

Hope for the future: a sneak peek at Anglesea Alcoa site, Victoria

The apocryphal Place of Last Resort sign in the Australian town of Aireys Inlet has most likely faded from conscious attention; yet such a sign should be everywhere, in all parts of our lives. For we now inhabit a planet in The Era of Last Resort. There are planetary 'last resort' signals everywhere – when we allow ourselves to see them. Every day brings new data on climate and biodiversity breakdown, on the disruption of land and ocean systems, on the contamination of the eco-commons that once sustained us all with clean air, water and food.

Ignoring those signals takes increasing emotional effort, it requires us to engage in various forms of focus-distraction; often, I suspect, it means we adopt some form of guilty 'prayer', that the big disaster won't happen to us, or at least not in our lifetime. The emotional energy required for such 'blinking out' is taking its toll, showing up everywhere in growing levels of deep eco-anxiety.

Corporations and institutions that derive economic and political power from short-changing the life-support systems of the planet, have found it easy to generate noise to distort signals of planetary distress. The more egregious of them peddle deceitful 'counter evidence' and many 'leaders' assert that the world of politics and money must always trump science.

One way or another, in the 'triple bottom line' version of sustainability, the 'environmental' and 'social' dimensions usually end up being subservient to the 'economic'. Inevitably, the very idea of sustainability has been hollowed out to something akin to slowing down deterioration, leaving the bill for repairing broken natural systems (if that is even possible) to future generations.

It is in this context that the Regenerative Transformation Lab (RTL) at RMIT University, which I co-lead with Prof Michael Trudgeon, has recently turned its attention to the future for the old Alcoa mine and power plant, right next to the Australian town of Anglesea. Rethinking the use of that site as a focus for nature restoration, for systems repair and climate and biodiversity resilience, accords with a new high-level research theme on regenerative futures adopted by RMIT.

The RTL is the evolution of almost two decades of work from a precursor body, the Victorian Eco-innovation Lab (VEIL). VEIL was a multi-university 'real world laboratory' to 'enlist the best of Australia's design professionals undertaking post graduate education,

in the community co-design of futures to respond to the urgent challenges of climate change'. Rethinking the Alcoa site is an apt focus for the continuation of

that work. It will take several years. It is currently in an early phase. Such work starts with a process to envision what the site could be, with what-if glimpses of its evolution driven by a new purpose: to offer possibilities of hopeful futures.

As this process has unfolded, I have frequently found myself thinking of it as creating a Place of First Resort – a site for engagement with, and immersion in, the life-affirming project of the restoration of planetary systems.

The Alcoa site – a recent history

Many who read this will know of the Alcoa mine and power plant. It shut down in 2015. It has become a remarkable example of on-going restoration by the company, standing in real contrast to the abandoned state of many thousands of other mining sites right across Australia. Many will remember as well that Alcoa presented plans for its future as a public space when it announced its closure. The Victorian state government developed a zoning plan for ten sections of the site, permitting various conservation, recreation and eco-tourism uses. Then a highly charged proposal known as EDEN Anglesea was much heralded by Alcoa and its partner, the EDEN centre in Cornwall, UK. EDEN proposed to develop a central section of the site as a tourist park, a gated-entry experience space for upwards of 5000 ticket holders per day.

To put it in the nicest possible way, that 2016 EDEN scheme for the site now reads like something from a bygone era. It required hundreds of millions of dollars in private or state capital investment. Many significant challenges were never adequately addressed – like transport congestion and where its 'Place of Last Resort' would be for 5000 visitors in the event of a wildfire emergency. Its 'themes' referenced environmental education, but they now seem so superficial in the context of the urgent challenges facing the Great Ocean Road (GOR) region in Victoria. It quickly gained the moniker of a 'theme park'.

Our view, echoed by so many Anglesea residents and GOR-related bodies, is that there is a vacuum in ideas for the future of the site and it is time for a new vision.

A new approach to rethinking the site

Over the latter part of last year, the RTL developed a project outline for the site – an open brief for design speculation that drew in an ever-widening group of 'knowledge partners' with strong connections to regenerative research and the Great Ocean Road, and a real interest in 'the potential of the site as a catalyst for transformation change'.

The initial site brief was quite extensive, but it can be summarised as aiming to:

- bring about a slow, progressive transformation of the

site as a mostly public space development with the community;

- provide recreation and nature-space opportunities for the people of Anglesea;
- allocate 'retreat spaces' for essential community facilities for Anglesea that will be lost to climate-related coastal erosion and sea-level rise;
- provide for public education, research and experimentation in regenerative futures (with universities and other agencies);
- create a 'gateway' site for the GOR, with a major role to provide an immersive and transformative experience for visitors, expanding their appreciation of the fragile nature of the GOR region and its deep-time history;
- act as a hub, able to expose and amplify projects, actions and proposals, across the GOR region (and beyond) that aim for regenerative transformation;
- support the GOR destination to move rapidly from extractive tourism towards a model that views tourists and tourism providers as regenerative agents (with tourists conscious of the impact of their visitation and acting to restore systems).

The regenerative tourism focus for the site aligns with the purpose of the Victorian Act that brought the GOR Authority into being: Enshrining a commitment to the protection of the precious history, natural systems and communities of the GOR region and increasing its value as a visitor destination. Regenerative tourism is not a new concept or objective; the Routledge Handbook of Eco-Tourism succinctly quotes a 2018 tourism innovation report from the USA:

sustainability as we know it is dead. Doing less harm is no longer enough. The future of sustainability lies in regeneration: seeking to restore and replenish what we have lost, to build economies and communities that thrive, and that allow the planet to thrive too.

The GOR Authority talks in similar terms of the need for 'conscious' tourism.

Learning about regeneration, restoration, replenishment and transformation infuses all components of a new vision for the site. It is all about 're-connecting' broken systems. Pathways allow for local walking and bicycle access from the town. Day visitors and GOR tourists coming by vehicular transport would enter the site via a portal of reality and hope, aimed to sensitise those who pass through to a new appreciation of scale: physical (human/non-human...); temporal (geological /evolutionary/first-nations history/post-colonial land use...). A visitor centre would include exhibition space for creative work on nature and natural systems; there could be offices for local and regional

environmental education organisations, facilities for researchers, an auditorium, local regenerative entrepreneurial businesses, and so on.

Connection from this site is also to other places' regenerative projects, right across the GOR region and beyond. Many of those projects are small and often unobserved outside their local area. We have started a process to map them; they span action on land and nature, water, food, energy and new ways of living. Many are inspired by, or linked to, Aboriginal knowledge and practice.

Some features of the future Alcoa site

All parts of the site – and all the future glimpses of transformation that have been developed – are informed by ideas of connection, storytelling, sharing and learning. Three such 'glimpses' illustrate how those ideas and the design objectives *could* materialise.

1 The old Alcoa chimney stack: a lighthouse and lookout

The old stack provides a 360° view of the exceptional and the fragile, of the land and ocean ecosystems of the GOR region. Climbing external circular stairs to the top (110 m high) brings visitors to a viewing platform. There, through high-tech binoculars, line-of-sight distant views of, for example, Budj Bim, are overlaid with information about what's in view, the ecology and cultural history of Tae Rak lake and the aquaculture centre.

Any sites of regenerative action along a sightline would randomly spring into view – again with overlaid information. For example, 'viewing' the Painkalac Estuary could bring into sight a rewilding regeneration project of Lot 2 Bamba Road. 'Looking onto county', would present Gunditjmarra or Wadawurrung stories of deep time associations with any wedge of land within the binocular's lenses.

At various points on the lookout platforms, real-time audio is transmitted from microphones strung in some of the forests, ocean and rivers of the GOR. AI systems help interpret what sounds are produced by what life forms.

For those unable to climb to the lookout, the wall inside the old stack (a space over six metres in diameter) displays a feed from the binoculars above for visitors to see what people are looking at. This is the camera-obscura room of the lookout.

On the underside of the top platform – during daylight hours – there is a simple 'status signal' whose colour communicates how the GOR region is tracking against critical sustainability indicators – a 'lighthouse' of sorts. The red light in the image shows that the region is not meeting its state-government legislated greenhouse gas reduction targets. (More detailed information about that data is on display in

the Visitors Centre, along with energy production and consumption for the region and its towns, and so on.)

2 Solar cultivation

The large north/NNW/NNE facing slopes above the old mine site and its water body should become a medium-sized solar energy farm. This solar array is specially designed to support vegetation growing under the panels, with enough height to allow for 'farming'. Half of the array has native vegetation under its canopy (linking to an existing revegetated area) with a vermin-proof fence providing a sanctuary space for endangered species (of particular interest to some of the project's knowledge partners). The other half of the array supports horticulture for the site's cafe. There is an energy demonstration centre at the Anglesea end. Amongst general energy information, this centre will feature a countdown to the date when the cumulative renewable energy produced by the solar farm is greater than the cumulative energy generated from fossil fuels during the Alcoa operation.

The renewable energy from the array feeds into the Anglesea grid. A local community group have proposed adding pumped water storage to the system, which could be designed not just to store excess solar energy but to be a demonstration of how simple such a 'gravity' battery can be.

Various business models for this solar installation are being explored; options will be presented in the site vision document expected by August this year.

3 The water body

Currently the old mine is around 18 per cent filled with water, essentially from rainfall. The future 'lake' that appears on various plans for the site (and as a feature of the EDEN proposal) would take many decades to fill relying on rainfall. In our visioning, this very slow accumulation of water becomes a feature of the site's education ambitions (about different temporal scales).

The existing water body is quite acidic and not safe for swimming. We envisage 'fencing it off' in an ingenious way. A floating boardwalk will be constructed to run around the edge of the existing water. This walkway has a fence on its inner, water, side. Three floating ramps connect that board walk to a cycle/running path that follows the edge of the final lake.

The land between the boardwalk and the 'final' water's edge will be planted as a community project. As rainfall slowly fills the mine, the boardwalk will start to float and wetlands will develop on its outside. By, say, 2050, the floating boardwalk will show the outline of the 'old' water body of 2025 (it will be fixed in place by those three floating arms connecting it to the outer running track). Runners and walkers will be able to cross the lake as they move around the floating and fixed paths.

Information along the walkway will show data on how much rainfall the site has received, the current water volume, the amount lost by evaporation, the height of its surface relative to sea level, and so on. Back at the Information Centre an ongoing competition will invite visitors to guess where the circumference of the slowly filling water body will be in future.

Various experimental processes undertaken by research partners will attempt to naturally change the pH of the water with information on progress visible to all who venture out on the boardwalk. Local residents have suggested the creation of floating gardens to demonstrate what plants can live with acidic water. Such gardens could reduce evaporation.

Note about filling the water body

Many readers will know that Alcoa (and EDEN) have had plans to fill the mine quickly with water from sources other than rainfall. There are current proposals that suggest that extraction of water from a nearby aquifer could be a way to fill the 'lake' within a decade. Such proposals are naturally beset with uncertainties. We have assumed that, at a time when climate change is making rainfall patterns more and more uncertain, it would be hard to achieve a social license to extract water to fill the mine (as distinct from using it for farming, for example). Anglesea and Aireys are currently experiencing a period of very low rainfall and climate uncertainties will increase across the country.

At this time aquifers and underground basins are very much in focus when it comes to extraction of water or, in many other mining sites across the county, activities that could lead to contamination and the unexpected transport of pollution.

Access to water is always emotionally charged. Any project for this site focused on regenerative action is surely required to explore design options and futures that would alleviate the need to fill the mine from sources other than rainfall. Our proposal (which will be the focus for much more detailed design later this year) is one solution that avoids the need to acquire water in ways that could generate community, scientific and political debate.

But wait, there's more

Other intriguing ideas include:

- a 'networked botanical garden' – linked to all those post-colonial botanical gardens that had an important civic place in the development of regional towns across Victoria;
- a Wadawurrung arboretum;
- a retreat space for the (GORCAPA owned) Anglesea campground;
- research centres for soil-carbon and wetlands;

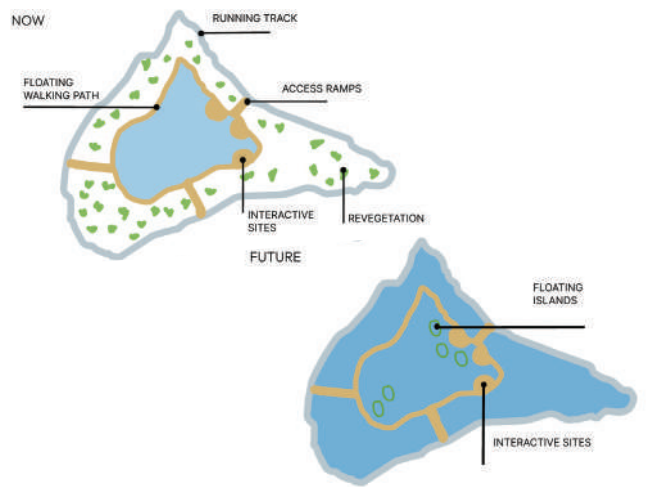
mycelium; regenerative tourism and citizen science; citizen contributions to data gathering for the GOR.

Those who know of the CERES project in Brunswick: think of the future Alcoa site as CERES mark 2.0.

Next steps

After feedback and more community ideas for this broad conception of the site’s potential there will be further iterations with design teams and community input to explore what might be possible. One such iteration will involve a collaboration of one of the project’s knowledge partners, AURECON (a design, engineering and advisory company aiming to create a better future for people and the planet), working in global teams starting in October 2024. Fill the space with ideas and proposals! A full Site Report with Images will be released in August.

Chris Ryan



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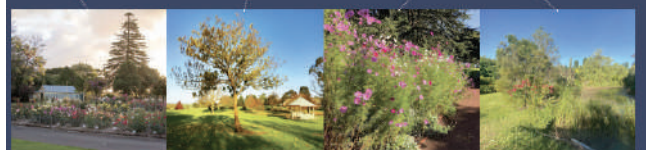
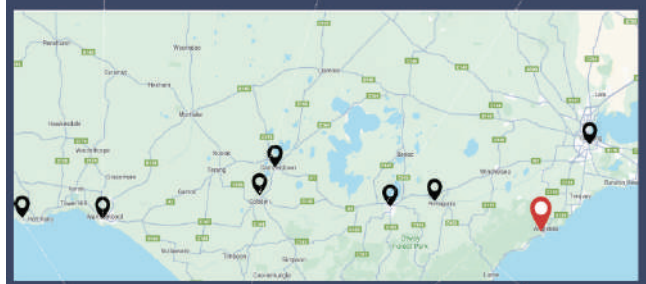


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