



## ABSTRACT

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### Beyond Project Boundaries: Cumulative and Indirect Impacts in Australian Heritage Assessment

Heritage assessment in Australia faces unprecedented challenges in addressing cumulative and indirect impacts that threaten the nation's irreplaceable historical, cultural and natural heritage. Traditional project-by-project environmental impact assessment approaches have proven fundamentally inadequate for protecting heritage values from complex, multi-scale threats that operate across extended temporal and spatial boundaries. This presentation examines two significant Australian case studies that illustrate both the devastating consequences of inadequate cumulative impact assessment and emerging methodologies for effective heritage protection. The Great Barrier Reef World Heritage Area case study reveals challenges of assessing cumulative climate change impacts from coal mining that operates across global scales. Current assessment processes fail to adequately consider how individual mining projects contribute collectively to greenhouse gas emissions that threaten the Reef's Outstanding Universal Value, highlighting the need for transformational change in cumulative assessment methodologies that can address indirect impact pathways operating through complex global systems. The development of regional-scale assessment approaches for the Greater Blue Mountains World Heritage Area demonstrates promising methodological innovations, including values-based assessment frameworks and causal network approaches that can map complex impact pathways. However, significant challenges remain in predicting synergistic interactions between multiple stressors and developing adaptive management responses to evolving cumulative threats. These cases demonstrate that effective heritage protection requires fundamental reforms to assessment methodologies, regulatory frameworks, and institutional arrangements that can address contemporary heritage threats while focussing on communities.

## KEY TAKEAWAYS

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Traditional project by project assessments are now fundamentally inadequate in addressing the impacts to heritage. Cumulative impacts operate across multiple scales and need to be addressed on a regional basis rather than a project basis. Community values and engagement must be at the heart of the assessment process for it to be collaborative.

## SPEAKER BIOGRAPHY

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Kylie Christian (NSW State Manager, Everick Heritage) is a cultural heritage and interpretation specialist, as well as an award-winning project director with over 25 years of experience. She is skilled in business management, strategic planning, and project management, including approvals for large infrastructure projects, built environments, and archaeological programs. She is also an Associate Fellow of the Royal Historical Society and a professional historian. Her experience includes heritage management and assessment, training and development in heritage and interpretation skills, interpretation and placemaking for natural, cultural and historical sites, community engagement, and strategic planning. Kylie has worked on heritage places of all levels of heritage significance, including assessing the nomination of sites for their inclusion on the World Heritage Register. She is currently completing doctoral research on the cumulative impacts of digital technologies on heritage places, a topic she explored in her Master's degree in heritage and interpretation.



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