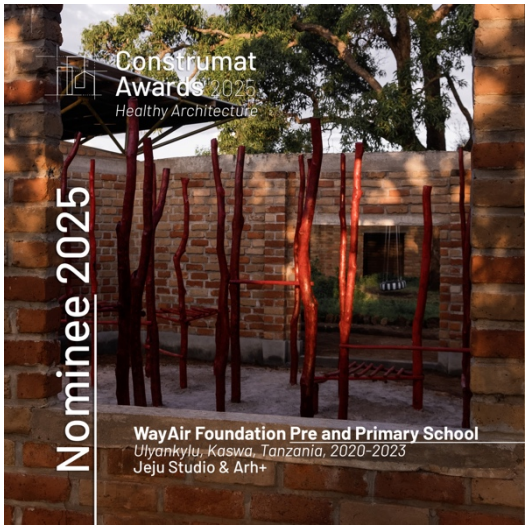

Design Studio
Jeju Studio.
Iwo Borkowicz, Adam Siemaszkiewicz
Arh+. Łukasz Rawecki

Collaborators
Bjorn Steinar Blumenstein (furniture design)
Local community

Consultants
Amela Kuch (social-political research); Elżbieta Drygas and Jerzy Hamerski (educational consultants); Aneta Wojak (head of the WayAir Foundation); AKON Construction (Structural engineer)

Client
WayAir Foundation

Founding
Polish Aid - Ministry of Foreign Affairs of Poland, Lion's Charity Run, Rotary Club Poznan, Dalpo sp. z o.o., Q&A Comms sp. Z o.o., Filipiak Babicz Legal sp.k., Community of the Primary School 83 „Łejery" im. Emilii Waśniowskiej in Poznań, Studio Tkaniny S.C. and many individual donors.

Start and Completion Year
2017 (Design), 2020-2023

Gross Area
3 200 m^2

Sustainable and healthy materials or systems
local brickmaking

Photography
Iwo Borkowicz

Contact and more information
@jejustudio
@wayair_foundation
More information

WayAir Foundation
Pre and Primary School

Escola d'educació infantil i primària Fundació WayAir
Escuela de educación infantil y primaria Fundación WayAir
Ulyankylu, Kaswa, Tanzania, 2020-2023
Jeju Studio & Arh+

REPORT. Sustainable and Healthy Architecture

WayAir School serves pre-primary and primary students in a refugee settlement in Ulyankulu, western Tanzania. The school carries strong emotional significance as a forward-looking institution, built with local involvement to solidify the permanence of the settlement. Ulyankulu is transitioning from over three decades of uncertainty as a temporary home into a place where the future can be built—both legally, through the naturalization of refugees, and physically, with the development of homes and infrastructure.

More than just a school, WayAir embodies a unique educational model and fosters a harmonious relationship with the environment. It serves as a cornerstone of the growing community. The building creates a large, shaded public plaza at its center, along with smaller open-air patios, promoting social cohesion and sustainability within this relatively young settlement. The school addresses the region's most urgent needs: space for education and social life, water harvesting, passive cooling, and a renewed connection with nature.

Ventilation
Classrooms in the area have been recorded with ceiling temperatures reaching 65°C at midday during the summer. To mitigate this, the school employs multiple passive cooling strategies. A central courtyard with carefully positioned trees—natural evaporative cooling agents—helps regulate temperatures. Additionally, classrooms feature tilted, elevated roofs and large cross-ventilating windows to encourage airflow, keeping the interiors cool throughout the day. The wide roof overhangs provide shade around the building's exterior, further reducing heat exposure. Inside, thick concrete slab floors with high thermal inertia help maintain lower temperatures, ensuring a comfortable learning environment.

Water Infrastructure
During the dry season, Ulyankulu faces severe water shortages, often leading to dehydration and waterborne infections. To combat this, WayAir School collects rainwater during the short but intense rainy season. All roofs direct water into storage tanks with a total capacity exceeding 70,000 liters. The collected water is calculated to last through nine months of the dry season. Each school day begins with pupils washing their hands, brushing their teeth, and filling their bottles with 1.5 liters of safe drinking water.

Nature-Centered Design
In the 1970s, Ulyankulu was a forest reserve, but today it is a deforested rural area regularly facing severe water shortages. The decision to build the school around a group of trees is symbolic—placing nature at the heart of the design aims to foster a deeper connection between children and their environment, subtly influencing attitudes toward conservation and sustainability.

Materiality
Brick is the predominant material in local construction, and WayAir School embraces this tradition. To support the community, the project employed two local brickmaking teams—one producing dark red bricks on-site where clay was available and another working in a nearby valley to create lighter-colored bricks. The bricks were hand-formed using wooden molds, sun-dried, and finally stacked into large piles for a 48-hour firing process.

By integrating sustainability, community engagement, and tradition, WayAir School stands as a model for resilient, climate-responsive design, generating health on both an individual and societal scale. Through its holistic approach, the school nurtures not only education but also well-being, fostering a thriving, self-sustaining community in Ulyankulu.

Special thanks to:

Aneta Sadowska-Wojak, Ela Drygas, Jerzy Hamerski, Amelia Kuch, Anna Michael, Przemysław Wojak, Łukasz Rawecki, Bjorn Steinar Blumenstein, Siddhart Thyagarajan, Abbas Kiroge.