

Kyra Wood, PhD
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1. EDUCATION (degree, year awarded, institution, primary focus/major)

Doctor of Philosophy, 2018, University of South Australia, Architecture

Bachelor of Architecture, 2007, University of Adelaide

Bachelor of Design Studies (1st class Hons), 2005, University of Adelaide/University of Waseda

2. EMPLOYMENT EXPERIENCE

I'm currently working as a postdoctoral fellow in timber design and construction at the University of Tasmania, where I have worked for the last three years. After completing my PhD, I spent a year working part time at the University of South Australia as a research assistant and as project officer for the AHURI research centre at University of South Australia, before moving to Tasmania to work in the Centre for Sustainable Architecture with Wood (CSAW). Prior to undertaking my PhD I worked full time as an architect at Kilpatrick Architecture in South Australia.

3. STUDENTS MENTORED (past four years)

I'm currently co-supervising two PhD candidates: Ros Syazmini Binti Mohd Ghani (thesis title: Development of An Economically Feasible Wood Treatment Process to Enhance the Material Characteristics of Plantation *Eucalyptus globulus* and *Eucalyptus nitens*); and David Rhys Tanton (thesis title: Identifying and modelling the causes of process-induced discolouration of hardwood timber to prevent its occurrence during drying: a case study using Tasmanian Blackwood *Acacia melanoxylon*).

I was recently invited by Professor Jeffrey Morrell to be an associate supervisor for PhD candidate Juan Roberto Vargas Garcia at the University of the Sunshine Coast (thesis title: Accelerated decay testing methods for Australian hardwoods).

More generally, since the first COVID lockdown of 2020, I initiated weekly collaborative mentoring meetings with CSAW's tech staff team, postdocs and all our current PhD candidates. Together, our interdisciplinary backgrounds and research include timber, civil and structural engineering, wood science and technology, forestry, chemistry, architecture and design. These weekly sessions are a hothouse of ideas and discussion which lead to joint research projects and outputs.

4. PRIMARY RESEARCH AREA WITH UP TO FOUR CURRENT RESEARCH PROJECTS

I am very much a beginner and early career researcher in the field wood science and technology. My PhD and background expertise is in architecture and design, with a focus on intercultural and intangible heritage conservation, collaborative urban design and community engagement. My current research, however, is focused on improving the material characteristics of Tasmanian hardwoods including their durability, fire resistance, dimensional stability, machinability, etc., for use in the built environment. I am also researching ways in which to accelerate the testing timeframes for durability treatments.

Current research projects for which I am the principal researcher/project leader include:

- **Increasing the durability and other material characteristics of Tasmanian hardwoods (a**

National Institute for Forest Products Innovation (NIFPI) project partnering with Britton Timbers, Neville Smith Forest Products, Sustainable Timber Tasmania, Tasmanian Timber Promotion Board, Ta Ann Tasmania, Koppers Performance Chemicals, University of Melbourne, Queensland Department of Agriculture, Forest and Fisheries.)

- **New methods of reliably demonstrating species durability in commercially relevant timeframes** (a NIFPI project partnering with Britton Timbers, Neville Smith Forest Products, Sustainable Timber Tasmania, Porta Timber McKay Investments Pty Ltd, Koppers Performance Chemicals, Private Forests Tasmania, University of the Sunshine Coast, Queensland Department of Agriculture, Forest and Fisheries. International research partners/mentors included: Dr Anders Kjellow, Danish Technological Institute, Dr Gerald Presley, Oregon State University.)
- **Optimising the adhesive performance of mass timber products made from fibre-managed *Eucalyptus nitens*** (one of four teams selected to compete in a national competition funded by Forest and Wood Products Australia. International mentors included: Dr Christophe Sigrist and Dr Martin Lehmann, University of Bern)

5. PROFESSIONAL ACTIVITIES AND ACHIEVEMENTS (Memberships, Editorial boards, professional society leadership roles, awards, honors)

Since transitioning into the field of timber materials research in 2019, I have been promoted to the role of principal researcher and project leader for two of Australia's NIFPI projects which are focused on improving the value of Tasmania's plantation and regrowth timber resource. As part of this work, I have instigated and led at least fifteen related research trials with local industry partners, as well as interstate and international research partners, ranging from supercritical carbon fluid treatment of plantation *Eucalyptus*, to the use of adjuvant additives to improve the permeability of refractory hardwoods during pressure treatment, to a long term natural durability field trial for as yet untested wood species. Whilst still a beginner in this field, I have been lucky enough to collaborate with some of the world's finest researchers and practitioners in this field, and my learning curve has been incredibly steep! Some of my past awards and honours include: Mawson Lakes Fellowship Program recipient, Hijjas Kasturi Architecture Prize recipient, Golden Key award recipient, among others.

6. PUBLICATIONS (3-5 most important contributions (publications, seminars, graduates, etc.))

- Wood KC, Morrell JJ, Leggate W, (2020) 'Enhancing the durability of low durability *Eucalyptus* plantation species: A review of strategies', Proceedings IRG Annual Meeting 2020, 10 - 11 June 2020, online, pp. 1-19. ISSN 2000-8953.
- Wood KC, (2021) 'The Tasmanian women making waves in the built environment', Tasmanian Timber, Tasmanian Timber Promotion Board, Australia, 5 March 2021. [[Magazine article](#)]
- Wood KC, (2021) 'Creating durable, fire-resistant wood products out of refractory Eucalyptus species: challenges, methods and initial results', 2021 IFA/AFG National Conference Program, Your Forests, Our Future, Forestry Australia, 11-14 October 2021.
- Wood KC, (2018) 'Collaborative urban design for stakeholder engagement in World Cultural Heritage conservation: a practical study in the context of the citadel wall in Hué, Vietnam', PhD Thesis, University of South Australia.

(NOTE: I am relatively new to the field of wood science and timber-related research, so unfortunately I do not have any high profile publications in this field yet. I do have several first /

co-authored publications currently in draft as I near the completion of the two major NIFPI projects and as the results from our trials are now finalised and able to be made public. I can include the titles of these publications once we have submitted them for peer review if preferred, but that may take a few more months due to our contractual arrangements with NIFPI.)