

I acknowledge the Woi wurrung and Boon wurrung language groups of the eastern Kulin Nations, on whose land my studio stands, and pay my deepest respects to elders, past and present. I also acknowledge the Noongar people on whose lands the limestone at the heart of this process is quarried, and pay my respects to their elders past and present. This land was never ceded. Always was and always will be Aboriginal land.

I also wish to pay my respects to the Ngāi Tahu, the iwi of the South Island of Aotearoa/New Zealand known as Te Waka-o-Aoraki, whose lands I was grateful to visit in May 2024. Observing the tapu status of the mountain in Māori lore, I pay my respects to the ancestral mountain, Tititea, brother of Aoraki, and stand in support of the Tino rangatiratanga of their descendants, as recognised in Te Tiriti o Waitangi.

ABSTRACT

In seeking a reinvigorated engagement with landscape, *Breathing Stone* explores how the agency and liveliness of the matter of fresco making, beginning with the breathing of the ancient lime cycle and tracing each material from its origin in the formation of the earth, can constitute a re-sensitisation to the more than human world. Reviving pre-modern techniques and materials such as fresco and encaustic involves the slow sensing of moisture, temperature and molecular interaction over time. *Breathing Stone* explores this unpredictability and how it might echo movement in the living world from whence the raw materials come.

Divergence from established practices leads to a search for new forms that inhabit a fluid space between sculpture and painting, speaking to the overlapping temporalities of human imagining and the material world. The stone skin

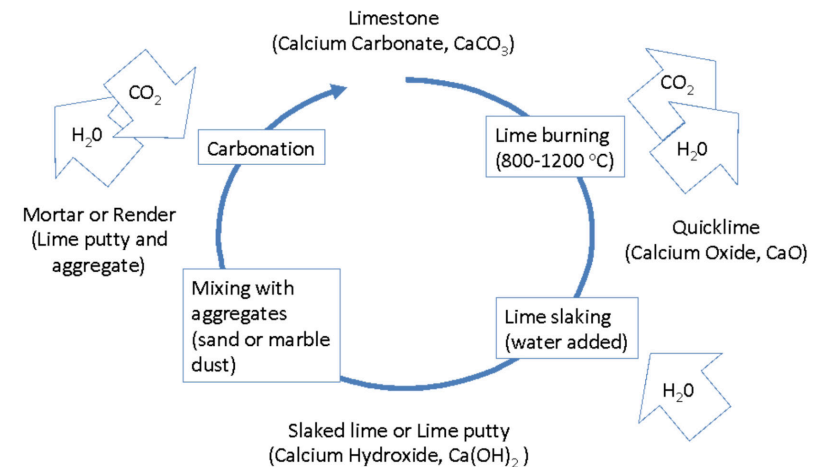
moves out of the studio and gallery in the form of meta-phoric *way finders* situated in the landscape during an artist residency in Aotearoa/New Zealand, a meditation on the loss of the cryosphere at the edge of the glacier and the consequent experience of losing one's way, of not knowing the way forward. The *way finders* point towards each other or swirl in arcs towards an empty centre where the grounding solidity of ice cannot be re-found.

INTRODUCTION

In this paper I explore the decentring of human agencies through material practice and the parallel movements of studio process and landscape. "At the core of the material turn is a concern with agential matter" (Barrett & Bolt, 2013, p. 4). Through poetic and creative language, I aim to cast the matter and processes of fresco making as protagonist and weave these agencies together with the movement and atmospheres of high-altitude landscapes, imagined in deep time and experienced in the present. The research is guided by a philosophy of reciprocity, a practice of pausing, sensing and following as ways to seek connection with the unseen and intangible through atmosphere, in both its affective and meteorological registers (Ingold, 2015). These come together, Ingold argues, through the element of air, the medium through which all forms of life co-breathe. Art practice is understood as a parallel process of reciprocal engagement with material agencies, leading to the co-emergence of form and affect.

The images are drawn from a series of works made over the past two years and all explore the potential of the fresco skin at the centre of this practice; first as a sensitive substrate for painting, second as a fluid sculptural form, and third as fragments marking the landscape. The problem of how to decolonise this process on injured lands is an open and unanswered question.

We may think of lime putty, the material at the heart of fresco making, as folding overlapping timelines into the material present. Its deep time origins begin with the spent skeletons of marine life falling to the ocean floor to be compressed and then uplifted through the movement of tectonic plates. Tiny cracks in limestone yield to rainwater from above and groundwater from below, birthing pinnacles and caverns. Fresco painting relies on the lime cycle. Lime putty binds to an aggregate, the working wall draws the moisture of the wet layer back into itself as it cures, and in so doing the carbon driven off during heating and slaking is slowly re-sequestered. *And so, the stone breathes.*



The Lime Cycle from top, moving right; The limestone is heated, the quicklime produced is doused with water, the resultant lime putty cures, recovering the form and chemical composition of limestone. Diagram by Dr Maurizio Toscano.

All fresco making engages the lime cycle. The curing begins as soon as a fresh damp layer of render is added to the wall. The wall draws the moisture into itself, through the layer of fabric inserted to allow detachment of the fresco skin once cured. Working with the matter-energy of slaked lime and responding to its properties and cycles is to breathe with it, in proximity to what is intangible and

ongoing. Just as imperceptible vulnerabilities in limestone give way to vast ruptures in the lithic fabric of continents, so too does the material process yield to points of failure that open as fissures and cracks, exposing the way beneath the appearance of things.



The collapse of the installation *Rivus*. 2022 Photo: Emma Byrnes

The insertion of fabric made fresco both fragile and sculptural, banners and fragments emerging in response to rupture and reversal at a material level, with the late addition of wax protecting the stone, water and grit of fresco making. A layer of cloth adhered to the working wall with *latte di calce* (lime milk) acts as a membrane beneath the render, producing a fine stone-skin that lightens as it cures and will darken if re-soaked or encased in wax.



Rivus seen from the back. Installed at Chapman and Bailey as part of *The Living Birrarung* 2022. Muslin, slaked lime render, pigment and encaustic wax. Dimensions variable. Photo: Emma Byrnes

As the stone-skin is lifted from the wall, infinitesimal cracking ripples across the surface echoing sedimentary layers, tidal movement or the growth patterns of a tree. Pigments of azurite, raw umber, burnt sienna and smalt bring their own unpredictable properties to the curing, long fissures breaking the surface, revealed and protected through the addition of warm encaustic wax that, once cool, holds the lime in a transparent state, thus restoring the chromatic intensity of wetness. The intensity of lightening through curing and darkening through waxing, cannot be anticipated or

planned for, nor the pattern of fissures that will form in the skin. This is the unknown at the heart of working with lime putty, its properties of transparency and opacity advance and recede.



Breathing Stone. Australian Galleries 2024. Installation shot showing detail of *Geo-luminescence* to the right and paintings on raw umber and white fresco ground, left, right and centre walls respectively. Photo: Emma Byrnes

The stone that exhales with the echo of past lifeforms is as restless as the lithosphere laid over the molten core of the earth, the mountain an animate being named for its gods in many languages, acknowledging its apparent command of the atmosphere. The glacier inexorably hollows out the valley, deemed sacred by human cultures that recognise its life-giving store of water. A mountain range seen from a distance resembles the sea in its rhythmic rise and fall, and water shapeshifts at altitude, cycling through its liquid, solid and gaseous forms, concealing and nourishing, within and without all that there is. Does reciprocal engagement with matter through making bring humans closer to these long, deep earthly processes?

Water added to heated limestone, as if to slake its thirst, will penetrate, bind, and hold in suspension the potential of the putty to re-form and return to a stone state with the addition of grit. Water heals and softens. Exposure to the air with the support of an absorbent wall will set in

motion the process of curing during which carbon dioxide in the atmosphere is drawn in. Fresco painting is the adding of pigment washes during this phase and depends upon responsiveness to the temporal movement of moisture: once begun it can be corresponded with, but not stopped or reversed. On curing, the lime render layers are permeable but not soluble, taking on another material state we may experience as breathable.



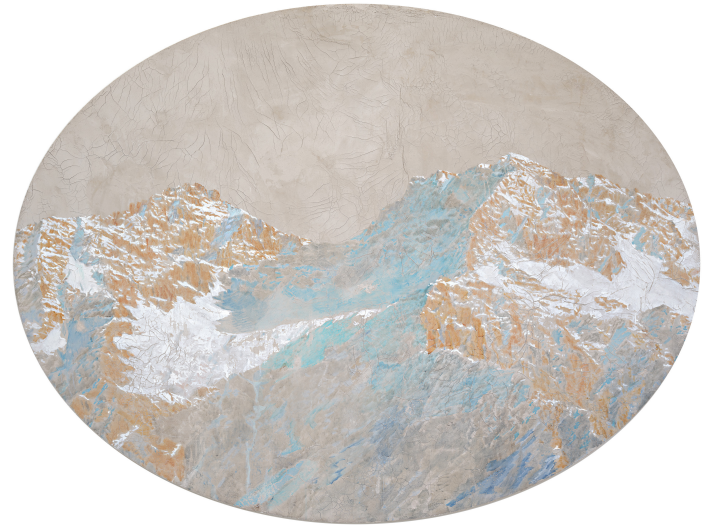
The Source of the Upside-Down River (detail) Muslin, cobalt turquoise and smalt pigments, encaustic wax. Dimensions variable. CbOne Gallery 2023. Photo: Emma Byrnes

At the edge of the glacier, timelines likewise overlap. The edge recedes year on year and a collective tremor of anxiety accompanies the retreat. Temperature becomes a weapon that operates unbidden. Yet the glacier is also ancient. Mist rises from its surface and snow blankets its ridges, but old ice glimpsed beneath, compressed over tens of thousands of years, appears turquoise as the long wavelengths of red light vanish within. The further they go, the deeper the blue. The edge of the fresco skin expresses fragility: a perpetual shedding of fragments and revealing of threads that signify a break with the material logic of the wall. Creases open out like scars, a play of cohesion and disintegration, echoing cuts made into the surface of the land to extract the matter of making.



Rivus 2022. Detail of floor with muslin strips, waxed banners and grit. Photo: Emma Byrnes

Glacial flour is milled and ground between the ice and the bedrock, aggregates descend the mountainside as scree and shake free from the stone-skin towards a poetics of grit that can then be re-incorporated into the next bucket of render. Cycles of matter can be engaged in the studio to reduce waste, the curing process an ever-renewing way to make walls, skins and surfaces.



Snow Shadow Wave. Oil on raw umber ground. 1.3x1.8m.
Sarah Tomasetti 2023. Photo: Les Walkling

The deep crack interrupts the picture plane with its primordial echo of deep time and its future threat of dryness without the cooling and binding quality of water held solid within the glacier until the moment of descent. Lime putty that dries without aggregates returns to a powder that renders things foggy and weightless, the material equivalent of low cloud. Can art practice become a parallel space within which the forming image, that emblem of human intention, gives way to the agencies and cycles of matter? These cracks accrue, threatening to eclipse painting, analogous to the tipping points of ecological loss.

Dryness characterises the Australian continent. The lime putty is quarried and slaked on the traditional land of the Noongar peoples who have lived at the edge of the largest limestone bedrock in the world for over 50,000 years. Though limestone itself is plentiful, extractive technologies have injured the land in multiple acts of colonial violence. This bedrock lies under the Nullarbor desert, perforated with a vast network of subterranean water-filled caverns, rare spaces still unexplored (Eberhard 2021). There are no glaciers on this continent, no old ice, but in the vast, soft and low aspect of this land lie the visual traces of

multiple upheavals and glaciations. In the restless play between stone and water, life begins. A billion years ago in the Neoproterozoic era, long before the contested human histories of recent centuries, a mountain range on the scale of the Himalayas undulated across this continent. Without terrestrial vegetation to hold the mountain sides together, a continual downward flow of sediment formed vast alluvial basins, releasing the crucial building blocks of life such as iron and phosphorus into the surrounding seas (McGregor, 2021).



Geo-luminescence I. Doctoral exhibition Mnemonic Mountain 2023. Two banners 15mx1.5m over Perspex armature and LED panels. Muslin, lime putty, carbon and encaustic wax. Photo: Emma Byrnes

In a time of climate catastrophe whiteness comes to equal coolness and stability, an ice sheet reflecting the sun and doing its crucial work of regulating the weather on a planetary scale (Demuth 2020 p.103). What happens if fresco is blackened? The cloth membrane is dyed and carbon added to the mix is activated through the compressing action of the trowel. Curing lime brings whiteness, lightening the surface to grey, but heat melts wax and returns chromatic darkness. This blackened fresco skin is far more dry and fragile than its white counterpart.



Geo-luminescence I detail of white banner. Muslin, lime putty render, encaustic wax, grit and LED panel. Photo: Sarah Tomasetti 2023

In the briefest of dusk moments a lamp in the studio brings the skin to life, every trace of movement and manipulation appearing like an injury evoking “a thin spherical shell of matter that surrounds the incandescent interior” (Lovelock 2021, 2). The fresco skin carries the primordial echoes of its own origins in marine life, stone, water, flow and compression. It fractures continually, the light both penetrating and ominous.

Offered a residency in Aotorea/New Zealand, I spent time at the edge of the Tititea/Mt Aspiring national park. *Tititea* is a mountain held to be sacred in Māori lore. It is disrespectful to scale such a mountain. It is appropriate to deflect one’s gaze when the mountain is not shrouded in cloud.



Wayfinding Arrows made of fresco skin, frozen overnight under falling snow, and installed in the morning. Made during the Kenneth Myer Residency at Whare Kea, Aotearoa/New Zealand. Photo: Sarah Tomasetti

I made skins on the fresco wall in the colours of dawn and dusk, but desiring to lower my gaze to the ground and close the bodily distance between observer and the landscape, I cut the square skins into arrows, *way finders*, and laid them beneath falling snow overnight. In the morning, they were frozen and stiff, and slipped upright into grooves made in the snow piled behind in solid clouds. Interdependence with those diminishing areas of the planet not easily inhabited can be traced through the loss of the cryosphere.



Way finders in the landscape at midday. Whare Kea, Aotearoa/New Zealand. Photo: Sarah Tomasetti 2024

Rapid melting confines the way finders to an ever-diminishing patch of snow, and they become limp in the glare of the sun. The seasonal life-giving meltwater is an unstable deluge when the solidity of the ice is no longer at the centre. Awareness moves towards disintegration and change, away from an idea of the singularly transcendent towards an experience of the immanence of the world, a “matter-flow” (Ingold 2012) within which one lives, makes and grieves. Small acts of repair, of listening, of altered awareness may open paths of reparation.

This recipe for fresco making allows for the application of a breathable, economical and environmentally low impact layer of render to common building materials, to allow the creation of a public wall that can be decorated, enjoyed and then renewed for further collaborative work.

INGREDIENTS

- Slaked* lime procured as a lime putty (not powdered lime)
- Quantity of sharp washed sand. This could be local river or sea sand with salts and biological matter washed out.
- Dry powder pigments. Non-toxic ochres and earth pigments preferable.

TOOLS

- Buckets for mixing
- Float and trowels for application of render
- Brushes for application of pigment washes
- Sieve for sifting sand

WALLS

This can be done on any unpainted masonry, brick, stone, concrete block, hebel, cement, hempcrete etc. The render will add a breathable layer through which moisture can pass. The lime is abiotic, discouraging the growth of mould. It *can-not* be done on wood or over acrylic or oil-based paint, both of which block absorbency.

* Slaked Lime is limestone that has been heated to a temperature between 900 and 1200 degrees Celsius to produce quicklime, and then water is added to make a wet lime putty. After the addition of water, some time—months or years, is needed for the lime putty to 'age' before it is used.

Mix the render from lime putty and sand and apply in three layers. The first layer (*rinzafo*) should be 3 parts rough sand to 2 parts wet lime putty. Apply with a trowel and leave the surface rough, allowing it to cure for three days. The next layer (*arriccio*) should be one part sand and one part wet lime putty, applied thinly and left a little smoother than the previous layer. The final layer (*intonaco*) should be 2 parts sieved fine sand to 3 parts wet lime putty plus 0.3 parts powder pigment if a colour is desired. If left white, washes of pigment and water can be brushed onto this final layer while it is curing. This brushing can begin as soon as a human hand touched lightly onto the damp wall comes away clean. The weather and the absorbency of the wall will determine how long it takes for the wall to be ready. Allow 10 minutes to 3 hours.

The wall will take three months to harden fully. When a different colour or design is desired, the wall can be scored lightly and another layer of thin intonaco added on top. All pigment added while the wall is still damp and fresh on the first day (*fresco*) will be weatherproof after curing.

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