatial relationship of the native populace, by synthesizing a controlled hybridized "native" spatial arrangement (housing unit).<sup>11</sup>

It was hoped that in addressing the immediate needs of Algerians, the social unrest could be quelled and the relationship between the French and native populace returned to a state of peace—whatever it could have been at that point.





*Figure 6.7* Implementation of the Plan de Constantine in Algiers



*Figure 6.8* The Cité des Eucalyptus, a 1957 development from the Plan de Constantine

## 6.2 The End of French Algeria

12 Djiar, Kahina Amal, "Symbolism and memory in architecture: Algerian anti-colonial resistance and the Algiers Casbah": 195.

13 Mattieu, Gilbert. "Comment le plan de Constantine peut faciliter la recherche d'une solution politique en Algérie." *Le Monde Diplomatique*, March 1959.

14 Avermaete, Tom. "Nomadic Experts and Travelling Perspectives: Colonial Modernity and the Epistemological Shift in Modern Architecture Culture". In: Osten M, Karakayali S, Avermaete T, eds. *Colonial Modern: Aesthetics of the Past, Rebellions for the Future*. London: Black Dog Pub; 2010: 134.

15 Ibid.

The pretenses of tolerance would end on November 1, 1954. At midnight, thirty coordinated explosions ripped across Algeria, sparking the beginning of the Algerian War of Independence. From Cairo, the FLN would broadcast a call for independence. The Casbah, with its internalized intelligence networks springing out of earlier communal resistance, would thwart the French army in its early attempts at pacification.<sup>12</sup>

While the bloodiest parts of the war were fought beyond the city, the Casbah proved a crucial element during the early parts of the war, as both symbol of the revolution and hiding place for the revolutionaries who orchestrated bombings throughout the city. The French army was finally able to secure the city in 1958 through an extensive campaign of suppression and torture, but by then, their brutal methods had caused an outcry in France.

By 1958, the situation was becoming untenable, with insurgencies across nearly all of Algeria's major cities and political troubles over the morality of colonization raging back in Metropolitan France. Charles de Gaulle, upon returning to power as French President, sought drastic measures to deal with this issue. It was then that the *Plan de Constantine* was launched, the ultimate imposition of modernism upon Algiers.

Disposing of the hybridized approach of the *Grand Projets*, this new masterplan sought the clearing of 'problematic' neighbourhoods and the creation of nearly a million new European-styled houses for Algerians, along with the construction of new schools, hospitals and industrial zones<sup>13</sup>—to De Gaulle, the *Plan de Constantine* reemphasized France's role as the bearer of "civilization".<sup>14</sup> With the entire financial resources of France unlocked and a need to act rapidly, the *Plan de Constantine* would allow the realization of a large number of utopian planning ideas; concepts previously halted by bureaucratic or financial considerations.<sup>15</sup>





*Figure 6.9* Ruins of a house where fighter Ali la Pointe and his companions were killed by a bombing in 1957



*Figure 6.10* Algerians celebrating their independence, 1962

16 Grabar Henry S. "Reclaiming the City: Changing Urban Meaning in Algiers After 1962". *Cultural Geographies*. 2014; 21(3): 390.

17 It is estimated that the Algerian War of Independence killed anywhere from 350,000 people to 1.5 million, depending on the source.

The stakes were higher; the reassurances of Mitterrand only a few years prior that "L'Algérie, c'est la France" (Algeria is France) were shattered. Even as the *colons* and their sympathizers put up a violent resistance, an independent Algeria was becoming apparent to many. Perhaps, rather than being a hundred years too early, the *Plan Obus* was only twenty years before its time—the immense urgency of social pacification may have reevaluated its potential.

Despite French attempts to pacify the country through social and military means, in 1962, France was ultimately forced to withdraw from Algeria. With the ten-year war against the FLN in a violently protracted stalemate and the global decolonization movement in full swing, it had lost both the support of the Algerian populace and the citizens of metropolitan France. French rule in Algeria finally collapsed under the weight of its moral contradictions.

In the violent chaos that followed the death throes of French Algeria, nearly 300,000 French *colons*, out of Algiers' population of nearly a million, would depart between March and July of 1962, leaving their properties behind.<sup>16</sup> The remaining 30,000 would depart in the following years, along with countless Algerian allies (*harkis*), fleeing from governmental persecution and fear of reprisal.

In a few short years, the 130-year-old European presence in Algeria was erased. The Algiers that emerged from the War of Independence was changed forever.<sup>17</sup>

# 1962-1980

1962-1965 Reordering Algeria

## Historical Events & Ideology

18 Mar. 1962  
Évian Accords

Mar.-Apr. 1962 Battle  
of Bab El Oued

15 June 1962 City  
Hall Bombing

1 July 1962 Algerians cast  
votes for Independence

1962 Beginning of departure  
of the settler population

5 July 1962 Algerian  
Independence

25 Sept. 1962 People's Democratic  
Republic of Algeria formed

1963 March Decrees declare all  
European property vacant

Oct. 1963 Sand Wars  
with Morocco

19 June 1965 Coup by Houari  
Boumédiène, overthrowing  
Ben Bella

1965 Banking sector  
nationalized

Late 60s- Arabization  
policies (*Ta'reeb*) begin

Political Islam

1967 Petroleum distribution  
sector nationalized

July 1969 Algeria  
joins OPEC

"Civilizer"

"Protector"

Nationalism

Socialism

Capitalism

1962-1965  
FLN Government  
Ben Bella

1965-1976  
Military Government  
Houari Boumédiène

## 1962 Urban Typologies

Occupation of European property

## 1965 Hybridization of Algerian lifestyles in European space plans

## 1970



Plan, Cite Méditerranée housing project

### 1962-1968 Colonial Continuity

After the independence of Algeria in 1962, Algerians regained control of their country for the first time in 132 years. The FLN (*Front de Libération Nationale*) began a transition from an liberation movement to a political party.

However, in the immediate aftermath with the departure of a million French settlers from Algeria and the vacating of nearly all governmental posts, the early FLN government was beset by constant political and economic instability. As such, the French masterplans remained in effect until 1968.

### 1965 Coup

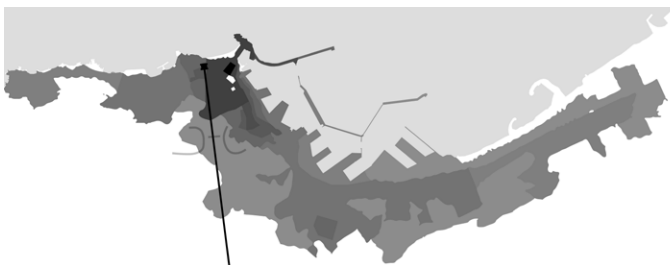
With the government coup by Houari Boumédiène in 1965, the FLN government became increasingly socialist and authoritarian in nature. Most commercial and industrial properties were nationalized by the government, and large-scale industrialization and civil projects were carried out, with the goal of transforming Algiers into a functioning capital city.

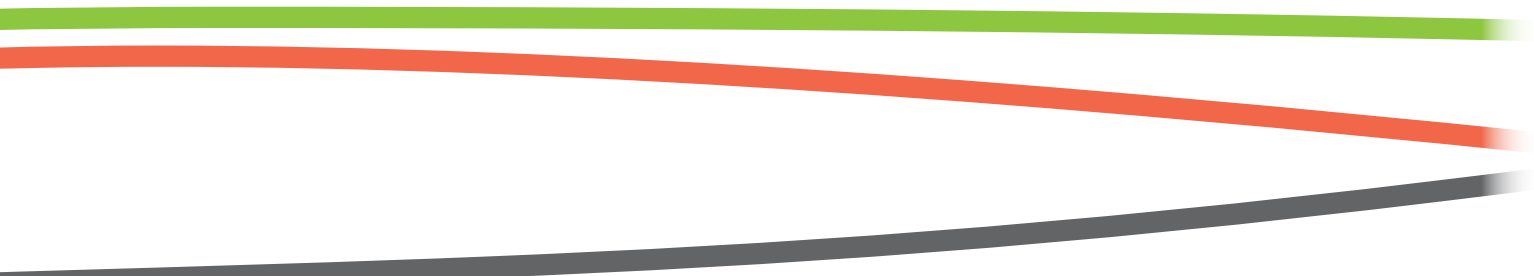
During this period emphasis was placed upon economic development over housing, as the government focused on developing manufacturing and the newly-found oil resources in the interior.

### 1965-1988 The Middle Path

During the 1960s-70s Algeria marked itself as leader of the global Non-aligned Movement, which was neither aligned with the US or USSR. Algiers became home to many national and international meetings, as marked by its position as key negotiator in the 1981 Iranian hostage crisis negotiations.

On the other hand, the FLN's consolidation of power as the vanguard of Algerian independence marginalized other political actors, and its presentation of a totalized Algerian narrative precluded other viewpoints.





1971 French oil and natural gas interests nationalized  
 1971 Agrarian reform aimed at breaking up large farms launched

1975 Boumedienne backs the Western Sahara

June 1976 National Charter adopted, emphasizing socialism & Islam as state religion

1976-1978  
**FLN Government**  
 Houari Boumedienne

1978-1979  
**FLN Government**  
 Rabah Bitat

1970

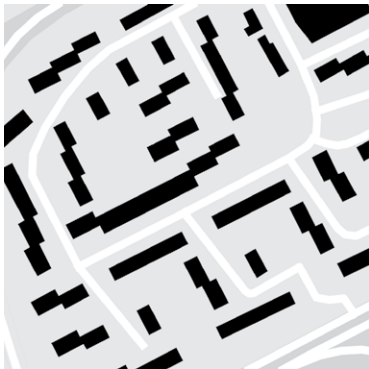
1970 Stade du 5 Juillet 1962 built

1975

1975 Hotel El Aurassi built *Plan d'Organisation General*  
 1975 Hacène Harcha Arena built *ZHUN*

1980

*Beginning of mass rehousing in ZHUN blocks*



Plan, ZHUN Housing Blocks

**ZHUN**

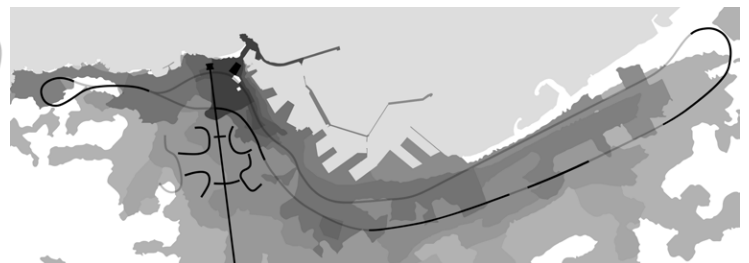
The nearly 700,000 housing units vacated by the settlers were insufficient for housing needs due to continued migration into Algiers. The FLN government initiated the ZHUN (*Zone d'Habitat Urbaine Nouvelle*), which sought to solve the housing shortages through standardized and prefabricated housing blocks.

Based largely on the earlier *Plan de Constantine*, ZHUN represented further reductions of urban planning ideals, with emphasis placed increasingly on quantity over quality of housing.

**1978-1992 Transitional Period**

Upon the death of Boumedienne in 1978, the FLN government took initial steps towards increased liberalism and multi-party politics.

However, in 1986, a drop in oil prices meant a severe economic downturn in Algeria, leading to difficult living conditions and significant riots in 1988. With high unemployment and a lack of opportunities, the anti-colonial position of the FLN government was no longer sufficient to mask political stagnation and corruption.







*Figure 7.2 Old apartment block in Sidi M'Hamed, 2017*

# 7 BEYOND 1962

1 Grabar Henry S. "Reclaiming the City: Changing Urban Meaning in Algiers After 1962": 390.

2 Von Osten, Marion,. "In Colonial Modern Worlds": 21.

With the majority of the Europeans fleeing the country, the swapping of power structures left a vacuum, yet the FLN and the Muslim population inherited a space where French dominion was more apparent than anywhere else in the region.<sup>1</sup> The brief moment between the end of French Algeria and its newly independent successor was when decolonizing began, initiating a new process of hybridization.

In the colonial context, the concept of urban hybridity often revolved around the unequal transactional relationships between the colonizer and colonized, the uneven reinterpretation of introduced urban elements beyond independence would produce new hybridities.

With the newly-independent governments often focusing their efforts elsewhere, the extensive system of laws guiding the programme and design intent developed during the colonial period was often disregarded or unenforced. This would allow the new inhabitants of the colonial city to freely rationalize these spaces within their traditions. As Marion Von Osten writes;

*This appropriation of colonial infrastructure's leftovers—its existing buildings, public spaces and territories—articulates personal needs and practices which improve the circumstances of contemporary inhabitants.<sup>2</sup>*

From the active inhabitation of the structures, and their gradual modification in addressing the immediate needs of their inhabitants, new forms of existing spaces have emerged—which in certain instances, have subverted the original intentions of colonial architecture.

To understand the phenomenons of hybridization within decolonization and its potential application to the Plan Obus, it is perhaps best to turn to Decolonizing Architecture Art Residency (DAAR)'s categorization of decolonization.

In *Architecture after Revolution*, DAAR describes three potential fates of colonial architectures during the process of decolonization.<sup>3</sup>

## 1. Destruction

“The popular impulse for destruction seeks to spatially articulate ‘liberation’ from an architecture understood as a political straitjacket, an instrument of domination and control.”<sup>4</sup> Destruction is described as an attempt to purge colonial elements from a colonized territory. In spite of destruction as an attempt to return to a prior state of freedom, DAAR notes that the accumulated histories, hybridization and the passage of time would make such a return impossible.

## 2. Reuse

The diametric opposite of destruction, reuse involves the reuse of colonial elements in an attempt to project a political continuity under a new system of power. While the remaining colonial infrastructure is seen as an economic and organization resource by newly established post-colonial governments, the framework of these spaces would often replicate the same colonial patterns that had just been eliminated.

## 3. Subversion

The third option, seen as an alternative to the first two options seeks to invert the purposes of colonial elements and “liberate” their potential through a juxtaposition of meanings.

Although DAAR groups the first two options together to separate the third (within an Israeli-Palestinian context), in Algiers, the process of decolonization demonstrated that the concepts of reuse and subversion were closely linked, often in close succession.

<sup>3</sup> Petti, Alessandro, Sandi Hilal, and Eyal Weizman. *Architecture after Revolution*, Berlin: Sternberg Press, 2013: 19-23.

<sup>4</sup> Eyal Weizman. *Architecture after Revolution*: 19.



## 7.1 Acts of Reappropriation

5 Grabar Henry S. "Reclaiming the City: Changing Urban Meaning in Algiers After 1962": 394.

6 Fanon, Frantz. 1963. *The Wretched of the Earth*. New York: 13.

7 Grabar Henry S. "Reclaiming the City: Changing Urban Meaning in Algiers After 1962": 396.

8 Ibid: 397.

In Algiers, remarkably little destruction took place. Before their departure, the French government had stripped the city clean of nearly all of its monuments and statuary.<sup>5</sup> Otherwise, the city was left nearly intact—furnishing and all—by the departing colonists. The immediate act was reclamation and reuse. The emptied colonial buildings would be quickly occupied by Algerians—perhaps recalling Frantz Fanon's views of the colonized man in his 1961 book, *The Wretched of the Earth*;

*The look that the native turns on the settler's town is a look of lust, a look of envy; it expresses his dreams of possession – all manner of possession: to sit at the settler's table, to sleep in the settler's bed, with his wife if possible. The colonized man is an envious man.*<sup>6</sup>

As if Fanon's words were prophetic, nearly three-quarters of the real estate in Algiers had been immediately occupied without any legal transaction; and by 1966, 85 percent of Algiers's Muslim inhabitants lived in European apartments—up from 35 percent in 1954.<sup>7</sup> Moving out of the Casbah and bidonvilles, the native populace was taking the places of the French, in the apartments, in the stores and in the cafes from which they were previously excluded.

Encountering spaces alien to what they were accustomed to in the Casbah, the appropriated European apartments were divided as such into two sections. The first, 'Arab' being aligned to daily life, while the second, 'Modern' was dedicated to houseguests and demonstrations of material wealth.<sup>8</sup>

During this period, rural Algerians continued to migrate to Algiers, reoccupying the Casbah and more importantly, filling the emptied colonial social housing projects. The signs of reappropriation and subversion began to immediately appear in the appropriated buildings.



*Figure 7.3* Reemergence of markets in Casbah, 2014



*Figure 7.4* Physical structure of the former St-Charles church appropriated as mosque, 2017

9 Attia, Kader. "Conceptualising Modernist Architecture in Trans-Cultural Spaces, Interview with Kobena Mercer, 2011."

10 Aigner, Anita. "Transformation Unwanted! Heritage-Placemaking and its effects in Le Corbusier's Pessac Estate." In: Maudlin, Daniel and Vellinga, Marcel eds, *Consuming Architecture*, New York: Routledge, 2014: 75.

Kader Attia commented on the immediate aftermath;

*These first visible signs of re-appropriation immediately changed the outside aesthetic of the façade. People started to hang personal items and food, red chilies, pieces of fatty meat from lamb and sheep, and of course their clothes, in order to dry them.*<sup>9</sup>

In her assessment of Le Corbusier's Pessac estate, and its consequent individualization by its inhabitants, Anita Aigner notes of the role of vernacularization in the process of reappropriation, "whereby an architectural language outlandish for the users is translated into a familiar formal language and buildings are overwritten with familiar formal elements."<sup>10</sup> People, upon occupying a space alien to their own, would transform it into something more akin to what they were familiar with.

Beyond the immediate aesthetic appropriation, Algerians began adjusting the spatial layout and exterior appearances to best fit their needs. Previously intended to transform the Algerian extended family to a nuclear family, these structures became home to the extended family, often pushing the designed occupancy of these structures beyond their original limits.

Freed of the colonial power system that limited occupancies and dictated specific appearances and programmatic uses, the inhabitants were able to address immediate concerns themselves. Ad-hoc extensions filled balconies and rooftops to accommodate the overflow, and the fixed units became growing houses once more. Much like the *bidonvilles* growing between the cracks of European urbanism, this process of subversion took the form of a vernacular architecture reemerging out of a modernist framework—however imperfect the subsequent results would be.



*Figure 7.5* ZHUN developments in Kouba, 2013



*Figure 7.6* Cité AADL in Ain Naadja, 2016



11 Grabar Henry S. "Reclaiming the City: Changing Urban Meaning in Algiers After 1962": 396.

12 Hadjri, Karim, Mohamed Osmani. "The spatial development and urban transformation of colonial and postcolonial Algiers": 23.

Meanwhile, the FLN would set up the National Assembly in what was Algiers's old city hall; nearly all other colonial services and spaces would remain as they were, changed only in name. In a feverish search for a national identity, the empty pedestals where the statues had been were demolished and replaced with new monuments honouring a synthesized pantheon of Algerian freedom fighters; Maghrebi and Socialist heroes displaced French generals and governors on the street signs around Algiers.

Algeria had more pressing needs to attend to than to ponder the ramifications of its reuse of colonial space—the bureaucracy was emptied of its most talented individuals, and with a collapse of tax income and exports, the economy was in shambles. Meanwhile, the government was beset with various factions vying for control, while the post-revolutionary Algerian elites were intent on replacing their departing French counterparts. The French journalist Claude Estier wrote in 1964, "There are still two cities in Algier, the only difference is that now, they are both Algerian."<sup>11</sup> The lines of discrimination remained—redrawn from European and indigenous divisions to delineations across income and class.

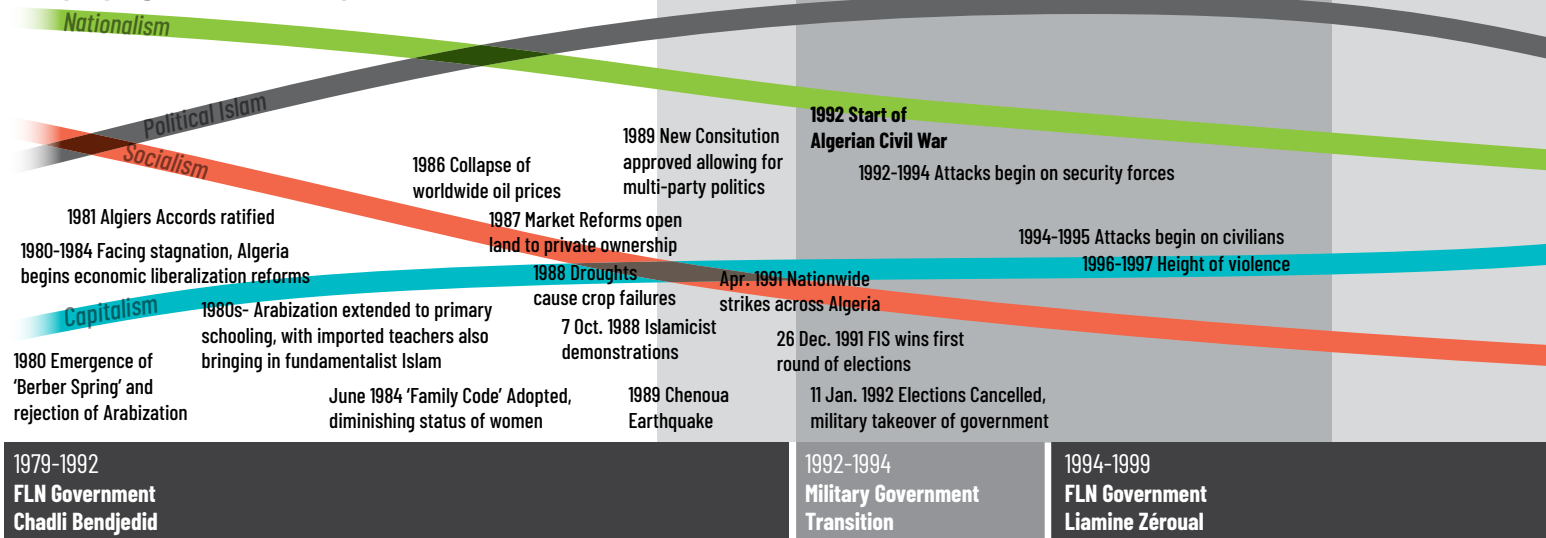
In the years after independence, Algeria was first beset by economic and political instability, and it then calcified under Houari Boumédiène's top-heavy socialist autocracy, which largely drew its legitimacy as standard-bearer of the revolution. Failing to diversify the economy beyond oil and gas, Algeria is disproportionately affected by oil busts, the first of which led to a decade-long economic depression—ultimately spiraling into a violent civil war lasting from the 1990s into the 2000s.

Nowadays, economic stagnation remains an issue, as are high youth unemployment and corruption—issues that the slow-moving government has failed to adequately tackle.

# 1980-PRESENT

1988-1992 Reform & Failure

1992-2000 Algerian Civil War



## 1980 Urban Typologies

1984 Moufdi Zakaria Palace of Culture built  
1984 Riadh El Feth & the Martyrs' Memorial built

## 1990

1994 New National Library built

## 2000

*Mass rehousing, gradual disappearance of bidonvilles*



Plan, Private development at Borj El Kiffan

### 1988-1992 Brief Hopes

After riots in 1988, FLN government announced that it would begin the process of political liberalization with free elections. In this process, Algeria became an epicentre of political reform in the Middle East. During this period, both liberal and Islamicizing movements aimed to overturn the current political situation, but each represented diverging political goals.

### 1992 Crisis & Precipitation

Despite hopes for political reform, in 1992, the military dissolved the government after the FIS (*Front Islamique du Salut*) won a majority of the seats during the 1991 election.

With hopes of political representation dashed, the radical Islamicist movements instead aimed to overthrow the FLN government in a conflict that would be now known as the Algerian Civil War.

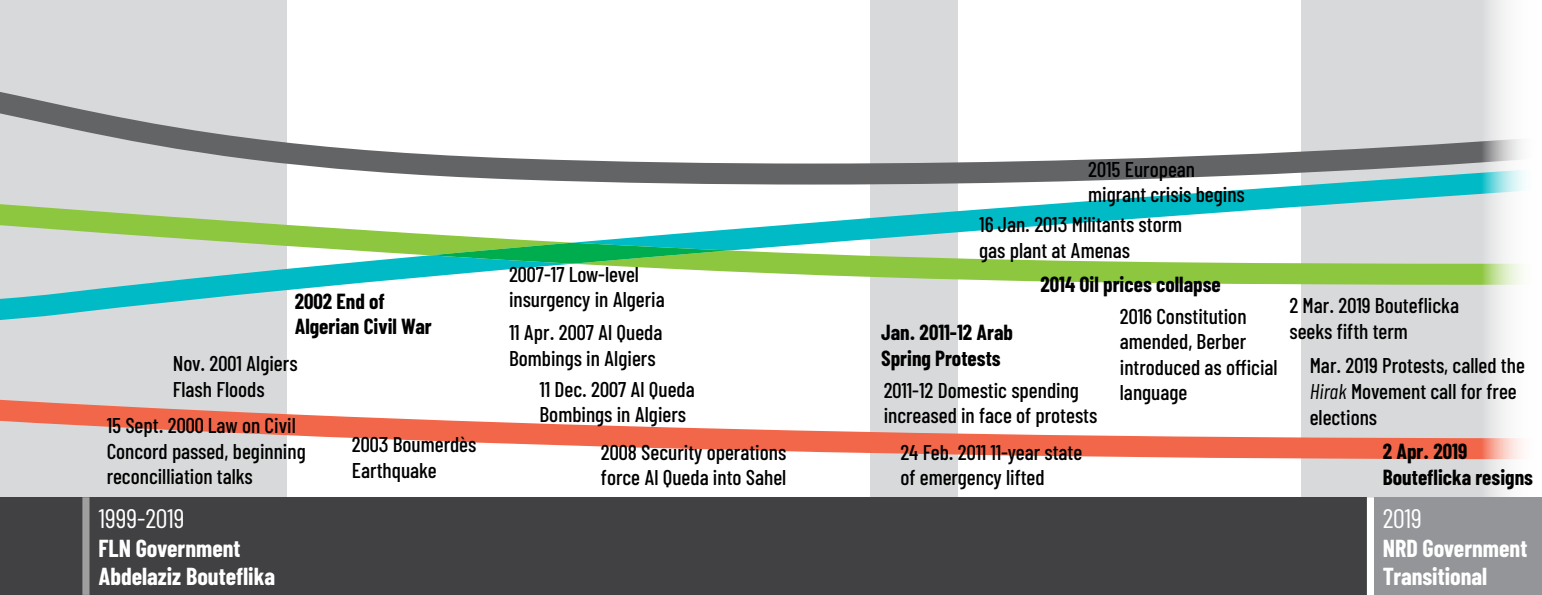
### 1992-2002 The Algerian Civil War

The initial phases of the conflict targeted security forces, but by 1993, violence began to target cultural figures, resulting in the deaths of tens of thousands of intellectuals and the emigration of a significant portion of the educated class to Europe and North America.

Violence reached its peak in the mid-1990s, with international attention focused on discriminate massacres and terrorist attacks abroad. In 1999, Abdelaziz Bouteflika began a controversial process of political reconciliation, marking the winding-down of the conflict.







2000

2010

2020

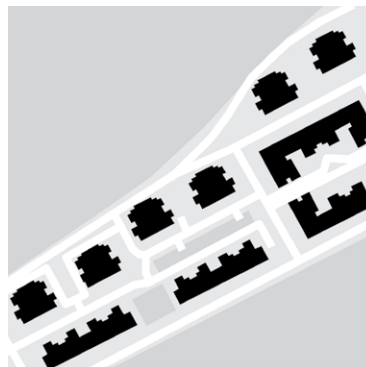
2011 Algiers Metro built  
2011 Algiers tram built  
2019 Djamaa el Djazaïr built  
2019 Baraki Stadium built

Bidonvilles still exist, but are much rarer

### The Black Decade

During the Algerian Civil War, little construction occurred beyond localized small-scale activity, due to the wide-spread instability and conflict.

With the introduction of a “self-build” program in the 1990s, the government aimed to transfer housing responsibility from the state to private and community groups, supervising only the subdivision of land. However, a lack of a masterplan combined with ad-hoc urban expansion meant that Algiers experienced an unplanned and chaotic expansion.



Plan, Djasr Kasentina Development

### 2002-now Free Market Liberalization

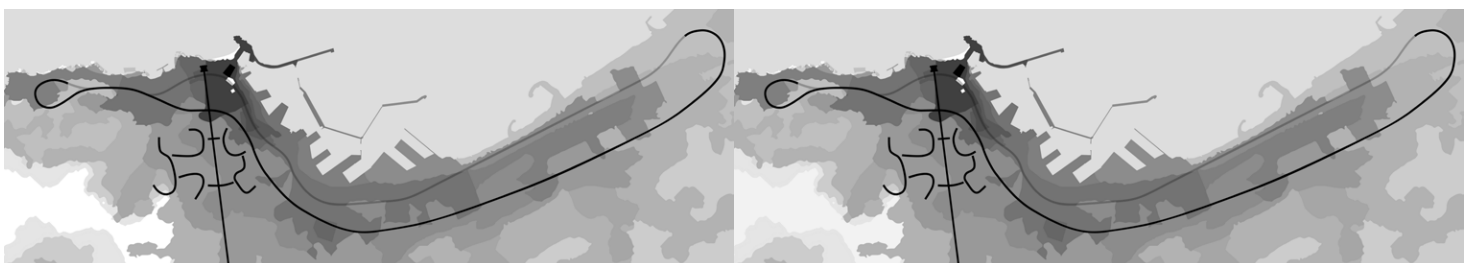
Efforts in recent years have turned to the free market for solutions to the housing issues in Algiers. Efforts have been directed towards reconnecting Algiers to the global economy and improving foreign investment and tourism.

As such, although the government remains the provider of the majority of lower-middle class housing in Algiers, private sector developers are allowed to develop and sell subdivided lands; most typically apply gated housing developments copied from the Gulf States.

### Urban Heterogization

To this day, Algeria continues to face a housing crisis across the country, with high demand despite rapid urbanization in its cities. Over 70 percent of Algeria’s 39 million people now live in cities along the northern coastline.

Furthermore, in its rapid growth, Algiers has seen a dilution from a single core, to an agglomeration of urban units stretching eastwards along the coastline, organized around a vehicular network. While the system works at the city level, it has not managed to connect each district on a neighbourhood level, resulting in a fragmented urban form.





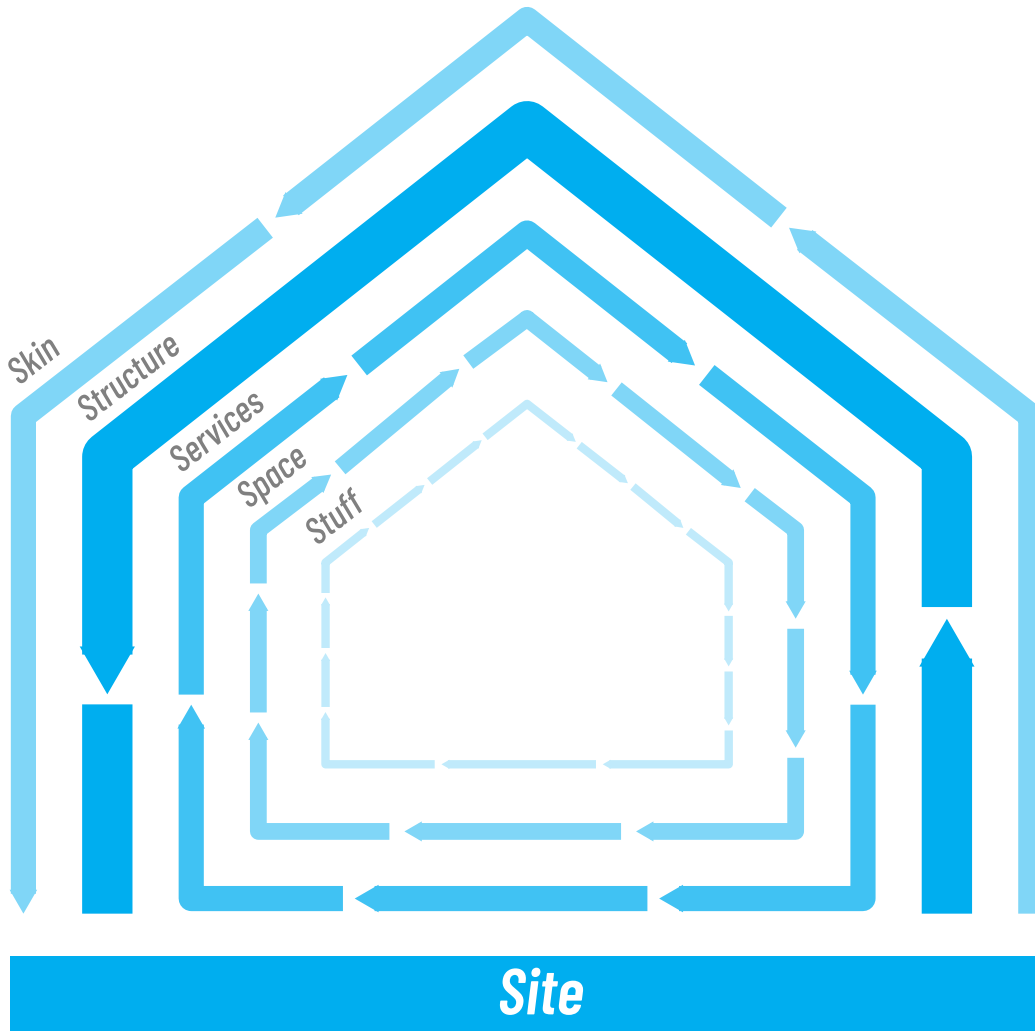
*Figure 7.8 Aerial of Algiers above Kouba, 2009*

13 Grabar Henry S. "Reclaiming the City: Changing Urban Meaning in Algiers After 1962": 399.

These periods of stasis and upheaval have produced urban plans which have duplicated colonial housing and planning policies, or have been implemented in a piecemeal and ineffective manner.<sup>12</sup> Despite attempts at addressing housing issues through the mass development of housing, housing shortages persist—as do the *bidonvilles*. These development patterns have ultimately produced a physically incomplete and fragmented city, one where the government has essentially remained as the arbitrator and provider of housing.

Beyond the ossification of politics under the FLN and the relatively mild physical scars inflicted by the Algerian Civil War, the only changes made to the French colonial city since 1962 have been largely symbolic, with the existing urban landscape largely unchanged in its spatial arrangement.<sup>13</sup>

Even as colonial forms were replicated within the structure of government and colonial urbanism perpetuated, in the brief moment of liminality between the end of colonialism and the emergence of autocratic socialism, Algerians' right to the city was fulfilled during their seizure of the European city. Ultimately, the space produced was a hybrid—neither French nor Algerian, but somewhere in-between.



**Figure 8.1** *Pace Layering Diagram*

# 8 THE SIX STAGES OF AGE

In *How Buildings Learn*, Stewart Brand presents “Pace Layering”, an analytical framework that can conceptualize the possible changes happening in a building in the years after its completion.

As components are always aging at different rates from one another, buildings are in a perpetual state of conflict with themselves, with layers shearing off of each other, leading to visible discrepancies in the building’s condition.

As Brand notes, age combined with adaptivity produces a building that is loved, or one that at least endures—the building learns from its occupants, and they, in turn, are affected by it.

## Pace Layering

### 1 Stuff | Daily to 1 Year

This is the term used to denote elements like chairs, tables, appliances, and computers. These are short-term items, being moved around from a daily to monthly timing.

### 2 Space | 7-30+ Years

This refers to the interior partitioning and hardware. In commercial spaces, the space plan can change every 7 years, a residence can be unchanged for over 30 years.

### 3 Services | 7-15 Years

These are the working elements of a building, from plumbing, wiring, and HVAC, to moving parts like elevators. These last on average from 7 to 15 years before usually being replaced.

### 4 Skin | ~20 Years

This refers to the exterior cladding and weather shielding—which in modern buildings, is often refreshed every 20 years or so to keep with trends or technology.

### 5 Structure | 30-300+ Years

This refers to the foundations and load-bearing elements, designed to be the longest-lasting elements of a building. As such, these typically last from 30 to 300+ years.

### 6 Site | ∞

This refers to the geographic location and the legally defined lot, which often outlive the buildings situated on top of them.



Even as these subsequent case studies present some of the most dramatic instances of reappropriation and user-driven design, reappropriation should not be seen as an absolute state. Rather, it occurs as a gradient that emerges out of the manifold divergences that lived experience offers, which produce variegated forms that cannot be completely anticipated. These are choices driven by the immediate context (the existing built form), the immediate needs (space, condition, etc.), and the resources available at the moment (materials, expertise, capital flows).

Furthermore, the state of the building often dictates what its users can do with it. While an empty frame offers the inhabitant a freer rein over the potential infill in exchange for higher capital requirements, an already-finished structure often has its *space*, *services*, *skin*, and even *stuff* determined by its previous architects and inhabitants.

In Algiers, the most dramatic observable changes typically occurred on the exteriors of the structures. In instances reappropriated by the capital-strapped poor, the interiors largely remain the same, altered only through the accumulation and change of the *stuff*. Instead, structures have typically grown outwards piecemeal into available semi-private space (balconies, rooftop spaces), the *skin* is typically cosmetically altered/repared, and relocated *services* accumulate on the exterior facades.

Keeping these observations in mind, and utilizing “Pace Layering” as a baseline, some general adaptations in inhabitation can be seen in subsequent case studies.

## Forms of Adaptation

### Infill

In most instances, this refers to the creation of spaces within existing spaces, from the enclosure of outdoor spaces, to the subdivision of an existing enclosure into smaller ones. Often, this takes the form of new living spaces created as an answer to overcrowding.

### Resurfacing

This refers to the creation of a new surface over an older one. In many cases, as the original finish deteriorates and becomes unsightly, an alternate, readily-available finish is applied—altering the original design intent.

### Attachment

This occurs when the original mechanical elements of a building fail from lack of maintenance, become overloaded, or when new technologies emerge. Replacements are usually installed on the more-accessible exterior.

### Repurposing

This refers to the reuse of existing spaces, often as their original uses become outmoded or when conditions no longer permit the original activity to continue. In other cases, it may refer to the activation of empty space with temporary uses.

### Abandonment

In some cases, no use can be found for a space and so it is abandoned, either secured for later reuse or left to the elements.

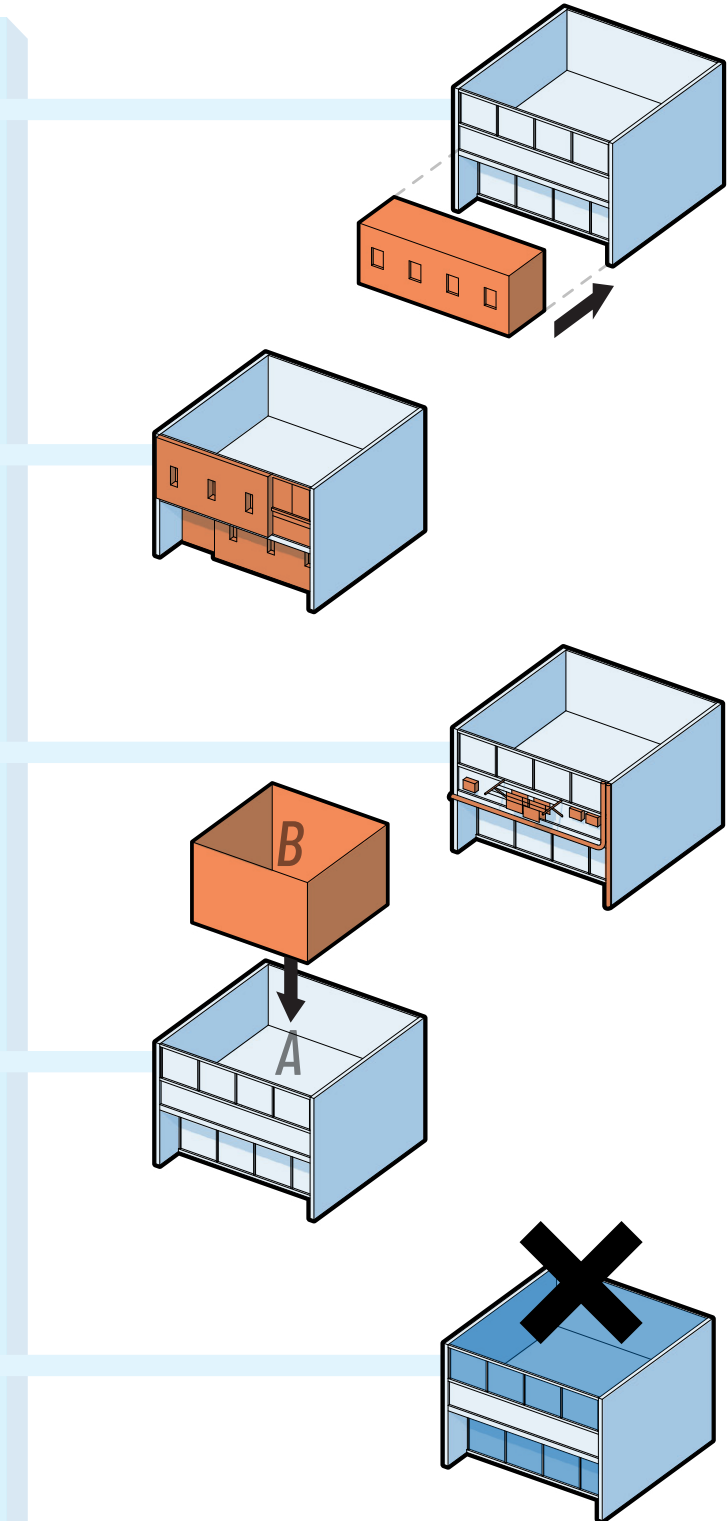


Figure 8.2 Adaptation Diagram

## 8.1 Echoes of the Obus

Though Le Corbusier never realized the *Plan Obus* in any shape or form; its intellectual legacy and its visions nevertheless played out in future projects—perhaps most importantly in his later *L’Unite* projects. In many of the projects derived from the *Plan Obus*, and in other instances of the generic frame, differing circumstances have produced vastly different results in these structures.

In Algiers, many of Le Corbusier’s followers and former students—some of whom had worked on the *Plan Obus*—would go on to work on projects throughout the country. A particularly dedicated group, consisting of Roland Simounet, Louis Miquel, Pierre-André Emery and José Ferrer-Laloë would found the CIAM Alger group in 1952.<sup>1</sup>

- 1 Avermaete Tom, Loekx André. “Architecture ou Révolution’: Critical Moderns and the Search for a New Urbanity in 1950s Algiers”: 172.
- 2 Rondeleux, Nejma. “Les Amours d’Alger ont été vite décadennassés.” Huffington Post Maghreb; September 22, 2015. Accessed February 8, 2019. ([https://www.huffpostmaghreb.com/2014/09/22/cadenas-amours-algerie\\_n\\_5863144.html](https://www.huffpostmaghreb.com/2014/09/22/cadenas-amours-algerie_n_5863144.html))
- 3 “Les habitants de l’immeuble-Pont “Burdeau” du Telemly interpellent l’UNESCO.” Dernières Infos d’Algérie; December 11, 2018. Accessed February 9, 2019. (<http://dia-algerie.com/habitants-de-limmeuble-pont-burdeau-telemly-interpellent-lunesco>)

### Immeuble-Pont Burdeau | Algiers | 1952

Built in 1952, the Immeuble-Pont Burdeau, designed by Pierre Marie, carries the Rue Burdeau (today the Rue Khalfi) over a small ravine. This building forms the only direct application of Le Corbusier’s *viaduc* concept. Over the years the building had also garnered the unfortunate reputation as a “*bridge of suicides*”, until the city government installed a suicide railing. At that point, it gained a new nickname as a “*bridge of love*” because of the locks young couples affixed to it—finally spurring the government to give it a new coat of paint.<sup>2</sup>

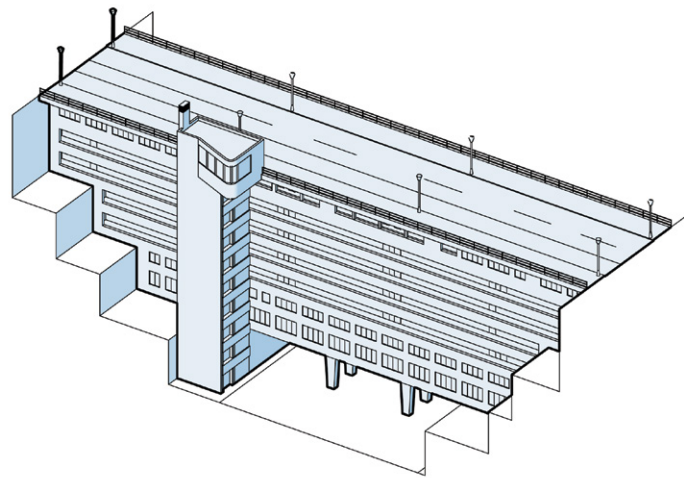
While the Immeuble Pont-Burdeau is still inhabited today with flats and offices, the integration of different modes of infrastructure has also contributed to the point of inflexibility. In particular, the design has made reinforcement or replacement of the concrete structure difficult; as a result of the increased local traffic, there have been concerns regarding the building’s ability to carry the weight and vibration adequately.<sup>3</sup>



*Figure 8.3 View of the Immeuble-Pont Burdeau, 2019*

## Issues and Adaptations

- Issues with premature structural wear due to heavy road traffic
- Addition of drying lines, satellite dishes and AC units to the exterior
- Suicide fence has been added to address concerns about public safety.
- Cultural mutation and conflict- the fence has become a local attraction, drawing the ire of Islamicists



*Figure 8.4 Immeuble-Pont Burdeau Axo, 1:1000*

## Aéro-Habitat | Algiers | 1955

Designed by Miquel, Emery, and Ferrer-Laloë, the Aéro-Habitat housing development was built in 1955 as a private development by a co-operative of French owners. The Aéro-Habitat was a direct reapplication of Le Corbusier's earlier ideas, applying the idea of two-storey stacked maisonettes that Le Corbusier himself had applied just a year earlier in the Unité d'Habitation in Marseille. In its location in the hilly Télemly neighbourhood above the city centre, the Aéro-Habitat resembled a small slice of the *redents* that were originally envisioned just a short distance away.

Positioned perpendicular to the hillside, the Aéro-Habitat sought to maximize views, and a pedestrian through-way from the top of the hill into the mid-section of the twenty-two storey structure provided direct access into the building—reminiscent of the mid-structure road network in the redents. Meanwhile, the internal shops and services located in the mid-levels allowed the structure to function semi-independently from its surroundings, furthering the notion of the Aéro-Habitat as a building-neighbourhood.<sup>4</sup>

In the process of appropriation that followed after Independence, Algerians occupied the private apartments and filled many of the balconies to create additional living spaces. Furthermore, as the retail level has hollowed out, the building now relies on its prominent location to serve as a massive billboard and broadcast relay, a modern commodification that allows it to retain some income for upkeep.<sup>5</sup>

In recent years, the building has also become home to many African migrants, who in one way or another, have concluded their trips in Algiers, short of Europe. Despite the decline in the building's general conditions, a migrant community has formed and the indoor walkways and mid-structure markets provide a space in which they live, work, and hide in anonymity from the authorities.<sup>6</sup> In its transformation, Aéro-Habitat has retained its original emphasis of a building-as-city, although with an entirely different set of tenants than originally envisioned.

4 Avermaete Tom, Loekx André. "Architecture ou Révolution: Critical Moderns and the Search for a New Urbanity in 1950s Algiers": 173-5.

5 "L'Aéro-Habitat, Le Village Suspendu De La Capitale Algérienne." *Algerie Focus*; May 16, 2013. Accessed February 10, 2019. (<https://www.algerie-focus.com/>)

6 Dridi, Daikha. "Ghosts of The AeroHabitat." *International Boulevard*; May 08, 2017. Accessed January 5, 2019. (<http://www.internationalboulevard.com/the-ghosts-of-laerohabitat/>)





Figure 8.5 Southwest view of Aéro-Habitat

### Issues and Adaptations

- Issues of exterior skin deterioration with water leakage and broken windows
- Low rents due to rent control and squatting, abandonment of mid-level public space, Poor security situation, drug trafficking
- Addition of drying lines, satellite dishes and AC units to the exterior
- Balcony infill has created additional living space

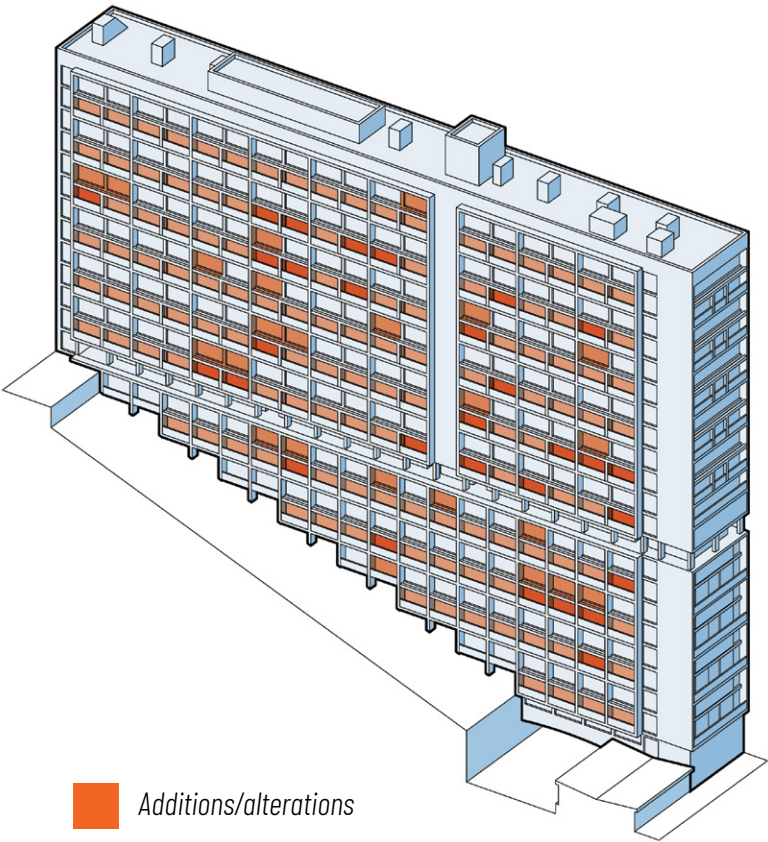


Figure 8.6 Aéro-Habitat Axo, 1:1000

## Pedregulho | Rio de Janeiro | 1947

### Gávea | Rio de Janeiro | 1952

Halfway across the world in Brazil, Affonso Eduardo Reidy would design perhaps the most literal implementation of Le Corbusier's utopian plans. Drawing aesthetic inspiration from Le Corbusier's *viaduc* concepts from South America and Algiers, Reidy would design two Rio de Janeiro housing developments- Pedregulho (1947) and Gávea (1952). Though eschewing the modular framework seen in the *Plan Obus*, both projects integrate public circulation and services throughout their elevated, sinuous forms.

The two buildings were intended as all-inclusive residential quarters for low-income government workers, designed to encourage social change in its inhabitants within a natural environment—an application of Corbusier's social principles.<sup>7</sup> Despite their similar goals and design, Pedregulho was built first as the flagship project for the socialist government, with a wide variety of social services for its inhabitants; on the other hand, criticism over the cost of Pedregulho resulted in cutbacks to the Gávea complex, and it was considered the inferior instance of Reidy's work.

Yet contrary to their finished states, the two complexes have diverged contrary to expectations. Pedregulho fell into decades of disrepair with its social spaces failing, while Gávea has continued to thrive as a vibrant community, despite the natural wear-and-tear coming after decades of use.

Due to its symbolic value, Pedregulho's siting and orientation was based on its visibility throughout the city, resulting in expensive sun-mitigation methods and unfavorable exposure during the day. Simultaneously, the imposition of social spaces ran contrary to user habits. In one instance, the inclusion of modern washing facilities disrupted the social culture of communal gossip and entertainment

<sup>7</sup> Weiss, Srdjan, and Sabine Von Fischer. "How to Read Two Monoliths." *Cabinet*, Spring 2002.

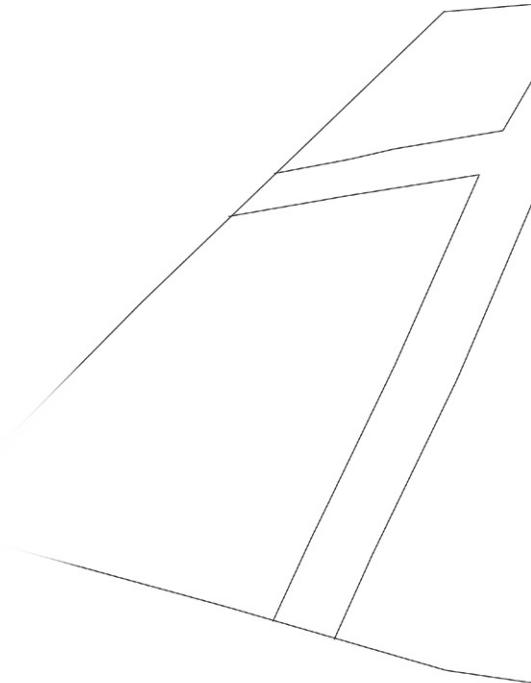


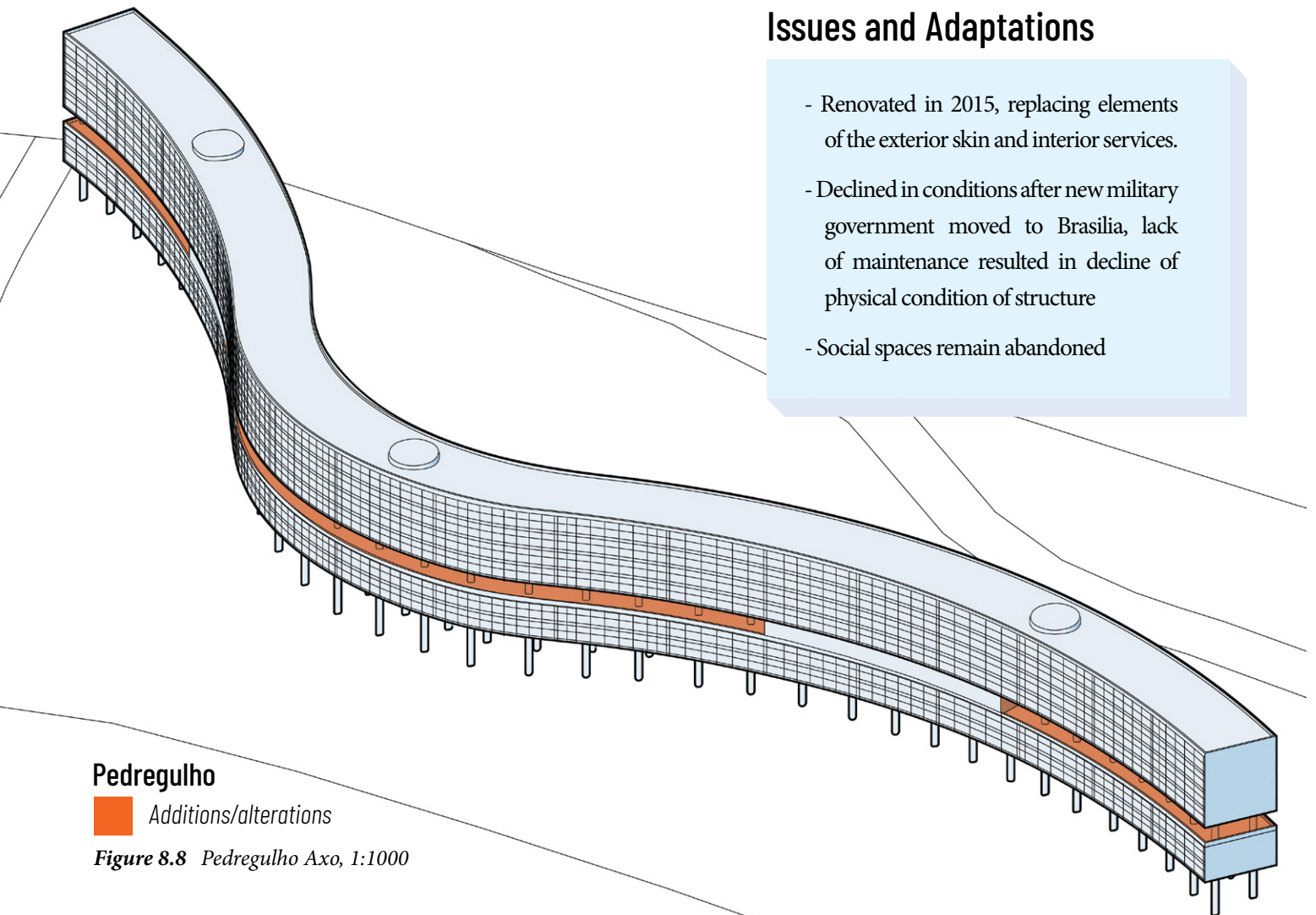




Figure 8.7 View of Pedregulho, 2007

## Issues and Adaptations

- Renovated in 2015, replacing elements of the exterior skin and interior services.
- Declined in conditions after new military government moved to Brasilia, lack of maintenance resulted in decline of physical condition of structure
- Social spaces remain abandoned



### Pedregulho

■ Additions/alterations

Figure 8.8 Pedregulho Axo, 1:1000

during laundry. The residents appropriated the pool soon afterward as it provided a more suitable space for these sorely missed practices.<sup>8</sup>

On the contrary, Gávea's siting was based around cost-efficiency, and the placement of the structure minimized hard equipment costs—this resulted in a naturally more comfortable baseline condition. Social oversights found in Pedregulho were corrected more contextually and cost-effectively in Gávea's design.

Rather than a laundry room, a rooftop level provides space for both laundry and socialization, while other spaces were able to accommodate unplanned social uses such as a theatre, play spaces, and small businesses. As a result, its community has been able to appropriate the building and adjust it to their own needs.

Overall, while Pedregulho may represent a stronger physical embodiment of ideals, Gávea's careful accommodation of social customs and its urban environment represents an architecture more responsive to its contexts.<sup>9</sup>

8 Lim, Carissa, Paul Marett, and Lindsay Wong. "Pedregulho." *Rio Atlas: Cosmopolitan Urbanism*. June 30, 2015. Accessed January 15, 2019. (<https://cosmopolitanurbanism.wordpress.com/2015/04/28/pedregulho/>)

9 Maddock, Bryan. "A Serpentine Science." *The Architectural League of New York*. August 14, 2018. Accessed January 18, 2019. (<https://archleague.org/article/a-serpentine-science/>)

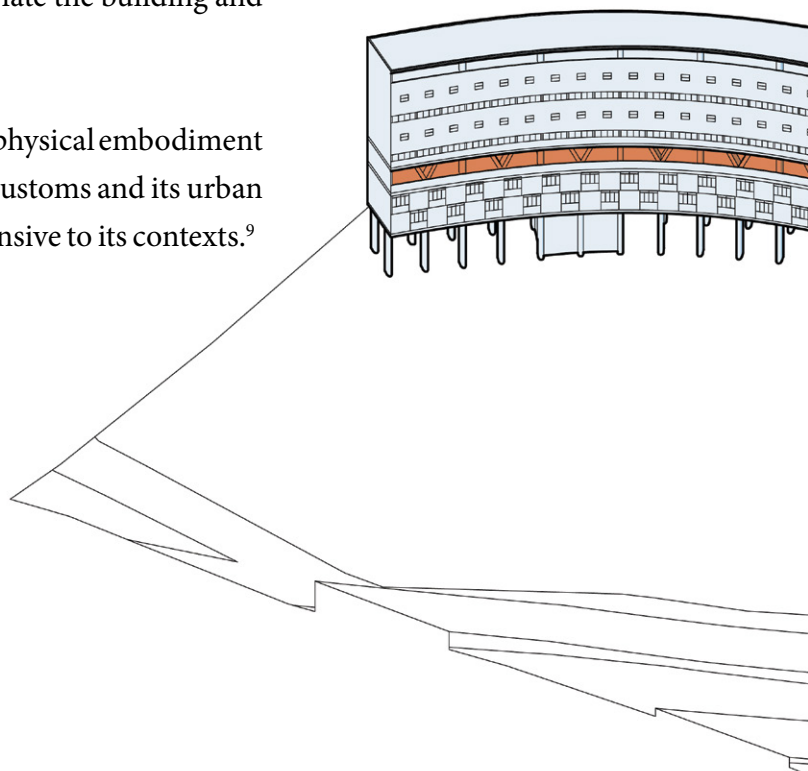






Figure 8.9 View of Gávea, 2011

## Issues and Adaptations

- Remains in good shape beyond natural wear and the addition of drying lines, satellite dishes and AC units to the exterior
- Design compromised in 1982 by addition of highway through structure
- Community has reutilized some of space in the mid-levels, and added play and theatre space. Residents have utilized their apartments as spaces for home businesses

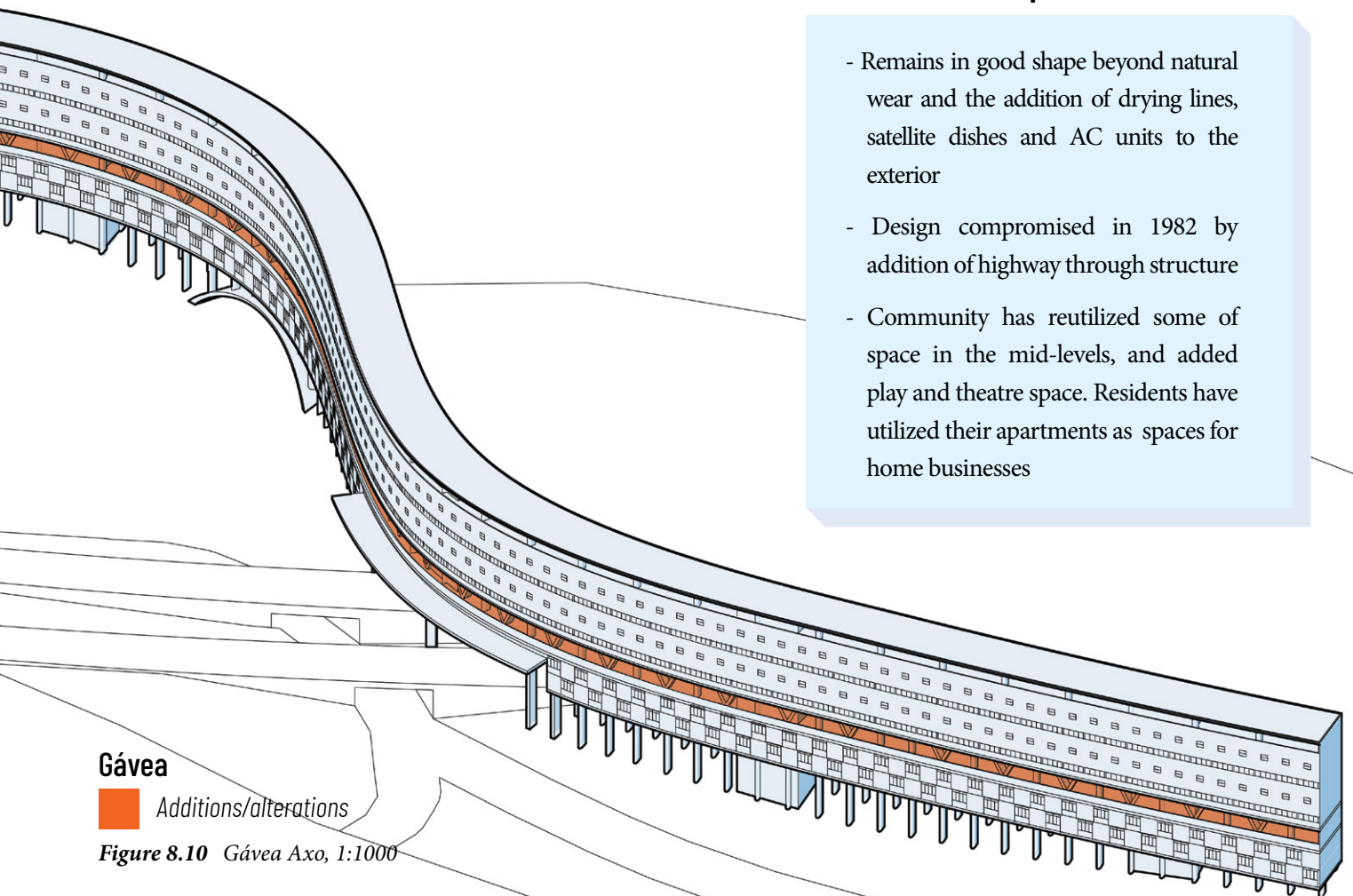


Figure 8.10 Gávea Axo, 1:1000



## 8.2 Global Acts of Reappropriation

### 200 Colonne, Climat de France | Algiers | 1954

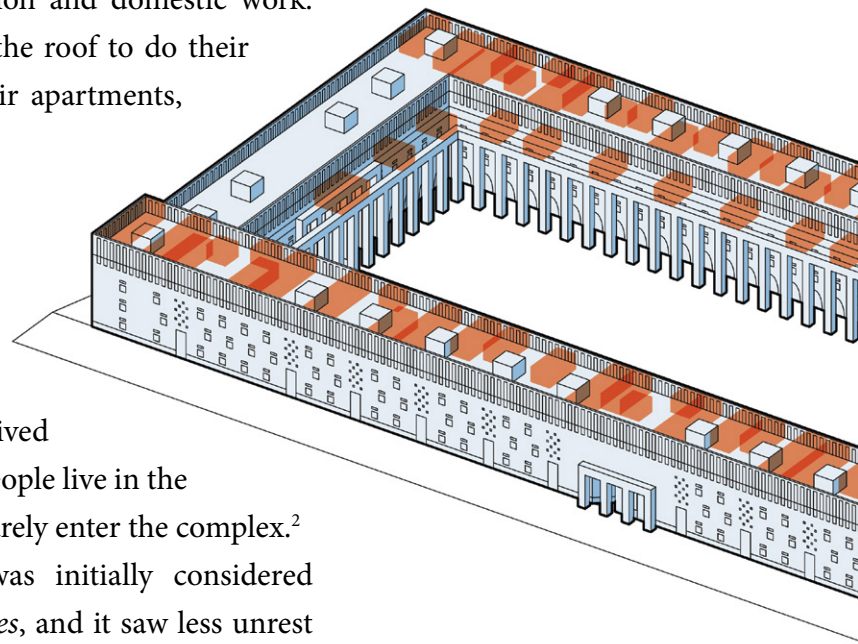
Designed by Fernand Poullion during the period of the *Grand Projets*, the 5,000-unit *Climat de France* housing development was intended as social housing for native Algerians.

Like all *Grand Projets*, it incorporated some elements of vernacular architecture, drawing inspiration from the towns of the Mzab, while the introverted whitewashed form evoked the concept of city walls. The integration of rooftop terraces mimicked those found throughout the Casbah, duplicating the spaces for socialization and domestic work. Despite this, the women refused to climb to the roof to do their laundry and instead did their laundry in their apartments, projecting rods to dry their clothing.<sup>1</sup>

In the years that followed, the building would become overcrowded and neglected, with inhabitants constructing extensions on the roof and over the arcade to accommodate their extended families, many of whom have lived there for several generations. At least 30,000 people live in the developments, and police and tax inspectors rarely enter the complex.<sup>2</sup>

The *Climat de France* development was initially considered “paradise” compared to the previous *bidonvilles*, and it saw less unrest compared to the Casbah. Despite this, its population still rose up to join the protests in 1960.<sup>3</sup> As the building deteriorated, its inhabitants again took to the streets in 1988 and 2011 to protest the policies of the current government.

In particular, the 2011 protests saw the attempted erection of an extension of the building as a protest against the crowded space—the subsumption of colonial space by the *bidonville*.



1 Çelik, Zeynep. *Urban Forms and Colonial Confrontations: Algiers under French Rule*: 155

2 Mandraud, Isabelle. “Recipes for change abound in Algiers project where politics are peripheral.” *The Guardian*; June 12, 2012. Accessed March 11, 2019. (<https://www.theguardian.com/world/2012/jun/12/algeria-housing-climat-france-algiers>)

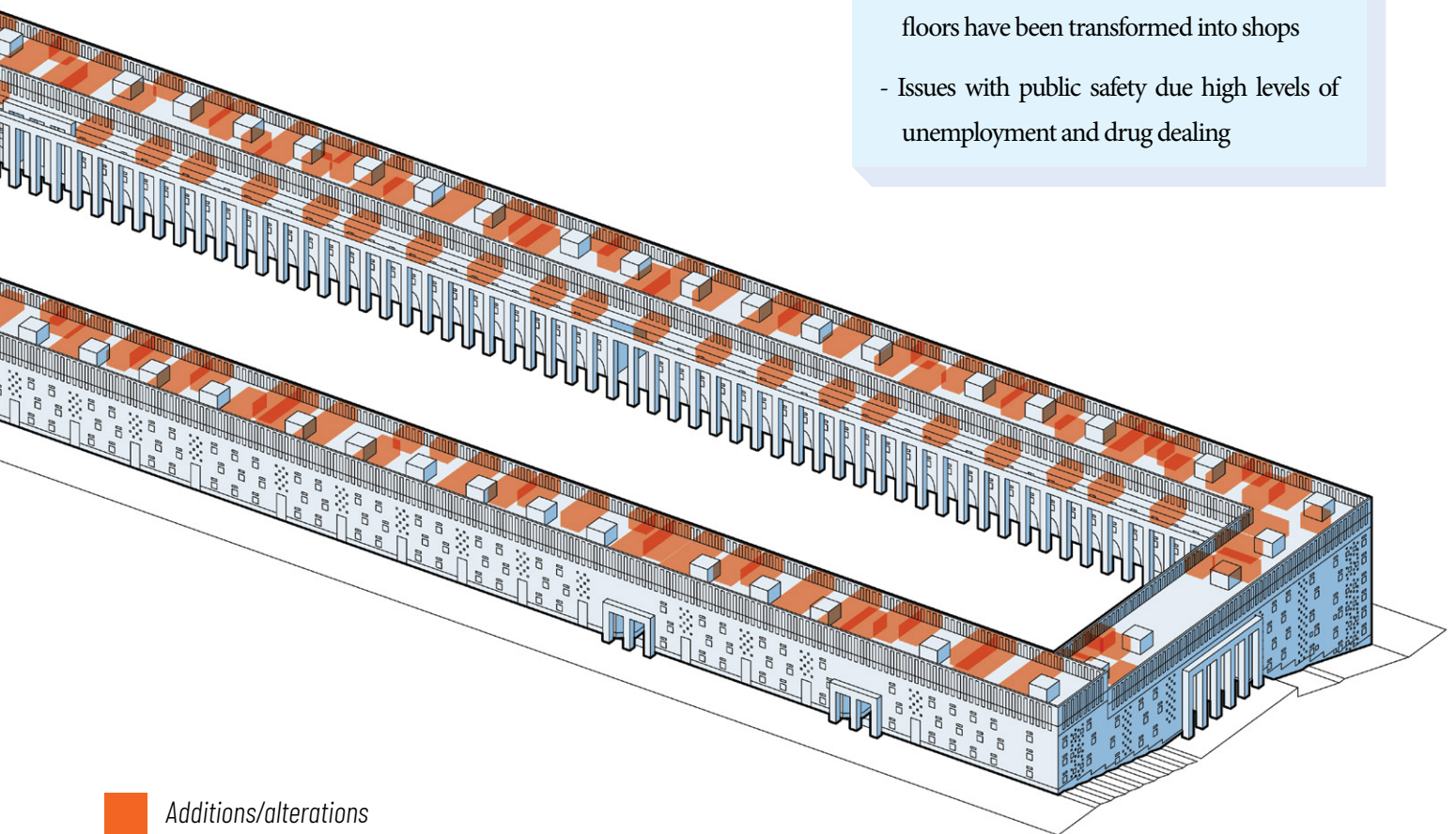
3 Çelik, Zeynep. *Urban Forms and Colonial Confrontations: Algiers under French Rule*: 157



**Figure 8.11** View of inner colonnade with additions

## Issues and Adaptations

- Considerable deterioration in physical condition due to overcrowding and lack of maintenance, addition of drying lines, satellite dishes and AC units to the exterior
- Extensive infilling above colonnade and on roof with auxiliary living spaces, and ground floors have been transformed into shops
- Issues with public safety due high levels of unemployment and drug dealing



■ Additions/alterations

**Figure 8.12** 200 Colomes Axo, 1:1000

## Torre David | Caracas | 1990

One of the more visible and dramatic instances of reappropriation would occur in a vertical informal settlement that formed within the Torre David. The Torre David, initially named the *Centro Financiero Confinanzas*, is an unfinished office tower in the heart of Caracas, Venezuela. Construction on the forty-five storey tower began in 1990, but a banking crisis halted work in 1994; the government expropriated the structure soon afterward. Unfinished and empty, a group of citizens sought refuge in the tower in 2007, after a torrential downpour destroyed their homes.

Finding safety in the concrete frame, they would stake claims and build shelters within the tower, initiating the first occupation of the tower in its thirteen years of existence.

Even though the structure lacked elevators, running water, or electricity, these new inhabitants gradually replaced these shelters with solid self-built apartments—and by 2014, nearly 3,000 people would live in the tower.<sup>4</sup> A self-organized community emerged within the tower, with its own businesses, social spaces, utilities, maintenance, and management.

In the Torre David, corridors became streets, and the street life of a *barrio* (neighbourhood) was internalized within an artificial frame—a self-sufficient rustic life, set against the supposed exclusive domain of the executive.<sup>5</sup>

Despite the attention it received, in 2014, the Torre David fell victim again to shifting priorities—the government emptied the tower to prepare it for its completion by the Chinese— yet the building has remained empty since. Finally, in 2018, an earthquake partially collapsed the top five floors, the cumulative effect of 25 years of abandonment.<sup>6</sup>

4 McGuirk, Justin. *Radical Cities: Across Latin America in search of a New Architecture*. 1. publ. ed. London [u.a.]: Verso; 2014: 175-206.

5 Ibid: 196.

6 Valencia, Nicholas. "Last Floors of the Infamous Torre de David Have Tilted Following an Earthquake." *Archdaily*; August 27, 2018. Accessed September 11, 2018. (<https://www.archdaily.com/900858/last-floors-of-the-infamous-torre-de-david-have-tilted-following-an-earthquake>)

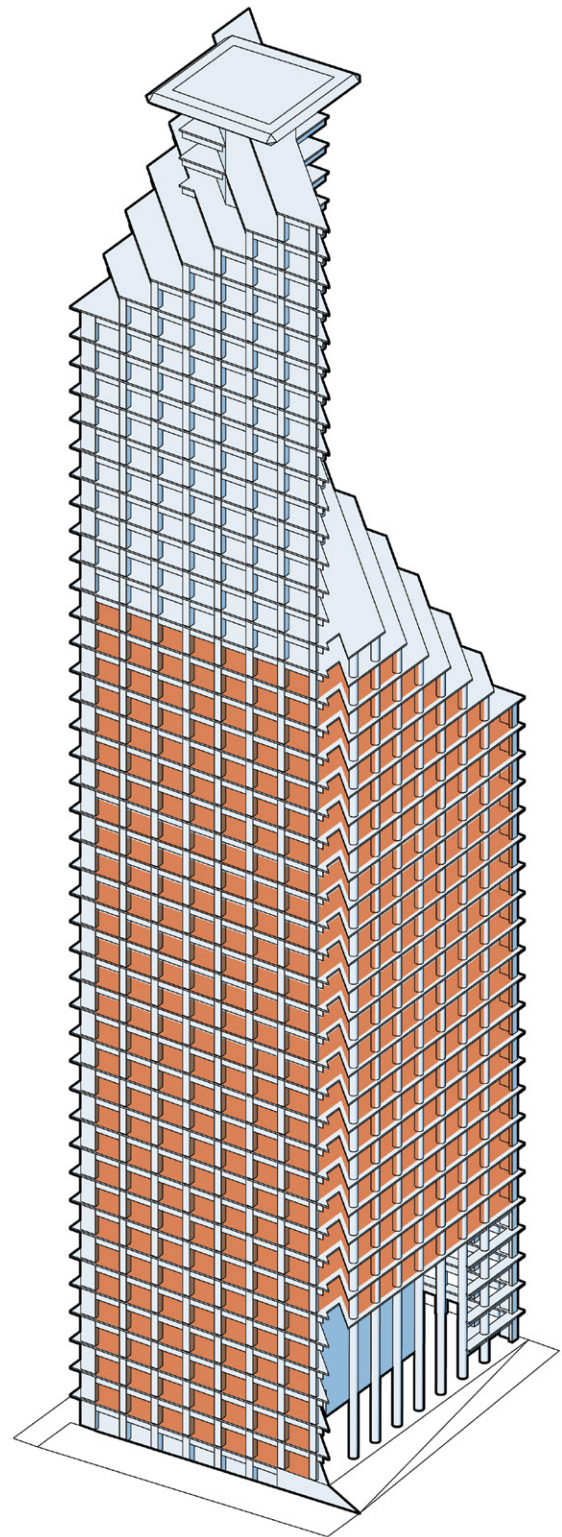




*Figure 8.13* View of Torre David facade, 2014

## Issues and Adaptations

- Deterioration in structure due to exposure to elements
- The unfinished nature of the building made it dangerous to live in, and basic services like power and water were lacking
- During inhabitation, empty concrete floors were infilled with a variety of residential, communal and commercial uses, and basic utilities were installed



■ Additions/alterations

*Figure 8.14* Torre David Axo, 1:1000

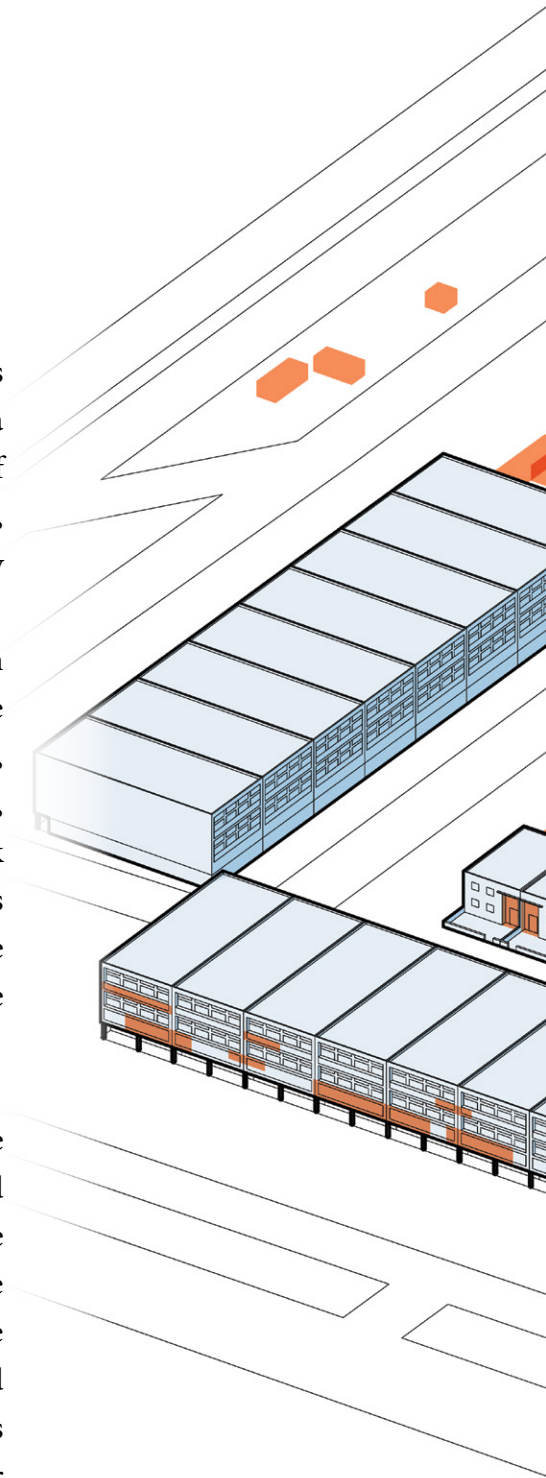
## Chandigarh | 1951-1966

Though the process of reappropriation directly within Le Corbusier's architecture is perhaps more evident in Pessac, Chandigarh offers a more vivid instance where European design intent and Indian habits of inhabitation collide. Designed as the replacement for Lahore in 1947, Chandigarh was the first attempt in India in designing a modern city from scratch.

Although the initial plan of Chandigarh was remarkably egalitarian for India at the time, going beyond the then-prevalent societal and caste segregation, there were flaws in the plan. Beyond its lack of urbanity, Indianizing features, and an over-reliance on vehicular transportation, one of the major critiques of Chandigarh's urban plan was in its lack of accommodation for its lower-class builders. Many of these workers ended up settling in slums and temporary accommodations on the outskirts of the city, and were later joined by rural migrants and cottage industries.

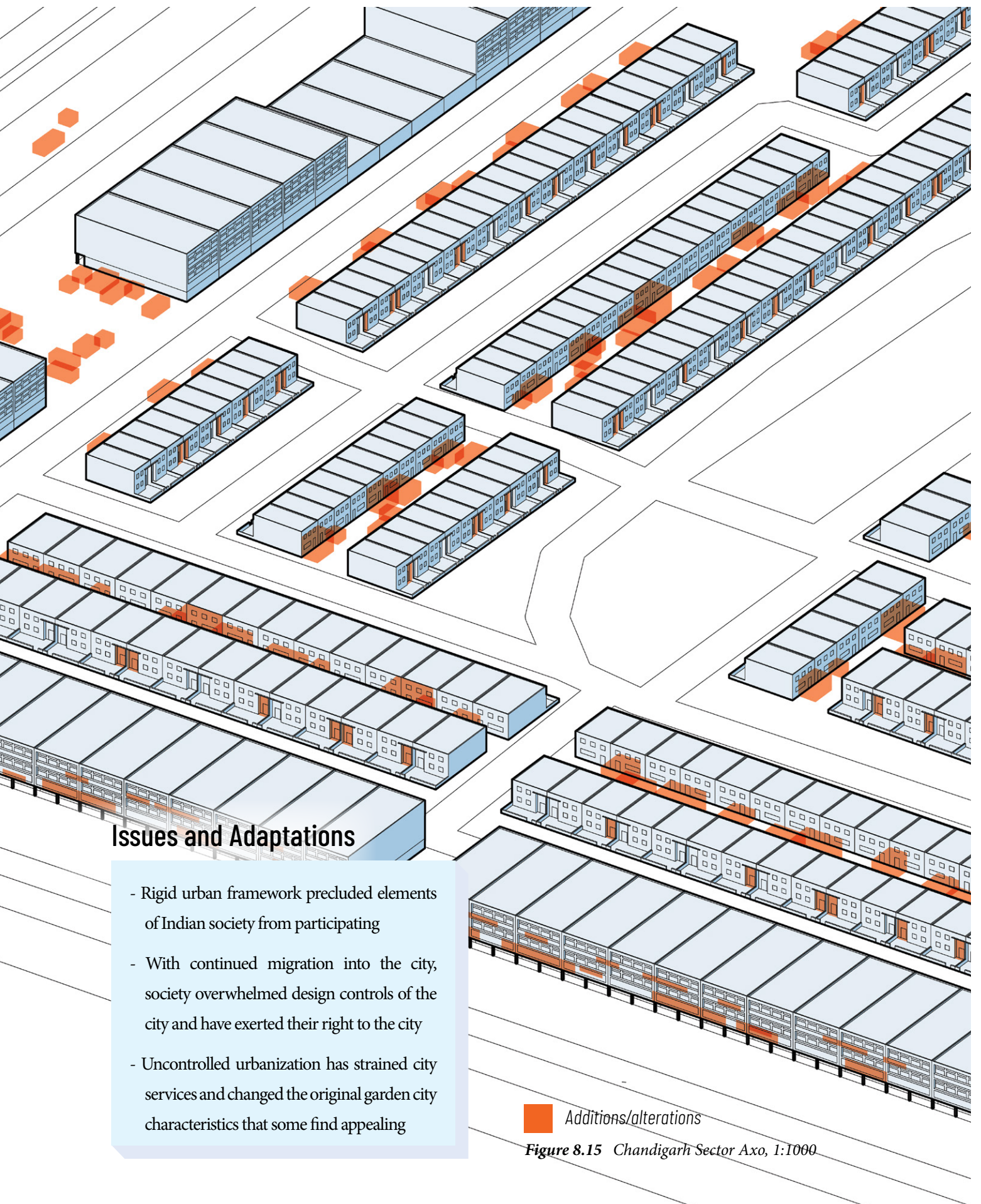
Even as the masterplan failed to account for these segments of the population, Indian society's *jugaad* (ingenuity) has reprogrammed many of the city's original spaces and has found use for its indeterminate spaces.<sup>8</sup> Many formerly unused open spaces like the edges of the boulevards or traffic circles have been filled with temporary uses like vending and open-air manufacturing. Likewise, while some sectors had been formally assigned a use, others have instead gained their functions informally as places where one might be able to find certain services or expertise.

This has resulted in an in-filling of the city, challenging the necessity of wide-open green spaces as dictated by European city forms and drawing Chandigarh closer to Indian urban morphologies, where spaces are multi-use and multi-faceted. Similarly, citizens have altered the built



8 Vikram. "Fetishization of the Kinetic City." Chandigarh Urban Lab. Accessed July 11, 2019. (<http://chandigarhurbanlab.org/fetishization-of-the-kinetic-city/>)





### Issues and Adaptations

- Rigid urban framework precluded elements of Indian society from participating
- With continued migration into the city, society overwhelmed design controls of the city and have exerted their right to the city
- Uncontrolled urbanization has strained city services and changed the original garden city characteristics that some find appealing

■ Additions/alterations

Figure 8.15 Chandigarh Sector Axi, 1:1000

form of the city themselves, choosing ad hoc additions to their houses and shops, and altering architectural features to provide additional space for inhabitation, advertising, and commerce.

In essence, the underlying vernacular cultural codes of India have injected themselves into Le Corbusier's high European city plan, altering both the planned city and the existing spatial framework. While this evolution of use has addressed some of the urban needs of the growing city, it has also produced uncontrollable over-urbanization and disrupted flows within the original plan.

Furthermore, even as newcomers may eventually find their place in the city, they are not given a stake in its planning—resulting in an increasing murkiness in the implementation of Chandigarh's founding vision and a lack of stewardship in its landmarks.

Despite these challenges, Chandigarh is far from an instance of urban failure. The city regularly tops Indian lists of the Human Development Index,<sup>9</sup> and many appreciate the abundance of green space and wide roads that sets Chandigarh apart from many other Indian cities. Kenneth Frampton notes that despite the criticisms leveled against Chandigarh over the years, it is still perhaps the “*only urbane lowrise, high-density city that the world has ever known.*”<sup>10</sup>

9 “Sub-national HDI - India.” Global Data Lab. 2017. Accessed October 23, 2019. (<https://globaldatalab.org/shdi/shdi/>)

10 Frampton, Kenneth, “Chandigarh as an Urban Model: Appraisal and Prognosis”, In: Khan, H., Beinhart, J., & Correa, C. (Eds.). (2011). *Le Corbusier: Chandigarh and the Modern City*. Ahmedabad. Mapin Publishing Pvt Ltd.; 29-37.





*Figure 8.16* View of Housing in Sector 22, 1956



*Figure 8.17* Sector 22, 2012

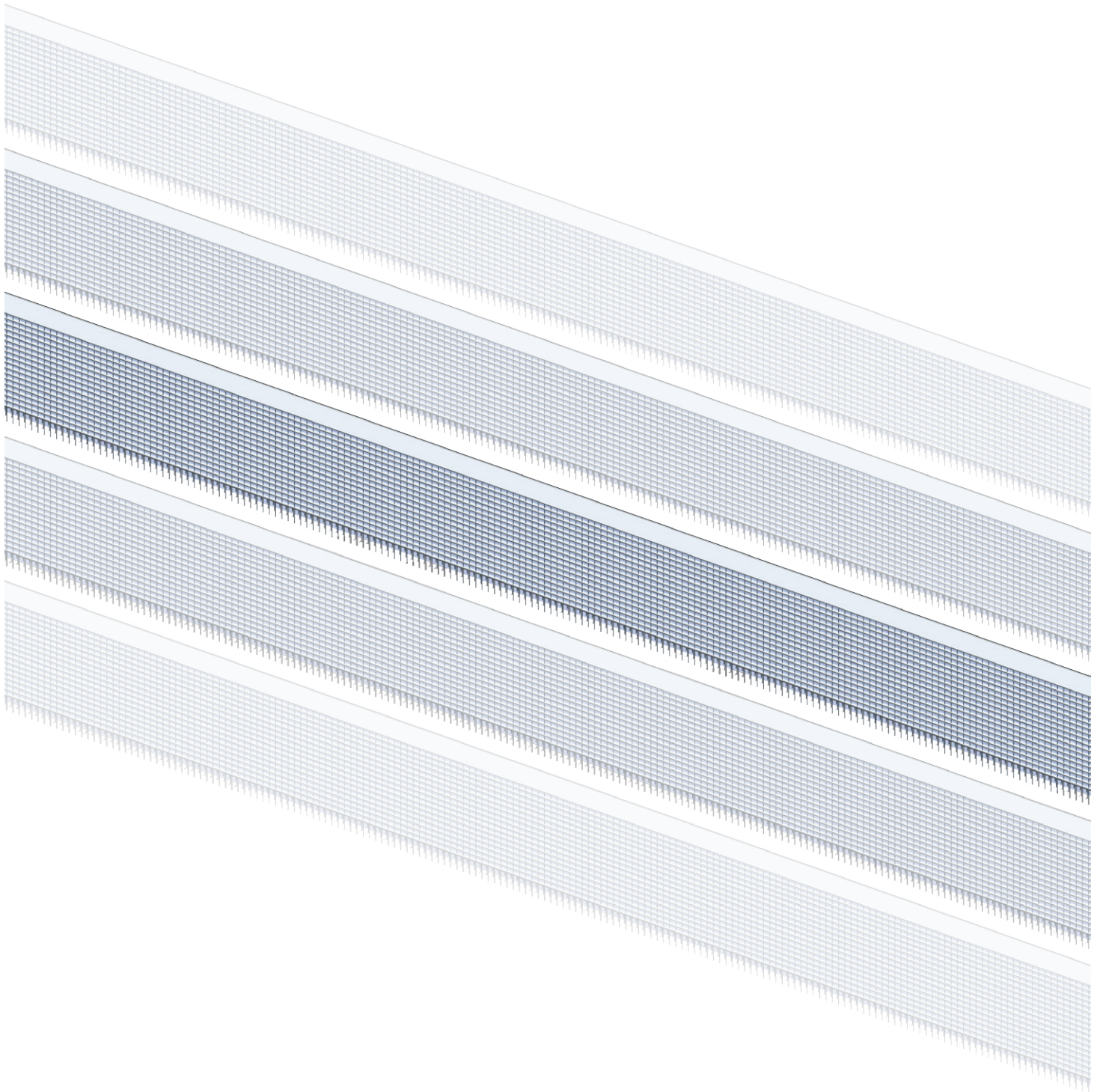


*Figure 8.18* View of Sector 17 in the mid-1960s



*Figure 8.19* View of Sector 17, 2016





# 9 RECONSTRUCTION OR PROJECTION?

In architectural reconstruction, the study of a physical legacy and historical evidence aims to reconstruct a narrative. Speculative visions often present selectively framed views intended to evoke a feeling, leaving the specifics undefined. This speculation sites itself in between the two poles of vision and reconstruction, constructing a speculative fiction relying on the realization of an incomplete vision.

In the careful analysis of the *Plan Obus*, natural incongruities and discontinuations occur in the plans—the result of the project being more a vague vision rather than a realizable design. Even after navigating and interpreting the available drawings, the final translation of the project takes on a more nebulous form.

Early on, I recognized that it would be impossible to moralize on the nature of the *Plan Obus*. Yet as the *Plan Obus* spreads itself over an entire city, we can explore multiple scenarios where the typology of Algiers is projected into the open frame of the structure. These precedents can perhaps be linked to analogous sociopolitical events that have transpired in Algiers and elsewhere.

In the most straightforward form, the Aéro-Habitat perhaps offers a direct parallel of the processes of decolonization within Algeria in the direct reuse of the structure, and some forms of subversion in its evolution over the years. The Immeuble Pont-Burdeau offers a view into the operational troubles a structure like the *Plan Obus*, designed according to antiquated road designs and for lower levels of traffic, could encounter as the context evolves beyond its capacities.

The Torre David, on the other hand, perhaps offers the most tantalizing glimpses into a possible inhabitation of a generic frame and the reappropriation of meaning. With its empty floors filled in over the years with a vertically stacked *barrio*—a form not dissimilar to the *bidonvilles* which still exist in Algeria—the Torre David offers a contemporary instance of the subversion of purpose, proving that these processes still exist today.



The Torre David would undergo an intense level of appropriation, demolition, and abandonment as the meaning of its spaces changed. Yet its prominent locations ensured that it remained a highly visible element of the city. It offers a glimpse into the impact of displaced people within an existing space, events that also transpired in Algiers with the disruption of social order during the consequent conflicts and natural disasters.

Finally, Chandigarh, Climat de France, Pedregulho and Gávea all show that despite the presumption of the *tabula rasa*, the fate of a building cannot be perfectly envisioned from the start, and more often than not, vernacular cultures will often reappear regardless of attempts to subdue them. A building's success is perhaps influenced more by its ability to adapt to its inhabitants and context.

While the prior chapters provided a historical basis for the colonial intent of the *Plan Obus*, as well as its potential infill typologies and methods of appropriation, the question afterward becomes one on the nature of the fiction. As in any speculative fictions, the projections following a point of divergence become increasingly fuzzy—the range of plausible results increases with time. Indeed, even the impact of the *Plan Obus* on the urban fabric can only be postulated, as in certain parts of the city, the Obus precedes the urban fabric.

In the case of this thesis, to limit the range of possibilities, world events transpire as they did in history. This creates a definitive set of anchor points to latch a narrative onto, but the specifics of history remain a question.

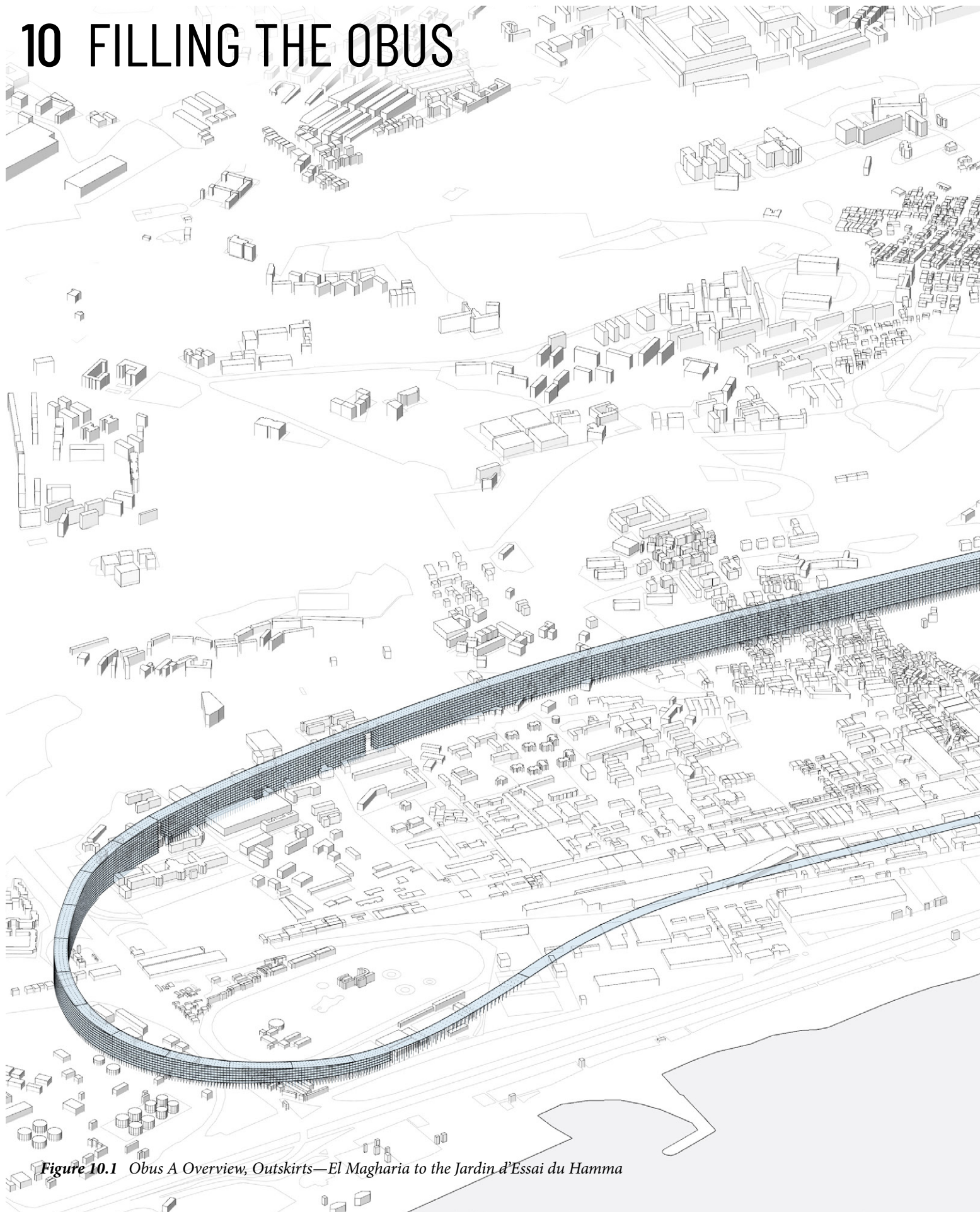
*How would one describe a building that evolves over time within a real-world timeline?*

Drawing from the model of the travelogue, the story explores the structure in a series of moments rather than by attempting to tie together a concise arc of history. The story explores the structure through the lens of the everyday mundane, where history is omnipresent yet perpetually out of reach, interpreted through its lasting impressions on the environment.

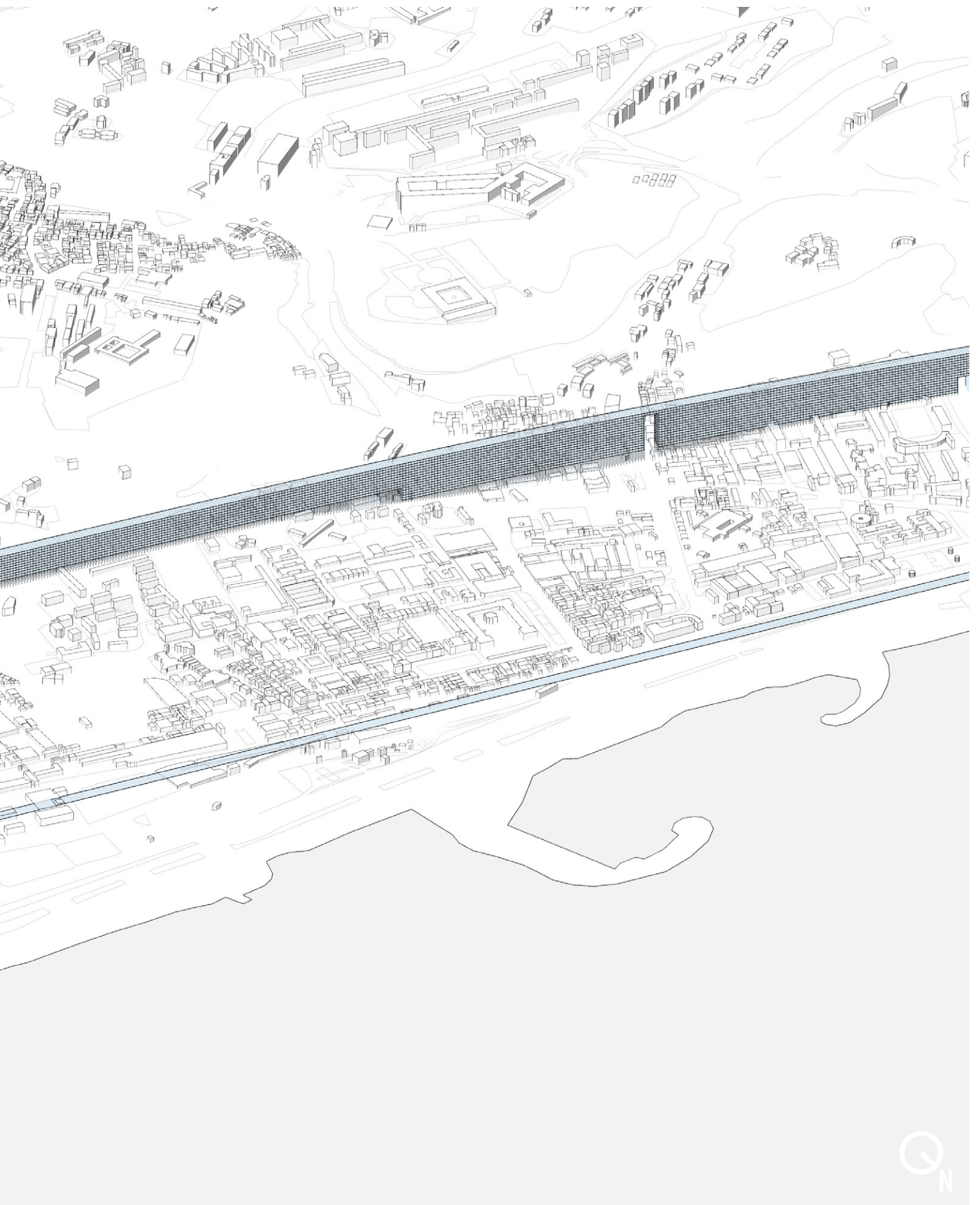
The story further chooses to omit excessive details in the structure's layout or events that have transpired, giving freedom to the reader to tie these events together based on their perception of the events.

Finally, the illustrations that accompany the story largely examine the building from the exterior, where the initial designs are the most realized and the potential change the most unexpected. The Obus is intersected with the physical urban fabric along its planned route, and interesting or significant points of juncture are chosen to be explored. From this, the prior precedents, the history of Algiers, and the Obus are transformed into a palimpsest of fact and fiction. Architecture is sought in its purest form—as an act of imagination.

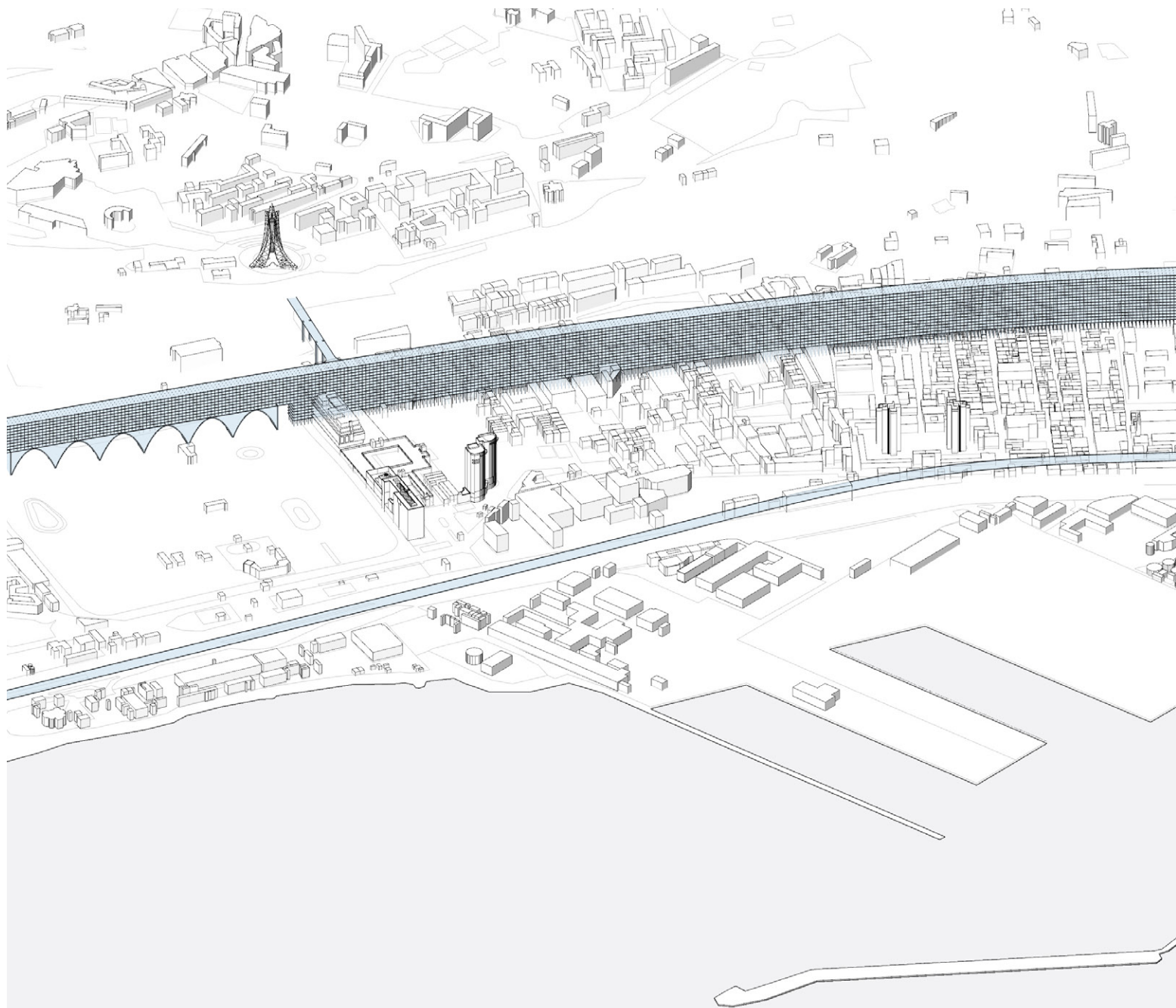
# 10 FILLING THE OBUS



**Figure 10.1** Obus A Overview, Outskirts—El Magharia to the Jardin d'Essai du Hamma

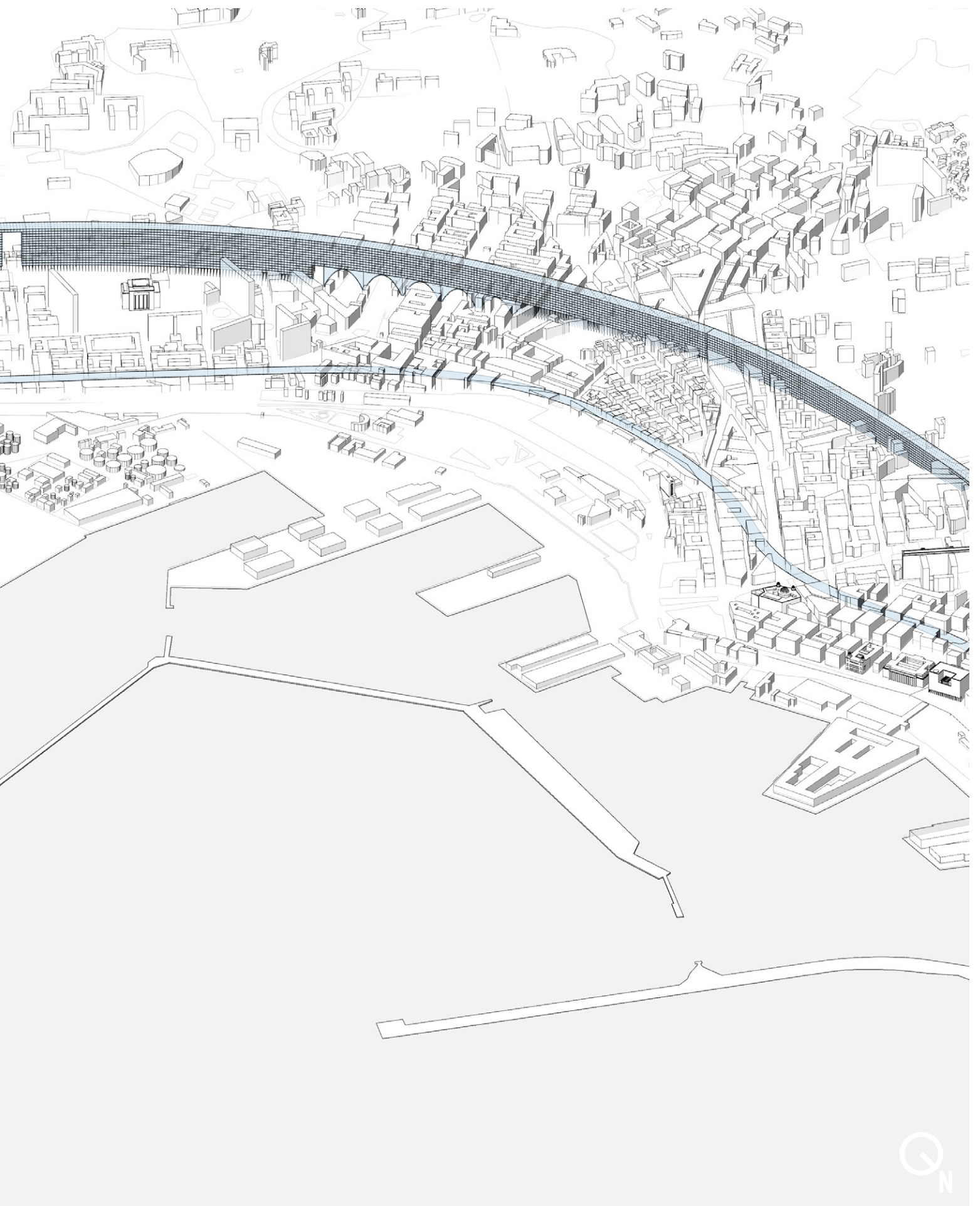






**Figure 10.2** Obus A Overview, Commercial & Cultural Core—Jardin d’Essai du Hamma to Place Port Said

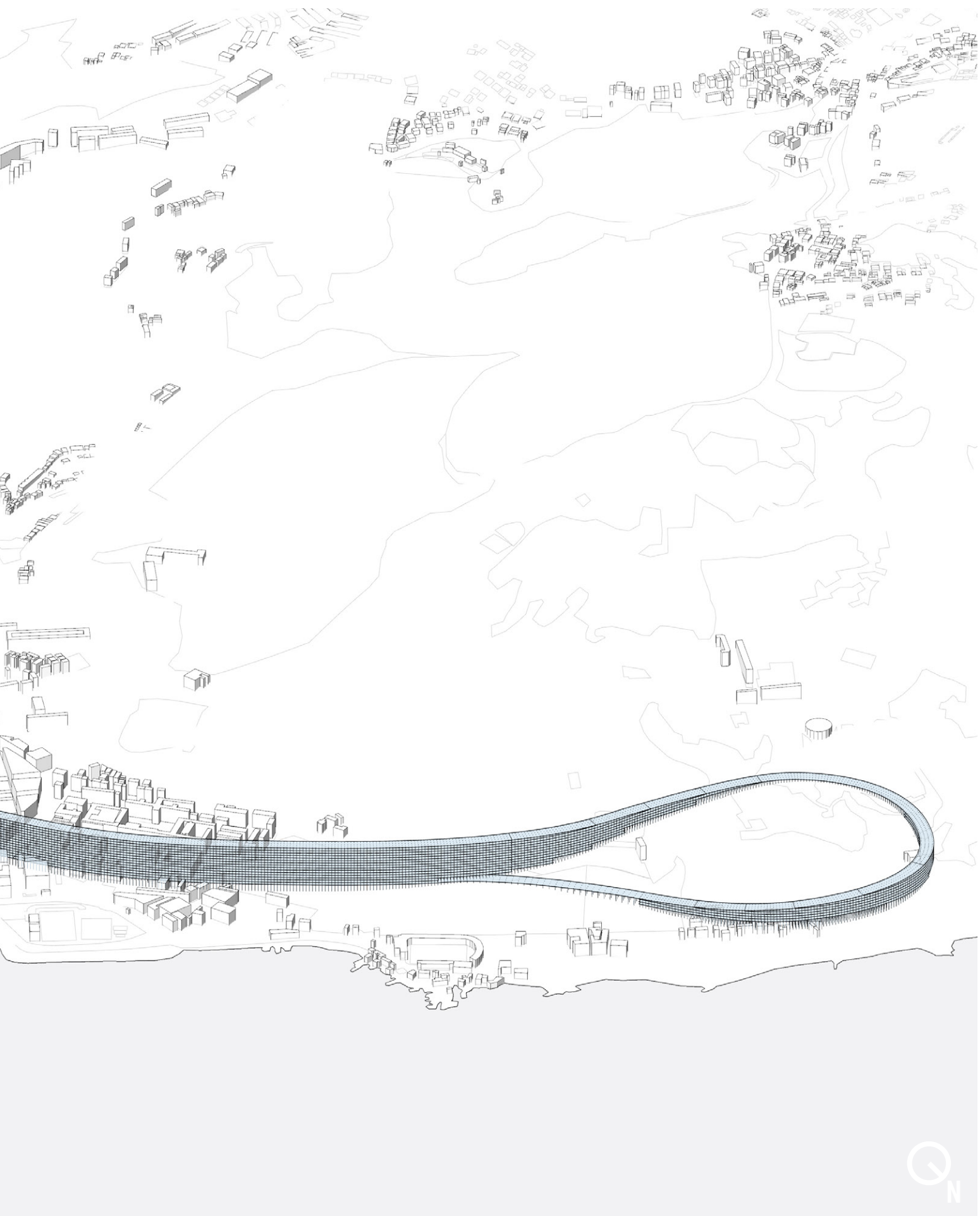








*Figure 10.3 Obus A Overview, Historic Core—Place Port Said to Bologhine*





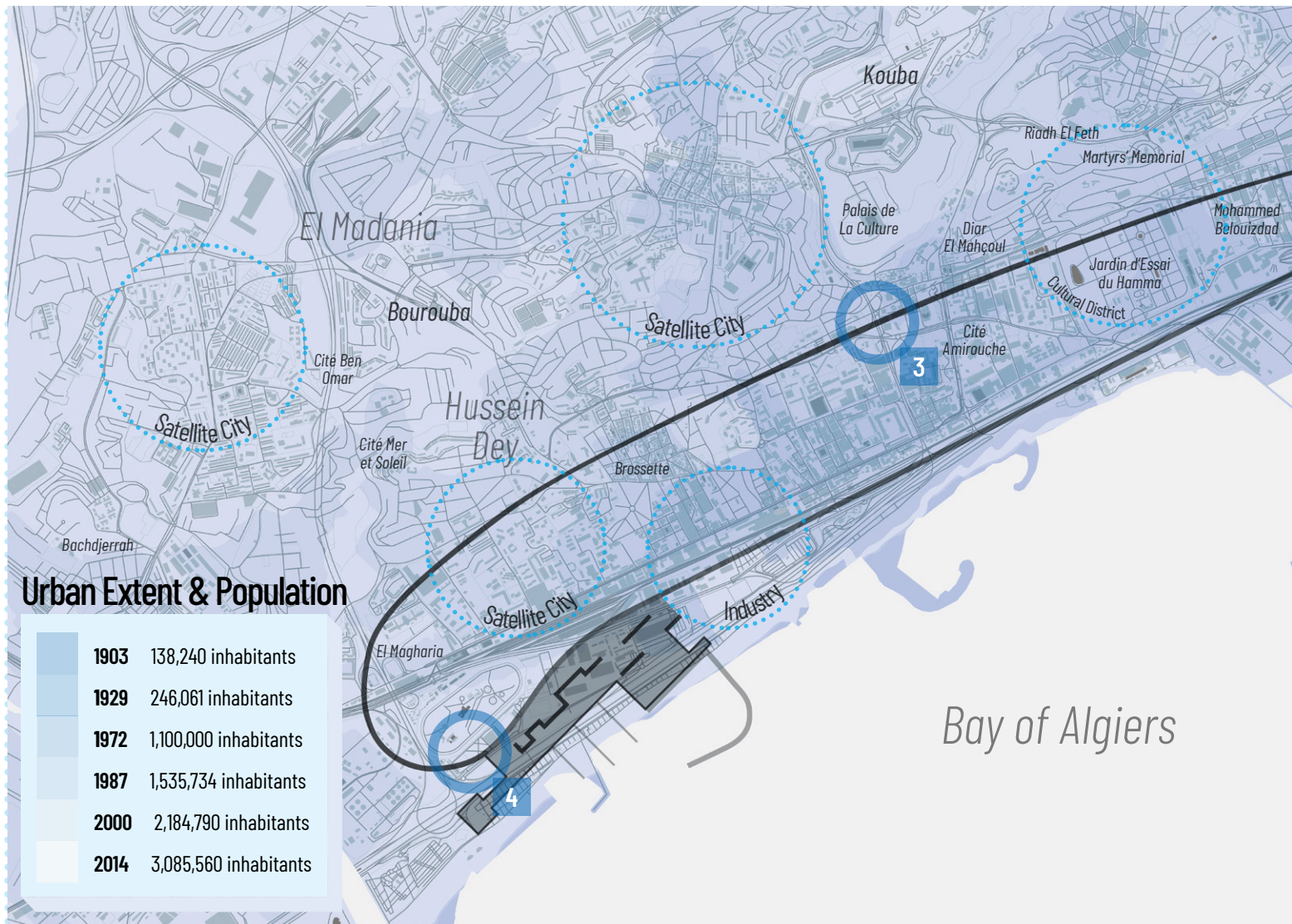
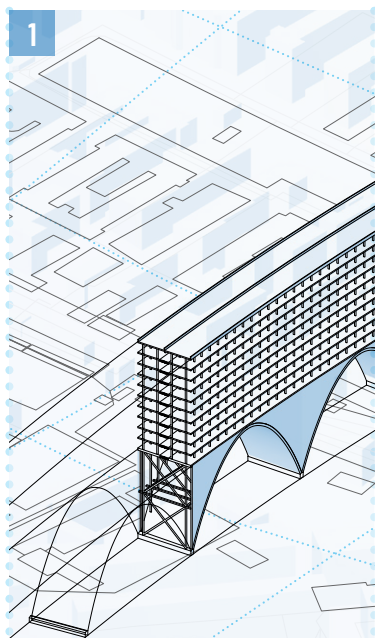


Figure 10.4 Plan of Algiers, 1:15000



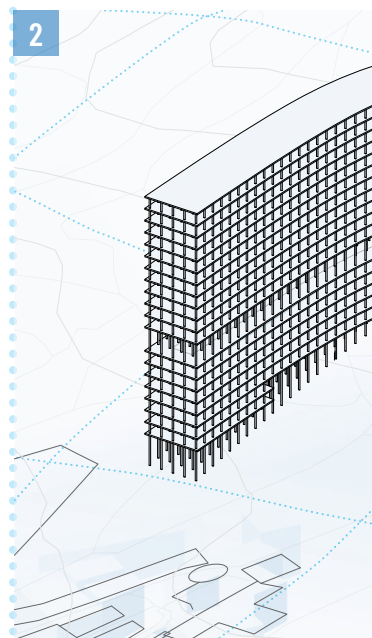
### Sidi M'Hamed

**Typology:** Viaduc Type 02  
(Arched supports)

**Era:** Stage 2

**Context:** This segment of the viaduc bridges a portion of the old European quarter beside the Civic Hospital (Hôpital Mustapha Pacha). The built context consists of dense European apartment blocks, and mixed residential and commercial uses.

**Population:** 67,873 (2008)<sup>1</sup>



### Les Tangarins

**Typology:** Redent

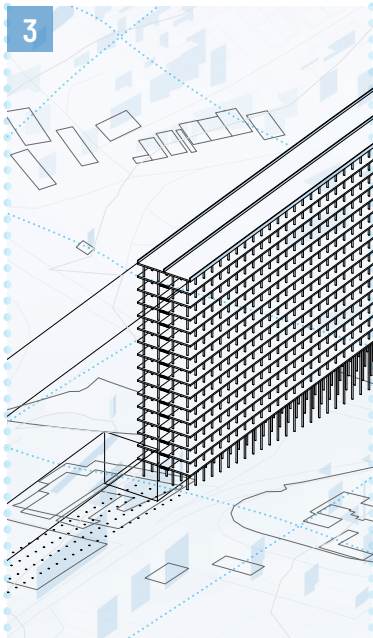
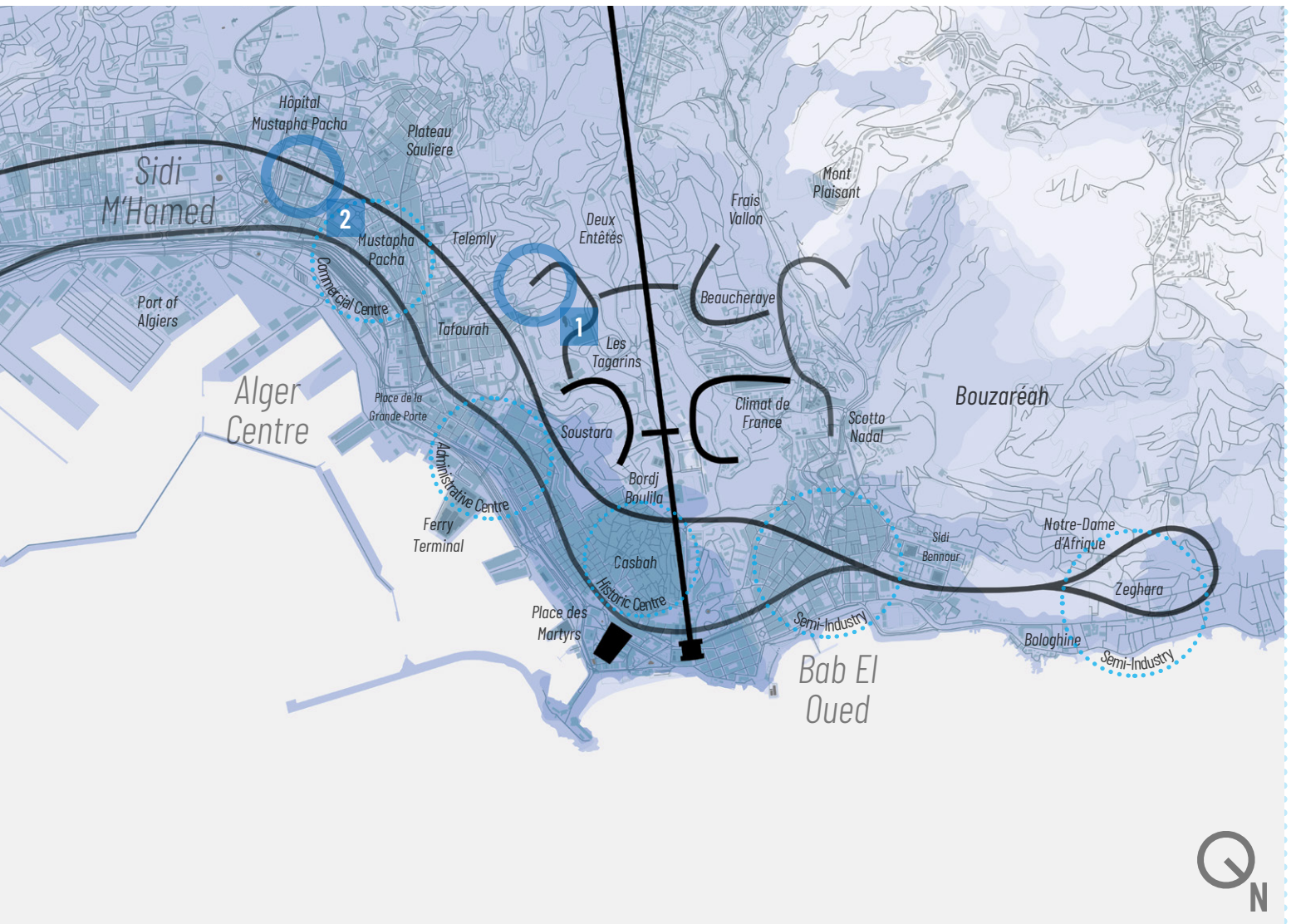
**Era:** Stage 2

**Context:** Above the city centre of Algiers, in a neighbourhood of detached residential villas dating from the colonial era, formerly home to the elites of the city. Beyond independence, this location has become home to several governmental agencies, becoming largely institutional.

**Population:** 75,541 (2008)<sup>1</sup>

Figure 10.5 Obus A Areas of Exploration





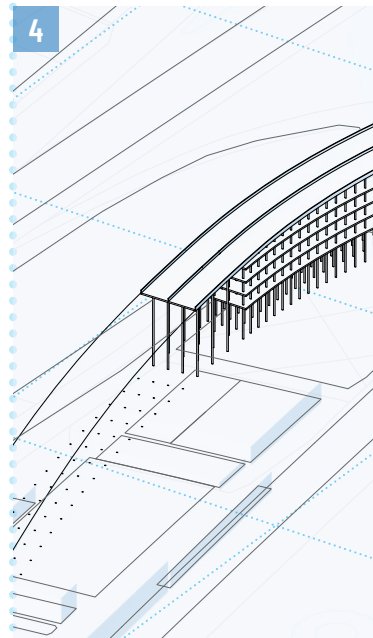
### 3 Hussein Dey

**Typology:** Viaduc Type 01 (Pilotis)

**Era:** Stage 3+

**Context:** The viaduc here bridges a valley and a major throughway. At the time of the *Plan Obus's* proposal, the area was lightly developed, while the context today comprises post-WWII detached housing and apartment blocks.

**Population:** 40,698 (2008)<sup>1</sup>



### 4 El Magharia

**Typology:** Viaduc Type 01 (Pilotis)

**Era:** Stage 3+

**Context:** Located just west of the Oued El Harrach River, wrapping around the Caroubier Hippodrome. The site is surrounded by fragmented industrial, utility, and recreational uses. Up to the 1950s, this space was largely countryside.

**Population:** 31,453 (2008)<sup>1</sup>

<sup>1</sup> Population résidente des ménages ordinaires et collectifs (MOC) selon la commune de résidence et le sexe et le taux d'accroissement annuel moyen (1998-2008). Office National des Statistiques, 2008. Accessed February 10, 2018 ([http://www.ons.dz/collections/w16\\_p1.pdf](http://www.ons.dz/collections/w16_p1.pdf))







# STORIES FROM THE OBUS







## I: Flight

Much like Melilla and Ceuta, Algiers is an enigma of a city, a small piece of European urbanity plucked from Metropolitan France and set onto the Maghrebi shores of North Africa. Two hundred years ago, it was an Islamic city, known by its inhabitants as *El-Djazair* after the rocky islands offshore. Then in 1830, it became a cherished French colony, and in 1962, it finally emerged as the Algerian metropole, violently shedding its French nature in lieu of an irredentist Algerian one, irrevocably changed.

Algiers is still a beautiful city, especially in its oldest parts. Nestled against the Sahel hills, the ancient Casbah cascades down towards a half-moon bay in blooms of white, a sight that has long captivated the eyes of its visitors—artists and orientalist alike.

“It’s so beautiful, a city of snow under dazzling light,” Guy de Maupassant wrote in 1881. In their tourist pamphlets and stories, the French administration thought as well, nicknaming Algiers ‘*Alger la blanche*’.

Of course, they also refused to live in the Casbah, instead erecting adjacent neighbourhoods successively fashioned after the latest architectural styles in France. Yet some of this ancient architectural language still carried forward, and even these neighbourhoods were still endowed with the subtleties and colors of the Casbah, no matter how vestigial it was.

And far from the shores of France and the inertia of tradition, Algiers also became a space for urban experimentation, which ultimately produced its greatest work, the *Plan Obus*.

Left: **Figure 11.2** 500 feet above the Bay of Algiers



Mr. A traveled the world, writing about megastructural projects, and he was now on a plane to Algiers to see the Obus for himself. In all honesty, he admitted he did not know much about the *Plan Obus* beyond its name and its association with Le Corbusier, yet it now fascinated him.

Acquiring the visa was an adventure in its own way, never mind the fact that the president had stepped down just weeks ago and that the city was now roiled by months of protests. Regardless, any second thoughts were too late. He was here now in the last week of May, 500 feet above the ground as the plane began its southern descent to the airport.

Drifting beneath the clouds, the Mediterranean shone a brilliant blue in the afternoon sunlight; a long, pale strip of white buzzed before his eyes as a brief signifier of land before dissolving into plumes of green.

White houses dotted the landscape, interspersed in the windrows and farmlands of the countryside and the black shimmer of freshly paved roadways. Here and there, grey blocks of unfinished apartments and the taupe of upturned dirt flickered into view, products of the city's ongoing expansion to the east.

He had hoped that the flight path would have taken him over the city, but it instead skirted through the eastern flanks of the city, far away from the centre.

No matter, the descent was enjoyable enough. The vibrant colours faded into a brown haze lining the horizon, and in the distance, two faint white figures appeared. The Casbah, and the Obus. The two glimmered for a brief moment, and then disappeared beneath the treeline as the wheels of the plane squealed against the tarmac.

This was Le Corbusier's largest visionary project, a complex that housed nearly half a million, a singular experimental form that allowed citizens to build their homes within its floors, and a predecessor to the myriad megastructural projects that had followed it; yet it was always heard in passing throughout the journals and encyclopedias, as if the architectural community had never truly known about it.

Perhaps it was too inconveniently located to be mobbed by tourists, and perhaps it wasn't Le Corbusian enough, with a revolving door of architects successively leaving their mark on its plans over the years of its construction. It was a project that, at times, seemed too strange to have been built.

But the Obus existed, and was there in the distance, hovering over a bipolaric city.



From the Martyr's Monument in El Madania at dusk: A floating river of light, delicate like the melodies the Ottoman flutists would play as the long-lost gates of the Casbah shut for the night.

## Into the Heart of the City

The Obus has always been one of the few main routes into the city centre, and it regularly ground to a halt during the morning and evening rush hours, having borne out its capacity as the city swelled over the decades.

The cab ride into the city went as expected in a city choked with traffic. There had been a collision running westbound, and traffic was at a standstill. The taxi driver was phlegmatic and spoke little beyond his complaints about the traffic and the ongoing protests.

Mr. A resigned himself to taking in what sights he could see from the cab. Red and white lights packed the Obus, flickering across the arc of the bay. The bulk of the Obus comprised of the *viaduc*, a 28 kilometer-long inhabited highway that had been built in fits during the last decades of French Algeria. The *viaduc* ran parallel to the coastline before sweeping north around the Sahel hills, framing the Bay of Algiers.

In the distance, the *redents* rose above the hills of the city, curving forms compressed into a glistering mass of darkness; whether mockingly or objectively, it was known as the ‘*Tiara of Algiers*’. The evening light grazed the top of the *redents*, casting long shadows over the city. Finally, a thirty-storey office tower—the *Édifice Boumédiène*—stood alone on the waterfront, connected only to the rest of the complex by a massive tensile bridge. Seamlessly clad in glass, it glowed from the refracted light, a beacon standing out in the twilight.

Even afar, the Obus was everywhere. The closer downtown they got, the closer the Obus drew, until it was literally upon them when the cab arrived at the Hotel Kader an hour late.

Left: **Figure 11.3** Dusk view of Obus, at the Cemtière Chretien, El Madania  
Next page: **Figure 11.4** The Hotel Kader in Mustapha













## II: Telemly

The *viaduc* runs south of Telemly in an orderly manner, buffered by a strip of greenery snipped out of the neighbourhood. It was parkland underneath as well, wide spaces set aside for some nebulous recreational uses. Great parabolic arches leap from street to street, while the viaduc carries itself over these points of juncture, oblivious to the city below.

Telemly is a hillside carved into a French city, winding roads framed with grand fin-de-siecle blocks from top to bottom. Beneath the hills, the roads straighten out; the city fanning into a gridiron stamped onto the shoreline. This was different from the Casbah, bigger, wider, and imbued with the genetic material of the straight rule. It had long been the home of the upwardly mobile in Algiers, where the European power brokers and elites of the city would descend from their villas and air-conditioned apartments to conduct their business below in the city.

It was quieter this month during Ramadan, but the streets still bustled with activity and heavy traffic. Algiers is a fairly singular city, largely unexposed to tourism like many others in the region. The cafes and stores, though made shabbier by years of economic malaise, were still busy at this time and a din of French and Arabic filled the air. Above, great chunks of plaster hung loose on the Haussmannian facades, and laundry billowed off crumbling balconies, eliciting a strange, familiar feeling—a space still trapped in time.

Perhaps it never escaped the legacy of the French—a handed-down suit that never fit perfectly—or perhaps society was still exhausted by the years of unrest; regardless, it felt as if the city held its breath, awaiting what would happen next.

Left: **Figure 11.5** *Telemly and the Bay of Algiers*  
Next page: **Figure 11.6** *Sidi M'Hamed at street level*













## The Engine of Inhabitation

The Place des Martyrs was dusted with a smattering of tourists and locals that morning. There had been rumors of a protest occurring here, but the protesters had instead congregated at the Grande Poste further south. Mr A. had met up with Mme. B, who had offered to take him on a tour of the *redents*.

Taking the elevator up the Édifice Boumédiène, the rooftop and the bridge connecting the office tower function as a 160-meter-high artificial promontory. This bridge is directly connected to the *redents*, offering a popular public promenade and spectacular views of the surroundings. As Le Corbusier saw it, Algiers is a city of horizons, and the views from the bridge transform the city into great panoramic canvases of city, mountain, sea, and air.

Mme. B. had come down from Marseilles, tracing her own path and documenting her father's past—she had explained that her father was once in the employ of Le Corbusier as a draftsman. Despite Le Corbusier's assertions of the Obus's endless variable adaptivity, he had perhaps felt compelled to design some segments, as if to demonstrate to the government and the citizens the correct way to fill it.

These were the oldest parts of the *Plan Obus*, built and filled under the direction of Le Corbusier. With the wide concrete plates offering endless opportunities, any owner could build whatever style of housing that they wished- be in a modern maisonette in the *Style Corbu* (highly encouraged by Le Corbusier himself), a Renaissance palazzo, or a Moorish-style villa. It was a project designed to bring the cultures of the city together in a collective act of creation, befitting of Le Corbusier's vision of Algiers as the juncture of east and west.

Left: **Figure 11.7** *The Édifice Boumédiène and the Casbah*





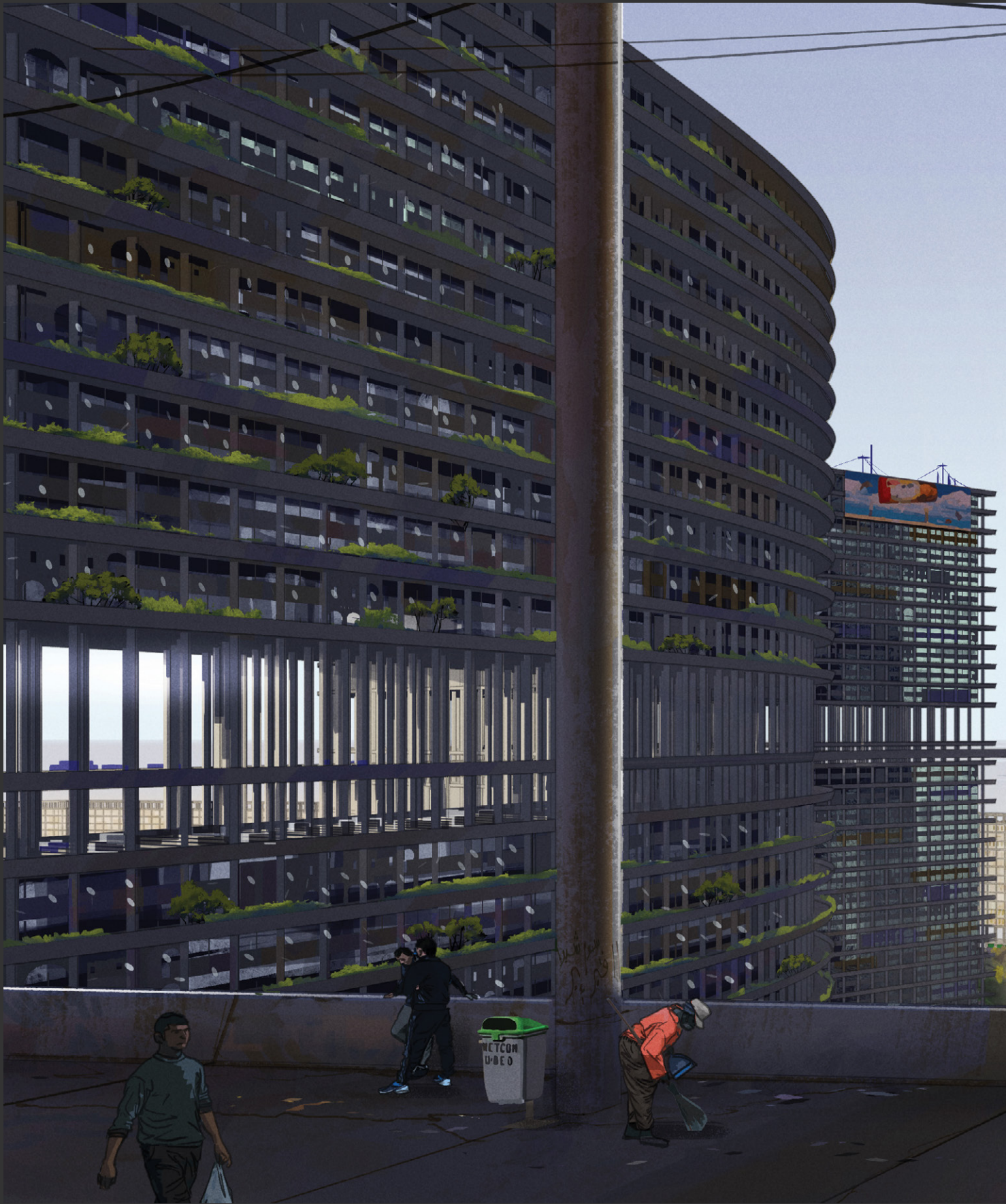
Mme. B. and her father had occupied a comfortable unit in *Les Jardins de Tamaris*, the official name of the northernmost *redent*—there was something mildly amusing about the florid systems of nomenclature the French had utilized in naming their neighbourhoods, now applied to the massive Obus.

Towering over the city on the heights of Fort L'Empereur (now the Bordj Moulay Hassan), the lushly planted *redents* dominated the city—a new Hanging Gardens for the professionals and upper classes. These were the first stages of the Obus to be built, perhaps anchored by the need to convince the elite classes of the project's merit. In the *redents*, there were the cafes and the dance halls, the air-conditioned theatres and the boutique shops, the extensive country trails and pastoral settings created by emptying the entire hilltop of its prior residents.

It was a life transplanted from France, one that rarely involved the native populace, who themselves lived out their own separate lives in a parallel world. The new post-independence elites saw the attraction in such a life, and so this arrangement remained largely intact for many years after 1962, with only the minor addition of servants who built their homes between the concrete legs—those living above didn't mind too much—as long as the huts didn't get in the way of the view.

Left: **Figure 11.8** *A Redent at dawn*  
Next page: **Figure 11.9** *Les Jardins de Tamaris Midlevel walkways*









SMART LINE  
4G  
3G+  
2G+  
FORFAIT LINE ILLIMITÉ  
EDITION SPECIALE DIEZBY  
A 3990 DA  
Orange Maroc Pixi

Real Madrid  
مشغولوا تجربو لرياض  
ريال مدريد





## The Casbah

Beneath the Obus lies the ancient Casbah, a space where the courtyard house rules supreme. A three-story whitewashed masonry form, it is typically graced with a colonnaded courtyard in the middle and terraces on the roof. Conforming to the terrain and packed together into a continuous form, it has been carefully tuned over the centuries according to ancient Islamic social customs.

The squares, narrow streets and steep stairways were where men conducted their business; the courtyards, the upper floors, and the roofs—away from prying eyes—were the domain of the women.

Yet the Obus looms voyeuristically. From the corner of your eye, you could always see it—a corner of the *viaduc*, the edge of the *redents*, it seemed to always be there above the Casbah. Le Corbusier had made clear references to the feminine in his notes on his Algerian trips, and the Obus is unapologetic in its presence above these ancient quarters.

When the construction of the Obus arrived at the ancient heart of Algiers, the form was crudely carved through the urban fabric, the product of forced evictions and unsanctioned demolition. It had been easier getting the French out of their homes as they had been promised compensation and housing in the Obus itself; but here, the inhabitants rejected the offer. Even if the Casbah was crumbling, it was their own space.

*Left: Figure 11.10 A Casbah alleyway in the morning*





The city of Algiers spread beyond the eyes of the beholder, a cascade of rooftops, sights, and sounds. In the distance, the swooping forms of the Martyrs' Memorial and beyond that, the pinprick of the new Djamaa el Djazair. Further still, the Atlas Mountains, and like a thread connecting all, the Obus.

The projects to renovate the Casbah have always inevitably devolved into handwringing over the immense scale of the work necessary to even halt the decline, and the lack of political commitment needed to untangle its Gordian-esque problems has held off firm action. A plan to invite a prominent French architect to lead renovations had already fallen through the year prior, with some offended by the symbolic act of inviting the French to save their country's namesake.

And so the Casbah continues to decay silently.

Poor, overcrowded and under-maintained, not a single property transaction has occurred in the Casbah for forty years and many of its buildings' owners have abandoned their properties. Nearly a third of its buildings are in ruins, and in the streets, children play beneath a spiderweb of trusses that hold up the remnants of their neighbourhood. The continuous whitewashed walls are punctuated by ruins, great overgrown holes indicating where buildings have crumbled, exposing ruinous brick interiors and the remains of elegant courtyards.

Yet from above, the magic of the Casbah comes to life, living up to its reputation. From every rooftop, there is a view of the sea, and the sights and sounds envelop you, the from the faint calls of the seagulls, the hum of the traffic, and the call to prayers that echo across the rooftops. The Casbah is truly the great amphitheatre some claimed it to be, and from its rooftops, the city becomes the stage.

*Left: Figure 11.11 Casbah rooftops at noon*





## Shadows and Light

From the south, the Obus forms a prominent landmark in Algiers, a white glowing line that welcomes any travelers from the south. But to the north, the shadows cast by the Obus fall on different parts of the city at different times of day, a great unwanted sundial that draped its surroundings in a blanket of darkness.

In the morning, the shadows snake their way up the hillsides of the city, and in midday, perpetually shade the districts to the north that had the misfortune of being on the wrong side of the *viaduc*. Occasionally, a square of light appears in the shadows, a moment of sunlight that has made its way through an unfilled gap in the building.

Above the city, the natural landscape between the *redents* is in a perpetual shadow play; dramatic sweeps of light and darkness cast by their vast curving forms.

Finally, in the evening, a particular phenomenon can be regularly observed by the keen-eyed. If one was to stand on the hills above Hamma about half an hour before twilight, the Old European neighbourhoods of central Algiers and the Casbah begin to twinkle in the evening shadows beneath the *viaduc* and *redents*, falling into the night earlier before the rest of the city.

Left: **Figure 11.12** *Viaduc portal at the Rue Didouche Mourad*





On the overcast days, the clouds that descended from the hilltops were trapped between the redents, creating a great bowl of fog that spilled over into the city.

## The Wall

The *Plan Obus* has had as many names as the governments that ruled Algeria. Take, for instance, the *viaduc*.

The French had known it colloquially as the *Immeuble-Pont*, while Boumédiène and the FLN had it renamed as the *Viaduc du 5 Juillet* in a nationalist fervor; but to the Algerians, it had been called ‘*Le Mur*’, or ‘The Wall’ for a long time—a moniker originating back to the War of Independence.

The post-war era in French Algeria was fraught with an unspoken tension between the Europeans and the Muslim populace. While there had been increasing unrest since the Second World War, by 1954 it reached Algier, perturbing its European citizens. What had once been a far-away problem that could be solved out of sight finally exploded onto their doorsteps in the form of open warfare; the noise and calls for revolt emanating from the Casbah and the *bidonvilles* dotting the city could no longer be hand-waved away.

Construction on the Obus had slowed by this point, but Le Corbusier still relayed his instructions by telegram—the project would continue as long as possible, using the plans and models that he had already sketched out during his time in Algiers. He promised that for the design of the public amenities, more detailed sets of plans would arrive.

In regards to the insurgency that now wracked the city, there was a simple solution. The *viaduc*, half-built as it was, would be pressed into service as a barricade and checkpoint. Crudely improvised into a makeshift palisade, the *viaduc* now served the role as a wall guarding the *redents* that the French government had retreated into.

Left: **Figure 11.13** Archive photograph, *Viaduc highway, 1960*





The wide-open gardens that Le Corbusier had envisioned disappeared into a warren of concrete block walls and checkpoints; from the deck of the highway, troops were ferried across the city, and searchlights were shone into the Casbah, scouring the city for militants as if it were a massive open-air prison. The French won the war, but French Algeria would only last until 1962.

Bloodied but finally free, Algeria would finally emerge independent under the FLN for the first time in 130 years. On July 5th, perhaps the most famous images emerged as Algerians celebrated their independence, as they took possession of the city, demolishing the barricades and riding triumphantly on the roadways of the Obus.

Mme. B. left Algiers for France a few months after Independence with her father, to live out her life in a land she had never known. During the next year, the FLN seized the business centre as its base of operations, and Algerians from the Casbah and countryside streamed into the *viaduc* and the *redents*, claiming the abandoned units as their own.

Of course, the long-awaited plans had never arrived—but by then, it hardly mattered anyway.

Left: **Figure 11.14** A Protest





## The Church

The Obus was a city into itself, and it contained a variety of local services for its internal population. Daycares, schools, community centres were easily slotted into the concrete floors. But as it had turned out, some services like hospitals, fire brigades and police stations had never been imagined by Le Corbusier in his original vision, or had been too difficult to fit into the structure, so they remained as external appendages to the main structure.

On the twentieth floor of the *Les Jardins de Tamaris*, the church of Saint-Vincent-de-Paul had been built into the upper floors of the *redent*. Cut out of a few floors, it is an interesting concrete affair, left empty in the years after 1962.

The church is usually closed and the hours unmarked, but if you call through the intercom, they will usually let you in. There, Mr. A encountered Mr. C, the old Muslim custodian who took care of the structure. There are few visitors, but Mr. C is a most kind and welcoming sort of person, happy to explain the history of the building and little details of the architecture to anyone willing to listen.

*Left: Figure 11.15 The Church of Saint-Vincent-de-Paul*





### III: Undefined Space

From Mohammed Belouizidad to the Hamma Botanical Gardens, the *viaduc* runs parallel alongside the Sahel hills, a replication of the topography and elevation. Beyond the gardens, the hills fall away and the *viaduc* stands freely, naked against the sky. Here, the *viaduc* is filled with rows of sober prefabricated units, designed to hastily address the housing shortages in the short years before 1962.

Defined by their long balconies, these sections became known as the ‘Balcony Cities’. It is by no accident that the Obus is a world visually defined by its external spaces—Le Corbusier had extolled their value in bringing light, air and views to the inhabitants, but these had been values perceived by an European gaze.

After the departure of the French, many of these spaces were filled in to create additional living spaces for their new Algerian inhabitants, and the excrescences and discoloration that have accumulated with time and neglect have softened the lines of the viaduc. Life in these spaces was less comfortable than in the original phases, but still better than the *bidonvilles*.

One balcony flourishes with plant life, another flutters with laundry. Some balconies are purely functional, adorned only by the wires and air-conditioners bolted to their facades; others have been intricately detailed and decorated by their owners over the years.

Emerging from the normalizing shell of modernism, life still flourishes in these spaces.

Left: **Figure 11.16** *Viaduc bisecting the Jardin d’Essai du Hamma*

Mr C had invited Mr. A to come into his apartment. Over the years, he had raised a family in this unit which had now dispersed around the world, and the apartment was now mostly empty. It was a well-kept space ten floors up, well-worn with time, but filled with the accumulations of life and kept immaculately clean.

Over tea, Mr. C noted that even though his apartment was still well-kept, not all areas of the *viaduc* were equally desirable—some segments were considerably upscale, while others became known for their crime and drug problems, uncontrollable fortresses that even the police rarely entered.

Throughout the *viaduc*, public space takes on a confused and fragmentary form, the result of its linear urban form being largely disconnected from the surroundings. The *viaduc* is subdivided into segments, with a superintendent in charge of each segment's upkeep. In the years beyond independence, the rules of use governing the structure have slowly loosened as an informal network of community leaders and religious sheiks have appeared, acting with varying levels of leeway as local organizers, planners and intermediaries between the government and the inhabitants.

Circulation throughout the Obus is often by foot, as few can access the overcrowded highway; and as the inhabited layers of the *viaduct* float above the city like a second layer, stairs and elevators form the *viaduc's* vital links to the rest of society, where porters deliver and move goods throughout the structure's three-dimensional, vertically stacked topography.

A ribbon of pedestrianized retail and community spaces was originally envisioned as the main public space for its inhabitants. But as retailers have migrated to other parts of the city, the strict horizontal delineation of use has dissolved. Today, only a few retail spaces remain,

serving the captive markets on the upper floors; the empty spaces are squatted in or re-purposed for religious or communal uses. To improve their financial situations, management has instead turned to mounting billboards and telecommunications arrays on the facade of the building.

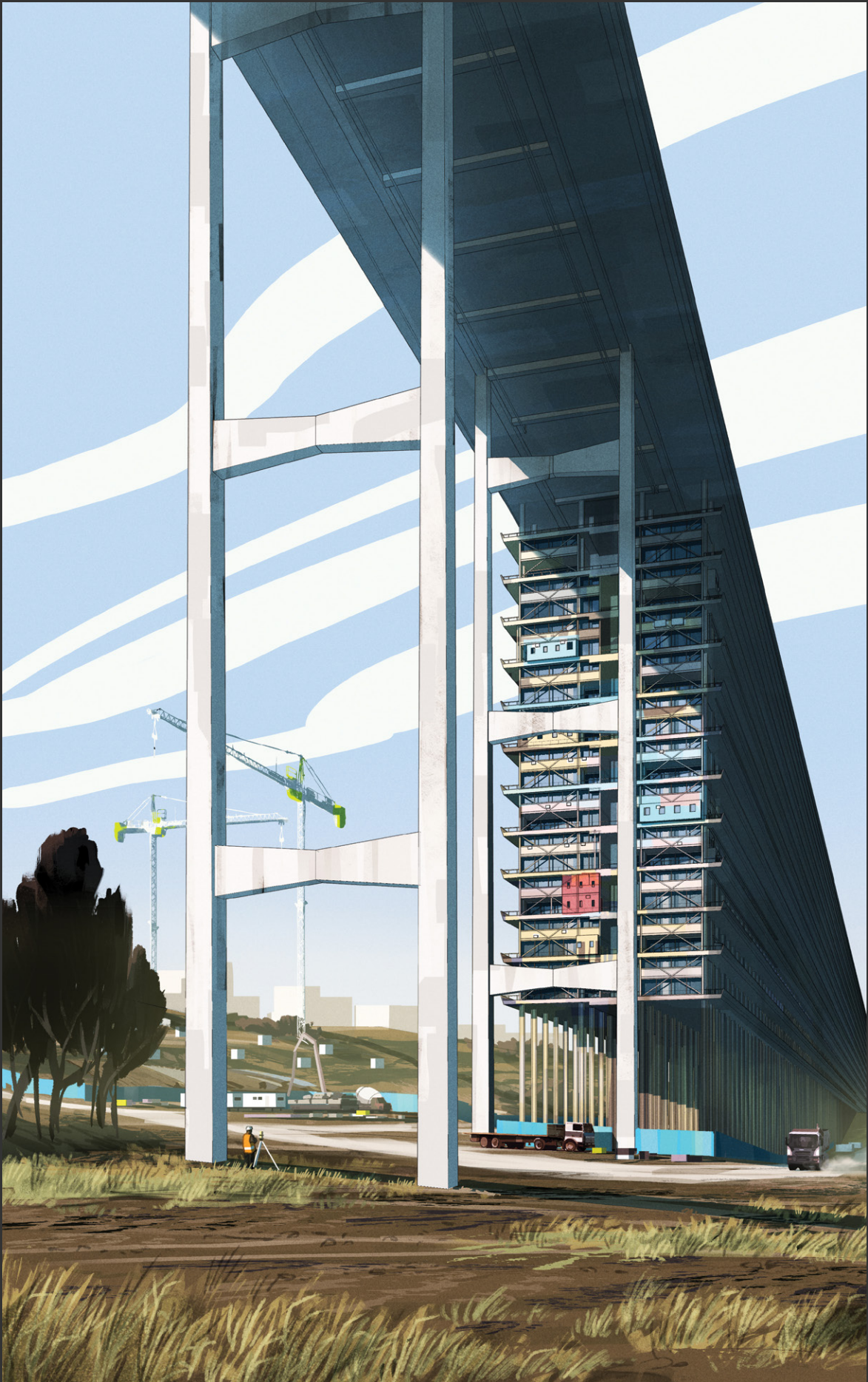
Elsewhere, concerns centred around the basic conditions of inhabitation. Throughout the Obus, utilities were built into conduits under the internal corridors, that were connected to the city below at regular lengths. In practice, it had been sufficient for the 100,000 that had moved in during the first phases, but aging and years of overcrowding and under-maintenance made the systems unreliable. Where they failed, their replacements appeared on the exterior, turning the Obus inside out.

In the upper floors, the sound of the rooftop highway was unavoidable, and as the traffic got worse, entire floors started rumbling, while a choking dust drifted down, coating everything inside and out. Life in the upper floors quickly became unbearable for many, and the spaces still command lower prices today, despite their views.

Yet in many residential floors, an outblossoming of public life now occurs in the corridors. Empty plots have become quasi-public spaces, where elders spend their days conversing while teenagers play football in cavernous concrete spaces. Small stalls have appeared, offering immediate services to surrounding residences, and some apartments even live double lives as commercial spaces.

Public life has thus appeared in the hallways, the stairs and the public levels of the Obus, inadvertently recreating the layered levels of privacy prevalent in the Casbah.





## Time and Change

Throughout the Obus, the uses and infill may vary, but two things usually remain the same—the concrete plate and the column. With a pill-shaped cross-section, the column becomes an everyday backdrop—bulging from partitions, lining walkways, or serving as a convenient surface for posters and advertisements.

Below, they transform into *pilotis*, forming a vast concrete forest. In some areas, accumulations of annexes have appeared under the *viaduc*, encasing the frame in tumid growths of concrete and glass.

Yet beyond the column and the slab, the Obus has also acquired new structural elements throughout the years. An earthquake thirty years ago caused segments of the highway deck to collapse—they were subsequently repaired and the entire *viaduc* structure reinforced in its problematic areas; steel struts now accompany the columns at regular intervals.

Meanwhile, a segment near the Pénétrante des Annassers was flattened by a bombing during the Civil War. While the highway was quickly rebuilt soon afterward, the underlying floors were never replaced. There—like a great ship beached at Alang—the structure is sliced clean, baring its innards for all to see.

Left: **Figure 11.17** Rebuilt viaduc near the new National Assembly site  
Next page: **Figure 11.18** View of the viaduc from the Sablettes Beach













## IV: At the Ends of the Obus

Further east near the Oued El Harrach River, the Obus changes once more. Above a suburban landscape, a sweep of rust-stained pillars and unfinished floorplates stud the skyline; a stark reminder of the end of French Algeria. A short distance west, the highway deck split off of its intended route, trailing off for some distance before reuniting with the ground.

Over time, the city has grown haphazardly around the frame; where the viaduc had been cut through the city in its older parts, here it preceded the city. The urban fabric in these parts is unevenly developed, a messy tangle of streets filled with suburban tract housing and the occasional housing estate.

Here, the viaduc has evolved in a way where nothing within its frame has anything in common. There are no rules here, and an informal streetscape has grown under, and into the structure. Any one of these inserted blocks could be removed without changing the sense of dislocation, and life here is as diverse as it is disparate.

One holds a shopping centre built into the underside of the structure, a favourite gathering spot for families during the weekend; a few floors above, a *bidonville* glows with its own rhythm within the bare concrete frame. In some areas, enterprising developers acquired entire sections of the viaduc structure and filled them up with squat commercial sheds and blocks of gaudily-coloured townhouses; others remain fallow, heaped with piles of overgrown debris.

Left: **Figure 11.19** *The end of the Obus, near the Caroubier Hippodrome*

In the anarchy of the nineties, the government had been preoccupied with its survival, ignoring the refugees streaming into Algiers, fleeing the terror stalking the countryside. Caught up in the perpetual housing crisis in the city, they sought shelter anywhere and anyway they could, filling up every remaining room in the city and spilling out into marginal lands. The unfinished bulk of the *viaduc* stood fenced off from the rest of the city, but eventually they broke through, scavenging materials and erecting shelters in the frame.

Dotted throughout the lower portions of the frame are various groupings of brick and sheet metal-faced shelters, a *bidonville* extruded into the sky. Tangles of wires and pipes hang across the frame, parasitically drawing water and power from the city below; even though they may be rough-hewn, nearly every one of the shelters is festooned with a satellite dish.

In the unfinished sections of the Obus, many floors remain open to the exterior, but where people have sought shelter, some have installed their own safety measures, erecting brick balconies against open edges and guardrails in the unfinished stairways. Life in the eastern parts of the Obus is defined by the structural deficiencies that come with an unfinished building, and even a small sense of ease only arrives out of a constant vigilance against the ubiquitous danger.

To describe these spaces as slums may be unfair. Throughout these areas, there might be what one could consider a reemergence of the medina house, structures are often built according to the immediate needs of its users. Each neighbourhood is often led by a local sheik who administers religious advice and mediates in dispute, and often each area is organized into nucleated settlements determined by the presence of stairways to the ground below.

Life in the *bidonvilles* is tough, but vibrant and self-organized. Throughout the building, a common process of growth can be seen in the trial-and-error processes of inhabitation that has formalized the collective knowledge of the self-built house with the emerging knowledge that comes from inhabiting the conditions in the *viaduc*.

If left alone, the shelters often grow plastered brick walls and framed windows, perhaps eventually emerging as stable, self-organizing neighbourhoods.

Ultimately, none of the spaces in the eastern portions of the *viaduc* interact with the others in any meaningful way—yet all are nevertheless sprinkled with the trappings of Algerian life: the local *epiceries* and the small restaurants that sell pizza or rotisserie chicken waiting for their customers; the flocks of unemployed young men who hang around the cafes that are wrapped between the pillars, where a perpetual haze of shisha hangs over the televisions screening football matches; the families walking home from the minibus stops; and the call of the peddler stands that occupy the spaces between the hoarding and the roads.

Whatever form it takes, life goes on beneath the skeleton of the Obus, and whatever this space has evolved into has little to do with what was originally planned, perhaps a reflection of the manner in which Algiers emerged from the civil war—a fragmented society still recomposing itself, held tenuously together by a faith in Algeria itself.





To understand the size of the Obus, one has to see it all at once, and what better way to do so than from the Bay of Algiers? The height of the *redents* is apparent and the Obus becomes clear, distangling itself from the city around it.

## V: Across the Mediterranean

A week had passed and Mr. A found himself on a ferry on its way to Europe. It had felt like he had been in Algiers forever, but it had rushed by in a flash. After a brief lull, protesters returned to the streets and called for a new civilian government and fair elections. Above, the hulk of the Obus stood indifferent to it all.

Mr. A looked over the railings, recollecting his memories of the voyage. He had somewhat expected to see a fully realized work of Le Corbusier, but to his disappointment and relief, the Obus was hardly that. True, there were some vestigial elements, but the Obus was a form that had fragmented with the city, refracting Algiers and the lives within it.

Here was a project that was strangely aloof from its surroundings, born out of a desire to transform Algiers from a colony into a French city; yet in the intervening years, the project remained stubbornly Algerian, battered by the events that swirled throughout Algiers—and finally retaken by the populace in the years after Algeria's tumultuous birth. Throughout its length, the sleek modern lines and ideas that Le Corbusier had conveyed in his initial visions disappeared beneath the bricolage of life; the Obus had grown beyond Le Corbusier.

The Obus is not always an easy place to live in and not everyone living in it knows of its architectural significance, but people made it their home, self-correcting the structure to the best of their abilities, and adapting it to their needs.



A goodbye to Algiers.

The building is still evolving even to this day, gaining new types of inhabitants. Around the Obus, communities of sub-Saharan migrants have found in it a temporary home, as they prepare for their next attempts to cross the Mediterranean. Elsewhere, the oldest portions nowadays are slowly being restored as short-term rentals advertising their Le Corbusian connections, and the Obus's appreciators are even calling for a UNESCO designation.

There are even architectural competitions envisioning fanciful new visions for the structure—harking back to the original visions that Le Corbusier had drawn for Algiers. But the only truly static element was its open frame, everything else was in flux.

From the deck of the ship, the entirety of the Bay of Algiers spread itself out to see. Buffeted by both the emerald hues of the hills and the brilliant blues of the sea and sky, the Obus appeared as a great line of mottled white, slowly becoming thinner and thinner, until it finally disappeared beneath the horizon. It is a line that spans the modern history of Algiers, and it is the city as well—*Alger la blanche, El-Djazair*.

Left: **Figure 11.21** *Sailing Out 2*  
Next page: **Figure 11.22** *Sailing Out 3*



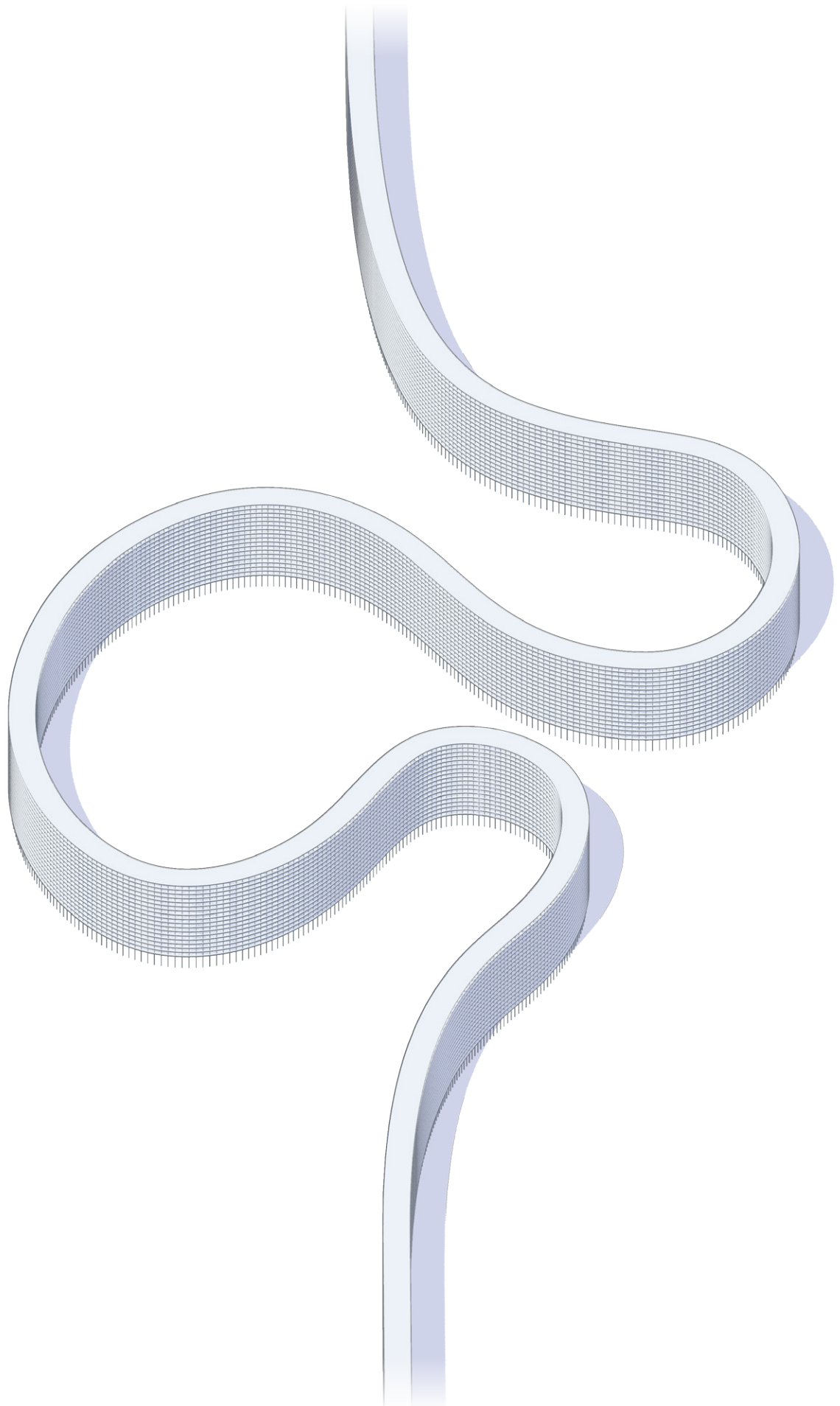




FIN







# 12 REFLECTING ON THE OBUS

*All buildings are predictions. All predictions are wrong. There's no escape from this grim syllogism, but it can be softened.*

- Stewart Brand <sup>1</sup>

Pondering on the process of discovery that led to the creation of this thesis, the initial intent of the thesis was to simply to explore the stark, human-less visions of megastructures and how people would have occupied these spaces. Yet, as the thesis developed, more topics emerged, and the final work sprawls across an entire city, heavily abbreviating the history of Algiers, the *Plan Obus*, and the processes that followed. Entire books could be written about each topic it briefly examines, and indeed many have—proving that there are still many compelling narratives to be discovered the deeper you dive into the minutiae of history and location.

Writing from the perspective of the transient outsider, the Obus was seen through a narrow pathway. Many what-ifs are left unexplored, and the topic is filled with plausibilities because of the qualitative aspect of inhabitation, where judgments are made according to the immediate needs and quantifying change is impossible. Yet from these brief moments of conjecture, it led me up a path of discovery in the way inhabitation shapes structures, and of the ways humans fill the spaces given to them. No matter where the architecture comes from, the oft-ignored process of inhabitation and appropriation are constantly occurring in all forms of architecture around us.

Though it may be tempting to imagine a utopian or dystopian future for a building like the *Plan Obus*, realities of built form are often more nuanced—many times, elements may still be utilized even if the rest has failed, while other elements can be tolerated despite not working as well as intended. Moralizing only flattens the possible stories within to win-lose conditions. As Marion von Osten writes in *In Colonial Modern Worlds*, even reflecting on colonial architecture's problematic past, the structures left behind still ultimately prove useful to the people who inhabit them, serving as a base for self-expression and proving that both colonial and post-colonial governments have failed to gain complete control over everyday life.<sup>2</sup>

1 Brand, Stewart. *How Buildings Learn: What Happens after They Re Built*. New York: Penguin Books; 1994.

2 Von Osten, Marion,. "In Colonial Modern Worlds". In: Osten M, Karakayali S, Avermaete T, eds. *Colonial Modern : Aesthetics of the Past, Rebellions for the Future*. London: Black Dog Pub; 2010: 33.





*Figure 12.2 Grundbau und Siedler in Hamburg, 2013*

*The specific idea (of the Yale studio) is to make an inhabited bridge, to propose a bridge over the East River of New York, where what carries the bridge is not going to be just steel and concrete, but it's actually going to be inhabited structures for apartments, spaces for living and working, maybe a little piece of park, a bicycle path.*

- Bjarke Ingels, 2012 <sup>4</sup>

To this end, I wonder if a plan like the *Plan Obus* may occur to this day. Even though it's a large project, it's not dauntingly so, and many ongoing megaprojects are comparable in scale. And if we dispose of the colonial mindset behind the *Plan Obus*, the idea of inhabited infrastructure even pops up from time to time in architectural theoretics (such as BIG's conceptual inhabited bridge <sup>3</sup>) proving the allure of the concept.

Meanwhile, the concept of user-driven infill still challenges architects to this day, as a process that occurs without the guidance of architects. The Next21 Building in Osaka was an attempt at harnessing this energy within a controlled environment, as was Anne-Julchen Bernhardt and Jörg Leiser's *Grundbau und Siedler* project—a tiny slice cut out of the Domino-frame of the *Plan Obus*. John Habraken and Yona Friedman still theorize about it, and the concept still appears occasionally in the architectural world, within the territory of the very same visionary projects and architectural competitions among which the *Plan Obus* is situated.

Regardless of the theoretics, I believe that architectural success arrives over time through inhabitation and subsequent adaptation (and re-adaptation). Despite their visual reassurances of durability, buildings are far less immutable than they seem, and they often get caught up in both their local and global contexts. Looking beyond the beautiful *moment-before-inhabitation* renderings and mega-scaled visionary images that the profession so often espouses while digging deeper into the manner in which architecture is used, inhabited, and reappropriated in the years beyond the periodicals, we may find opportunities to create architectures able to accommodate—and adapt—to the changes brought about by the processes of inhabitation.

2 "The Bridge", Bjarke Ingels Group. Accessed March 10, 2019. (<https://big.dk/#projects-bro>)

4 "Bjarke Ingels' BIG View of Architecture." CNN Transcripts. January 22, 2012. Accessed April 12, 2019. (<http://edition.cnn.com/TRANSCRIPTS/1201/22/nl.01.html>).





*Figure 12.3 Casbah Stairs, 2014*



# AN ARCHIVE OF ALGIERS



*Figure 12.4* View from top of Casbah, 2014



*Figure 12.5* Upper Casbah, 2014





*Figure 12.6 Casbah rooftops, 2017*



*Figure 12.7 Casbah rooftops, 2017*



*Figure 12.8 Courtyard House, 2007*





*Figure 12.9 Upper Casbah Streets, 2016*



*Figure 12.10 Casbah alleyway, 2006*



*Figure 12.11 Sea view of Central Algiers, 2012*





*Figure 12.12 Rue Larbi Ben M'hidi (Former Rue d'Isly), 2005*



*Figure 12.13 Cars mingling with pedestrians, 2018 (Video: <https://www.flickr.com/photos/chrishunkeler/40876454742/>)*





Figure 12.14 View down Boulevard Mohamed Khemisti, near former Government Palace, 2008



Figure 12.15 Stairs in Telemly, 2005





*Figure 12.16 Drive from Scala to Government Palace, 2014 (Video: <https://www.flickr.com/photos/lomaxe/14490767736>)*



*Figure 12.17 Panorama of El Kettar, near Climat de France, 2016*





**Figure 12.18** Soustara, 2014 (Video: <https://www.flickr.com/photos/lomaxe/14235276412/>)







*Figure 12.19* Telemly, 2019



*Figure 12.20* Panorama of Algiers from hills looking east, 2019





Figure 12.21 View from Poirson, El Biar, 2019







Figure 12.22 Diar El Mahçoul, 2015



Figure 12.24 Diar El Mahçoul, 2015





*Figure 12.25* Above the Oued El Harrach River looking west, 2019



*Figure 12.26* Cité Mer et Soleil, 2018



*Figure 12.27* Cité Amirouche, 2018



*Figure 12.28* El Magharia, 2015





*Figure 12.31 Mohamadia, near Djamaa el Djazaïr, 2019*



*Figure 12.30 Cité El-Harrach Mohammadia (Les Dunes), 2019*

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