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<https://www.akdn.org/architecture/project/alioune-diop-university-teaching-and-research-unit>

LENGTH:**ACADEMIC DIVISION:**

Alioune Diop University Teaching and Research Unit

1 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.

2 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

3 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 3.6 m 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.



Alioune Diop, Alioune Diop University Teaching and Research Unit, Bambey, Senegal
Aga Khan Trust for Culture / Chris Tall (photographer)

TECHNICAL INFORMATION:

Award Cycle: [2017-2019 Cycle](#)

Status: Award Recipient

Country of origin: Senegal

Location: Bambey, Senegal

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

Architect: IDOM, Bilbao, Spain

Design: 2013-2014

Size: 12,000 m²

Completed: 2017

VOCABULARY:

“Alioune Diop University Teaching and a Research Unit”/ “Espacios de enseñanza de la universidad Alioune Diop y una unidad de investigación”

Voids: Espacios vacíos/ huecos

Lattice: Celosía

Breeze: Ventilación

Blocks: Bloques o ladrillos

Slanting: Inclinado (a)

Masons: Albañiles

Post-and-beam: Postes y vigas

Loggia: Galería

Sustainability: Sustentabilidad