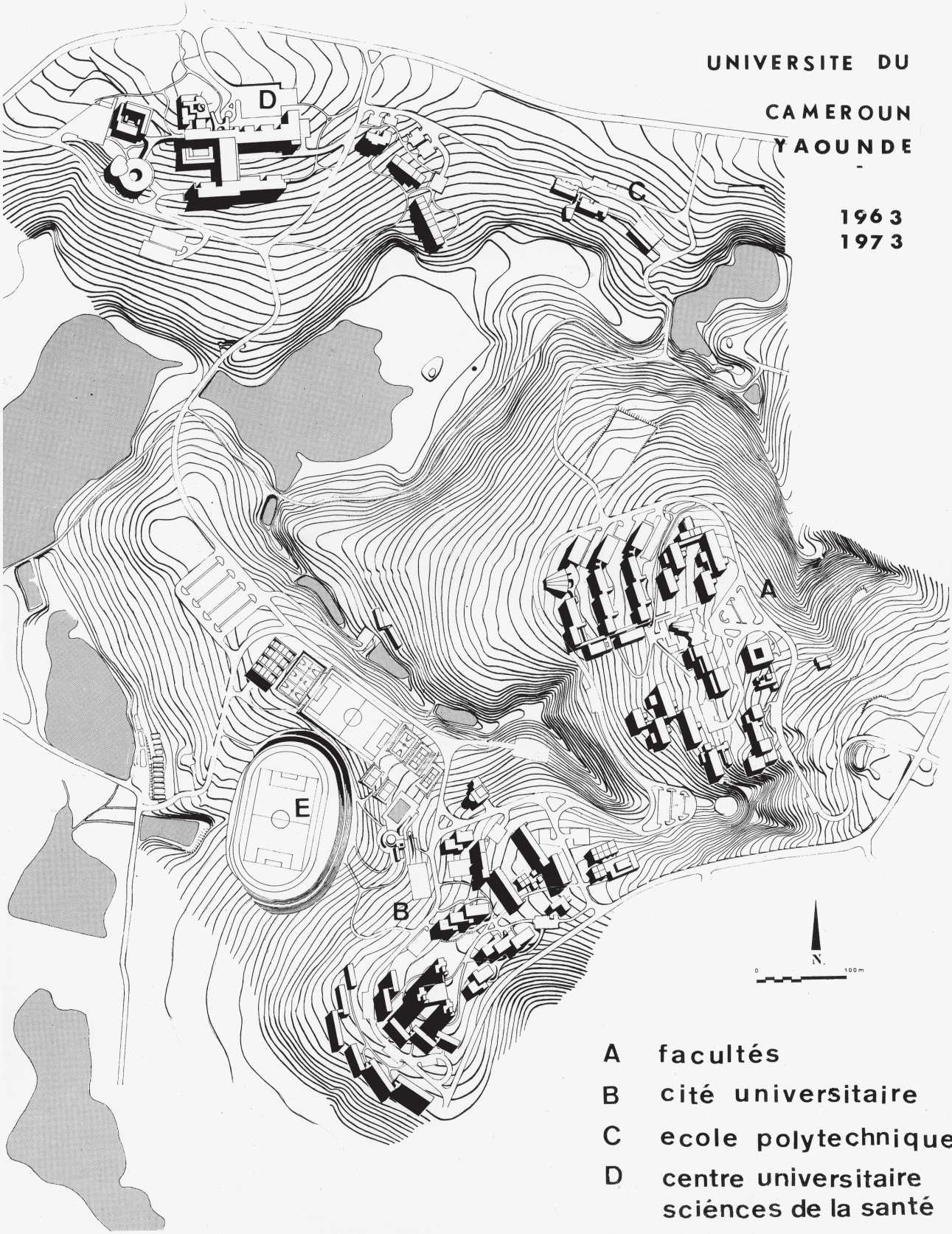


UNIVERSITE DU
CAMEROUN
YAOUNDE

1963
1973



- A facultés
- B cité universitaire
- C école polytechnique
- D centre universitaire sciences de la santé
- E sports

Monuments of Country, Climate and Culture: Michel Écochard and the Design of the Postcolonial Tropolis

BY TOM AVERMAETE

The French architect and urban designer Écochard, was one of the numerous architects that designed buildings and cities for newly independent nations in the post-war era of decolonization. Many of these young nation states were in search for urban and architectural projects that would explicitate a “proper” model of modernization that differed from that of the former colonizer. This essay argues that the principles of tropical architecture would play a key role in representing and monumentalizing such an alternative model of modernization.

Although the architecture of the buildings will express modern teaching and scientific requirements, the university will reflect the influence of traditional and local environmental conditions.¹

These words by French architect and urban designer Écochard, written in 1962 at the occasion of the presentation of his project for the University of Karachi, illustrate the paradoxical condition in which many architectural professionals were working during the post-war era of decolonization. Numerous architects and urban designers started to perform under the flag of “development aid.”² Commissioned by national governments or international organizations such as the United Nations, but also in “cooperation” with the governments of young nation states, they designed buildings, neighborhoods and cities that reflected the local aspirations of modernization.

However, many of the young nation states were explicitly in search for urban and architectural projects that would represent a “proper” model of modernization that differed from that of the colonizer. They were seconded by designers like Écochard, for instance, who argued on the new city of Karachi:

Pakistan being a young State should construct a town that will be in the forefront of progress and take account of the errors made by the West in the beginning of the machine age.³

Finding, time and time again, an architectural and urban expression for an indigenous idea of modernity would become one of the main challenges for international expert architects and urban designers as Écochard.

Against this background, the knowledge field of tropical architecture, which was originally articulated by architects and urban planners in the French colonial context of the

1930s, would gain a renewed importance in the decolonizing condition of the 1950s and 1960s.⁴ The insistence of the theories of tropical architecture on the responsiveness to local conditions, offered the opportunity to be reinterpreted: not as a matter of hygiene or comfort, but rather as the prime expression of local logics and identity. This would also become the case in the work of Écochard who in the late 1950s and the early 1960s practiced simultaneously in such different decolonized contexts as Pakistan, Guinea, Ivory Coast, Congo, Senegal and Cameroon.

Though not heavily theorized, the principles of tropical architecture would become an integral part of Écochard’s urban design approach, which was based on such parameters as the “direction of wind”, “the provision of shade” and the relation to “topographical conditions.”⁵ In the city of Karachi, for instance, Écochard insisted that

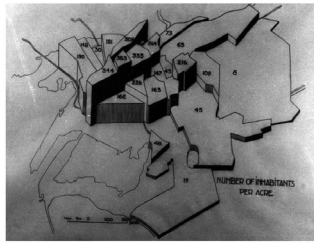
In a country where the wind plays such an import part in the comfort of the inhabitants, the right orientation of houses will be the principle factor in the arrangement of the urban district.⁶

In order to deploy this knowledge on tropical architecture within his urban design projects in various countries, Écochard worked with a specific set of tools. He gradually developed a toolbox for urban analysis and intervention that allowed him to mediate between the generalizing character of his transnational practice and the specific tropical properties of the various cities in which he worked.

Diagramming the Local

The first tool that relentlessly appears in Écochard’s practice is the diagram. When arriving in a new context Écochard always drafted diagrammatic representations of the encountered condition. From the late 1940s he developed

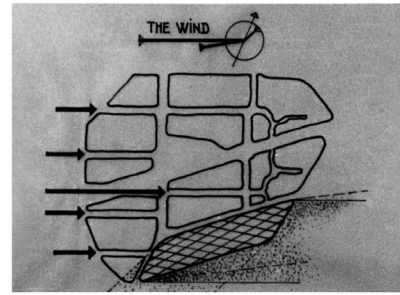
01 Michel Écochard, *First UN report: Note on Refugee Work*, Karachi, 1953, diagram of urban densities. © Aga Khan Trust for Culture (AKTC).



(fig 1) Density in the present city

There are in the city very crowded wards - 200.000 peoples must be removed from these places - With the 350.000 refugees without houses, that gives a total of 550.000 peoples who need house, about half of the city's population

02 Michel Écochard, *First UN report: Note on Refugee Work*, Karachi, 1953, diagram of wind directions. © Aga Khan Trust for Culture (AKTC).



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

an elaborate system of black-and-white representations in which he could identify the climatological, economic, social and geographical logic that were underlying the various urban and territorial conditions that he encountered. Sometimes these infographics dealt with larger national or geographic logic, in other instances – they traced small-scale material rationales in the built environment. This is for instance visible in the study that Écochard undertook off the refugee problem in Karachi, where a large analysis of urban densities is combined with an intricate reading of the directions of winds.

The diagrams of Écochard were not only directed at his own collaborators and offered a rational basis for further planning interventions, but also graphically articulated a *lingua franca* to discuss the urban issues with the different involved actors. Together with photographs they acted as a knowledge base for the discussion on the existing condition with local politicians, administrators, constructors, architects and urban planners. Beyond their role as common ground for discussion, the diagrams also provided evidence to deconstruct pre-established conceptions. Écochard was extremely critical about the preconceptions that were held in the discipline of urbanism and held that a rational survey was an appropriate vehicle to deconstruct these. At several occasions he would use his diagrams to go critically disentangle the standard, often Western, solutions to urban design.

For Écochard this graphical survey of the existing conditions was the *conditio sine qua non* of transcultural practice. He criticized the blindness of urban planners, who did not take into account variances in culture, climate, economy and geography in their plans. For instance when he was, in the late 1950s, advising on Karachi he claimed that too much of the planning proposal was:

*a theoretical plan which (...) does not take account of either the character of the housing or kind of inhabitants or the topographical plan of the land... (...) without a study of the existing buildings (...) without any study of the economy of the city, its social conditions, its refugee problem, its physical features.*⁷

Against this background, Écochard made a plea for more detailed surveys that would take into account

*geographic balances, the development of certain cultural zones, the longstanding relation of people and territories, (...) surveys that follow the dynamism of urban development.*⁸

The graphical survey acted for Écochard as an analytical tool that paradoxically established a relation of proximity between the – by definition – distanced practice of the transcultural urban designer and the particularities and exigencies of the local condition.

The question of the Tropolis

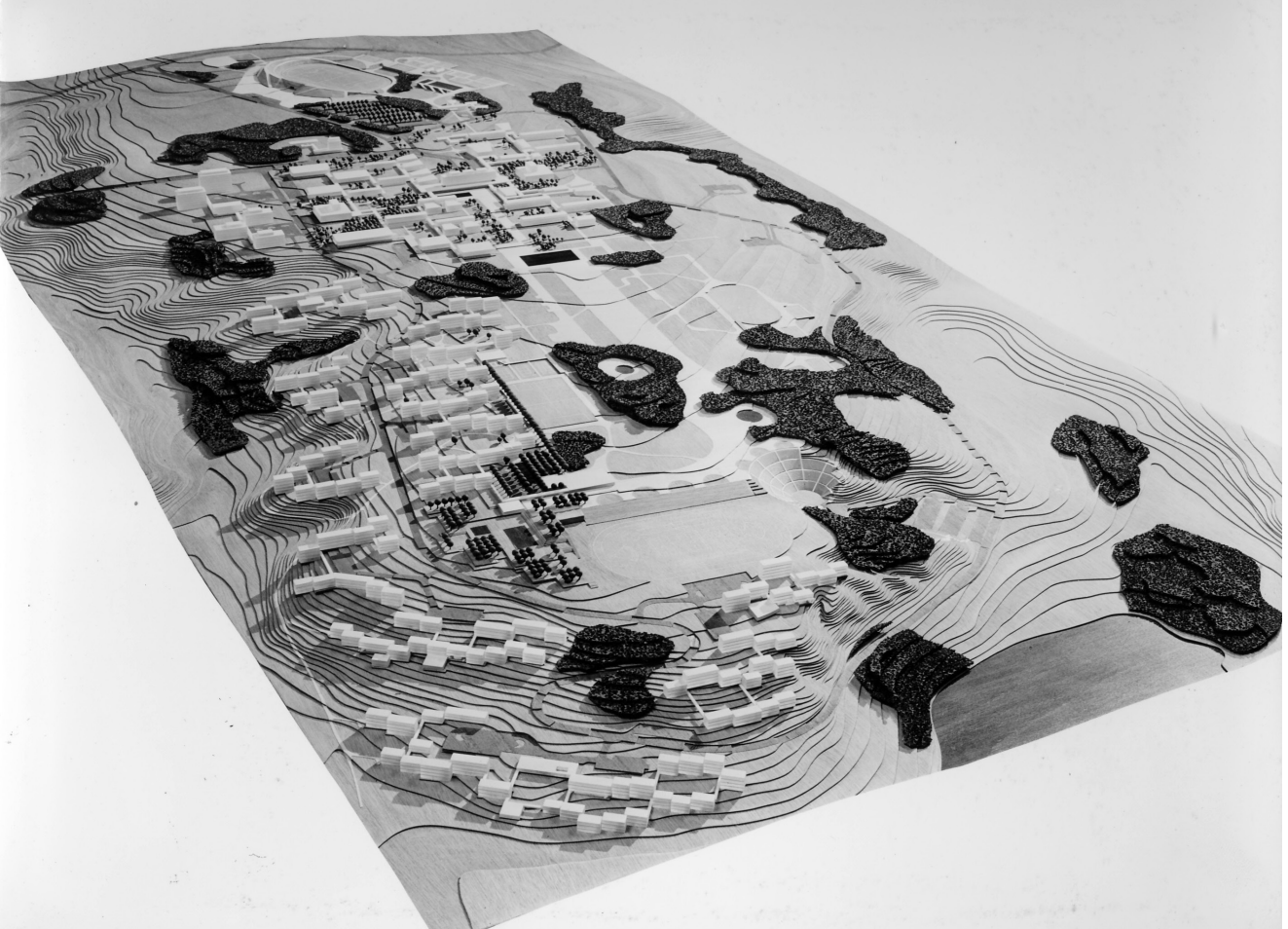
Transcultural practice had not only an effect on the way of analyzing the existing environment, but also on Écochard's definition of what an architectural and urban design entailed. Working in a postcolonial context, Écochard was confronted with two big challenges. The first challenge that Écochard had to face was related to the rapidly developing context in which he was working. For Écochard working in different cultures and in decolonizing contexts also implied working with various unknown logics and temporalities in the built environment:

*the notion of time will always be there. It needs to be considered as one of the most important factors, because even when the work is perfect and fully adapted to man at this instance, it will be nothing if it will not be able to be there for him in the following instances.*⁹

Hence, much of Écochard's work can be understood as a search for an architecture that could anticipate these unknown parameters in the built environment:

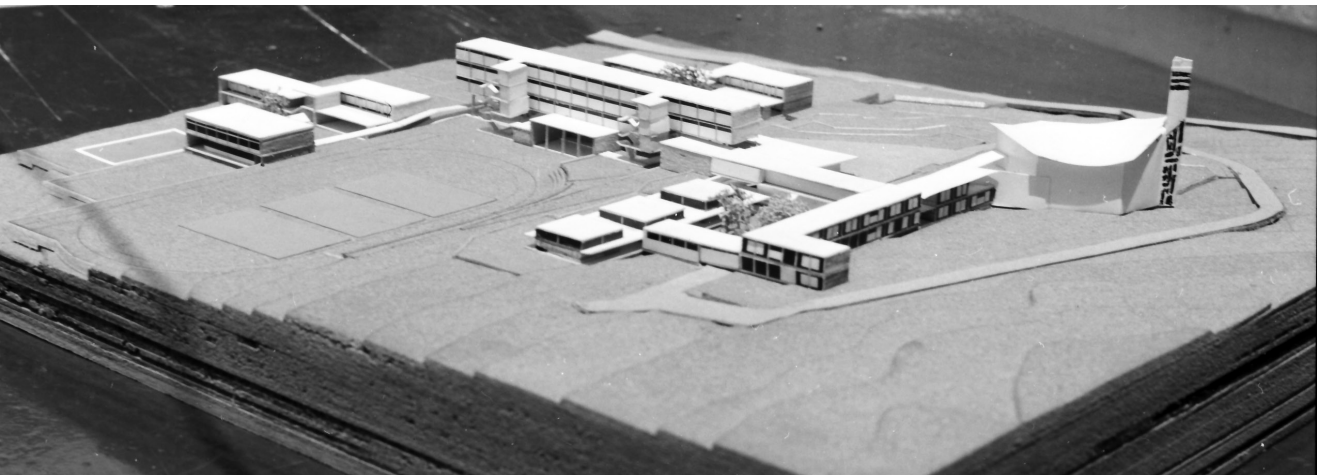
*The closer you come to man as a social being, that is to a human group, and the larger this human group, the more the fluctuations of time are sensible, and the more they are delicate and difficult to define – it requires thus a suppleness, a flexibility of all the elements that you juxtapose.*¹⁰

03 Michel Écochard, University of Ivory Coast, Abidjan, 1961-1964, model of the way that the various buildings are located in the territory. © Aga Khan Trust for Culture (AKTC).



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Essays



04 Michel Écochard, University of Yaoundé, Cameroun, 1963-1967, general urban plan. © Aga Khan Trust for Culture (AKTC).

A second challenge that Écochard faced was the result of his professional engagement with specific postcolonial contexts. Very often, the governments that were commissioning Écochard where in search of a new architectural and urban expression that would fit and amplify the specific ambitions and the identity of the young nation state. In order to confirm their independence, many of these governments started to invest in important building programs such as universities, schools, and hospitals, which would manifest the progress and development of the young nation state. New cities and housing neighborhoods were also considered as expressions of a thriving independent country.

Realizing these programs, but also finding an adequate architectural and urban expression for them, would become a main issue in many African countries from the late 1950s. Paradoxically, very often the newly independent countries relied upon expertise from the Metropole, and thus from the previous colonizer, to pursue this task. For an architect and urban designer such as Écochard, who was, from the beginning of his career, firmly embedded in the colonial venture, working both in the Levant and in Morocco, this must have represented a profound challenge. However, as late as the 1950s we see a modification emerging in his work – particularly in his education projects – which clearly testifies to his engagement with postcolonial contexts and nation states.

Education was a very important program for many young nation states. It illustrated progress, but it also encompassed the ambition to educate an “own” national technical and political elite which could govern the country. Hence, it is not by coincidence that for Écochard the program of higher education would become an important field of experimentation. In the beginning of the 1960s Écochard received commissions for no less than three large African university campuses: the University of Ivory Coast (Abidjan, 1961-1964), the University of Congo (Brazzaville, 1963) and the University of Yaoundé (Cameroon, 1963-1967).

Abidjan: The Country's Territory as Structuring Device

The campus of the University of Abidjan was initiated – as a cooperation between the Government of Ivory Coast and the French Ministry of Foreign Affairs – in the beginning of the 1960s to become a new institute of higher education for no less than 12,000 students. The urban and architectural strategy was developed by Écochard in cooperation with Bernard Huet (1932-2001), Philipp Langley and Ali Afkhami Sardar (1929-).¹¹ It was managed and realized by the Société Centrale d'Équipement du Territoire-Coopération, the international development aid branch of the French *Caisse des Dépôts et Consignations* (CDC).¹² The university was to be planned on a vacant hilly terrain of 130 hectares which bordered the Ebré lagoon.

The starting point for the design of the university campus was a reading of the territory. As was often the case, Écochard's team commenced with a fine-grain survey of the terrain, which involved recording by photography and drawing. This would offer the team a detailed understanding of the topographical and material qualities of the site.

- 05 Michel Écochard, University of Ivory Coast, Abidjan, 1961-1964, aerial view of Science Faculty and the research buildings in the territory of Abidjan. © Aga Khan Trust for Culture (AKTC).



In the theories of tropical architecture, the characteristics of the terrain were often discussed as important parameters in the choice for a building site that was resistant to floods or storms. For Écochard, however, the features of the terrain would become the decisive foundations for the urban design of the campus. Écochard's project is typified by strong and precisely designed infrastructural elements such as roads, covered walkways and terraces. In their interplay with the existing natural features of the terrain, these elements rearticulate the landscape into a precisely defined topography of cultural and natural elements. This man-made topography does not only articulate a set of new collective spaces on the campus but, more importantly, also introduces a strong frame of spatial definitions that delineate the outlines for future development. In Écochard's view, this topographical frame would act as the perennial element for the future alterations and extensions of the campus. He maintained that the local landscape provided a perennial infrastructure on which the university campus could grow and develop, as well as transform.

Above all, the landscape of Abidjan offered Écochard the possibility to provide a monumental outlook to the university which would adequately express the importance of the new national center of research and education. Écochard carefully situated the main public functions, such as the rectorate, meeting spaces and sports infrastructure on the highest point of the site. As a linear agora, they dominate the site and offer a monumental expression to the new national public institution. In between this public spine and the main road which describes the contours of the site, the different faculties and student housing branch off into the valleys of the landscape. Landscape and architecture jointly contribute to the monumentality of the university.

06 Michel Écochard, University of Congo, Brazzaville, 1963, Nain university building with concrete barrel vaults that function as a climatic roof that are offer monumental expression. © Aga Khan Trust for Culture (AKTC).



07 Michel Écochard, University of Yaoundé, Cameroon, 1963-1967, view of the main buildings. © Aga Khan Trust for Culture (AKTC).

Brazzaville: Climate as Marker

Another example of a higher education institute that played an important role for a newly independent nation state was the Centre d'Enseignement Supérieur in Congo-Brazzaville. After French Equatorial Africa had been dissolved in 1958, Congo-Brazzaville became the Republic of the Congo, an autonomous colony within the so-called French Community. It was only in 1960 that the country became independent with Fulbert Youlou as President.

In the Congo-Brazzaville of 1960, education was still largely in the hands of religious Catholic and Protestant schools and there was no university. One of the first programs that the independent government initiated to confirm its sovereignty was to instigate higher education.¹³ Paradoxically such a gesture of independence was made in cooperation with the former colonizer. On 15 August 1960, the very day of the Congo-Brazzaville's independence, an agreement was signed between France and the states of equatorial Africa – with the exception of Gabon – to construct a Centre of Higher Studies in Brazzaville.¹⁴

Together with the French Ministry of Cooperation Écochard and his team,¹⁵ developed a new *Cité Universitaire* in the form of a large campus. The project involved student residences, as well as faculties of science, arts and law, a library, an administration building, an amphitheater and a restaurant. These various components of the university program were designed as independent buildings. With a maximum height of three floors, these buildings were articulated in a modern idiom and carefully situated in the landscape – echoing the approach of the University of Abidjan. The character of the buildings, I would argue, emerged from the way that they engaged with the issue of climate.

In the theories of tropical architecture architectural elements – such as shade, perforated walls and *brise-soleils* – were seen as important factors in the improvement of the climatic comfort of buildings. In Ecochard's projects, these elements would continue to temper the interior environment, but would also receive another role: to monumentalize the new buildings. Though the buildings of the university of Brazzaville might at first glance be perceived as conventional modernist structures, at closer look the buildings engaged with climatological issues in quite outspoken and particular ways. The different faculties and administration buildings were given extreme deep facades, with galleries, canopies and other elements cantilevering far beyond the envelope of the building. These cantilevering elements provided shade to the buildings that had otherwise largely open facades, but also offered them a solid presence on the campus. The thick facades of the modern buildings appeared in the landscape as recognizable frames that spoke of the relation to the local climate. As such, these thick facades introduced a very modern and indigenous idea of monumentality.

In some of the buildings on the campus this monumental effect was heightened by adding extra elements. Engineer Jean Prouvé (1901-1984) developed a system of *brise-soleils* for the main university building, but it was especially the concrete barrel vaults, which functioned primarily as a

climatic roof that provided shade, that manifested its monumental presence on the campus.

Yaoundé: The Test of Time and Building Culture

The University of Yaoundé also emerged as a response to the independence of Cameroon in 1960. Since its inception in 1961, the mission of the University was to make a contribution to the specific needs related to the governance of the young nation State, by teaching public administration, education, security, diplomacy and law.¹⁶ The Cameroonian government and the French Ministry of Foreign Affairs cooperated for the realization of the university. The Cameroonian government provided the land of a splendid palm grove of 80 hectares which had been developed into fish ponds, and the French government was responsible for funding the design studies and the construction.

The university was composed of three faculties – science, law and humanities – and aimed to accommodate, in a first instance, 2,000 students, within a period of 10 years to be expanded to 4,000 students. The campus also included a foyer and restaurant, an athletics stadium with international dimensions, training grounds for tennis, volleyball and basketball, an indoor gymnasium, a swimming pool and a student club.

At the University of Yaoundé campus we see that Écochard and his team use some of the same principles as we have encountered in the other African university campuses. In this project, the landscape plays a structuring role. The various buildings are carefully situated on the highest point of the landscape and the topographic characteristics create several sub-divisions in the larger university campus. Just as in Brazzaville, climatological elements are used to give the buildings a certain presence in the landscape and on the campus. Thick facades, cantilevering elements, the *brise-soleils* of Jean Prouvé and covered walkways determine the outlook of the various clusters of buildings on the university campus.

What is most apparent on the University of Yaoundé campus is, however, the use of local materials and building techniques, in addition to concrete elements. To be more precise, the campus buildings are conceived as sturdy concrete infrastructure with an infill of natural stone and local wood work. Reinforced concrete with a rough finish is used for the load-bearing walls or for the large retaining walls in the landscape, while the natural stone and wood is applied for infill and non-retaining landscape elements.

For Écochard this double architectural language was not by coincidence. Quite on the contrary, he maintained that this double code offered a suggestion for future adaptation and development: "A strong frame with a lighter infill. The announcement of future changes."¹⁷ Echoing his approach on the level of the entire campus Écochard maintained that the role of the international architect had to be restricted to the provision of a strong and qualitative frame that could adapt to the changing aspirations and needs of the local citizens. His idea was that the transnational expert would provide a robust frame in which the

local cultures of building could unfold; a monumental infrastructure that could perform throughout time.

Architecture and Architects of the Tropolis

In his university projects, Écochard was time and time again confronted with the question of how to offer dignity and monumentality to the educational programs of young nation states, who had just thrown off the yoke of colonialism. The theories and perspectives of tropical architecture would play a central role in this venture, be it in a re-interpreted fashion. Connecting urban design and architecture to the local landscape, climate and building culture were for Écochard ways to give the new university campuses an expression that symbolized the identity of the nation state and reflected particular aspiration of higher education within the context of these independent countries. The principles of tropical architecture were brought to urban design, not only to improve comfort but also as a way to monumentalize – in an indigenous fashion – the modernization of the young nation states.

This idea of relating urban design to the tropical specificities of country, climate and culture – in other words of designing a tropolis – made Écochard also reflect upon his own role as transnational practitioner. Écochard saw his practice as a transcultural expert as complementary to the work of architects and urban designers that were working in a more local and situated fashion. The transcultural practitioner had to develop specific approaches and instruments to penetrate the specificities of the tropics, he maintained. Instruments like the diagrams allowed him to move rather smoothly between different cultural and climatic contexts and to act in all of these different contexts as an expert.

However, Écochard also made throughout his career a plea to have architects and urban designers “live with” the cities that they were planning and designing. He championed a “vigilant urbanism” in which architects and urban planners would be constantly on the lookout for cultural and climatic changes and react to them.¹⁸ This plea for a “vigilant urbanism” can be considered a paradox in the thinking of the transnational urban designer. It can, however, also be understood as Écochard’s recognition of the complexity of the task to define a proper architecture of modernization for the independent nation states – which by definition was related to the modernization models of the former Western colonizers, yet ultimately depended upon a refined knowledge of tropical climates and cultures.

Notes

- 1 Michel Écochard, *The University of Karachi*, manuscript, IFA, fonds Écochard, Centre d’archives d’architecture du xx siècle, 1965.
- 2 For an introduction into these architectural practices as development aid, see: Tom Avermaete and Maristella Casciato, *Casablanca Chandigarh: A Report on Modernization*, Zurich, Park Books, 2014.
- 3 Michel Écochard, *First report: Note on Refugee Work*, November 1953, 1.
- 4 For an introduction to tropical architecture in 1930s France, see: Jean Royer and S. E. Vivier, *L’Urbanisme Aux Colonies Et Dans Les Pays Tropicaux: 1*, La Charité-sur-Loire, Delayance, 1932. A critical discussion of the post-war networks of tropical architecture can be found in: Hannah Le Roux “The networks of tropical architecture”, *The Journal of Architecture*, 8:3, 2003, 337-354.
- 5 Michel Écochard, *First report: Note on Refugee Work*, November 1953, 1.

- 6 Ibid., 2-3.
- 7 Michel Écochard, *Casablanca: Le Roman D’une Ville*, Paris, Éditions de Paris, 1955, 44.
- 8 Michel Écochard, “Urbanisme dans les pays en voie de développement”, in *Cahiers du centre de formation des experts de la coopération technique internationale*, 5th session, November 1959, 11.
- 9 Michel Écochard, *Casablanca: Le Roman D’une Ville*, Paris, Éditions de Paris, 1955, 137.
- 10 Ibid.
- 11 The actual detailing of the different buildings was in the hands of architects Ducharme and Minost (Science Faculty), M. Boy (student housing), Renard and Semichon (Pharmacy, Law and Economy Faculties).
- 12 The SCET Coopération financed, developed and functioned as a local project manager. For the role of the SCET Coopération in Ivory Coast, see Lucie Haguenaer-Caceres, “Construire à l’étranger. Le rôle de la SCET Coopération en Côte d’Ivoire de 1959 à 1976”, *Histoire urbaine*, Vol. 23, No. 3, 2008, 145-159.
- 13 Claude-Ernest Kiamba, *Construction de l’Etat et Politiques de l’Enseignement au Congo-Brazzaville, de 1911 à 1997. Une contribution à l’analyse de l’Action publique en Afrique noire*, Histoire, Philosophie et Sociologie des sciences, Institut d’études politiques de Bordeaux; Université Montesquieu – Bordeaux IV, 2007.
- 14 When the African states, like Congo-Brazzaville acceded to full sovereignty between 1960 and 1961, Community programs such as higher education were devolved to each of the States, albeit within a context of cooperation with France. As a general rule, cooperation agreements placed the material and moral development of the institutions and their management more or less directly under the responsibility of France.
- 15 The team consisted of Jean Écochard, Jean-Louis Boubert, Joanna Hertz, Philipp Langley, Ali Afkhami Sardar, Eigy Shibuya.
- 16 Alexandrine Bouopda, *La genèse de l’enseignement supérieur au Cameroun, 1945-1965*, Histoire, 2016; Luc Ngwé, Hilaire De Prince Pokam, Albert Mandjack et Ernest Folefack, “L’université et les universitaires dans les mutations politiques et éducatives au Cameroun”, *Cahiers de la recherche sur l’éducation et les savoirs*, 5 | 2006, 169-191.
- 17 Preparatory notes for Michel Écochard, “Urbanisme dans les pays en voie de développement”, in *Cahiers du centre de formation des experts de la coopération technique internationale*, 5th session, November 1959, sp.
- 18 See for instance his final plea in Michel Écochard, *Casablanca: Le Roman D’une Ville*, Paris, Éditions de Paris, 1955.

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