

wsp

WHADJUK NOONGAR COUNTRY CAUSEWAY BRIDGE (HEIRISSON ISLAND)

ABORIGINAL DESIGN PRINCIPLES

wsp

Document produced by Michael Hromek WSP Australia Pty Limited. Descended from the Budawang tribe of the Yuin nation, Michael is currently working at WSP, simultaneously completing his PhD and lecturing at the University of Technology Sydney in the Bachelor of Design in Architecture.

michael.hromek@wsp.com

Research by Sian Hromek (Yuin), WSP. Sian specialises in variety of fields relating to Aboriginal Country and landscape design, including Cultural Land Management Practices such as cultural burning, and how these practices might inform built outcomes and inform engagement strategies.

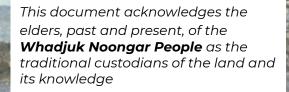
Reviewed by Ashleigh Hyland (Anaiwan), WSP. Ashleigh specialises in Sustainability and holds a variety of knowledge in relation to Cultural Land Management Practices.

Graphic design by Sandra Palmer

Please note: In order to highlight the use of Aboriginal Design Principles, this document may contain examples from other Aboriginal Countries.

Warning: Aboriginal and Torres Strait Islander readers are warned that this document may contain reference to or images of deceased persons.

Cover Images: Perth, W.A. by Sir Whately Eliot 1908 Source: National Library of Australia



Wandju Wandju Nidja Nyoongar Boodjah **Welcome to Noongar Country**

"...my Grandmother told me, the way she told it to me, it sounded like it was paradise. They didn't want for anything. They lived off the land and the fish from the water....They were quite contented with their lives."

Dorothy Winmar, Traditional Owner, Whadjuk Noongar

Indigenous Specialist Services

Indigenous design statement

Indigenous peoples and the built environment have had a problematic relationship as settlements, roads, and railways often cut through and disrupt the connection between people and Country.

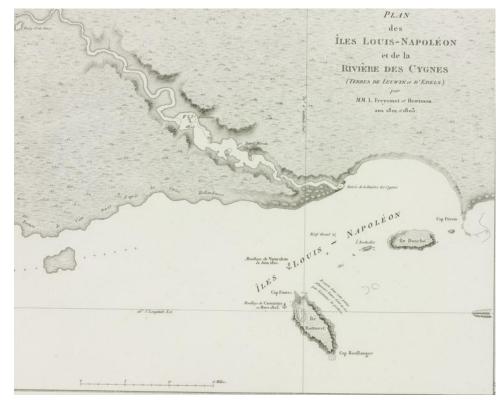
Our projects change the environment in significant, and often positive ways, yet Aboriginal people often ask the following question::

"How are you going to leave my Country better than what it was before? "

How can we reconnect the relationship between Country and people? Projects offer an opportunity to acknowledge and celebrate the Aboriginal Country, Culture and people of the land on where the project is located.

Through the project's design elements and our place-based landscape interventions (architecture, infrastructure, art and the like), we can acknowledge Country and reveal the site's latent Aboriginal history.

This document describes the principles we use as a starting point to engage with the Whadjuk Noongar people and Country. While more consultation and permission must be sort from the local elders, the ideas set out in this document should be seen as an introduction to the engagement process.



Swan River, and Heirisson Island by Louis Claude Freycinet, (Plan des Iles Louis-Napoléon et de la Riviere des Cygnes / par M. M. L. Freycinet et Heirisson, ans 1801 et 1803). National Library of Australia

Aboriginal Design Principles

Aboriginal design principles

Aboriginal led/ Aboriginal people (designers, elder and community members) should be leading or co-leading the Indigenous design elements.

Community involvement/ The local Aboriginal communities to be engaged in this process; can we use their patterns? Can they design patterns for the project?

Appropriate use of Aboriginal design/ All Aboriginal design elements must be approved by consulted Indigenous elders and community members. If approval is not given, the knowledge will not be used on the project.

Design approach

Image - Signage/surface treatment/ walls/art/ Signage tells the Country and its people's story. Surface treatments use local Aboriginal design knowledge, commissioned from artists, or urban designers who engage with community for approval.

Space - Indigenous space/landscaping/ Aboriginal Space. A space or landscape where Aboriginal culture can be celebrated, including cultural land-management practices, firestick farming, daisy yam propagation, and the like

Language - Using language in the built environment to use it and keep it alive.

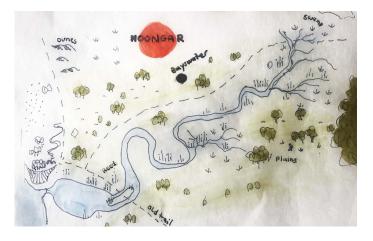
Country focused design

Overall, Aboriginal Australia has a simple but quite different hierarchy when it comes to their connection to nature. It is best contrasted against human-focused design, depicted below.

How might this shift or enhance current practices?

Country, over Community, over Individual





Country focused design

Noongar Whadjuk Country

Noongar Country

Noongar is the generic name of the original people in the south-west of Western Australia. It specifically refers to people whose ancestors originally occupied and continue to occupy the whole South West. The word Noongar means people or person and is not gender specific.¹ Noongar Boodjar (Country) is of the largest Aboriginal cultural blocks on this continent. Noongar Country covers from Geraldton on the west coast to Esperance on the south coast.²

Noongar people have complex lore and customs pre-dating European contact. Their lore exists alongside European laws and relate to marriage, trade, access, usage and custodianship of land. It governs use of fire, hunting and gathering, and behaviour regarding family and community.²



Captain Stirling's exploring party 50 miles up the Swan River, Western Australia, March, 1827, by W.J. Huggins. Picture- National Library of Australia

Whadjuk Noongar Country

Whadjuk are the people of the Swan River plains, and their Country is now occupied by the greater metropolitan area of Perth.³ The Perth area is known as a 'place where trade occurs' and is where Noongar gather for kinship, law making; gathering and arranging marriages, Around the Wardanup (foreshore) people will gather to undertake cultural and ceremonial business. Trade was taking place here long before settlers arrived, people have been trading here for thousands of years.⁴

Society is divided into the Manitj- white cockatoo and Wardung- crow totemic system which creates a sustainable balance between consumption and conservation. Totems also help define a person's relationship to the world and to the Dreaming: past, present and future.¹



Whadjuk Noongar Boodjar (Country) showing locations of different family groups.

Beeloo Noongar- River People

Beeloo Noongar means 'river people' who traditionally inhabit the eastern banks of the Swan and Helena Rivers in the south Peth area. This area is a traditionally an important camping ground where Whadjuk people would live and support themselves managing and accessing resources.⁵

Munday

The key figure at the time of colonisation was a leader called Munday. During the early days of settlement Munday was one of the most important and successful negotiators for Perth's Whadjuk community.⁶

Beeloo Peoples Lifestyle

In this area through careful management of resources there was an abundance of wildfowl, especially black swans, and ducks. Beeloo people spent time during the warmer drier months near the river accessing the rich food resources. Waterways, lakes and lagoons would provide for their dietary needs.

Just before the onset of winter, the people would move to inland areas following the kangaroos and emus, setting up shelters wherever food was plentiful. Some of their winter camps were in the Kalamunda and Mundaring hills.^{6,7}

Whadjuk Noongar Country Features

Country created by the Waugal

According to Whadjuk Noongar tradition the Waugal (rainbow serpent) was the first to move from pure spirit form and become "real". This allowed it to move across the unformed land fashioning hills and valleys, tunneling under the ground and then up again. This is how rivers, lakes, swamps and wetlands came into being, formed by the the Wagyl.⁸

It is believed that the Waugal is still resting in the rivers and lakes of Whadjuk Noongar Country. These water sites continue to be spiritually and ecologically significant and both Whadjuk Noongar knowledge and archaeology confirm that before contact Whadjuk Noongar often camped in close proximity to Waugal sites near water.⁷⁸





The Waugal is responsible of creating the waterways in Whadjuk Noongar Country.

A Country Curated using Fire

When Captain James Stirling explored the Upper Swan River in March 1827, he was amazed at the 'park-like landscape', which was created by traditional fire management by Whadjuk Noongar people. Whadjuk Noongar people burn sections of bush before the rainy season to encourage regrowth of sweeter grasses. Fire management or cultural burning also enables easier hunting of kangaroos and other animals.⁹

The mosaic of landscapes was maintained by cultural burning, a carefully calibrated system which kept some areas open while others grew dense and dark. Areas were burnt before the very hot months to ensure that there was enough food for people and animals.



Aboriginal people using fire to hunt kangaroos by Joseph Lycett, c1820

Chain of Waterways

Waterway are 'living larders' embodied with cultural and spiritual significance and responsibility to Noongar. Traditionally their main source of food came from the sea, rivers and the extensive system of freshwater lakes that lay between the coast and the Darling Escarpment. These places continue to be deeply significant due to their connection with the Waugal.

Whadjuk people continue to visit and occupy the lagoons and wetlands. Tomato Lake (Kewdale), Soldiers Swamp (South Guildford), and Munday Swamp (Perth Airport) remain important to many Noongar families who continue to visit these places, particularly to hunt turtles and tortoises, water birds, and other small animals.¹⁰



A white-faced heron fishing in the Brixton Street wetlands.

Whadjuk Noongar Design

Whadjuk Noongar Design is Line based

Whadjuk Noongar design is unique and has it's own design vernacular, which is primarily line based, contrary to the popular and ubiquitous dot style which comes from the central desert Aboriginal people and has only been in use for decades as opposed to millenia. This design can be seen on many things, image based, paint, carved and the like. Below you can see this line design within the shield markings of Noongar men.

Whadjuk Noongar Artistry

Rod Garlett uses sculptures and painting to pay homage to the six Noongar Kings at Yagan Square in Perth. In 1901, six senior representatives of different Noongar communities were identified as leaders, and invited as such to take part in celebrations hosted for the arrival of the Duke of York and Duchess of Cornwall in one of the final legs of their long tour of the recently federated country of Australia. Shane Yondee Hansen is another significant contemporary Noongar artist. Yondee Shane Hansen paints detailed figurative works based on mission life, hunting and animals. His works are abstract in their presentation but narrative in their content. As a child, Yondee Shane Hansen learnt his grandfather's ground paintings and wishes to continue these and feels the translation of them to sand paintings does them justice and brings them to new audiences. The artist's bush name 'Yondee' means Black Goanna. **Darren Stockwell, Noongar.** Darren's work reflects the colours of Country and traditional Noongar designs in a contemporary way.









Project Site

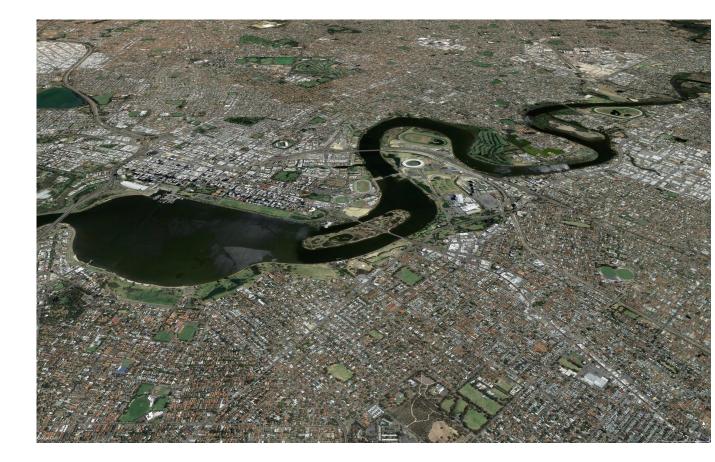
History of the Causeway Bridge Site

Heirisson Island separates the Swan River into two strands immediately east of the ridge on which Perth city centre was laid out. This west-east ridge commanded 'the flats', the shallows either side of Heirisson Island, the lowest crossing point on the river and was thus an important node in Noongar communication and movement.¹⁰

This location is the traditional crossing point for Noongar people and they call it Matagarup which means "place where the river is only knee deep", and "river crossing place".⁵

When Western Australia's first governor Captain Stirling established the colony in 1829 there were two settlements, the harbour at Fremantle and the administrative centre on the other side of the river below Mt Eliza which he named Perth.

The main thoroughfare was the river which was blocked to boats at Heirisson Island due to the extensive sand banks. A channel was created in the 1840 and in 1843 the first two wooden causeway bridges were finished. The current bridges were constructed by Main Roads department between 1947 and 1952.¹⁵



Some Significant Sites

1 Lake Monger- traditional resource area and campsite. Yellowgonga moved his camp here, after being displaced from his hearth at Kings Park after colonisation. ¹⁰

2 Kings Park- the main campsite for Yellowgonga and his family, it is an important position as it's convenient for hunting and fishing, and it gives command of the flats and the river crossing at Heirisson Island.¹⁰

3 The Swan and Canning Rivers and their tributaries hold great significance as being created by the 'Waugal', a dreamtime spirit creator. 5

4 Old Mill Site (Garenup)- a significant birthing place a "very important area …a significant site because it was the hospital for the women to go there and have their babies".⁵

5 Booryulup place of the Booryul or magic people- important camping and fishing area. The area stretched for one and a half kilometres of foreshore and 150 metres into the bushland to the east of Melville Water.⁵

6 McCallum Park- Joorolup 'place of the jarrahs", this place was used as a campsite. $^{\ensuremath{n}}$

7 Heirisson Island Matagarup- "place where the river is only knee deep", river crossing place. Also a mythological, camp, hunting place, meeting place, plant resource area. ^{5,12}

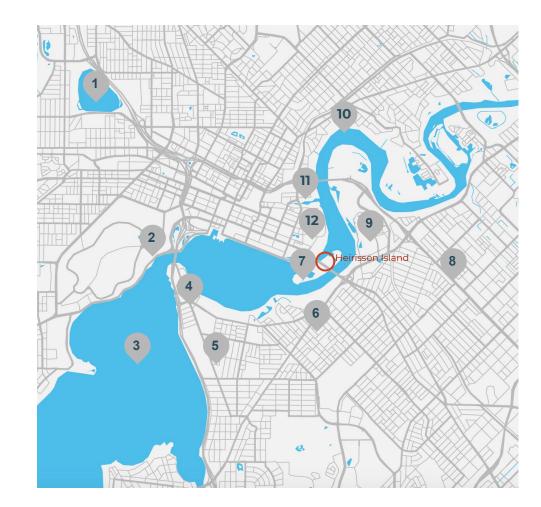
8 Rivervale- a traditional campsite area.5

9 Burswood North- Wardoolier, inhabited until the 1920s by Whadjuk and other people who would travel from far north and spend time at this place. $^{\rm 5}$

10 Bardon Park- Noongars call this place Malgamongup which means 'on the shoulder, the place of the spearwood camp on the $\rm hill'^5$

11 Claise Brook- a campsite tucked into the recess of the Swan River that has been used by many Noongar families since colonisation as a camping ground. The area is known as Mandalup or the 'place of the small marsupial'.⁵

12 Gloucester Park- Yoondoorup or 'place of a black stumpy tail lizard'.⁵



Topography of the Area

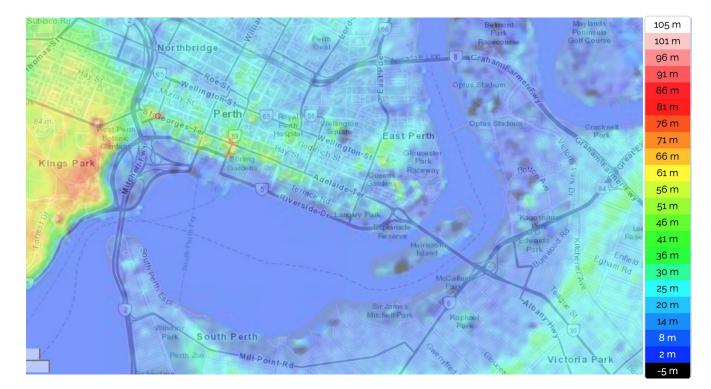
Noongar Country

Stretching from the ocean to the eastern hills, the Perth region has coastal landscapes, river-valley landscapes and forested hilly landscapes that reflect the diverse geology beneath. ¹⁵

In geological terms, the Perth Region can be broadly divided into two features —the Darling Range, with its mix of ancient igneous and metamorphic rocks that form the line of hills to the east of Perth, and the coastal plain, with its thick succession of much younger and softer sedimentary rocks that form the flat plain to the west.

These features are the result of processes that have been operating over hundreds of millions of years. In fact, the geological history of the Darling Range can be traced back at least 2600 million years and possibly even further.¹⁴

Seasonal movements would occur between the coast and the range by Noongar following traditional pathways, with summer months spent by the coast and winter months spent in the hills.⁷



Whadjuk Noongar Country - Matagarup (Heirisson) Island

In May 2019 WSP's Indigenous Specialist Services team met with the Whadjuk Reference Group established for the project to get early input around the significance of the site, and their potential needs for the project. Themes that came out of the meeting:

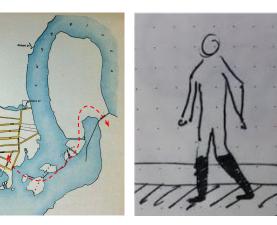
The area around Heirisson Island is traditionally associated with the Beeloo Noongar people who knew the small islands and mud flats as Matagarup, referring to the river as being "one leg deep" at this spot.

This Island was a place of cleansing, not only the body as its washed in the water, but also the mind. This is so people could have clear thinking in trade negotiations in the ancient city of Boraloo, which is modern day Perth CBD.

The Island should be a place to appreciate Noongar Culture. "Get the island back to what it was"..using Noongar land management techniques such as fire

The island would be a good place to honour and tell the story of Yagen and Fanny Bulbock through signage, landscaping, spatial interpretations etc,

The island would be good to return to Cultural Management practices, perhaps be a place where these can be displayed and showcased. IE, small scale cool fire burns to rejuvenate the native grasses, careful management of species of flora and fauna, healing or weaving gardens etc.



Matagarup Means Muddy Legs walking through the water to get from south to north into the ancient trading city. This theme could be abstracted towards the design of the bridge – ie figure 2 with painted piers looking like muddy legs walking through the water.

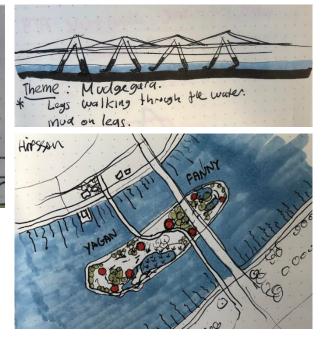


Image showing storytelling devices in Red, and the two side of the island representing Yagan and Fanny

Whadjuk Noongar Key Issues

Water disturbance

For Whadjuk Noongar people the water quality and its spirit is important and should not be disturbed too much or else you change the ecosystem.

Any construction should have as minimal disturbance to the water as possible.

Tell our stories.

Perth has always been a center of trade, yet to get there you and to cross many rivers, the Swan being the most significant, and in the process cleanse your body and mind, ready for clear headed trade.

How might we tell the stories of this Country and it's first peoples?

Celebrate Country and people

The project has the potential to celebrate Whadjuk Noongar Country and culture. The bridge should consider the theming of man and women and how this might be reflected in the story of Yagen and Fanny, but also how it might influence the order, structure of theming of the two bridges themselves. let one bridge be for Fanny to have feminine features / qualities, and the other for Yagen with male qualities.

Can the project provide a space to celebrate this important Country and it's people?

Other feedback from the group included:

Get rid of the grass. Bring back Cultural Land Management Principles.

Birds should be catered for when thinking of plants – can we have art-like artificial 'old trees to act as nesting for the birds?

Implement storytelling devices, ie signage, soundscape, pavement treatment, interpretive landscaping etc.



Members of the reference group talking about the island and potential bridge t a co-design session in 2019

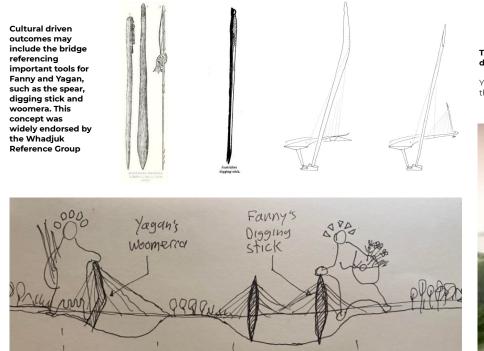
Elevated spaces provide a good place to

Important viewpoint

look at Country.

How might the design cater for any important views points of Whadjuk Noongar Country?

Potential use of Whadjuk Noongar design



The preferred option is shown here in an architectural rendering by IPV Delft Bridge designers.

Yagan and Fanny Balbuk are acknowledged as important elders who used this island and as such the pylons represent Yagan's Woomera and Fannys digging sticks on the other bridge



The island would be a good place to honour and tell the story of Yagen and Fanny Bulbock through the structure, signage, landscaping, spatial interpretations etc,

Potential use of Whadjuk Noongar design



Entry statement, significant site marker sculpture referencing Whadjuk Noongar Design.



. asphalt.

Shared pathway with **Resting place** Whadjuk Noongar Whadjuk Noongar patterns in coloured design treatment in pavement, seating, landscape art.



Waugal iconic sculpture to mark important gateway or zone.



Bridge identity, piers and safety screens are canvases for Whadjuk Noongar art



Bridge piers painted up in colours and patterns of Whadjuk Noongar Country.



throw screens.

walls etc

abutments, noise

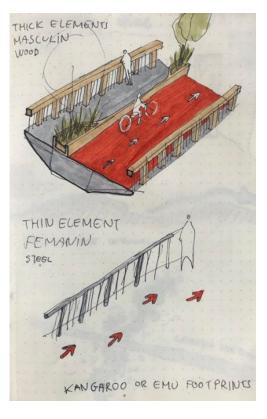


Sculptural or murals, message sticks. landscape communicating stories and design.

Potential use of Whadjuk Noongar design

Sectional axonometric showing bridge profile to highlight the potential for handrail (and other elements) to represent Fanny Bulbock and Yagen, with a desire for their masculine and feminin qualities be represented in the two bridges. This might be done in a variety of ways, yet in the above concept the handrail change in materiality from wood to steel, and have a range of thicknesses variation between the two bridges,





Infrastructure identity

Whadjuk Noongar Country can be acknowledged through treatments and art installations.



Whadjuk Noongar patterns and colours of Country are applied to the abutment and perforated mesh screening on the bridge that referencing Whadjuk Noongar shield design, or body paint. All items would be co-designed by local Aboriginal designers/reference groups.



The Pedestrian experience

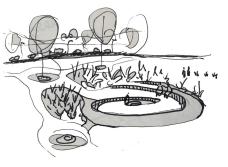
Undercroft spaces, abutments and substructures can be activated with bright and meaningful Whadjuk Noongar design either through direct application, moulding / relief or light installation. This serves the benefit of beautifying otherwise dull features and providing engaging, fun, safe and accessible areas. A space to celebrate culture, such as a viewing, yarning or sitting place with references to local design and stories allowing leaders to tell the story.

Storytelling and wayfinding devices

help connect people and orientate them to Whadjuk Noongar Country and the stories and history that came before. Signage, surface etching, sandblasting of language etc. Integrated Art High quality photo / print of local Whadjuk Noongar artist, or electronic or light display artwork. Example image is of the Noongar totem the black swan, Reid Highway, Perth. This was co-designed by TO's, Whadjuk artists and street artist to ensure a contemporary expression of traditional Country and Culture.

Client: Decmil / Main Roads WA









How to apply these themes

1. Engagement

The first step will be to engage with the relevant Aboriginal group (artist / elder, Lands Council etc), early and often, through a series of 'yarns' or conversations about the potential opportunities to incorporate the theming contained within the document (or other themes) into



2. Co Design

To kick of the co-design process design teams are given time to integrate the themes and ideas into the scope of the project



3. Co Design workshops

Engagement workshops with the relevant Aboriginal group will everyone gets in the room to co-design cultural solutions to project outcomes, yet Aboriginal voices she in they

are



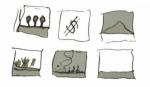
4. Endorsement:

All content that uses local Aboriginal theming will be endorsed by the Aboriginal group.



5. Other opportunities:

Should be highlighted and put forward to ensure the local Aboriginal community has opportunities, economic outcomes and better connections to their Country, through the project



Further Indigenous participation

1. Consultation with Aboriginal Community. Elders, community, respected community members etc

The use of Aboriginal patterns and motifs must be done with approval - and hopefully involvement - from the elders and community. A document like this can begin these conversations between community. We need to ask:

- Can we use your Countries patterns?
- Do you want to make patterns for the project?
- How would you like to be involved?

2. Engage Aboriginal artists and designers

Aboriginal artists should be engaged from the local community who acknowledge Country / culture in their designs

3. A Smoking Ceremony recommended on the site

Smoking Ceremonies are conducted by Aboriginal people with specialised cultural knowledge. The ceremony aims to cleanse the space in which the ceremony takes place (this site being of major significance). Given the significant nature of the ceremony, smoking ceremonies are usually only performed at major events.

4 Perform a Welcome to Country when site opens.

Generally, providers offer participants local Aboriginal history and cultural information and will go on to welcome the delegates to the Country.

References

1 Unknown author, Peoples Ocean Knowledge Trail of Cockburn Sound and Districts, viewed 30/11/20, availablehttps://derbalnara.org.au/index.htm

2 South West Aboriginal Land & Sea Council, *Noongar*, viewed 26/8/20, availablehttps://www.noongarculture.org.au/noongar/

3 Unknown author, About the Whadjuk Region, viewed 26/8/20, available- https://www.noongarculture.org.au/whadjuk/

4 Moodjar Consultancy for The City Of Perth, 2017, Report On A Cultural Heritage Assessment Of Wellington Square, East Perth WA, viewed 30/11/20, available- https://engage.perth.wa.gov.au/43381/widgets/233983/documents/99411

5 Hughes-Hallett, D., 2010, Indigenous history of the Swan and Canning rivers: Curtin University, viewed 26/8/20, available-

https://parks.dpaw.wa.gov.au/sites/default/files/downloads/parks/Indigenous%20history%20of%20the%20Swan%20and%20Canning%20rivers.pdf

6 City of Armadale, Noongar land, 26/8/20, available- https://www.armadale.wa.gov.au/traditional-land-ownership

7 Clontarf Aboriginal College, History and Culture, viewed 26/8/20, available- https://www.clontarf.wa.edu.au/history/

8 Moodjar Consultancy for The City Of Perth, 2017, Report On A Cultural Heritage Assessment Of Wellington Square, East Perth WA, viewed 30/11/20, available- https://engage.perth.wa.gov.au/43381/widgets/233983/documents/99411

9 Unknown author, Guildford, viewed 26/8/20, available- https://www.noongarculture.org.au/guildford/

10 Hallam, S., J., Aboriginal Women as Providers: the 1830s on the Swan, viewed 12/2/21, availablehttp://press-files.anu.edu.au/downloads/press/p72251/pdf/article049.pdf

11 Unknown author, Town of Victoria Park, viewed 29/5/20, available https://www.victoriapark.wa.gov.au/Around-town/Community-development/Diversity/Aboriginal-Engagement

12 Department of Planning, Lands and Heritage. Aboriginal Heritage Information System, viewed 6/8/20, availablehttps://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS

13 Department of Mines, Industry Regulation and Safety, Western Australia, Geology and landforms of the Perth Region, viewed 8/2/21, available- https://www.dmp.wa.gov.au/Ceology-and-landforms-of-the-1654.aspx

14 Gozzard, J., R., 2007, Geology and landforms of the Perth Region: Western Australia Geological Survey, viewed 8/2/21, available- https://library.dbca.wa.gov.au/static/FullTextFiles/626630.pdf

15 Engineers Australia, 2012, Nomination of Perth's Causeway Bridges for an Engineering Heritage Recognition Award, Engineering Heritage Western Australia.

