

TENTATIVE LIST SUBMISSION

STATE PARTY: Australia

DATE OF SUBMISSION:

Submission prepared by:

Name:

E-mail:

Address:

Fax:

Institution:

Telephone:

Name of Property: Murujuga Cultural Landscape

State, Province or Region: Pilbara, Western Australia

Latitude and Longitude, or UTM coordinates: Latitude -20.551718 and Longitude 116.835825
GDA 94 50K 482887E 7727455N

DESCRIPTION:

"We want to share our story. It is a story that reaches back thousands of generations and stretches forward into the future. It is a story about our land and our people. It tells of the endless fight that has kept us standing strong and caring for our Ngurra (Country) today."

Source: *Ngaayinthaari Gumawarni Ngurranga:*
Murujuga Cultural Heritage Management Plan
(Murujuga Aboriginal Corporation 2016)

The Traditional Custodians of Murujuga, the Ngarluma, Yindjibarndi, Yaburara, Mardudhunera and Wong-Goo-Tt-Oo groups, collectively referred to as *Ngurra-ra Ngarli*, have taken the lead in proposing the Murujuga Cultural Landscape for inclusion on Australia's World Heritage Tentative List. *Ngurra-ra Ngarli*, represented by the Murujuga Aboriginal Corporation, have prepared this Tentative List Submission in partnership with the Western Australian Government and with the support of the Australian Government.

Murujuga, the Aboriginal traditional name for the Dampier Archipelago and surrounds, including the Burrup Peninsula, is located in the Pilbara region of Western Australia. When the *Ngurra-ra Ngarli* talk about Murujuga, they talk about Land and Sea Country, which consists of a narrow peninsula of land extending approximately 22 kilometres from the mainland, a group of 42 islands, islets and rocks and the surrounding sea up to 40 kilometres from the port of Dampier (Murujuga Aboriginal Corporation 2016). With more than one million images in an area of more than 37,000 hectares, Murujuga is home to one of the most significant and diverse collections of petroglyphs¹ in the world which documents the transition of an arid maritime cultural landscape through time (McDonald 2015, Mulvaney 2015, McDonald et al. 2018). Murujuga has the densest known concentration of hunter-gatherer petroglyphs anywhere in the world (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012, Mulvaney 2015).

For the Aboriginal people of the Pilbara region, including the *Ngurra-ra Ngarli*, the petroglyphs are the work of the *Marrga*, the ancestral creator beings. They are a permanent reminder of Traditional Lore² and retain their spiritual power. On Murujuga, the petroglyphs are an inherited and ongoing responsibility of the *Ngurra-ra Ngarli* (Jo McDonald Cultural Heritage Management 2011). The songs and mythologies for many of the images, such as Minyuburru (Seven Sisters), the fruit bat and Archaic Face, have important meaning across the whole of the Pilbara region and are central to *Ngurra-ra Ngarli* culture.

Archaic Faces have a widespread distribution throughout the arid zone of Australia and includes a locally developed form on Murujuga (McDonald 2005, Mulvaney 2010, Veth et al. 2011). The Archaic Faces of Murujuga are a permanent reminder of how Traditional Lore should be followed. The presence of the Archaic Faces across the Pilbara region and

¹ In this submission the term petroglyph is used in relation to the rock art of Murujuga, noting other synonymous terms such as rock art, rock engraving, and rock carving, are used in various publications relating to Murujuga.

² In this submission the term Traditional Lore is used in relation to the body of traditions, observances, customs and beliefs of *Ngurra-ra Ngarli*, and includes any such traditions, observances, customs or beliefs relating to particular persons, areas, objects or relationships.

into the Western Desert demonstrates the importance of the deep time shared cultural practices, including through the transfer of songs and mythologies between different language groups over thousands of kilometres.

"Some of these carvings are our Lore and Culture. The Lore, it goes from here, right to Uluru, from Uluru into the desert and back again to the West. That's including the Kimberley and Northern Territory area. It's still going strong".

Source: Jakari Togo (Geoffrey Togo), Senior Cultural Ranger (deceased) 2013
Murujuga Cultural Heritage Management Plan
(Murujuga Aboriginal Corporation 2016)

The Ngarluma, Yindjibarndi, Yaburara, Mardudhunera and Wong-Goo-Tt-Oo groups, collectively *Ngurra-ra Ngarli*, are today recognised as the Aboriginal custodians of Murujuga (Murujuga Aboriginal Corporation 2016). *Ngurra-ra Ngarli* acknowledge that Murujuga was once the land of the Yaburara people who lived in the area for at least 50,000 years (Veth et al 2014, Morse et al. 2014). In 1868 a great number of Yaburara men, women and children were killed by European settlers, in an event known as the Flying Foam Massacre (Gara 1983, Murujuga Aboriginal Corporation 2016). Following the Flying Foam Massacre, when there were too few Yaburara people to care for Murujuga, it is the preceding generations of shared practices that helped maintain Traditional Lore over the area.

There is clear evidence that *Ngurra-ra Ngarli* first started living and using this part of the Pilbara coastal plain around 50,000 years ago, when the coastline was about 100 kilometres away. At that time Murujuga was wetter and warmer than it is now. The archaeological record of the coastal plain at this time reveals a faunal assemblage no longer found in this part of Australia, such as nail-tailed wallabies and crocodiles. Murujuga's artists recorded this group of animals in the engraving assemblage. During the last ice age (between 30,000 and 18,000 years ago), when the coastline was 160 kilometres away, *Ngurra-ra Ngarli* lived in the Murujuga Ranges (McDonald et al. 2018) as well as other desert refugia. Evidence of *Ngurra-ra Ngarli* living in this landscape is seen in a number of petroglyphs of animals that are now extinct, such as thylacines (Tasmanian Tiger) and a fat-tailed species of kangaroo (Brown 2018; Mulvaney 2013) which are distributed widely across the Pilbara region and into the sandy deserts. More recent petroglyphs depict fish, turtles, dugong and small marsupials that now live on the islands (McDonald 2015). The variations in petroglyphs and archaeological evidence demonstrate how *Ngurra-ra Ngarli* have adapted to the changing environments wrought by sea level rise (McDonald and Berry 2016).

The estimated more than one million petroglyphs of Murujuga demonstrate an extraordinary diversity of style, theme, mode of production and aesthetic repertoire. This art province is an inscribed landscape complete with other archaeological components, such as stone structures, middens and quarries, and provides a social context and means for interpreting the complexity of the petroglyphs (McDonald and Veth 2009).

The many stone features of Murujuga include standing stones, fish traps, stone arrangements, hunting hides and domestic structures. Some standing stones are *thalu* sites, places where ceremonies are carried out to increase and manage the social and economic benefits of natural resources (Daniel 1990). On Murujuga, stone feature sites range from single monoliths through to extensive alignments comprising at least three or four hundred standing stones (Vinnicombe 2002). *Thalu* sites are permanent reminders of the Traditional Lore.

Murujuga is sacred to *Ngurra-ra Ngarli*, it is a place where everything is connected, through the Ancestral Beings – the land, the sky, the sea, the plants, the animals, the Lore and the spiritual world. This is the belief system that underlies life on Murujuga today (Murujuga Aboriginal Corporation 2016).

Ngurra-ra Ngarli's continuing vision for Murujuga is:

"All Murujuga Land and Sea Country will be forever cared for under the leadership of Ngurra-ra Ngarli, as it has been for generations."

Source: Ngaayinthaari Gumawarni Ngurrangga:
Murujuga Cultural Heritage Management Plan
(Murujuga Aboriginal Corporation 2016)

In 2007, Murujuga was recognised as being of outstanding heritage value to the nation, when an area encompassing 36,857 hectares was included on Australia's National Heritage List under the Dampier Archipelago (including Burrup Peninsula) listing (Australian Government 2007).

Management and conservation:

"Ngaayinthaari Gumawarni Ngurrangga" (We all come together for country).

Source: Ngaayinthaari Gumawarni Ngurrangga:
Murujuga Cultural Heritage Management Plan
(Murujuga Aboriginal Corporation 2016)

Ngurra-ra Ngarli have cultural responsibility for the management of Murujuga and continue to actively manage it to keep the country healthy and people visiting safe (Murujuga Aboriginal Corporation 2016). Overall legal management of Murujuga is the responsibility of both the Murujuga Aboriginal Corporation and the Western Australian Government who engage with various Australian, Western Australian and local government agencies and other organisations to ensure appropriate and effective management and conservation measures are in place, including through formal management agreements. These agreements include:

- Murujuga National Park is owned in freehold by the Murujuga Aboriginal Corporation. The land is leased back to the Western Australian Government as national park and is jointly managed by the Murujuga Aboriginal Corporation and the Department of Biodiversity, Conservation and Attractions. It is the first national park in Western Australia to be jointly managed under the *Conservation and Land Management Act 1984* (Western Australia). The *Murujuga National Park management plan 78 2013*, together with the *Murujuga Cultural Management Plan (2016)*, provide the framework for this management model. The recognition of ongoing Aboriginal interests and responsibilities for managing country is at the core of this innovative and inclusive management approach.
- Twenty-eight of the islands of the Dampier Archipelago are vested in the Conservation and Parks Commission of Western Australia and managed under the *Conservation and Land Management Act 1984*. Twenty-five of the islands are incorporated into the Dampier Archipelago Nature Reserves with a further three reserved for conservation and recreation. Under current arrangements the day-to-day management of these islands is undertaken by the Department of Biodiversity, Conservation and Attractions. The nature reserves are managed under the *Dampier Archipelago Nature Reserves Management Plan 18 1990*, with management also guided by the *Murujuga Cultural Management Plan (2016)*.
- Industrial lease areas in the southern part of the Burrup Peninsula are governed by the Burrup and Maitland Industrial Estates Agreement (2003), which is an agreement between the *Ngurra-ra Ngarli* and the Western Australian Government.
- In 2007, the Australian Government signed Conservation Agreements with Rio Tinto (Hamersley Iron Pty and Dampier Salt Ltd) and Woodside Energy Ltd to protect and research the National Heritage values of the Dampier Archipelago. In July 2017, these parties signed the 'Deep Gorge Joint Statement' reaffirming the cooperative commitments made under each of the Conservation Agreements.

The Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* provides protection for Australian heritage sites inscribed on the National and World Heritage lists. Approval is required under this Act for any action that is likely, has or will have a significant impact on the values of a listed place. A significant impact is one that could cause a National or World Heritage value to be lost, damaged, degraded, notably altered, modified, obscured or diminished (Department of the Environment 2013).

This Act also provides for the production and implementation of plans of management for heritage places inscribed on the National and World Heritage lists. Management plans identify the significant heritage aspects of the place and how its values can be managed in consideration of World Heritage obligations, and different land-uses.

The Australian Government can protect areas and objects that are of particular significance to Aboriginal people under the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*. This Act allows the Australian Government Minister, on the application of an Aboriginal person or group of persons, to make a declaration to protect an area, object or class of objects from a threat of injury or desecration.

The Aboriginal cultural heritage of Murujuga is also protected under the Western Australian legislation and associated regulations, including:

- *Aboriginal Heritage Act 1972*: this legislation protects and preserves Aboriginal heritage and culture throughout Western Australia, including sites or objects that have been, or are yet to be, recorded on the Aboriginal Heritage Act sites register. Under this legislation, Aboriginal heritage places or objects cannot be harmed without prior approval from the Western Australian Minister for Aboriginal Affairs.
- *Heritage Act 2018*: this legislation requires that historic places, or parts of places, cannot be damaged or removed without prior approval from the Western Australian Government.
- *Environmental Protection Act 1986*: this is the guiding legislation for environmental impact assessment in Western Australia. It provides for the prevention, control and abatement of pollution and environmental harm and for the conservation, preservation, protection, enhancement and management of the environment.
- *Conservation and Land Management Act 1984*: this is the principle legislation for establishing and managing conservation reserves in Western Australia, to make better provision for the use, protection and management of these areas. A key management objective of this Act is to protect and conserve the culture and heritage values of the land and water to Aboriginal people. It also enables the Murujuga National Park to be jointly managed by the Murujuga Aboriginal Corporation and the Western Australian Government.

The *Murujuga Rock Art Strategy* (Department of Water and Environmental Regulation 2019) establishes the framework for the long-term management and monitoring of environmental quality to protect Murujuga's petroglyphs from the

impacts of anthropogenic emissions. The framework provides a transparent, risk-based and adaptive approach that is consistent with the Western Australian Government's responsibilities under the *Environmental Protection Act 1986*.

There is a high level of commitment to the management of Murujuga from the Australian, Western Australian and local governments, and non-government stakeholders, to protect and promote the values of Murujuga and seek World Heritage listing. The Western Australian Government provides ongoing funding for the joint management and protection of the Murujuga National Park and has also made a significant contribution to the Murujuga Living Knowledge Centre and associated visitor infrastructure. A Murujuga Aboriginal Corporation initiative this Centre will provide a state-of-the-art interpretive focal point for tourists interested in learning about the world's oldest living culture. The Conservation Agreements signed by the Australian Government, Rio Tinto and Woodside Energy Ltd fund and facilitate a range of projects to identify, transmit, manage and research the National Heritage values and support the Murujuga Aboriginal Corporation.

In preparing the nomination document, the Murujuga Aboriginal Corporation and the Western Australian Government will review the existing protection and management arrangements for Murujuga, update formal management plans and agreements and review the tenure and joint management arrangements of the land. While recognising the important role existing management regimes have in protecting Murujuga, the review will seek to ensure the formal management arrangements governing Murujuga are consistent, coordinated and complementary, and work to fulfil the vision of *Ngurra-ra Ngarli* by increasing their role in managing Murujuga.

"We need to work together. All language groups, through Murujuga, we'll make the dream come true. If we work together, we'll be a strong, powerful team".

Source: *Tootsie Daniel, Murujuga Circle of Elders, 2014*
Murujuga Cultural Heritage Management Plan
(Murujuga Aboriginal Corporation 2016)

Justification of Outstanding Universal Value:

Criterion (i): With more than one million images in an area of more than 37,000 hectares, the Murujuga Cultural Landscape has one of the densest known concentration of petroglyphs anywhere in the world (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012, Mulvaney 2015). Over thousands of years, *Ngurra-ra Ngarli* created the petroglyphs by pecking, scraping, rubbing, abrading, pounding and scoring the very hard volcanic rocks of Murujuga (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012).

The petroglyphs include one of the most diverse collections of engraved hunter-forager representations of the human forms anywhere in the world (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012). The human figures of Murujuga exhibit a wide diversity of styles and arrangements illustrating human activity including:

- abstract static figures
- standing, running, and squatting figures, some with sinuous arms and legs
- unusual depictions of profile figures climbing
- rare and visually stunning archaic faces.

Human figures are sometimes arranged in complex scenes that depict sacred and everyday activities, including ceremonial activities and hunting scenes (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012).

Prolific images of terrestrial and marine fauna, in plan and in profile, also occur throughout Murujuga, including macropod (kangaroo) species, many bird species, snakes, fish, turtles, crabs, crayfish and long-extinct mammals. Tracks and groups of engraved animal footprints are also commonly depicted as are a range of geometric and other abstract designs (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012).

The art uses naturalism and abstraction in the creation of images and exhibits an extraordinary array of diverse styles. The use of profile and perspective to create a sense of movement is an outstanding demonstration of the creativity and artistic genius of the Aboriginal artists (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012).

The art reveals expressions of ideation, religion, ancestral cosmology; images of the animals that have populated the Archipelago since inundation, as well as, those from before the sea-level rise. The art shows people engaged in hunting, dancing, ceremony and social union. There is a clear proliferation of stylistic diversity in critical economic resources like turtles, macropods and fish in the maritime periods. A number of these motif classes have been subject to more detailed analysis (McDonald and Veth 2006b; 2009, Mulvaney 2010, De Koning 2014, Stewart 2016).

Murujuga contains numerous sites and individual motifs which are masterpieces of human creative genius. This rock art is visually outstanding, has been produced with superlative technical skill, and has often been deliberately positioned to achieve a particularly high impact on the viewer (McDonald and Veth 2009).

The substantiation of deep antiquity in the petroglyphs of Murujuga is evident, as is the display of artistic endeavour (Mulvaney 2015). Murujuga is one of the most significant concentrations for human artistic creativity in the world, recording millennia of human responses to the sustainable use of this productive landscape (McDonald et al 2019).

Therefore: The Murujuga Cultural Landscape represents a masterpiece of human creative genius.

Criterion (iii): *Ngurra-ra Ngarli* have maintained a connection to Murujuga since the time when the world was soft and Ancestral Beings moved over the earth. The Ancestral Beings created the physical world that we know today – the landforms, the sea, the sky, the plants, the animals, and finally *Ngurra-ra Ngarli* (Murujuga Aboriginal Corporation 2016). The paths taken by the Ancestral Beings formed rivers, landforms and watercourses. As well as creating the physical world, they also created the rules and principles that *Ngurra-ra Ngarli* must live by, which is known as the Lore. (Murujuga Aboriginal Corporation 2016).

Ngurra-ra Ngarli believe that the petroglyphs are the work of creation spirit-beings known as *Marrga* who during the Dreaming times formulated the rules of social conduct for human beings to follow (Department of Environment and Conservation 2013). The *Marrga* left the petroglyphs behind as records of their existence and as evidence of the Traditional Lore they formulated (Palmer 1977, Department of Environment and Conservation 2013). It is the Lore that determines how *Ngurra-ra Ngarli* must care for country, with obligations to look after it passed down from generation to generation through the *Burndud*, the Lore Cycle Song (Murujuga Aboriginal Corporation 2016, Department of Environment and Conservation 2013).

The petroglyphs of the Murujuga Cultural Landscape are central to the continuing culture of *Ngurra-ra Ngarli* and are tangibly associated with contemporary traditions, ideas and belief systems (Jo McDonald Cultural Heritage Management 2011). To *Ngurra-ra Ngarli*, the cultural heritage and archaeology of Murujuga is not a relic of the past; the stories, the resources and spirit of the land are as alive and important today as the people are themselves (Department of Environment and Conservation 2013).

As well as being a constant reminder of the Lore, the petroglyphs are also places of continuing spiritual power. Some petroglyphs are associated with *thalu* rituals or other totemic ceremonies, others perhaps with initiation rites (Daniel 1990, Department of Environment and Conservation 2013). *Ngurra-ra Ngarli* recognise some of the standing stone *thalu* sites as being important for the regeneration of key species such as birds, fish, kangaroo and even sand flies (Jo McDonald Cultural Heritage Management 2011).

Ceremony is central to Traditional Lore and some of the petroglyphs of Murujuga portray, and are part of, Traditional Lore ceremonies. Many of the images have cultural meaning over and above straightforward depictions and would likely have played a role in education and initiation (Jo McDonald Cultural Heritage Management 2011). It is these images together with *Ngurra-ra Ngarli* understandings of them, as expressed in the annual ceremonies, that provides exceptional testimony to a living cultural tradition (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012).

It's a special place for Aboriginal people. That's where our Ancestors been walking around there before."

Source: Pansy Hicks, *Murujuga Circle of Elders*, 2014
Murujuga Cultural Heritage Management Plan
(Murujuga Aboriginal Corporation 2016)

The petroglyphs of Murujuga tell the exceptional narrative of *Ngurra-ra Ngarli's* living cultural traditions through illustrating significant transitions in human history amid changes to sea level and the surrounding environment (Jo McDonald Cultural Heritage Management 2011). More recent petroglyphs depict fish, turtles, dugong and small marsupials that now live on the islands (Jo McDonald Cultural Heritage Management 2011). The rock art of Murujuga bears exceptional testimony to the extraordinarily long-term and continuous engraving tradition of hunting-gathering and fishing peoples (Jo McDonald Cultural Heritage Management 2011).

Some of the standing stones of Murujuga are associated with increase ceremonies, *thalu*, while others were used to mark particular places with scarce resources, such as seasonal rock pools, and to mark sites of traditional significance (Australian Heritage Council 2006). On Murujuga, the standing stones range from single monoliths through to extensive alignments comprising at least three or four hundred standing stones (Vinnicombe 2002).

Murujuga's rock art and standing stones, as well as being Australia's earliest known domestic stone structures dating between 8063 BP and 7355 cal BP (McDonald and Berry 2016), are contextualized by 50,000 years of unique cultural traditions and Lore that still continue today.

For *Ngurra-ra Ngarli* the Ancestral Beings continue to influence everyday life, they affect the wind, the rain and the fertility of the land and the sea. This is why the Lore continues to be followed and the land is respected today (Murujuga Aboriginal Corporation 2016).

Therefore: The Murujuga Cultural Landscape bears a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living.

Criteria met:

(i)✓	(ii)	(iii)✓	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
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Statements of authenticity and/or integrity:

Human engagement with the natural environment is multi-layered, interactive, and changing. Across cultures and time periods this can result from a range of factors and may be accompanied by visual markers. Rock art represents a particularly striking example of human-marked physical terrain because of its sensory impact and its relative immovability (Chippindale and Nash 2004). Aboriginal cultural landscapes are living landscapes that change as time progresses, where oral tradition is the canon of proof and where changing practices of embodied experience with landscapes grow from generation to generation (Andrews and Buggey 2008).

In the context of Aboriginal cultural landscapes, any test of authenticity, must recognise, expect, and endorse changes (Andrews and Buggey 2008).

The archaeological and anthropological evidence for Murujuga is well preserved, with a high degree of authenticity. The exceptionally well-preserved cultural values of Murujuga can be found across an area of more than 37,000 hectares, comprising the majority of the Burrup Peninsula, as well as the surrounding islands of the Dampier Archipelago.

The authenticity of Murujuga, in the cultural context to which the property belongs, represents the discrete art province of the Pilbara region. In this context, the petroglyphs of Murujuga have significantly more diversity than any of the smaller Pilbara art provinces. It also best represents the rock art of this arid-coastal bioregion. While Murujuga's body of art includes representative motifs from other engraved styles in the Pilbara, it also contains singular and unique iconography found only in this place. Authenticity in form and design are expressed in the continuity, diversity and changing motifs and iconography of Murujuga petroglyphs (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012).

The petroglyphs of Murujuga have been made on the exceptionally hard, dark volcanic rock using stone tool technology. Methods of production included pecking, abrasion, incision and bas-relief. When first produced the very pale grey petroglyphs would have contrasted starkly with the dark red-brown cortex of the rock. With subsequent patination and weathering, this contrast gradually reduces. These natural processes show clearly that different phases of art, with different themes and styles were produced over a considerable time period (Mulvaney 2015). Repairs have not been carried out to any of the petroglyphs except where graffiti removal has occurred.

The petroglyphs record social and ceremonial activities at Murujuga, with Murujuga being a place where people from across the Pilbara gathered for trade, marriage, kinship, and to use the many resources that the land offered (Murujuga Aboriginal Corporation 2016). For *Ngurra-ra Ngarli* and Aboriginal people of the wider Pilbara, the petroglyphs are significant, tangible expressions of ancestral actions. This is demonstrated by mythological, linguistic, cultural and religious systems. Dreaming narratives for the coastal Pilbara and specific islands are held by senior custodians and sites are actively maintained and visited today. *Ngurra-ra Ngarli* and other Aboriginal people of the West Pilbara region have tangible links to cultural heritage and to specific archaeological sites and the landscapes within which they occur (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012).

Murujuga has a high level of integrity and received enhanced protection and management following its National Heritage listing in 2007. A detailed land-use impact study of Murujuga documented that all 40 islands included in the Dampier Archipelago (including Burrup Peninsula) National Heritage place and approximately 85 per cent of the Burrup Peninsula, retain extremely high integrity (McDonald and Veth 2006a), and contain all the attributes that constitute the potential Outstanding Universal Value of the place.

Within the National Heritage listed area, the petroglyphs are whole and intact (Jo McDonald Cultural Heritage Management 2009, 2011). Although the entirety of Murujuga has not been surveyed and recorded, there are thousands of known sites which demonstrate the potential Outstanding Universal Value of the Murujuga Cultural Landscape.

The Burrup Peninsula extends across an area of approximately 11,700 hectares. Of this, 8,074 hectares (69 per cent) is included in the National Heritage listed area, including the Murujuga National Park, an area of 5,123 hectares (44 per cent of the Burrup Peninsula). Around 5,333 hectares (46 per cent) of the Burrup Peninsula is currently zoned industrial, and a further 360 hectares (two per cent) is zoned for residential development. The National Heritage listed area overlaps around 1,565 hectares of industrial zoned land, which is unlikely to be developed. In July 2019, the Western Australian Government began transferring unused portions of this land to the ownership and management of the Murujuga Aboriginal Corporation.

While industrial development visually compromises some areas of the southern section of the Burrup Peninsula, the topography, with its deeply dissected gorges, valleys and scree slopes, means that a large portion of Murujuga, including the vast majority of its islands retain high visual integrity (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012).

In summary, the Murujuga Cultural Landscape is an intact and representative example of one of the most significant concentrations of human artistic creativity in the world, which survives through the continuity of *Ngurra-ra Ngarli* cultural and social practices and active management.

Comparison with other similar properties:

UNESCO³ and Nuria Sanz (2012), identify 62 properties inscribed on the World Heritage List which have an association with rock art of varying types. Of the 62 properties, 42 are listed for cultural values, 11 are mixed properties which are inscribed for both cultural and natural values, while nine are inscribed for their natural values only.

Thirteen World Heritage listed cultural sites recognised for their rock art are not appropriate site-types for comparison with Murujuga. These sites include:

- the stone monuments of Stonehenge, Avebury and Associated Sites, and Gochang, Hwasun and Ganghwa Dolmen Sites
- the prehistoric megalithic art of Brú na Bóinne - Archaeological Ensemble of the Bend of the Boyne
- the architectural carvings of Al-Hijr Archaeological Site (Madâin Sâlih), and Petra
- the frieze paintings of Göreme National Park and the Rock Sites of Cappadocia, and Sassi and the Park of the Rupestrian Churches of Matera
- the sculptured rocks of Fuerte de Samaipata, and Elephanta Caves.

Twenty-two of the cultural and mixed rock art properties on the World Heritage List are inscribed for being a masterpiece of the human creative genius, one of which, Tassili n'Ajjer, has an extensive collection of both paintings and petroglyphs, while Rapa Nui National Park has sculptured statues and petroglyphs.

Three rock engraving sites, Prehistoric Rock Art Sites in the Côa Valley and Siega Verde, Rock Art in the Hail Region of Saudi Arabia, and Rock Carvings in Tanum, are inscribed for being a masterpiece of the human creative genius. A further nine, primarily rock painting sites, are also inscribed for the same criterion (i), Kakadu National Park, Tsodilo, Decorated Cave of Pont d'Arc, Prehistoric Sites and Decorated Caves of the Vézère Valley, Maloti-Drakensberg Park, Rock Paintings of the Sierra de San Francisco, Prehistoric Rock Art Sites in the Côa Valley and Siega Verde, Cave of Altamira and Paleolithic Cave Art of Northern Spain, and Göreme National Park and the Rock Sites of Cappadocia. All these properties will be considered for potential comparison with Murujuga.

Fifty-one of the 53 cultural and mixed properties inscribed on the World Heritage List for their association to rock art are inscribed under criterion iii, in that they bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living, or which has disappeared. Properties inscribed under criterion iii, for potential comparison with Murujuga include, Rock Art of Alta, Prehistoric Rock Art Sites in the Côa Valley and Siega Verde, Twyfelfontein, Rock Art in the Hail Region of Saudi Arabia, Petroglyphs within the Archaeological Landscape of Tamgaly, Rock Carvings in Tanum, The Rock Drawings of Valcamonica, Gobustan, Maloti-Drakensberg Park, the Chongoni Rock-Art Area, and the recently inscribed Writing-on-Stone / Áísínai'pi.

³ whc.unesco.org/en/list/?search=rock+art&order=country (accessed 28 July 2019)
whc.unesco.org/en/list/?search=petroglyph&order=country (accessed 28 July 2019)
whc.unesco.org/en/list/?search=rock+carving&order=country (accessed 28 July 2019)
whc.unesco.org/en/list/?search=rock+engraving&order=country (accessed 28 July 2019)
whc.unesco.org/en/list/?search=pictograph&order=country (accessed 28 July 2019)
whc.unesco.org/en/list/?search=pictogram&order=country (accessed 28 July 2019)

A search of the UNESCO⁴ Tentative List website and Nuria Sanz (2012) indicate that 56 State Parties have put forward 86 sites associated with rock art. Of the 86 Tentative List submissions, 56 are proposed for inscription for their cultural values, 17 are proposed as mixed properties, while 13 are proposed for their natural values only.

Analysis indicates that at least 15 of these sites have an association with petroglyphs, 44 are associated with rock paintings, while nine have an association with both paintings and petroglyphs. From the Tentative List material submitted it is difficult to determine if the nine remaining sites are associated with paintings, petroglyphs or both.

Further analysis of the Tentative List submissions indicates that there are a number of sites for potential comparison with Murujuga, they include, Itacoatiaras of Ingá River, Sangkulirang – Mangkalihat Karts: Prehistoric rock art area, Las Labradas – Sinaloa archaeological site, Petroglyphic Complexes in the Mongolian Gobi, Daegokcheon Stream Petroglyphs, Petroglyphs of Lake Onega and the White Sea, and Hima a rock art site in Najran.

Comparison criterion (i)

A report by the Australian Heritage Council '*The Potential Outstanding Universal Value of the Dampier Archipelago Site and Threats to that Site*' concluded that the potential Outstanding Universal Value of the Murujuga Cultural Landscape derives from being a masterpiece of human creative genius (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012).

The Australian Heritage Council found that over many thousands of years, the *Ngurra-ra Ngarli* artists of Murujuga used a stone tool technology to peck, pound, abrade and grind images on volcanic rock, an extremely hard and difficult canvas, producing an extraordinarily dense and diverse range of petroglyphs. With more than one million images in an area of 37,000 hectares, the petroglyphs are visually impressive, obvious and abundant (Department of Environment and Conservation 2013). It is also the densest known concentration of hunter-forager petroglyphs anywhere in the world (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012, Mulvaney 2015).

Regional similarities and differences in the style of engraved human figures have been identified across the Pilbara (Wright 1968, McDonald and Veth 2005), but modifications of all these styles have been found on Murujuga (McDonald and Veth 2006b). This is why Murujuga is the best representation of the styles of petroglyphs found throughout the Pilbara (Australian Heritage Council 2006).

Within Australia the World Heritage listed Kakadu National Park has art sites that represent a unique artistic achievement because of the wide range of styles used, the large number and density of sites and the delicate and detailed depiction of a wide range of human figures and identifiable animal species, including long-extinct animals. Murujuga is comparable to Kakadu National Park, the Wanjina Wungurr art of the Kimberley and the Quinkan rock art of Far North Queensland in relation to the range, number, density and detail of the depictions. However, the artistic technique of engraving at Murujuga on an extremely difficult canvas, differs markedly to painting techniques in the three other mentioned regions.

Engraved images of human figures elsewhere in Australia generally lack the dynamic imagery and the use of perspective found in some of the Murujuga petroglyphs. This is true for the engraved human figures to the south and east of Alice Springs (Gunn 1995, Morwood 2002). The static figures south and east of Alice Springs, including n'Dhala Gorge, are shown with 'feathered' or other types of headdresses. Similarly, engraved anthropomorphs in Western New South Wales are all portrayed head-on and in static poses (Maynard 1976). While there is a mixture of profile and head on representation of engraved human figures in the Sydney Basin, most are portrayed head-on and in static poses (McDonald 2008, Attenbrow 2010).

The diversity and density of the finely executed portrayals of people and animals of Murujuga is remarkable given the extremely hard granitic rock and stone tool technology used by *Ngurra-ra Ngarli* artists to create these images. In contrast, most Australian petroglyphs are made on more tractable sedimentary rock, including the petroglyphs in the Sydney Basin (McDonald 2008, Attenbrow 2010), Western New South Wales and South Australia (Maynard 1976).

Of the 53 properties inscribed on the World Heritage List for an association to rock art, 22 are recognised as being a masterpiece of human creative genius. Murujuga is comparable to these inscribed sites given it is one of the most

⁴ https://whc.unesco.org/en/tentativelists/?action=listtentative&pattern=rock+art&state=&theme=&criteria_restriction=&date_start=&date_end=&order= (accessed 28 July 2019)

https://whc.unesco.org/en/tentativelists/?action=listtentative&pattern=rock+engraving&state=&theme=&criteria_restriction=&date_start=&date_end=&order= (accessed 28 July 2019)

https://whc.unesco.org/en/tentativelists/?action=listtentative&pattern=petroglyph&state=&theme=&criteria_restriction=&date_start=&date_end=&order= (accessed 28 July 2019)

https://whc.unesco.org/en/tentativelists/?action=listtentative&pattern=rock+carving&state=&theme=&criteria_restriction=&date_start=&date_end=&order= (accessed 28 July 2019)

https://whc.unesco.org/en/tentativelists/?action=listtentative&pattern=pictograph&state=&theme=&criteria_restriction=&date_start=&date_end=&order= (accessed 28 July 2019)

https://whc.unesco.org/en/tentativelists/?action=listtentative&pattern=pictogram&state=&theme=&criteria_restriction=&date_start=&date_end=&order= (accessed 28 July 2019)

significant concentrations for human artistic creativity in the world, recording millennia of human responses to the sustainable use of its productive landscape (McDonald et al 2019).

As with much of Australia, international analysis reveals that a more tractable medium than the volcanic geology of Murujuga has been used in the rock engravings at Tassili n'Adjjer and Twyfelfontein, both of which were created on sedimentary rock (Coulson and Campbell 2010). Additionally, the engraved rock shelters of the Vezere Valley in South-West France were formed in relatively soft limestone. It is the hardness of the Murujuga rocks that has preserved a deep time record of the art production (Pillans and Fifield 2013).

While the engravings in the Coa Valley in Portugal are made on metasediments, a hard medium, the Palaeolithic images in this valley are not as diverse, dense or widespread as those of Murujuga.

The Rock Carvings in Tanum represent a unique artistic achievement through their skilful and detailed depictions of animals, humans, ships, weapons, and symbols of the Bronze Age (*circa* 3,650 BP to 2,450 BP). These sometimes include lively scenes and complex compositions of elaborate motifs from travel, status, power, warfare, and cult.

The rock art of Jabal Umm Sinman Jubbah and Jabal Al-Major and Jabal Raat near Shuwaymis contain an exceptionally large number of petroglyphs, created by using a range of techniques with simple stone hammers, against a background of gradual environmental deterioration. Similar to Murujuga, the attributes of the property include the large number of petroglyphs, inscriptions, archaeological features and the environmental setting.

The Decorated Cave of Pont d'Arc, known as Grotte Chauvet-Pont d'Arc contains the first known expressions of human artistic genius, dating to between 30,000 BP and 32,000 BP. Pont d'Arc has more than 1,000 pigment drawings of human and animal motifs, which are of exceptional aesthetic quality. The artistic quality of Pont D'Arc is underlined by the skilful use of colours, combinations of paint and engravings, the precision in anatomical representation and the ability to give an impression of volumes and movement.

Comparatively, occupation of the coastal plain around Murujuga dates from 50,000 BP, and the Murujuga art province has many thousands of inventoried human and animal motifs. The volume and movement of representations of the anthropomorphic motifs include a variety of stick and solid bodied images in static poses as well as beautifully executed dynamic profile images of bodies with knees bent and sinuous arms that appear to be floating in the air. In these cases, the clever use of profile and perspective to create a sense of movement is an outstanding demonstration of the creativity and artistic expertise of the *Ngurra-ra Ngarli* artists (Jo McDonald Cultural Heritage Management 2011, Australian Heritage Council 2012).

Murujuga's artistic and anatomical precision in relation to animal motifs allows for identification to species level, including species that have gone extinct. Petroglyphs of mammals (including macropods), birds, reptiles, fish, turtles, crabs and crayfish are all portrayed at Murujuga (McDonald and Veth 2005, 2006a, 2009). Terrestrial and marine mammals like macropods, thylacines and dugong are portrayed in profile as are fish and birds, while turtles and crustacea are depicted from above. Some of the naturalistic depictions of animals are instantly recognisable and are as finely executed as many of the animal engravings in hunter-forager art in both Europe and Africa.

Comparison criterion (iii)

The Australian Heritage Council (2012) also concluded the potential Outstanding Universal Value of the Murujuga Cultural Landscape as an exceptionally important body of Aboriginal rock art that bears a unique or at least exceptional testimony to a living cultural tradition.

While the relationship between Aboriginal art, the Dreaming and totemic species provides a common thread, Aboriginal rock art, across the Australian continent, cannot be reduced to a single cultural tradition. The different artistic style and modes of representation express differences in the way Australian Aboriginal societies divide up and manage their world. In some cases, these different styles can be treated as bearing a unique or at least exceptional testimony to a living cultural tradition.

Ngurra-ra Ngarli and other Pilbara groups have songs and creation stories for many of the images depicted in Murujuga. These images are more than simple depictions, for example many play a role in *Ngurra-ra Ngarli* education. The petroglyphs of Murujuga include exceptionally unusual images of social gatherings, dancing and ceremonies (Jo McDonald Cultural Heritage Management 2011). The *Murujuga National Park management plan 78 2013* recognises that some images are associated with rites of passage or other ceremonies. It is the unusual combination of images of ceremonies and images linked to Traditional Lore and creation beings that make the continuing culture of *Ngurra-ra Ngarli*, as expressed through the petroglyphs, to be of Outstanding Universal Value.

The representations in the Murujuga petroglyphs are different to other Aboriginal artistic traditions in the Australian geo-cultural region which have, or potentially have, Outstanding Universal Value. Similarly, one of the many different styles of the World Heritage listed art of Kakadu National Park comprises images known as 'X-ray figures'. These figures are known to relate to Aboriginal culture in complex ways. There are open, public understandings of these images that relate to the rules for butchering animals and distributing the various parts to different categories of people for food (Tacon 1989, Taylor 1989). There are also restricted meanings to X-ray art images that people learn as they are initiated into the 'inside' meaning of ceremonies. These relate to the extended metaphors that link body parts of animals as ancestral beings to food division, to the stories of these beings and to the foundation of Arnhem Land Aboriginal societies. They also link to the broader landscape for which clan groups are responsible. These extended metaphors also relate to death and Aboriginal concepts of spirit and spirit return (Taylor 1989).

The rock art of Kakadu National Park, Wanjin Wungurr (Kimberley) and Quinkan (Far North Queensland), which are included on Australia's National Heritage List, bear a unique or exceptional testimony to living cultural traditions. When compared to these sites, Murujuga's artistic traditions are equally stunning and provide exceptional testimony to *Ngurra-ra Ngarli's* living cultural traditions. However, further comparison between the four sites is both difficult and inappropriate to make given the different sets of responsibilities, beliefs and practices that are required to care for, and manage, country.

Of the 53 properties inscribed on the World Heritage List with an association to rock art, 51 are recognised as bearing a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living. Murujuga is comparable to the inscribed sites given its combination of ceremonial images and images linked to Traditional Lore and creation beings that are part of the continuing culture and belief system of *Ngurra-ra Ngarli* people.

The large size of the early petroglyphs, their uniqueness and the quality of their iconography sets the Petroglyphs within the Archaeological Landscape of Tamgaly apart from the wealth of rock art in Central Asia. Correspondingly, the unique images and quality of the iconography Murujuga give an exceptional testimony to the living cultural tradition of *Ngurra-ra Ngarli* in the Australian geo-cultural context.

The Rock Art of Alta has thousands of paintings and engravings and is an exceptional testimony of the aspects of life, the environment and the activities of Arctic societies in Neolithic times. Alta's wide range of motifs and scenes of high artistic quality reflect a long tradition of hunter-gatherer societies and their interaction with landscape, as well as the evolution of their symbols and rituals from approximately 6,950 BP to about 1,950 BP. Murujuga's range of motifs and artistic quality is comparable to Alta, although Murujuga's earliest art dates from 50,000 BP, and records *Ngurra-ra Ngarli's* unique responses to the different and changing climate and landscape over an extremely deep period.

The petroglyphs of Foz Côa (Portugal) and Siega Verde (Spain), when considered together, as the Prehistoric Rock Art Sites in the Côa Valley and Siega Verde, throws an exception light on the social, economic, and spiritual life of the early ancestors of the Ice Age and a cultural tradition which has disappeared. Similarly, the rock art engravings and paintings in Twyfelfontein, with its display of one of the largest concentrations of pigment rock art in Africa, forms a coherent, extensive and high-quality record of ritual practices relating to hunter-gather and then farming communities in southern Africa over at least two millennia.

Comparable to Foz Côa and Siega Verde's deep time production, and that produced more recently at Twyfelfontein, *Ngurra-ra Ngarli* carried out spiritual and ritual practices on Murujuga, including increase rituals to manage natural resources. It has been suggested (Palmer 1975, 1977) that some petroglyphs in places like Murujuga are *thalu* sites. While it is possible that some of the petroglyphs are associated with *thalu* sites, it is evident that *thalu* sites comprising standing stones, boulder arrangements and/or natural features are prominent on and around Murujuga (Daniel 1990, Bird and Hallam 2006, McDonald and Veth 2006b).

The Rock Drawings of Valcamonica is described as one of the world's greatest collections of prehistoric petroglyphs, with more than 140,000 symbols and figures carved in the rock over a 4,000-year period. The petroglyphs depict themes connected with agriculture, deer hunting, navigation and war, as well as including geometric-symbolic figures. Murujuga is comparable to Valcamonica in terms of the sheer number of symbols and figures. Murujuga has however, a significantly more extensive period over which the collection was created, as well as, the diversity of themes depicted in the rock art.

The rock art at Jabal Umm Sinman, Jabal Al-Major and Jabal Raat, which together are the serial property the Rock Art in the Hail Region, provide an exceptional testimony to the challenges of past societies in response to environmental catastrophes. The attributes of the property include the large number of petroglyphs, inscriptions, archaeological features and the environmental setting.

Gobustan has Outstanding Universal Value for the quality and density of its rock engravings, for the substantial evidence the collection of rock images presents for hunting, fauna, flora and lifestyles in pre-historic times, and for the cultural continuity between prehistoric and mediaeval times. The rock engravings are an exceptional testimony to a way of life

that has disappeared in the way they represent so graphically activities connected with hunting and fishing at a time when the climate and vegetation of the area were warmer and wetter than today.

Murujuga, like Gobustan and the Rock Art in the Hail Region, provides an exceptional testimony to a way of life, through a diversity of themes depicted in the rock art. There is clear evidence that *Ngurra-ra Ngarli* first started living and using Murujuga around 50,000 BP, when the coastline was about 100 kilometres away. At that time Murujuga, like Gobustan, was wetter and warmer. During this period the archaeological record of the coastal plain reveals *Ngurra-ra Ngarli*'s artists engraved entire groups of animals no longer found in this part of Australia, such as crocodiles and nail-tailed wallabies. During the last ice age (between 30,000 BP and 18,000 BP), when the coastline was 160 kilometres away, *Ngurra-ra Ngarli* responded to significant societal and environmental challenges including by living in the Murujuga Ranges but also roaming widely over vast areas of desert between refugia (Veth 1993, Smith 2013).

The Maloti-Drakensberg Park has numerous caves and rock shelters containing an estimated 665 rock art sites, and the number of individual images in those sites probably exceeds 35,000. The images depict humans and animals, representing an exceptionally coherent tradition that embodies the spiritual life, beliefs and cosmology of the San people over several millennia. Like the San people who lived in the mountainous Maloti-Drakensberg Park for more than four millennia, *Ngurra-ra Ngarli* over forty millennia have created a body of outstanding rock art at thousands of sites with more than a million images, that provides a unique and deep time testimony which illuminates their way of life, their beliefs and living cultural traditions.

The Chongoni Rock-Art Area, which is situated within a cluster of forested granite hills, features the richest concentration of rock art in Central Africa. The dense and extensive collection of rock art shelters reflects a remarkable persistence of cultural traditions over many centuries, connected to the role of rock art in women's initiations, in rain making, and in funeral rites, particularly in the Chewa agricultural society. The petroglyphs of Murujuga also contains significant initiation ceremony sites and sites of ritual practices. As a centre for Traditional Lore ceremonies, the petroglyphs of Murujuga encapsulate *Ngurra-ra Ngarli*'s living cultural traditions.

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Murujuga Cultural Landscape

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