Contribution ID: **77** Type: **Poster Presentation**

P15 - AGOS institute for advanced science, culture, and sustainability

Monday, 23 November 2026 11:30 (30 minutes)

While Pasig City continues to advance student welfare and educational access, a gap still remains in specialized, immersive infrastructure capable of bridging traditional classroom learning with applied scientific inquiry, indigenous culture, and urban environmental care. Standard educational spaces lack the advanced technology needed to inspire and nurture future researchers, limiting opportunities for interdisciplinary exploration. To address this, this proposal outlines the framework for the AGOS Institute for Advanced Science, Culture, and Sustainability in Barangay Ugong, Pasig City. The project redefines the traditional observatory model by integrating astronomical facility design with ethnoastronomical documentation, public education, and riverfront ecological management along the Pasig River.

The proposed methodology applies sustainable urban planning and universal design principles to create an accessible, multi-use civic asset. Sited near the C5 corridor and the Maybunga Ferry Station, the facility leverages low-carbon, river-based transit access. The spatial plan incorporates riverbank eco-restoration, public function spaces, an accessible annex library, and commercial allocations intended to support local micro, small, and macro-enterprises. This design directly aligns with Pasig City's 5-Point Focus Agenda on Access to Quality Education and Resources, while addressing UN Sustainable Development Goals 4 (Quality Education), 8 (Decent Work and Economic Growth), and 9 (Industry, Innovation, and Infrastructure). The project is structured around the AGOS framework: Angkan (Lineage/Ethnoastronomy), Gabay (Guidance/Education), Oportunidad (Opportunity/Accessibility), and Suporta (Support/Research Infrastructure).

The anticipated deliverable is a scalable scientific and cultural facility anchored by a multi-use dome projection system. Beyond standard planetarium shows, the dome is designed to serve as a visualization medium for cross-disciplinary data, scientific conferences, and cultural programming. Complemented by an accessible annex library, open public halls, local commercial hubs, and local green space, the AGOS Institute offers a practical blueprint for integrating astronomical facility design, environmental management, and community engagement.

Keywords: *Digital Planetarium, Ethnoastronomy, Public Science Communication, Eco-Cultural Center*

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Session Classification: Poster Session

Track Classification: Engaging the Public via Planetariums