Echoes of decolonization

From North Africa to Europe: questioning the trip back home

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thesis requirement for the degree of
Master of Architecture

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 final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

The Colonial Modern enterprise in North Africa produced unique architectural responses in the twentieth century. oscillating between rupture with the past and continuity of the tradition, negotiation of indigenous expression in the "Villes Nouvelles" and imposition of European forms of settlement. The colonial years thus led to the formation of new spatial imaginaries and novel aesthetics regimes in Morocco, most of them being experiments of European theories. The descriptive content relative to the latter portion of the narrative is abundant. Nevertheless, seldom has the subsequent era been studied as a catalyst for the dissemination of Modernity in Europe. This thesis builds a critical discourse on the available body of knowledge on colonial modernity, following the "travel back" forms and dynamics in the mid-twentieth century, in to order to unveil the role of North African colonial experience in the overall Modern Movement. The first level of investigation is an expansive literature review that has permitted a holistic understanding of the discourse and confirmed the rarity of scholarly knowledge on the echoes of decolonization from post-colonial Morocco to metropolitan France. The second is the study - through the in-depth analysis of ATBAT-Afrique's experience in both Morocco and France - of the vehicles of motion of Colonial Modern ideas and theories between both contexts, from 1951 on through the 1970s. Relying on new forms of evidence, this work thus sparks an interdisciplinary debate on the understanding of Colonial Modernism as a real-life experiment whose results are critical in piecing together the contemporary relationship of Europe to the non-European space; such space being present on European lands in the form of mass housing complexes originated in postwar French government-led programs, among others.

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As much as my passion and dedication to the issues I treated in my thesis sustained my drive throughout rough and uncertain times, this work would have been significantly different without the support and guidance I benefited from.

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Dedication

This thesis is dedicated to whoever believes in freedom and independence, just like my late great grandfather, Mohammed Boussetta Nait Bouaddi, who lost his life resisting French occupation. May he rest in peace.

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Prologue

"Through its urban ensemble, its monuments and its public spaces, the modern city of Rabat shows respect for and draws inspiration from, the earlier Arabo-Muslim heritage. It bears outstanding testimony to the diffusion of European ideas in the early 20th century, their adaptation to the Maghreb, and in return the influence of local, indigenous styles on architecture and decorative arts. The city constitutes an outstanding and fully realized example of modern town planning, for a 20th-century capital city, achieved by a functional territorial organization that incorporates the cultural values of the past in the modernist project. The synthesis of decorative, architectural and landscape elements, and the interplay between present and past, offer an outstanding and refined urban ensemble"

UNESCO Criterions ii and iv to which the Colonial Modern city of Rabat responds and following which it was recognized as a world heritage site preserved as a "Modern capital and historic city"



Figure 2 Map of Rabat, Morocco



The As-sunna Mosque esplanade



Mohamed V and Benabdallah parallel streets. Previously Republic and Dar El Makhzen streets.

- Bouregreg river
- Twentieth century urban fabric: Rabat's "Ville Nouvelle"
- Seventeeth century urban fabric: the Medina
- 3 Salé's Medina

In 2016, through the end of 2018, I worked as a lead tour quide for Rabat Salé Mémoire (RSM)1, a local NGO acting in my hometown Rabat, Morocco. I had just moved back from Italy where I had lived for a year. Living in the heart of Europe at the age of low-cost flights and "Hostel World" allowed me to extensively explore the continent and made me question my environment. The resulting inward journey lead me to get involved in the cultural activism and heritage conservation scene in Rabat. After my return, I hence joined RSM as a volunteer then was hired as a project coordinator. That was the start of a journey that allowed me to learn about the Colonial Modern³ experience in Morocco through archival research in preparation of guided tours and meetings

with local and international stakeholders.

I took a lot of pride in working for RSM. I regularly took scholars researching French colonial urbanism, or newcomers to Rabat on guided tours across the Colonial town (that is today the city center). I used to conclude the tour by reading the statement from the previous page as a means of materializing attendees' engagement with Rabat's cultural heritage and Colonial Modern experience. I liked to orchestrate the ending of the tour as a coup de theatre, a powerful finale that allowed participants to make sense, in an instant, of the material presented to them and the spaces experienced (fig. 2). Therefore, at the end of the tour, the participants found themselves facing the Avenue Mohamed V perspective - the main element of Prost's urban composition - an urban fabric emerging from the seventeenth-century Medina4 through the continuation of the two main streets into the Ville Nouvelle⁵ - standing on the Assunna mosque's esplanade⁶ and surrounded

¹ RSM is a Moroccan NGO focused on heritage conservation and cultural mediation in the Rabat-Salé region. More than guided tours for the public, architects, urbanists, and researchers, RSM organizes an influential conference series "Les Mardis du Patrimoine" (Heritage Tuesdays) and a yearly four-day cultural festival "Les Journées Du Patrimoine" (Heritage Days). http:// rabatsalememoire.com

² Hostel booking online platform

Colonial Modern is an idiom referring to the entire conjuncture in which the modernist project evolved. It is thence a broader and more expansive view on the question than the one offered by regular standpoints considering colonial modernism an enterprise of opposition between tradition/modern, civilized/uncivilized, indigenous habitat/modern dwellings, "Medina"/" Ville Nouvelle", ruler/powerless...etc. Referring to this temporality as a Colonial Modern one helps focus on the historical conjuncture of modernity and its internal critique rather than the usual perspective basing the colonial condition of modernity on the idea of duality.

⁴ Pre-colonial North African, Arab city. Lit. "city" in Arabic. With its mosaic of sinuous streets and traditional courtyard houses, it is the most widely spread form of settlement in the Arab world. Some of its characteristics are the chicane entrance and Moucharabieh windows to protect he privacy.

^{5 &}quot;Ville Nouvelle" (French) translates into « New City » and refers to European cities planned in Morocco in adjacent locations to the medinas between 1918 and 1928 by Michel Ecochard (in Casablanca) and Henry Prost (Rabat).

⁶ The As-Sunna mosque's is a public space bringing together physicalities from various time frames.

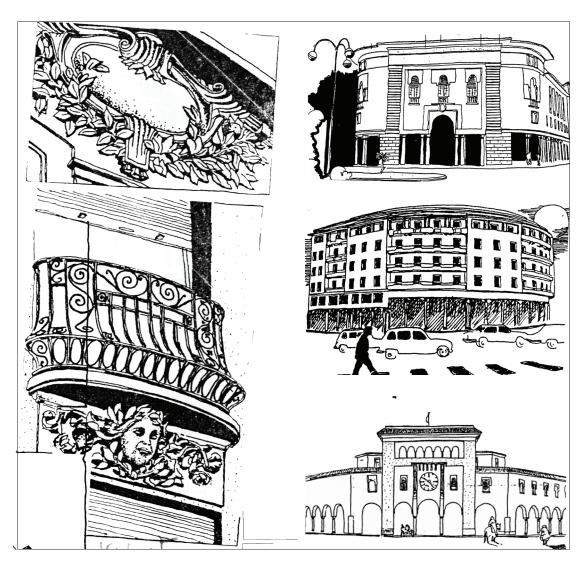


Figure 3 Hand sketches of Rabat by Résident-General Hubert Lyautey - *Source: Advisory board of Agence Urbaine de Rabat Salé. 2011. Patrimoine Architectural Du XXème Siècle De La Ville De Rabat: Lecture Retrospective & Analytique Du Bâti*

by Almohad city walls⁷. This esplanade offers a rare visual summary of Rabat's built environment history. Such an ending would surprise participants as they realize the relevance, in modernist culture, of the narrative behind the formation of Rabat as a fully realized example of French colonial spatial policies.

But the tour wasn't actually complete at that point. It continues in postwar era French suburbs. The Colonial Modern experience in North African colonies, and in Morocco, in particular, was upon its emergence disseminated worldwide and its teachings were brought back to the metropolis at the reconstruction and economic recovery era through various threads including architects who worked in both countries and used the North African experience in their subsequent designs. The outcomes of the colonial modern experience - in terms of impact on modernism8 and on the European space formation and understanding - were never brought up during the tours, nor were they discussed

7 Dating back to the eleventh century

during meetings with other volunteers. This lack of information sparked my interest and, five years after, I am researching the echoes of decolonization⁹ and question this "trip back home".

Retrieving data on the subject takes some perseverance. For example, the scholarly work on one of the most influential partnerships in the travel back of architectural theory from Morocco to France in the mid-twentieth century, Candilis-Woods-Josic, is limited to ten publications¹⁰. Furthermore, Candilis and Wood's archives remained sealed until respectively 1993 and 2005 and contain documents in multiple languages which makes their exploitation challenging. Nevertheless, texts on the colonial enterprise per se are available. They are certainly good indicators of the narrative but are either too descriptive to draw discursive conclusions from on the presumed boomerang or focus solely on the societal dynamics rather than the travel back and forth in the form of architecture. In that regard, Gwendolyn Wright is one of the first scholars I came across to have written a direct statement on the reverberation of ideas from the colonies, in the colonizers' land. Her claim sparked my curiosity even

⁸ Here referring to Wendy Pullan's definition: Modernism is rooted in the Great Lisbon earthquake of 1755, hence one of its foundational ideas is ordering chaos. Modern architectural thinking and practice are major enterprises producing an architecture without parameters in order to show control over a territory or a situation. See Pullan, Wendy. 2013. "Locating Urban Conflicts: Ethnicity, Nationalism, Everyday Life." In , edited by Britt Baillie, 1-12. Basingstoke and New York: Palgrave Macmillan.

⁹ Here referring to the end of formal colonial domination often following the seizure of armed conflicts and confrontations in a colonial context.

^{10 &}quot;An Alternative to functionalism" by Monique Eleb, "The theme of Habitat" by Jean-Louis Cohen, and a publication about the Berlin Free University by Alex Tzonis and Liane Lefevre.

more: "colonial cities did not provide a truly significant model or even a much-needed incitement for replanning cities at home" (Wright 1991).

I believe questioning colonization in North Africa, and by extension all over the world, is important work to be done in a cross-disciplinary fashion and where architects have a paramount role to play. Using retrospection, shedding new light on old theories and practices, and viewing last century's events and architectural manifestation from different corners are all ways to create a non-western scholarship on a topic long stuck in a deeply asymmetrical, now-anachronic situation.

Introduction

"We reckon the buildings in Morocco are the most successful [modern expression] since Marseille's Unité d'Habitation".

Alison and Peter Smithson, 1991.

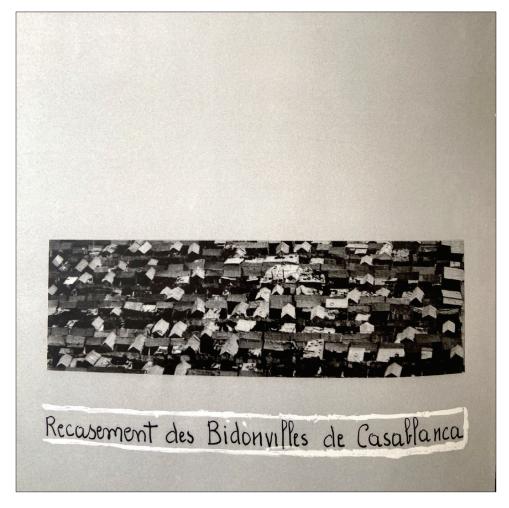


Figure 4 Cover page of the study on Casablanca's informal settlements by the "Service de l'urbanisme", directed by Ecochard - *retreived in "Resettlement of the Casablanca bidonvilles, Plans and studies by the Service de l"Urbanisme". Casablanca, 1950-1953.*

Introducing the research territory

The existing reciprocal relationships between the Franco-Moroccan colonial enterprise and the postwar development of architectural and urban practices in France hold important teachings. The study of such temporality offers valuable indicators to understand the modernist culture in the second half of the twentieth century. Colonization created a unique situation that produced a major epistemological shift in postwar modern architecture. Such a change is rooted in the alienating character of colonial contexts. Hence, all participating actors in the Franco-Moroccan colonial enterprise experienced a certain level of depersonalization subsequent to their dislocation. Foreign planners, administrators, architects, and other settlers were in a state of cultural and geographical alienation. Besides, locals experience a lack of social recognition which resulted in similar outcomes. These circumstances created a new semantic and semiotic condition where the interplay between physical and social worlds is viewed differently, thus stimulating the creation of new knowledge through a thoughtful process where ideas are not passively accepted but scrutinized and negotiated before being adopted (Avermaete, Karakayali, and Von. Osten 2010).

This thesis scrutinizes the resulting process of evolution and modification of modernist thought in the built environment

by questioning the "trip back home" or the "travel back" subsequent to decolonization. The "trip back home" or "travel back" refer to the postwar South-North motion that participated in the importation of the colonial context from Morocco into mainland France. Such a phenomenon happened while both countries were in great upheaval: from the anti-colonial riots and the aftermaths of unprecedented world wars to the rise of industrial capitalism.

Moroccan decolonization was initiated in the early 1950s by anticolonial movements (that rose mostly in Casablanca's shantytowns) whose goal was to free the country from the yoke of colonialism. These initiatives, while strongly repressed by the colonial administration, lead to the end of the colonization era in 1956. The travel back of ideas and theories developed in Morocco hence occurred in an uneasy state of tension. In that regard, decolonization acted as a modern force whose cultural, scientific, and industrial effects shaped not only the colonies but the colonizer as well (Clifford 1997).

Establishing the "niche"

The reciprocity of European expansionism and its role in the formation of modernity have only been accounted for in a piecemeal way, seldom fully researched, and often discounted when mentioned (Crinson 2003). The dynamics of the travel back of colonial knowledge and its evolution

in postwar France (leaving a major footprint on low-rent housing statal policies and projects) thus remains relatively lightly documented (Avermaete, Karakayali, and Von. Osten 2010). Another seldom invoked part of the narrative is the origin of the new reality-based modernity challenging the anterior absolute character architectural knowledge by considering local lifestyles. Such novel directions introduced the notion of the relativity of space and its continuous development as a basis for design. They introduced infill and appropriation as a new subject for modernity first experimented in Casablança's Carrière Central between 1951 and 1953. However, these ideas are now linked, in most scholarly resources, to the era of pragmatism the followed the end of the world wars rather than to the "Greatest *Number*" (GN in the text) theory or the control of domesticity paradigm, both originating in the Moroccan project previously mentioned. The change is even referred to as a "revolutionary shift in scale" within the framework of the postwar economic recovery (Lesnikowski and Patrice. Goulet. 1990) with no mention of the colonial background of the said "revolutionary shift in scale".

Nonetheless, in recent years, some initiatives appear to gradually

show interest in this "other modernity" 2, recognizing the role of the North African experience. For instance, the Canadian Centre for Architecture leads two important research projects on colonial modernity in different parts of the world. In 2013-2014, the study "Casablanca Chandigarh: A Report on Modernization" (fig. 5) that culminated in an exhibition and a book of the same title, explored the dynamics of modern planning in the mid-twentieth century in various colonized territories: Morocco, India, Guatemala, and Indochina. In 2018, an interdisciplinary study on post-independence African architecture was lead in order to shed light on some of the paradoxical relations typical of colonial modernity. One of the goals of the study was the untangling of the multiple dualities of colonial modernity, from formal and informal, appropriated and

The Greatest Number refers to Habitat for the Greatest Number (Habitat pour le plus grand nombre). It's a Slogan created by Michel Ecochard after the sudden demographic boom of the 1940s in Casablanca when thousands of newcomers (both European settlers and Moroccans from rural areas) were in need of lodging. The "habitat" referred to here is often cheap and ethnically segregated. "Habitat for the Greatest Number" received in 1952 a significant acknowledgment of its importance and innovative character from the United Nations Economic and Social Council and was the title of the CIAM presentation of 1953 by GAMMA (Groupe des Architectes Modernes Marocains).

The expression "other modernity" is used by Tom Avermaete at multiple occasions, especially in his essay Nomadic Experts and Travelling Perspectives: Colonial Modernity and the Epistemological Shift in Modern Architecture Culture.







Figure 5 Images from the exhibition "Casablanca Chandigarh: A Report on Modernization - How architects, experts, politicians, international agencies and citizens negotiate modern planning; in the Center for Canadian Architecture, Montreal, 2014 - *Source: https://www.cca.qc.ca/en/events/34438/casablanca-chandigarh-a-report-on-modernization*

expropriated, and modern and traditional (CCA 2014). "Centering Africa: Postcolonial Perspectives on Architecture", as the project was named, is a notable attempt to contextualize African architecture in the North/South division and a promising start of a growing interest in past forms of architectural expression in a continent often overlooked in architectural theory.

Occupying the "niche"

If colonial modernity played a paramount role in building spatial concepts in response to the modernization and industrialization reality of postwar Europe, it was particularly crucial to France during the "Trente Glorieuses"³. The North African colonies were major contributors in this 1945-1975 period by supplying blue and white-collar workforce thus participating in France's nation-building. This work tracks Colonial Modern North African features in postwar French architecture - particularly in mass housing complexes in French Banlieues⁴ - then explores the means,

shapes, and forms the travel back took, the goal being showing how colonial experience in Morocco was echoed back in the metropole.

In the first chapter, I explain - against a background of strategic postwar literature - the ambition and the necessity to create a novel, non-western body of knowledge on colonial theory in architecture. The second chapter outlines the forms the travel back took, their spatial translations, relating the argument to the global historic context and introducing the role played by one of the main actors of the conversation, the ATBAT-Afrique design office: the African section of Le Corbusier's Atelier des Bâtisseurs (the same design office in charge of Marseille's Unité d'habitation). The third chapter of the investigation follows the work of ATBAT-Afrique in their three-year-long, crucial Moroccan journey. Through this study, I scrutinize the evolution of theories developed and applied to housing in colonial Morocco then in postwar France.

The concluding chapter constitutes an opening towards the postcolonial situation. Despite a rich philosophical background on the other and the -same interplay, French society seems to struggle to embrace its cosmopolitanism and the

houses with gardens on the English model. Today it refers to the uneasy parts of a French city - outside the said city, or "extra-muros" - where immigrants are accommodated in HLM buildings. In France, banlieues are infamous and are viewed as the terrifying forests that surrounded Paris in the Middle Ages

In France, the postwar period of thirty years (1945-1975) of exceptional economic and industrial growth that fueled a population boom (exceptional population growth of 1% per year) and economic recovery from World War II. In order to sustain the overall industrialization and modernization scheme, both white-collar and blue-collar workers were brought from Southern Europe and the Maghreb (former North African colonies).

The word "banlieue" became widely used in the late nineteenth and early twentieth centuries to describe the areas outside Paris where city-dwellers settled and built

colonial situation is thus sustained in several capacities, making the photograph of one of the walls if Nanterre's low-rent housing buildings (fig. 1) still a relevant description of the postcolony⁵.

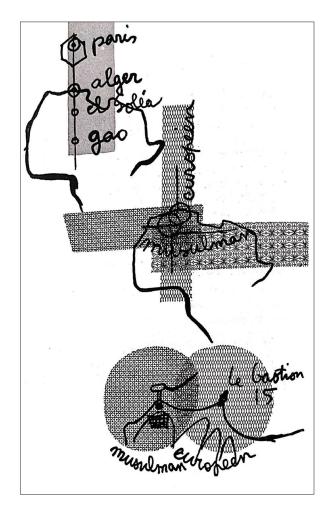


Figure 6 Le Corbusier's diagram representing the ideas flowing from the metropolis to the colonies - *Source: Le Corbusier, Poésie sur Alger, 1950.*

⁵ The postcolony refers to the temporality subsequent to a colonial reign when a shared future between the former ruler and ruled is built based on the shared past. It is a political construct proposed by Achille Mbembe claiming a postcolonial thought centered on the present.

Chapter 1:

The North African Colonial Modern experience in scholarship

"Together, "nomadic experts" and "travelling perspectives" illustrate that the history of modern architecture in the 1950s can no longer be thought of as intrinsically related to technical, social and cultural developments on the European and North American continents, as has so often been the case in the main histories of modern architecture"

Tom Avermaete, 2008, in "Nomadic Experts and Travelling Perspectives: Colonial Modernity and the epistemological Shift in Modern Architecture Culture.

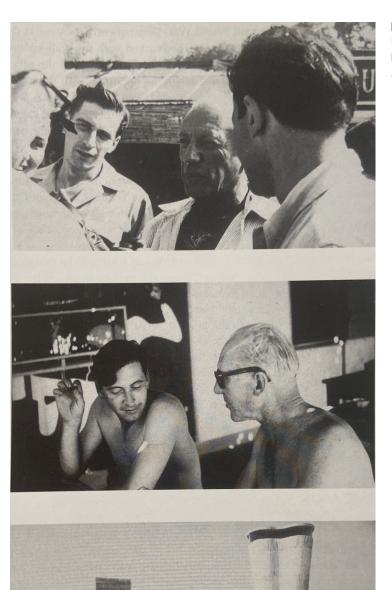


Figure 8 Le Corbusier, Shadrach Woods, Pablo Picasso, and Georges Candilis in Marseilles, early 1950s. *Retreived in IFA's archives (Institut Français d'Architecture).*

Figure 7 Shadrach Woods and Le Corbusier in Cap Martin, France, late 1950s. *Retreived in IFA's archives (Institut Français d'Architecture).*

Figure 9 Shadrach Woods, Victor Bodiansky, and Georges Candilis on the roof of the Unité d'Habitation in Marseilles, 1952. Retreived in IFA's archives (Institut Français d'Architecture).

Frantz Fanon's The Wretched Of The Earth, an early attempt to counteract the overwhelmingly European perspective on colonization, is a seminal work in colonial theory because it allows us to unpack our modernity. Heavily criticized at the time of its publication, its foreword by Sartre reinscribes the predominance of the colonizer's point of view. Sartre, instead of introducing the work, justifies some of Fanon's strong statements about violence or struggle for liberation, for instance. A more recent preface by Alice Cherki, in 2004, presents a new standpoint. Cherki distills the text to its essence and sees the book as a tool of denunciation of the inequality and depersonalization the "laissés pour compte" endure everyday, everywhere, not only in Fanon's colonial epoch, but in modern times as well. The evolution of the perception of Fanon's work rhymes with the evolution of scholarship around colonial modernity and colonization theory.

Having been immersed in a postcolonial situation in Morocco in the late 1990s and early 2000s, I often questioned both Moroccan and French take on the postcolonial situation. I have first been exclusively exposed to the French portion of the scholarship being a French speaker.

I have thus experienced the era preceding Cherki's analysis. The era when scholarship was strongly Europe-focused. When I gained access to the wider body of knowledge available in English, I gradually became aware of how hermetic to non-western inputs colonial modern theory can be. A first telling instance is the introductory paragraph of Crinson's "Modern Architecture and the End of Empire". Modernity is presented as having traveled from Europe to the USA to become known as "international" as a given; then condemns the lack of recognition of nonwestern actors². Western scholarship has long discounted the non-western contribution to the modern reality and this kind of implicit silencing of the North African part is recurrent in the early scholarship (dating back to the end of the twentieth century) and is currently (since the 2010s) being challenged. Projects like "Colonial Modern: Aesthetics of the past, Rebellion for the Future" that culminated in an influential book on the topic and an exhibition in Berlin's art institute "Haus der Kulturen der Welt" is an example of the work being done in the direction of global recognition (Avermaete, Karakayali, and Von. Osten 2010). This work follows the same direction and aims to augment the picture of colonial modern theory, bringing to light the implication of non-European spaces.

¹ Dénomination of the colonized by Frantz Fanon. Julien, Isaac., Mark Nash, Colin. Salmon, Al. Nedjari, Ana. Ramalho, John. Wilson, Stuart Hall, Françoise Vergès, and Frantz Fanon. Frantz Fanon Black Skin, White Mask . San Francisco, CA: California Newsreel [distributor], 1995.

² Except for some rare cases often pertaining to the critical regionalism discourse like it is the case for Geoffrey Bawa.

When it comes to colonial modernity and the way the decisive decades between 1950 and 1980 unfolded, claiming the absolute non-recognition of the colonial experience in building modernity is not accurate. In fact, there has always been a form of reference to the North African Colonial Modern experience. Nevertheless, it has often been partial and furtive. During the colonial years, most mentions of the colonial contribution to the modernist discourse praise the colonizer's initiative and ingenuity like in the following quote:



Figure 10 Official presentation of the first prize project for Toulouse Mayor in 1960. *Retreived in IFA's archives (Institut Français d'Architecture).*

"Morocco is now seen, through the effective collaboration of Marshal Lyautey³ and M Prost, as a masterly lesson, listened to and respected by all major nations... of the entire North Africa and perhaps of all colonies it is Morocco, which took the lead in the urbanism movement... It is through colonial urbanism that urbanism has penetrated into France."

Inaugural speech for the first International Congress on Urbanism in the Colonies, Paris, 1931

The issue in this example is the implicit non-recognition of non-western insight in the development of the modern theory of space, architecture, and cities. Hence, even when mentioned, seldom is the Moroccan contribution referred to in terms of recognition. Instead, it is mentioned as a support of the French colonial enterprise like in the inaugural speech for the first International Congress on Urbanism in the Colonies. In fact, while being the subject

³ French Protectorate Résident Général in Morocco from 1912 to 1925. Important figure in French colonial planning and innovation. He is particularly recognized for having conjured resources from the moment of his arrival in 1912 to build and enforce a 'duality within main Moroccan cities, one side focusing on the preservation of Moroccan 'heritage' and the other focusing on the acceleration of (French) modernity. Lyautey has an extensive military experience and has witnessed the failure of previous French colonial policies which inspired him to infuse a well-tempered modernity into this colony by preserving its social hierarchy while modernizing it in other ways. (Lyautey cited by Rabinow; p. 290) instead of relying on direct political action, which he found instills fatalism and prohibits progress in the direction he deemed desirable

of colonial modern projects, Moroccan elements are never considered as active contributors, nor do they appear in a European perspective as a subject in their own right (M Scherer 2008, 9). They are objects of studies often "cleared" from the picture both literally (in architectural photography) and in theory.

1 Tracking the symptoms

A myriad of "symptoms" of this silenced portion of history can be observed in the built environment, books, publications, and overall societal dynamics in both France and Morocco. The quest for such elements leads to controversial terrains where the duality between the official French version and the "other version" offers a surprising and sometimes amusing duality.

1.1 An elusive scholarship

The first realm to investigate in order to assess the degree of non-recognition of the North African Colonial Modern experience in the postcolonial modernist discourse is scholarship. In that regard, it is useful to follow the appearance, in the scholarship, of the work by Candilis and Woods (in Morocco) then by the Candilis-Woods-Josic (CWJ) firm (after their return to France, post-independence) (fig. 11). The trio was a prominent figure of postwar mass housing architecture in France and its work was one of the most conscientious efforts

by an architectural design team to cope with postwar changing conditions. After returning to France from Morocco, the partnership was deeply involved in the French public housing programs, closely working with the French state⁴ on the postwar housing crisis (Avermaete 2005). Putting into practice ideas developed in North Africa like the control of domesticity, politicization of space, and designing for the masses, they worked on the restructuring of everyday life around postwar Fordist capitalist trends in France (after dealing with similar issues in Morocco, i.e. the masses relocating around industrial centers in Morocco) and the bureaucratization of land planning (after engaging in designing the architecture of the territory in Morocco with Michel Ecochard⁵ to help colonial surveillance on the populations). Exploring material from

⁴ Historians such as Leonardo Benevolo have framed the projects of CWJ within the perspective of a postwar reorganization of public. See Benevolo, Leonardo. History of Modern Architecture. London, Routledge & K. Paul (C1971). 1971.

Michel Ecochard is a French architect and urban planner who lead the Moroccan "Service de l'Urbanisme" (urban planning operations for the French protectorate government) from 1946 to 1952. Up until 1946, he was mandated in the Syria-Lebanon territories and had accompanied Le Corbusier in his research travels in the USA. During his Moroccan mission, Ecochard was endowed by resident-general Erik Labonne and provided with significant power to contain nationalist fervor in Casablanca's bidonvilles. The proliferation of such formations was the main issue he worked on using urban policies, city planning, and architecture of the territory. He is the instigator of the "Greatest Number" theory.

either the colonial or postcolonial era treating of this work informs about the patterns of dissemination of such architectural knowledge and its ultimate global impact.

First, the contribution of CWJ to the modernist discourse did not reach the same level of popularity - during the second half of the twentieth century - of other Team 106 members such as Peter and Alison Smithson. Despite an important intervention of GAMMA7 (Groupe d'Architectes Modernes Marocains) at the CIAM IX in Aix-en-Provence and the subsequent publication of texts about the Habitat for the greatest number (HFGN) theory developed in Morocco, their echo did not seem to reach to same lenghts as their fellow Team 10 colleagues. French magazines having featured content from or about Candilis and Woods are "L'Architecture d'Aujourd'hui", "Architecture Formes + Fonctions", "Architectural Design", "Techniques et Architecture", and "Le Carré Bleu" (fig. 11).

The silencing of CWJ's contribution appears even more uncanny given the inextricable connection between the trio and the nationwide modernization process in postwar France. They were commissioned to design many large mass housing complexes including the residential and urban development Toulouse Le-Mirail in 1961, one of the most influential postwar landmarks in France).

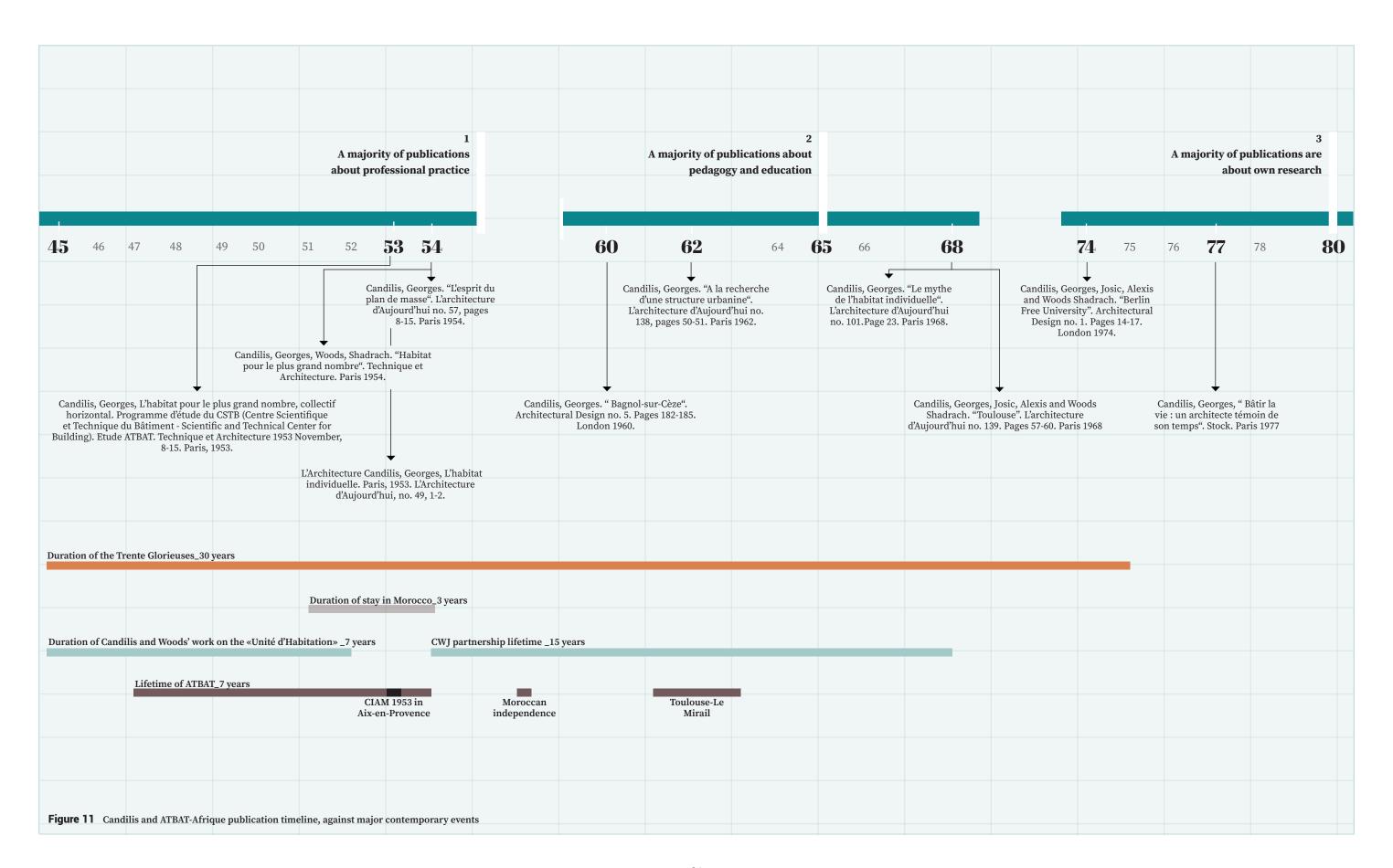
It is only in the 1990s that some light was shed on the work of Candilis and Woods, after the release of Woods and Candilis' archives in respectively 2005 and 1993. Nevertheless, the entire body of knowledge relative to the work of the partnership in France (since 1956) remains limited; and most of the available literature on the overall narrative is attributed to different authors interested in the question of the role played by North African colonies in modernism (I refer here to the publications stated in the prologue: "An alternative to functionalism" by Monique Eleb and "The theme of Habitat" by Jean Louis Cohen among others).

Candilis published thirty-one texts between 1953 and 1980 and a number of unpublished texts were retrieved upon the unlocking of his archives at the "City of Architecture and Heritage", a record storage facility in Paris⁸. Most publications by Candilis are for educational purposes at later

Team 10 is an exponent of the CIAM composed of who Alison and Peter Smithson from England, Aldo Van Eyck from the Netherlands, and George Candilis and Shadrach Woods from France. They contributed to modern architecture since the early 1950 and are known as team 10 because they organized the 10th CIAM in 1956 IN Dubrovnik, Yugoslavia.

⁷ GAMMA consisted of Michel Écochard, Georges Candilis and Shadrach Woods. They represent the Moroccan section of CIAM. In 1953, they presented their work on housing estate in Casablanca in the famous presentation HFGN. They used the GAMMA grid to analyse shantytowns and draw design principles from such ad-hoc urban forms. Their contribution caused surprise among modern masters like Le Corbusier and Gropius.

⁸ Cité de l'architecture & du patrimoine (centre d'archives de Paris), archive facility in Paris.



stages of his life when he became a teacher at École des Beaux-Arts in Paris starting in 1965. He also published an autobiography, "Bâtir la ville: Un architecte temoin de son temps" (Building the city: an architect witnessing his time), and different essays about his research on architectural education⁹ original architectural and urban theories^{10,} and various projects representing important revisions of the previous direction of modern architecture¹¹.

Hence, the issue doesn't appear to be about the amount of publication but rather about the interest they receive. It is not clear why the work of CWJ was so marginally researched until the late 1990s, but the sealed archives combined with the interest in other modernists could be part of the answer. Besides, I reckon a lag between the events and their entry in history is rather common. Perhaps modern architecture historical research reached this only recently, however that doesn't change much to the fact that so far rare are researchers, books, theses on the topic which results in a relative overlook

of the North African Colonial Modern experience in research.

In the decades following 1945, healing from the world wars was France's major preoccupation. In that regard, the election of Valéry Giscard d'Estaing as president in 1974 marked a new beginning. After the upheaval of May 1968'12 Giscard d'Estaing embraced modernization, technological revolution and, the promotion of "A new French architecture" (quoted by Lucan, 1989:116). The book "The Promotion of Architecture: Some Lessons from France" by Sebastian Loew is a comprehensive account of the French architectural realm in that epoch. However, despite providing an indepth explanation of the French architectural profession, outlining legislation institutions, and the roles of the various stakeholders. there is no mention of the colonial modern context nor its role in shaping postwar French architecture. Instead, the issue is approached from another angle, and light is shed on the fact that after WWII. France had pressing issues to address. Consequently, architectural production entered a quantityover-quality era.

⁹ For more on Candilis' idea on architectural education see: Candilis, Georges, La formation de l'architecte, Lausanne 1965.

¹⁰ For more on Candilis' theorethization of urbanism and architecture see: Candilis, Georges, A la recherche d'une structure urbaine. Paris 1962. L'Architecture d'Aujourd'hui, no. 101, 50-51.

¹¹ An example of Candilis' publications about his own work is: Candilis, Georges, Bagnols-sur-Cèze. London, 1960. Architectural Design 1960 no. 5. 1982-185.

The events of 1968 marked a turning point for the profession: Beaux-Arts students were prime movers in that year's riots and one of the first consequences was the sanctioning of a decree that removed responsibility for the teaching of architecture from the Ecole and replaced it with autonomous units. Loew, Sebastian. 1997. The Promotion of Architecture: Some Lessons from France. Windsor, Berks: Andreas Papadakis.

1.2 The nationalist shadow

Modernization processes were often imported from the colonial context into the metropole during the postwar epoch. However, the then contemporary literature tended to be focused on building a nationalistic image of France, far from any non-French element (including French experiences conducted abroad). In that regard, the apparition of architecture in books appears to be calculated in a way it would broadcast French projects by national on French land. Conversely, anti-colonial perspectives were rarely privileged or even accepted in literature. For instance, upon their publication, light was shed on Marc and Patrice Emery's "Guide: Architecture en France, 1945-1983" (French architecture guide), more than it has been on Charles-André Julien's "Afrique du Nord en Marche - Nationalismes musulmans et souveraineté française".

Charles-André Julien is one of the few supports of the French North African nationalism in the 1950s and his book "Afrique du Nord en Marche - Nationalismes musulmans et souveraineté française" a rare exception in western scholarship on the topic. Published in 1952 the book and Julien's independentist investigations¹³

provoked great shock and outrage in a deeply divided French society. (Charles-André 1978). "Afrique du Nord en Marche - Nationalismes musulmans et souveraineté française" raised anti-colonial questions in unprecedented ways allowing the reader, for the first time, a glimpse into what could be the other – hidden - perspective on the same narrative. The book, even if it was quickly banned by the authorities (which eventually minimized its impact) still represents a precursor and an important reference in building an "antidote" to the colonizer's theory.

Around the year 2000, more thinkers questioned modernism against the colonial experience of European nations, thus leading the way for more research on the topic. In his 2000 book "The modern city revisited", Decker Thomas affirms that postwar architecture did not spring ex-nihilo or from modern masters (while being based upon their teachings) but is the result of real-life architectural problems and experiences. The September 2000 review of the book "Casablanca. Mythes et figures d'une aventure urbaine" is also a pertinent example of the latter. The author, Heghnar Zeitlian Watenpaugh, writes being left with the impression that the story is incomplete and one-sided. While the book by Jean-Louis Cohen and Monique Eleb remains a seminal reference in French Colonial Modern architecture in Morocco. one is guided to believe that the built environment was entirely shaped by French/ European/Western actors and perspectives only. Post -independence material is thin

¹³ With other stakeholders supporting the Maghreb's liberation struggles like Habib Bourguiba and Ahmed Balafredj (leaders of the independence movement in respectively Tunisia and Morocco), Julien founded the "Haut Comité Méditerranéen et de l'Afrique du Nord" and the France-Maghrib committee.

to the detriment pf the Moroccan side of the narrative that is - for the largest part unaddressed.

1.3 The origin of social housing and transit housing

The desire for "French greatness" is a recurrent theme in French postwar architectural scholarship and influences the global take on the formation of certain modern forms of settlements and can offer an incomplete explanation of the shift in modernism. First, the revolutionary take on scale and time in postwar French architecture is explained by Maurice Besset in his book "New French architecture" (Lesnikowski and Goulet, 1990) using elements from the economic recovery narrative, the will to rethink the qualityquantity paradigm, and the necessity to efficiently construct and deliver as many units as possible. The "building Frenchness" is thus put on a piedestal, and the GN paradiam - originating in Morocco and that proved to have played a paramount role in the evolution of modern architecture toward its postwar version - is eclipsed (Avermaete 2005).

Similarly, the "Grands Ensemble" (dormitory communities around main urban centers in France and the principal modern architecture form emerging from the GN paradigm having traveled back) - are explained to be the result of a "decade of massive construction", when in fact these

developments were strongly influenced by the return of architecture and planning practices developed in the colonies.

Most of the "Grands Ensembles" are large developments of "Transit Housing" (TH). Transit housing (fig. 13) is a particular type of temporary lodging for bidonvilles'14 inhabitants and North African families of workers while they are on the wait to be offered permanent housing. Families were typically expected to spend two months in TH. Most of them spent up to eighteen months in these developments. The following 1974 circular on transit estate in France explains the purpose of the Grands Ensembles as outlets only intended only for families which have difficulties integrating into society and which consequently risk being rejected by the populations which normally reside in social housing¹⁵.

The segregation and division characteristic to HFGN complexes in Morocco (like CC) was thus imported back. CC housing, for instance, was meant for workers drawn to the city by employment opportunities, they were vulnerable, unskilled and the settlements made for their lodging

¹⁴ Spontaneous developments (slums) around industrial centers resulting from the exodus of the rural population. The bidonvilles are formed by squatting vacant spaces in the city.

¹⁵ More context on transit housing mechanisms, consult the circular dated from 19 April 1972 on the transit estates, published in the «Journal Officiel de la République Française», 20 July 1981.

isolated from European settlers. Similarly, TH was geared toward new migrants, a portion of society that is equally vulnerable hence was isolated following a similar pattern. For these reason, most TH became "slummified", lacked maintenance, suffered repeated fires, and their youth was "the usual" target for the local police. Therefore, both the origins of TH and the outcome of the operation, trace a clear reciprocal North-South relationship and show a sustained civilizing mission after decolonization.

1.4 Modernism and postwar Beaux-Arts

The last "symptom" is the general attitude toward the postwar shift in modernism. In fact, instead of linking new postwar modernism to the colonial experience, it is referred to as a "replacement" of previous beaux-art trends, which is an oversimplification of the narrative. "One of the first decisions we made was to disband the Fine Arts Academy in order to broaden the frame of the discussions and to include people who were or could be affected by the building domain - constructors and users alike". This excerpt from the 1958 Candilis text on teamwork during postwar French reconstruction (Candilis, 1958) sheds light on his outlook on postwar modernist expression and the move from the preceding Beaux-arts as an attempt to adopt a more inclusive state of mind, far from the previous elitist movement. In other western texts, like the 1990 "New French Architecture" by Patrice Goulet and

Wojciech Lesnikowski, the shift from Beauxarts tendencies to more practical ones is proof of modernism "winning the final victory" (Lesnikowski and Patrice. Goulet. 1990). It is advertised as a "more pragmatic" style in line with the movement of revitalization in postwar France, with no mention of its North African origin (Lesnikowski and Patrice. Goulet. 1990). The reader is led to believe that the reason behind such a shift is linked to the postwar population increase (only implicitly linked to immigration in the book) calling for urgent and practical measures and that previous architectural trends were no longer useful. French architecture moved, as a result, from "case-by-case" design to a mass-produced model. Between 1945 and 1967 almost three-and-a-half-million units were realized thanks to the introduction of centralized methods of planning and production (Lesnikowski and Patrice. Goulet. 1990)". It is noteworthy to realize that there is no mention of the source from which these methods were introduced nor what these methods were (likely theories developed in the empire like Architecture of the GN). Instead, the "centralized methods of planning and production" mentioned here refer in the book to Le Corbusier's radiant city specifically rather than his influence on the voung architects who Candilis and Woods were before they moved to Morocco to work for the ATBAT-Afrique office.

In fact, after working for several years on the Unité d'Habitation project alongside le Corbusier, ATBAT-Afrique members moved to Morocco where rural exodus and the introduction of wage labor by the



Figure 12 Example of transit estate in the Parisian Banlieue: La Cité des 4000 à La Courneuve, Seine-Saint-Denis, 1956 - *Photo: Omar Lechaf, IM'média Agency.*

colonizer were shaping new urban forms and presenting new architectural challenge. For instance, the large number of individuals in need of urban lodging solutions near industrial centers is an important coordinator that triggered the development of original, practical, and efficient "centralized methods of planning and production". Western vision tends to focus on the technicalities of the shift (mass architecture – new centralized planning) without pushing the reflection further and unveiling the colonial origin of these concepts as ideas developed to fit a new reality, first in the colonies, then in France (AlSayyad 2008, 83).

2 Building Frenchness vs. discounting Africanity

Explaining the situation described above requires thinking along multiple threads in order to build a juxtaposition opposing the predominant "official" version and a second version that this works aims to build out of a literature review englobing a large scope of western and non-western views. The scrutinization of this last version is the object of the content below; a version stemming from a holistic understanding of the literature available by "reading between the lines", tracking discrepancies. Ultimately, relating the observation of the material studied to elements from political economy both in France and Morocco.

In the years following decolonization,

a significant white-collar workforce was called back from the colonies in order to participate in the massive postwar nationbuilding movement in France. More than planning the territory and designing housing complexes for workers, professionals coming back from Morocco also engaged in important infrastructure projects. In fact, after decades of war and upheaval, the country was seeking new and strong foundations and aims to rebuild its identity far from the defeats of the war and the loss of the empire. Leisure architecture and the development of mass tourism was an important factor in achieving the goal. In 1964, Candilis was commissioned by the minister of infrastructure to design the 180 km long Languedoc-Roussillon coast spanning from la Carmague to the Spanish borders (Ures 2019). The development of the Languedoc-Roussillon region in Southern France is one of the examples that clearly shows the official version contrasts with a more realistic one. Given, the importance of the enterprise at stake (French nation-building), the official version puts forward ideas of nationalization through the dominance over nature and ecologies¹⁶, leaving the contribution of any non-purely French actor or ideology behind an opaque screen.

Sara Pritchard's journal article "Reconstructing the Rhone: The Cultural Politics

¹⁶ Representations of nature and the built environment became an influential part of the national debate on identity in the postwar era which explains why non-French parts of the discussion were rather ignored (Pritchard 2004, 765).

of Nature and Nation in Contemporary France. 1945-1997" (Pritchard, 2004) provides a subtle and exemplary account of a telling inconsistency between documents written from a western perspective and documents from a later temporality (Tom Avermaete's essay "Nomadic Experts and Travelling Perspectives: Colonial Modernity and the Epistemological Shift in Modern Architecture Culture"). In the article, the construction of the Rhone region appears to be geared toward the nationalization of nature as a means to affirm French presence on its territory, within the framework of the overall national effort of postwar modernization. Besides, in order to underscore the idea of cultural reconstruction behind the material one, the article only furtively mentions the narrative¹⁷ preceding the professionals'18 arrival to the Languedocs. Hence, in this particular case, as recently as 2004, ideas like the "mission civilisatrice" and former empire are spoken about like givens, never in a discursive way and the travel of ideas in the opposite

direction is still not referred to.

The Rhône's cultural history thus suggests how politics, environment, and nature were mobilized in postwar years to define the country's sense of identity, defend Frenchness and envision following steps in complete ignorance of the role played by the colonial experience and the teachings brought from Morocco in particular to the Languedoc-Roussillon region (White 1999, 976).

The "building Frenchness" argument can be viewed from a different corner where the discount of African contribution appears as a major element. Africa has always occupied a paradoxical position in modern times. While it has provided most of modern knowledge formations, the attitude around African is still very much Hegelian. Hegel excluded Africa in "The Philosophy of History" from world history considering it a continent having no movement or development to exhibit. African entities are still considered residual ones, the study of which does not impact global knowledge (Mbembe 2021). Therefore, failing to recognize the African contribution to the enterprise of modernity makes sense in a euro-centered scheme.

¹⁷ For example, the legacy of the Rhône project and the CNR's work (Compagnie Nationale du Rhône) are spoken about like models to be exported to "other parts of France, the former empire, and, since the 1950s, the Third World". This shows a deeply colonialist spirit still considering the colonizer as benevolent actor of the colonized nation's development.

Administrators, civil engineers, urban planners, and architects were offered key positions in different public services and private offices whose experience in Morocco or Algeria constitutes the most important one in their career. Upon their return to metropolitan France, they implemented the politics of design developed over the foregoing years on colonial ground.

3 Conclusion

The work accomplished in North African colonies constitutes an essential piece of the global puzzle of modernity. It is not "another modernity" as it is often referred to. It is "modernity", and a widely overlooked portion of it that requires attention and research to be brought to the surface, but it's definitely not an entity that is different from "regular" modernity. The fact that today's world culture is still the culture of western dominant groups reproduces the depersonalization of the colonial era, silently sustains the ruler/ruled paradigm, and greatly hinders diversity (Castells 1992, 29-40). The North African participation in the world's contemporary history is going to be recognized and enter history when former colonies gain the status of equality with the above-mentioned dominant groups. Recognition is a dialogue that is only possible equal to equal.

Chapter 2:

Means and dynamics of the South-North motion

"The importance of this Moroccan trip was significant for the subsequent work of Candilis and Woods. First of all, they found themselves brutally confronted with the problem that would demand almost all their attention: housing for the greatest number. But above all, the newness of a situation highly different from that in Metropolitan France let them inevitably, not only to discover and propose new solutions, but to establish for themselves a work and research method; or could you say, taking up an expression they used a lot:" a way of thinking"

Nan Ellin in Postmodern Urbanism, 1996

1 Liberation movements triggered the "Mediterranean boomerang"

The term "Imperial boomerang" was first used to theorize Nazi Germany's processes when a series of scholars saw in the horror of the Holocaust the reverberation or the "boomerang" of an equally unfortunate sequence of events in early twentieth century Germany. Hence, Max Horkheimer and Theodor W. Adorno saw in the failure of the progressive German opposition, the Treaty of Versailles, and the Great Depression the roots of Nazi practices. The aftermaths of these events bounced back and affected European populations itself (Woodman 2020).

Years later, the "Imperial boomerang" is used to refer to the wider idea of the inevitability of colonial practices' echo. Dutch scholar Gloria Wekker explores in White Innocence: Paradoxes of Colonialism and Race the various forms such a form of travel back takes. The boomerang happens across a wide array of subjects ranging from racial practices to theories and architectural archetypes (Wekker 2016).

The Mediterranean boomerang¹ finds its roots in the search for autonomy and freedom characteristic of the anti-colonial

resistance that, in the early 1950s, started burgeoning in Casablanca's bidonvilles. A resistance originating in the refusal of France to grant its colonies their independence in a time when imperialism was in decline. The British Empire, for instance (then the only empire larger than the French), surrendered its reign over India in 1947. France reacted to WWII events differently. Realizing the importance of the empire to its future glory, France strengthened its grip on the colonies. If the role of the hundreds of thousands² of North African colonial subjects in the 1918 French victory remains undeniable³, the involvement of colonial subjects in liberating France during the second world war was crucial. Even if little historical credit and attention were given to the 300 000 North African soldiers of De Gaulle's Free Forces, their fight was vital to France's postwar prosperity. In this context, France applied an even firmer grip on the colonies after 1945, because despite ultimately winning the war, it still endured great upheaval. In order to surpass such feelings of shame, a massive movement of strengthening

¹ The travel back of architectural prompts from colonial North Africa, Morocco, to mainland France in the postwar era will be referred to as the "Mediterranean boomerang".

² Germany having a larger population, the human contribution of the colonies was of crucial importance to France.

³ During the the first world war, France "imported" a large number of men from its empire to fight and labour. This is considered to be the first time in its history a non-white population sets foot on its soil. See p 111 (Chapter 3: Habitat for the greatest number) in Another Modern, The postwar architecture and urbanism of Candilis-Josic-Woods by Tom Avermaete.

the empire began4. Colonial possessions became even more important to the regime, as retaining them meant reparation from a humiliating German occupation during the second world war. Nevertheless, this venture of consolidation of the colonial presence produced the opposite effect on the colonies. On the one hand, the people became aware of the ruler-ruled paradigm and the dominance and violence it produces, and on the other, the weakness of the colonizer became apparent for the first time, because at the same time liberation movements were gaining speed around the world. Japan's victory over the imperial reign and the occupation of France by Germany during WWII, are some occurrences that helped show the colonizer's flaws and compromised its aura of untouchability. Moreover, 1943 President Roosevelt's visit to Morocco encouraged the anti-colonial movement (then gathered in the Independence Party) to pursue self-determination as a promising lead to prosperity.

In this climate, the liberation war had started in Algeria after a series of bloody riots where entire villages were bombed and the death toll for both Algerians and Europeans rose to unprecedented highs. Simultaneously, a similar situation was unfolding in Morocco and the liberation movement was gaining speed. Entire villages

were destroyed to force the exodus of their residents into the "controlled" resettlement towns. Architecture was used as a tool of oppression, and modernization as an alibi for forced relocation (AlSayyad 2008,79).

Incoming countryside populations were then accommodated in "living units" within a strongly devised master plan designed by Ecochard. This was a high time for mass housing construction, but also the time frame with the most frequent architectural projects' rejection for security reasons. The first version of "Habitat Marocain" (HMSO) a housing project in Sidi Othmane, Casablanca by Swiss architects André Studer and Jean Hentsch was rejected by French authorities. Archival documents show, in the initial proposition, the intention to achieve a higher density than the one ultimately reached.

The initial project, as shown in figures 15 through 18 follows a pyramidal structure with atrium apartments as repetitive units. Inhabitants would have then benefited from at grade open spaces and private courtyards (fig. 15). However, the building was deemed too full of nooks and narrow spaces hence difficult to access for military control, which led to the rejection of this first version.

Hence, more than leverage on the number of doors allowed on the same alleyway, for example, governmental control reached the design process itself, favoring control over design. Ultimately, only three out of the eleven blocks planned for "Habitat

⁴ For more on the dynamics of decolonization from the French perspective see pp. 30-31 of Another Modern, The postwar architecture and urbanism of Candilis-Josic-Woods by Tom Avermaete.

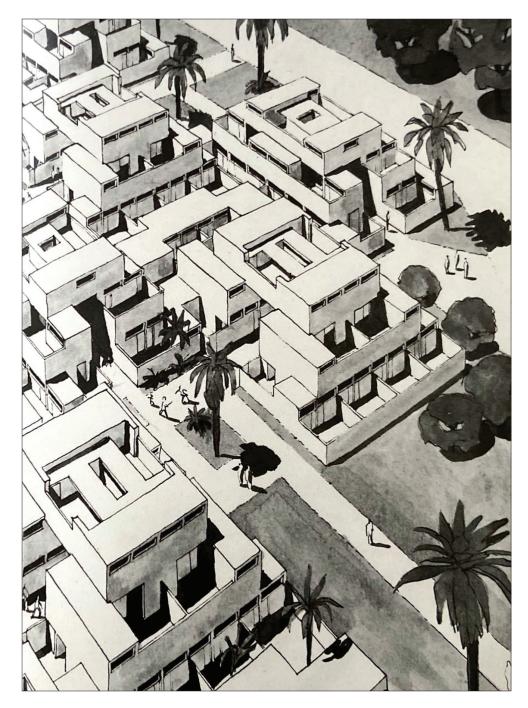


Figure 13 HMSO initial project in 1954: bird view.

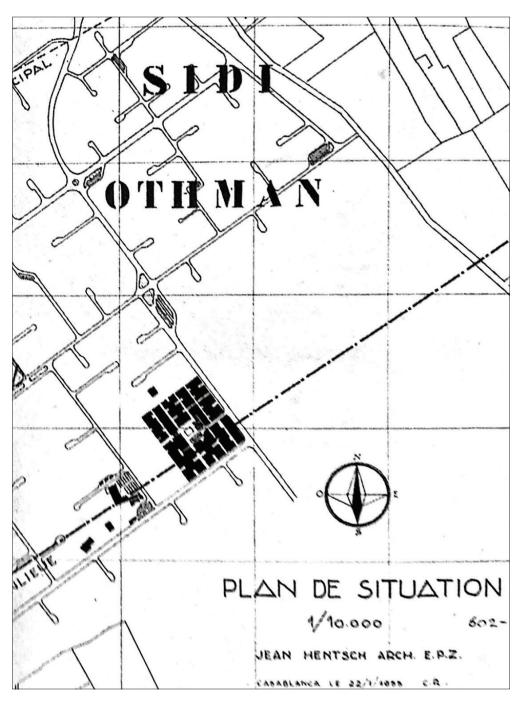


Figure 14 The project development site showing the initial pyramidal form with a square base.

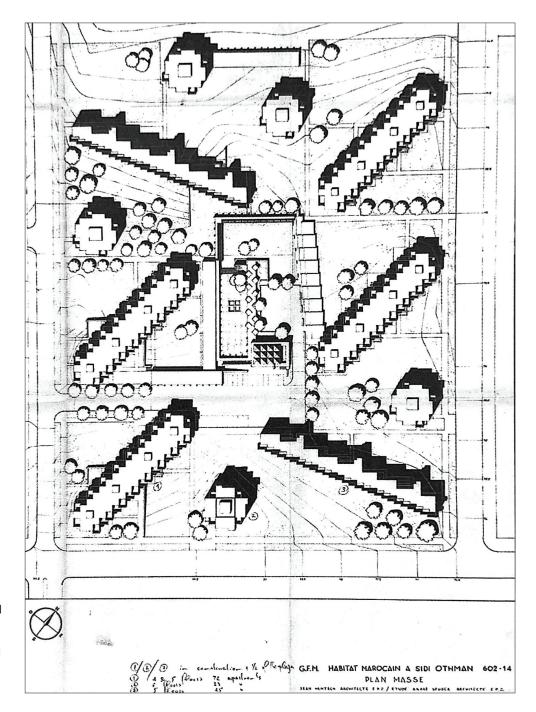


Figure 15 Blueprint of the general site of HMSO's modified project. The initial compact complex was "untangled" and turned into distinct buildings

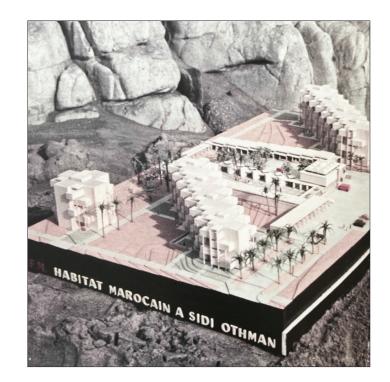


Figure 16 Opposite: Physical model of the modified HMSO project

Figure 17 Below: Photograph of one of the 3/11 blocks realized, upon its completion in 1955. Retrieved from "Archive of Affinities". https://archiveofaffinities.tumblr.com/image/69855021150



Marocain"⁵ were built (fig. 19). The architects were able to maintain the scaffold parti and the atriums within the units in the revised project, keeping the unique character of the project that even withstood inhabitants' reappropriation practices. Made aware of these modifications, architect André Studer was delighted the *strong basic structure* was able to support users' evolving spatial necessities. (Weiss 2008, 166)

The rise of the anti-colonial movements permitted the migration of the socio-cultural dimension of space from the planner to the dweller which directly impacted the decisive political happenings of the following years. The anti-colonial revolt that broke in Carrière central⁶, Casablanca in late 1952 were pivotal events because they urged the colonial administration to shift tightened control and repression policies. The enhanced dominances were particularly witnessed in the shanty towns. true hideouts for independentists. As a result, bidonvilles' inhabitants started personally identifying with their environment, seeing in it a reflection of their status in society. The more segregation is imposed on the space the more segregation is felt by space users (AlSayyad 2008, 83). The fervor of liberation

thus stimulated, the independence movement gained the sultan's allegiance in 1953, the Moroccan sultan was exiled to Madagascar. Less than three years later, France grants Morocco its independence⁷ after almost three years of anti-colonial struggle.

2 "Urban laboratory", travel back, and the myth of decolonization

Another important coordinator of the "trip back home" and the forms and pathways it took is the abrupt character of its catalyst event: decolonization. As seen in the content above, decolonization happened in a rather chaotic climate. France appeared to cynically grant Morocco its independence, while the Algerian liberation war was still ongoing, in order to avoid fighting two front simultaneously (Hussey 2014). No plans were made. Neither for post-colonial Morocco nor for post-empire France. Hence, when the colonizer left, the Moroccan economy and government were not appropriate for an independent nation and still showed signs of division and conflict symptomatic of occupation (Abu-Lughod 1980). Consequently, no plans were made for the "trip back home". In that regard, the urban laboratory paradigm is important to mention

⁵ Financed by the French «Groupement Foncier Marocain» (Moroccan Land Group for Moroccan employees of the protectorate).

⁶ Carrière Centrale is a mass housing project in Casablanca dating back to the beginning of the 1950s. it is named after the bidonville in whose vicinity it was built. After their arrival in Morocco, ATBAT-Afrique collaborated with Ecochard on the CC project. See Chapter 3, page 62.

⁷ For more about Moroccan and Algerian liberation, see Hussey, Andrew. 2014. The French Intifada: The Long War between France and its Arabs. London: Farrar, Straus and Giroux.

because it illustrates how the absence of decolonization intentions imported the colonial context instead of the results of the said urban laboratory⁸.

If using the blank canvas that was colonial Morocco as a "petri dish" to experiment with the dwelling/modernity interaction was a stated initiative of the then French socialist government, the importation back into France of its result did not follow such an official route. Tom Avermaete followed the work of the main actors of the latter, Candilis and Woods, lead architects of ATBAT-Afrique, in the decisive decade of 1950 to understand how their work evolved over the course of 1952-1956 and how it translated into the French context after 1956, year of the official liberation of Morocco form France's protectorate. From the start of their Moroccan experience in 1952 to the formation of the Candilis-WoodsJosic partnership in Paris, France after decolonization, they represent a pertinent case study to appreciate the dynamics of travel back of ideas and theories relative to the built environment from Morocco to France.

Two main reasons make the study of ATBAT-Afrique's (then the Candilis-Woods-Josic partnership) oeuvre of great interest to understand the interplay between travel back and urban laboratory paradigm. First, the start of their work in Morocco coincides with major shifts in the colonial regime which stimulated an important body of research and design about antinomy in modernity. Their work explored how to become modern and return to the sources: revive old dormant civilization and take part in universal civilization (Merleau-Ponty, 1953). They studied the question of habitat as an opportunity to create the experience of modernity in mass housing, mediating between two objectives: 1) control of the population through the control of domesticity and 2) adaptation to lifestyles and real social practices. They, therefore, provided spatial solutions for the "greatest number" - as a new subject for modernity requiring control and normalization - while designing relatable spaces for users. Second, only a few months separate their "trip back home", Moroccan independence, and the launch of their Paris office in 1956. In that regard, their trajectory seems to have followed an at-the-rightplace-at-the-right-time pattern matching the temporality of the post-colonial South-North movement (See Part 2.3: which sheds light on the latter).

⁸ Multiple modern techniques were experimented in the colonies whose "state of exception" significantly simplifies procedures and makes the implementation of novel ideas "bureaucratical feasibility". These experiments circulated transnationally and had an impact on multiple social, political, and spatial matters in the motherlands.

⁹ The term "Petri dish" was used by (head of the Service de l'urbanisme in Morocco from 1947 to 1952) when he spoke of North African cities as "petri dishes of an emerging urban condition resulting from industrialization". Tzonis, Alexander; Lefaivre, Liane, "Beyond Monuments, Beyond Zip-a-tone, Into Space/Time: Contextualizing Shadrach Wood's Berlin Free University, A Humanist Architecture", in Free University Berlin. Candilis, josic, woods, Schiedhelm (London, ArchitecturalAssociation Publications, 1999), 120.

ATBAT-Afrique acted in both colonial Morocco and postwar France it key historic moments but their intervention was circumstantial rather than planned as part of a decolonization strategy. The lack of plannability that appears from such an investigation shows that the laboratory paradigm did not provide "experimental results" to be applied back in the metropole in a linear fashion, nor was the travel back process planned and accounted for as part of a decolonization plan. In fact, the laboratory paradigm was a chief coordinator of a different colonial enterprise: the "colonization of the everyday" in France itself¹⁰ (Avermaete 2005). Putting into practice their research in North Africa and Morocco in particular, the colonization of the everyday took the form of an adaptable architecture capable of controlling domesticity through the ability of the space to undergo modification and re-appropriation. In comparison, pre-war architecture in France was rather a static structure expected to withstand life cycles. This new architecture fitting reality and advocating for flexibility, infill, and evolution of the built environment over time provoked an epistemological modification¹¹ in the

modernist discourse.

The travel back does not appear to have been part of the colonial administration's plan after the ad-hoc decolonization because back in France, the "colonial modern experiments" were not mentioned in major housing projects' competitions or other governmental instances. Instead, the focus was on the urgency to solve mass housing problems of post-1945 France. The fact that the travel happened through the intervention of Candilis and Woods, among others, seems to have happened following circumstances independent from both colonial administration and the postwar acting French government. Candilis-Woods-Josic gained national recognition after winning important competitions because they had relatable experience engaging with similar demographic, social, and territorial challenges in Morocco hence proposed multiple prize-winning designs.

3 Travel back through the white-collar workforce

In the turmoil of Moroccan liberation, most European settlers discontinued their Moroccan journey. A significant white-collar workforce was then called to attend to industrialization and modernization

Rabinow, Paul. 1989. French Modern: Norms and Forms of the Social Environment. Chicago, IL and London: University of Chicago Press.

¹⁰ Expression by French sociologist Henry Lefèvre.

¹¹ Such a change can be understood through the study of the move from techno cosmopolitanism to middling modernism, theorized by Rabinow in 1992. The shift from the first trend to the next is characterized by a new recognition of everyday practices as basis for design. Techno cosmopolitanism relies on direct political action, is rigid, and fatalist, whereas middling modernism conserves local social. For more on from techno cosmopolitanism to middling modernism in the Franco-Moroccan colonial history see

challenges in postwar France. Candilis, who flew back to Paris in 1954, took part in the development scheme of the Languedoc-Roussillon region in southern France by designing the Barcarès – Port Leucate¹² leisure station (Avermaete 2008133). Shortly after his return, he was followed by Woods. No later than 1954, Candilis referenced the North African realizations of Ecochard in his paper "Habitat sous forme de trame" ("habitat following a grid", in English) consolidating the idea of a Mediterranean boomerang in the built environment by positioning takeaways from the North African experience¹³ in the modern architectural discourse.

In the mid-1950s, the Candilis-Woods-Josic partnership was confronted with the new will to maintain and discipline the population through the control of everyday living. Reinventing the home came to be understood as reinventing the nation. It was thus expected to adjust architectural theory and technology to control domesticity often in the framework of large stateled mass housing program. The office immediately became an important ally of key government officials and politicians after winning numerous mass housing national

4 Travel back through Heterotopias of colonialism: The France-Morocco parallel

"If there was a civilizing mission, its target was the French"

Paul Rabinow, French Modern, p 291.

Rabinow's claim is an instance of the application of Foucault's concept of Heterotopias (Foucault 1971). Recent colonial research by Frederick Cooper uses the idea of heterotopias in order to shed new light on the interwoven power relations in

competitions. The "Opération Million"14, the extension of Bagnols-sur-Cèze (1956-1961). and the Toulouse-Le Mirail project (from 1961-1971) are the most emblematic projects of the trio (fig. 17). In these competitions, architectural program often had strict rules (letter codes for dwelling types - precise number of unit door on the same corridor directives concerning ceilings' height... etc) thus the partnership relied heavily on the approach they developed in North Africa in designing such a controlled and normalized architecture while making it flexible and situation-dependent (Avermaete 2005). Between the date of the formation of the partnership till the late 60s they designed about 40 000 dwellings in France.

¹² See Chaljub, Benedicte (2009). Conversation avec Alexis Josic on Le Moniteur. https://www.lemoniteur.fr/article/conversation-avec-alexis-josic.385489#

An important collaboration in that regard is the one with Ecochard on Carrière Centrale. This work was globally recognized after its presentation at the CIAM 1953 by GAMMA (Groupe d'Architectes Modernes Marocains). The group consisted of Michel Écochard, Georges Candilis and Shadrach Woods, which constituted the Moroccan section of CIAM 1953.

Aimed at lowering the construction costs of a threeroom apartment from 1.5 million francs to 1 million francs.

colonial contexts (Cooper 1997). The concept of heterotopia describes cultural spaces that are somehow "other": intense and transforming, contradictory and incompatible. They hence offer the opportunity to develop a parallel model to understand colonial spaces and the patterns of influence within them (colonial spaces encompassing both colonized lands and "motherlands"). Cooper claims that if the activities of the colonizer in the colonized land induce a change in the latter, the former is also part of the equation; consequently, it gradually relates to the colonial societal dynamics it triggered on the colonized land. Hence, if an important coordinator of the colonial enterprise is the dissemination of "civilized" ways of living, such civilizing mission can rightfully travels in the opposite direction as well.

Building on such theoretical background, the similarities between France and Morocco in the mid-twentieth century are important facilitators of the South-North echoes at stake. In that regard, French geographer Jean-François Gravier - whose work mainly focuses on the observation of the patterns of adaptation of French urban planning to modernity within and beyond metropolitan France - draws two important parallels in a similar-causes-produce-similarconsequences logic. First, the physicalities of postwar France and colonial Morocco in the 1940s and 1950s are highly relatable. Gravier describes both entities as "deserts" (Gravier 1947). Second, societal dynamics in the postwar era in both contexts are similar.

The new economic and political

structures in both France (in the new futureoriented reorganisation of the modern society under Fordist conditions) and Morocco (under a protectorate administration who introduced wage labour) caused massive demographic changes. In the former, such a movement consisted of workers gravitating toward industrial centers after being "imported" from Southern Europe and the Maghreb aka the former North African colonies in order to sustain the economic development. In the latter, such a movement took the form of a sudden rural exodus followed by the re-distribution of the population along the new coastal urban center and their peripheries. Workers hence traveled from the countryside and the Atlas Mountains to Casablanca to take advantage of the introduction of wage labour by the colonial administration (Karakayali 2008, 39-57). In both cases, incoming populations were not met with proper lodging structures and settled in informal shantytowns (Woods 1968) which prompted a sudden and exponential need for mass housing.

The France-Morocco similarities in the 1950 decade are thus underscored by similar demographic situations. In France, the postwar pro-natality policies started after the 1945 De Gaulle speech where he insisted on the importance of boosting birth rates and reaching the threshold of the twelve-million birth 1955¹⁵. The demographic

¹⁵ For more about the French baby boom during "les Trente glorieuses" See Poirrier, Philippe. Societé et culture en France depuis 1945. Paris: Ellipses, 2000.

boom that followed such policy was mirrored in Morocco where, in the span of thirty years, the population knew a substantial growth doubling and reaching eight million in 1951. In both countries, demographic growth represented a new set of urban struggles calling for innovative measures in housing and territorial planning. The urgency of lodging hundreds of thousands of families within a limited time frame was unprecedented and constituted a challenge given the slow rate of urbanization in both France and Morocco. Moroccan land then represented unbounded opportunities in the search and visualization of a new "modern architecture of the territory¹⁶", an architecture easily transferable to "the desert of metropolitan France" from the "desert" that represents open Moroccan grounds (Gravier 1947). Gravier's use of the word "desert" in describing both spatialities is another indicator of the France-Morocco parallel that made the travel back organically take place.

5 Travel back through labour migration

"Colonialism is the best proof that the various forms of slavery and selfdom spread primarily with the development of capitalism "

Serhat Karakayali in "Colonialism and the Critique of Modernity", 2008

Migration¹⁷, labour, and chains of production are interwoven with the capitalist regime and colonial modernity. Additionally, such a dynamic is believed to have impacted modern urban forms at least as radically as colonial powers (Tarrius 2007). In the postwar process of nation-building. modernization pressed European countries to rethink political and economical structures and adopt Fordist capitalism (Crinson 2003). In order to sustain such new structures. migration patterns played a tremendous role and triggered new architectural forms and programs. For example, as early as 1940 (years of the peak of wage labour, introduced a few years earlier by the colonial administration), were constructed in Casablanca the first "culture specific" project for Moroccan migrants (from the countryside and the Atlas Mountains)18. A similar pattern can be observed on a larger scale during the

16

¹⁷ Migration here refers to the mobility of the people in the space preceding the architecture rather than the act of inhabiting and adjusting new spaces and territories.

¹⁸ Carriere centrale. See figures 23 - 24

decolonization years when workers crossed the Mediterranean. Similar to the 1940s, such a South-North migratory pattern was rooted in a quest for wage labour accompanied, this time, by the will of the formerly colonized to escape inequalities and seek liberty and autonomy (Karakayali 2008, 39-57).

Former colonial subjects were met with similar structures like the ones they left behind. Connor Woodman studies how the boomerang effect influenced and still does today, former colonizer-majority-white nations. According to him, today's struggle between the working-class and the ruling class is a direct result of the mid-century migration pattern that brought back the ruler-ruled paradigm, hence bringing back the colonial subject, the same subject of the "culture-specific" architecture mentioned above. The migration of the architectural subject then explains the migration of the architectural shapes and forms relative to such populations.

actors are often experiencing dislocation and interacting with the materiality of space in different capacities. Such experience preceded and followed by motion between countries, continents, and social realms took the "Greatest number" paradigm and the notion of controlling domesticity from France to Morocco, which played an important role in the postwar architectural culture in France. These ideas were generated in the colonies and did not exist before (Avermaete 2008, 132). Their reinvention through the migration between the metropolis and the colonies provoked an epistemological shift in modern architecture¹⁹.

6 Conclusion: the South-North motion

Many studies focus on the importation of European ways (of living, building, and dwelling) on colonial land and their imposition on local populations. While this is an important part of the narrative, there are two sides to the story. Exploring the opposite direction of this same vector is sine qua none to understanding modernity as a multi-faced concept with different moving parts. Modern

¹⁹ About the epistemological shift in modern architecture see Solà-Morales Rubió, Ignasi, and Sarah Whiting. Differences: Topographies of Contemporary Architecture. Cambridge, Mass: [MIT Press], 1997 and Smithson, Alison. The Emergence of Team 10 Out of C.I.A.M.: Documents. London: Architectural Association, 1982.

Chapter 3:

North African roots to postwar French mass housing

"Housing must be a permanent contract between the society and the individual. The rights and duties expressed in this contract must be reciprocal. The consequences of this contract are informed by the following idea: the human rights of housing"

Candilis and Wood's intervention at CIAM IX (Aix-en-Provence, 1953)

1 The spatio-temporal framework

The extra-territorial European explorations in North Africa acted as a research and incubation outlet for postwar modern ideas relative to city and space. While the postwar era in France was a time of modernization and industrialization high thus creating a fertile experimentation atmosphere, it was in the colonies that experimentation was at its high. Ideas were hence fostered in colonial lands before being exported to the European space during a crucial postwar and decolonization temporality. The reciprocal South-North interrelationships in the mid-twentieth century thus induced lasting modifications in the modernist culture (Avermaete, Karakavali, and Von. Osten 2010). In that regard, the Moroccan experience – both in Morocco and in France after the travel back of its protagonists – constitutes a pertinent illustration of such motion with the design office ATBAT-Afrique being an important contributor. In 1949, Vladimir Bodiansky relocates to Morocco to lead the African section of "Atelier des Bâtisseurs" (ATBAT, founded in 1947 by Le Corbusier) and is shortly followed by George Candilis and Shadrach Woods, fellow ATBAT collaborators (fig. 18). The partnerships that subsequently flourished in Morocco between them and earlier designers like Michel Ecochard would culminate in important paradigm changes essentially centered around a re-appreciation of the masses ("The Greatest Number1") as

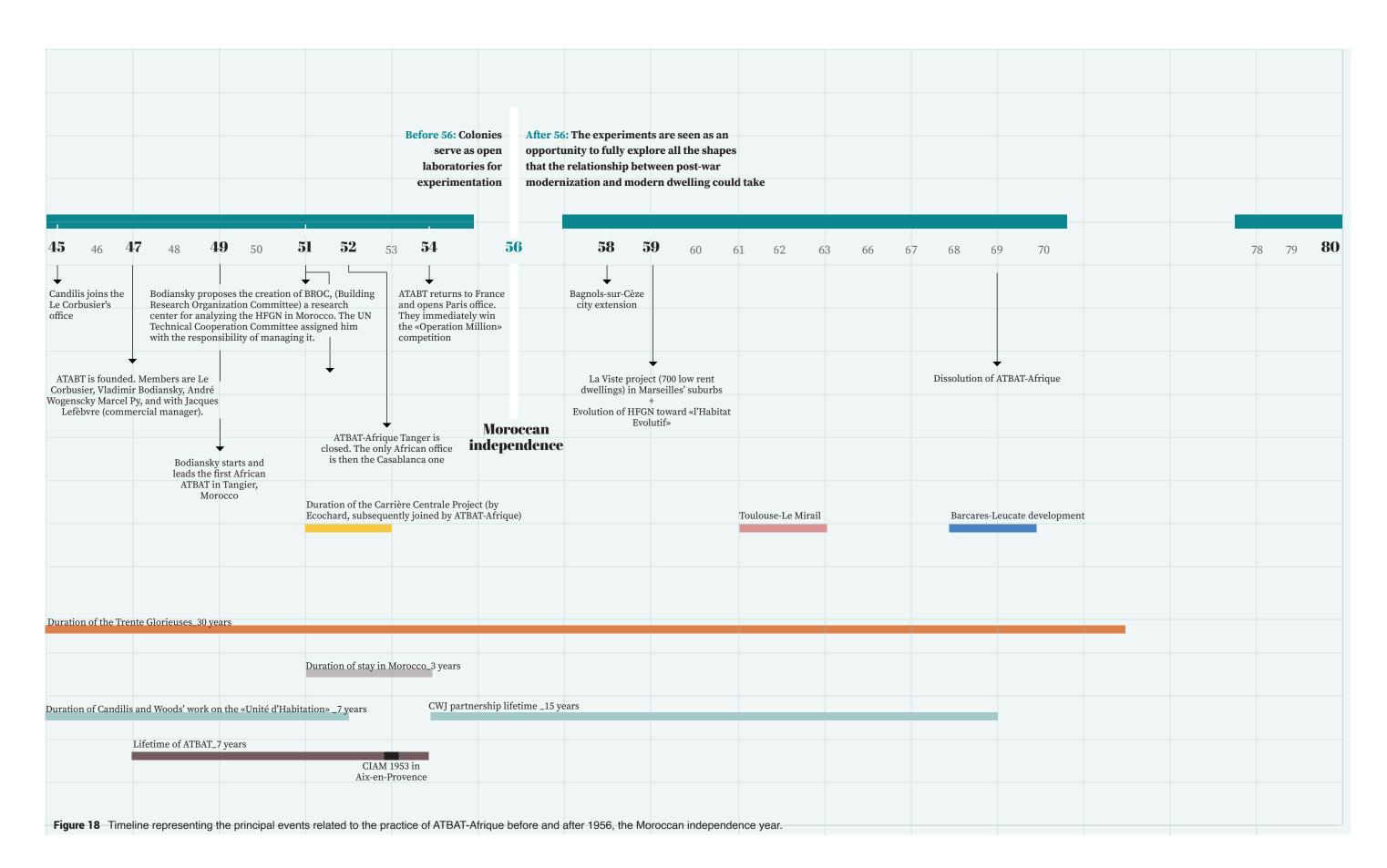
The "Greatest Number" term was first used by

a new subject for modernity, local lifestyles as bases for modern architecture, and the control of these same elements through modern architectural design. This chapter analyses ATBAT-Afrique's trajectory. against the background of the larger historic narrative, by tracking patterns of continuity, similarities of the practice of the resulting spaces, and correlations between design and the geopolitical context (fig. 18). Such correlations are sought in ATBAT-Afrique's interventions in Morocco on the one hand, and in postwar low-rent projects in the metropolis, on the second hand. Ultimately, the following content identifies and distills the elements that were imported from Morocco to France and clearly locates the shapes and forms of the "travel back".

1.1 A globalized "Learning from ..." environment

"Learning from Las Vegas" (1968) and "Learning from Levittown" (1970 are important landmarks in reviewing the postwar global changing urban condition. In these books by Robert Venturi and Denise-Scott Brown, the logic and functions typically left out of the design discourse in posterior studies (particularly by Aldo Rossi in "Architectura Della Citta") are the center of attention. Venturi and Scott viewed the new urban architecture as a mirror of the

Michel Ecochard during his February 10, 1950 intervention at the Chamber of Commerce in Casablanca during the unveiling ceremony of the French Institute of Architecture and Public Works in Morocco (FIAPWM).



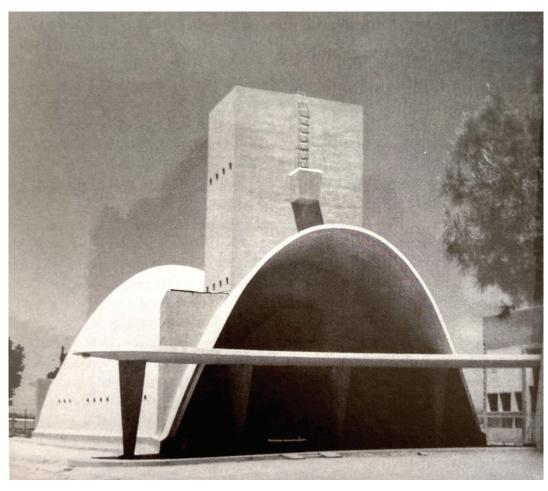


Figure 19 Greek church and parish center in Meknès, Morocco; designed by ATBAT-Afrique in 1952. *Retreived in IFA's archives (Institut Français d'Architecture).*

new ways of production, thus confirming an unprecedented correlation between societal behavior and spatial translations. Shifting away from ideas of architecture as an individual, standalone manifestation, the new viewpoint called for an approach conciliating space and daily life to fill the gap between producers and users of the built environment. Conversely, in "Architectura Della Citta" (1966) and following a deeply Fordist scheme, Aldo Rossi claims that buildings should be able to fit and integrate within the existing historical urban form. His adherence to historical forms was understood to imply the disregard of other more subtle and subjective dimensions of the building and thus was criticized for overlooking the overall postwar changing conditions and by extension postwar modernity. The shift which ATBAT-Afrique witnessed and was part of is the move from anachronic, Aldo Rossi-like idea viewing architecture as corresponding to the evolutive environment, towards a more current standpoint where architecture is thought out to correspond to peoples' social realities.

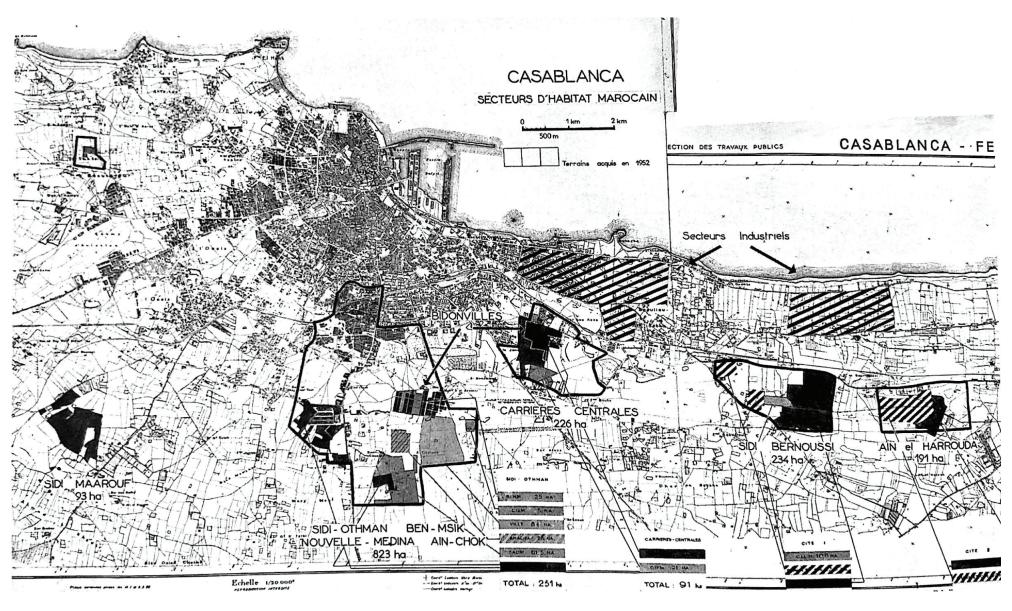
1.2 The start of ATBAT-Afrique

ATBAT is more than an architecture studio. It is a learning and research entity where various professionals came together to work in an interdisciplinary fashion.
ATBAT's ancestor is ASCORAL (Assemblée des constructeurs pour une renovation architectural) and was an assembly of design professionals advocating for the merge of

design and economics in architecture in the context of postwar reconstruction. This idea of fusion having had great results, it rapidly gained recognition and incited ASCORAL's team to explore the interdisciplinary route in design and construction. Hence more research centers were started. It is in this context that the African section, ATBAT-Afrique, was born in the late 1940s.

Even if notorious for housing projects, ATBAT-Afrique did work on different programS before specializing in finding innovative designs for living spaces *(fig. 19). Between the date of the formation of the partnership till the late 60s they designed about 40 000 dwellings in France and a significant amount in the colonies (Avermaete, 2005).

Following the footsteps of ASCORAL, housing was an economic prompt as much as an architectural one for ATBAT-Afrique. It hence called for alternative ways of thinking about space, users, and the wider scale of the architecture of the territory. They considered every project as an opportunity to research on both the urban and architectural levels.



Industrial centers are adjacent to natives' informal settlements because workers drawn from the countryside to the city by wage labour were the main inhabitants of such shanty towns.

Figure 20 Housing areas for the native populations in Casablanca between 1950 and 1953. Retrieved in "Plans and Studies" (1953), Service de l'Urbanisme, Casablanca.

2 Evolution of design philosophy

This section tracks the epistemological evolution of ATBAT-Afrique's design processes. These processes were influenced by the previous training of its members, the global architecture and urbanism discourse discussed earlier, and the local influences in the colonized nations. Ideas of appropriation, flexibility as opposed to design rigidity on the one hand, and the public/intermediate/private interplay on the second hand are important in ATBAT-Afrique's oeuvre and their assessment, among other indicators, produces a holistic image of the importation of ideas, practices, and concepts into France. Such investigation also informs about the imported forms. Such post-importation shapes might appear different in some cases but are similar in principle, ambition, or outcome because they are often evolved versions in a continuity scheme.

2.1 Building on Ecochard's "Greatest Number"

Upon their arrival to Morocco, ATBAT-Afrique engaged with the work of Ecochard who was mandated by resident-general Erik Labonne to urgently contain the new independentist movement. The movement was gaining speed in the bidonvilles. In that regard, Ecochard can be considered as the instigator of two of the foundational ideas in

ATBAT's subsequent design processes: the "Greatest Number" theory and the "locally-sourced" design basis, rooted in vernacular ethnographic material.

First, the "Greatest Number" - i.e., the large number of Moroccan workers who migrated from rural areas to work in the new industrial towns - was considered by the colonial administration as a capital political problem, but also an architectural and sanitary one. Bidonvilles were unsanitary and constituted important hideouts for liberation activists.

Prior to the ATBAT-Afrique collaboration, Ecochard had already initiated a massive relocation of bidonville dwellers operation. The bidonville at stake was "Carrière Centrale" (fig. 20). The idea was to provide the dwellers with decent housing, adjacent to the location of the bidonville from which they were relocated (fig. 21 & 22).

2.1.1 The "Ateliers Ambulants"

Prior to designing the Horizontal City (HC) or "Cité Horizontale", Ecochard led an expansive ethnologic study on Moroccan dwelling behavior using a mobile unit or "Atelier Ambulant" (fig. 23). The mobile unit traveled across the country and the crew members (Ecochard's collaborators from Service de l'Urbanisme) collected data relative to housing typologies and their constituting architectural elements, both physical (the traditional central courtyard²) and intangible (the public/private

In the medina, Moroccans live in individual houses



Figure 21 Aerial view of the Carrière Centrale from 1952.



relationship). Thus, as a response to the "Greatest Number" growing challenge in Morocco and building on the results of the Atelier Ambulants, Ecochard developed the famous 8 m x 8 m grid for housing or "Trame huit huit" (fig. 24). Such housing structures were meant for Moroccan workers as a "habitat adapté³" (adapted habitat) and were designed as "Nouvelle Medina" (literally, "new old town").

2.1.2 The 8 m x 8 m housing grid

The "Trame huit huit" was designed according to the dimensions of the courtyard dwelling typology. It was intended to be flexible and adaptable in order to support all possible combinations, remain within an acceptable budget frame, and help constitute a cohesive urban realm. The "Trame huit huit" therefore respects traditional customs while enabling progressive lifestyle transformations (Eleb 2000, 55-73).

However, if the dwelling unit itself was meant to be evolutive, the larger realm, i.e. the neighborhood or the city, had to follow a much stricter design (Ecochard 1955, 36-39). The 8 m x 8 m offered an efficient response in that regard. The grid combined private

with central patios. The said patios are used for natural ventilation and daylight because external walls could only have very few openings, as per the principle of concealment on the side facing the street of one's wealth.

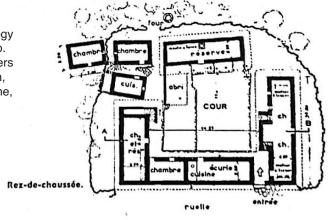
outdoor spaces and two indoor rooms for each unit with outdoor semi-private spaces shared by three more units within a "unité de voisinage". The grid resulted in an urban layout that was controlling, permanent, and was experienced like a rigid urban maze. difficult if not impossible to alter. Such characteristics were ideal for the control of the population's domestic life while allowing inhabitants to evolve in a relatable, familiar lodging designed according to a new localbased approach. The latter acted as a colonial dominance tool in the sense that it helped detour subjects' attention from the ongoing colonial grip. Hence the familiar features drawn from the spatial analysis were a concealment of the colonial ambition of control through the "progressive lifestyle transformation" theory. The project was thus openly aimed to "educate" the people to modern living (Ecochard 1955, 36-39). The latter expression was used by Michel Ecochard in his article "Habitat Musulman au Maroc" (Muslim habitat in Morocco) where he explains the overall direction of his work. In the same article, an ironic comment by Ecochard on the appropriation and infill practices of the inhabitants of the Horizontal City indicates a misunderstanding of the local culture combined with the ambition to "fix the way they live" blindly despite claiming basing design out of a good understanding of the local culture. He claims: "Without the strict municipal

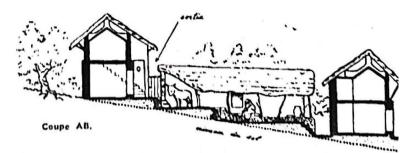
Adapted habitat refers to dwellings taking into account the cultural, religious, and social reality of the prospect inhabitants. This idea evolved into a policy, then a theory, in the first decades of the French occupation of Morocco.

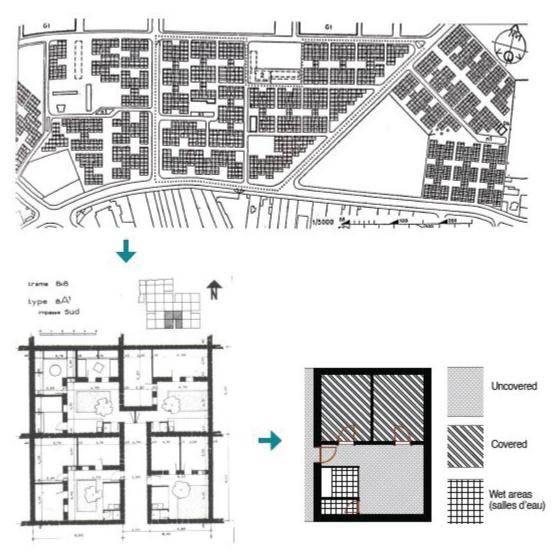
For more on the notion of "progressive lifestyle transformation" and the various ways of living and building in the Moroccan medinas, see Matsubara K. Conservation et Modernisation de la ville historique de Fes, Maroc. Tokyo: ILCAA; 2014.



Figure 23 Study of rural courtyard typology in Taounate, Morocco. Records of the "Ateliers Ambulants" operation, Service de l'urbanisme, 1951.







 $\begin{tabular}{ll} \textbf{Figure 24} & \textbf{The evolution of the "Trame 8 x 8" housing grid of the Carrière Centrale, from the "Plan Directeur (masterplan) to the individual unit. \end{tabular}$

supervision, the grid [8 m x 8m] is deformed with informal constructions in the courtyard. The vertical buildings risk a similar outcome: the alternated patios would certainly be used as additional rooms"5. In an almost blaming voice, Ecochard hence criticizes how the space users made the space to their image adapting it to the cycle of life of the family and their own individual habits as individuals and households rather than a group from the same race or religion as the Service de l'Urbanisme's investigations considered them (even naming the typology "Habitat musulman"). Similarities in spiritual choices do not automatically result in similar dwelling practices. The implication in his quote is that there is a "right" way of interacting with space and it is the modern one and "messing" it only indicates a lack of understanding of the designers' intent. Such attitude is ironic for an architecture whose goal is to be relatable to users.

The fact that the 8 m x 8 m design did not plan or accept practices of infill and flexibility defeats its purpose. Nevertheless, the project constitutes an important precedent in the shift modernity knew in the mid-twentieth century when modern architecture was no longer seen as an architecture without local parameters, almost imposed on the people but an architecture open to unorthodox forms of settlement.

In that regard, Ecochard's "Trame huit huit" can be considered as a starting point to ATBAT-Afrique's investigations and the cornerstone of their collaboration with the head of the Moroccan Service de l'Urbanisme.

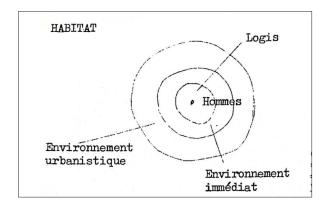


Figure 25 Diagram of Ecochard's theory of Habitat

2.1.3 The theory of habitat

The "horizontale" structure composed of a series of single-storey houses was an uneconomical mass housing choice. The work of ATBAT-Afrique, as commissioned by Ecochard, was then to reach a more economically viable proposition through efficient densification methods while maintaining the qualities of space specific to Ecochard's theory of habitat.

The practice of considering the overall environment surrounding the space user as well as lifestyle and cultural factors as starting point for architecture is the basis of Ecochard's theory of habitat (fig. 25).

⁵ Originial text : « Sans une surveillance municipale extrêmement stricte, la trame se déforme à l'intérieur par des constructions dans les patios. Les immeubles en hauteur courent le même risque : les patios superposes seront certainement utilises comme pièces »

Habitat is thus a dwelling that is made to measure. The term "Habitat" appeared in the field of architecture in the 1940s. It was developed alongside Ecochards' concept of mass construction and gained global recognition after 1953's CIAM in Aix-en-Provence. it was originally borrowed from ethologists (specialists in animal behavior) who addressed the issue of shelter, housing, and environment in various geographies.

After Ecochard's intervention, the term started being used while referring to non-western societies and replaced commonly used terms like "machine for living" (Eleb 2000, 55-73). The notion of Habitat emerged from "adapted habitat" that was the first instance in modern architecture to move away from absolute views and start recognizing cultures and customs. "Adapted habitat" is rooted in the "habitat Charter" from the early 1950s CIAMs. Le Corbusier had drafted it in 1933 and published it in 1942 as a development of the Athens charter.

2.2 Developing the "Habitat For the Greatest Number" theory

ATBAT-Afrique's perspective is more accommodating than Ecochard's initial process. The expectation of "life fitting without any tailoring" is replaced with an infill-friendly state of mind. In his autobiography, Candilis writes about his visit to the Bagnols-Sur-Cèze housing complex after its completion (project completed by the Parisian ATBAT office in 1960 after

their return to France) and describes how pleased he was to realize that people had adopted the space as their own and were using it in ways he did not intend, which is precisely what he intended (Candilis 1977). To reach such a level of adaptability, ATBAT built on the existing "Greatest Number" notion and the investigative work done by Ecochard's mobile units," Les Ateliers Ambulants" to understand dwelling culture in the bidonvilles. ATBAT-Afrique's architects were then challenged in 1953 by Ecochard to create a denser alternative to his design (fig. 25).

2.2.1 ATBAT-Afrique's theory of Habitat

For ATBAT-Afrique, habitat represents a collectively held dwelling culture encompassing dwelling practices (fig. 26). Unlike the first definition of habitat, ATBAT-Afrique re-thought the epistemology behind it and restructured the extent of the intervention of the architect in the architectural act. For the team, housing should not be the result of the work of a professional, but the amalgamation of a frame professionally conceived and users' behaviors and inputs. The "tailored" aspect of Ecochard's theory was hence kept. Nevertheless, statistics were replaced by reality as a basis for design. In « Un habitat pour l'homme d'aujourd'hui (unpublished text), Candilis's definition of habitat relies heavily on the epistemological shift towards everyday practices. Habitat is then explained as a particular way of thinking about architecture and urbanism encompassing all

Michel Ecochard and Service de l'urbanisme

47-51

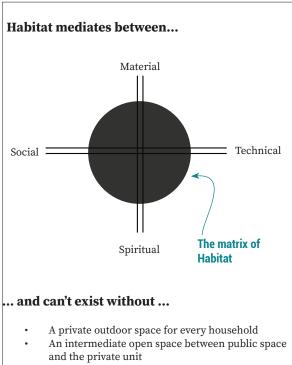
- Study of rural areas through the "Ateliers Ambulants"
- Relocation of as many people as possible to controlled housing complexes
- Providing a flexible architecture within a strongly monitored urban plan: individual units are "made-to-measure" following the results of the ethnographic studies while the "Plan Directeur" (Masterplan) was a rigid maze, easily controllable.

Georges Candilis, Shadrach Woods, and ATBAT-Afrique

51-53

- Study of the dwelling practices in bidonvilles and already existing settlements by Ecochard
- Isolation of architectonic elements (the central courtyard, the alleys in the sky...) That are strongly linked to peoples' lifestyle and incorporate them in a modern setting
- Definition of non-physical elements in Mulsim housing such as the management of privacy through a process of mediation between common and private.

Figure 26 Comparison of ATBAT-Afrique's approach and Ecochard's regarding informal housing issues in Casablanca in the late 1940s and early 1950s.



- Connection of the water facilities (or salles d 'eau in French) to the private outdoors courtyard

Figure 27 Diagram of ATBAT-Afrique's theory of Habitat

aspects of dwelling practices.

ATBAT-Afrique's approach can be understood as a tridimensional evolution of Ecochard's grid, shape-wise, and an even more holistic understanding of the notion of habitat encompassing natural elements together with societal ones. Hence, with the help of Ecochard and since their arrival to Casablanca, ATBAT-Afrique developed their own version of "habitat adapté". Instead of considering climate, geography, and cultural aspects all as one set of data informing the conception of dwelling, they focused on the dichotomy between the determining factors of habitat. The natural environment: geography, geology, and climate must be considered as a standalone dimension of architecture. However, they shall remain in accordance with the "artificial factors" such as environment, society, ethics, and economy. Natural factors are thus viewed as a supporting framework for dwelling practices to unfold and flourish. More than a support, it is a large matrix able to reconcile various aspects of architecture. Therefore, for ATBAT-Afrique, habitat represents a collectively held dwelling culture encompassing dwelling practices in the corresponding ecology (Candilis 1969).

The notion of mediation appears to be a capital one in this sense. It is a recurrent one in the work of ATBAT. In the Moroccan context, mediation through architecture between private and public, individuality and collectivity, and traditional and modern was a major coordinator of ATBAT-Afrique's contribution. More dualities

can be identified such as "empirical detail and grand theoretical vision, between local and international contexts" (Avermaete 2005). ATBAT-Afrique appears as a useful hinge that facilitated the shift of perspective in modernism.

2.2.2 The use of grids

The grid is a graphical system for representing information on town planning projects. It is a methodological element for the analysis of the real dating back to 1947 when it was first introduced by Le Corbusier at Bridgwater's CIAM (fig. 27) as a practical application of the Athens Charter⁶. It was subsequently developed as a town-planning tool by ASCORAL (the team was led by Le Corbusier and involved Woods and Candilis) prior to being revisited by ATBAT-Afrique in their work in Casablanca. They in fact took the idea of the grid to a new level and used it as both a means of research and a tool of dissemination of ideas resulting from the said research. The urban parti developed by Ecochard was compatible with the grid format therefore bringing together both theories happened seamlessly.

ATBAT-Afrique used the grid in a way that allowed it to treat each aspect of the architecture separately while keeping all the components of the space in relation one to

⁶ For further clarifications on the correlation between CIAM Grids and the Athens Charter, see CIAM. Programme du 7 ème Congrès CIAM: Grille CIAM d'urbanisme, Mise en application de la Charte d'Athène" Bouledogue, Editions L'Architecture d'Aujourd'hui, 1948.

The grid is a matrix composed of panels. Each cell of the table is a "panel" and measures 21 cm x 31 cm. The rows hold the four design themes: living, working, engaging with spirituality, and circulating; while the columns inform about analytical categories, This 1948 CIAM Grid therefore acts as a mapping structure for the various panels of the presentation and informs about the analytical direction of each panel in relation to its specific design category.

TITRE 1 : LE THEME. HEADING 1 : THE THEME. LE MILIEU (données naturelles, données géographiques et démographiques). ENVIRONMENT (natural conditions, geographic and demographic data). d misc géograph, humain human geograph géogra, historique historic geography OCCUPATION DU TERRITOIRE, Zonage et tracés à 2 dimensions.
OCCUPATION OF THE LAND, Zoning and two dimensional plans. rural 111-4 industriel industrial echanges, pensée et administration trading, education administration 118-1 VOLUME BATI ET UTILISATION DES ESPACES AMBIANTS, urbanisme à 3 dimensions.
VOLUME CONSTRUCTED AND USE OF
AMBIANT SPACES planning in three dicampagnes rural EQUIPEMENT. du volume báti of the volume 132-2 ETHIQUE ET ESTHETIQUE, ovec étude éventuelle des rapports de l'ancien et du moderne. ETHIC AND AESTHETIC with the con-141-2 ngent study of the srelationship between nicient and modern. INCIDENCES ECONOMIQUES ET SOCIALES. 15 ECONOMIC AND SOCIAL INFLUENCES. LEGISLATION. 16 FINANCEMENT. FINANCE. ETAPES DE REALISATION. STAGES OF REALISATION DIVERS. MISCELLANEOUS. TITRE 2 : REACTIONS AUX THEMES. HEADING 2: REACTION TO THE THEME. REACTIONS D'ORDRE RATIONNEL. RATIONAL REACTION. autorité the authority usagers the elli REACTIONS D'ORDRE AFFECTIF. opinion eral pub REACTION OF SENTIMENT. A GRILLE TO PAGE 7 NE PAS COUPER

Figure 28 CIAM grid for the analysis and the presentation of an urbanistic theme. GAMMA, 1948.



Figure 29 Invitation for CIAM VII Bergamo 49 by Candilis nd other members of ASCORAL group

another within the same matrix (fig 27). The grid is then instrumental to understanding the work of ATBAT-Afrique but also the CWJ partnership later on. The grid became an important component of the language of modernity and was the focus of CIAM VII.

2.2.3 The use of architectural typologies

Both grids and typologies allow architects to smoothly navigate the general-to-specific scale. Because "Habitat" is always changing, being tributary to the ever-evolving cycle of human habitation, it needs to be treated with theoretical frameworks that allow for such flexibility. If the grid is often synonymous to "set order", when met with the idea of "typology", the resulting matrix is a flexible one. The space thus produced integrates specificities into space while keeping the notion of generalization: "the grid and the type allow for diversity and change; they allow for the coexistence of different tendencies".

2.2.3.1 Vertical City (VC) or "Cité verticale"

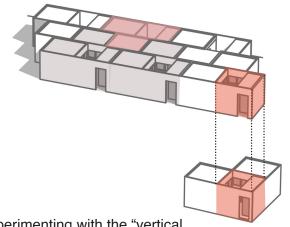
Combining the "Greatest Number" paradigm, the concept of "habitat", the grid idea, the training with Le Corbusier within ASCORAL, and their experience working on Marseille's Unité d'Habitation, Candilis and Woods were able to build a unique response to the mass housing issue in Morocco, a set of architectural practices

that will bounce back into France after Moroccan independence and become an integral part of the modernist discourse. In that regard, the "Vertical City" (Cité Verticale) can be regarded as the group's "flagship" project. It was commissioned by Ecochard who challenged the architects to propose a project that is both cost-efficient and contains elements from the particular local identity while maintaining quality.

2.2.3.2 Exploring the third dimension: The Honeycomb building (HCB)

The intervention by ATBAT-Afrique heavily relied on taking the HC to the third dimension in order to reach the goal of 100 dwellings per hectare (up to 400 dwellers) (fig. 29). The central courtyard or as known then in Morocco "la cour", permitted the seamless conversion of the HC into a vertical one without losing important qualities of space. "La cour" allowed families to dispose of an outdoor space without making the concession of privacy. Additionally, it allowed architects to maintain the usual scheme found in vernacular dwellings of the "salles d'eau" (water facilities, a.k.a the kitchen and toilet/shower) directly connected to the open air. After identifying an optimal layout for the individual unit, the architects engaged in conceptual research finding various combinations allowing for the units to fit together, maintain the non-negotiable design principles identified earlier, and reach the desired density.

⁷ Quote in French: "La grille et le type permettent la diversité et changement; permettent la coexistence des tendances différentes » retrieved in Candilis, Georges, "L'humanisme", unpublished text, in Candilis/IFA, (318/7), 1967.3.



1: Taking the single unit to the third dimension and experimenting with the various ways of condensing multiple units

2: Experimenting with the "vertical stacking" then building a prototype

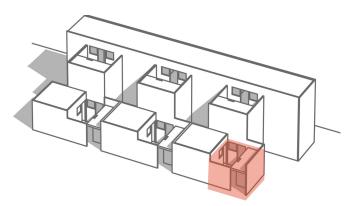




Figure 31 Vertical stacking prototype in Ain Sebaa, Casablanca.

3: The vertical stacking operation results in a multistorey building with double-height balconies playing the role of the central courtyard that evolved from the initial form.

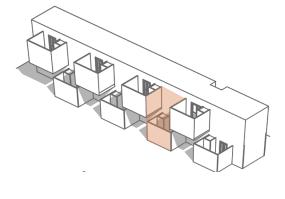




Figure 32 The Honeycomb building in the 1980s.

Figure 30 The evolution of the central courtyard space of Ecochard's Horizontal City into modern balconies in the Honeycomb building.

The HCB is a pertinent example of ATBAT-Afrique's novel design philosophy because it embodies another important aspect of its evolution: turning the central courtyard into balconies (fig. 30). Ecochard agreed to such an idea upon its presentation by Candilis (Matsubara, 2020) and through minor changes to the private units, each and every one of them was able to maintain a private outdoor space surrounded by high walls. The high walls protect the users from the sight of the neighbours and vise-versa.

Nid d'Abeilles" instantly became a highly acclaimed design by architects worldwide. In 1954, a color image of the building was on the cover of L'Architecture d'Aujourd'hui no 57 making it and its designers famous (fig. 32). Furthermore, while it was in construction, trainees at the newly established ATBAT-Paris office were regularly sent to the famous "honeycomb" building in Morocco after completing a year in France working on low-cost housing in the suburbs of Paris) as reported by Banshoya G. a Japanese architecture student who worked for ATBAT-Paris in the early 1950s⁸.

Finally, the operation of "densepacking" of which HCB is characteristic emerged from the process of research explored above. It created efficient, modern, and aesthetic buildings which represents the revolutionary aspect of the work of ATBAT-Afrique.



Figure 33 Nid d'Abeille of Carrières Centrales in Casablanca on the cover of the December 1954 cover of L'Architecture d'Aujourd'hui.

2.2.3.3 The Kasbah correlation

Such research on the forms a dense yet modern and qualitative mass housing design could take is often related to the idea of Kasbah". A Kasbah is a settlement in southern Morocco's oases built out of rammed earth and featuring tight streets and rather small proportions in order to maximize shade in the hot and dry climate (fig. 32). Given the smaller scale of these settlements - that more than dwellings, usually house various retail stores and even common

⁸ See Banshoya G. Kaigai Network Chu Kin To (Oversea Network -Middle East-). Kenchiku Zasshi, p. 125, 1971. (in Japanese, translated to English by Kosuke Matsubara).

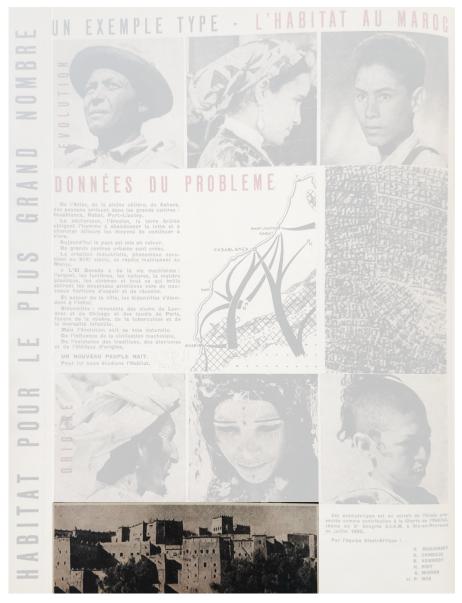


Figure 34 Supplement to L'Architecture d'Aujourd'hui (1953) about HFGN, by ATBAT-Afrique. Explanation of the relationship kasbah - HFGN.

pantry storage units carved in the earth - they result in a dense maze alternating public and private, and outdoor and indoor environments. Modern buildings in Morocco, especially "Honeycomb" and Habitat Marocain in Sidi Othman, are compared to Kasbahs and multiple researchers claim these buildings' parti originates in the spirit of a Kasbah's design. To my knowledge, the retrieved material from Ecochard's mobile units does not account for excursions so far south, nor does any of the publication from Candilis or ATBAT-Afrique. While the correlation is reasonable and certainly important to mention in that context⁹. I do not believe it is sufficiently backed up to constitute a certain origin for the forms HCB or HMSO took.

2.2.3.4 Implementing transitional spaces: Semiramis' "Alleys in the Sky"

Mediation in the form of spatial transition was an important component of the densification operation conducted in Carrière Centrale by ATBAT-Afrique. Also, intermediate spaces were key in maintaining the vernacular language in the new architecture. Thus, the alleys in the sky, these open-air hallways offered an important

transitional space from the public space outside to the domestic space inside (fig. 37), a way of being both inside and outside in a continued semi-private space. Such design decision highlights the antinomic design approach of the team, an approach seeking to offer particularity and personalization on the one hand, and commonality on the other hand.

Semiramis' "alleys in the sky" can be a reminder of Smithsons' "Streets-in-thesky", envisioned for the 1952 Golden Lane housing competition in London, England as a suspended, longitudinal terraces providing horizontal access to the different units. Despite Smithsons' project not having been successful in the Golden Lane competition per se, its impact on its contemporaneous architectural expression is tangible (Cunha Borges and Marat-Mendes, 2019). If Park Hill Flats (1957-61) in Sheffield, England by British architects Jack Lynn and Ivor Smith are often considered the first large-scale application of Smithsons' new structure (fig. 35 & 36), the concordance of the dates could suggest otherwise. The Golden Lane project and the Semiramis building having been both designed around the same time (early 1950s) and given that Candilis, Woods, and the Smithsons were known for being acquainted with each other (particularly for attending CIAMs) the assumption that the Semiramis building could have been an earlier application of these suspended access terraces than the Park Hill Estate is legitimate.

All in all, the simplicity of these

⁹ For more on the theory of the correlation Kasbahs/
HMSO see Weiss, Daniel. 2008. "A Moroccan Habitat:
Building within a Colonial Context." In Colonial Modern:
Aesthetics of the Past, Rebellions for the Future., Edited by
Tom Avermaete, Serhat Karakayali and Marion Von Osten,
166. London: Black dog. For more of the correlation Kasbahs/
HCB see Matsubara, Kosuke. 2020. A Shift from
"habitat Pour Le Plus Grand Nombre" to "habitat evolutif"
in Post-War Francophonie: A Study on the History of
International and Regional Exchange Activity of ATBAT
(Atelier Des Batisseurs), Part 2. Hoboken.



Figure 35 Park Hill Estate, Jack Lynn and Ivor Smith. Photograph of the facade - *Photo: Paolo Margari*, paolomargari.eu. Retrieved in AD Classics: Park Hill Estate / Jack Lynn and Ivor Smith, https://www.archdaily.com/791939/ad-classics-park-hill-estate-sheffield-jack-lynn-ivor-smith?ad_medium=gallery



Figure 36 Park Hill Estate, 1957, Jack Lynn and Ivor Smith. Photograph of the "streets-in-the-sky" - *Photo: Paul Dobraszczyk. Retrieved in AD Classics: Park Hill Estate / Jack Lynn and Ivor Smith, https://www.archdaily.com/791939/ad-classics-park-hill-estate-sheffield-jack-lynn-ivor-smith?ad_medium=gallery*



Figure 37 Semiramis building of Carrière Centrale, ATBAT-Afrique, 1953 - Alley in the sky. Both the extremely limited connection between the private and the public sphere and the rhythm of the courtyard walls and houses is based on vernacular architecture studies. *Retreived in IFA's archives (Institut Français d'Architecture)*.

solutions coupled with their replicability illustrates the essence of the ambition of ATBAT-Afrique: creating a modernity allying quantity and quality. The result is a modern mass-produced housing culture following ethno-sociological elements: a "habitat for the greatest number" (HFGN).

3 Toward an epistemological shift: the "Habitat For the Greatest Number" theory

3.1 Participation of GAMMA to CIAM IV

GAMMA, the Moroccan Modern Architects Group (with Ecochard and Candilis as members, among others) participated in CIAM IV in Aix-en-Provence in 1953 (where the principal theme was habitat). They presented "Habitat for the Greatest Number" as a modern response to urban challenges induced by modernization and industrialization (see figures 38, 39, 40, 41 & 42). They pointed out the discrepancy between colonial lands and the metropole, making it impossible to employ occidental thought and techniques in the North African colonies. HFGN was thus presented as a design direction built upon a generalized awareness of the cultural situation that the architecture is embedded in.

The "Habitat for the Greatest Number" paradigm produced among its presentation

at the CIAM a major alteration in architectural knowledge taking it from a hyper-modern, form-based discipline to one based upon the analysis of the real (Avermaete 2005). The presentation received particular attention. First, the presentation of Casablanca shantytowns as actual objects of study and inspiration sources rather than vilified urban forms caused surprise and shock among attendees from earlier generations (Avermaete 2008, 132).

GAMMA's presentation was highly reliant on the idea of grids. The grid idea gained popularity across all attendees. Le Corbusier even described it as a "promising lead to a universal solution for the future city" (Eleb 2000, 55-73). However, HFGNbased designs were not met with the same enthusiasm. The design of CC's buildings caused discord for its unusual parti presented in the GAMMA grid, bridging spatial expertise and everyday life. It was viewed as a challenge to the previous rational parameters of the earlier CIAM congresses (fig. 43). Therefore, while praising the use of the grid as a research and representation tool, Le Corbusier (like other modern masters like Gropius) condemned the radical epistemological shift¹¹ in modern architecture triggered

The HGN presentation is believed to have started the decline of the organization (that will be abandoned only six years later). Avermaete, Tom. 2008. "Nomadic Experts and Travelling Perspectives: Colonial Modernity and the Epistemological Shift in Modern Architecture Culture. "In Colonial Modern Aesthetics of the Past, Rebellions for the Future, 132. London: Blach dog publishing.

¹¹ About the shift in modern architecture and in the

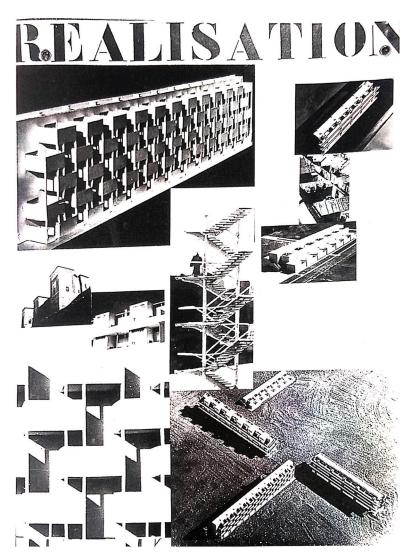


Figure 38 GAMMA Introductory panel 1 for CIAM IV, Aix-en-Provence, 1953. Mass housing realizations in Morocco

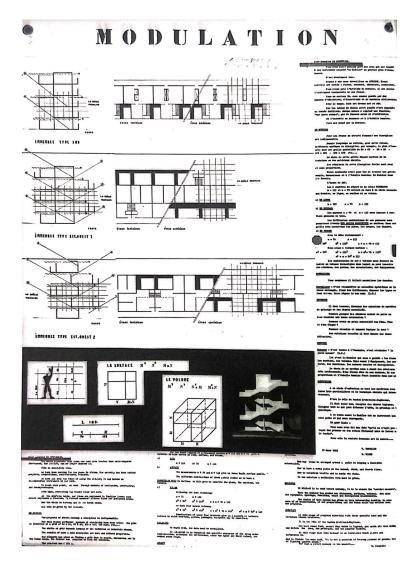


Figure 39 GAMMA Introductory panel 2 for CIAM IV, Aix-en-Provence, 1953. Explanation of the modular parti

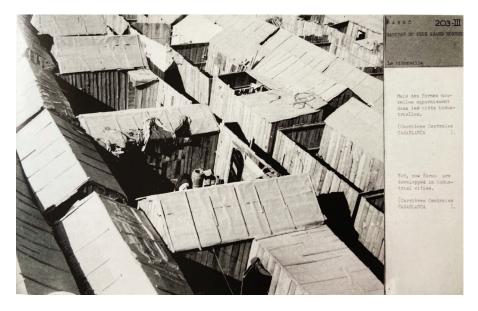




Figure 40 GAMMA panels 203-II and 203-III for CIAM IV, Aix-en-Provence, 1953. These panels present the various sanitary and over-crowding issues of the informal settlements in Carrière Centrale, Casablanca; issues GAMMA architects perceived as drivers of an epistemological change in modern architecture

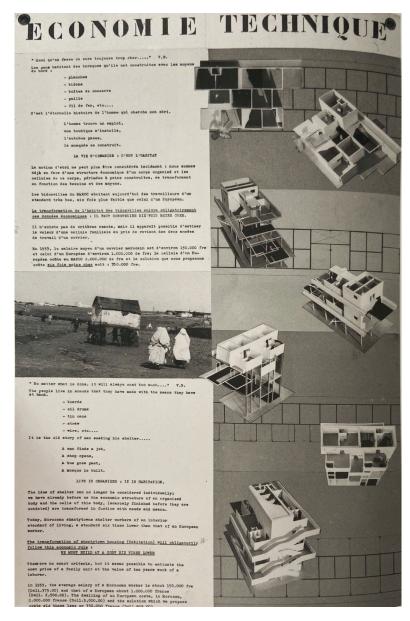


Figure 41 GAMMA panel 1 for "Economie technique" section; CIAM IV, Aix-en-Provence, 1953. In the "Economie technique" section, GAMMA explains how their studies leading to a repetitive modular architecture weaves together the ambition for qualitative space and the tight budget.

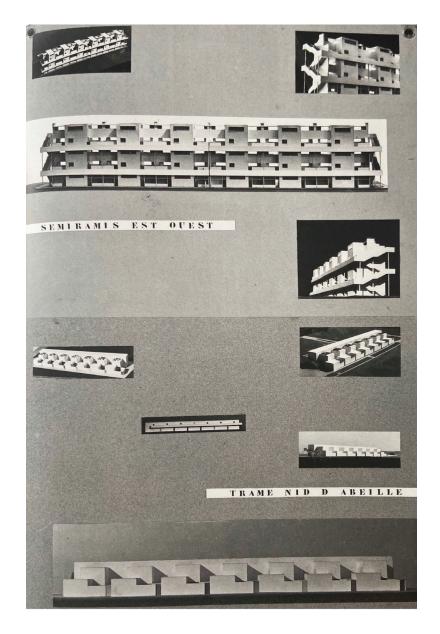


Figure 42 GAMMA panel 2 for "Economie technique" section; CIAM IV, Aix-en-Provence, 1953.

by the use of the grid as an instrument of reflection. Such modification deeply altered spatial conception, making it more of a "metrology" a.k.a a science heavily reliant on measurement (Le Corbusier 1953).

3.2 Team 10

Out of 3000 participants, a group of young architects was mandated to organize the following edition of CIAM, the tenth edition (hence the name "team ten"). Alison and Peter Smithson along with Woods and Candilis were part of the team. The work of team 10 remains a significant frame of reference for the development of CWJ's work. Therefore, modernization, decolonization, and the involvement with fellow new-generation architects and thinkers within Team 10 constituted an ideal background and a fertile discussion and exchange ground for ATBAT-Afrique's members to reach the international sphere and for their reflections on modern space to sustainably influence the modern Movement¹².

patterns of forming and applying architectural knowledge in modern times, see Solà-Morales Rubió, Ignasi, and Sarah Whiting. Differences: Topographies of Contemporary Architecture. Cambridge, Mass: [MIT Press], 1997.

12 For more on the typological and ideological alterations Team 10 triggered in the see Smithson, Alison. The Emergence of Team 10 Out of C.I.A.M.: Documents. London: Architectural Association, 1982.

3.3 Habitat For the Greatest Number

HFGN is a notion without scale implying its ability to adapt to a wide range of situations. It is very much an evolution of Ecochard's theory of "habitat": if "habitat" is a matrix linking different facets of the practice of habitation, HFGN is the "application treaty" emerging from it. Such an article was the only joint paper of the group. In November 1954, ATBAT-Afrique publishes in the journal "Techniques et Architecture" (Techniques and Architecture) a text that will subsequently be considered a HFGN manifesto. The article "Habitat pour le plus Grand Nombre" (HFGN in French) presented the six main guidelines of HFGN following the "habitat charter". A HFGN architecture should:

- Respond to the degree of human evolution
- Address informality and insalubrity in housing
- Consider city planning in a wide sense as the only solution
- Provide minimum standard housing for a maximum of people
- Present a high level of flexibility to political, economic, and social situations
- Embody the inseparability of "habitat" and city planning; city planning creates cater to the long-term views that make evolutionary solutions - crucial to habitat - possible.

^{13 «} Techniques et Architecture" is an architecture and design journal founded in 1941 by Georges Massé, Auguste Perret, Le Corbusier, and Jean Prouvé, among others.

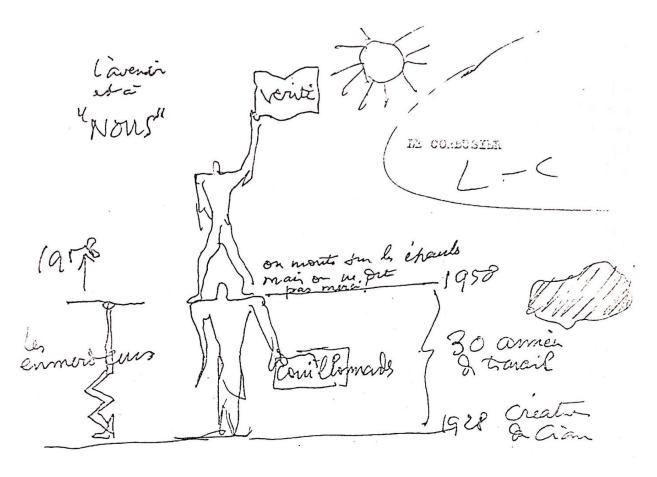


Figure 43 Sketch of the young CIAM generation by Le Corbusier, 1958. The sketch represents the "30 years of work" the young CIAM generation does not appreciate by "climbing on top of Modern Masters' shoulders (French expression conveying frustration and discontentment) without even being thankful and claiming "the future is "ours".

Although not specifically mentioned in the text, some indicators show that it was geared toward the housing problem in France rather than in North Africa, thus confirming the travel back of the HFGN to France and the North African roots to some mass housing structures in postwar France (Matsubara, 2020). First, the research was financed and supported by the Scientific and Technical Centre for Building (Centre Scientifique et Technique du Bâtiment) that is a French national organization founded in 1947 to support postwar reconstruction by facilitating research and innovation opportunities in architecture and construction. Second, the article presented HFGN as an important research step in terms of the resolution of the urgent housing challenges at stake in France. As a result, HFGN, a theory developed in colonial Morocco, was recognized in 1954 to be instrumental to subsequent French housing policies, one of the largest postwar recovery and reconstruction sites.

Besides, the temporality of publication of the article is also extremely telling, being the hinge period when ATBAT-Afrique was on the verge of moving back to France and managing projects on both sides of the Mediterranean. Such a paper hence symbolically initiates the period following the 1951–1954-time frame when CWJ will be applying elements from Candilis and Woods' colonial experience and former modernist training in mass housing design in France.

HFGN will remain a major area of interest and research for Candilis, as he

states in his autobiography, several years after the end of his work in Morocco. It offered him and the generations he trained the tools to create unique solutions to postwar French mass housing.

4 Takeaways

Such lessons were instrumental in the evolution of French architecture even in decades after the postwar era. For instance, Candilis was heavily involved in leisure architecture in France and took part in a landmark leisure project: the development of the Languedoc-Roussillon 180 km coastline. After gaining recognition thanks to his work in mass public housing, Candilis was thus sought out in 1964 by governmental bodies to design multiple leisure infrastructures on the Languedoc-Roussillon coastline, from La Camargue in France to the Spanish border (fig. 44, 45 & 46). The former CM experience and expertise dealing with large numbers of users over a large territory provided him with the design tools to manage an architectural program that is similar in scale, i.e. vacation complexes and other leisure structures yet different in all other capacities. The experience gained in Morocco was thus involved in a continuity that kept unfolding on French land even in the post-independence epoch. Continuity is a process where there is rarely physical and tangible similarity but rather a continuity of logic of sense, such process of evolution of the modernist architectural expression from a CM discourse to a French tradition of building can only be

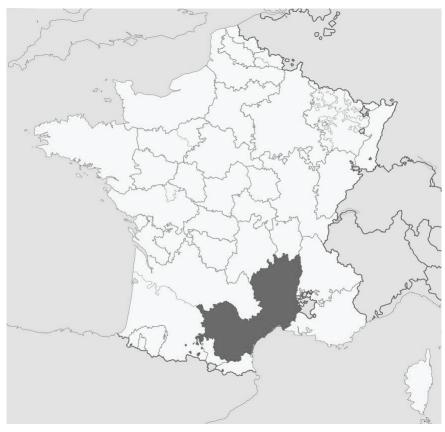


Figure 44 Map of France showing the Languedoc-Roussillon region. Image extracted from File:France location map-Provinces 1789.svg

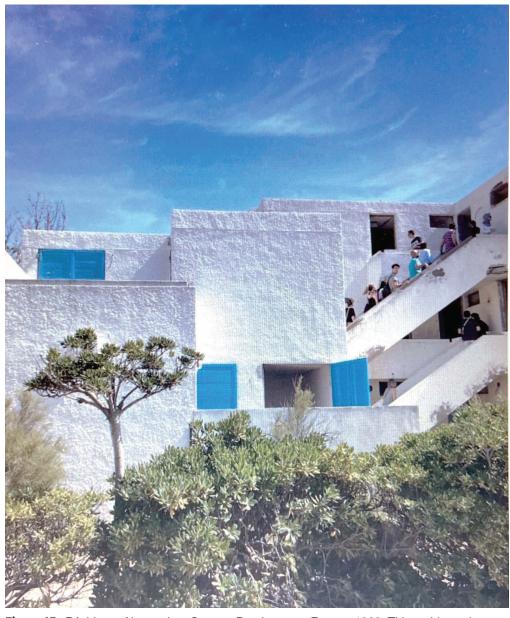


Figure 45 Résidence Nemea Les Carrats, Port Leucate, France, 1968. This residence is part of the Languedoc-Roussillon development by Georges Cnadilis. Photograph by Mariana Ures, 2019.



Figure 46 Résidence Nemea Les Carrats, Port Leucate, France, 1968. Retreived in INA archives, fond Candilis.

observed in discursive ways. The use of the same means of space reappropriation practices both in Morocco and France is an indicator of the travel back (fig. 48 & 49). Both buildings in these figures share designers and inhabitants. Consequently, the fact that the resulting architecture presents a correlation and is proof of the South-North echo only makes sense.

4.1 An Architecture for the masses

The unprecedented confrontation with the masses in North Africa is a chief coordinator of the work of ATBAT-Afrique and a major illustration of the postwar paradigm shift in modern architecture. As modernization and industrialization started weighting in design decisions by drawing the masses to urban settings, the masses or the "Greatest Number" became an important element to monitor and design for (Heynen 1999, 129-138). Such an emerging urban condition led the French housing market to hit a record high before 1970, thus signaling the move from pre-war single-function design patterns to postwar centralized methods of conceiving and producing architecture (Lesnikowski and Goulet 1990).

The novelty that Candilis and Woods brought to the discourse is related to the management of the duality quality-quantity. Hence, as quantity was at stake, the focus of the group was to look at the various possibility this design prompt

offered rather than on the constraints it imposes. Such a design philosophy allowed ATBAT-Afrique to make their architectural response a built synthesis of their past experiences, the work of research and study encountered locally, and the issue of the "Greatest Number". The central courtyard converted into balconies with high walls, for example, showcases the ambition to build on the work realized locally by Ecochard's team on indigenous forms of settlements, their experience with Le Corbusier working on "la barre d'habitation", and an ingenious manner to stack together multiple units while maintaining important architectural elements. the privacy of the households, and a high density.

Designing large working-class neighborhoods in colonial contexts was a unique opportunity and a useful preparation for architecture actors in postwar France during the reconstruction period. Having had to find new and almost ad-hoc solutions to complex urban situations involving thousands of people at a time (a single "bidonville" in Casablanca can gather up to 300 000 inhabitants at a time) in a context when bureaucracy is minimal, architects like Candilis and Woods were able to find the design freedom to reconsider modern movements' founding principles and invent new ways to modernity. Accordingly, alongside other architects like Aldo Van Eyck, Peter and Alison Smithson, the internal critique movement to CIAM known as Team 10 started, making the colonial experience and its teachings inherently modern.

In spite of the latter, the colonial experience was seldom cited, and Team 10 was regarded as a community of young thinkers criticizing the ignorance of modern architecture of past tendencies, local cultural aspirations, and natural features. Such a view is reductive and symptomatic of a major conceptual weakness in the account of postwar architectural culture development. The modern movement was not a linear process changing following a "relay" race fashion after being confronted with challenges. Instead, modernism is more a rhizome with various roots and origins all merging, eventually, into the same entity. All in all, the question of the masses as a new subject for modernity emerging from the colonial experience and being seldom recognized as part of modernity can be solved with a rhizomatic view on the subject.

4.2 Politicization of space and control of domesticity

Space and architecture are often used in colonial contexts as self-governing tools. Given the intrinsic relationship between space and space users, politicizing domestic realms can reasonably impact human behaviour and opinions. In colonialism, such a feature can be very useful. In Casablanca for instance, the threat of nationalism drove an entire urban development and was at the origin of the building, in the 1940s and 1950s (when the wave of liberation started across most colonies worldwide), of major

housing complexes that will have important impacts on the modern movement and postwar architectural expression. Hence, the work of ATBAT-Afrique, in that sense, helped shape a powerful, restrictive geopolitical tool for the colonial regime to control the populations and manage the liberation fervor in its direst hideouts like the informal settlements.

In that regard, housing is a critical component of the city to be watched over by the state and constituted the major part of the colonial modern work accomplished in Morocco. While on the terrain, the operations were acclaimed to be mainly the study of informal housing settlements as urban forms to be considered in planning for vast mass-housing projects, the same operations and the resulting architectures can be read as tools to assert colonial control and dominance over the colonized populations. The "alleys in the sky" of the Semiramis building in Casablanca are telling examples of architecture being instrumentalized to control human interactions thus involving the colonizer in the essence of private and domestic life. These hallways limited the number of apartment doors on the same floor and made it impossible for neighboring doors to face each other. Such directives diminished the opportunity and probability of impromptu encounters between neighbors. There is a symbolic dimension to such an expressive design parti. When exiting their unit, inhabitants are faced with taller-than-necessary white walls revealing nothing but the sky, a



Figure 47 The Honeycomb building, Vertical City, Carrières centrales, Casablanca, 2007. Closed-up balconies, laundry drying in the sun hanging from new windows on new brick walls, and satellite dishes were imported back into France when the same demographics who lived in neighborhoods like Carrières centrales migrated to France as unskilled labour. The brick wass turned blue plastic fabric, but the practices of dwelling appear to be similar. Photograph: Yto Barrada (Commissioned by the CCA). https://www.cca.qc.ca/en/events/3338/how-architects-experts-politicians-international-agencies-and-citizens-negotiate-modern-planning-casablanca-chandigarh



Figure 48 Installation shot of the video *Normal City* by Kader Attia of a low rent building in suburban Paris. Part of the exhibition In the Desert of Modernity, Colonial Planning and After. Haus der Kulturen der Welt, Berlin, 2008

vision symbolizing the nothingness political stakeholders aim to face anti-colonialist tendencies with. In this case, the duality between the will to provide providing "better housing" for Moroccan populations and the political ambitions conceals a rising worry about security and the overall sustainability of the regime

Otherwise, in earlier colonization stages in Morocco, the urban policy was a tool to advocate for the needs of the empire, presenting them as the needs of the people, hence, in the 1930s, the project of the "Villes Nouvelles", for instance, was eligible to receive financial support under the Marshall Plan (Waterson 1962). While it was advertised as a plan to provide Moroccan populations with better housing in the new cities, the resources served to build "Villes Nouvelles" primarily targeting European populations, the goal being the building of "propaganda" material and attract more settlers thus strengthening the grip. For example, American Journalist Edith Wharton wrote after her visit to Rabat, Morocco (Rabat was one of the six Villes Nouvelles planned by the colonial regime) about Lyautey's "benevolent colonial philosophy" (Wharton 1920). Such praising feedback on the colonial regime likely represented a large portion of the motivation behind the Marshall Plan application and is another instance of the use of the colonial urban apparatus as a political tool to gather funding and foster colonial reign.

Conclusion

"The banlieues are a reminder that the denied colonial history of the European city has long come home"

Labor K3000, Peter Spillmann, Michael Vogeli, and Marion Von Osten in Negotiating Modernity: From High-Rise to High-Rise" (this-was-tomorrow.net), 2008 Modernism is a rich patchwork that still holds numerous secrets. Today - half a century since the start of postmodernism - we dispose of the necessary setback, archival resources, and a holistic understanding of the postwar era. In such a context, the role of scholarship is to approach modernity in a discursive way and unveil the overlooked parts of the puzzle. That is what this thesis aimed to take part in.

The postwar debate on architecture and urbanity offers a variety of stances to appreciate and comprehend the rapport to space. The changing urban condition, the new industrialization, and consumer society culture combined to a geopolitical realm deeply tainted by independence and nationalist movements in most colonies started a "travel back" trend. This reverberation of goods, individuals, and ideas, nourished architecture and shaped the forms and shapes buildings took back in the metropoles.

The expansive investigation of the "travel back" motion completes the widely-spread traditional, euro-centered understanding of modernity and builds a theoretical framework to understand present-day tendencies, most of which are no less than aftermaths of conditions of modernity. The ghettoization of French suburbs, the origins of segregation and alienation in European space, the lack of integration of immigrant populations coinciding with the surge in racism and terrorism ...etc, are all examples where the study of the colonial modern era through the prism of

architecture is instrumental to understanding and addressing the issues in a contemporary manner.

In that regard, the study of decolonization offers a solid backdrop and suggests a methodology based on the juxtaposition of dates, events, and expressions from both sides of the hinge. The quest for liberation, freedom, and independence that results in decolonization is a quest for the formation of a united whole, a community. Such an aspiration for unity goes against the colonial imaginary: in a deeply modernist scheme, colonization is not in favor of ruled populations realizing their own singularity and originality (Mbembe 2021). Hence, colonial statal policies enhanced control and domination, keeping the people from forming meaningful relationships leading to independence-aspiring communities. In doing so, architectural design was a critical tool. Housing projects, as central pillars of such enterprise, were used to control and oversee colonized subjects' domestic life. Multiple instances of space being shaped into subliminal meanings and political tools in order to achieve undisclosed modernist ambition concealed behind design choices can be identified in most former colonial contexts. The search for such untold narratives behind key modern buildings and projects informs about the dynamics of the event of decolonization per se and reveals an often-eclipsed portion of the modernist narrative laying in the dynamics of Colonial Modernity in North African former French colonies (Enwezor and Achebe 2001).

Scrutinizing the oeuvre by Candilis and Woods for instance show that their "travel back" and postcolonial work in France was only the result of multiple circumstances. Realistically, the choice to fly back to France was likely individual and motivated by safety reasons. As for the massive contribution to the postwar housing discourse it likely is to be attributed to the fact that the CWJ partnership was able to propose winning projects in that sense thanks to their previous experience. However, the fact that "previous experience" means "colonial experience outside of the European space" remained understated for a long time.

Therefore, relying on innovative thinking and new forms of evidence, this research unveiled more of these blurry connection lines. It was built upon interdisciplinary material emphasizing the intersectionality between architecture, global theoretical trends, historical temporalities, and political thought. Whether it be the juxtaposition of European and non-European architectural dissemination material dating back to the postwar decades, to the analysis of the life and career of architects who have experienced the travel back a pivotal moment, the paramount role played by colonial modernity in building spatial concepts in Europe in response to the new modernization and industrialization realities is continuously explained and underscored by numerous "symptoms" and influences. These influences are part of a larger web where a wide variety of connections and impacts are to be retrieved and discovered.

This work builds on the existing theoretical framework studying South-North motions in space and architecture to serve a larger argument. Going beyond the ambition of proving that the portion of modernity pertaining to "travelling experts" and foreign perspectives (explored by Tom Avermaete) has long been silenced to the benefit of a western-oriented history. this work tracks ways in which the power of the resulting architecture was used to achieve various colonial ambitions and how these decisions were brought back into the metropole and continue to influence the postcolonial condition in various capacities. This contribution is a first step towards a much larger enterprise: the suggestion that architecture can - and should - be involved in more research-oriented conversations around colonialism, freedom, despotism, power, and politics in the city. The ultimate goal is to assert the sense of continuity in modernity in order to understand the postcolonial situation by creating a novel, non-western body of scholarly knowledge on colonial theory in architecture.

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Appendix 1

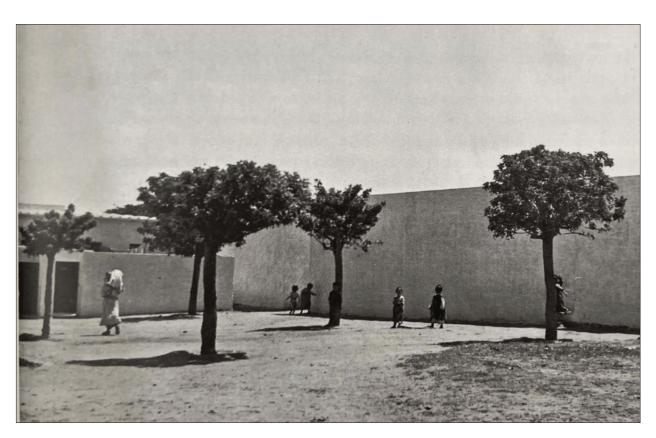
The «Now-And-Then» series.

Dualities, correlations, and juxtapositions

The "Now-and-Then" series illustrates the numerous parallels encountered in this thesis. Colonial times and the subsequent era are characterised by asymmetry, but in "asymetry" lays parallel, a the-same-and-the-other-that-is-also-somehow-the-same paradigm.

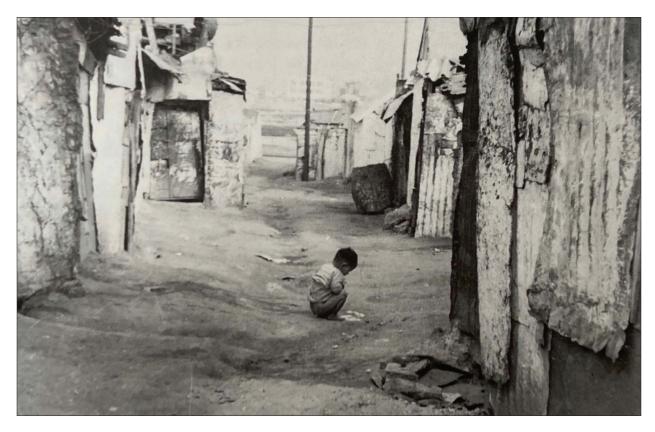
The following content sheds light on such situations, retrieved in different media (blogs and official websites, journals, film, and books), by producing a catalog of juxtapositions. Be it an opposition showing practices of appropriation, the travel back to the French Banlieues of these same practices, color correlations, or a juxtapositions showing the "betterment" of locals' life thanks to modern initiatives, this series underscores the dichotomies studied in this thesis and reminds the importance of "off the beaten path" perspectives and thinking in approaching such a critical discourse.

A/ «We thaught them how to live a modern life»



NOW: Children playing the Horizonta City, Carrière Centrale, Casablanca, 1952 *Source: GAMMA panel 604-III; CIAM IV 1953.*

The following text accompagnied the photograph: «Photo showing a little squarejointed to a block of about twenty houses» in Carriere Centrale. Children may play quite safely, parents meet together, collective life is organized».



THEN: A toddler defecating in one of the streets of Carrière Centrale informal settlement, Casablanca.

Source: GAMMA panel 203-II; CIAM IV 1953.

The following text accompanied the photograph: «No equipment: fecal danger. Considerable infant mortality: death of children between 0 and 5 years is 58.9% of total deaths".

B/ «Thank you for a flexible building»



NOW: The Semiramis building, Vertical City, Carrière Centrale, Casablanca, 2007. The «A la Corbusier» white color and the primary colors of the Unité d'habitation have been changed through processes of appropriation by inhabitants. New rooms appeared throughout the building and terraces and entrances were added on the rooftop. *Photograph: Marion von Osten*

THEN: The Semiramis building, Vertical City, Carrière Centrale, Casablanca, upon its completion

Photograph: https://communedesign.tumblr.com/post/115246606870/cite-verticale-at-carrieres-centrales-casablanca



The Semiramis building, Vertical City, Carrière Centrale, Casablanca, between August 2013 and 1960. The collective spaces in the "alleys in the sky" were appropriated over the years.

Photograph: Yto Barrada (Commissioned by the CCA)



NOW: The Honeycomb building, Vertical City, Carrières centrales, Casablanca, 2013. The balconies in the HCB were turned into additional rooms by adding bricks and plaster mouldings. Satellite dishes and a mosque also appeared in the neigbourhood. Inhabitants were thus able to keep shaping the architecture to their aspirations.

Photograph: Yto Barrada (Commissioned by the CCA). https://www.cca.qc.ca/en/events/3338/how-architects-experts-politicians-international-agencies-and-citizens-negotiate-modern-planning-casablanca-chandigarh



THEN: The Honeycomb building, Vertical City, Carrières centrales, Casablanca, upon its completion. The individual balconies and the introduction of color create a dynamic western facade. These same stylistic elements will serve more practical goals as life unfolds in the building



NOW: The Habitat Marocain in Sidi Othmane building, Sidi Othmane, Casablanca, 2013. Similarly to the outcome of te HCB, inhabitants of HMSO have closed-up the balconies and filled up the space underneath those with additional rooms as their needs in space evolved. *Photograph: Marion von Osten*



THEN: The Habitat Marocain in Sidi Othmane building, Sidi Othmane, Casablanca, upon its completion in 1955.

Photograph: https://onsomething.tumblr.com/post/53390490445

D/ Color correlations



The Honeycomb building, Vertical City, Carrières centrales, Casablanca, upon its completion in 1954, by ATBAT-Afrique.



Extention of the City Bagnols-sur-Cèze, 1958, CWJ.



La Viste project (700 low rent dwellings), in Marseilles' suburbs, 1959, CWJ.

Appendix 2

Excerpt of the article «Habitat for the Greatest Number»

For years, the ATBAT has been studying the problems of housing for the greatest number, in its aspects and particularities. There is no one uniform solution that can be applied everywhere, but a unique solution is required for each case.

While advancing these studies, the ATBAT is continuously facing multiple and sometimes unexpected issues. We have identified several solutions and alternatives, but the spirit of research remains unchanged. That is, the spirit of the greatest number, with its norms and its disciplines.

- -Construction in large quantities without choosing a location.
- -Construction at less than half the usual cost.
- -Working to be better while staying in reality.
- -It is not a question of doing technical acrobatics, but of constructing with the usual means at low cost.

The basis of the problem is, above all, to balance the gap between what we want to do and what we can do. For this, we must prioritize the above factors according to their importance and their influence on the expected problems.

The Clover Series offers a solution for onestory apartment complexes. The movable walls perpendicular to the facade are placed at intervals of 3m to 2.25m. The facade consists of a wall surface to which these movable walls are connected.

- 1-The housing consists of:
- a) Living room
- b) bedroom of the parents
- c) bedroom of the children
- d) Bath/toilet and kitchen (areas where water is circulated)2-Les logements sont transversants, a double orientation,
- 2-The housing is structured with a double orientation as follows:
- a) Living room and kitchen by the facade with entrance
- b) The bedrooms towards the garden of the opposite facade.
- 3-The living room and bedroom of the parents are in the same location, but it can be divided by a storage-partition wall which can be lowered or raised, movable or fixed, depending on the needs and wishes of the resident.
- 4-At least one of the bedrooms of the children is independent.
- 5-Residents can, to a certain limite, be architects of their own homes.
- 6-The kitchen, along with the living room, forms a unified space, which becomes the center of the house.

7-When planning, the two units (living room/kitchen, and bedroom) are kept as close as possible, so that they can be moved efficiently, which makes it possible to have a more extensive garden towards the bedrooms.

8-The area (dimensions) shall be in accordance with the French legislation on economical family housing. The module is for one bed. In addition, the basic layout plan should maximize the depth and minimize the facade.

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