Proposal for a pre-AG workshop ICOMOS Malaysia 2026

Title: People-Centred AI and Digital Twins for Historic Places
Duration: Three-day workshop

Background

Carleton University and the University of Azuay have established a UNESCO Chair on Digital Twins for World Heritage Conservation to advance research and practice in heritage conservation in the face of climate change. Digital twins—dynamic, data-rich representations and documentation of physical sites—enable predictive conservation, advanced visualization, and collaborative management. Professor Stacy Vallis is leading the workshop from Auckland University of Technology, a strategic partner of the UNESCO Chair. Organized in conjunction with the ICOMOS General Assembly in Malaysia, the workshop promotes North-South collaboration and monitoring of the Sustainable Development Goals (SDGs). The UNESCO chair is supported by the ICOMOS/ISPRS International Scientific Committee CIPA Heritage Documentation.

Objectives

- Promote inclusive, people-centred approaches to heritage conservation.
- Present AI and digital twin tools for conservation.
- Apply experimental approaches to identify the values and character-defining elements of historic sites that require monitoring and presentation.

Learning outcomes

Participants will:

- Collaboratively identify heritage values and characteristic elements.
- Develop interpretive narratives that incorporate community perspectives.
- Build a lightweight digital twin prototype for a historic site (to be defined).
- Produce a Heritage Interpretation Plan and a monitoring storyboard.

Structure

- Day 1: Foundations – People, places, values, and attributes
- Day 2: Tools – AI and digital twins for conservation
- Day 3: Integration – Interpretation and conservation outcomes

Deliverables

- Matrix of values and attributes of the historic site
- Digital twin v0.1 + indicator dashboard sketch
- Report on interpretation and conservation results
- Potential recommendations for a policy note on opportunities and obstacles

Partners

- UNESCO Chair on Digital Twins for World Heritage Conservation
- ICOMOS/ISPRS CIPA Heritage Documentation
- Auckland University of Technology
- ICOMOS Aotearoa New Zealand
- ICOMOS Malaysia (*to be considered*)

Organizers

Prof. Dr. Stacy Vallis, Te Wananga Aronui O Tamaki Makau Rau | Auckland University of Technology (Aotearoa | New Zealand) – Chair, ICOMOS National Committee Aotearoa New Zealand
Prof. Mario Santana Quintero, Carleton University, UNESCO Chair in Digital Twins for World Heritage Conservation (Canada), Honorary Chair of CIPA

Trainers

- **Prof. Dr. Andreas Gerogoupoulos**, CIPA Board Member
- **Prof. Dr. Fulvio Rinaudo**, President of CIPA
- **Prof. Dr. Grazia Tucci**, Vice President of CIPA
- **Dr. Ona Vileikis**, Secretary General of CIPA

UNESCO Chair link - https://digital-twins.uazuay.edu.ec
ICOMOS/ISPRS International Scientific Committee CIPA Heritage Documentation - https://www.cipaheritagedocumentation.org