

Art, culture, cultivation, and care for
Australian native grasses and grasslands



Carbon Dating

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We acknowledge that names of First Nations peoples and Country have various forms, spellings, and are sometimes contested. We mean only the deepest respect for the traditional knowledge systems and living cultural traditions of all First Nations Peoples.

Native grasses and grasslands are under serious threat all across Australia, with a myriad of voracious, introduced species now vastly outcompeting them. When you walk or drive through most suburban, developed, or farmed areas in Australia, the main grasses you'll see will rarely be native. They are also infrequently planted in parks and gardens — probably because, to the untrained eye, they look very similar to weedy grasses (especially when not in flower). And so, in many states, only a few percent of our original grasslands remain. But, when you get to really know and love who and what native grasses are, in their own subtle ways, they will become as fascinating, spectacular, and interesting to you as any other plant!

When *Carbon_Dating* was envisaged in 2019, my hope was that it might, in some modest ways, help to shift public relationships with, and build care and support for, these often overlooked and underappreciated flowering plants. From the outset I also wanted the project to do more than talk about the need to conserve and regenerate native grasses. I wanted it to be more active than that. So, working with an amazing team of collaborators, we decided to draw upon techniques of Art/Science, Socially/Ecologically Engaged Practice, and Relational Art — evolving our ideas through deep collaborations between artists, scientists, First Nations advisors, horticulturalists, gardeners, and many others, into what we have now ultimately achieved.

Dreaming big, we firstly imagined restoring a whole grassland area as part of the project. Ultimately, we found a team of talented participants throughout Australia who each built and cared for a local, tiny grassland set upon a prominent mound — as a microcosm of the future changes we wished to inspire. By aligning our artmaking with subjects, practices, and problems that are normally the domain of ‘other people’ (such as grassland conservation, species expertise, or grass cultivation), we hoped to generate new insights and also illuminate the ‘problem of native grasses’ for the broader public. These first-hand experiences and insights are creatively expressed and shared through the diverse collection of artworks which you’ll see in this exhibition.

Becoming paralysed by the fear of ecosystem collapse in an era of Global Heating isn’t a viable long-term option. While fear and grief are unavoidable, a better future will not eventuate unless we embody positions of active optimism, and convert that enthusiasm into well-considered, impactful actions — which in turn will maintain our enthusiasm and drive for surviving the long haul. Incubating ‘active hope’ in this way propels us forward, and at day’s end I trust that projects like *Carbon_Dating* can contribute in some way to creating better futures for both humans and non-humans.

I am deeply indebted to everyone who came onboard to help make this extensive project and the final exhibition so meaningful and hopeful. And I trust and hope that you, as the reader/visitor, will be inspired after seeing what we did, to go out and fight for, plant, or care for your own native grasses and grasslands.

Fields of Vision

Beth Jackson

CARBON_DATING

Carbon_Dating is a gathering of artworks inspired by Australia's native grasses. During 2022-23, artists from across Queensland worked with scientists, growers, First Nations advisors, and regional venues to plant, grow, observe, and engage with various species of native grass. Once a widespread and defining feature of the Australian landscape, Australian grasslands survive in remnant patches and are now often overlooked, misunderstood, and increasingly endangered. These small projects and this exhibition seek to appreciate our native grasses with fresh and intimate eyes. Visitors are invited to go on a 'carbon date', be open and curious to these humble and delightful life forms, and become part of a growing community of care.

Carbon_Dating is a playful concept with multilayered references. It refers literally to the scientific method for determining the age of organic material — the practice of carbon dating or radiocarbon dating. It also refers to a 'dating' relationship between carbon-based lifeforms, in this case humans and native Australian grasses, evoking our mutual interests and interdependence. And it refers to our fundamental relationship with the natural environment, including a changing climate, through the carbon cycle. In this layered way, the exhibition is an invitation to be present with and through a series of deeply sensorial artworks, to reflect upon times past, and contemplate potential futures. Extending its rhizomatic roots out into growing projects and communities of environmental care, *Carbon_Dating* offers up different experiences and understandings of time — the linear scales of scientific carbon dating which trail off into ancient early lifeforms, deep geologic and cosmological time, the ever-present ancestral, kinship and story/song time of First Nations cultures, the evanescent seasonal cycles, circular and generative, and the becoming time of the future imaginary.

BUILDING A COMMUNITY OF CARE

The *Carbon_Dating* project explores the role of artists as change agents. This means embedding an arts practice within a web of social relations and building a rich context to inform and interface with artistic processes. The creation of a work of art relies as much on non-arts skills such as research, observation, organisation, communication, social validation and support, as it does on the creative imagination and technical media-based skills. Understanding the artist as a social change agent is about creatively investing in the entire process of practice or praxis.

In this way, Keith Armstrong began with the germ of a big idea in 2019 "to examine and shift our relationships to Australia's native grasses, and the grasslands that support them". He forged relationships with native grass experts, including Professor Jenn Finn, a grasslands regeneration expert, as well as with staff and researchers at Samford Ecological Research Facility (SERF), and also with environmental and sustainability philosopher and researcher Tania Leimbach. He began to consider an artwork device which people could use to incubate and grow a native plant, and which was networked to online information and media, and he engaged fellow artist Donna Davis to develop a design. Through this collaboration and with advice from First Nations curator and weaver Freja Carmichael, the project expanded to envisage a network of fellow artists, supporters, and native grass growing sites across Queensland as a 'community of care'. Donna further developed the artwork device into a relational tool which she called *The Interweaver*, which, rather than growing a grass specimen in an artificial container, would support the growing of grasses in outdoor environments, providing chambers and dishes for seed storage and specimen collection, magnifying glass and other lenses for observation, and a connection to online streaming media of native grasses growing at SERF. Artist Daniele Constance created a series of written prompts to feature on cards stored in *The Interweaver*, for inspiring artists'/carers' reflections on their growing grasses.



Silky blue grass.
Image: Donna Davis

During this time, both Donna and Keith engaged in extended processes of growing grasses from seeds, which were donated by Native Seeds, a specialist commercial company. Professor Jenn Finn recommended a selection of grasses based upon plant bioregion suitability across Queensland. Six key species were selected: barbed wire (*Cymbopogon refractus*), silky blue (*Dichanthium sericeum*), kangaroo (*Themeda triandra*), black spear (*Heteropogon contortus*), scented top (*Capillipedium spicigerum*), and curly Mitchell (*Astrelba lappacea*). Now *Carbon_Dating* was ready to build its network of care — to connect with people and Country.

Grass Care Package by collaborating artists Jason Murphy and Pipier Weller is an artwork outcome that continues to invest in process and participation. The cyanotype and graphic design artworks have been digitally printed onto postcards and tote bags, inviting us to become knowledgeable hosts and integrate them into our everyday lives. Like the seeded heads of grasses, the artwork releases packaged information into the social environment, usefully seeking places for knowledge and care to take root and flourish, spreading recognition and awareness.

GRASSLANDS

Grasslands once covered huge areas of Australia, but today they have been reduced to around 1 percent of their original range [in most areas]. ... When European settlers first reached the drier inland areas of Australia, they were impressed to find extensive and succulent grasslands in areas where there was not enough rainfall to support trees. Even among the taller forests there were often dense stands of grasses beneath the canopy, where deliberate burning by Indigenous peoples helped to maintain a mosaic of forested and grassy areas. The new arrivals were primarily interested in grazing for livestock, and native grasslands were excellent for their purposes, but within a few years sheep had grazed many of their favoured food plants into virtual extinction ... Over time, native grasslands were gradually replaced with introduced grasses, which were supposedly more palatable, or more productive, than native grasses. In most cases though, the alien pastures turned out to be not as well adapted to Australian conditions ... Without exception, those introduced species which could most effectively compete with indigenous grasses in difficult conditions, have become serious weeds. They dominate entire landscapes, and many of them are far less palatable to livestock than the indigenous species were.¹

Native grasslands, while now mainly existing as remnant patches, are amongst our most biodiverse ecosystems. They contain not only many species of grass but, unlike the introduced grasses that typically form dense mats, their tussock structure allows for many other small flowering plants, including orchids and trigger plants, bindweeds, mulla mullas and featherheads, native lilies, geraniums, daisies, and peas.² They provide feeding grounds for kangaroos and wallabies, and vital habitat for small mammals, marsupials, reptiles, echidnas, frogs, ground-dwelling birds such as bustards, emus, and quails, butterflies, and myriad pest-controlling insects, and in turn food for other wildlife such as birds. These native grasslands are the Australian equivalent of European and North American meadows.

¹Romanowski, N. (2011). *Australian Grasses: A Gardener's Guide to Native Grasses, Sedges, Rushes and Grasses*. Australia: Hyland House Publishing Pty Ltd. 13-15.

²Romanowski, N. (2011). 16-17.

Fields of Vision

Beth Jackson

Grasses have hollow cylindrical stems, with the leaves attached alternately at the nodes by a stem-hugging sheath. Nodes are joints where there is a solid partition to give the stem strength. Each separate individual flower in a grass flowerhead, or floret, will usually produce just one seed within its papery, protective bracts. Grasses make up the plant family known as *Poaceae*. Their history is relatively short, and ties in closely with the evolution of mammals - most grasses have evolved to cope with the chewing teeth of grazing animals, regrowing from chewed stubs. They are mostly pollinated by wind, or will self-pollinate, and this keeps them alive through harsh times. Grasses either form tussocks, staying in one place and gradually widening to reach a maximum size, or they spread or 'run' to form covers ranging from small areas to many hectares. Most native Australian grasses are clumpers not spreaders, though there are several spreading species which produce excellent lawns.

*Australian [grass] species are increasingly appreciated as low maintenance lawns (which remain green when exotic lawn grasses have shrivelled and died), as spectacular, tough, long-lived garden specimens, and as striking groundcovers. They are being replanted in pastures for grazing purposes, and some are even being considered for their potential as perennial food crops. And many Australian species are as spectacularly beautiful as the finest grasses the rest of the world has to offer.*³

Hilary Coulter's artwork, *POV (point of view)*, is an embroidered, layered landscape scene. Showing how our attention is divided and our perceptions filtered, *POV* works to lovingly and carefully recover details of overlooked grasses and restore them to their place within the whole.

CULTURAL LANDSCAPES

Australia's biodiverse grasslands and grassy woodlands were rich in animal and plant foods and thus favoured by First Nations peoples. They managed and promoted grasslands through fire, conducting many small mosaic burns (mostly less than 50ha) every 3-4 years.⁴ This practice minimised the risk of uncontrolled natural fires, and pushed back forest. Grasslands were actively cultivated, and seasonal burning promoted desirable grains that would be harvested, stored, and traded as staple food by 'the world's oldest bakers'.⁵

Grass is the main fuel and a key indicator for traditional burning. Victor Steffensen recalls an elder teaching him to read Country for burning: "He then grabbed a handful of the long grass and ran it through one hand to feel the moisture, to see if it was ready to burn. If the grass felt cold, there was too much moisture. If it felt warm and dry, it was ready. Then he showed me how to read the curing of the grass and when it was ready to burn. The grass was about half green and half dry when it was ready. All the seeds on the grass had fallen off and settled onto the ground."⁶

The removal of dead matter through fire allows the grass to regenerate and prevents the smothering of itself and other plants, maintaining the health of the ecosystem. Many plants have evolved to rely on these cool fires for seed germination. The fire moves slowly, trickling through the landscape with a flame height not much higher than the grass, and this allows enough time for insects, reptiles, and small mammals to move away. The fire is patchy, with unburnt areas around fallen logs becoming natural safe refuges for wildlife. The tree canopy is never burnt, and the bark of trees rarely blackened. A burnt tree canopy will result in the subsequent build-up of fuel load on the ground, defeating the purpose of the burn.

³Romanowski, N. (2011). 2.

⁴Murphy, S (2018). *Managing Grasslands and Grassy Woodlands in temperate Australia. Why we're losing the battle to save them. Part 3. The wisdom of Indigenous Elders*, Recreating the Country blog: www.recreatingthecountry.com.au/blog/managing-grasslands-and-grassy-woodlands-in-temperate-australia-why-were-losing-the-battle-to-save-them-part-3-the-wisdom-of-indigenous-elders

⁵Pascoe, B. (2014). *Dark Emu*. Broome, Western Australia: Magabala Books Aboriginal Corporation. 30.

⁶Steffensen, V (2020). *Fire Country – How Indigenous Fire Management Could Help Save Australia*. Melbourne: Hardie Grant Explore. 34.



Opposite: Cultural burn on Kabi Kabi Country (Tuan Environmental Reserve, Sunshine Coast) with Traditional Custodian Brian Warner. Image: Keith Armstrong

Below: Merinda Davies working with the *Personal Interweaver* in her studio. Image: Keith Armstrong

The practice of traditional burning was profoundly cultural and social, part of bigger stories of place, song cycles, stewardship of Country, and an important occasion for social gathering. While the practice diminished as a result of colonisation, today there is growing interest in its revival for its environmental benefits, spurred by the increasing threat of dangerous and devastating bushfires in a warming climate. For First Nations people, the practice of cultural burning is an opportunity for healing both people and Country — to begin observing and listening to Country and allowing Country to teach once again.

Weaving is another universal First Nations practice of deep cultural and social significance. Many of the traditional native fibres for weaving are derived from the closely related, grass-like plant families of sedges and rushes. Palm trees are also an important source, and in Far North Queensland artist and master weaver Delissa Walker sources native black palm for her work. In her artwork, *The Native Fence*, raffia fibre provides a firm woven structure holding individual strands of native grasses. Bamboo, a grass of giant proportions, and of which there are several native species, boldly frames the work. The work demonstrates the important use-value of plant materials for human living, while also honouring the value and beauty of plants in and of themselves. *The Native Fence*, while evoking the appearance of a western barrier, is actually a matrix of environmental knowledge and care.



COLLABORATING WITH THE ENVIRONMENT

Living in urban and industrialised environments and within mediated consumer societies where people are separated from the means of production, we can feel divorced from the natural world. Our contemporary mainstream society is very much human-centred, and the natural world is predominantly viewed in terms of its human use-value (grasses are reduced to grazing pasture or lawn). We can forget that we exist, indeed we can only exist, within webs of life, food chains, bio-regions, weather patterns, and multi-species entanglements. These more-than-human relationships are our connection to a living planet, and, some have argued, to our own Being-fullness and the Being-fullness of all phenomena.⁷

A practice of contemporary art invested in process and artist agency, provides a platform for developing environmental awareness. The small growing projects of *Carbon Dating* are efforts to express more-than-human relationships and experiences of co-existence. This entails observing and understanding the growing grasses as active agents themselves, interacting with air, water, and soil, as well as with insects and other creatures living in and around them. In making responsive artworks, media, materials, and methods become entangled in real and imagined collaborations.

The group of artist-growers on the Sunshine Coast experimented with natural processes and materials, entering into dialogues with the environment, each finding their creative way. Sasha Parlett's lyrically distilled video captures this circle of artists as they move around and through the grasses, alternately expanding and focusing their attentions, being together and apart. Not unlike the grasses themselves.

Master weaver from Papua New Guinea, Kilagi Nielsen, explored Kangaroo Grass as a fibre for weaving and a source of vegetable dye, incorporating it into her cultural knowledge and practice. Her wearable *Fascinator* also showcases the beauty of the plant form in and of itself with the flourish of its distinctive seed heads becoming a new emblem of cultural significance and identity. Her eco-dyed prints on paper, like hand-written notes in a diary, capture the delicacy of grasses — the flowing and quivering movements of their flowerheads in a breeze, the busy tangle of their nesting form, and their green-golden-tawny colour shifts.

⁷ Bauer, R. (2021). *A Phenomenological Dzogchen View of Beingfulness and Beinglessness*. Transmission: The Journal of The Awareness Field, 20.

Mia Hacker created works on paper in the open air near the group's grass mound which was planted alongside the Mary River (Numabulla in Kabi Kabi language) at Tuan Environmental Reserve. Like a scribe, she sought to capture flows of environmental energy as sensed, felt, and shared with the grasses, incorporating soil, water, wind, sun, and juicy plant dyes into a concert of presence. The large collaborative work with Kilagi Nielsen took weeks to create, as the work gradually emerged from processes of soaking and drying, staining, and scoring, listening, allowing, and responding.

Melissa Stannard transferred grass cuttings and digital images of hand-held grasses onto fabric via the chemical process of cyanotype. The layered methods of reproduction, dis/placement, and exchange are amplified through mirrored and recombined imagery and actual mirrors positioned behind floating pieces of cloth. *dhunbarr warranggal garrar* is an intimate entanglement of figure and ground, subject and object, plant, process and person, expressing a poetics of care, informed by a female-centred and First Nations perspective. Two silver pendants on scented cushions pay tribute to the generations of First Nations women who gathered, winnowed, ground, and baked the native grass seed for millennia.

Liz Capelin's ceramic vessels are embossed with strands of native grasses. In Queensland, tussock grasslands are found on black soil plains which have a heavy clay content.⁸ The grasses prevent soil erosion from flooding, working to slow water flow, retaining moisture and fertility, surviving through often extreme wet and dry periods. By pressing harvested native grasses in seed and flower into the clay, filling their impressions with pigment, and kiln firing them, Capelin mimics the grassland ecology and its regeneration through cultural burning. Her concept of being held expresses a relationship of reciprocal sustenance.

TAKING TIME

As our world grapples with unsustainable development, biodiversity loss, and unthinkable scales of pollution and waste, increasing attention is being brought to materials and their sources, supply chains, agricultural methods, manufacturing and construction processes.

“According to the Royal Society for the Arts, the period from 1760 to 1987 marked the era of extraction where we depleted, deforested and degraded without reflection. From 1987 to 2020 our aspirations were focused on sustainability where we sought to do less harm to the planet, and embraced the mantra of reduce, reuse, recycle. Our new ambition is regeneration where we learn from the earth's living systems and focus on rethinking, restoring, and replenishing.”⁹

It is now widely acknowledged that slowing down or even stopping environmental degradation is not enough to address today's catastrophic loss of nature. Our practices need to become 'nature positive',¹⁰ going beyond practices of preservation, emissions reduction, and harm minimisation, to those that actually return benefit to natural eco-systems, assisting in their recovery, restoration, and the sequestering of carbon.

Merinda Davies' performance work *Sewing the Seeds* poetically imagines this transition. Dressed in garments woven with native grass seed, she walks through the site of a former quarry, now abandoned and ecologically depleted. Her ethereal presence offers to breathe new life into this desolate landscape, the stark contrast of figure and ground making plain the enormous challenge of environmental repair.

⁸ Australia Government Department of Environment and Energy (2017). *NVIS Fact sheet MVG 19 – Tussock grasslands*, Commonwealth of Australia.

⁹ Simons, D. (2022). *Is Regenerative the New Sustainable?*, *Matters Journal*. Melbourne: Local Peoples & Monash University.

¹⁰ Rockstrom, Prof. J. (2023). *A Global Goal for Nature – Nature Positive by 2030*. Nature Positive Initiative.



Sewing the Seeds, performed, recorded and re-presented, connects and layers different scales of time — the active lifetime of the artist's body, the dormant lifetime of the dispersing seeds, the geological time of rock and mineral formation, the seasonal timing of plant life, the accelerating time of a warming planet, and the ever-shrinking window of time for stabilising our earth's systems. Human agency is the vital centre of this existential artwork which seems to hover at extinction's brink, and walk the knife-edge of a planetary tipping point.

Humble, deep-rooted, perennial native grasses, once a ubiquitous soft carpet for the barefooted, are clung to as a promise — a means for restoring the soil, controlling acidity and salinity, sequestering carbon, releasing oxygen, preventing erosion and dust storms, filtering water, harbouring moisture, slowing flood waters, withstanding fire and drought, protectively supporting myriad plants and animals that are our food, our lifeblood, our heritage, our kin.

Andrea Higgins' digitally reproduced photograms display the grasses at large scale. Their captured impressions on the photopaper are after-images. Magnified, they become mental impressions inscribed into a reoriented imaginary, taking centre stage, and sparking feelings of reverence and awe. Poised in crystal vases, the grasses have displaced the bouquets of roses and tulips that still dominate notions of beauty. Here beautiful in their absence, these inverted silhouettes loom like effigies to the endangered.



INTERDEPENDENCE

Is it possible to recognise and include relationships with other-than-human persons in our lives? To feel a sense of responsibility and kinship towards other living beings, to plant and animal communities, to rivers, forests, and grasslands? Through listening and observing, can they teach us what it means to be human?

These are the questions posed by the *Carbon_Dating* project. There are both implications and opportunities for artmaking, curating, and viewing. Artists can develop and employ a social rather than an individualistic imaginary, engaging with other fields of knowledge and ways of seeing, going beyond appropriation to find reciprocal benefits. Galleries and their curators can also nurture diverse audiences through outreach and engagement. Place-based approaches can connect and embed artists and galleries within meaningful contexts and local ecologies that build ongoing value with social and environmental returns.

Working at the Queensland Herbarium alongside botanist Melody Fabillo, artist Donna Davis created electron microscope images of the grasses she had grown, assisting scientific research. The images reveal the breathing pores or stomata that cover the leaf surface, opening and closing to both absorb photosynthetic carbon dioxide and to restrict water loss through transpiration. The stomata of grasses have a distinctive shape and structure which produces more water-efficient gas exchange in changing environments — contributing to their adaptability and resilience.¹¹

Donna Davis's artwork *Interwoven* opens a meditative space for contemplating the breathing of grasses, becoming conscious of our own breathing, and appreciating the reciprocal exchange that invisibly flows between our interdependent lifeforms.

Keith Armstrong's video work '*Grassland Community of Care/ (More Than Human Persons)*' draws us into the grasses' presence through magnified close-up imagery. Details of the grasses' form and structure reveal an intricate auratic world of interlacing sensory filaments embracing light and moisture, touched by insects, vibrating in currents of air. A field of electronic environmental sound bathes the imagery in a beckoning cyphered chorus — as if to say 'you are so close ... and yet so far'.

¹¹ Nunes TDG, Zhang D, Raissig MT. (2019) *Form, development and function of grass stomata*. The Plant Journal, 101@:780-799. doi: 10.1111/tpj.14552. Epub 2019 Nov 7. PMID: 31571301.

A pathway to yuku

Jo-Anne Driessens

Our identity to this land and in fact the many lands that we occupy, comes in many forms. When considering a topic that involves native grasses, the desire to cross pollinate ideas and references to traditional lands, suburban landscapes where you live and work or childhood memories lie, creates an open plain of ideas. Inspiration naturally blooms and this is exactly what happened when I was invited to be involved with the *Carbon_Dating* project.

With the creative vision led by experimental artist Keith Armstrong, and an impressive list of 'grass root' multi-disciplinary artists who are deeply embedded with their own communities, the journey of the *Carbon_Dating* principles was well and truly on its way, nurturing relationships between people, land, flora, and the environment they associate with.

As First Nations Curator and cultural advisor to the project, it is important to acknowledge the previous work of Freja Carmichael (friend and mentor) who offered some sound advice when doing a handover and that was to 'listen to Country and let Country speak for itself' – simple words, yet with a complex history that speak volumes, given the colonial impact on land and introduction of invasive species. However this project is different, it provides hope, sharing, and inclusivity for all to be involved, and self-reflection for the viewer young or elderly.

Back in December 2022, I was fortunate enough to attend the *Carbon Dating: Living Ecology Yarning Circle*, hosted by Home of the Arts (HOTA), which was my first taste of the *Carbon_Dating* gathering experience. This was the ideal setting to sit, listen, learn from the artists involved on the day, including panel talks, sharing of grass seedlings, and planting onsite with Daniele Constance. Sitting at the table with other participants, we were guided by Delissa Walker, Kuku Yalanji Master Weaver, who was able to share traditional weaving practices and intimate stories passed down from her elders. At this point I was unaware of being involved in the project, as I was attending as a curious participant and native grass enthusiast, wanting to learn as much as I could surrounded by like-minded people. One year later, I settled into the role of First Nations Curator and cultural advisor and have never looked at native grass in the same way since.

The role of a First Nations Curator and cultural advisor can only be fulfilled through industry experience but more importantly, when one knows their own ancestral connections and journey to the Country they are connected to by bloodline. This is a lifetime commitment and has been a long pathway for myself. In addition, whenever I work alongside artists and community, I always try to learn something new that I can add to my 'dilly bag' of collective traditional and contemporary knowledges. My own ancestral connections are bound to two very different landscapes. Firstly I grew up in the western suburbs of Meanjin (Brisbane) and was surrounded by large areas of bush and farming land. Today there lies a very different landscape of crowded housing lots, with only memories to reflect on, mainly around the mammoth task of mowing the yard with my siblings and raking the large amount of grass until I got blisters!



My bloodline however, is Kuku Yalanji through my great grandfather, far north Queensland rainforest and coastal region; and through my great grandmother I am a Guwa-Koa descendant, Winton and surrounding areas (west Queensland) where there is an abundance of Kangaroo, Black Spear, Curly Mitchell grasses, and in addition, the classic Spinifex that survives the rocky hard landscape and is home to an abundance of biodiversity that shelter from the heat and predators.

There are two things that I hold close to my heart and they are working with artists and being able to connect and learn about the environment / Country for cultural understandings and sustainable ways of living — not only for people, but also for the delicate biodiversity of wildlife and landscape that continues to show resilience, even through colonial impacts in land development and introduction of exotic grasses to ‘feed’ the long standing pastoral industry. The *Carbon_Dating* project has pushed me further to understand how I appreciate land use through cultural practices and identify native grasses on Guwa-Koa Country. When protecting land, sometimes there is also a need to protect the knowledge that is connected to that place, including stories (historical and cultural), preserving language associated with the story or names of places, plants, or animals. I have begun that pathway into helping my own Elders. While there is a lot of work to do, why not start with the most obvious? In this instance, I have located the name for ‘grass’ in Guwa-Koa language and have discovered that in fact there are a few, depending on the type of grass. For this purpose, I am referencing the generic word for grass in Guwa-Koa language being *yuku*. My pathway to *yuku* has just begun!

As an artist and practicing photographer, I will be able to return to Country and see all of the *yuku* that creates the most picturesque of landscapes, much like the oil paintings my late Uncle used to do while working out west as a stockman. For the *Carbon_Dating* project, not only is it supporting the physical growth of native grasses, it is hoping to encourage any local language that applies to the word grass. In some instances this may not be applicable, however it will be a great conversation starter for all of community. Sometimes the story is why there isn’t always an abundance of language recorded, and the patience in understanding this part of history is the lesson to learn.

The arts ecology in Australia is also resilient, much like the native grasses, and provides a natural and rich environment that allow ideas to flourish and evolve for all to enjoy or be challenged through healthy conversations. In planting the ‘seeds’ of creative wisdom by the participating artists, the collective vision is to be mindful of how much you can learn as a community and share the breath of life through seeing and reading Country, listening to Country, and how much the cycle of life continues to give when we are open to the journey.

Keith Armstrong

Human 'communities of care' are formed voluntarily; inspired by shared interests, passions, or concerns, and developed through interpersonal advocacy and encouragement. Members work together with a sense of common purpose and spirit of altruism, engaging empathetic listening and engaged learning. Together they create shared understandings that transcend their differences and imagine and enact direct and indirect supporting actions. Slowly they find places and ways to better engage and cooperate, accelerated by the inexplicable joy and delight of being in the company of ... (wild grasses).

'*Grassland Community of Care/(More Than Human Persons)*' was inspired by the goodwill and interpersonal engagement that underpinned *Carbon_Dating's* self-declared 'community of care for grasses and grasslands', incubated through the warmth, depth and energetic drives of *Carbon_Dating's* artist/carer team.

And along the way a community makes their passion and actions known to others – who are then encouraged to join their loose alliance, forever changing outlooks and attitudes on the place and importance of ... (Australia's native grasses).

For this artwork, instead of focussing in on *Carbon_Dating's* human community, Keith asks, what might a community of care look like for the native grasses themselves? He approaches this speculative investigation through abstract, ultra-close observations of these enigmatic flowering plants, both living and preserved – intimating the presence, power, activity and agency of the 'non-human persons' that have so profoundly shaped his working spaces, interests, practices and passions over the past four years.

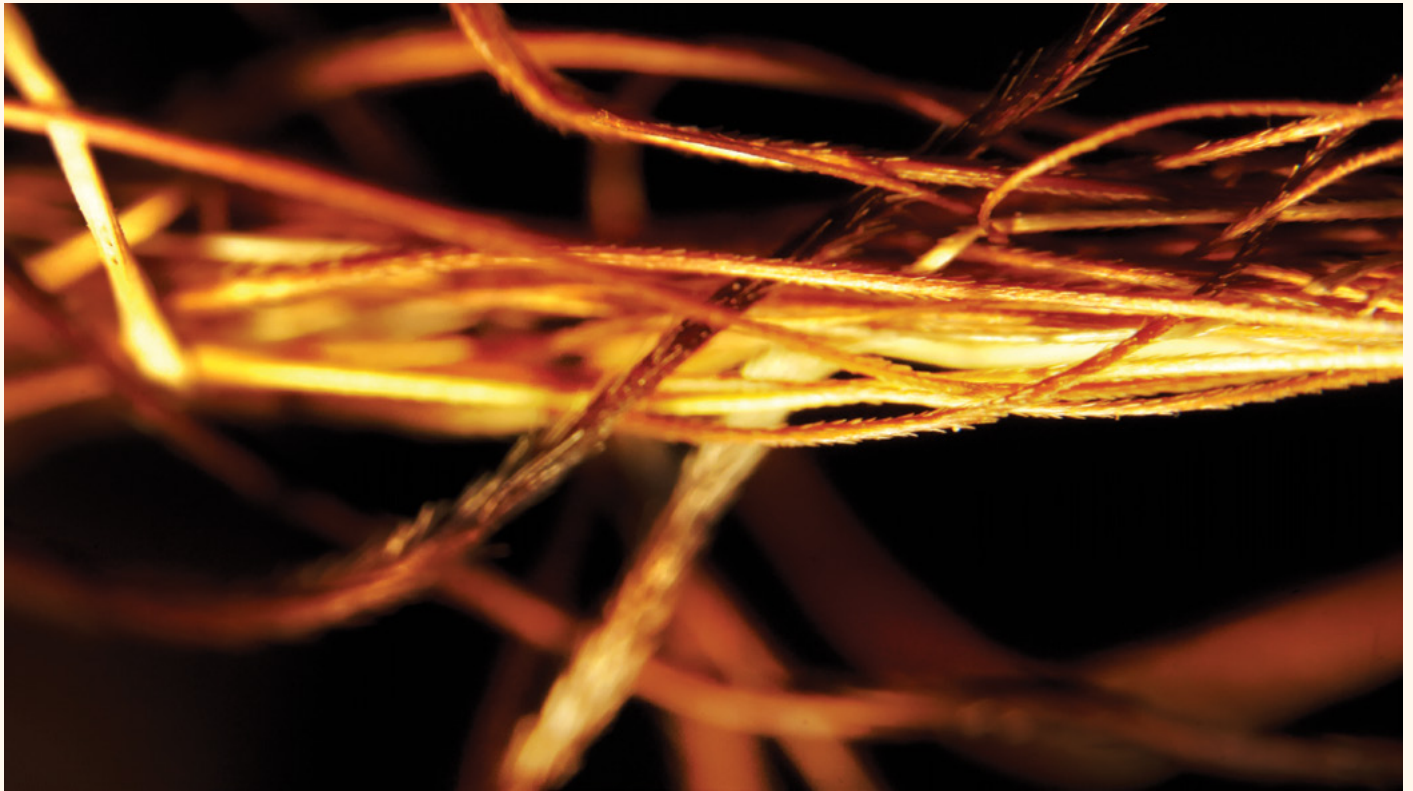
*Grassland Community of Care/
(More Than Human Persons) 2023*

Stills from 4k video, 20 minute animation, stereo audio

Audio: Edited by Keith Armstrong from *Carbon_Dating Interweaver's* algorithmically-composed sound track, created by Luke Lickfold

Image: Keith Armstrong

Marcus Yates planting native
grasses at Samford Ecological
Research Facility, January 2022
Image: Keith Armstrong



Liz Capelin

Throughout the *Carbon_Dating* project I've been captivated by grass seeds: their shape and movement, sometimes graceful and flowing, at other times jutting and severe architectural form, their delicate tenacity in the landscape.

Seed was also the key botanical feature through which I could identify and differentiate our chosen species and confront my grass-blindness. Experimenting with clay impressions was initially a means to observe the seed more closely and compare them – to see their structure and clustered detail in relief. Pushing the specimens into the damp medium of earth naturally evolved into a simple yet meaningful concept for *Held*: the seed impressions are upon the three vases, which are vessels waiting to hold, their emptiness not an absence but patient willingness and future intent. I thought about seeds as physical and metaphorical vessels of continuance and survival, of evolutionary genetic information being passed through time and carried forward. I reflected on the social ecology of seeds as knowledge holders and sharers, of waiting patiently for the right conditions or relationships via which knowledge is passed and held, of the dormancy and protection of knowledge when conditions aren't safe or the timing not ready.

As a plant throws seed, or a person offers ideas or practices, is this not an action of trust, hope, and generosity to the future?

I reflected on what it is to be held, of holding space for my co-collaborators, of being held by the land and sky at Tuan Environmental Reserve on the Sunshine Coast on Kabi Kabi Country, of holding my own attentive curiosity in order to be a vessel for new learnings, and the importance of holding onto knowledge and hope for future generations.

The black internal glaze on the vases was added before the second and final firing to symbolize the scorched country after a cultural burn, priming the seed for regeneration and continuance.

Held 2023

Ceramic, imprinted with seed heads from scented top grass (*Capillipedium spicigerum*), barbed wire grass (*Cymbopogon refractus*), and kangaroo grass (*Themeda triandra*).

3 vessels: 22×8.5cm;
15×8cm; 12.5×6cm

These ceramic works were lovingly fired in the Spun Mud studio, Mothar Mountain, Qld

Image: Carl Warner



Hilary Coulter



POV explores the way we experience and interpret our environment, focusing on grass as an integral component to the whole. Playing with the concept of plant blindness, *POV* explores what we notice when we experience a landscape, what are we missing, and what we gain from taking a more detailed look. Surveying the artist's family's cattle property in Southern Queensland, *POV* dissects a landscape into 6 layers depicting 4 different elements (dirt-road, clouds, tree-line, grass). It then depicts one of those elements (silky blue grass) in varying levels of detail. By segmenting the landscape into separate layers, the work plays with first impressions. Understanding this bias gives insight into how we prioritise our care, time, and resources.

By inviting the viewer to question what pulls their attention first, it can draw their focus to the secondary elements. "Plants are a vital part of the biodiversity that sustains life on earth"¹, however they can easily be overlooked for more dramatic features. *POV* focuses on grasses as an overlooked element of the landscape. They cover around 40% of the Earth's land surface and provide one half of all dietary energy², but the diversity of what 'grass' can encompass is easily generalised. While *POV* details the Queensland silky blue Grass which is native to this area, it is just one of the many grasses that populate this property and area of Queensland. The *Carbon_Dating* project has encouraged people to consider and care for Australia's native grasses by developing a relationship with the grasses in their environment. *POV* encourages viewers to similarly consider a caring relationship with grasses by first noticing this small, but unique and varied component of the greater landscape.

POV (point of view) 2023

Cotton embroidery on tulle,
wooden hoops, magnets,
wooden board

24×27×120cm
Image: Carl Warner

¹ Leimbach, Tania, 2022, Confronting Plant Blindness: the Carbon Dating Project, www.carbondating.art/live/home

² www.frontiersin.org/research-topics/35376/adaptive-evolution-of-grasses



POV in the landscape
Images: Hilary Coulter



Merinda Davies

Sewing the Seeds imagines a future where our garments are imbedded with native grass seeds, utilising the human body as a collaborator and seed spreader, regenerating grasslands, and acting as agents in carbon sequestration while moving through daily life.

Sewn into the garment are seeds of kangaroo, top scented and barbed-wire grasses grown by the artist.

Introduced grasses have subsumed the complex bioregions of native grasslands here in so called Australia, covering the landscape in a blanket of endless rhizomes of monocultured pasture. Davies explores personal and imagined future memories of place to reseed grasslands into the fabric of abandoned sites of extraction. Her performance moves through a former quarry site allowing seeds to fall in the process.

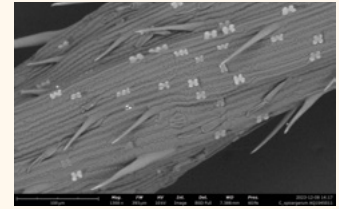


Untitled from *Sewing the Seeds* 2023

Digital photographs printed on cotton rag, photography – Ellamay Fitzgerald
Dimensions various



Donna Davis



Micrograph of a leaf surface of *Capillipedium spicigerum* [scented top grass], captured using a scanning electron microscope (Thermo Fisher Desktop SEM), Donna Davis, 2024.

Image: Donna Davis

Interwoven responds to the idea of exchanging breath with our interspecies kin; extending the concept of the experimental *Personal Interweaver* by entangling human and non-human respiration processes on a microscale.

Here the viewer is transported to a hidden realm inside both plant and human to reveal an intimate glimpse into our shared biological process of gas exchange; with a series of videos depicting stomata¹ and alveoli² movement. These creative animations are interspersed with grassland imagery simultaneously placing the viewer within macro and micro worlds.

A series of floor cushions, reminiscent of the *Interweaver*'s 'Grass Cards', sit beneath the videos inviting the viewer to sit, relax and contemplate our interspecies relationship with grass. A soundtrack, created in response to the video sequence, plays softly in the background to invite deep meditative reflection.

The work encourages the viewer to consider their own role within the carbon cycle reflecting on the idea of gas exchange between living organisms; we all share an intimate connection with our multispecies kin — our shared breath is inextricably interwoven in our very being.

The grass animations were created with reference to scanning electron microscope (SEM) images of stomata from the leaf surface of native grass species grown in my own grass garden. I harvested, pressed, vouchered³ and imaged the native grasses involved during my residency with the Queensland Herbarium and Biodiversity Science (QHBS). Special thanks to Dr Melinda Laidlaw and Dr Melody Fabillo, QHBS, Department of Environment, Science and Innovation for hosting me during my residency.

¹ Stomata: microscopic openings or pores in the epidermis of leaves and young stems. Stomata are generally more numerous on the underside of leaves. They provide for the exchange of gases between the outside air and the branched system of interconnecting air canals within the leaf. Source: Britannica, The Editors of Encyclopaedia. "bract". *Encyclopedia Britannica*, 29 Nov 2016, www.britannica.com/science/bract-plant-structure Accessed 28 Jan 2024.

² Alveolus: tiny air sac in the lung... the site of gas exchange of respiratory gases (Carbon Dioxide and Oxygen). Source: Oxford Reference, www.oxfordreference.com/view/10.1093/oi/authority.20110803095406481 Retrieved 28 Jan 2024.

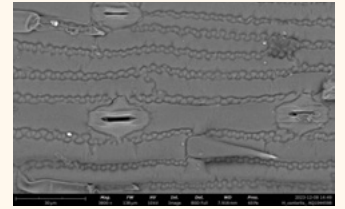
³ Voucher Specimens are pressed and mounted; collected to support a research project or a particular activity, for example they may represent new weed incursions, seed collections, ecological research, DNA sequences or biochemical analysis. Source: <https://www.qld.gov.au/environment/plants-animals/plants/herbarium/specimens>



Still from *Interwoven 2024*

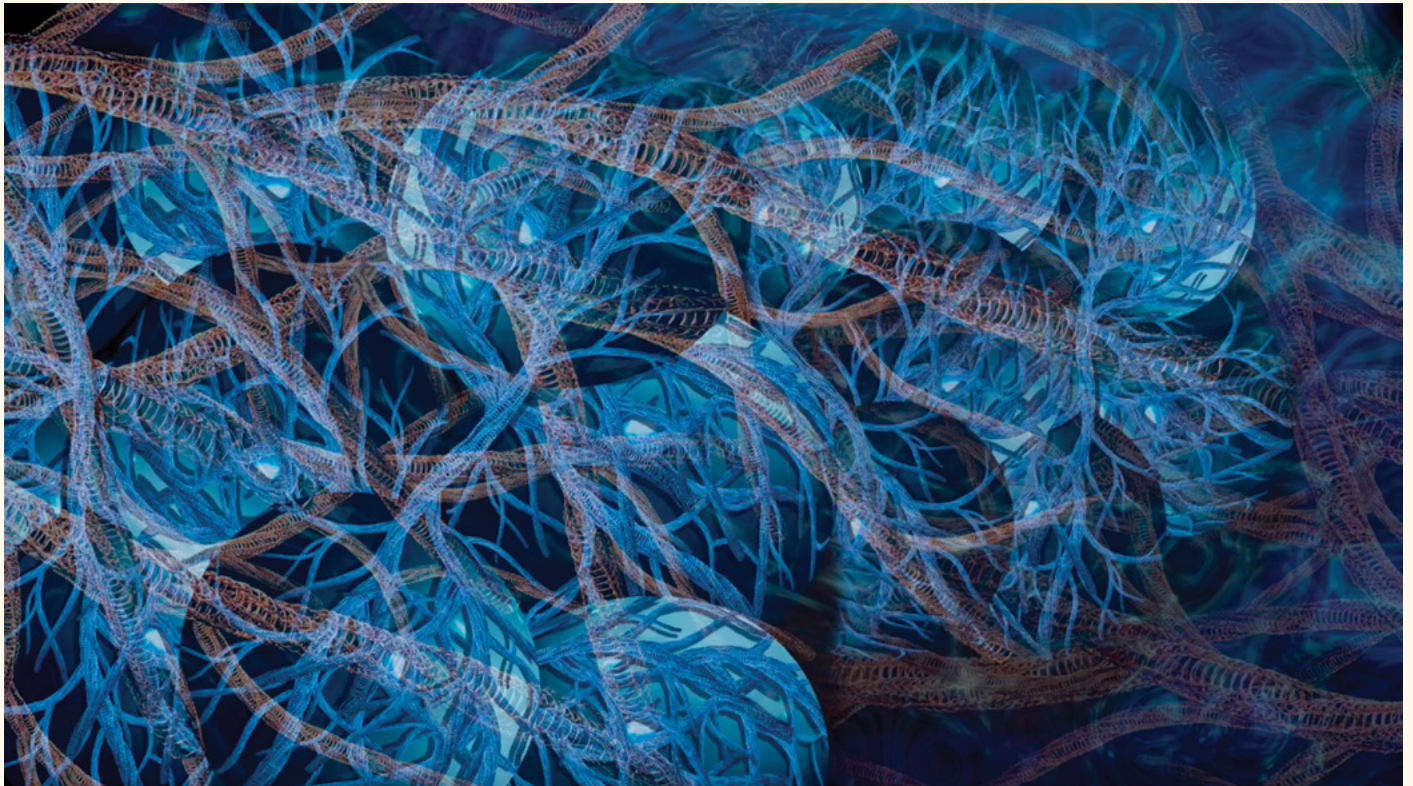
Video Installation

Image: Donna Davis



Micrograph of a leaf surface of *Heteropogon contortus* [black spear grass], captured using a scanning electron microscope (Thermo Fisher Desktop SEM), Donna Davis, 2024.

Image: Donna Davis



Still from *Interwoven 2024*

Video Installation: 3 channel video, TV screens, digital prints onto recycled stretch micro-fibre fabric, foam, sound. Sound design by Luke Lickfold. Dimensions variable.

Image: Donna Davis

Mia Hacker



In my ongoing artistic exploration, the *Whispers on the Wind* series encapsulates the essence of my intimate connection with the environment, specifically inspired by my involvement in the *Carbon_Dating* project. As an artist dedicated to works on paper, utilising natural pigments, and embracing plein air painting, this series is a visual narrative that reflects my profound response to the landscapes where Kangaroo Grass thrives.

The heart of *Carbon_Dating* lies in its celebration of the natural world, a sentiment that seamlessly aligns with my artistic philosophy. The plein air approach, with its immediacy and authenticity, became a transformative medium through which I could convey the energy and spirit of the environments where Kangaroo Grass flourishes. Each stroke of the brush became a dialogue between my artistic expression and the landscape's inherent stories.

Working with natural pigments, sourced directly from the very environment I was depicting, became a pivotal element of this series. These pigments, infused with the essence of Kangaroo Grass and its ecosystem, served as a tangible connection between my art and the subject matter. The materials themselves became a means of embodying the resilience and adaptability of Kangaroo Grass in the face of environmental challenges.

The *Whispers on the Wind* series delves beyond mere representation; it is an exploration of the delicate balance between art and advocacy. The works on paper are visual narratives that invite viewers to immerse themselves in the beauty of Kangaroo Grass while simultaneously contemplating the ecological narratives it encapsulates. Through this series, I aim to contribute to a broader conversation about the urgency of conservation, using art as a medium to amplify the voices of our natural landscapes, and to foster a deeper connection to the environments we must protect for generations to come.

Above: Melissa Stannard, Liz Capelin, Kilagi Nielsen, Bianca Bond, and Mia Hacker at grass mound planting, Tuan Environmental Reserve, Kabi Kabi Country, October 2022. Image: Keith Armstrong

Whispers on the Wind 2023

Cold pressed vintage paper with natural earth pigments and hand harvested water

24x32cm
Image: Carl Warner



Mia Hacker and Kilagi Nielsen

Tinwalliwah & Numabulla
(Walli Mountain & Mary River):
Environmental Growing
Conditions Observations 2023

Cold pressed vintage paper with
natural earth pigments and hand
harvested water, 7 river stones

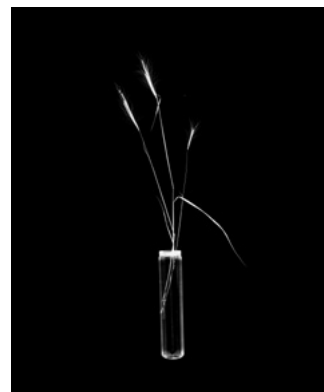
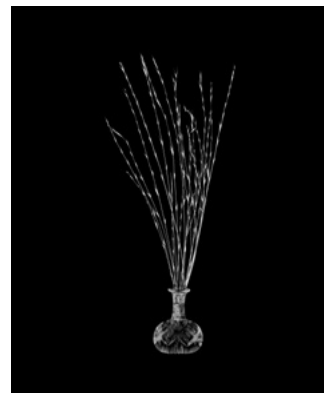
150×180cm, irregular

Image: Carl Warner



Andrea Higgins

Working on the *Carbon Dating* project for two years immersed me in the fascinating world of Australian native grasses and inspired the new series of photograms *Grass and Glass Series*. Motivated by my new knowledge of Australian native grasses, I want people to look closely and see the uniqueness and beauty captured in each of the silhouetted images. The processes of collecting and collections are central to my creative projects. I applied a darkroom-based, photogram technique by placing pressed and freshly harvested native grass leaves and flower heads and a collection of Victorian cut and pressed glass vessels directly onto the photographic papers to create the original handprinted photograms. A collapsing of time occurs through the photogram process; the past and present are brought together to occupy the same paper surface—a ‘fossilisation’ process occurs. Via the inversion of the image, the object is refigured into a new state. Digitising the unique silver-based photograms allowed for the rescaling of the image.



Grass and Glass Series 2023

Digital photographs on
Hahnemuhle cotton paper

Right: 240×100cm

Left: 120×100cm, each

Images courtesy Andrea Higgins



Kilagi Nielsen

In my exploration of weaving techniques, I have delved into the world of natural fibres, specifically focusing on the utilisation of kangaroo grass alongside the familiar *Lomandra* fibre. Through this experimentation, I have crafted a wearable art accessory in the form of a fascinator hairpiece. Working with the kangaroo grass fibre has provided me with a fresh and exciting material to weave with. By intertwining it with the *Lomandra* fibre, I have sought to create a harmonious fusion of textures and colours. The process of processing this new natural fibre has unveiled its inherent characteristics, revealing its strength, flexibility, and occasional brittleness. To achieve the desired outcome, I meticulously tested various samples of different growth stages and ultimately concluded that the younger and fresher growth possessed the ideal qualities for my weaving. In this particular creation, I made a deliberate choice to retain the seed heads of the kangaroo grass. By doing so, I aim to showcase the complete growth process of this particular grass species, capturing its essence and imparting a sense of organic beauty to the final piece.

The presence of these seed heads serves as a design detail that sparks curiosity and invites the viewer to contemplate the life cycle and transformation of the grass. Through this wearable art accessory, I invite the audience to appreciate the intricate relationship between nature, craftsmanship, and design. It is my hope that this piece not only celebrates the natural materials sourced from Kabi Kabi Country but also serves as a reminder of our connection to the environment and the importance of preserving and honouring the resources it provides.



Baelele [Details] 2023

16 eco-dyed and imprinted works on paper, using harvested and boiled kangaroo grass

8 prints 14.8×21cm, each
8 prints 14.8×10.5cm, each
Images: Carl Warner

Fascinator 2023

Wearable art accessory
Woven natural grown and harvested kangaroo grass and *Lomandra* from Kabi Kabi Country

28×31.5×8.5cm, variable
Image: Carl Warner



Jason Murphy & Pipier Weller

Grass Care Package, a collaborative artwork by Pipier Weller and Jason Murphy, is a personal and direct response to the *Carbon_Dating* Project. In conjunction with the *Carbon_Dating* team and their host Gallery, the Condensery, Pipier and Jason cultivated a small garden of native grasses, kangaroo, silky blue, barbed wire, and scented top, that were specifically chosen for their suitability to their local Country and bioregion. This grass garden was established at the rear of The Condensery – Somerset Regional Art Gallery in Toogoolawah and remains as a testament to the important message of this project. Working collaboratively, Pipier and Jason have created a ‘grass care package’ that allows audiences to purchase a tote bag with a postcard inside from the gallery with proceeds being donated to a local environmental project selected by that gallery. The digital prints on these tote bags capture the essence of the grasses planted at the Condensery and feature interlocking repetitive images of the animals that these grasses encountered. The postcards inside these tote bags, six in total, are a series of cyanotype prints that were created using seeds and materials sourced from these endemic grasses and feature information about the grasses used in all locations of the *Carbon_Dating* Project on the back.

Grass Care Package [detail] 2023

Printed fabric tote bags, 2 designs
and cyanotype printed postcards,
6 designs

Bags 35×56cm, postcards 19×14cm
Image: Carl Warner

Jason Murphy and Pipier Weller
installing their grass mound at
the Condensery, Toogoolawah,
Jinibara Country, October 2022.

Image: Jim Filmer





Kangaroo

Thymodia trandira, a tufted perennial grass, is one of the most prevalent native grass species in Australia and is widely distributed from commonly known in Kangaroo grass, this sensitive grass can reach a remarkable height of up to 1.5 meters and flowers from December to February. This high recognition grass requires the water and nutrient and, thrives in full to part shade. This sensitive grass is a great indicator of environmental Kangaroo grass is resistant to drought and temperature fluctuation and its unique seed heads can be used to produce flour.

To: _____

Figuer Walker and Jason Murphy
Grass Care Package

Curly Mitchell

Adriella bipartita is a native long lived perennial grass that can be found throughout Australia. This dense tufted and upright grass, also referred to as Curly Mitchell due to its curling leaves when "trapped off", can reach heights of up to 30 to 60 centimeters. This tufted grass stems are about 10 centimeters in diameter and typically thrive in dry, shaded, and typically thrive in alpine pastures (in only with summer dominant rainfall). Curly Mitchell is commonly found in central Queensland, notably the Mitchell Grass Downs, where it displays excellent resistance to drought and heavy grazing.

To: _____

Figuer Walker and Jason Murphy
Grass Care Package

Barbed Wire

Barbed wire grass, scientifically known as *Chloris barbata*, is a native perennial grass species from Australia. This remarkable grass stands out due to its distinctive appearance characterized by twisted leaves that give along the edges of its stems. This grass exhibits remarkable resistance to drought conditions, making it an essential component of Australia's grassland ecosystems. Barbed wire grass is a valuable food source for livestock and wildlife, and also provides erosion control in highland areas.

To: _____

Figuer Walker and Jason Murphy
Grass Care Package

Sasha Parlett

Sasha's work is primarily digital video documentary format. This piece *Carbon_Dating; Sunshine Coast* showcases the use of informative documentary style interviews mixed with additional digital footage of grasses and artistic process. Sasha's work focuses on giving viewers an insight into the process and meanings behind creations.



Stills from *Carbon_Dating*;
Sunshine Coast 2023

Right: Liz Capelin with Personal
Interweaver

Below: Brian Warner and Melissa
Stannard enjoying the aroma
of scented top grass at Tuan
Environmental Reserve

Documentary format digital video
7min 58sec

Music composed by Graham Moes
Supported by Third Nature Projects

Images: Red Handed Productions



Melissa Stannard

Conversations with native grasses in liminal spaces ...

Roadside verges resilient and overlooked they grow ... almost overtaken by introduced pests and other species, not of here but now deeply rooted and often smothering that which was before. But still they grow and flourish, if your eyes are attuned you'll notice.

dhunbarr warranggal garrar 2023

Warranggal (strong powerful), garaarr (grass), dhunbarr garrar (grass seed) — Yuwaalaraay Gamilaraay language

Cyanotype on fabric, mirrors
Dimensions variable

Image: Carl Warner

Utilising a collaboration with nature ...

the sun, space and time ... collecting the traces and stories of plants and places important to me for #winangali time

Of deep listening

Of walking and noticing

Of pauses in a hurried world.

These prints onto fabric in tones of blue trace shadows of objects, soft layers of stories and belonging.

Blueprints originally used for architecture and marking out foundations of colonial buildings

now used to tell the stories embedded within the land, across our nonlinear space and time.

Echoes of grindstones moving amongst happy voices, of laughter and sharing of stories.

Women gathering grasses with potent strengths inside ... nourishment and nurture.

Winnowing ...

Letting that which no longer belongs or is of use just float away on the breeze to feed back into the soil nearby ... heavy seeds drop to be collected ... some fly off on gentle breezes to propagate further afield.

Nothing wasted

Deft hands

Watchful eyes

A knowing rhythm

A dance of cultivation and culture

Skills handed down like poetry

Interwoven through the everyday moments

My hands gather the grasses ... collecting, noticing the fine details and sculptural beauty that points to the seeds ... tiny, delicate and robust.

We were scattered like seeds and ripped from places of long belonging

But we are resilient and still grow even if it's on the verges and liminal spaces

Pushed out or disconnected from homelands

We can and do still flourish and nurture through every season in space and time.



Delissa Walker Ngadijina

The Native Fence is a woven piece created to encourage viewers to look at every single strand of native grass as the individual living flora that it is. Our native grasses grow in clumps like a big family, yet like our families each one is unique. In this piece there are three different types of grasses that I have cared for over a long period of time. These grasses are barbed wire, scented top, and black spear. The 28 individual strands were the last to survive in a mound that once flourished in my garden. I think of these grasses as a tribute to the mound that sparked so many interesting and important conversations in my backyard. Although it's sad the mound came to an unforeseen end, this piece will live on and continue to create many more of those talks and hopefully do its part to encourage others to look after Country.

The Native Fence 2023

Native bamboo *Neololeba atra*;
native grasses: black spear,
scented top, and barbed wire; raffia

115×165×7cm

Image: Carl Warner



Delissa Walker with
The Native Fence 2023 [Detail].
Image / video still: Josaphine Seale



*The silent breeze swept across the Mary
creating ripple lines across the water,*

*Before turning its attention to the high
ridges up above the River's embankment
where the Kangaroo Grass sat as sentinels,*

*The silent breeze tickled its way through the
sentinels, awakening the sirens within the
Kangaroo Grass to laugh with pleasure,*

*The shrill of the sirens triggered seeds to
drop from their hair to hide among the rich
soil of the earth that veiled a new eternity,*

*It is by harnessing Fire that a new eternity
can be developed opening new beginnings
for our Native Grasses and Native Animals*

*To restore our eco system is to restore
our Cultural way of life*



Kangaroo grass.
Image: Keith Armstrong



During the first stage of *Carbon_Dating* (2022-3), I designed a unique *Interweaver* device/sculpture for each participant-carer team which connected them to the project's shared 'Grassland Community of Care'. The *Interweaver* is a Wi-Fi enabled sculpture/device that each carer kept in their home or workplace. About the size of a small electric appliance, this aesthetic object had a range of functions, including: sculptural object, audio-visual display, a holder for grass reflection and provocation cards, and a seed store. The *Interweaver* was designed to become a part of the participants' daily lives and attended to once per day. Its miniature kaleidoscopic video screen displayed daily 24-hour time-lapse images of the grasses from the site at Samford Ecological Research Facility, curated by Keith Armstrong. The accompanying soundscape, heard on headphones, was produced using a custom audio composition program designed by project artist Luke Lickfold, with each unique soundtrack composed in response to digital, real time weather data recorded at the Samford site. Each of the *Carbon_Dating* project's participants were given their own personal *Interweaver* with prompt cards (designed by Daniele Constance) to enhance their grass growing experience — an approach designed to focus them around caring for and 'being with' their grasses — experiences which in turn informed their creative responses for the 2024-5 touring exhibition.

Keith Armstrong

Grassland Community of Care/(More Than Human Persons) 2023
4k video, 20 minute animation, stereo audio
Audio: Edited by Keith Armstrong from *Carbon_Dating Interweaver's* algorithmically-composed sound track, created by Luke Lickfold

Liz Capelin

Held 2023
Ceramic, imprinted with seed heads from scented top grass (*Capillipedium spicigerum*), barbed wire grass (*Cymbopogon refractus*), and kangaroo grass (*Themeda triandra*).
3 vessels: 12.5×6cm; 15×18cm; 22×8.5cm
These ceramic works were lovingly fired in the Spun Mud studio, Mothar Mountain, Qld

Carbon_Dating Project Team

Personal Interweaver, 2022
Mixed media interactive sculpture: video, audio, Grass Card provocations, timber, glass, acrylic, mirror, digital frame, pen, grass seed, metal, headphones.
Video and tech design by Keith Armstrong, sound design by Luke Lickfold, Grass Card provocations by Daniele Constance, object design and construction by Donna Davis.
30×30×30cm

Hilary Coulter

POV (point of view) 2023
Cotton embroidery on tulle, wooden hoops, magnets, wooden board
24×27×120cm

Merinda Davies

Sewing the Seeds 2023
Handmade garment incorporating native grass seed heads and stalks
Digital video, 16min 29sec, sound — Lawrence English, videography — Ellamay Fitzgerald
8 digital photographs printed on cotton rag, photography — Ellamay Fitzgerald
4 prints 84.1×59.4cm, 4 prints 42×29.7cm

Donna Davis

Interwoven 2024
Video Installation: 3 channel video, TV screens, digital prints onto recycled stretch micro-fibre fabric, foam, sound. Sound design by Luke Lickfold.
Dimensions variable

Mia Hacker

Whispers on the Wind 2023
Cold pressed vintage paper with natural earth pigments and hand harvested water
24×32cm

Mia Hacker & Kilagi Nielsen

Tinwalliwah & Numabulla (Walli Mountain & Mary River): Environmental Growing Conditions Observations 2023
Cold pressed vintage paper with natural earth pigments and hand harvested water, 7 river stones
150×180cm, irregular

Andrea Higgins

Grass and Glass Series 2023
Digital photograph on Hahnemuhle cotton paper, 4 works
120×100cm, 3 works;
240×100cm, 1 work

Jason Murphy & Pipier Weller

Grass Care Package 2023
printed fabric tote bags, 2 designs and cyanotype printed postcards, 6 designs
Bags 35×56cm, postcards 19×14cm

Kilagi Nielsen

Fascinator 2023
Wearable art accessory
Woven natural grown and harvested kangaroo grass and *Lomandra* from Kabi Kabi Country
28×31.5×8.5cm, variable

Kilagi Nielsen

Baelele 2023
Series of 16 eco-dyed and imprinted works on paper, using harvested and boiled kangaroo grass
8 prints 14.8×21cm, each
8 prints 14.8×10.5cm, each

Sasha Parlett

Carbon_Dating; Sunshine Coast 2023
Documentary format digital video, 7min 58sec
Music composed by Graham Moes
Supported by Third Nature Projects

Melissa Stannard

dhunbarr warranggal garrar 2023
Warranggal (strong powerful), garaarr (grass), dhunbarr garrar (grass seed) — Yuwaalaraay
Gamilaraay language
Cyanotype on cotton fabric, mirrors
Dimensions variable

Melissa Stannard

Maramali dharrii (seed cake make by hand) 2022, Yuwaalaraay
Gamilaraay language
Lost wax carved and cast pendant of recycled sterling silver with patina
Cyanotype on cotton fabric cushion, filled with lemon-scented gum and lemon myrtle leaves
3.5×4.7cm, pendant;
16.5×23.5×3cm, cushion

Melissa Stannard

Giba wambali (grindstone carry) carrying wamban (baby) on mila (hip) and giba (grindstone) on dhaygal (head) 2022, Yuwaalaraay
Gamilaraay language
Lost wax carved and cast pendant of recycled sterling silver with patina
Cyanotype on cotton fabric cushion, filled with lemon-scented gum and lemon myrtle leaves
6.5×4.7cm, pendant;
17.5×25.5×3cm, cushion

Delissa Walker Ngadjijina

The Native Fence 2023
Native bamboo *Neololeba atra*; native grasses: black spear, scented top, and barbed wire; raffia
115×165×7cm

All measurements: height x width x depth (if applicable) in centimetres.



ARTISTS

Keith Armstrong (b.1965) is the project director for *Carbon Dating*. He is an experimental artist profoundly motivated by issues of social and ecological justice. His engaged, participative practices provoke audiences to comprehend, envisage, and imagine collective pathways towards sustainable futures. He has specialised for over thirty years in collaborative, experimental practices with emphasis upon innovative performance forms, site-specific electronic arts, networked interactive installations, alternative interfaces, art-science collaborations and socially and ecologically engaged practices. His works have been exhibited widely, nationally and internationally. Keith has a PhD from Queensland University of Technology where he is currently a part time senior lecturer in Visual Arts.

Liz Capelin (b.1984) is founder of Third Nature Projects through which she designs and delivers interdisciplinary environmental projects. She employs creative practices/inquiry and collaborative partnerships to give voice to environmental themes, forming experiences between people and place, igniting ecological curiosity and inspiring stewardship. Her approach is Banksia Foundation Award winning.

Hilary Coulter (b.1986) completed her dual degree of Bachelor of Creative Industries (Visual Arts Culture/Art History) and Bachelor of Business (Banking and Finance) at the Queensland University of Technology in 2010 and went on to complete her Masters of Art Curatorship at the University of Sydney in 2012. Despite Coulter's professional background, she is largely self-taught in her art practice which revolves around contemporary embroidery and textiles. Coulter has exhibited across Western Queensland, including completing the Central Queensland Regional Arts Service Network at-home artist residency in 2020 and being featured in the *10 Artists* exhibition at Dogwood Crossing Gallery Miles in 2023.

Merinda Davies (b.1991) is an artist using performance, movement, installation, and conversation to question structural paradigms of inequality. Her work is inspired by the environment, human and more-than-human social structures, and the possibilities available to us in future imaginings. Her practice aims to find clarity and connection through deep listening, observation, and research into emotional and physical states. Merinda's solo and collaborative projects have most recently been commissioned by: Moreton Bay Regional Gallery, Arts Northern Rivers/Lismore Regional Gallery, HOTA, Home of the Arts, Metro Arts, Institute of Modern Art, Blue Mountains Cultural Centre, City of Gold Coast, Outer Space, and The Walls Artspace.

Donna Davis (b.1969) is a multi-disciplinary artist who examines human and non-human relationships with respect to ecological health. Exploring the intersections between art and science, she is often embedded within ecological research projects. Using sculpture, digital media, and installation her work tells stories that examine the science through a creative lens; exploring imagined futures and constructing new ways of 'seeing' complex natural systems and our role within them. Davis has undertaken a number of residencies, including: Queensland State Archives, Brisbane Botanic Gardens, Queensland Herbarium, Department of Environment and Science, Australian Tropical Herbarium, and University of Miami.

Mia Hacker (b.1978) is an artist, change maker, and social disruptor with an inquisitive nature and a great passion for photography and creative expression with works on paper and various mediums. Her grassroots practice is fundamentally about connecting with place and people. Through her artwork creations she aims to give people a chance to contemplate, relax and appreciate the wonderful environment around us. A key part of her practice is providing avenues for artists to emerge and thrive through scaffolding platforms of support and mentoring – which she enables through her experience in animating spaces and curating artworks for both solo and group collaborations and exhibitions.

Andrea Higgins (b.1968) has been an active participant in the contemporary art, craft, and design industries for over 20 years. She curated numerous exhibitions while working for the Artisan organisation (nine years). She led the establishment the Queensland Centre of Photography (QCP) in 2004 and was a Foundation Board member (three years). Her current role as Exhibition Coordinator at Museums and Galleries Queensland involves managing the touring requirements of a diverse range of exhibitions to regional and metropolitan venues across Australia. She completed her Master of Visual Arts through the Queensland College of Art in 2014. Andrea regularly exhibits her contemporary photography and is represented in Australian collections.

Jason Murphy (b.1968) is a Dugidau man of Jinibara descent in Southeast Queensland. His art practice utilises acrylic painting, collage, and drawing to critique social, political, and cultural issues affecting Aboriginal people. He holds a Bachelor of Creative Arts with Honours and a Master of Visual Arts from Griffith University. His artworks have featured in exhibitions, collectives, and public programs including Magpie Goose, Museum of Brisbane, and Woodford Folk Festival. Jason is the Cultural Co-ordinator of the Jinibara Community and a traditional custodian of Jinibara Country. He conducts workshops and talks at schools and cultural events about Jinibara culture.

Kilagi Nielsen (b.1961) is a master weaver from Papua New Guinea who enjoys sharing her cultural and weaving techniques. Workshops are presented with various First Nations Women's groups, schools, Country Shows, and other events, such as Festuri, Booiingari, and Mary Valley Festival. She shares her deep knowledge and skills of both traditional and contemporary culture including nature play. Natural fibre processing and use are key features in Kilagi's creative process. Key Art Exhibitions include: World Wearable Art Festival 22/23, Griffith University Art Gallery, University of Sunshine Coast Art Gallery, Floating Land Biennale, Known Associates – Noosa Regional Gallery, Tall Trees Art Exhibition & International Women's Day Cooroy.

Sasha Parlett (b.1990) is a proud Maylangapa/Barkindji multidisciplinary artist that was raised in culture on Kabi Kabi country. She has a Bachelor of Creative Industries from the University of the Sunshine Coast and has dedicated her career to representing the under-represented. Sasha's work ranges across corporate documentary, scripted format, art installation videos, and visual design, and includes directing, producing, and writing an award-winning music video, and being the visual designer on a First Nations theatre production. Sasha does a lot of solo work under her business Red Handed Productions and also loves being part of a bigger team to see a vision realised.

Melissa Stannard (b.1975) is a Yuwaalaraay, Gamilaraay, and Koama woman, an interdisciplinary artist and poet, for whom storytelling and truth-telling is an integral part of her cultural heritage. Working across a range of mediums, Melissa uses visual art to confront difficult subject matters, drawing upon personal narratives and lived experience to speak to cultural and collective traumas. Her creative practice explores the cultural practise of Winangali or deep listening, and is often immersed in nature, fuelled by her deep passion for caring for Country. In 2023, she graduated with First Class Honours (Fine Arts) and University medal for academic excellence from Griffith University.

Delissa Walker Ngadjijina (b.1990) is a Kuku Yalanji master weaver based in Cairns, Far North Queensland. Brought up in Mossman and Daintree learning traditional practices, Delissa is part of a large, culturally active family. Since 2018 weaving has become a full-time passion and responsibility. Delissa Walker's works have been collected and exhibited nationally. In 2017 she was a finalist in the Telstra National Aboriginal and Torres Strait Islander Art Awards (NATSIAA). In recent years, her woven contemporary works have included wearable pieces featured in First Nations runways. Her cultural focus is teaching weaving at schools and cultural events, ensuring this once almost eradicated practice lives on.

Pipier Weller (b.2001) is an emerging contemporary artist whose practice often investigates concepts of the body, representation, commodification, sexualisation, and identity through a feminist lens. Feminism fundamentally informs every work Pipier makes and the way she interprets the world. Her methods and material approaches involve assembling, deconstructing, and reconstructing appropriated materials, such as text and online images, through complex, artist-led research, and often laborious processes. Pipier is currently undertaking a Bachelor of Fine Arts at Queensland University of Technology. Her work has been exhibited at independent and artist-run spaces in Brisbane, including Backdock Arts, The Zoo, and The Station.

CURATORS

Jo-Anne Driessens (b.1970) was raised in Meanjin (Brisbane), Queensland and is a Guwa-Koa, Kuku Yalanji descendant. Having completed a photography cadetship in 1999 at the State Library of Queensland, Jo-Anne continued working as a photographer and also across various arts and curatorial specialised roles including archival and anthropological research, exhibition programs, and Aboriginal Family history support. Jo-Anne continues to work closely with artists of all disciplines and has successfully delivered the South Stradbroke Island Indigenous Artist Camps (2014-2022). In mid-2022, Jo-Anne joined the Arts Law Centre of Australia as the Artists in the Black Coordinator which is a dedicated national service for Aboriginal and Torres Strait Islander Artists of all creative disciplines.

Beth Jackson (b.1966) is an independent curator with over 30 years professional experience. Her curatorial and research interests focus on environmental art and feminism. Her major touring exhibitions include: *Artistic Endeavour: contemporary botanical artists' response to the legacy of Banks, Solander and Parkinson*; *Bimblebox: art - science - nature*; and *Habitus Habitat – Great Walks of Queensland*. Beth is the owner and director of Artfully, a curatorial consultancy specialising in art for the public realm. Her critical writing is published in art journals and exhibition catalogues.

SPECIAL THANKS TO:

Daniele Constance: Project Grassland Community of Care Coordinator: is a participatory artist focussed on social, civic and inclusive arts practices. She creates works that draw from direct experience and social arts practices; often using verbatim, documentary, community engaged, site-specific, and contemporary arts methods. Her work is informed and shaped by a deep questioning and a reorienting of community and ecology; reflecting the complex non-human relationships and dynamics that frame natural environments.

Luke Lickfold: Project Sound Artist: is an audio and interactive systems designer whose work explores fresh and unique approaches to sound presentation and spatialisation. Embracing deep collaboration, Luke's work emphasises the dynamic integration of artistic elements including sound, visuals, robotics, lighting, performance, and audience participation. He has also worked extensively on major creative projects in Japan.

Tania Leimbach: Project Writer: is a creative producer, writer and theorist, specialising in conceiving and brokering innovative strategies towards promoting sustainability, with a particular focus on socially engaged practices and novel forms of creative education. She works widely across environmental communication, creative practice and sustainability. All of her work is underpinned by a commitment to environmental and social justice.

Sharron Colley: Miles Project Grass Carer: is an avid organic gardener and cattle farmer with a keen interest in the presentation of native and indigenous grasses, who also expresses her creative passions through artworks made from fencing wire and old machinery. Her immersive experiences on this project have led her to encourage her local gardening group to plant native grasses on their own properties.

Prof. Jenn Firn: Consulting Scientist to Project, QUT
Alex Cheesman: Grass Grower/Ecologist, James Cook University
Freja Carmichael, Bianca Bond, Uncle Brian Warner, Robin Derksen, Uncle Bennett and Dr. Gerry Turpin: First Nations Advisors/Consultants to the Project
The Yugara-Yugarapul Aboriginal Corporation, lexicologist Dr Sylvia Haworth, Ngarang-Wal Gold Coast Aboriginal Association Inc, linguist Dr Margaret Sharpe, and Traditional Custodians Jason Murphy (Jinibara), Brian Warner (Kabi Kabi), Averil Dillon and Kelly Lawton (Barunggam), and Madonna Thomson (Jagera Daran): First Nations Advisors/Consultants to the Exhibition

For more project details see
www.carbondating.art & socials @carbon__dating.

We acknowledge the Traditional Custodians of the many lands on which we live, work and create, including our collaborators on Yirrganydji, Barunggam, Yuggara, Ugarapul, Jinibara, Kabi Kabi, and Kombumerri Country. We acknowledge their ongoing connection to and custodianship for Country. We pay our deep respects to all Aboriginal and Torres Strait Islander people. We recognise First Nations people as the first artists and scientists. Always was, always will be.

SPONSORS AND SUPPORTERS

The 2024-25 *Carbon Dating* exhibition tour is supported by the Queensland Government through Arts Queensland.

Assisted by QUT School of Creative Practice, International Art Services (IAS), Native Seeds Pty Ltd, Artfully, and Embodied Media.

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EXHIBITION & ONGOING PARTNERS



ADDITIONAL PARTNERS (2019-23)



Invite a conversation about grass with someone new.

CARBON_DATING
EXHIBITION PROJECT TEAM

Director

Keith Armstrong (Embodied Media)

Manager

Andrea Higgins

Supporting Manager

Donna Davis

Curator

Beth Jackson (Artfully)

**First Nations Curator
and cultural advisor**

Jo-Anne Driessens

Catalogue design

Designfront

Artwork photography

Carl Warner

Crating

Michael Littler

Transport and storage

IAS | International Art Services

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The *Carbon_Dating* exhibition is touring to Queensland venues in 2024 to 2025.

For information about the exhibition tour and the *Carbon_Dating* project see:

carbondating.art

COVER IMAGE AND DETAIL PAGE 38

Personal Interweaver, Carbon_Dating Project Team, 2022, mixed media interactive sculpture: video, audio, grass card provocations, timber, glass, acrylic, mirror, mobile phone, pen, grass seed, metal, headphones. Video and tech design by Keith Armstrong, sound design by Luke Lickfold, Grass Card provocations by Daniele Constance, object design and construction by Donna Davis. Image: Donna Davis

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