



Australian
National
University

Arboreal Alterations

2-3 November 2023

Lecture Theatre Level 2, Sir Roland Wilson Building (120)
McCoy Circuit, Australian National University

The symposium is hosted by the
ARC 'Archives in Bark' Special Research Initiative
(SR200200473), a collaboration between the [ANU](#),
[University of Canberra](#), [University of Notre Dame](#)
[Australia](#) and the [University of Western Australia](#).



Australian Government
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Funded by the Australian Research Council

SESSION 1	2
<i>Larrkardiy</i> and <i>lingkoora</i> – documenting <i>bookarrdiykarra</i> on the carved boab trees of <i>Nyikina</i> Country in the West Kimberley	2
Quest for the Yingualalya Bottle Tree Dreaming	2
Strangers in the landscape: The 'Mermaid Tree' at Careening Bay and post-contact inscriptions on Boab trees in the Kimberley by non-indigenous people	3
Northwest Boabs: The Trees of History	3
SESSION 2	4
Mapping Cooktown Ironwood Sugarbag Trees in the Laura Sandstone Basin, Cape York Peninsula, Queensland	4
Steel axe size, photogrammetry, and the recording of culturally modified trees in Cape York	4
Managing Culturally Modified Trees along the Peninsula Development Road, Cape York, Queensland	5
<i>Bolknahnan kunred la kundolk</i> : Protecting culturally modified trees in Mirarr Country, Northern Territory	6
Dendroglyphs of the Far North Queensland rainforests: Overview and update	6
SESSION 3	7
<i>Whenua on hiapo</i> : a cultural exchange on <i>Te Moana-nui-a-kiwa</i>	7
Yarun's trees of significance	8
Experiencing <i>Jingkieng Jri</i> (Living Root Bridges): Short walks in the Khasi Hills	8
The Arboreal Book: from early modernity to contemporary altered books	9
SESSION 4	9
Culturally modified trees: physical and metaphysical connection	9
Culturally Modified Trees and Bark/Wooden Items from Yagera Country, southeast Queensland, Australia.	10
Excisional Practices: Investigating Indigenous-Settler Relations through the Material Residues of Timber-Getting	11
Ring Trees: creating a typology for recording.	12
SESSION 5	12
Tree Carving:	12
SESSION 6	13
Investigating Wiradjuri <i>marara</i> (carved trees or dendroglyphs) and <i>dhabuganha</i> (burials) in the Central Tablelands, southeastern Australia	13
Lake of Scars: Culturally Modified Trees on Yung Balug Djandak, north central Victoria .	14
Establishing chronologies for culturally modified trees on Wotjobaluk Country	15

SESSION 1

Larrkardiy and lingkoora – documenting bookarrdiykarra on the carved boab trees of Nyikina Country in the West Kimberley

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Larrkardiy or boab trees (*Adansonia gregorii*) dominate the landscape of Nyikina and Mangala Country in the north-west Kimberley region of Western Australia. Intrinsically, larrkardiy are intertwined with stories for the Mardoowarra (Fitzroy River) from bookarrrikarra (Dreamtime) to the present. Narratives are illustrated at times through carvings and inscriptions, whilst for others the presence of the larrkardiy encapsulates these, adding further complexities to the cultural nuances and identity of Nyikina and Mangala people. This is exemplified by one tree, containing depictions of linykoorra (saltwater crocodile) and other motifs. It is situated near the place known as Linykoorakan (Salt Creek) on a storyline that runs from Moorool Moorool (King Sound) past Cockatoo Creek and on through the desert and down towards the southern areas of the state. We have collaborated with Nyikina and Mangala people to photogrammetrically record this larrkardiy as part of our ARC-funded project 'Archives in Bark'. In this presentation we will be sharing a suite of collated narratives that are embedded within and reflective of the significance of these place.

Quest for the Yingualalya Bottle Tree Dreaming

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This paper describes our individual and collective quests to locate and record a number of carved boab trees in the northern Tanami Desert. These boabs feature Aboriginal carvings, some of which were recorded in crayon drawings by Aboriginal people living at Birrundudu station, NT in 1945 for Ronald and Catherine Berndt. The boab carvings were also mentioned in notes taken during a land claim in the late 1980s, and subsequently some of the boab trees with carvings were found and photographed by historian Darrell Lewis during a historic sites survey. The ancient boabs we sought featured snake carvings – the

manifestation of the Lingka or King Brown Dreaming. The Lingka dreaming passes across the Kimberley travelling from the coast all the way to the east to the WA/NT border beyond. Here we describe our individual quests and the way in which they came together in a collaboration to locate and record the carvings and preserve this ancient heritage.

Strangers in the landscape: The 'Mermaid Tree' at Careening Bay and post-contact inscriptions on Boab trees in the Kimberley by non-indigenous people

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September of 2020 marked the bicentennial of the careening and repair of Lieutenant Phillip Parker King's survey vessel, His Majesty's Cutter Mermaid, at Careening Bay (located within the Prince Regent National Park in the northwest Kimberley). Allan Cunningham, the botanist accompanying the expedition was the first European to collect botanical specimens of the Kimberley boab, although he had observed it on King's second survey voyage in 1819. In his manuscript describing the boab Cunningham wrote "The name of His Majesty's Cutter was deeply carved upon the stem of the largest tree on the shores of Careening Bay, Port Nelson, with certain initials and the Date of the Year of our Visitation". This was no random act of vandalism by the crew. King was following Colonial Office instructions to: 'take care to leave some evidence which cannot be mistaken of your having landed'. Modification of Boabs (and other Kimberley trees) is a practice undertaken by both Indigenous and non-Indigenous people. Boabs are long-lived pachychauls, plants with a disproportionately thick trunk for their height. They stand out in the Kimberley because of their girth and gothic form dwarfing the surrounding bush. They provide the perfect focal point for acts of inscription. In post contact Kimberley non-Indigenous explorers inscribed Boabs as waypoints in their travels, trigonometrical points in the mapping of country and marking of settlement sites.

Northwest Boabs: The Trees of History

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Northwest Australian boab (*Adansonia gregorii*) trees have probably been marked by humans for as long as they have co-existed. Today such markings include Traditional Aboriginal designs and more recent markings made by European explorers, early and later settlers, police patrols, drovers, army coastwatchers, modern day tourists and others. This overview presents a vignette of the diverse range of markings found on northwest boab trees and some of the history pertaining to their marking.

SESSION 2

Mapping Cooktown Ironwood Sugarbag Trees in the Laura Sandstone Basin, Cape York Peninsula, Queensland

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The remarkable *Erythrophleum chlorostachys* (Cooktown ironwood) is an endemic north Australian tree that is a key cultural resource for Cape York Peninsula Traditional Owners who value, care for and manage the trees in cultural ways inherited from their Old People. The Agayrr Bamangay Milbi (ABM) project has recorded hundreds of culturally modified Cooktown ironwood trees in the last two years. Here we discuss such trees recorded during recent fieldwork at Crocodile Station, Jowalbinna Station and Mount Jack by ABM partners. We focus particularly on sugarbag trees, a source of native honey that was sustainably harvested in accordance with cultural protocols. The trees provide a finely honed chronological sequence of technology (from stone to steel axes) and a significant, if fragile, material record of natural resource procurement, cultural knowledge and connections to Country. We show how the significance of sugarbag trees is reflected not only in their ubiquity but in iconography of rock art, other cultural associations and in archaeological values. We discuss trends in distribution that invite more detailed study of the environmental distribution of the Cooktown ironwood, a particularly resilient plant species that lacks detailed scientific study, and of the contemporary distribution of native bees.

Steel axe size, photogrammetry, and the recording of culturally modified trees in Cape York.

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² Chuulangun Aboriginal Corporation, Queensland, Australia.

Culturally modified trees in the Cape York Peninsula of far northern Queensland are an archaeological place type that reflects Indigenous landscape use. The analysis of Culturally modified trees created with steel axes can assist in furthering our knowledge of intercultural interaction during the colonial period. Culturally modified trees can be fragile, when compared to other parts of the archaeological record, consequently their recording is imperative to informing the archaeological record of the region. Due to the remote location of the study area and the rugged terrain makes pedestrian survey arduous and time consuming, this requires a creative and quick methodology for recording culturally modified trees. This paper demonstrates the use of photogrammetry as a method to assist in recording and preserving high-definition archaeological details of remote culturally modified trees, for later analysis.

The purpose of this paper is twofold; firstly, it intends to demonstrate that photogrammetry is a viable field-based recording option for culturally modified trees that can allow for further detailed analysis later. Secondly this paper also explores a case study of the analysis of a series of culturally modified trees in the Wenlock area of the Cape York Peninsula, which has been recorded using photogrammetry as an example of the ability to analyse the size of axes used to create various modifications.

Managing Culturally Modified Trees along the Peninsula Development Road, Cape York, Queensland.

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In recent years investment in the upgrade of the Peninsula Developmental Road (PDR) by the Queensland Department of Transport and Main Roads (DTMR) has supported an increase in the identification, recording, and management of Aboriginal and Historical Culturally Modified Trees (CMTs). The PDR runs 571 km from Lakeland to Weipa, providing a transect through the environmentally significant Cape York Peninsula, Far North Queensland. Scattered along the PDR are many Aboriginal heritage sites that are located either within the PDR state-controlled road corridor or on adjacent Aboriginal land. DTMR

and Traditional Owners have been collaborating to record and manage Aboriginal CMTs, or scarred trees, on the PDR largely through implementation of the PDR Indigenous Land Use Agreement and Cape York Regional Package (CYRP) program of works. The DSDSATSIP Aboriginal Cultural Heritage database reports twenty-seven sites within 200m of the PDR, with 24 of the 27 recorded sites being scarred trees, 3 sites are artefact scatters or story places. Since 2017, Heritage Assessments undertaken by DTMR and Traditional Owners have identified at least 200 more scarred trees along the PDR, confirming scarred trees as the single largest cultural heritage site type recorded, predominantly on Cooktown Ironwoods (*Erythrophleum chlorostachys*). Managing the potential risk of harm to Aboriginal and Historical CMTs from increasing pressures of development, accessibility of the PDR, pest and disease, and climate change – notably fire - remains a priority to DTMR. There is also scope and intent for understanding significance and values, developing predictive modelling and completing training and capacity development initiatives between Traditional Owners and DTMR for the management of scarred trees. This paper will provide an overview of the work undertaken to date by DTMR and Traditional Owners to identify and manage CMTs along the PDR and will conclude with an overview of proposed future collaborative management initiatives.

[Bolknahnan kunred la kundolk: Protecting culturally modified trees in Mirarr Country, Northern Territory](#)

Lynley A. Wallis¹, Mia Dardengo¹, Clarrie Nadjamerrek², May Nango², Djaykuk Djandjomerr², Murray Garde³

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In Mirarr *kunred* (Country) in the Alligator Rivers region, culturally modified trees (CMTs) are being actively created today as *Bininj* (Aboriginal people) harvest bark to be used as art canvases (*'dolobbo'*). As well as other CMTs, recent cultural heritage surveys of the Jabiru Township and surrounds have recorded numerous *dolobbo* trees. Unlike older CMTs created by harvesting sugarbag or making spearthrowers (*borndok*) etc, these *dolobbo* trees can often be linked to individual artists and even specific artworks. They are a form of cultural continuity, produced by *Bininj* adapting traditional practice to engage with the contemporary economy. Although these trees are new to the cultural landscape of the Mirarr people, they have heritage value as indicators of cultural activity. Accordingly, information about these trees have been submitted to the Aboriginal Areas Protection Authority for protection through the NT Authority Certificate process. This study highlights the significance of recording these trees as part of the contemporary cultural landscape of Mirarr country and considers the environmental and heritage implications of this practice.

[Dendroglyphs of the Far North Queensland rainforests: Overview and update](#)

Alice Buhrich¹

¹James Cook University, Queensland, Australia.

A small but significant body of carved trees are hidden deep in the rainforests of the Wet Tropics World Heritage Area in Queensland's far north. Since 2013, we (Mamu, Jirrbal and Western Yalanji custodians) have been working together to re-find, re-record, and research these enigmatic cultural sites. We have found that the carved trees are usually located on Aboriginal walking tracks, depicted on mostly food trees and were made when the trees were already mature. We have documented the death of one tree and are monitoring the preservation of others. Old age is the major threat to the preservation of the carved trees. Carvings are on some of the oldest trees surviving in the Wet Tropics and as the trees age they become vulnerable to fungal attack and subsequent storm damage. We have experimented with different recording methods: 3D scans, fibreglass models and Lidar, each with its own pros and cons. Once a tree has died it is too late to determine how it should be managed and obtain funding for further research. Knowing what communities want to do, if/how carvings should be recorded and where the data should be stored is a high priority. Recently our focus has turned to finding the unrecorded carvings, these tend to be smaller, less obvious and easily overlooked.

SESSION 3

Whenua on hiapo : a cultural exchange on Te Moana-nui-a-kiwa

Aoake, Hana¹

¹Independent Researcher, Kaai Tahu, New Zealand

The artist Cora-Allan Lafaiki Twiss (Ngāpuhi, Ngātītumutumu, Niue; Alofi, Liku) is the only traditional maker of Hiapo - traditional Niuean barkcloth painting - in the world. For the exhibition, *Encountering Aotearoa*, Twiss has begun to paint her Hiapo with whenua (natural earth pigments) gathered from significant pre-colonial sites and colonial points of contact during Endeavour's maiden voyage in 1769. Travelling by boat from the bottom to the top of Aotearoa with her father and fellow artist, Emily Parr, Twiss was interested in the way cultural knowledge like Hiapo, can create a space where her Niuean and Māori heritage can overlap in Te Moana-nui-a-Kiwa (the Pacific ocean). Thinking through a kaupapa Māori methodology, whereby the human and non-human relationship is entwined, this paper will consider the ways in which Twiss has revived Hiapo as a cultural practice derived from the Ata tree from the wider Pacific. It will also look at the ways Māori ideas of place and how Twiss reimagines mapmaking, as both an artist and cartographer whose knowledge of Te

Taiao (the natural world) provides a way for Twiss to combine her Māori and Niuean whakapapa (genealogy) to enable a cross cultural exchange and open a space up for new imaginaries.

Yarun's trees of significance

Tracey M. Benson¹

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On the island of Yarun, Bribie Island on Gubbi Gubbi Nation there are many layers of stories which are personified by the alterations of trees over thousands of years. The Joondoburri people would create coolamon and shields out of some and other trees were burnt out in the centre for the purpose of birthing. Many of these trees are hidden from the view of the public with a few visible on walking trails like the Joondoburri walk. At this time the island was a meeting place for people coming from other sand islands nearby, notably Moreton Island as well as the mainland. One of the boorarings on the island, a gathering place for thousands of years, is encompassed by a circle of trees which still stand. Since the early 1920s, Bribie has increasingly become a tourist destination due to its beaches, proximity to Meanjin (Brisbane) and national park. In more recent years a number of "Thong Trees" have emerged, where refound thongs (flip flops, jandals) have been nailed to the trunks of a number of dead trees in Woorim, the beach on the ocean side of the island.

In this speculative paper, the tensions between story of place will be explored as a means to consider how a story of Yarun can be woven together in ways that honour local tree histories and contemporary cultural practices.

Experiencing *Jingkieng Jri* (Living Root Bridges): Short walks in the Khasi Hills

Steve Brown¹

¹University of Canberra, Australia

A World Heritage nomination for representative cultural landscapes of the Khasi and Jaintia Hills in the State of Meghalaya, India, is in preparation. A key attribute in these landscapes is *Jingkieng Jri* (Khasi) or Living Root Bridges. The bridges are initially constructed in bamboo and subsequently, through a community process involving training and intertwining of aerial roots of *Ficus elastica* (Indian rubber tree) within hollowed out Areca palm trunks and split Bamboo poles, the bridge becomes a robust *Ficus* root structure. The process requires many decades to complete and the continual craft skill and attention of local Khasi and Jaintia community members.

As an advisor to Meghalaya Basin Management Agency (Government of Meghalaya) on the preparation of the World Heritage nomination, I had the good fortune to visit the Khasi Hills in April 2023. There I was a guest of Indigenous communities at four villages (Nohwet, Pdei Puhbsein, Mawlam, Pynai) and was shown a diversity of *Jingkieng Jri* structures. In this presentation, I will talk about the experience of visiting these amazing structures and the incredible natural-cultural contexts and meanings within which they are situated.

I acknowledge the generous support of Meghalaya Basin Management Agency, Syrwet U Barim Mariang Jingkieng Jri Cooperative Federation Ltd., and the Jingkieng Jri Team (Community-Led Landscape Management Project, Government of Meghalaya).

The Arboreal Book: from early modernity to contemporary altered books

Dr Victoria Bladen¹

¹University of Queensland, Australia

This interdisciplinary paper explores the diversity of meanings that emerge when aspects of the deep histories of the tree of life motif, and its related arboreal aesthetics and language of trees, are brought into conversation with contemporary art practices in artists' books and altered books that highlight the arboreal materiality of the object. I firstly explore pre-modern iconography surrounding cut trees and withered ('dry') trees, and their religious and political meanings; and then examine the traces and afterlives of these discourses, and the intertexts that can be brought into dialogue with various contemporary arboreal related book-objects.

Dr Victoria Bladen teaches in literary studies and adaptation at The University of Queensland, Australia. Her publications include: *The Tree of Life and Arboreal Aesthetics in Early Modern Literature* (Routledge, 2022); seven Shakespearean text guides in the Insight (Melbourne) series; and seven co-edited volumes, including *Onscreen Allusions to Shakespeare: International Films, Television, and Theatre* (Palgrave 2022), and *Shakespeare and the Supernatural* (Manchester UP 2020). Victoria is also a practising artist working in paint, collage and altered books, and has held several solo exhibitions. Her most recent artist book 'The Mermaid's Map' was part of a 2023 exhibition of artists' books at Impress Printmakers gallery, Meanjin/Brisbane.

SESSION 4

Culturally modified trees: physical and metaphysical connection

Ken Mulvaney¹

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Song-lines and Dreaming tracks follow the movement and interactions of ancestral being, often marked by physical features and sacred places. These locations can include living things like plant communities and noteworthy trees. Not always visibly marked or intentionally altered, these still form an integral part of a cultural landscape with an associated narrative. Due to their sacred, mythological association they are an important part of material heritage, but are susceptible to destruction, both from natural and human impact. However, because they are a living entity and the Dreaming, in essence, cannot be destroyed, the loci of the ancestor being can transfer. Such organic sacred sites present an unusual reference to their protection and management, some of which is on par with treatment of physically marked trees. All are culturally modified, and all require expert opinion to identify. In the Northern Territory for example, they are managed under different legislation and, in practise, afforded divergent levels of protection. This is in part due to the Traditional Owners and cultural custodians value place on the particular tree. Consequences of infringement to a creator spirit vastly differ to that of a scar the result of earlier bark removal.

Culturally Modified Trees and Bark/Wooden Items from Yagera Country, southeast Queensland, Australia.

Kate Greenwood¹, Madonna Thomson² and James Bonner².

¹ Flinders University, Adelaide, Australia

² Yagera Daran Aboriginal Cultural Heritage Body, Ascot, Australia

This paper will present preliminary findings of a PhD project titled 'Aboriginal Culturally Modified Trees and Bark/Wooden Material Culture in South East Queensland, Australia: An Investigation of Indigenous Perspectives and Archaeological Significance'. This research project is being undertaken in a collaborative partnership with Yagera Daran Aboriginal Cultural Heritage Body through a best practice model. Culturally modified trees are both scarred and carved trees. They are unique Aboriginal cultural heritage sites and they can be a signature of Indigenous traditional ecological knowledge. This research aims to produce a holistic study of culturally modified trees and related bark/wooden material culture in southeast Queensland (SEQ) by using archaeological methods as well as privileging Indigenous knowledges. The focus is on building a model of traditional ecological knowledge, tree species, scar typology and bark/wooden material culture (taxa and morphology) to understand what are the functions of the culturally modified trees, i.e., why they were/are culturally modified. Such an in-depth approach has not been undertaken in SEQ or in many other parts of Australia. Recording of culturally modified trees in the SEQ region has been sporadic and in response to the effects of ongoing colonisation, such as development projects. This work aims to address the research gap and to provide significant new data based on a sound ethical approach to provide an in-depth exploration of

bark/wood technologies in this region, which will inform future heritage assessments. Investigating and including traditional ecological knowledge (ethnohistorical and contemporary) is vital when undertaking culturally modified tree identification, significance assessments and management. Such an approach is becoming increasingly essential as culturally modified trees are at risk from negative anthropogenic effects such as infrastructure and housing developments occurring in the SEQ region and climatic effects such as bush fires, lightning and storms.

Excisional Practices: Investigating Indigenous-Settler Relations through the Material Residues of Timber-Getting

Kenzee Patterson¹

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My practice-led research investigates various bodily and material displacements that traverse temporalities and geographies, encompassing the enforced transportation of my convict ancestors, the contributions made by my timber-getting ancestors towards the deforestation of Bundjalung Country in northern New South Wales and southern Queensland, and the movement of people and basalt tools between Germany, Australia, Norfolk Island, and the Great Ocean.

For my presentation at the *Arboreal Alterations* symposium, I will discuss my novel proposition for understanding the “excisional” as sites of loss that have been removed in the pursuit of settler-colonial development and knowledge, but which also hold the potential for more just and equitable relations through the ethical dialogue they enable. I locate the excisional within the notches that were cut by timber-getters above the root buttresses of large trees. These excisions were made to hold springboards in place; platforms upon which timber-getters could wield their felling axes and cross-cut saws. These notches are still visible in remnant tree stumps in National Parks located on Bundjalung and Yugambeh Country. Within my presentation I will use Goenpul author and academic Aileen Moreton-Robinson’s (2015:11) idea of “incommensurable difference”, and the depiction of First Nations material care in Munujali Yugambeh writer Ellen van Neerven’s poem (2020:35) *A Ship-Shaped Hole in the Forest* to examine the complexities and differences inherent to Indigenous and non-Indigenous material engagement within a settler-colonial framework. By carefully considering my own inheritance I hope to reconfigure material relations and to rethink the potential for a non-Indigenous future in Australia that is anticolonial.

Aileen Moreton-Robinson (2015), *The White Possessive: Property, Power, and Indigenous Sovereignty* (Minneapolis: University of Minnesota Press)

Ellen van Neerven (2020), “A Ship-Shaped Hole in the Forest,” in *Throat* (St Lucia, Queensland: University of Queensland Press).

Ring Trees: creating a typology for recording.

Talei Holm¹, Hannah Morris², Young Local Aboriginal Land Council, and Tim Owen³

¹ Flinders University

² Extent Heritage

³ GML Heritage, Sydney, Australia

Ring Trees (also known as boundary, hoop, and circle trees) are cultural trees that have been created and managed by Aboriginal people across New South Wales and northern Victoria. While they have always been understood as part of tradition by First Nations Peoples, ring trees have remained on the periphery of the Australian archaeological record. Currently, there are no guides for identifying cultural ring trees or distinguishing them from naturally occurring phenomena.

With our novel typology, we have created a standard format for accurately recording ring trees. The system utilises a set of characteristics and markers that can be easily integrated into current archaeological practices and consulting conventions. By collecting consistent data, we can realise similarities and differences in ring tree manufacture within a landscape and across regions. Moreover, this data can feed into future projects with knowledge holders to further appreciate how features may be associated with different meanings and significance. This is not only important for feeding back cultural values into archaeological recording but assisting in justifying the reality of ring trees as they are understood by Community.

The research focuses on sites identified on Dharawal and Wiradjuri Country, and is being undertaken with contribution from members of both communities.

SESSION 5

Tree Carving:

Ngambri/Ngunnawal Traditional Custodian Paul Girrawah House will undertake the traditional practice of tree carving, where the bark of a eucalypt is carved or removed to create cultural objects such as shields and coolamons.

Paul Girrawah House has multiple First Nation ancestries from the South-East Canberra region, including the Ngambri-Ngurmal (Walgalu), Pajong (Gundungurra), Wallaballoo (Ngunnawal) and Erambie/Brungle (Wiradyuri) family groups. Paul acknowledges his diverse First Nation history, he particularly identifies as a descendant of *Onyong* aka *Jindoomang*, *Ngambri Leader/Law Man* from Weereewaa (Lake George) and *Henry 'Black Harry' Williams* from Namadgi who were both multilingual, essentially Walgalu--Wiradjuri speaking warriors and --Wallaballoo man *William Lane* aka *'Billy the Bull'* - *Murrjinille*. Paul was born

at the old Canberra hospital in the centre of his ancestral country and strongly acknowledges his First Nation matriarch ancestors, in particular his mother Dr Aunty Matilda House-Williams and grandmother, Ms Pearl Simpson-Wedge. Paul completed a Bachelor of Community Management from Macquarie University, and Graduate Certificate in Wiradjuri Language, Culture and Heritage and Management from CSU. Paul provided the Welcome to Country for the 47th Opening of Federal Parliament in 2022. Paul is Board Director, Ngambri Local Aboriginal Land Council, Member Indigenous Reference Group, National Museum of Australia and Australian Government Voice Referendum Engagement Group. Paul works on country with the ANU, First Nations Portfolio as a Senior Community Engagement Officer.

SESSION 6

Investigating Wiradjuri *marara* (carved trees or dendroglyphs) and *dhabuganha* (burials) in the Central Tablelands, southeastern Australia

Caroline Spry¹, Brian Armstrong^{1,2}, Neil Ingram³, Alice Williams³, James Williams⁴, Greg Ingram⁵, Ian 'Doug' Sutherland⁶, Yarrawula Ngullubul Men's Corporation⁷, Michelle Hines⁸, Tracey Potts⁸ and Lawrence Conyers⁹.

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⁶ Wiradjuri and Kamilaroi Traditional Custodian, Orange Local Aboriginal Land Council, Orange, Australia.

⁷ Yarrawula Ngullubul Men's Corporation, Orange, Australia.

⁸ Central Tablelands Local Land Services, Cowra, Australia.

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Marara (carved trees, dendroglyphs or tapholgyphs) are a distinct part of Wiradjuri Country insoutheastern Australia. Each *marara* displays a unique *muyalaang* (tree carving) that a Wiradjuriperson carved into the outer surface of a tree after removing bark. *Marara* mark the *dhabuganha*(burials) of Wiradjuri men of high standing, representing part of traditional cultural practices thatextend into the deep past. Yet, the meaning of these sacred locations is not widely understood dueto the lack of Wiradjuri teaching, knowledge and participation in previous studies. Here we presentthe first Wiradjuri-led archaeological study of *marara*, *muyalaang* and *dhabuganha*, completed inthe Central Tablelands. We combine a review of previous studies with new information frominterviews with Wiradjuri Elders and knowledge holders, Ground Penetrating Radar survey, and 3Dmodelling (photogrammetry) – guided by the Wiradjuri philosophy *Yindyamarra* (cultural respect).The results build new, culturally and scientifically informed understandings of practical and symbolicaspects of Wiradjuri culture, with *marara* and *dhabuganha* viewed not as individual objects or 'sites'but as connected parts of Wiradjuri Lore, beliefs, traditional cultural practices and

Country. Consistent with Wiradjuri Elder requests, this paper is freely available and written in simple language for the Wiradjuri community and beyond.

Lake of Scars: Culturally Modified Trees on Yung Balug Djandak, north central Victoria

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We would like to acknowledge the Yung Balug Clan Djandak (Country) on which this research has taken place, the Yung Balug Clan Group, and the Ancestors whose knowledge of culture and Djandak has been handed down for generations and generations.

The cultural landscape around Lake Boort in central Victoria is home to hundreds of Culturally Modified Trees (CMTs). For the Yung Balug First Nations people, who are the caretakers of the spiritual and sacred trees in Boort in central Victoria, these trees represent a significant ongoing connection to their stories, their Old People, and Djandak (Country).

These CMTs tell the story of Djandak. They represent where the Ancestors removed bark to make various cultural items including yoonggoips (canoes), gunyahs (shelters), coolamons or other carriers, shields, bunya (possum) skin boards, or to make etchings such as the culturally significant bark etchings from Yung Balug Djandak currently held in the British Museum. Other CMTs contain openings at their base where small fires were lit to entice bunya out, as well as extraction holes which penetrate through the tree's hardwood allowing Yung Balug access to honey, or animals such as reptiles, birds, and bunya. There is also evidence of both stone and steel axe marks and toe holds in several of the trees, as well as ring trees where the branches of young samplings were carefully bound together using string woven from cumbungi and other reeds. These bound branches eventually became well-developed rings as the tree matured. But despite the density and variety of CMTs on Yung Balug Djandak, there has been little research to date on these important cultural places.

Taking the name of this presentation from the recent film *The Lake of Scars* produced by Wedge-tailed Pictures in 2022 which focused on Lake Boort, this research on the CMTs aims to better understand their cultural importance and the story of Djandak. It is part of the larger Australian Research Council-funded project *Wi Walla Walla Cajella: Fire, Flood and Food on Yung Balug Country, central Victoria* (SR200200357). Through working together, we are developing a framework that combines Indigenous knowledge systems and western

archaeology allowing us to better understand the connection between people, plants, animals, and Yung Balug Djandak.

Establishing chronologies for culturally modified trees on Wotjobaluk Country

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Barengi Gadjin Land Council Aboriginal Corporation (BGLC) represents the rights and interests of the Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk Peoples (WJJWJ Peoples of the Wotjobaluk Nations), the Sovereign First Peoples of the Wimmera, Mallee and Gariwerd regions of so-called Victoria. Culturally modified trees (CMTs) are the most common Aboriginal site type in the Wotjobaluk Nations; a visual reminder of the WJJWJ Peoples' past, present and continuing connections to Country. This paper presents the results of a collaborative research project between Flinders University, the Australian National University, the Victorian Aboriginal Heritage Council and BGLC which aimed to explore the temporal period represented by CMTs along Kromelak (Outlet Creek) through a radiocarbon dating regime. Our data demonstrates how the WJJWJ Peoples' practice of scaring trees has continued and adapted over time despite the impacts and effects of European invasion and colonisation. We also discuss some of the challenges of dating culturally modified *Eucalyptus* spp. in semi-arid to arid woodlands using radiocarbon dating.