

On the Move: Michel Écochard, Migration, and Transdisciplinary Exchange in Urban Design

Trained as an architect, archaeologist, and urban planner, Michel Écochard was both a prominent proponent of Modernist architecture and a conservation architect with a deep appreciation of traditional construction methods and architectural forms. Working in territories where social and economic conditions were quickly changing, Middle East, Africa, and South Asia, Écochard proposed an unconventional method for imagining cities and communities' development that merged Eastern and Western models. This paper briefly surveys his career, framing it as a search for a "Third Way," then focuses on a more detailed analysis of two projects, both of which were responses to mass migration.

The first project, carried out from 1946 to 1953 as head of the Department of Urban Development in Morocco, was a specific urban planning solution for migrants from rural areas. The second is a planning strategy proposed to address the

problem of refugees that had begun coming to Pakistan due to the partition of India and Pakistan in 1947.

In carrying out both projects, Michel Écochard developed extensive visual materials to analyse the sites' social and physical characteristics and convey his vision to others. This paper analyses these materials in detail, relying on both published illustrations and the Michel Écochard Archive of the Aga Khan Documentation Center at MIT to clearly understand his vision and measure the degree to which it has been achieved.



Beniamino Polimeni
Dr Beniamino Polimeni (University of Hertfordshire, School of Creative Arts, UK) is a Senior Lecturer in Architecture at the University of Hertfordshire. His research interests have developed out of ten years of international experience in teaching and practice which have informed his multidisciplinary approach combining vernacular architecture, heritage conservation and the influence of migration on the traditional and modern built environment.



Michael Toler
Dr Michael A. Toler (Aga Khan Documentation Center, MIT, US) has been the Archnet Content (archnet.org) Manager since September 2012. Prior to that he served as the program Director for the Al Musharaka Initiative of the National Institute for Technology and Liberal Education. He has published and lectured extensively on digital pedagogy and scholarship, as well as the literature, history, cinema, music, and cyberspace of the Maghreb, and the Middle East more widely.

Keywords:

Urban migration; Casablanca; Visual Resources; Écochard; Morocco, Karachi, Urban Planning

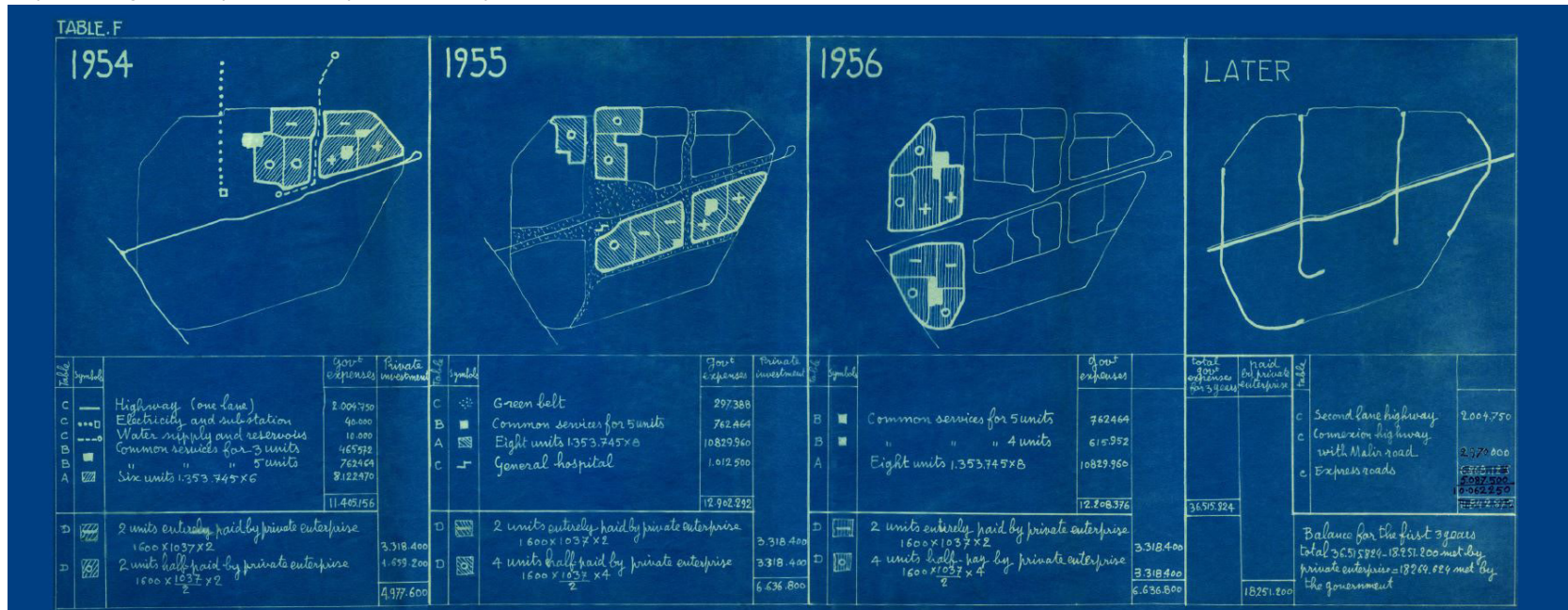
INTRODUCTION

French archaeologist, architect and urban planner Michel Écochard (11 March 1905 - 24 May 1985) was one of a number of prominent urban planners who developed and designed urban interventions in states that were in the process of decolonisation or that had recently become independent. Such times of profound political transition are invariably characterised by significant population movements, particularly from rural to urban areas. In Casablanca, Morocco and Karachi, Pakistan, Michel Écochard developed urban plans that responded to local or transnational migration challenges with models that combine indigenous tradition and global perspectives. While planning both these projects, Écochard worked simultaneously in two different temporalities. He was responding to specific crises that required large-scale plans developed with an eye

toward the future evolutions of the city as a consequence of such population movements (Fig. 1). The first step in developing his plans for both cities was to understand the forces driving migrations and the specific characteristics of the site where the structures would be built to accommodate them. Écochard created maps, charts, photographs and other visual representations relating to his projects. In other words, visualisations were among the primary tools used to mediate between the generalising character of his transnational practice and the specific conditions of the areas he planned (Avermaete, 2020). In the forties, Écochard began to enrich his reports and proposals by developing a typology of diagrams and drawings representing social, environmental and topographical aspects using blocks and colours. These visualisations conveyed infor-

mation about geographical and territorial features, as well as infrastructure and the built environment. In the case of Karachi, urban diagrams were created to show the density of the existing city and the trajectories of wind-generated airflow. Instead, the city's planned development was depicted with colour schemes coded according to function. As pointed out by Avermaete (2020), the diagrams were produced to both create the basis for further representation and a lingua franca, helpful in describing urban intervention to the different agents involved in the planning process. In addition, they provided a basis for discussion with local designers, builders and administrators (Fig. 2). Écochard had created similar visualisations during his tenure as head of the Department of Urban Development in Morocco, and to some extent, these may have served as a template for

Fig. 1 - Evolution of the prototype town developed in Karachi. (Écochard, 1953).



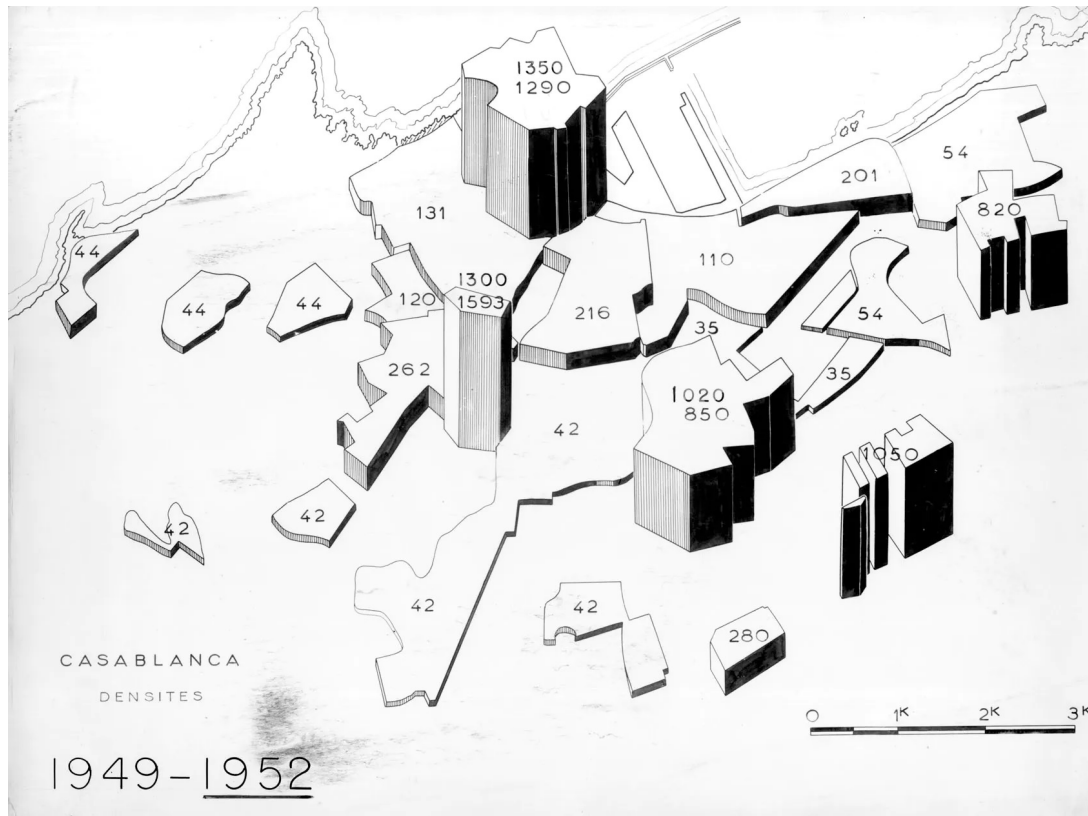


Fig. 2 - Representation of the density of the different areas of Casablanca. (Écochard, 1954).

those he used to analyse the refugee issue concerning the urban landscape of Karachi. However, by far the most developed urban plan was that of Casablanca.

In addition to maps, charts, and plans for the expansion of the city, Écochard also developed extensive visualisations documenting the need for expansion and the problems his plans would face. Additionally, unsatisfied by the numerous issues that prevented the realisation of his plans, he went on to document his frustrations in *Casablanca: le roman d'une ville*, published in Paris in 1955. The

book is extensively illustrated with charts, photographs, maps and plans.

This paper analyses some visualisations developed to aid in understanding mutations of the urban environment associated with large movements of people in Casablanca and Karachi. Using the resources contained in the Michel Écochard Archive of the Aga Khan Documentation Center at MIT and illustrations in published reports, it seeks to understand how these tools influenced his transcultural vision and to measure the degree to which it was realised.

BIOGRAPHICAL NOTES

The life of architect and urban planner Michel Écochard was characterised by a diversity of interests and a career that involved projects in various geographical contexts and scales. He was exposed to Modernist construction and design ideas as a student at the *École des Beaux-Arts in Paris* (1925-1931). After graduating, he was dispatched as a restoration architect in the Antiquities Service in Syria and Lebanon. In that role, he participated in the restoration of the Temple of Bel in Palmyra and numerous Islamic monuments.

In this capacity, he developed research and survey skills to understand the built environment at different scales, which were later used more extensively in urban planning projects. The interaction with scholars and archaeologists such as Jean Sauvaget, Daniel Schlumberger, Henri Seyrig, and Georges Tchalenko (Verdeil, 2012) also enriched his theoretical and historical knowledge and his multidisciplinary view regarding cities and large areas.

In 1933, he designed the Antioch Museum (now *Hatay Arkeoloji Müzesi*) and, in 1936, the National Museum in Damascus. That same year, he worked with renowned urban planner René Danger to develop the 1936 plan for the expansion of Damascus, and in 1940 he was named Director of the *Service de l'Urbanisme* for Syria and Lebanon, still under the French Mandate. The first project he undertook in that role was the expansion of Beirut in 1943.

By the end of the 1930s, Écochard had established a reputation in the three main specialities of his career, historic preservation, architecture, and urban planning, but with his promotion to lead the *Service d'Urbanisme*, the emphasis of his career had clearly shifted.

He would continue working in all three domains in vastly different social settings throughout fifteen countries, mainly around the Mediterranean basin. Though he was born and died in Paris, he only developed a few projects in his native country.

In 1946 he was placed in charge of the *Service d'Urbanisme* of the French Protectorate in

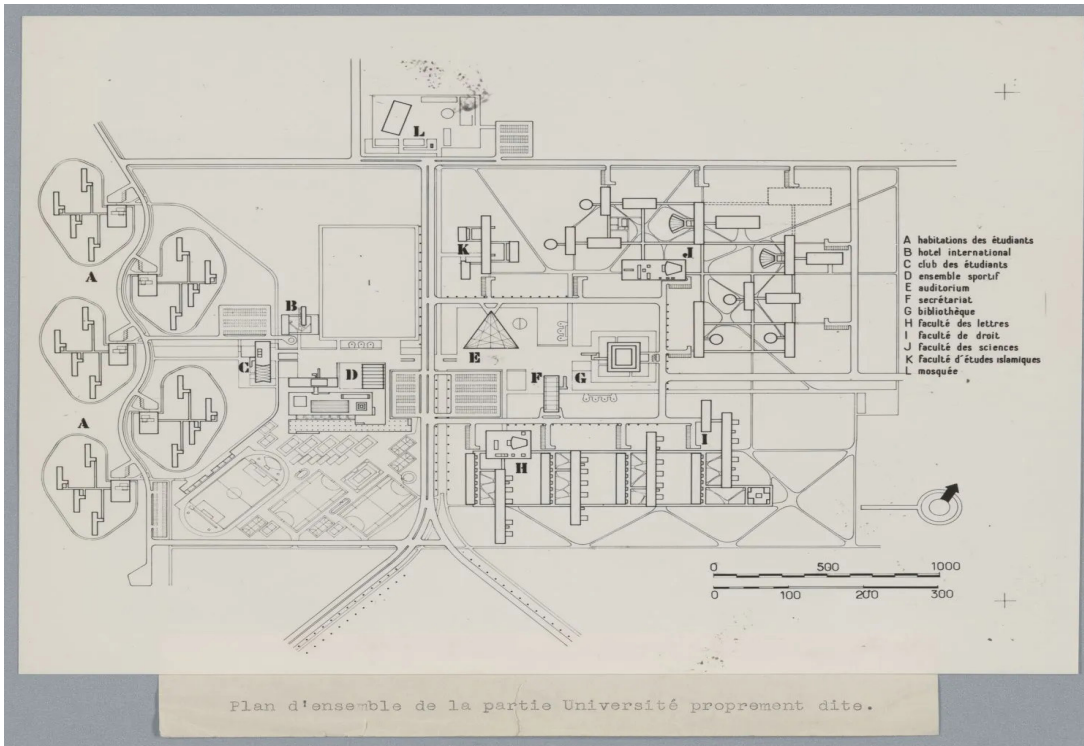


Fig. 3 - Plan of the University of Karachi. (Michel Écochard Archive).

Morocco, where he developed plans for the development of Port Lyautey (Kenitra), Rabat, Fès, Meknès and Beni Mellal, but it is his plan for the development of Casablanca for which he is best known, though it frustrated him enormously.

Syria and Lebanon both achieved Independence the same year that Écochard went to Morocco, but his ties to both nations remained strong. Between 1958 and 1962, he developed plans for numerous cities in Lebanon, culminating in the 1968 plan for Damascus. His term with the *Service d'Urbanise* in Morocco ended in 1953, three years before Morocco gained Independence.

Écochard's practice as an architect and urban planner with great sensitivity toward the local and

natural topographic features was uninterrupted by Independence. He was a participant in the International Congress of Modern Architecture (CIAM, *Congrès International d'Architecture Moderne*), a proponent of the call for Functional Cities embodied in the Athens Charter produced by the group in 1933 and was generally considered anti-colonial, in spite of his work under the French Mandate in Syria and Lebanon or under the Protectorate authorities in Morocco. As an architect, he produced significant works characterised by a design approach based on a thorough knowledge of the locale in terms of society, materials, vegetation and topography. Examples of this method are the University of Yaoundé in Cameroon, where he com-

bined local materials and traditional techniques on a structure made of concrete elements, the Hôpital du Sacré-Cœur in Baada, Lebanon, built into a hillside and predominantly of concrete, but with local stone used in outdoor structures, and the University of Karachi, where different shading tools, along with proper use of green areas, and pools have been designed to improve the comfort of the facility.

In the 1950s and 60s, Écochard developed urban plans for Byblos, Saïda, Mashhad and Dakar and Cabo Verde that aimed to preserve the existing architecture of historical significance while also implementing the concept of a Functional City elaborated in the Athens Charter. He also developed new plans for Damascus and Beirut that built on aspects of the Mandate period's urban planning and repudiated others. However, none of these plans was fully realised, as is invariably the case with urban plans, especially during times of significant political transition. In 1983, Michel Écochard received the Aga Khan Award for Architecture in recognition of the restoration of Qasr al-Azem in Damascus, completed in 1955.

THE MICHEL ÉCOCHARD ARCHIVE OF THE AGA KHAN DOCUMENTATION CENTER AT MIT

Michel Écochard was very much a visual thinker, as architects generally are, but he possessed a sharply analytical, inquisitive mind. He published numerous articles, reports and books on both specific projects and his architectural philosophy more generally. *L'Autre* (1979) is a small volume that provides a highly impressionistic review of his life's work through drawings and handwritten text (Fig. 4). Only the dedication, list of illustrations, and a concise preface are typeset. In it, Écochard writes: "SOME EXPRESS THEIR THOUGHTS THROUGH IMAGES, OTHERS IN WRITING. PERSONALLY, IT IS DIFFICULT TO DISTINGUISH BETWEEN THESE TWO FORMS OF EXPRESSION. THIS EXPLAINS THE MIXTURE OF DRAWINGS AND NOTES IN THIS PRESENTATION OF MY WORK. ALSO, I PAID LITTLE ATTENTION TO DATES, LIFE

L'AUTRE



Fig. 4 - Book Cover of *L'Autre*. (Écochard, 1979).



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Vue prise du N-O
- mosquée des Ommeiyades
- Souiq Hidhot Pacha

1935

Fig. 5 - Aerial view from the Damascus Album (Michel Écochard Archive).

REFUSING TO BE BOUND BY CHRONOLOGICAL CONSTRAINTS.” (Capitalisation in the original). This statement applies to that book and his work in general. Of course, architects and urban planners are obliged to produce plans, charts and other renderings, but in addition to renderings of the project itself, Écochard seems to have found it particularly helpful to map, create diagrams, or otherwise illustrate multiple aspects of the site before a given project and after. In addition, he frequently used aerial photographs in large-scale projects to analyse the locale in which he would

develop a plan and provide a visual overview of the design upon completion. He also relied heavily on historical photographs (Fig. 5). An understanding of Michel Écochard’s work is substantially enriched by consideration of the visual materials he used in his projects. Indeed, in the later years of his life, he compiled a series of albums in which he presented the cities in which he worked and his design schemes. The albums include his own photographs, annotations, and sometimes historical photographs. In the mid-1980s, Michel Écochard donated the

archives of his offices in Paris to the Aga Khan Award for Architecture in Geneva. The archives included around 500 plans, 1500 slides and large-format positive films, 10,000 negatives in large format and 35-millimetre film strips, both black and white and in colour, as well as numerous prints in various formats. In addition, the archives included reports, books, notes, and a collection of magazine and newspaper articles about the man and his work. As Écochard was a keen traveller and photographer, the collection includes many general city

1965-1974	University of Yaoundé
1969-1971	University Center for Health Sciences of the University of Yaoundé
1972-1975	Embassy of France, chancellery in Yaoundé
1977	National Institute of Youth and Sports in Yaoundé
Congo	
1963-1968	Higher Education Center of Brazzaville
Corsica	
1961-1962	Development of the Coti-Chiavari estate
1963-1970	Development of the Cervjonee estate
1967-1971	Master urban plan for Porto-Vecchio
1969-1970	Master urban plan for Bastia
1969	Tourism development of the Pinéa estate
1969-1970	Master urban plan for Saint-Florent
France	
1962-1970	ZUP of Martigues
1964-1966	Center for Higher Studies in Social Security in Lyon
1964-1970	Capuchin school group in Martigues
1968-1970	House of Culture in Nanterre
Gabon	
1963-1964	Polytechnic Institute in Libreville
Guinea	
1956-1964	City of Fria in Sabendé-Gueyta
Iran	
1964-1968	Urban planning study in Tehran
1966-1968	Development of the city centre of Tabriz
1970-1977	Pahlavi University in Shiraz (Iran)
1971-1978	"Farabi" Arts University in Tehran
1973	Aria-Mehr university of technology in Isfahan
1974-1976	Cultural centre in Kermanshah (Iran)
1977	Development of a cultural centre linked to the old observatory of Maragheh
n.d.	Urban renewal of the historic centre of Mashad
Ivory Coast	
1962-1965	Ecole Normale Supérieure of the University of Abidjan
1961-1977	University of Abidjan

Kuwait	
1962-1977	Kuwait National Museum
Lebanon	
1941-1948	Development plan for Beirut
1953-1961	French Protestant college for young people in Beirut
Morocco	
1947-1952	Urban plans for Agadir, Beni Mellal, Casablanca, Port Lyautey, and Rabat-Salé
Oman	
1973	New capital of the Sultanate of Oman
Pakistan	
1953-1954	Plan for a new town in Karachi
1954	Plan of the New University of Karachi
1958-1961	Mohenjo-Daro Museum
Senegal	
1963-1979	Master Plan for Dakar and Cape Verde
Syria	
1932	Gate of the Temple of Bel in Palmyra
1936	Damascus Museum, Kasr El Her Castle
1936	French Institute, Azem Palace in Damascus
1938	Enhancement of historical monuments in Aleppo
1938-1942	Urban planning in Syria
1940	Project for the development of the City of Damascus

and landscape views and documentation on planning, architectural, and restoration projects he was involved in the Middle East, Asia, Africa, and Europe.

In order to facilitate scholars' access to the material, the Aga Khan Award for Architecture gifted the Michel Écochard Archive to the Aga Khan Documentation Center at MIT, part of the Department of Distinctive Collections in the MIT Libraries and affiliated with the Aga Khan Program for Islamic Architecture at Harvard and MIT, established in 1979 by a gift from His Highness the Aga Khan.

As of this writing, the collection is being processed for conservation and to facilitate access by researchers. Selections are also being made available on Archnet.org, an Open Access multimedia library on the built environment, with a particular focus on Muslim societies.

The following part of this paper examines the visual archives relating to two projects, the urban planning of Casablanca in response to massive internal migration to the city and the planning of refugee housing in Karachi for Muslims fleeing India after Independence and the partition of the territory immediately after the end of British imperial rule.

INTERNAL MIGRATION IN CASABLANCA

As previously stated, Écochard worked in countries characterised by rapidly changing economic conditions. From this perspective, the example of Casablanca is compelling: industrial development produced disproportionately large migration from the rural area to the city and, consequently, the spreading of shantytowns called "bidonvilles" (Bernasconi, 2019). The city was part of the French Protectorate as designated by the 1912 Treaty of Fes, and in 1913, Resident-General Hubert Lyautey called on the celebrated French architect Henri Prost to take charge of urban planning in the French zone. While Rabat would be the administrative capital, Casablanca was developed as the commercial capital of the Protectorate, and it grew rapidly.

Table 1. Inventory classified by country

In 1930 Henri Prost presented a novel plan for Casablanca, proposing a model of transformation and growth based on concentric rings developed around the existing medina [1] and supported by a series of circular and radial avenues to give access to the different services (Barba García, 2012). However, this solution failed as these industrial zones were deprived of essential infrastructure and did not have sufficient housing to absorb the increasing population as workers and their families migrated from rural areas (Calmon de Carvalho Braga, 2013). By 1946, when Michel Écochard took over as head of the Architecture and Urbanism Service, the city had already grown beyond anything Prost might have planned for. The ineffectiveness of these conventional planning

solutions was the main problem that Michel Écochard faced as the head of Morocco's Department of Urban Planning from 1946 to 1953. There was a massive influx of Moroccans and foreigners seeking opportunity in this new city, and speculation was rampant. In the 1951 *Rapport préliminaire sur l'aménagement et l'extension de Casablanca of Écochard* and his team called the phenomenon the "désintégration de la campagne," i.e. the collapse of rural life, noting that 75% of industrial production in the French zone occurred in Casablanca. Écochard suggested a completely different approach based on visual and analytic research. He proposed a decentralised industrial development model that expanded beyond the existing city into the surrounding region.

Although they faced technical and resource limitations (Écochard, 1954), the plan designed by Écochard and his team was based on field research and graphical analysis in which the relationships between the city and the industrial areas were explored to understand the economic, social and cultural issues of the people living in slums. These were extensively documented in photographs and charts (Figs. 6-7).

The primary goal of the design action was to create different types of housing organised around courtyards in large-scale developments based on an eight-by-eight-metre grid (Fig. 9). Developed according to Le Corbusier's principle of "housing for the greatest number", Écochard proposed a design for an "urban tissue" that would "invite appropria-

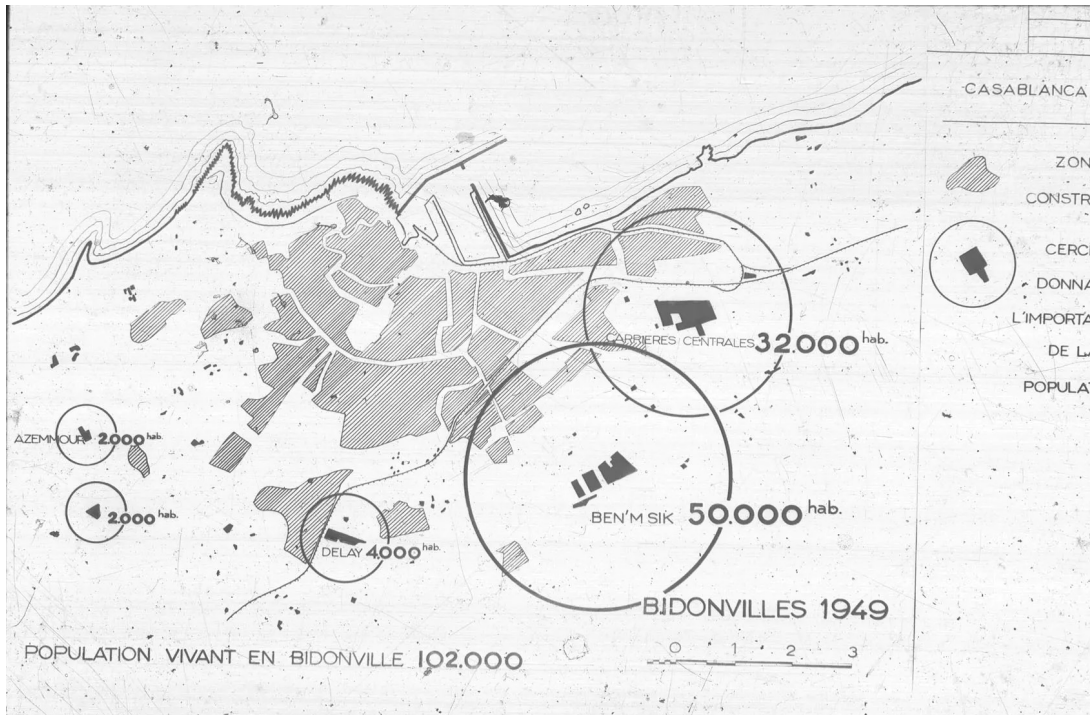
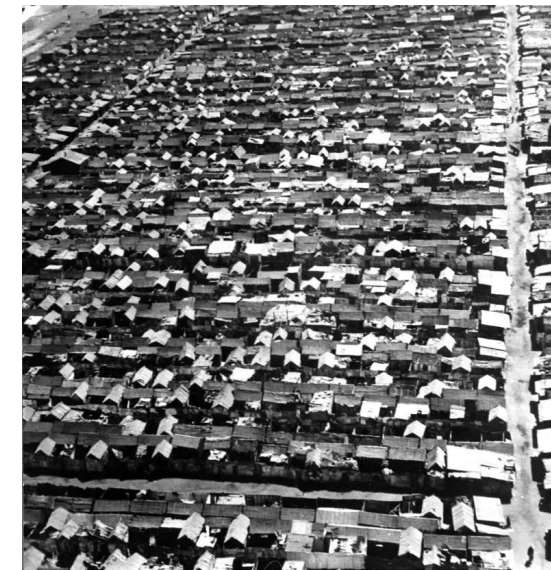


Fig. 6 - Map of the population living in the Bidonvilles. (Michel Écochard Archive).

Fig. 7 - Image of the Bidonvilles in Casablanca. (Michel Écochard Archive).



BIDONVILLE D'AIN DIAB
(banlieue de Casablanca)



*Carrières Centrales
Parke Sud*

Fig. 8 - Development in the area of Carrières Centrales (Michel Écochard Archive).

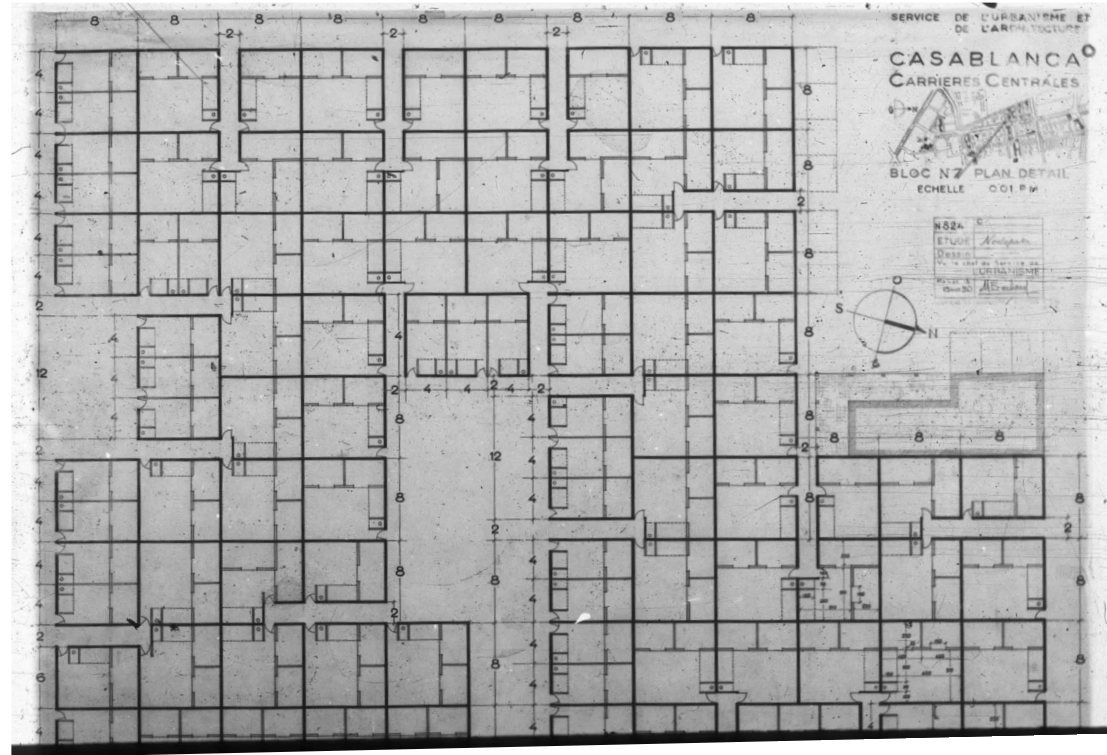
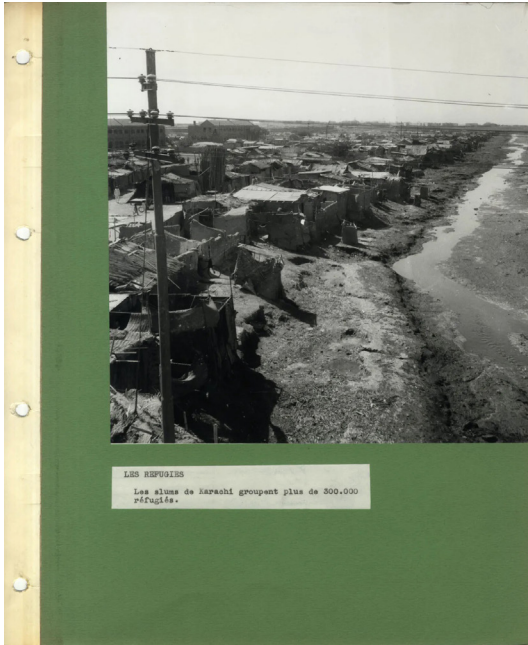


Fig. 9 - The eight-by-eight grid. (Michel Écochard Archive).

tion”, allow for transformations, anticipate demographic growth, and evolve into a community over time (Strava, 2021; J. Écochard, 2014). The urban model was based on neighbourhoods composed of different units, including dwellings, pedestrian routes and spaces for education, recreation, administration, religion and trade. (Essebbar, 2020). The continuation of housing around squares created a sort of horizontal hierarchy in which the fundamental element was the single-family dwelling clustered in courtyards and small alleys adapted to the local Moroccan tradition (Barba García, 2012). Furthermore, the general idea of urbanisation was conceived as a process of evolution in which more complex types could replace the initial courtyard houses as needed over time.

An experimental application of the Écochard grid is the *Carrières Centrales*: a site located in the Hay Mohammadi district of Casablanca. The development consists of horizontal and vertical housing solutions and is based on a grid on which different types of construction can be arranged (Essebbar, 2020). The urban project designed by the GAMMA group is characterised by five neighbourhoods arranged in units that could accommodate nine thousand people to provide affordable housing for individuals working in local factories. In addition, a series of modular complexes inspired by *Unité d’habitation* were designed for educational and administrative functions. Michel Écochard often chose to explain his work in publications, usually magazines and journals or

small-run booklets that were not meant for sale. Casablanca, however, is the only one to become the object of a book-length study, *Casablanca. Roman d’une Ville*. In this volume, the design process is carefully described, along with the sense of frustration that characterised this experience. The choice of the word “roman” is interesting, however. The most common English translation is novel, a translation consistent with how both words are most often used in their respective languages, i.e. a long work of fiction. In French, however, the word roman has other fascinating connotations. It is frequently used figuratively to denote a true story that takes the kinds of twists and turns that characterise the plots of most novels. This is undoubtedly what the author intended, but it is interesting to note that the word



LIS REFUGIERS
Les élèves de Karachi groupent plus de 300.000
réfugiés.

Fig. 10 - Picture of the slums of Karachi (Écochard, 1953).

may also be used much more casually to denote a story that is not true. Of course, it also shares a stem with words like Roman, romance, and romantic. One might reasonably expect a work characterised as “roman d’une ville” to be somewhat more sentimental or nostalgic than is this book. It is, however, extensively illustrated, demonstrating how the maps, charts, and drawings are as essential to the story as the narrative itself.

REFUGEES IN KARACHI

Although some of the architectural theorists related to CIAM considered the Casablanca plan a remarkable example of integration of local culture, Écochard was criticised in France as the idea behind the design strategy was considered extremely functionalist (Munoz, 1983). Nevertheless,

despite this local scepticism, the design concepts developed in Morocco became part of the international architectural debate of the period. This global recognition was the primary reason for its invitation to propose a solution for the Indian refugees in Karachi that followed the partition of the subcontinent (Fig. 10).

One of the main aspects of the initial report was creating a planning solution that could immediately provide low-cost housing while also controlling the evolution of the area through a policy scheme set up to manage future developments. The suggested scheme was based on data collected during a mission he undertook as a consultant for the United Nations Technical Assistance Administration (UN -TAA), in which the social and physical aspects of the city were analysed. As a result, the planning proposal produced in 1953 was essentially a set of different urban centres on an east-west axis in the eastern area of Karachi, which later became a single prototype for a town composed of five different neighbourhoods designed to provide a certain level of flexibility for different housing types and functions. These zones were concentrated in the vacant area south of the Malir River, each one characterised by a number of units ranging from three to five, each composed of 1600 houses, according to the topographical conditions.

In accordance with the ideas developed in Casablanca, Écochard designed an urban area according to a three-stage evolutive principle growing from provisional shelters to multistorey and terrace houses designed according to the mutation of the standard of living and the social profile of the residents. Finally, the general town structure was established according to the four functions of “circulation,” “work,” “living,” and “the care of body and spirit”, each one characterised by a specific colour in the original drawings (Muzaffar, 2012). Particular attention was also given to environmental aspects and orientation. For example, open spaces were planned parallel to the wind directions to facilitate climate control.

As pointed out by (Muzaffar, 2012), certain aspects of the biography of Écochard — in particular, his

Fig 6) Overall Plan of the new city

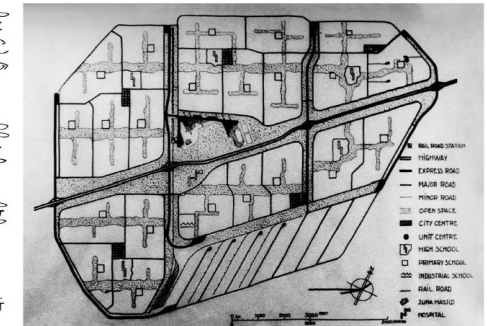
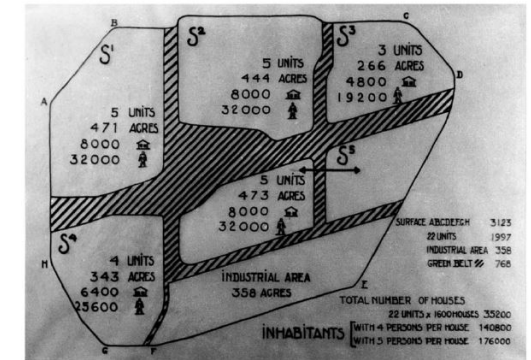


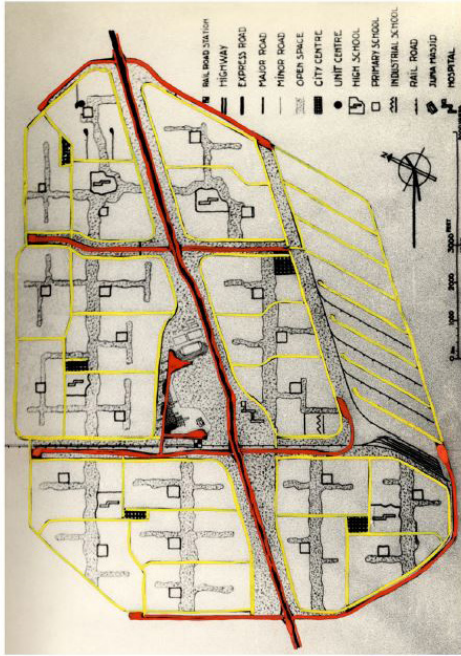
Fig. 11 - General Plan of the new City. (Écochard, 1953).



(Fig 5) Surface and organisation of the proposed city

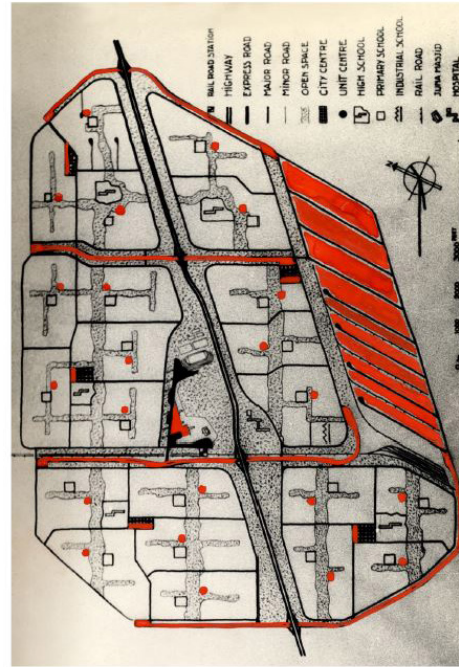
Fig. 12 - Plan of the new City with the different neighbourhoods (Écochard, 1953).

training as an archaeologist — emerged from this project as the design process could be read as a reversal of the archaeological process in which the limits of the site are established, but just as discoveries might lead to expansion of the archaeological dig, the limits an urban planning project might take on new layers as the potential of the site is revealed.



(fig17) CIRCULATION

- in red, an black highway
- in red, Express roads which collect the traffic of each neighbourhood unit
- in yellow, major roads surrounding each neighbourhood unit
- in black minor roads (given only for one neighbourhood unit)



(fig20) WORKING

- in red - industrial area
- Express roads leading to the industrial area
- Shopping centres of each neighbourhood unit and satellite towns
- Business centres -

Figs. 13, 14 - The functions of the new city: "Working" and "Circulation". (Écochard, 1953).

As was the case with the planning of Casablanca, a comprehensive collection of visual materials was realised to support the data included in the report. All these resources were organised in a chronological order that originated from the initial conditions of the city to a set of drawings representing possible future scenarios (Fig. 19).

CONCLUSION

Michel Écochard was a sharply analytical thinker with a keen interest in solving social problems. His career essentially played out in Africa and Asia during periods of significant social change, from the economic and social upheavals of the 1930s, through the Second World War and independence movements that eventually shook off colonial rule,

and finally, the instability of newly independent areas as they forge new national societies.

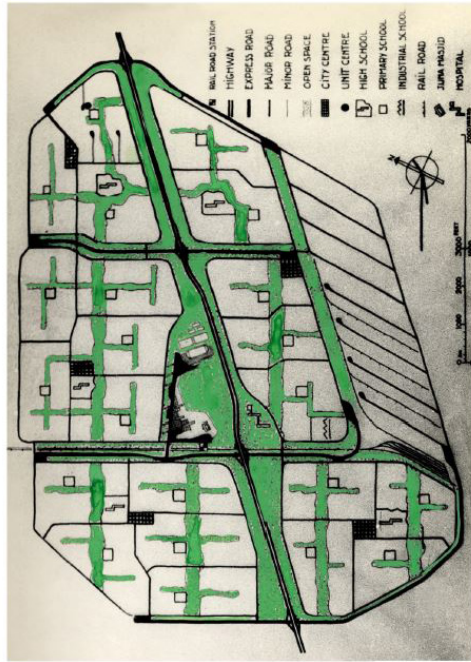
His thinking in the different fields of architecture and urban design was profoundly shaped both by his academic training and by the Modernist ideas of Le Corbusier and the CIAM. As someone aware of the relationships between social context and built environment, he fully understood that designing individual structures or whole cities did not happen in a vacuum. They are defined by a combination of physical, political, social, aesthetic, and economic aspects to be reckoned with. No structure or group of structures exist independently, and planning must consider all of this.

This paper analysed the development projects which, by their very nature, have to be planned in relation to existing infrastructure networks and population movements.

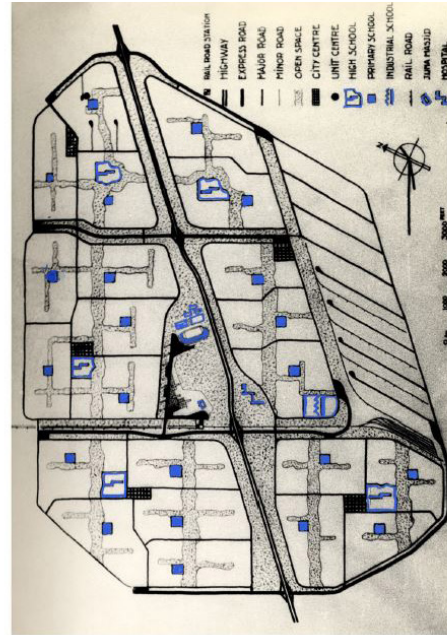
Écochard understood all of this, but his comprehension was profoundly visual. To some degree, all architects and urban planners use visual resources to comprehend the world and the place of their work within it. Plans, drawings, and models are the primary tools of their trade, the means through which they communicate their vision. Michel Écochard, however, claimed that words and images were indistinguishable in some way, equally important to his interpretation of the world. For example, we know that Écochard consulted and even acquired photographs produced by Maison Bonfils for conservation work in Syria which became a permanent part of his archive.

Because of this, the scholar interested in understanding his work must also engage with the drawings, charts, maps, and photographs he used during his career, both those he produced and often used to convey his vision to others and those he consulted to plan his projects.

This paper has focused on the visual archived relating to projects in Casablanca and Karachi, both projects from relatively early in his career, neither of which was fully realised. Nonetheless, they provide clear examples of the importance of visual resources in that early work.

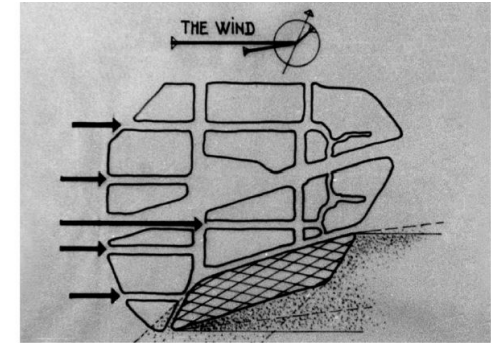


(fig 18) LIVING
in green - green belt and open spaces



(fig 19) CARE OF BODY AND SPIRIT
in blue - schools (primary, secondary, industrial)
play grounds - hospital and Juma Masjid.

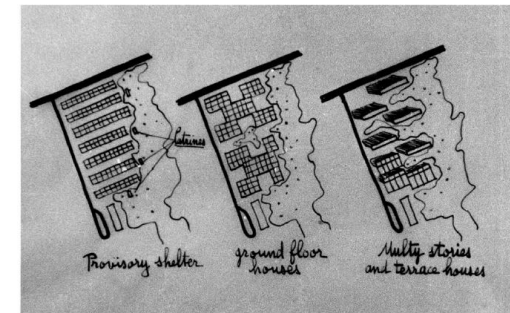
Figs. 15, 16 - The functions of the new city: "Living" and "Care of Body and Spirit". (Écochard, 1953).



(fig 7) The town is planned in such a manner that all open spaces provided in the city are favourable to main wind direction -

Fig. 17 - Plan representing the orientation of the city and wind directions. (Écochard, 1953).

Fig. 18 - Principles of the evolution of the city in different stages. (Écochard, 1953).



(fig 2) Evaluative principles of the proposed city.
These 3 stages possible according to the rise of the standard of living but always with the same framework

NOTE

[1] In Arabic, “medina” is the generic word for “city” in Arabic, but in many western languages, it is generally used to signify the original walled city, often surrounded by new areas built during or after the colonial period.

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