Taller KEN

Parque O2 is the latest installation of Taller KEN's FUNdaMENTAL Design Build Initiative

Parque O2, a sprawling public installation of colorful bamboo totems, recently opened in San José, Costa Rica's disused Polideportivo de Aranjuez Park. The project is the latest installment of the FUNdaMENTAL Design Build Initiative, an annual design-build project founded by New York and Costa Rica-based architecture and design firm Taller KEN in 2016.

The premise of FUNdaMENTAL is to invite early-career architects from around the world to work together over a three-month period to address real world problems at the intersection of design, community space, and social impact. They engage local, diverse communities and rely heavily on developing their understanding of cultural nuances, with guidance from local experts. The ongoing effort is essential to Taller KEN's overarching practice, which pairs playful design with a focus on civic and cultural renewal.

This year's project, Parque O2 was created through a collaboration by ten international architecture and design students from India, Haiti, Tunisia, Turkey, Bulgaria, Italy, China, Canada, the United States, with support from local students from TEC Tecnológico de Costa Rica.

Located in San José's public Polideportivo Park, the installation connects the highly complex topological, social, and environmental components of the site, which sits at the intersection of a contaminated urban waterway, an informal settlement, and a railway on one side, and an organic market and public green space on the other. Previously, the areas were nearly inaccessible to each other, dividing communities along both geographical and socioeconomic lines.

Forging a spatial and visual connection between these diverse conditions, the participants undertook a series of physical and social actions to unify the disparate areas of the site. Removing trash, overgrowth, and intimidating security fencing, paired with outreach to neighborhood residents and stakeholders, helped to lay the groundwork for a design intervention with community support.

The result is a field of bamboo sticks painted in a vibrant gradient of yellows, golden oranges, hot pinks, and purples. Together, they create a meandering path linking the main nodes of Polideportivo Park and the railway near the upper informal settlement. The terrain is further shaped by grass-covered mounds of different shapes and sizes, which serve as seating pedestals for the groupings of bamboo totems. Covering a total surface area of approximately

2,000 square meters, the installation is comprised of 600 reclaimed tires filled with gravel and crushed stone (used as a base for the mounds and for soil retention and manage flooding) and approximately 1,200 linear meters of bamboo.

In addition to being colorful and playful, the installation also serves a sophisticated environmental purpose. In order to raise community awareness around air pollution in the area, the color palette of the bamboo poles works as an indicator of pollution levels, varying from yellow (very low) to purple (very high). The hues employed in each area are informed by accurate air pollution measurements taken by the team during the early phases of the project.

Parque O2's environmental engagement is active as well as educational. By mixing the paint coating the bamboo with Titanium Dioxide (TiO2), a highly photo-catalytic and reactive chemical, the installation actually mitigates the polluted air itself. TiO2 is activated by UV sunlight, and when exposed to particulate matter and pollutants has the power to convert them into organic molecules, which then can be washed off the surface of the bamboo by rain. TiO2 has been used successfully in Mexican and European prototypes, mainly as an ingredient in concrete façades, however this is the first time that it is employed in a scattered surface (field of bamboo sticks) over an irregular area.

All aspects of Parque O2 — both aesthetic and functional — were designed with the intent to engage the local community, many of whom were involved throughout the entire design-build process and worked closely with the FUNdaMENTAL team. Initial site research was done with building on the work of local urban/ environmental initiatives and non-profits. The design process was developed in communication with local architecture students and reviewed by University faculty and experts. The resulting proposal was constructed with materials and resources donated from both private companies and the regional municipality. Onsite labor was a combination of participants, volunteers and local residents including several members of the transient community that sleep in the park at night. Each phase built on the next, expanding participants understanding of the design-build process- executing a built work by incorporating more voices into the process.

This is an essential component of all FUNdaMENTAL Design Build Initiative projects; engendering daily involvement and respect for the various installations, which encourages their future sustainability. In the words of Taller KEN's Gregory Melitonov, "This experience has helped the practice establish its approach to working in the public realm; communicating and applying its design ethos to non-traditional audiences."

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Project Credits:

Project name: Parque O2

Location: Polideportivo de Aranjuez, San José, Costa Rica

Organizers: Taller KEN

Team members: Sheryl Wadehra (India), Benjamin Hakimian (USA), Carmen Chee (USA), Li AnHong (China), Laurence Von Lignau (Haiti), Waddah Dridi (Tunisia), Serkan Ates (Turkey), Riccardo Zocche (Italy), Hrabrina Nikolova (Bulgaria), Florence Méthot (Canada)

Local student participants: Andrei Seredin (Costa Rica), Diego Blanco (Costa Rica), Johana Vargas (Costa Rica), Valeria Murillo (Costa Rica), Kéndary Rojas (Costa Rica)

Supporters: Municipalidad de San José and Parque Polideportivo de Aranjuez with A-01, Alejandro Cruz, Barrio, Bruna, Casa Botánica, CCDR San José, Edificio Steinvorth, Glidden, Grupo aie, PPG Paints, Río Urbano, Rutas Naturbanas, Selina, SJO ¡Vive!, Tecnológico de Costa Rica (TEC), The Globe Program, Universidad de Costa Rica

Photography: Andres Garcia Lachner (site photos), Leo Carvajal (team portraits), Manduca Audiovisual (video)