



Aga Khan Award for Architecture

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W I N N I N G P R O J E C T S

Arcadia Education Project

South Kanarchor, Bangladesh

Architect: Saif Ul Haque Sthapati, Dhaka, Bangladesh

Client: Maleka Welfare Trust, Dhaka, Bangladesh

Project description

After four decades of teaching in United Kingdom, Razia Alam returned to her home country of Bangladesh where she established a school for underprivileged children, using her pension funds.

When the lease on the existing premises of this school expired, its founder sought out a site on which to build. The budget restricted her choice to areas not well suited for development. Wanting the school to be near water, she purchased a riverside plot which, it turned out, is submerged in up to 3m of monsoon water for a third of the year.

Rather than disrupting the ecosystem to create a stabilised mound for building on, or erecting a structure on stilts that would have been too high in the dry season, her chosen architect – a lifelong acquaintance – devised the solution of an amphibious structure, anchored to the site, that could sit on the ground or float on the water, depending on the seasonal conditions.

The building footprint was levelled using retaining walls of sandbags with sand, earth and local brick infill, and used tyres fixed atop for cushioning. Bamboo posts sunk 2m into the ground serve as anchoring points for the school's various independent but interconnected rectangular structures: three multipurpose spaces used mainly as classrooms; office; open-topped platform; toilet/bathroom structure; septic tank and water tank structures; and a single corridor offering access to all spaces. Built of three types of bamboo, they are kept afloat by substructures of used 30-gallon steel drums within bamboo frames.

Chosen for its lightness and durability, the bamboo was purchased in neighbouring villages and drifted along the river to the site. That used for the substructure, anchoring posts and roof was chemically treated to remove any material that could rot. All other elements were waterproofed by applying liquid made from boiled local *gaab* fruit – a traditional Bangladeshi method. Most of the joints use a rope-tie technique rather than steel wire which would corrode. The classrooms' bow-arched bamboo roofs, allowing the spaces to remain column-free, required some prototyping to perfect. Aside from a few battery-powered drills, only hand tools were used for the construction.



The carpenter who oversaw the construction and procurement had worked for the client over four decades. Now living nearby, he can attend quickly to any maintenance issues.

Jury Citation

At a time of rising sea levels, this modest bamboo school illustrates how to build an affordable and viable solution with locally available materials.

The approach to building the three-classroom preschool was to design a structure that rises with the river's water level and adapts to the surroundings – without altering the natural condition of the site and allowing for uninterrupted, year-long use of the building. Here the paradigm of the architect using his professional knowledge – yet thinking outside the box by adapting traditional methods – is remarkable, especially as the construction is modest and direct, without fetishizing craft.

Site-specific in its technological approach yet global in its solution, this low-cost, low-impact project was the outcome of teamwork between architect, client and builder, each of whom displayed resilience and innovation as they approached the social responsibility of building the school.

The modesty of the programme, the use of materials and the construction method are all successful parts of building this amphibious school through experimental and collaborative teamwork. Though simple and compact, the project resolves complex issues – of buoyancy, anchoring against the river current and waste management.

The Project strives to elevate people's lives, contributes to social and economic development, and provides a pathway to solutions for the global issues of rising water levels and access to education in rural communities.

Project Data

Client

Maleka Welfare Trust, Dhaka, Bangladesh:

Razia Alam, *chairperson*



Architect

Saif UI Haque Sthapati, Dhaka, Bangladesh:

Saif UI Haque, *principal*

Salma Parvin Khan, *associate*

Azka Eshita, Fahmida Akter Lira, Shayer Shafiq Rahman, Flora Roseline Nelson, Naheen Nurrudin, Rifat E. Khoda, Istiaque Ahmed, *study and design team working at different stages*

Mahadi Hasan, *construction supervision*

Arijita Areen Chowdhury, Mohammed Inteza Shariar, Mohammed Ashikul Islam, Monisha Momtaz, Nasheen Jahan, Muntakim Haque, Atkia Sadia Rahman, Abhijit Mazumdar, *as-built drawings, project documentation and maintenance team at different times*

Construction

Pran Bollov Biswas, *head of construction team*

Engineer

Sadat Hossain

Project Data

Site area: 486 m²

Ground floor area: 274 m²

Cost: 50,800 USD

Commission: November 2011

Design: December 2012 – December 2014

Construction: December 2014 – February 2016

Occupancy: March 2016

Saif UI Haque Sthapati

Saif UI Haque Sthapati (SHS) is an architecture practice based in Dhaka, directed by its principal Saif UI Haque and his associate Salma Parvin Khan.

Saif UI Haque was a partner of Dhaka-based architectural practice Diagram Architects from 1983 to 1996. In the latter year he started his own practice, Saif UI Haque Sthapati. Besides practice, he is involved in teaching and research. He is one of the founders of Chetana Architecture Society, Mongolbarer Shabha Lecture Forum and currently the director of the research and design programme at the Bengal Institute.

Salma Parvin Khan started her career at Diagram Architects and later became an associate at Saif UI Haque



Sthapati. She is also involved in teaching and research.

Saif Ul Haque's built works at Diagram Architects include Jalalabad Gas Company Housing, BRAC TARC Faridpur, the Banchte Shekha Training Centre, a camp-house for the French Archaeological Mission and Govinda Gunalanker Hostel. Salma Parvin Khan was involved in the camp-house and hostel projects. Since the founding of Saif Ul Haque Sthapati, both have been collaborating in the work undertaken by the practice, endeavouring to create buildings that connect site, tradition and modernity for consideration as cultural artefacts. Their completed projects include Govinda Gunalanker Hostel Extension, BAGHA Club, Nari Maitree Education Centre and Arcadia Education Project, and ongoing ones include a product design and development centre and workers' hostel , a multi-family apartment building, a folk art museum and a clothing factory, all in Bangladesh.



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W I N N I N G P R O J E C T S

Public Spaces Development Programme

Republic of Tatarstan, Russian Federation

Patron: Rustam Minnikhanov, President of the Republic of Tatarstan

Conception: Natalia Fishman-Bekmambetova, curator, Cabinet of Ministers of the Republic of Tatarstan, Ministry of Construction, Architecture, Housing and Utilities of the Republic of Tatarstan

Project description

Tatarstan's Soviet period, beginning in 1920's, saw much modernist construction and hierarchical centralised planning, with diverse urban locations made to look alike. Many mosques and churches were destroyed, leaving their associated public spaces functionless. The post-Soviet era, since the Republic of Tatarstan's foundation in 1992, brought freedom of movement and an exodus from rural towns. Also, a return to private real-estate ownership enabled wealthy individuals and businesses to buy up large swathes of land, notably in scenic lakeside and forest areas, thus limiting the population's recreation options in most post-soviet countries.

The ambitious Public Spaces Development Programme seeks to counter these trends and to offer an equal quality of environment to all Tatar citizens, regardless of settlement size – as well as reinstating a sense of individual place in each. From its inception by the President of Tatarstan in 2015 until the end of 2018, it had transformed 328 spaces across each of the Republic's 45 municipal districts, covering 33 villages, 42 towns and two major cities, and embracing both Soviet and longer-standing historical settings.

There are ten different project types: water bodies; ponds; embankments; beaches; parks; public gardens; boulevards; squares; streets; and walkways. Most include infrastructure for cultural activities. Unified way-finding signage, furniture and ornamental features reflect aspects of each place's culture or history, and are produced locally to a high standard, incentivising small businesses. The spaces are conceived for year-round enjoyment, including during dark winters and heavy snowfall, through eye-catching lighting and sometimes winter sports facilities. The snowfall offered a further challenge of limiting construction to the period from May to November.

Some projects are initiated by members of the community, others by the state. In all cases the design and implementation process is highly participatory, based on strong engagement with local citizens and extensive consultation of economists, anthropologists, dendrologists and others. An architectural bureau initiated by the Programme's curator has become a magnet for young local and national talent, with many



of its recruits going on to set up their own practices to oversee one of the larger projects. The positive changes seen are social, economic, cultural and ecological as well as physical. The success of this initiative has led to the introduction in 2017a similar programme at a federal level.

Jury Citation

Impressive in its ambition to improve the quality of public space throughout the Republic of Tatarstan, the Programme's success lies in its inclusive approach to the implementation process. The projects, which are purposefully located in many communities, attempt to elevate the importance of communal space.

It is important to understand the role of the public in such projects – in reinforcing the sense of community, the identity of the villages, towns and cities, and the role it plays in the development of civil society and the quality of life.

The Programme is also designed to compensate for the badly conceived and often inappropriately scaled spaces wrought by central planning during the Soviet period. The initiative also promotes the importance of nature, even in locations defined by their industrial character, while working to protect the public good from the tendencies and interests of private ownership.

The scale and diversity of the 185 projects completed by the end of 2017 have required different types of responses and ideas. It is evident that the long-term success and sustainability of the project lies not only in its larger vision and political leadership, but also in the realisation process, which has emphasised engagement and dialogue, the involvement and encouragement of young architects and designers, and the participation of users and the community.

Project data

Patron

Rustam Minnikhanov, *President of the Republic of Tatarstan*

Conception

Natalia Fishman-Bekmambetova, *curator*

Cabinet of Ministers of the Republic of Tatarstan



Alexey Pesoshin, *Prime Minister*

Ildar Khalikov, *former Prime Minister*

Ministry of Construction, Architecture, Housing and Utilities of the Republic of Tatarstan

Irek Faizullin, *Minister*

Alexey Frolov, *Deputy Minister*

Implementation of the Programme

Institute for Urban Development of the Republic of Tatarstan, Kazan, Russian Federation

Ksenia Rassman, *director*

Roman Karachev, *senior assistant director*

Ainaz Yarmiev, *head of Architectural Projects Department*

Denis Dmitrienko, *art-director and head of Visual Communications Department*

Maria Gorozhaninova, *head of External Communications Department*

Radmila Khakova, *former head of External Communications Department*

‘Main Investment and Construction Administration of the Republic of Tatarstan’ State Budget Institution

Marat Aizatullin, *Director*

Project Group 8 LLC, Kazan, Russian Federation

Nadezhda Snigireva, *co-founder and partner*

Dmitry Smirnov, *general director*

Directorate of Parks and Squares, Kazan, Russian Federation

Marat Zakirov, *director*

Executive Committee of Kazan

Daria Tolovenkova, *deputy chief architect of Kazan, first head of Architecturny Desant LLC*

MOST Architectural Bureau, Kazan, Russian Federation

Liliya Gizzyatova, *architect*

Project Data

Site area: 68,000 km²

Cost: 173,500,000 USD

Commission: 2015

Design: February 2015 – ongoing

Construction: May 2015 –ongoing

185 of the total of 328 projects have been completed by the end of 2017 and therefore considered eligible



for the 2019 Award Cycle.

Institute for Urban Development of the Republic of Tatarstan, Kazan, Russian Federation

The Institute for Urban Development of the Republic of Tatarstan implements the Public Spaces Development Programme. Within the framework of the Programme, 328 parks, squares, streets and embankments have been landscaped in Tatarstan by end 2018

It includes the training of local specialists and officials, aiding the formation of a professional architectural community; participatory design, during which each project is discussed and coordinated with urban communities and other interested parties at all stages of its implementation; the development of local industries and the local economy is an integral part of the project.

For construction work on the sites, local manufacturers are involved, which gives them the opportunity to develop their businesses and gain new competencies. At the design stage of the facility, an infrastructure for business is created, which later opens allows the opening of a cafés, rental points, etc. After a project is completed, its well-appointed facilities are filled with activities such as festivals, concerts, and sporting events.

Website

<http://park.tatar>



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W I N N I N G P R O J E C T S

Wasit Wetland Centre

Sharjah, United Arab Emirates

Architect: X-Architects, Dubai, United Arab Emirates

Client: Environment and Protected Areas Authority, Sharjah, United Arab Emirates

Project description

Part of a much larger initiative by Sharjah's Environment and Protected Areas Agency to clean up and rehabilitate this ancient chain of wetlands along the Persian Gulf coast, the Wasit Wetland Centre aims to supply information and education about this unique environment and to encourage its preservation.

In designing the visitor centre, the architects took advantage of the site's natural topography to minimise its visual impact by making it appear submerged into the ground. Visitors descend a ramp to arrive at an angled intersection between two linear elements of the building: one, to the sides, containing services and administrative offices; the other, ahead, a long viewing gallery flanked by aviaries where birds can be seen in their natural habitat. At the far end of the viewing gallery, a third linear element, running perpendicular, houses a café and multipurpose space with views out over the open wetlands.

A cantilevered steel truss roof over the viewing gallery avoids the need for peripheral columns, allowing seamless glazed façades. The interior is deliberately minimalistic throughout, placing the full focus on the surrounding nature: informative displays are the only adornment on the supporting central wall. The façade glazing is slightly tilted, to enhance reflections of the landscape for the birds while minimising reflections for people looking out. The floor being lower than the ground outside, a continuous concrete sill provides a place to sit and contemplate birds at their level. To counter the very hot desert climate, the roof is well insulated and the glass is shaded by its overhang. Some fabric shading is also provided over the aviaries. Rainwater harvested from the roof is discreetly directed to specific areas of the landscape via carefully placed spouts that are camouflaged by landscape elements.

Six bird hides scattered around a lake created in the middle of a 200,000m² site follow a unified aesthetic but are each individually designed for their context, and employ some recycled wood and plastic in their construction, reinforcing the ecological message.

What had become a waste dumping ground has had its indigenous ecosystem restored, and is proving a popular place for visitors to appreciate and learn about their natural environment.



Jury Citation

The Wasit Wetland Centre stands out as a remarkable, indeed unique, collaborative project combining architectural excellence with a deep commitment to ecological imperatives.

It also achieves highly commendable educational and recreational purposes. Less than four years after its completion, a large number of local visitors, especially schoolchildren, attests to the project's overall success and its positive impact in a broader social context.

Perhaps some of the most striking and exemplary aspects of the project are to be found in its most unconventional virtues. Architecturally speaking, it is intent on disappearing from sight. It merges into the natural environment in ways that respect the site's integrity – a wonderful way of reminding us that architectural merit resides more and more on a structure's capacity to blend into an environment rather than challenge it.

Likewise, the project's major contribution to its urban environment is in its reclamation of close to 20 acres of former wasteland by diverting it from the temptations of real estate development and valorising it as a form of natural capital.

In doing so, the Project sets a powerful precedent that encourages low-impact and environmentally conscious development in a region known for its propensity to go in the opposite direction.

Project data

Wasit Wetland Centre

Sharjah, United Arab Emirates

Client

EPAA (Environmental and Protected Areas Authority), Sharjah, United Arab Emirates:

Hana Saif Al Suwaidi, *chairman*

Architect

X-Architects, Dubai, United Arab Emirates:

Farid Esmaeil, Ahmed Al Ali, *founding partners*



Brian Walter Abarintos, Christian Geronimo, Mirco Urban, Dana Sheikh, Pariya Manafi, *design development*

Haider Al Kalamchi, *mechanical engineer*

Eyad Zarafeh, *structural engineer*

Contractor

Darwish Engineering Emirates, Sharjah, United Arab Emirates

Landscaping and Zoology

Breeding Centre for Endangered Arabian Wildlife:

Paul Vercammen, *operations manager*

Project Data

Site area: 200,000 m²

Ground floor area: 2,534 m²

Cost: 7,600,000 USD

Commission: 2012

Design: 2012

Construction: 2014–2015

Occupancy: 2015

X-Architects

X-Architects is a critical architectural studio founded in 2003 by principal architects Ahmed Al-Ali and Farid Esmaeil.

Ahmed Al-Ali graduated from the American University of Sharjah with a degree in Architecture. He contributes to various research projects and has collaborated on Abu Dhabi's Urban Planning Council building and neighbourhood guidelines. He is a board member of the Canadian University of Dubai, the UAE University of Al Ain and the Al Hosn University in Abu Dhabi. He is actively involved in academic spheres and is a recurring critic and lecturer at various educational institutions and associations. Ahmed recently lectured and joined a panel discussion called 'Housing the Spring' at the Graduate School of Design of Harvard University.

Farid Esmaeil studied architecture at the American University of Sharjah School of Design. He has lectured in various universities and institutions worldwide and is a regular guest critic. He was a speaker at TEDx in Abu Dhabi, Harvard University, the University of Toronto and Doha Architecture Forum. He exhibited and contributed to the Venice Biennale in 2008, 2014 and 2016.



Since 2003, X-Architects has developed an international reputation with a significant and diverse portfolio of work ranging from masterplans, civic and cultural buildings, offices and residential buildings to private houses. X-Architects believes in design as a process. The studio conducts research into creating a built environment that is adaptive and contextual. The sensible yet critical design approach recognises the inherent complexity in modern-day building and harnesses this complexity to produce projects that are culturally robust, place sensitive and environmentally friendly.

X-Architects projects have gained continuous recognition and have been exhibited in international venues like the Royal Institute of British Architects (RIBA) in London in 2011 and Louisiana Museum of Modern Art in Copenhagen 2014. In 2010, Al-Ali was honoured with the Mohammed Bin Rashid Award for Young Business Leaders.

Website

www.x-architects.com



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W I N N I N G P R O J E C T S

Alioune Diop University Teaching and Research Unit

Bambey, Senegal

Architect: IDOM, Bilbao, Spain

Client: ACBEP, Ministry of Urbanism & Ministry of Higher Education, Dakar, Senegal

Project description

Alioune Diop University was founded in 2007 as part of the Senegalese government's efforts to decentralise higher-education provision, seeking both to encourage youth to stay in rural areas and to provide educational programmes appropriate to these contexts. By 2012 it was functioning beyond capacity, so an extension project was launched, of which this building formed the major part.

The structure comprises a 500-seat lecture hall, five 50-student classrooms, eight 100-student classrooms, three laboratories, ten lecturers' offices and two meeting rooms. It was the architects' choice to combine all of these into a single mass with an identity and presence worthy of its university status – unlike the campus's pre-existing small, scattered blocks. Although single storey, its slanting roof soars to almost 10m on the north side. Its south side is distinguished by a lattice screen running the full 203m of its length, made of perforated breezeblocks manufactured on site by local masons. At the east end, a sweeping entrance ramp and outdoor stair create a connection with the rest of the campus.

The lattice wall – echoing similar, smaller features on local buildings – is one of the strategies for passive cooling in a location where temperatures can exceed 40°C. A broad corridor separates this from the accommodation behind, which is arranged into five sub-units with staircases in the voids between them. Their standard post-and-beam concrete construction is organised on a 3.6m structural grid, facilitating on-site prefabrication. Each sub-unit has an insulated roof; while the heat-reflective metal outer roof runs the whole length of the building mass and extends out to form a giant loggia to the north, drawing hot air up and away. This loggia is supported by thin metal columns of a varying three-branched form, recalling the solitary trees in whose shade locals commonly gather. Other ecologically minded measures include a series of stone-lined basins filled with gravel and vegetation, where both rainwater from the roof and filtered wastewater are directed.

By employing locally familiar construction techniques and following sustainability principles, the project succeeded in keeping costs and maintenance demands to a minimum, while still making a bold architectural statement.



Jury Citation

As buildings have a direct impact on climate change and the environment, the Alioune Diop University Lecture Building represents a commendable example of how fundamental principles of sustainability and energy efficiency are translated into a well-integrated and elegant design that also has a low impact on its surroundings.

These principles, which were utilized early in the concept's development, were guided by information about specific climate data needed to optimize the skin of the building. They also included energy use, material depletion and water pollution. Layering, water management and the use of construction technology and materials were also incorporated in the design.

The organization of the building is structured around a generous shaded space on the north side of the building, allowing for social interaction and a well-organized linear circulation. Building elements have multiple functions. For example, the breezeblocks allow ventilation and reflect direct sunlight.

Comfort, energy use and the building's overall environmental legacy are well represented in this project. The building demonstrated how good design that integrates environmental principles can result in quality spaces that allow a building to be bound by local environmental and site-specific conditions.

The construction technology also allowed for repetition and possible use in other buildings. The sustainability principles and processes utilized have the potential to serve as model for implementing environmentally conscious design.

Project data

Clients

Ministry of Urbanism, Senegal

Ministry of Higher Education, Senegal

Agence de Construction des Bâtiments et Édifices Publics (ACBEP), Dakar, Senegal

Socé Diop Dione, *director*

Moussa Sarr, *project manager*

Gorgui Gueye, *secretary-general*



Ministère de l'Enseignement Supérieur et de la Recherche (MESR), Dakar, Senegal

Mary Teuw Niane, *former Minister of Higher Education*

Maguette Kebe Doumbouya, *project director*

Université Alioune Diop de Bambey (UADB), Bambey, Senegal

Lamine Gueye, *rector*

Matar Mour Seck, Abdoullah Cissé, *former rectors*

Papa Ibrahima Faye, Senghane Mbodji, *vice-rectors*

Sidy Camara, *environmental manager*

Omar Diouf, *domain manager*

Abdoulaye Mbow, *former domain manager*

Banque Mondiale (BM) / World Bank (WB), Dakar, Senegal

Atou Seck, *resident representative in Djibouti*

Sémou Diouf, *architect*

Mbaye Faye Mbengue, *environmental expert*

Architects

IDOM, Bilbao, Spain:

Federico Pardos Auber, *partner, project director and director of IDOM Senegal*

Javier Pérez Uribarri, *partner and project director*

Beatriz San Salvador, *partner and project architect*

Blas Beristain, *sustainability architect manager*

Ana Robles, *main cost engineer*

Iñaki Zabala, *draughtsman manager*

Joseba Andoni, *cost engineer*

Arturo Cabo, *services engineer*

Francisco-José Sanchez, *services engineer manager*

Fernando Lopez, Miguel Angel Corcuera, *structural engineers*

Mario Torices, *acoustic engineer*

Ignacio Olague, *geologist*

Juan-Carlos Gomez, *planning engineer*

Roberto Fernandez, Alfonso Alvares, *3D designers*

Clarisse-Manuela Guiraud, *administration management*

IDOM SENEGAL SA, Dakar, Senegal

Fally Diop, Papa Djibril Kane, *engineers and project supervisors*



Consultants

Cabinet d'Architecture Alioune Sow (CAAS), Dakar, Senegal

Alioune Sow, *architect*

Optima Ingénierie, Dakar, *Senegal*

Tandakha Ndiaye, *services engineer*

Building Inspector

Alpages, Dakar, Senegal

Bruno d'Erneville, Charles Sambou Antoine, *technical inspectors and managers*

Nourou Gueye, Sylla Mansour, *technical inspectors and on-site supervisors*

Mounirou Fall, Baye Faye Sam, *technical inspectors and engineers*

Jean François Faye, Boubacar Keita, *geologists*

Ndéné Ndiaye, *head of the supervision of technical construction*

Maley Han, Lamine Diouf, *technicians*

Contractor

Compagnie Sahélienne d'Entreprises (CSE), Dakar, Senegal

Samba Diop, *technical construction director*

Mamadou Gaye, *construction manager*

Moustapha Keindé, Abdoulaye Kane, Abdou Ndiaye, *builders*

Abdoulaye Kane, *construction site overall director*

Abdou Ndiaye, *construction work lead*

Project Data

Site area: 11,500 m²

Built area: 6,895 m²

Outdoor landscape (basins and rainwater canals): 4,316 m²

Cost: 6,700,000 USD

Commission: November 2012

Design: February 2013 – September 2013

Construction: May 2015 – December 2017

Occupancy: December 2017

IDOM

IDOM is an independent professional services company providing solutions in a wide range of sectors,



including architecture, civil engineering, industrial engineering, project management, consultancy, environment, energy and telecommunications. It was founded in 1957 in Spain. Today, more than 3,500 professionals carry out their activity from 39 offices in four continents.

A multi-disciplinary team allows IDOM to cover all the specialisms that the practice of architecture entails today. They are able to take on all work – whether big or small, and no matter how complex the situation – in a truly holistic manner, providing solutions suited to the reality of the context they are building in. The team spirit is enriching and sets new challenges every day, while at the same time inviting each member to find their own place and to develop a true personal trajectory.

IDOM seeks a new sensibility, a new methodological approach, a different view to more freely confront a different balance between praxis and theory, between creative and executive process, between urgent daily decisions and those transcendent motivations that everyone faces in their professional and personal development.

Website

www.idom.com



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W I N N I N G P R O J E C T S

Palestinian Museum

Birzeit, Palestine

Architect: heneghan peng architects, Dublin, Ireland

Client: Taawon-Welfare Association, Ramallah, Palestine

Project description

Built to celebrate Palestinian heritage and with a stated aim to ‘foster a culture of dialogue and tolerance’, the museum is a flagship project of Palestine’s largest NGO, with support from nearby Birzeit University. The site is defined by agricultural terraces formed of dry-stone walls (*sanasil*) erected by local villagers to adapt the terrain for cultivation. Selected through an international competition, the design takes its cues from this setting and is firmly embedded within it. An access road leads to the top of the hill where approaching visitors glimpse views out of the other side of the building, across this characteristic landscape and to the Mediterranean 40km to the west. The building’s plan is double-wedge-shaped. The main visitor spaces – lobby, exhibition area, glass gallery, shop, café and cloakroom – are at entrance level, limiting the need for vertical circulation. The café, in the north wing, opens onto a paved open-air terrace with further views. A pre-existing hollow in the topography is exploited to provide additional accommodation underneath the south wing, including stores and an education/research centre, leading to a sheltered outdoor amphitheatre.

The zigzagging forms of the Museum’s architecture and hillside gardens are inspired by the surrounding agricultural terraces, stressing the link with the land and symbolising resistance to the West Bank’s military occupation. Palestinian limestone, quarried locally near Bethlehem, is used for both façade cladding and exterior paving, unifying the scheme. The west façade’s masonry is cranked upwards in two places, exposing triangular curtain walls with metal fins whose sizes and locations are carefully calculated to protect the interior from solar glare and heat gain while maximising natural light – one of a number of measures that have earned the building its LEED Gold certification. Internally the Museum’s concrete structure is rough-rendered and white-painted.



The garden is themed to range from agricultural crops at the outer confines to more refined plantings nearer the buildings, and is intended to supply the café with typical Palestinian produce. Rainwater from the terrace and amphitheatre is harvested for use in the irrigation and flush systems, and wastewater is treated also for use in irrigation.

Jury Citation

The Palestinian Museum stands as the powerful embodiment of a cultural identity under duress at the intersection of land and architecture, nature and people. By placing the traditional agricultural terracing of the region at the centre of its conception, the project locates land at the core of its curatorial mission. This concept is carried throughout the design of the building, which stands on top of a hill overlooking a rich botanical garden of indigenous species, and faces the inaccessible distant sea and cities of historic Palestine.

In its integration into the natural topography, the building adopts the age-old architectural language of the region, but does so using a modern geometric language. It balances a reliance on local materials with the introduction of innovative detailing techniques.

Programmatically, the building displays regular exhibitions that document the history, cultures and ambitions of the peoples of Palestine. Its activities are intertwined with the vibrant educational environment of the nearby Birzeit University.

The building's very existence, its level of detailing and the perfection of its design and specifications – built despite a condition of occupation and siege – can be understood as nothing less than an act of hope for current and future generations.

Project data

Client

Taawon Welfare Association, Ramallah, Palestine:

Zina Jardaneh, *chairperson*

Adila Laïdi-Hanieh, *director general*



Architect

heneghan peng architects, Dublin, Ireland:

Róisín Heneghan, Shih-Fu Peng, *directors*

Conor Sreenan, *project architect*

Elizabeth Gaynor, Catherine Opdebeeck, Dominic Lavelle, *architects*

Landscape Architect

Lara Zureikat, Amman, Jordan

Local Partner (Structures, Civil, MEP, Cost)

Arabtech Jardaneh, Ramallah, Palestine:

Hassan Abu Shalbak, *AJP Palestine lead*

Suzan Abdel Ghani, *administrator*

Main Contractor

Consolidated Contractors Company, Athens, Greece:

Haitham Jaber, *EPC manager*

Building Contractor

Tubaila Target United, Nablus, Palestine

Feras Tubaila, *co-founder*

Integrated Engineering and Fire

ARUP, London, United Kingdom:

Francis Archer, *associate director*

Lighting

Bartenbach GmbH, Aldrans, Austria:

Robert Mueller, *creative art director*



Façade Design

T/E/S/S atelier d'ingénierie, Paris, France:

Tom Gray, *director*

Project Manager

Projacs International, Dubai, United Arab Emirates:

Nasser Kanaan, *deputy CEO, country manager and business development director*

Emad Shaar, *senior project manager*

Strategic Development

Cultural Innovations, London, United Kingdom

Quantity Surveyor

Davis Langdon/AECOM, London

Project Data

Site area: 40,000 m²

Built area: 3,085 m²

Garden area: 26,000 m²

Cost: 24,300,000 USD

Commission: December 2011

Design: March 2012 – April 2013

Construction: April 2013 – April 2016

Occupancy: May 2016

heneghan peng architects

heneghan peng architects is a design partnership practicing architecture, landscape and urban design, founded by Shih-Fu Peng and Róisín Heneghan in New York in 1999. In 2001 it was relocated to Dublin, Ireland, and in 2011 opened an office in Berlin, Germany.

Shih-Fu Peng studied architecture at Cornell University and received his master's degree in architecture from



Harvard Graduate School of Design in 1992. Peng is a frequent lecturer and visiting critic at prominent schools of architecture in the United States and Europe.

Róisín Heneghan received a Bachelor of Arts from University College Dublin and holds a Master of Architecture from Harvard University. Heneghan has retained an academic discourse as a lecturer, tutor, visiting critic and reviewer at several universities including Yale University, Harvard University, MIT, University College Dublin and Cornell University.

A multi-disciplinary approach drives the office to collaborate with many leading designers and engineers on a range of projects which include larger-scale urban masterplans, bridges, landscapes and buildings.

Projects include the Canadian Canoe Museum, the National Gallery of Ireland, the Grand Egyptian Museum at the Pyramids, the Giant's Causeway Visitor Centre, Airbnb EMEA headquarters in Dublin and the Diamond Bridges at the 2012 London Olympic Park.

Website

www.hparc.com/2019



WINNING PROJECTS

Revitalisation of Muharraq

Muharraq, Bahrain

Patron: Sheikha Mai Bint Mohammed Al Khalifa, Manama, Bahrain

Project director: Noura Al Sayeh, Manama, Bahrain

Project description

The pearling industry was historically crucial to Bahrain's economy, with the former capital Muharraq as its global centre. Following the development of cultured pearls in the 1930s, the town went into decline and Manama rose to become capital through oil wealth. Muharraq's indigenous population was largely replaced by migrant workers, mostly single males sharing rented accommodation.

Initiated as a series of restoration and adaptive reuse of a number of edifices under the Sheikh Ebrahim Centre for Culture and Research, the project evolved into a comprehensive programme entitled *Pearling Path, Testimony of an Island Economy involving various architects, planners and researchers*. The project both highlights the town's pearling history and aims to re-balance its demographic makeup, enticing local families back through improvements to the environment and provision of community and cultural venues. Facilitated by private–public partnerships, it involves the preservation of a number of sites and numerous buildings, from humble divers' houses to prestigious courtyard residences to commercial warehouses; plus the upgrading of other façades, and the construction of four new buildings. All of these are connected through a visitor pathway, with vacant plots left by demolitions landscaped as public spaces.

The preservation/restoration of the traditional buildings included reinstating lost wind towers for natural climate control. The materials employed match the originals – notably coral stone reused from demolished structures, and wood. Terrazzo, which became popular in the area in the 1940s for flooring, is utilised extensively for street furniture, and contains flecks of oyster shell. Spherical white streetlamps atop terrazzo posts bring further pearl-related symbolism and assist way-finding.

The new buildings respect the historic environment's scale and street lines while making bold contemporary architectural statements. The Pearling Path Visitor and Experience Centre and the House of Architectural Heritage adopt a Brutalist aesthetic, the former's forms echoing the wind towers and coral blocks of traditional neighbouring structures; the Archaeologies of Green Pavilion features a series of interlinking gardens containing indigenous plants; and the Dar Al Jinaa Centre for Traditional Music is inventively cloaked in chain mail, shielding against solar glare while allowing a constant breeze. Music events here and elsewhere



in the programme include performances of pearl-fishers' songs.

Now a UNESCO World Heritage Site, all new planning applications are reviewed by the project team to ensure further developments are in keeping with the scheme's overarching objectives.

Jury citation

The Revitalisation of Muharraq responds creatively to the challenges of neglected urban cultural heritage and social life. Drawing on Bahrain's heritage of a pearl economy, it has reawakened a local sense of pride while infusing new cultural life in a deteriorated urban area

It is important to note that the revitalisation is based on an audacious array of public and private interventions using a contemporary and dynamic – yet discrete – architectural language.

The restoration of existing buildings and the introduction of well-designed contemporary ones provide a vessel for curated cultural activities. Using an elegant way-finding lighting network, the “Pearl Route” guides visitors through the area's heritage in a socially sensitive manner.

The excellent, yet affordable, upgrading of public spaces provides the local community with opportunities for social interaction. The project successfully establishes an open platform where citizens can actively engage. Professionals of different backgrounds can interact and collaborate. Public-private partnerships and local businesses can thrive.

The Programme thereby achieves an urban revitalisation process that strikes a balance between improving the residents' quality of life and enhancing visitor experience.

These integrated, incremental, evolving, open-ended and process-based interventions – extending over almost two decades – demonstrate the perseverance and long-term vision of the project's instigators. They are a reminder that institutionalisation, the building of local capacities, and *seeking the best possible rather than the perfect* – are all keys to achieving sustainable impact.

Project data

Patron



Sheikha Mai Bint Mohammed Al Khalifa, Manama, Bahrain

Shaikh Ebrahim Centre for Culture and Research

Nuzul Guest House, Kurar House for Traditional Embroidery:

Architects: Gulf House Engineering, Manama, Bahrain

Interior: Design Habib Associates, Manama, Bahrain

Contractor: Ewan Al Bahrain, Manama, Bahrain

Memory of the House:

Architect: Habib Associates, Manama, Bahrain

Contractor: Ewan Al Bahrain, Manama, Bahrain

Search Library:

Architects: Atelier Bow-Wow, Tokyo, Japan

Contractor: General Contracting & Trading, Manama, Bahrain

House for Architectural Heritage:

Architects: Noura Al Sayeh, Manama, Bahrain

Leopold Banchini Architects, Geneva, Switzerland

Contractor: Ewan Al Bahrain, Manama, Bahrain

Pearling Path, Testimony of an Island Economy

Noura Al Sayeh, *project director*

Ghassan Chemali, *head of urban conservation*

Alaa Al Habashi, *head of urban conservation strategies*

Britta Rudolff, *coordinator of the Nomination Dossier to the UNESCO World Heritage List*

Shatha Abu El Fath, Ahmad Abd El Nabi, Mario Affaki, Fatema Al Hayki, Ahmad Al Jishi, Amal Al Saffar,

Batool Al Shaikh, Lulwa Al Malood, Mustafa Al Zurki, Ronan Dayot, Wissam Fadlallah, Lucia Gomez, Yehya

Hassan, Ali Marzooq, Marwa Nabeel, Tamer Nassar, Faisal Soudaga, Shadi Taha

Pearling Path Visitor Centre:

Architects: Valerio Olgiati, Flims, Switzerland

Emaar Engineering, Gudaibiya, Bahrain



Contractor: AlMoayyed Contracting Group, Al Musalla, Bahrain

Pearling Path Squares:

Architects: Bureau Bas Smets, Brussels, Belgium

OFFICE Kersten Geers David Van Severen, Brussels, Belgium

Gulf House Engineering, Manama, Bahrain

Contractor: Aradous Contracting, Al Hidd, Bahrain

Archaeologies of Green Pavilion:

Architect: Studio Anne Holtrop, Muharraq, Bahrain

Landscape: Anouk Vogel Landscape Architecture, Amsterdam, the Netherlands

Structural Engineering: Mario Monotti, Locarno, Switzerland

Gilbert Van der Lee, Amsterdam, Netherlands

Contractors: Restaura Srl, Vimercate, Italy

General Contracting & Trading, Manama, Bahrain

Dar Jinaa:

Architects: OFFICE Kersten Geers David Van Severen, Brussels, Belgium

Emaar Engineering, Gudaibiya, Bahrain

Contractor: AlMoayyed Contracting Group, Al Musalla, Bahrain

Bu Maher Fort Visitor Centre:

Architects: PAD architects, Manama, Bahrain

Contractor: General Contracting & Trading, Manama, Bahrain

Suq Al Qaysariyyah Rehabilitation and Conservation, Rehabilitation of Siyadi and Murad Clusters, Shaikh

Isa Bin Ali House:

Architects: Studio Anne Holtrop, Muharraq, Bahrain

Structural Engineering: Mario Monotti, Locarno, Switzerland

Conservation: Gaetano Arricobene, Milan, Italy

Landscape: Madison Cox Landscape Architects, New York, USA

Contractor: AlMoayyed Contracting Group, Al Musalla, Bahrain

Muharraq Conservation Plan:

Jean-Bernard Cremnitzer, Paris, France



Muharraq Mobility Study:

Systematica, Milan, Italy

Project Data

Site area: 330,000 m²

Cost: 110,000,000 USD

Commission: 2010

Design: 2010–2018

Construction: 2002 – ongoing

Occupancy: ongoing

Sheikha Mai Bint Mohammed Al Khalifa

President of the Bahrain Authority for Culture and Antiquities, Sheikha Mai Bint Mohammed Al Khalifa previously served as Minister of Culture from 2010 to 2014, Minister of Culture and Information from 2008 to 2010 and Assistant Undersecretary for Culture and National Heritage at the Ministry of Information. MA in Political History from Sheffield University, UK, she was listed as one of the 50 most influential women in the Arab world by *Forbes* magazine in 2008. She was awarded the Watch Award by the World Monument Fund in 2015 – the first Arab personality to receive the award – in recognition of the singular role she has played in the preservation and protection of culture and heritage in Bahrain. In 2017 she was made the Special Ambassador of the International Year of Sustainable Tourism for Development by the United Nations World Tourism Organization (UNWTO).

Sheikha Mai has published a number of books and articles including *Charles Belgrave: Biography and Diary* (The Arab Publication Establishment, 2000), *100 Years of Education in Bahrain: The Early Years of Establishment* (The Arab Publication Establishment, 1999), *Mohammed Bin Khalifa 1813–1890: The Legend and the Parallel History* (Shaikh Ebrahim Center for Culture & Research, 2014) and *The Qarmations: From Concept to State* (Shaikh Ebrahim Center for Culture & Research, 2019), among others.

Sheikha Mai is the founder of the Shaikh Ebrahim bin Mohammed Al Khalifa Center for Culture and Research and President of its Board of Directors. An NGO that was established in Muharraq in 2002, the Center has since hosted over 500 speakers, philosophers, poets and thinkers, who have presented their thoughts in the its weekly lecture programme. It has conserved and rehabilitated over 25 traditional Bahraini houses and spearheaded the urban regeneration of the historic city of Muharraq.

Under the leadership of Sheikha Mai, the Bahrain Authority for Culture and Antiquities has significantly expanded the number of cultural institutions and programming in Bahrain, including the establishment of the Bahrain National Theatre, the Khalefeyah Library, the Dar Al Muharraq and Dar Al Riffa for traditional



music, the Qal'at Al Bahrain site museum and the Al Khamees Mosque visitor centre, as well as the creation of a number of cultural festivals and the inscription of three sites on the UNESCO World Heritage List. She was the commissioner of Reclaim, Bahrain's contribution to the 2010 Venice Biennale, which was awarded the Golden Lion for best national participation in that year, as well as the commissioner of the Bahrain Pavilion at Expo 2015 in Milan, which was awarded the silver medal for Best Architecture and Landscape.