

# Fivefold Vision for Munibung Hill

## Acknowledgement

Munibung Hill Conservation Society takes this opportunity to acknowledge the First Peoples of the Awabakal culture who acted in a custodial manner, such that for 65,000 years the land was held in common, was not vacant and had standing<sup>1</sup> as a revered part of country.

We pay respects to elders past, present and future.

We acknowledge that the custodians in more recent times have watched a decline in native plant and animal diversity.

With the insights that our more recent understanding of indigenous culture brings - and the application of earth law principles - we undertake to work in concert with the current custodians in a spirit of reconciling our past practices with our future aspirations leading to an attitude of respect and a plan of care for Munibung Hill.

Unless somebody leads, nobody will.  
It's axiomatic. Why not us?

Ray Anderson, Founder and Chairman, *Interface Inc.*



### Munibung Hill - The Place

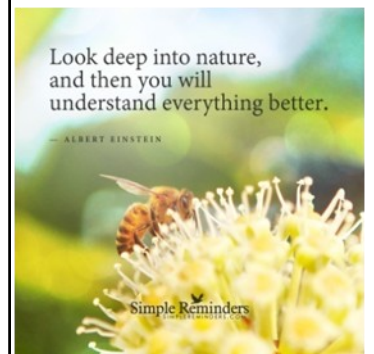
**Situated** between Macquarie Hills / Cardiff to the north and Speers Point / Warners Bay to the south

**Entry** points from three sides are not marked

**Most tracks** are there and back as the map indicates, but there are **some circular** walks on the south-west side.

**Grades** range from easy to moderate with some steep sections

**Distances** range from 300 metres to 2km, with a total of 4.5km



<sup>1</sup>Christopher Stone: **Should trees have standing?** 3<sup>rd</sup> ed., OUP, 2010

# Fivefold Vision for Munibung Hill

Geological and Cultural Heritage Park  
Conservation area / Nature reserve  
Visitor Economy  
Rest and ReCreation area  
Observatory and Planetarium site



Taken on a 12 km run over Munibung Hill by Scott Alder

## The Plan

This Fivefold Vision sets out a plan for Munibung Hill to be reinstated as a culturally significant site and for the reintroduction of some plant and animal species that were present pre European settlement.

The Five aspects acknowledge the diverse interests within the community that the Munibung Hill Conservation Society (MHCS) embraces. This extensive ongoing consultation process has demonstrated that Munibung Hill warrants a much greater level of care than she is currently receiving.

It is now time to give back. She is entitled to have us substantiate the sentiments stated in the acknowledgement to country that is spoken so freely at all public events.

Without implementation they are but gestures cast in the sand that are so easily erased or 'scrubbed out'<sup>2</sup> - part of the art of forgetfulness<sup>3,4</sup>.

For the purpose of establishing the standing of Munibung Hill as an enduring geological landscape, MHCS believes that a collaborative and integrated approach in the framing of a holistic plan is a necessary first step. The community of interest that values beyond measure the intrinsic qualities of Munibung Hill is our *raison d'être*.

Each aspect of the Fivefold Vision is sufficient validation for Munibung Hill to be given special attention within our social, cultural and economic plans. Attempting to separate out each of the Visions into discrete segments is like trying to dissect or carve up the human person all the while knowing that the whole is greater than the sum of its parts. Each intersects the other. Each complements the other.

When the five parts are viewed as a whole, we believe this justifies the right of Munibung Hill to be allocated resources sufficient to carry out a care and regeneration program whereby she is restored to a semblance of health not dissimilar to that which she enjoyed pre 1788. This is well within our capacity from a material wealth and social justice perspective.

## This Fivefold Vision for Munibung Hill

meets the Community Values of many key focus areas as set out in  
**Lake Macquarie City Council's Strategic Plan 2017-2027 – Our future in Focus**  
as well as contributing to many Strategic Goals as set out in the

**Arts, Heritage and Cultural Plan 2017-2027 – Culture Makes Life Worth Living**

The Fivefold Vision also meets the Key Strategic Priorities as set out in  
**Lake Macquarie City Council's Destination Management Plan 2018-2022**

**Our future in Focus:** *Unique Landscape; Lifestyle and Wellbeing; Mobility and Accessibility; Diverse Economy; Connected Communities; Creativity; Shared Decision-Making*

**Culture Makes Life Worth Living:** *Strategic Goal 1: Celebrate Aboriginal and Torres Strait Islander culture; Goal 2: Develop our City's visual identity; Goal 3: Champion local heritage and history; Goal 5: Actively encourage creative learning and experience; Goal 6: Continuously improve Council's cultural facilities, programs and teams; Goal 7: Foster open communication, partnerships and leadership; Goal 8: Value and support our creative industry and cultural economy; Goal 9: Communicate our culture: be local, aim global.*

**Destination Management Plan:** *Key Strategic Priorities 1: Deliver unique visitor experiences to enable growth in tourism; 2: Develop innovative techniques to increase Lake Macquarie's exposure; 3: Consolidate existing visitor segments and broaden the visitor market base.*

<sup>2</sup>Bruce Pascoe: **Dark Emu, Black Seeds**, 2014

<sup>3</sup>WEH (Ted) Stanner: **After The Dreaming**, ABC Boyer Lectures, 1968

<sup>4</sup>Anna Clark: **The 'great Australian silence, 50 years on'**, The Conversation, August 2018

# 1. Geological and Cultural Heritage Park

## Geological aspects ...

Munibung Hill is an asset as a scientific, research and education site, with the capacity to inspire people because of her aesthetic qualities and features. Being of the late Permian era, she pre-dates the breakup of Gondwanaland and the age of Dinosaurs. At 251 million years of age, and 41,500 times older than the adjacent Lake Macquarie, Munibung Hill is a valuable local example of geodiversity.<sup>5</sup>

The geological aspects of Munibung Hill provide us with the opportunity to showcase deep time. The installation of strategically placed interpretative signage would act to correct the imbalance that currently exists within our story of human society, where great store is placed on the things that move, the busyness and complexities of our urban lifestyles. It is not uncommon to hear hilly landscapes described as nothing more than goat country – especially if there are rocky outcrops or steep slopes not suitable for agriculture. Nothing could be further from the truth, it is the living soil and the non-living bedrock that is the foundation for all the action on the surface. The links that can be demonstrated between geodiversity and biodiversity make Munibung Hill an evolving learning laboratory that has already been identified as such by our educational partners.

“Ecosystems depend entirely on their non-living parts be they bedrock, landforms, soils or related processes. Geo features can also have their own values irrespective of their relationships with biodiversity. However there would simply be no biodiversity without geodiversity.”<sup>6</sup>

And when earth features are destroyed, reconstruction is nigh impossible, making it ever more urgent to retain and treasure what remains.

“Most people would consider that earth features are rugged and do not need to be managed. In the abiotic or non-living world, in contrast to biotic or living things, features are typically fossil or develop so slowly that degradation is permanent and destruction, or extinction, of an important site can occur with the passing of one bulldozer blade, the removal of specimens, by collectors for example, or poor land management”<sup>7</sup>

Munibung Hill is also significant in possessing cultural and spiritual values within indigenous communities.

“Geological and geomorphological features have been valued for many thousands of years by indigenous Australians. They were obviously a part of their everyday life but also formed important landmarks for navigation, provided shelter, art sites, burial locations and places to sit and consume meals.”<sup>8</sup>

The increasing number of visitors to Tasmania’s national parks that contain significant geological areas, is testament to how carefully crafted tourist information can work to drive up tourist numbers and support local businesses who service them.

“To assist with the communication of the fascinating history of the earth and our continent to the large majority of people, who find deep time truly daunting, the links between geodiversity and biodiversity need to be emphasised. This would assist people to value the non-living environment. It would facilitate a greater appreciation of natural diversity and provide a pathway for the general public to better understand the complexities and wonders of our geological history.”<sup>9</sup>

## Cultural aspects ...

Bruce Pascoe points out, that:

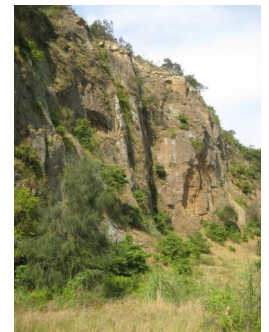
“If we are to attempt to understand Indigenous philosophy it has to begin with the profound obligation to the land.”<sup>10</sup>

The significance of Munibung Hill within indigenous culture is without question.

“Overlooking Boolaroo, Brooks Mountain, is the highest point on the map. It was named after William Brooks a settler who had opened a coal mine there on land that had been given to him as a Crown grant. The Awabakal Aboriginals who had been dispossessed of their land around Lake Macquarie many years earlier, would not have understood this kind of ownership, because they believed that the land, and all that was on it, belonged to everyone – to them, their ancestors and generations to come. Nor would they have understood the folly of killing the land that provided sustenance – what the white man so often called ‘progress’. Today the place is known again by the name the Aborigines used, Munibung Hill.”<sup>11</sup>

Munibung Hill is part of the storylines passed down through the centuries from times before humans walked its slopes and ridges. First People culture is our best way of connecting with this timeless land, since they were the keepers of her revelations.

“Munibung Hill was, and continues to be, an important place to the Aboriginal community. It was once the location of a number of stone arrangements and traditional stories regarding their origin have been recorded. Threlkeld (in Gunson 1974) reports that the Aboriginal name for the hill was ‘Kona-konaba’ and that it was a place where ochre was obtained.”<sup>12</sup>



<sup>5,6,7,8,9</sup> **Conserving Geodiversity, the importance of valuing our geological heritage.** Michael Pemberton, Senior Earth Scientist, Tasmanian Parks and Wildlife Service (TPWS) [http://dpiwwe.tas.gov.au/Documents/geocon\\_abstract.pdf](http://dpiwwe.tas.gov.au/Documents/geocon_abstract.pdf)

<sup>10</sup> Bruce Pascoe: **Dark Emu, Black Seeds**, 2014

<sup>11</sup> Charles Drazin, **Mapping the Past: A Search for Five Brothers at the Edge of Empire**, 2017

<sup>12</sup> Umwelt Environmental Consultants **Aboriginal Cultural Heritage Issues – Former Pasmenco Cockle Creek Smelter Site** December 2004

This extract from Umwelt Environmental Consultants, 2004<sup>13</sup> confirms the connection of the Aboriginal community with Munibung Hill:

"Threlkeld also refers to this hill during a discussion about high places tending to be held sacred by many cultures around the world: 'The only thing I have ever noticed, as rather puzzling to account for on a high hill, or rather range of hills, was a circular erection of stones, of about five or six feet diameter, and two or three feet high, evidently built, but not cemented with anything. At first I thought it was a burying place, and searching a little distance on, say a quarter of a mile another mound, and afterward several more were discovered. I took two or three heaps to pieces and dug expecting to find the remains of a human body, but there was nothing of the kind. On enquiry of my Black tutor, M'Gill [Biraban] he informed me that the tradition was, that the Eagle-Hawks brought these stones and placed them together in the form in which they were found'. (Gunson (1974) *The Reminiscences & Papers of L.E. Threlkeld*, Australian Aboriginal Studies, Canberra) page 65-66"

The Aboriginal heritage strategy, done in consultation with the Aboriginal community, said more than 40 per cent of the known Aboriginal sites in the city had been destroyed.

Places and resources of value in Aboriginal culture were "threatened by ignorance and by decisions that favour other values".<sup>14</sup> Indigenous heritage in south-eastern Australia pre-dates the oldest known heritage preserved in other parts of the world.

Munibung Hill falls into this category, simply due to her deep past and the records of Rev. Lancelot Threlkeld of the London Missionary Society (LMS): Biraban's presence, a Bora or Ceremonial site, an Ochre quarry, Stone arrangements.

Threlkeld commended Biraban's 'intelligence and steady application' to Governor, Sir Ralph Darling, who publicly honoured him at the annual conference with the Aboriginals at Parramatta in 1830 with a brass plate inscribed ...

*'Barabahn, or MacGil, Chief of the Tribe at Bartabah, on Lake Macquarie; a Reward for his assistance in reducing his Native Tongue to a written Language'.*

Today Biraban is recognised as the greatest 19<sup>th</sup> century Aboriginal scholar.

He spoke in several dialects and as such was used regularly by the British as an interpreter in the court system.



Held within the Munibung Hill community are treasures beyond measure. Some of this treasure is noted in the remainder of this report, but Munibung Hill cannot be reduced to a collection of sub-headings. The word 'unfolding' is one way of attempting to describe the beauty and complexity that is her character. The more intimate our relationship with Munibung, the more she will reveal of herself and the closer we will get to understanding why First People revered her in their lives and ceremonies.

Aboriginal Education Officers within the NSW Department of Education and Catholic Education stress the importance of truth telling when it comes to passing on the stories of what has happened to country since 1788. Working together we can be the change that brings reconciliation closer one day and one story and one child at a time.

The principal issues for future management are considered to be:

"the Aboriginal cultural value of Munibung Hill is in its landscape context. This value appears to be attributed particularly to the high ridge crest. The area is not currently accessible to local Aboriginal people, but the stories about the past uses of Munibung are well known in the local Aboriginal community. This value exists whether or not any archaeological evidence of past activities is retained;"<sup>15</sup>

**Recommendation:** That Munibung Hill be recognised for her significance as:

1. a geological heritage site\* with the installation of explanatory boards detailing the geological and geomorphological features that have taken place over her 251 million year history – including the flooding of 'country' stabilising 6,000 years as Lake Macquarie - and how these features and events have been valued for many thousands of years by indigenous Australians
2. an indigenous heritage site\* with
  - a. the installation of a memorial to Biraban in the form of a life-size bust complete with a replica of the gorget presented to Biraban by Governor Sir Ralph Darling in 1830
  - b. the creation of a memory trail with story boards. Arriving at the place on Munibung Hill where it is believed Biraban would have communicated with other tribes, the trail would be a fitting tribute to this elder within the Awabakal nation

\*Munibung Hill Heritage Park is our preferred title.



Simon Mulready\* on Twitter: "Deadly launch of our new school totem. Many thanks Uncle Nolan, Pat Dybell and @nswaecg #pride #Awabakal... "

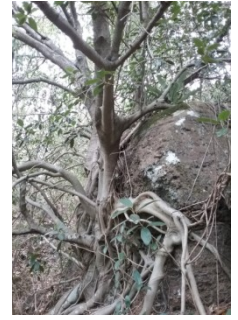
\*Principal, Floraville Public School, Oct. 2015



<sup>13,15</sup> **Aboriginal Cultural Heritage Issues 2.3.1** (Umwelt Environmental Consultants, 2004)

<sup>14</sup> <https://www.theherald.com.au/story/446829/lake-macquarie-debates-aboriginal-heritage-plan>

## 2. Conservation area / Nature reserve



Munibung Hill represents a relatively large undeveloped area in the middle of an urban landscape and should be maintained as such both for the well-being of human life in the city and to ensure the survival of all her plant and animal lifeforms. The importance of green space and green corridors in city environments has been well documented.<sup>16,17,18</sup>

Munibung's elevation provides a diverse range of natural habitats from dry open ridge tops which support an open forest dominated by Spotted Gum (*Corymbia maculata*) and Forest She-Oak (*Allocasuarina torulosa*) to moist sheltered gullies where Turpentine (*Syncarpia glomulifera*) is the dominant tree and pockets of ferns and rainforest species occur. While these species are commonly found in adjacent areas, the occurrence of Spotted Gum forest on the underlying conglomerate rock is somewhat unique in the local context. Munibung's steep slopes have in places led to the exposure of rock escarpments with some caves on both the eastern and western sides. While biodiversity on Munibung has been drastically reduced by the clearing of vegetation since European settlement, substantial portions of the original forest remain, particularly on the southern part of the hill. Bush regeneration activities in this area over a 20 year period have transformed severely weed infested areas into native forest, demonstrating what can and should be achieved on a broader scale in the future. Meanwhile Munibung provides plenty of opportunities for exploration of the natural environment. Well over 200 varieties of native plant and more than 70 bird species have been recorded in the area.

Kira Mileham, Director Strategic Partnerships, *Species Survival Commission, IUCN*, wrote to MHCS from Washington D.C. - email 17 July 2018.

*“Australia needs to reconnect with nature, whether through restoring local parkland or nation-wide conservation efforts. While Australians are becoming increasingly urbanized and spending more time indoors, our wildlife and wild places are facing a crisis. Australia has the worst mammal extinction rate in the world, with 30 native mammals having become extinct since European settlement. More than 1,700 species of animals and plants are currently listed by the Australian Government as being at risk of extinction.*

***Protecting nature at the local level is key to turning this trend around.** These efforts can preserve key habitats and green corridors which provide refuge to species and **allow our human communities to reconnect with the outdoors**; both of these are critical to ensuring a sustainable future for wildlife and people.”*

**Recommendation:** That Council take steps to gain ownership of the privately owned land presently zoned 'Environmental' and declare Munibung Hill a Conservation Area or Nature Reserve:

1. for the protection of her flora and fauna, particularly old growth 'habitat' trees
2. to ensure the maintenance of biodiversity and to be the site for the establishment of an arboretum or small botanic garden
3. to allow for further regeneration projects, resulting in the re-introduction of plants and animals
4. to fulfill an important role for keystone species within a Habitat Stepping Stone program to enhance the areas **green infrastructure**
5. to explain the story of '**nesting**' – that we are all part of a larger whole within which we find safe harbor [4,5: See Supplementary papers]



<sup>16</sup>Why Cities Should Focus on Biodiversity, 02.10.2017 | by Dr Cathy Oke  
<http://www.100resilientcities.org/why-cities-should-focus-on-biodiversity/>

<sup>17</sup>The Future of Conservation: A/Professor Peter Davies, *The Future of the Human Landscape*, Macquarie University, July 2018

<sup>18</sup>The Future of Urban Wildlife: Dr Lizzy Lowe, *The Future of the Human Landscape*, Macquarie University, July 2018  
<https://teche.mq.edu.au/2018/07/the-future-of-the-human-landscape-2018-outlook-conference/>



Clockwise from top left:

- Goanna
- Possum box
- Spotted Gum forest
- Fungi
- Grass Tree
- Access from Blaxland Road, Macquarie Hills
- Sydney Golden Wattle
- Jewel Beetles



### 3. Visitor Economy / Tourist attractions

From time immemorial humans have gone uphill to get a better idea of the landscape below and experience what those who have gone before have experienced, and this has, of course, included visiting Munibung Hill as Awabakal elder Biraban has done. Humans have been attracted to, and been fascinated by, high places for a multitude of reasons – a sense of achievement, to fulfill a challenge, to reach the summit, to take in the surrounding landscape, to get a sense of perspective.<sup>19</sup>

It has been said and not without a good deal of wisdom, that we are all visitors to this earthly place we call home. Life is a journey not a destination, so the saying goes. We are passing through, the beneficiaries of our ancestors and the determiners to a large extent – as Anthropocene members – of what our children will experience. Visitors come from all walks of life and from all localities and however they come, they contribute to the local economy. In the case of Munibung Hill, the regulars will be locals, then there are the Staycationers, the regional, the state, the national and the international visitors.

Now that Munibung Hill has a presence on the international stage, thanks to the Munibung Hill website, the Munibung Hill story is no longer hidden from view. There is the opportunity now to explore a living culture, deep time history, the wild aspects of nature, the rainforest like creek valleys, the ridges with the panoramic views, the stars and the cosmos beyond. Awaiting visitors within the surrounding suburbs is first class accommodation, great dining venues, a wonderful range of cafes and coffee shops, along with all the other attractions Lake Macquarie City has to offer – the Art Gallery, libraries, tourist parks, sporting complexes. The Tourist Information Centre at Swansea<sup>20</sup> is where visitors get an idea of the fantastic range of opportunities awaiting the tourist and why so many people make Lake Macquarie City their home. Lake Macquarie Business<sup>21</sup> functions to support small businesses, the engine rooms of our local communities, which benefits the entire region. “Let’s build a better business community together and make Lake Macquarie an even greater place to live, work, visit and do business”.

Visitors to Munibung Hill, have the potential to leave with not only great stories of their visit but also a heightened sense of awareness of how their lifestyle choices can play a role in habitat preservation and cultural understanding wherever they call home.

**Recommendation:** That Munibung Hill ...

1. provides ideal locations for the siting of visitor viewing platforms permitting expansive panoramic views across the four points of the compass to the Lake and surrounding ‘country’ ;
2. has within her store a range of attractions meeting descriptors such as: tourist attraction, plant lovers’ haven, bird observers’ dream, family friendly rest areas, walkers’ circuits, astronomers’ go-to site. Therefore from a visitor economy perspective it is recommended that Munibung Hill ...
  - a. be acknowledged for her geological status that has attracted humans to explore her makeup and how this has resulted in a variety of land uses across time (see Vision 1)
  - b. be acknowledged for her status as revered country from an indigenous culture perspective (see Vision 1)
  - c. be allowed to show off her plant and animal communities that have existed across 2,400 human generations and beyond this back to the time of the dinosaurs into deep time (see Vision 2)
  - d. provides wonderful opportunities for the installation of walking and bike trails, family picnic areas, rest and reCreation spaces – leading to improved outcomes for human health and wellbeing (see Vision 4)
  - e. provides the ideal location for siting of the Lake Macquarie Stardome, including the provision of facilities such as café and a garden setting for outdoor eating and socialising (see Vision 5)



<sup>19</sup> 5 reasons why you should scale a mountain. <https://www.bookallsafaris.com/news/mountain-hiking>

<sup>20</sup> <http://www.visitlakemac.com.au/explore-the-city/visitor-information>

<sup>21</sup> <http://lakemacbusiness.com.au/>



## Australia's Great Outdoors Needs to be more Accessible for Nature-based Tourism

August 9, 2017 – Environment / Parks / Tourism

Australia's potential as one of the world's leading nature-based tourism destinations will not be realised unless there is significant investment in making the wealth of our natural treasures more accessible to tourists, according to a new paper from the Tourism and Transport Forum (TTF).

Releasing the paper, *Unlocking our Great Outdoors*, TTF Chief Executive Margy Osmond said that the report will make an important contribution to the debate around how Australia's natural areas can best be conserved while also unlocking the economic benefits that can be delivered by nature-based tourism.

Osmond stated "we are one of the most beautiful destinations in the world but if we do not make that beauty more accessible we will miss out on a potential pipeline of new tourism dollars especially for regional Australia.

"There is no doubt that nature-based tourism across Australia is already big business, with last year alone seeing more than 25 million domestic and international visitors engaging in some form of nature-based tourism and spending \$41 billion on nature-based activities.

"It is also a key driver of regional economies and jobs growth, with just under 100,000 people directly and indirectly employed in nature-based tourism across Australia's 15 premier natural regions. "However, our research has found that we are only just starting to scratch the surface of the potential for nature-based tourism in Australia.

<https://www.ausleisure.com.au/news/australias-great-outdoors-needs-to-be-more-accessible-for-nature-based-tour/>

### Ecotourism ...

Seven factors of which the first is:  
Can drive regional economies and create jobs

<https://www.ecotourism.org.au/assets/Uploads/Manifesto-v5.0.pdf>

### Nature based tourism

Nature-based tourism forms a significant component of Australia's visitor economy, ranking among top travel motivators for international visitors to the country.

*Economic Contribution and Potential:* In the year ending June 2017, 69 per cent (or 5.4 million) of international visitors engaged in some form of nature-based activity. The top international nature-based markets were China (17 per cent), the United Kingdom (10 per cent), New Zealand (10 per cent) and the USA (9 per cent).

<http://www.tourism.australia.com/en/markets-and-research/industry-sectors/nature-and-wildlife.html>



Birds clockwise from  
above left:  
Brown Goshawk,  
Green Catbird,  
(the elusive) Whipbird,  
Eastern Robin



## 4. Rest and ReCreation park

There is no substitute for the natural world in spite of all our virtual reality shows and nature documentaries. We need a balance between our indoor social activities and a healthy dose of fresh air, open space and unsanitised nature which Munibung Hill offers in abundance for us in the Lake Macquarie area.

It's much easier to relax and unwind when all our senses can be immersed in a single activity of simply being in the bush. Children often find this much easier to do than adults. They can imagine themselves as a tree, a wallaby, a wombat or a soaring eagle. We connect with our indigenous cousins and the dances held in NAIDOC week (i.e. Cardiff High School where Aboriginal students acted out being native animals and then challenged teachers to follow suit). The inspiration and final actions did not come from some imagined fantasy creatures but from the animals within their deep time history.

An antidote to life's stresses can be obtained free-of-charge with a walk in the bush on Munibung Hill.

When we think of parks, we think of places for people to recreate and connect with nature and their history, but they also provide places for people to find mental, physical and spiritual health – encapsulated in social wellbeing.

Historically, the justification for the creation of parkland is rooted in public health through the provision of clean air and clean water, and also providing spaces for finding respite from the stresses of everyday life.

Parks can foster a sense of community and shared identity.

We need to think about parks holistically. To build a tectonic structure that resembled Munibung Hill would cost a fortune—but then it would not have a story to tell, a 251 million year history or an indigenous cultural heritage. Munibung Hill, while being a prime example of green infrastructure, has values that extend beyond an engineering description. That said, a geological landform that only requires care and maintenance is a very cost effective way to deliver basic health and wellbeing services.

The power of parks is that they transcend age, ethnicity, race, income, politics and geography. Space that isn't programmed for particular activities gives us freedom to explore and to discover, to see butterflies and birds and spy larger animals. We see that as a necessary part of our culture and humanity—the free space to play, to gather or to simply be by yourself. We have a need for parks and green space, and to connect with nature, just as surely as we have a need for fresh air and clean water.

**Recommendation:** That Munibung Hill provides the ideal location for:

1. establishing walking and running trails as proposed in LMCC Glendale Recreation and Land Plan, Oct 2015; See map >>
2. the installation of family friendly tracks and trails, family picnic areas, rest and reCreation spaces, time out quiet places;
3. building community cohesion through spaces suitable for the staging of festivals and special events;
4. educating us all about our shared responsibilities - encouraging Plogging as an action based community service.



*Leunig's message was clear: we are at risk of settling too easily for mediated images rather than engaging with the real thing*

Mackay, H: *The Art of Belonging*, p. 179



Munibung TRAILS with Anthony leading the group



Australian Plant Society Visit



Additional references:

**Six reasons why parks matter to health** [https://www.rwjf.org/en/blog/2016/08/6\\_reasons\\_why\\_parks.html](https://www.rwjf.org/en/blog/2016/08/6_reasons_why_parks.html)

**Maintaining Functioning Urban Ecosystems Can Significantly Improve Human Health and Well-Being**, Kathryn Campbell, Victoria. Nov. 2012 <https://www.thenatureofcities.com/2012/11/07/maintaining-functioning-urban-ecosystems-can-significantly-improve-human-health-and-well-being/>

**The Future of Environmental Psychology**: Dr Louise Metcalf, Director, Australian Research Institute for Environment and Sustainability (ARIES), presentation at *The Future of the Human Landscape*, Macquarie University, 25.7.18

From **Children in the Anthropocene**, Professor Karen Malone, Centre for Education Research, WSU: To uphold the child's right to live in a safe, healthy and clean environment with both their human and non-human companions ... The detrimental effects of the Anthropocene as witnessed through unchecked urbanization, can be seen to affect children profoundly and limit their potential for a future life. Page 67 (The Child Friendly Cities Initiative, UNICEF, April 2018 sets out strategies for building child friendly communities. Open space and conservation areas are important aspects if child friendly cities are our goal).

**Healthy Parks, Healthy People**

[http://parkweb.vic.gov.au/\\_data/assets/pdf\\_file/0003/672582/HPHP\\_state-of-the-evidence\\_2015.pdf](http://parkweb.vic.gov.au/_data/assets/pdf_file/0003/672582/HPHP_state-of-the-evidence_2015.pdf)

Further references noted in the Supplementary paper.

## Justification for public neighbourhood parks and getting outdoors

Extracts from:

### If Meditation Is Not Your Thing, Try a Walk in the Woods

There are times when I don't know what to do with myself. I feel at odds with the world, irritated by the people in it, in a funk about myself and what I'm achieving or, rather, not achieving, overwhelmed by the obstacles and complications of life. Happiness seems like an entirely elusive state of being.

At such moments, my friends know exactly what I should do. "When's the last time you've been on a hike?" they inquire gently. Of course, that's the answer. I might not feel like pulling on my hiking boots ... But what I need is the trail.

To say that I return in a better mood would be damning nature with faint praise. I'm wholly restored, optimistic, energized, almost euphoric. I sleep soundly that night.

For a long time, hiking felt like my personal mental health elixir, a magical relationship just between me and nature. The truth is that I was experiencing phenomena well known to science. Hiking is a near-perfect combination of elements known to relax us, raise our alertness, elevate our self-esteem, and physically prepare us for true rest afterward. It exposes us to sunlight, outdoors, the color green, the sound of water, physical activity, social interaction. All of these have been shown in research to have beneficial effects on our mental well-being.

[A walk in the woods] easily brings me to that sought-after state of being "in the moment." Hikers pay attention to where they are and what's going on. They have to, in order to avoid obstacles along the trail as well as such annoyances as poison oak and ivy. At the same time, the trail is a multisensory experience that calls on us to observe wildflowers, smell aromatic plants, and hear bird calls and the rustle of small animals in the brush.

That's not to say that hiking can cure serious mental illness. But research shows it's a useful adjunct to other treatments for serious emotional conditions. For mild to moderate stress and depression, nature walks have time and again been found to boost mood and banish stress.

Science says it's both the walking and the nature that make powerful medicine together.

Despite how cheap, helpful, and easy hiking is, access to nature itself can be uneven and downright difficult.

There's plenty of evidence in favor of exercise, which improves mood and reduces anxiety, releasing endorphins and raising serotonin levels. But a 2016 study in the journal *Mental Health and Physical Activity* specifically found that bouts of [outdoor exercise](#) were significantly better at lifting the mood of people with mild to moderate depression than indoor activity. Previous studies found that so-called "[green exercise](#)"—and they didn't mean golf courses—[raised self-esteem](#), especially among those with mental illness.

Exposure to sunlight alone [improves cognitive function](#), according to a 2009 study in the journal *Environmental Health*. For that matter, outdoor exercise has been shown to lead to [more vigorous workouts](#); people walk faster and longer but perceive their workouts as easier.

Other aspects of nature have a calming rather than stimulating effect; studies have found that the [colors](#) green and blue—the hues that make up most nature scenery—are relaxing, as well as the sound of flowing [water](#).

According to a 2014 study in the journal *Ecopsychology*, group walks in nature were linked to significantly lower depression and stress, as well as an enhanced sense of mental well-being.

*Karin Klein wrote this article for [YES! Magazine](#). Karin is a longtime journalist who has worked at the Los Angeles Times for 29 years, covering health, environment, education, and other topics. She's also a certified naturalist with OC Parks and the American Cetacean Society who authored the book "[50 Hikes in Orange County](#)," now in its second edition.*

## 5. Observatory and Planetarium site

Note: 5 is intended to be read in association with: Lake Macquarie Stardome - Concept Plan

Astronomy is the oldest science dating back some 4,000 years. This said, indigenous astronomy predates this by a factor of 10 at least. While indigenous astronomy could presumably be practiced in most localities since there was no light pollution, this is not the case today. Munibung Hill provides an ideal location for the siting of an observatory and planetarium.

Astronomy is vital to our understanding of our place in the universe because it extends the frontiers of knowledge. Within a social and economic context astronomy stimulates the development of new technology, much of which ultimately finds practical application. From an occupation perspective, astronomy opens doors to work within planetariums, in the field of science writing, as telescope operators, in science education, computer programming/systems support, web design, defense industry, communications industry, as well as mathematics and physics. Interest in astronomy has increased immensely since the late 1960s. The moon landing, the amazing space probes to distant planets, the Hubble Space Telescope and the International Space Station, the SETI<sup>22</sup> project, and the Shoemaker Levy comet crashing into Jupiter, have all fired the public's imagination and created a resurgence of interest in cosmology and the physics of the universe.

Astronomy is now part of primary and high school science curricula, and university physics. An observatory allows everyone, and in particular young students to see, for example, the colours of stars and the movement of the planets and their satellites, which can then be interpreted in terms of spectroscopy, physics and mechanics.

Local school students are currently denied the opportunity to explore and learn about the universe beyond the earth, apart from book based learning projects. An observatory would correct this anomaly and open up a world of experiences for them and their families. The workshop\* referred to here would be available in the Lake Macquarie region and bring visitors from near and far to patronise the observatory and planetarium.

As an integral part of the multi-faceted Munibung Hill Heritage Park complex, it would not only include indigenous interpretation areas, but also geological displays, function rooms, information centre and socialising areas including landscaped gardens with café.

There is no end of programming online that offers virtual experiences of the night sky<sup>23</sup>. It remains true, nevertheless, that to be in the thick of it is irreplaceable. And again, we reference the findings of Hugh Mackay<sup>24</sup>, that there is no substitute for meeting in person, one to one, face to face, part of a community. Just as Munibung Hill Heritage Park is perceived as a meeting place for walkers, bird observers, conservationists, HSIE students, indigenous communities and tourists, it is also a meeting place for astronomically minded people. The beauty of this facility is it allows the amateur to rub shoulders with the professional – the 'uneducated' with the educated - and provides the opportunity to explore in a safe setting, on equal terms since the same technology is available to everyone. Most people who 'know' are more than willing to share their knowing. This is community building stuff. It's possible to do it online, but it has another dimension when it happens in the flesh.

Access is vitally important in this respect. As we transition from one technology to another whole sectors of society get left behind, especially young people as well as seniors and those on low incomes. Without the means, the tools, it is hard to participate.

This public facility in the public Munibung Hill Heritage Park has generated enthusiastic support and demands inclusion.

**Recommendation:** That Munibung Hill ...

1. provides the ideal location for the siting of the Lake Macquarie Stardome, incorporating an astronomical observatory and planetarium,
  - a. including the provision of refreshments by means of a café, within ...
  - b. a garden setting for outdoor eating and socialising.
2. provides an ideal location for a *Festival of the Stars*, including celebrating the contribution of Indigenous Astronomy to our cultural heritage.



Auckland Stardome, NZ

<sup>22</sup> SETI: Search for Extraterrestrial Intelligence

<sup>23</sup> ppt: Earth in space

<sup>24</sup> Mackay, H: *The Art of Belonging*, pages 20 and 181.

\*Indigenous astronomy workshop at: <https://rsaa.anu.edu.au/news-events/news/indigenous-astronomy-workshop>



Clockwise from top:

700 people turned out to Stargazing Live at Speers Point Park at what was a nationally televised event.

Possum visits the Newcastle Astronomical Society ABC tv Stargazing Live event at Speers Point Park, May 23, 2018

One of hundreds of stargazers

Professor Brian Cox on the big screen

Pictures by Andrew Toogood, **Newcastle 360**



For many reasons astronomy is an important part of society. Perhaps the most important contribution is still the fact that astronomy makes us aware of how we fit into the vast Universe. The American astronomer **Carl Sagan** showed us one of astronomy's simplest and most inspirational contributions to society in his book, **Pale Blue Dot**:\*  
*"It has been said that astronomy is a humbling and character -building experience. There is perhaps no better demonstration of the folly of human conceits than this distant image of our tiny world. To me, it underscores our responsibility to deal more kindly with one another, and to preserve and cherish the pale blue dot, the only home we've ever known."*

Ref: **Why is Astronomy Important?** Marissa Rosenberg, Pedro Russo (EU-UNAW, Leiden Observatory/Leiden University, The Netherlands / russo@strw.leidenuniv.nl), Georgia Bladon, Lars Lindberg Christensen (ESO, Germany)  
<https://arxiv.org/ftp/arxiv/papers/1311/1311.0508.pdf>

\*earth appears as 0.12 pixel in size.



Attributed to:

Nelson Mandela, *President of South Africa, 1994-1999* and Joel A. Barker: *Futurist, The business of paradigms*, Star Thrower Distribution, 2001

# Acknowledgements

Munibung Hill Conservation Society is grateful for the opportunity to meet with a wide range of people and organisations in the preparation of this Vision paper. To everyone who has been part of our presentations and small group meetings, who expressed support and provided feedback, who suggested we get in touch with their valued associates or professional colleagues in our consultative process, 'Thank you'. This has proved that a whole lot of people love Munibung Hill and a whole lot of people think that the *Fivefold Vision for Munibung Hill* would showcase her as an outstanding landscape – in both a material and figurative\* sense.

## Affiliates and Partners

1: Groups and Organisations		
Australian Plant Society, Newcastle		School of Mathematical and Physical Sciences, University of Newcastle (UoN)
Hunter Bird Observers Club		St Pius X Catholic High School, Adamstown, Jennie Nemeth
Native Animal Trust Fund - Wildlife Rescue Service		St Paul's Catholic College, Booragul
Lions Club of Charlestown		Transition Newcastle
Rotary Club of Warners Bay		Tree Frog Permaculture
Lindough Investments P/L, Danielle Hilton		Amateur Geological Society of the Hunter Valley
Miromaa Aboriginal Language and Technology Centre (ALTC)		Astronomical Society of the Hunter
Cardiff High School		Lake Macquarie Business Ltd
Hunter School of the Performing Arts		Newcastle FLYeRS
Newcastle Astronomical Society (NAS)		
2: Individuals		
Heather and Stuart Carter	Robyn Johnson	John Hagen
Anne Kirsten	David Morrison	Lindsay Mason (3)
Wendy and Craig Patrick	Dr John Carr	Peter and Margaret Raynor
Wendy Abel	Ian and Judy Klein	Colin Lawrence
Fergus Hancock (3)	Helen Winton	Gary Oultram
Kylie Monro (3)	Judith Flanagan	Heath Richardson (4)
Greg Irwin	Graeme Mee and Merrilyn McHarg	Will Mays
Derek Philipson	Dr Richard Addinall	
Elaine Fereday	Maree McCarthy	
3: Community Consultation		
Doug Archibald		Jill Dean (Hunter Wildlife Rescue)
Rob Russell (CEO, Awabakal LALC)		Margaret Covi (Watagan Wanderers)
Rod Smith (Interim CEO, Biriban LALC)		Lachlan Storrie, (Tree Frog Permaculture)
Darryl French (AEO, Cardiff HS)		Greg Little (General Flora & Fauna Environmental Consultants)
Shannon Archibald (AEO, Glendale Tech HS)		Beth Mott (Birdlife Australia, Powerful Owl Project Officer)
John Maynard (Prof. Wollatuka Institute, UoN)		Peter Raynor (Rotary Club of Warners Bay)
Terri-Lee Darcy (Language & Cultural Co-ord. Miromaa ALTC)		Michael Riddell (Producer, Creativity Centre)
Darren McKenny (CEO Miromaa ALTC)		Charlotte McCabe (The Wilderness Society)
Maree Edwards (Aboriginal Community Development Officer, LMCC)		
Greg Piper (MP, Ind. Lake Macquarie)		John Di Gravio (Archivist UoN)
Kay Fraser (Mayor, LMCC)		Matt Poll (Asst. Curator Macleay Museum, UoSyd)
Kevin Baker (Councillor, LMCC)		Ann Hardy (History Dept, UoN)
David Belcher (Councillor, LMCC)		Howard Bridgman (Assoc. Prof. Environmental Science, UoN)
Christine Buckley (Councillor, LMCC)		Judy Messiter (Community History Officer, LMCC Library, Speers Point)
Luke Cubis (Councillor, LMCC)		Kira Mileham (Director Strategic Partnerships, <i>Species Survival Commission, IUCN</i> )
Colin Grigg (Councillor, LMCC)		Tobias Husband (Future focused Learning, Warners Bay High School)
Barney Langford (Councillor, LMCC)		

\* A landscape is an assemblage of matter and meaning in space either as an actual object on the surface of the Earth or as a representation of it. As influenced by Dutch landscape painters of the sixteenth and seventeenth centuries, the term came to mean the scenic aspect of an area, particularly as it was viewed from a single vantage point. In a global context, landscapes are the functional and symbolic sites of agglomerated economic, political, social, cultural, historical, technological, and environmental phenomena that materially and figuratively mediate global processes.

<https://onlinelibrary.wiley.com/doi/full/10.1002/9780470670590.wbeog350.pub2>

# Endorsements

*Munibung Hill is a dominant feature overlooking large parts of the city and the region, however it would be true to say that relatively few residents or visitors would give much thought to the views available from there. Well considered and sensitive use, or uses, of this prominent location could only be of benefit for the education and recreation of residents and visitors alike.*

- Greg Piper, MP Independent, Lake Macquarie

*As a bush walker I often ramble about and over Munibung Hill. Have walked it many times and lead walks for my walking club. In my view, it's a hidden treasure! It can be developed into something that young and old enjoy on a regular basis. It would attract visitors like the ANZAC walk at Bar beach, that is continuing to prove a very popular activity to do. The views from the top are breathtaking and overlooking most of Newcastle and our beautiful lake.*

*Most local people I speak to have never been up the hill. Firstly, they don't know you can, and secondly, it's not easy to get up safely, due to the erosion on steep sections that makes it dangerous to negotiate.*

*A hill as beautiful as this with million dollar views should be treasured like Blackbutt Reserve and provide healthy exercise and enjoyment. The Hill should be able to be enjoyed by everyone! Had this hill been in some other country, it would be treasured and cared for in a responsible way. Let's be positive and hope we can turn this around into something special for Lake Macquarie.*

- John Hagen, Watagan Wanderers.

*As a school community we are passionate teachers of conservation and rehabilitation in our local area. Munibung Hill is one of the few remaining green spaces in our community. It needs protection, rehabilitation and conservation from development and destruction. I see St Pius X accessing the hill for future excursions specifically for Year 9 in the Changing Places and for our Landcare students to engage in Landcare projects on the hill. In addition Munibung Hill can be used in our Year 7 Geography classes identifying liveability factors in our local environment.*

*Our aim is to support the Munibung Hill Conservation Society to ensure the protection and rehabilitation of this important historical and culturally significant site.*

- Jennie Nemeth, HSIE and Aboriginal Education Teacher

*We need to preserve and nurture every bit of remaining bush land we can, especially bush land within and between suburbs.*

- Jill Dean, Hunter Wildlife Rescue

*Our family will forever be thankful for living in this area. It has afforded us wonderful memories, and provoked a lifestyle that encourages outdoor leisure activities and a desire to discover nature. Munibung has given us so much for free. The only cost to us has been that of taking the time to drink in her beauty.*

- Robyn Johnson, Lakelands



Charlestown



Warners Bay



Newcastle Astronomical Society



St Pius X Adamstown



Native Animal Trust Fund



Tree Frog Permaculture



St Paul's Catholic College Booragul



Hunter Branch



Cardiff High School



Hunter School of the Performing Arts



## I Am - Aborigine

I am born of the land, my soul is the sun  
Nature is my mother, I am, mother nature's own son  
The wind is my spirit, running wild, running free  
The water is my mirror, reflecting visions of me  
I am like a great river that slowly runs dry  
Polluted and abused I am the river, slowly - I die  
I am a child of the earth, created from dust  
I live for the land, taking only what I must  
I am a hunter of animals, imitating their stance  
I am what I hunt, I am it's spirit in the dance  
I am a painter of walls, I am an artist of dreams  
Depicting mythological creatures, and spirits in my scenes  
I am from the never never, a long time gone by  
The Dreaming is my creation, I am at home when I die  
I own no land, for the land owns me  
That's the way it has been, how it always will be  
For I am what I am - I am – Aborigine.

*Author, Stephen Clayton*

## Bangayi ngayin bibayilin, yurakida bara bibayinan

Awabakal language

Today we walk, where once they walked.

The lepidopterist\* [Robert Pyle](#) first introduced  
the term “extinction of experience” in 1975, writing:

*“As cities and metastasizing suburbs forsake their natural diversity, and their citizens grow more removed from personal contact with nature, awareness and appreciation retreat. This breeds apathy toward environmental concerns and, inevitably, further degradation of the common habitat....So it goes, on and on, the **extinction of experience** sucking the life from the land, the intimacy from our connections... people who don't know, don't care. What is the extinction of the condor\*\* to a child who has never known a wren?”*

<https://www.thenatureofcities.com/2015/03/15/extinction-of-experience-does-it-matter/>

\*a person who studies or collects butterflies and moths.

\*\*in the Australian context read Wedge-tailed Eagle

*“When people ask me where I come from,  
I always answer planet Earth.  
I am an Earthling.  
I am related to all other Earthlings.”*

Germaine Greer, Perth Writer's Festival  
23 February 2012, +  
with Julia Zemiro, Home Delivery, ABC1 TV,  
July 2018

### Fivefold Vision for Munibung Hill

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September 2018