



A computer-generated image of Lagos water communities

Nigerian architect Kunlé Adeyemi is breaking new ground in west Africa with his innovative solutions for the region’s water-bound slums, writes **Stephen Bourke**



Empty plastic barrels are the foundation for timber buildings with solar panels
All pictures: NLE

On the waterfront

Allover the world, cities are bracing for a future in which high tides are higher, rain is heavier and the kind of flood which used to strike once a century comes along much more often.

In Dublin, new flood barriers are being built east of the Custom House to protect the Docklands Strategic Development Zone, and between €50 million and €60 million will be spent to protect Cork city from tidal flooding.

Speaking at an event in Dublin last week, Nigerian architect Kunlé Adeyemi proposed an alternative. In-

stead of enforcing a strict coastline with gates and sea walls, cities could blur the boundary between land and water as they develop.

Adeyemi has a testbed in Nigeria’s capital Lagos, where a community not only makes a living from the water but lives on it too. In the waterfront slum of Makoko, homes sit on stilts sunk into the mud of the lagoon, and locals go about their business by boat.

On a satellite photo, it’s hard to pick out the water’s edge. Rivers cut south-east through clusters of on-shore warehouses, and flow on as channels between the blocky little shack roofs, the dense grid spreading and separating like a man-made delta. But the slum’s population now numbers 100,000, and is moving

closer to some of the city’s major infrastructure.

“The city has said: ‘This is becoming an eyesore, you can’t have this’,” said Adeyemi, who founded architecture firm NLE in 2010.

As local officials planned to clear the growing slum in 2012, Adeyemi started his most famous project: a floating school at the outer fringes of Makoko.

The locals’ houses often collapsed as their stilts sank in the soft mud of the lagoon, or flooded when high tides came. Lagos, a port city with a lot of oil exports, had a large supply of empty plastic barrels – local, recycled and buoyant.

A square platform of barrels became the foundation for a three-storey school building, built with timbers floated down the river and decked out with solar panels, rainwater harvesting and a room on the deck to grow fruit and vegetables.

“We’re not inventing anything new,” said Adeyemi. “I wanted a solution that was local, that was also modular, that the local people could build themselves.”

Although the Lagosian authorities were initially opposed to the Makoko school, Adeyemi said the attention it got in the press as a work of design helped stay the hand of those who wanted to clear the slum. But he admitted that the school was far from perfect.

“Like all great works of architecture, it leaks,” he said.

NLE particularly focuses on projects in cities in the developing world. Another of its aquatic projects is a proposed radio station on the waterfront and in the water in the delta city of Port Harcourt, Nigeria.

Port Harcourt has close to half a million people living in waterfront slums, with generations of families residing in illegal and informal settlements. Shanty towns there were also set for demolition in 2012, prompting a storm of protest. Locals now want to set up a community broadcaster to give themselves a voice – and NLE was asked to design it.

“When people like that come to you and say: ‘Let’s do something’, it’s very difficult to say no,” said Adeyemi.

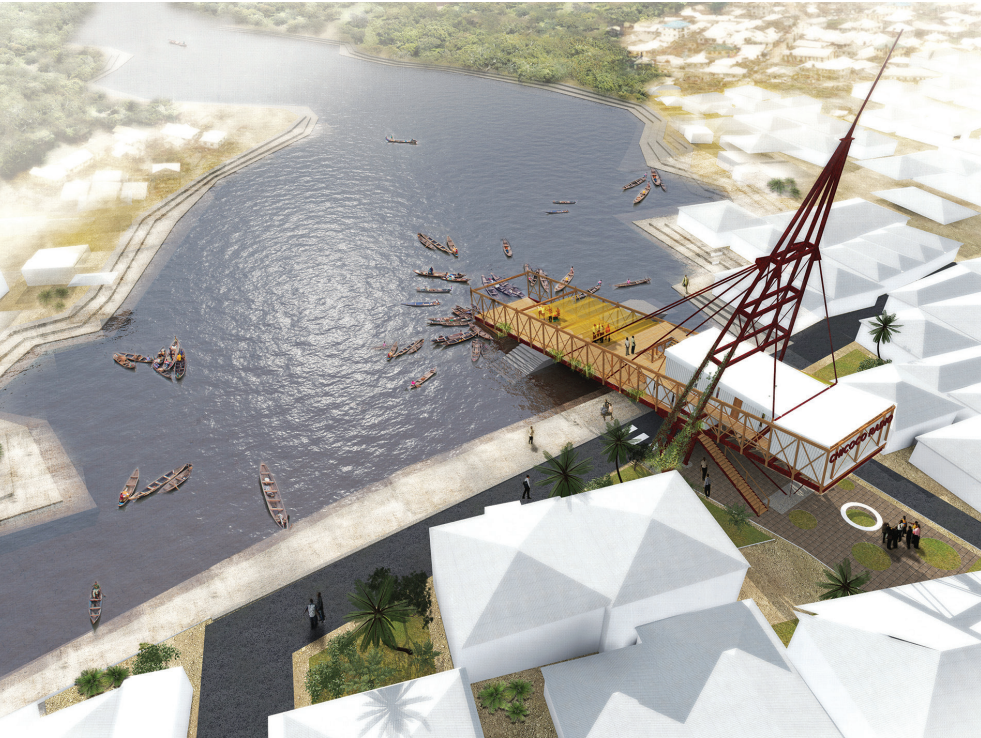
Its proposal is to form a bridge between land and water, using the radio station’s transmission mast structure to suspend the studios and offices at one end of the building above a public plaza on land. The public performance space at the other end is to rest on a pontoon – oil barrels, of course – floating in the water.

Adeyemi’s waterworld might seem like the stuff of science fiction, but his architectural practice NLE aligns itself with the reality of consumerist development in west Africa. High-end apartments, a “lifestyle office block”, and a line of “Afro-minimalist” furniture fill the firm’s portfolio.

“We’re a business practice, which means we like to get paid,” he said. “Nonetheless, we have a social and environmental consciousness. The



Children play on a platform prototype that floats on empty plastic barrels



Above and below: computer-generated images of a floating media platform under construction in Port Harcourt, Nigeria



Kunlé Adeyemi



Chicoco Radio's 'bridge to transformation' building

“A square platform of barrels became the foundation for a three-storey school building, built with timbers and decked out with solar panels and rainwater harvesting

reason I say that is because a lot of people think that because you are a business, you cannot be socially and environmentally conscious.

“Sustainable development is the very simple idea of development which meets the needs of the present without compromising the needs of the next generation.

“Cities have been described as man’s greatest invention. If we do not act within this development framework for cities, they could become man’s deadliest invention.”

Adeyemi presents his “water city” projects as first steps towards a more flexible and sustainable urban form for the developing world. But, as always, there is the question of taste.

“People want the high-rise glass buildings, they want what they see in Dubai – that has value assigned as it is advanced,” he said.

“That’s the question that we have

to address as responsible agents to this development. Are these the right things for the environment? If we’re developing cities now in these contexts and we have the chance on the continent [of Africa] to develop, what we need to do is produce the kind of relevant technologies.

“It doesn’t matter whether technologies are old, from 10,000 or 3,000 years ago – a simple thing like the direction of the sun or the orientation of the building to ensure that heat gain is low, or bringing in natural daylight.

“It’s not about just being high-tech, or low-tech. I think the point is that even if people want something, it doesn’t necessarily mean it’s the best thing.”

Kunlé Adeyemi was speaking at the final New/Now/Next lecture, in a four-year series sponsored by engineering firm Arup