

## **Solastalgia and the Brandy Hill Quarry Expansion.**

### **Solastalgia**

Solastalgia is the lived experience of negative environmental change (Albrecht 2005). As a psychoterratic (psyche-earth) experience and emotion, solastalgia is now well established in the global literature on place and its transformation in relation to human mental health (Galway et al 2019). I have defined solastalgia as:

*... the pain or distress caused by the loss of, or inability to derive, solace connected to the negatively perceived state of one's home environment. Solastalgia exists when there is the lived experience of the physical desolation of home (Albrecht et al 2007: 96).*

Solastalgia has its origins in the experiences of people in the Upper Hunter Region of New South Wales. In the late 1980s and the 1990s, while an academic at The University of Newcastle, I had been studying the environmental history of the Hunter River and the record of the pioneering ornithologists, John and Elisabeth Gould who had visited the area in 1839-40.

What struck me most of all in the history was the constant reference to the beauty of the landscapes of the Hunter Valley and the richness of its flora and fauna. Although land in the Valley was being taken from the Wonnarua people and cleared for agriculture, in the mid-nineteenth century it still had huge amounts of relatively untouched land that was in its pre-colonial state.

As European colonisation took hold in the Upper Hunter, farming families developed a strong sense of place and identity around rural villages, a couple of larger towns servicing agriculture and hundreds of relatively isolated farmhouses on acreage. The dairy, viticulture, cropping, thoroughbred, fruit and vegetable industries all thrived. A rural sense of place was built around productive landscapes in a pristine location that included clear, starry night skies. The region was once described as "the Tuscany of the South".

As the coal industry moved into the Upper Hunter, the sense of place in the farming community came under assault. Open-cut black coal mining has huge negative impacts on virtually everything it touches. There are the explosions as the 'overburden' is removed, terraforming of spoil heaps, massive amounts of dust and noise from the draglines and trucks that move dirt and coal, water quality impacts from the coal 'washing' to produce 'clean coal' and particulate pollution from the trains that move the coal to the port of Newcastle on the coast.

In addition to the mines there are two massive power stations in the Upper Hunter and they too produce their own pollution in the millions of tonnes per annum. It was clear to me that this part of Eastern Australia was being invaded a second time, and the invaders on this occasion were the multi-national coal miners and the power utilities of the State Government of NSW.

The people in the Upper Hunter were distressed by what they were experiencing and I felt that they needed a new concept in the English language to give adequate expression to their feelings. 'Distress' was used in too many contexts and 'eco' had already been put in front of too many words.

Solastalgia was created by me in 2003 to acknowledge the chronic, negative emotional relationship between people and place that had emerged between the state of the earth and human mental states in the Upper Hunter. Ecosystem health was being degraded and at the same time, many people in the region were experiencing the desolation of their own sense of well-being and identity. Solastalgia had its origins in the direct social impact of mining and power station development in the

Upper Hunter. Unfortunately, solastalgia can be applied to many other instances where people and place are impacted factors that cause negatively perceived environmental change.

### **Solastalgia and Case Law**

Solastalgia has been used to explain the distress of citizens to the Land and Environment Court of NSW. I was an expert witness for the Bulga Millbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited [2013], and my task was to convince a judge that issues like sense of place matter and that they cannot simply be dismissed because they are not assessable in dollar terms. I presented testimony from people in the affected community about the impact of the existing mine and how those impacts would be made intolerable should the mine be expanded. I explained that, in essence, solastalgia meant the personal and community distress associated with a loss of sense of place. The judge, Justice Preston, agreed with me. In rejecting the expansion of the mine, he concluded:

*In relation to social impacts, I find that the Project's impacts in terms of noise, dust and visual impacts and the adverse change in the composition of the community by reason of the acquisition of noise and air quality affected properties, are likely to cause adverse social impacts on individuals and the community of Bulga. The Project's impacts would exacerbate the loss of sense of place, and materially and adversely change the sense of community, of the residents of Bulga and the surrounding countryside. ([NSW L&EC 2013](#))*

The key elements of the Bulga decision regarding social impacts were incorporated into the case of Gloucester Resources Limited v Minister for Planning (2019) where Justice Preston again argued:

*In this case, the exploitation of the coal resource in the Gloucester valley would not be a sustainable use and would cause substantial environmental and social harm. The Project would have high visual impact over the life of the mine of about two decades. The Project would cause noise, air and light pollution that will contribute to adverse social impacts. The Project will have significant negative social impacts on people's way of life; community; access to and use of infrastructure, services and facilities; culture; health and wellbeing; surroundings; and fears and aspirations. The Project will cause distributive inequity, both within the current generation and between the current and future generations. ([NSW L&EC 2019](#)).*

In addition, Justice Preston included considerations of solastalgia in his sustainability assessments of the social impact of negative change on residents. He reported, regarding the community's expert witness on social impacts:

*Dr Askland observed that the proposed mitigation strategies in the social impact assessment will do nothing to address the social impacts of topophilia and **solastalgia**. The mitigation strategies are based on a logic that disregards the lived experience of place and the strong emotional bonds that individuals form to their physical environments. Dr Askland considered that the mitigation strategies will in themselves be detrimental in terms of social impacts related to amenity, scenery and sense of place (Askland report, [142]). ([NSW L&EC 2019](#)).*

It is now the case that what I call "psychoterratic" (psyche-Earth) (Albrecht 2019) impacts, particularly solastalgia, are an accepted component of social impact assessment in NSW. Importantly, this domain of impacts, previously neglected in SIA, is now a possible important component of the rejection of development applications.

## **The Brandy Hill Quarry Expansion.**

With respect to the social impact of the Brandy Hill Expansion Project, the many precedents set by the Bulga and Gloucester cases are relevant. There are existing mining-related issues that cause solastalgia, understood as negative sense of place issues, for the residents in the zone of affectation. The cumulative impact of these impacts constitutes an amenity and health burden on people who have a reasonable expectation that their lives should not be negatively changed in such a way.

For there to be even greater impacts due to the expansion of the quarry, including the proposal for 24/7 year-round operations, a 30 year life-span, further blasting and crushing noise, increased truck movements (including for the new concrete crushing plant) and an increased dust footprint will exacerbate what is already a major suite of impacts on the citizens of the affected areas.

I foresee that citizen's sense of place will be violated at a level that is intolerable. No reasonable notion of amenity can accept 24/7 year-round impacts on semi-rural people who are within direct mining impacts and transport corridors being used by heavy haulage trucks.

In addition, the impacts on the remnants of the natural environment are also a cause of distress in local people who are sensitive to the value of biodiversity and the need to protect it. The local area has been subject to savage drought during 2018-2019-early 2020 and extreme heat issues due to climate change. Endangered local species such as Koalas and the trees they feed from (e.g., Grey Gums) have been severely affected by climate change. The mine expansion adds yet another layer of stress on an already stressed landscape. In turn, in addition to the emotional distress caused by impacts on humans and their built environment, there is an emotional burden carried by people who value their natural heritage. The proposed expansion will be a large negative impact on the local environment and those people who value its ongoing existence.

Finally, while not in my field of expertise, the impacts of the quarry on Indigenous heritage, are another component of SIA often neglected or ignored and a cause of psychoterratic distress in Indigenous Australians. The violation of 'sense of place' is a vital part of the Indigenous experience of the colonisation of Australia. There may well be a solastalgic component to the Indigenous experience and understanding of the expansion of the Brandy Hill quarry.

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