Casa-Port New Railway Station
Casablanca, Morocco

In the heart of Casablanca, connecting the Medina and Art Deco districts to the fast-growing port area, the city’s new railway station integrates vernacular architectural traditions into an avowedly modernist structure. More than just a piece of transport infrastructure, Casa-Port is both a symbol of the city’s heritage and a statement of confidence in its future.

Unlike the previous station on the site, which simply terminated Boulevard Houphouët Boigny, Casa-Port is oriented in a way that allows for traffic flows to the developing parts of the city. Besides handling rising numbers of rail passengers – a projected 25 million a year – it serves as an interchange hub for the city’s other transport systems (buses and trams). A wide entrance plaza leads to the main hall, centred around an atrium that opens onto the lower levels of the station. The first basement level contains retail space, including a food court; the levels below are for parking. Concrete is used extensively on the underground levels, while the main circulation spaces are covered in slabs of Slimane limestone, quarried some 80 km away.

The steel canopy roof extends beyond the facades to provide shading. The canopy is supported by slender columns made of concrete (at the lower levels) and steel (from the ground floor up). At the top, the columns split into eight branches to frame sky openings that increase the levels of natural light in the interior, making it easier to navigate through. The ceiling is clad in timber – an evocation of Moroccan architectural traditions. The most sophisticated updating of tradition, however, is to be found on the southwest facade, in the fibre-reinforced concrete mashrabiyya system that provides protection from the glare of the afternoon sun.

The project is a collaboration between AREP, a French company with extensive knowledge in the design of railway stations, and G3A Architects from Morocco. The outcome is a technically sophisticated building that accommodates the complex functional needs of the station infrastructure while also contributing to the cultural and social life of the city of Casablanca – a true urban marker.
Casa-Port New Railway Station, Casablanca, Morocco

INFRASTRUCTURE
Client
Office National des Chemins de Fer (ONCF), Rabat, Morocco:
Mohammed Smouni, director of development unit
Mohammed Chahid, director of heritage development

Architects
AREP, Paris, France:
Etienne Tricaud, principal
Philippe Druesne, Christophe Illou, project team

Groupe 3 Architectes, Rabat, Morocco:
Skander Amine, Omar Tijani, associate architects
Vincent Missemier, project manager

Consultants
MaP3, Paris France:
Emmanuel Livadiotti, founder
Érick Cuervo, structural engineer

UTECA/INGECOBAT, Rabat, Morocco, structural and technical consultants
Atelier Bertrand Houin, Rabat, Morocco, landscape architect

Project Data
Total site area: 38,000 m²
Built area: 33,500 m²
Cost: 41,000,000 USD
Commission: January 2007
Design: January 2007–November 2010
Construction: May 2008–September 2014
Completion: September 2014

AREP
Since its creation in 1997 by Jean-Marie Duthilleul and Etienne Tricaud – both architects and engineers – AREP has been designing and building for the contemporary city, the nerve centre of mobility. AREP brings together 750 people and some 30 nationalities, involved in more than 800 projects both in France and abroad. Their teams combine various complementary disciplines in a spirit of innovation and attention to human needs: architects, city planners, designers, engineers, economists, architectural programming consultants and construction operations managers.

Having developed a creative approach to public space, which takes into consideration the needs of city dwellers, AREP is a laboratory for ongoing research into the fast-changing urban environment at every scale, from entire metropolitan areas to individual buildings. AREP is a wholly owned subsidiary of SNCF.

Groupe 3 Architectes (G3A)
Founded in Rabat in 2000 by Skander Amine and Omar Tijani, Groupe 3 Architectes gathers a team of 35 collaborators, including 15 architects. The firm has a multidisciplinary and culturally diverse team whose professional expertise is constantly fostered by a clear collective intelligence serving its architectural projects. Driven by a permanent search for quality, the firm’s partners along with their collaborators embrace values representing the basis of the firm’s overall projects: to listen, and to be rigorous and innovative. The firm stands out nationally with its projects in various sectors, providing unique architectural solutions while always aware of geographical and cultural context.

Groupe 3 Architectes is gaining increasing visibility and recognition internationally. In 2013 the firm won the competition for an international office building in Dakar and was on the shortlist competing to design the new Olympic headquarters in Lausanne, while the Mohammed VI Football Academy has been nominated for an Aga Khan Award. In 2014, Groupe 3 Architectes participated in the Venice Architecture Biennale.

Website
www.arep.fr
www.groupe3architectes.com
Casa-Port New Railway Station, Casablanca, Morocco

INFRASTRUCTURE
Makoko Floating School

Lagos, Nigeria

The Floating School is a small ‘watercraft’ that expands the facilities of the only school in Makoko, an informal settlement on the edges of the mainland of Lagos. Like many other water communities, Makoko faces challenges of land tenure, lack of public services and inadequate response to flooding and climate change. Conceived as a replicable prototype, the Floating School offers an innovative response to these challenges, being simultaneously an educational facility and a space for community use.

The school is an A-shaped frame with exposed structure – a robust skeleton of wood and bamboo poles. There is no real ornamentation, apart from the elegance of its structural articulation and assembly. Though almost symmetrical along its longitudinal axis, the structure’s exterior treatment clearly identifies a weather side (towards the lagoon) and a lee side (towards the mainland), so continuing the analogy with a sailboat. The weather side is more closed, largely covered by roof sheeting, whereas the lee side houses service spaces and the staircase that links the three levels – an open 100 m² space on the first level, a 50 m² enclosed classroom on the second level, and a 50 m² semi-enclosed multipurpose terrace on top. The 2.5 m x 2.5 m modularity of the square plan is repeated in the elevation, and the triangular profile of the whole is carried through the lateral bracings. The experimental approach of merging a fairly standard A-frame structure with a floating raft was conceived to allow local carpenters to manage the construction process.

The project is not a conventional response to a brief, but a statement of at least two intentions. Besides providing much-needed additional school space for the community’s children, it was designed to put Makoko on the map and to marshall resistance to the Nigerian government’s plan to evict the inhabitants of the settlement. Conceptually, the ‘watercraft’ structure is intended to be self-sustaining and adaptable to a variety of building typologies, so gradually cultivating an improved quality of architecture, urbanism and living on water.
Makoko Floating School, Lagos, Nigeria
Clients
Makoko Waterfront Community, Lagos, Nigeria
Emmanuel Shemede, Noah Justin Shemede, Jeunbete Shemede, Balees of Makoko/Ilaya Waterfront Community
Makoko Community Development Association & Youth Leaders, Lagos, Nigeria
Makoko Floating School Building Team, Lagos, Nigeria

Architect
NLÉ, Amsterdam, The Netherlands:
Kunlé Adeyemi, principal
Lisa Anderson, Thijs Bouman, Leslie Ebony, Marije Nederveen, Segun Omodele, Adebunle Oluwasa, Chryso Onisiforou, Martin Oreoluwa, Berend Strijland, Monica Velasco, project team

Technical Collaborators
BKVV Architects, Amsterdam, The Netherlands
Dykstra – Naval Architects, Amsterdam, The Netherlands
Pieters Bouwtechniek, structural engineer, The Netherlands
Thieu Besselink, Amsterdam, The Netherlands
SPCIT, Amsterdam, The Netherlands
Roel Bosch Architecten, Rotterdam, The Netherlands
Ileyi & Afayan, advisor, Lagos, Nigeria
Matrix Design & Works Nig Ltd, Lagos, Nigeria
Solarmate Engineering Ltd, Lagos, Nigeria

Project Data
Total built area: 220 m²
Cost: 50,900 USD
Commission: May 2011
Design: December 2011–November 2012
Construction: September 2012–May 2013
Completion: 2013

NLÉ
Founded in 2010, NLÉ, which means ‘at home’ in Yoruba, is an architecture, design and urbanism practice focused on developing cities and communities. It is led by Kunlé Adeyemi, an architect, designer and urbanist with a track record of conceiving and completing high-profile, high-quality projects internationally.

Born and raised in Nigeria, Adeyemi studied architecture at the University of Lagos where he began his early practice before joining the world-renowned Office for Metropolitan Architecture (OMA) in 2002. At OMA, working closely with founder Rem Koolhaas for nearly a decade, he led the design, development and execution of numerous projects in Europe, Asia, Africa and the Middle East. Among these projects were the award-winning Samsung Museum of Art, Seoul National University Museum, NM Rothschild Bank in London, Shenzhen Stock Exchange tower in China, Prada Transformer in South Korea, Qatar National Library, Qatar Foundation Headquarters and the 4th Mainland Bridge and Masterplan in Lagos. Adeyemi was responsible for critical stages in the design and realisation of these projects. This involved leading OMA’s design team, coordinating a global network of stakeholders and expert collaborators, including Arup for engineering and Davis Langdon (AEcom) on cost matters.

Website
www.nleworks.com
Narratives

Dr Magueye Ba is a Senegalese doctor who, after completing his medical studies in Dakar, made a commitment to live in Sinthian, a remote village in the eastern Senegal region of Tambacounda, where he had previously interned as a student. Here he has lived for the last 15 years, dedicating himself to improving the local population’s access to medical services. During this time his connection with a growing network of donors, and in particular the partnership with Nicholas Fox Weber of the Josef and Anni Albers Foundation, has been instrumental in securing funding to support modern medical practices in this rural area. Specifically, it has allowed the establishment of the Sinthian Health Centre (the only one with an in-house doctor within a range of 60 km), the construction and running of a pre-school and, most recently, the creation of the Thread Cultural Centre, designed by Toshiko Mori Architect.

Noah Shemede is the founder and principal of the Whanyinna nursery and primary school in Makoko, Lagos, Nigeria. He is also the youngest brother of Baale Emmanuel Shemede, one of the leaders of the Iwaya/Makoko waterfront community. Like the majority of the Egun population living in Makoko, the Shemede family has been there for over 100 years and, like many others, they rely on fishing as their main source of income. Noah, the youngest of 22 children, was the only one in his family to receive formal education, an experience that spurred his own interest in pedagogy and empowering children from a very early age. He established the school in 2008, using money set aside from the proceeds of his fishing business. In 2011 he befriended the architect Kunlé Adeyemi and facilitated his connection with the community, a move that later led to the construction of the Makoko Floating School. International awareness of the project has enabled him to access donations to support and expand the operations of the Whanyinna school.

Dr Ba and Noah are central figures in two of the shortlisted projects in this cycle of the Aga Khan Award for Architecture. Meeting with them, in my capacity as technical reviewer, was a privileged occasion to garner insights on the ecosystems that underpin the effectiveness of architecture. In my view, the physical presence of building materials and their logical tectonics should not overshadow an understanding of the extremely prominent position that both these buildings – incidentally the only two projects from sub-Saharan Africa shortlisted this time round – occupy within their physical and human context.
Building on my experience, the reflections that follow are an attempt at capturing three issues raised by the work. One is the relationship between space and society. The second is the relationship between design and community. The third considers the agency of capital.

Environments
One way to convey the challenge of operating within underprivileged and marginalised communities is to locate the architectural act in relation to processes of social and political emancipation. Given that it is essentially the preserve of the privileged few who have access to it and know how to use it, the discipline is susceptible to favouring the interests of architects themselves. Already in 1975, in a paper prepared for the ‘Housing 75’ conference in Johannesburg, Giancarlo de Carlo raised concerns about the task of producing ‘finite’ objects and called for designers to choose ‘to be on the side of the users … and leave the ambiguity of working for them and face the harder task of working with them’.

Architecture, even in its most simplistic form of object-centred building, cannot really live in isolation. Rather, it must engage with diverse networks and balance different actors, functions and materials. Particularly today, the complexity of architecture is such that it requires an impressive and unprecedented epistemological pluralism, with a nuanced range of tones and atmospheres. In instances where the social, cultural and economic conditions are fragmented and diverse the task becomes more complicated still. Thus, in order to avoid the risk of being lost in translation, the ramifications of cultural models for the built environment need to be built into – and communicated in – the visual and spoken languages that we use to understand the symbolic nature of forms.

Fortunately, over the last four decades or so, architecture’s growing interest in the social sciences has enabled a multiplicity of audiences to relate to projects that were previously marginalised by canonical, western hierarchies. Ecology’s expanded role, as a metaphor in the conceptualisation of schemes, has also provided a fillip to wider engagement. The important recognition that a single design philosophy is no longer capable of providing adequate responses has given rise to the open, experimental culture that informs these two projects, empowering both users and designers alike.

Traditions
In the intertwining, interdependent stories told by the different persons involved in the Thread Cultural Centre in Senegal and the Floating School in Nigeria, we have a body of knowledge that is primarily oral, and that has a tendency, when written, to be unproblematically interpreted as fact. We need to bear this in mind in our role as observers, and remember Jean-Paul Bourdier’s call to engage in a ‘critical practice concerned among other things with … breaking the monotony, if not the oppression, of standardisation’.

A good case in point is the parametric modelling of the sinuous thatch roof of the Thread Cultural Centre, a contemporary reinterpretation of the traditional impluvium houses of the Casamance region of southern Senegal. Aware of the difficulty of graphically representing the richness of the material assembly, and of the fact that local builders would need some latitude in translating a drawing into built form, the architect did not develop a full set of detailed construction plans. In order to have the roof built, Dr Ba, who doubled as contractor/construction manager, relied instead on the indigenous knowledge of an experienced roof assembler, Gregoire Bienquench, a Bassari from the Kédougou region. The aesthetically captivating result is owned by the community it serves, since it reflects their involvement in every step of the construction process. The material nature of the roof intrinsically provides a ‘living’ dimension to the structure; moreover, through its periodic maintenance the bonds between the villagers and the centre are continually renewed.

Irregularities in this context are not picturesque, or poetic licences, but rather represent and embody the multifaceted lives of the people who inhabit the spaces. The incidental perception of these relations is what constructs an ecology of factors. In its efforts to examine projects holistically, the Aga Khan Award for Architecture emphasises the discovery of the pluralities on the ground, including all sorts of irregularities. Thus the agents behind the projects, and their stories, can no longer be bystanders in the narrative. However snatched or chaotic their lives might be, they are the reality around which the fictional narrative of architecture as an ordering discipline is constructed.

Accumulations
In Makoko, the Floating School’s success in terms of capturing attention, putting the community on the map, has tended to relegate to the background the question of how well it actually functions as a school. After the collapse of the prototype structure in June 2016, the jury is still out on its effectiveness as a space for learning. In some ways, this is an apt reminder of the discourse around the colonial tension between issues of ‘becoming’
and ‘being’ that Taiaiake Alfred captured so well. Descriptions of Makoko as an apparently confused and unstructured mess remain superficial, failing to engage with its true ordering principle: an ecosystem based on the economy of exchange and recycling that lives – or at the very least hopes to live – in balance with its territory.

However, we need to note here that the funding model for the Floating School – with financial support provided by an international development agency – placed severe constraints on its operation, since it did not directly engage the inhabitants in the processes of the design and construction. What has emerged is a disjunction between ‘knowing’ – in this particular case, knowing how to conceptualise and build a floating A-frame timber structure – and ‘doing’ things, such as operating and maintaining a watercraft moored in a tropical lagoon. The old paradigms are not put into question by the conceptual distance between the two; rather, the original asymmetrical relation of donors and receivers is maintained.

The community’s capacity to autonomously generate and organise space – and its resilience even after the collapse of the structure – is perhaps the kind of situation that Giovanni Arrighi and Beverly J Silver had in mind when they concluded their *Chaos and Governance* with a warning that the transformation of the modern world into a commonwealth of civilisations was going to be ‘drastic and painful’; indeed, we could not even be certain that this transformation ‘would eventually result in a commonwealth rather than in mutual destruction’. In the face of the growing environmental, economic and social inequality that communities like Makoko so vividly portray, we are reminded that it is in places such as this that the future of the planet itself is being played out.

**Alternatives**

Different in many ways, the stories of Makoko and Sinthian both point to the utility – even the urgency – of abandoning the simplistic contraposition of bottom-up and top-down architecture. In both cases the architects found themselves operating in conditions where they were perceived as outsiders by the community, and had to rely on local mediators to establish a dialogue with the users of the buildings. The projects are an important reminder of the need to create the preconditions for a reciprocal understanding, particularly before building in situations of scarce resources. This is not just a plea for the (re)discovery of the power of participation. It implies a questioning of the system of architectural education, to allow for a greater recognition of models of co-production.

Without pretending to formulate a general theory, the ecosystemic narrative that emerges from fragments of interaction with a plurality of actors and their cultures suggests the possibility for architecture to be looked at – even if not entirely understood – through multiple, inevitably incomplete and hybrid sources of information, made up of rifts and tensions. This conjecture seeks to play a transformative role in an experimental, co-produced education that will hopefully unlock the potential of new generations of architects and their clients. In the meantime, we may be assured that many more speculative and subversive experiments, of the kind described here, will be required to determine new paradigms and to instil confidence in the civic legitimacy of the discipline within an increasingly fragile world order.

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