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# Indigenous Cultural Mapping in Australia: a desktop review (updated final)



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## Cover image

Ngadju rangers and researchers heading out to the Ngadju Indigenous Protected Area (WA). Photo use with permission Sarah Holcombe and Les Schultz.

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<sup>1</sup> QS World University Rankings and Performance Ranking of Scientific Papers for World Universities (2021).

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## Executive Summary

This discussion paper presents a desktop analysis on the topic of Indigenous Cultural Mapping with a focus on the Australian context. The First Nations Heritage Protection Alliance (the Alliance) commissioned The Centre for Social Responsibility in Mining (CSRSM) at The University of Queensland to undertake this work. This review of Indigenous Cultural Mapping forms part of a broader research program developed by the Alliance in partnership with the Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW). The partnership between the Australian government and the Alliance has been established to develop options to reform First Nations Cultural Heritage Protections nationally.

### Objectives

The key objectives of this review were to:

- Provide a general overview of the cultural mapping concept, cultural mapping methods and approaches, data management and Indigenous data sovereignty.
- Provide a snapshot of cultural mapping activity and practices across Australia
- Compare state based cultural heritage management approaches with the cultural mapping approach
- Identify the socio-politics of cultural mapping
- Use this information to identify risks and opportunities of cultural mapping as an alternative to project based cultural heritage approval processes and the feasibility of broad scale cultural mapping

### Method

The methods comprised a desktop review of academic literature and applied resources, and interviews via Zoom with key personnel from Native Title Representative Bodies (NTRBs) across 3 jurisdictions; Northern Land Council (NLC), Central Land Council (CLC), Kimberley Land Council (KLC), Cape York Land Council (CYLC) and the Director of Winyama Indigenous mapping business. Government stakeholders were not included in this review.

### Key Findings

#### What is cultural mapping?

Cultural mapping is a practice that is used by both Indigenous and non-Indigenous people and is widely practiced around the world for a diverse range of purposes. Indigenous culturally mapping includes both intangible (e.g., language, sacred places) and tangible (e.g., burials, archaeological sites) cultural assets, materials, norms and values. Cultural mapping is a means to transform the intangible and invisible into a medium that can be applied to heritage management, education and intercultural dialogue. At a fundamental level it involves the recording of Indigenous place names.

Cultural mapping is a different process to cultural heritage assessments that are undertaken through cultural heritage management plans (CHMPs). A CHMP is driven by state/territory-based regulation as a compliance tool with the core purpose of impact mitigation from development. In contrast, cultural mapping is driven by Indigenous peoples, often independent of development pressures, and can enable a focus on intangible heritage, empowerment and inter-generational knowledge transfer and it readily takes a cultural landscape level approach.

## Where is cultural mapping used?

Map making is now an essential part of community led rights-based instruments around the world. It is widely used in many countries, including Canada, New Zealand, Brazil and Colombia. The practice evolved initially as a means for Indigenous groups to assert their territories, and the rights and interests therein. Internationally, the Inuit were world leaders in the practice, including in their use of cultural mapping to record place names. In Australia, the systematic collection of cultural data has been primarily used in preparation for land claims and native title claims. Though the term 'cultural mapping' is not typically used in this context. Cultural mapping is becoming an increasingly adopted practice across many contexts in Australia as driven by Indigenous groups and in some contexts in partnership with the state and research groups.

## How common is cultural mapping in Australia?

Anthropology staff from NTRBs across several states and territories reported that cultural mapping is not undertaken by them and the term itself is not widely used within in their organisations. Some NTRB land management units and standalone Indigenous land management organisations undertake forms of cultural mapping. However, the discussions with NTRB staff indicated that there is limited integration of these knowledges within and across the organisations, and there is a tendency to map natural and cultural values as separate layers, which is at odds with the holistic conceptions that Indigenous people have of their landscape. Nevertheless, there are multiple examples across Australia and this is a growing field of both expertise and interest by Indigenous groups. Examples of bespoke cultural mapping projects from Western Australia, the Northern Territory and the NSW/Victoria border region are provided in the body of the report.

## What methods are used for cultural mapping and managing data?

Cultural mapping is interdisciplinary, while the specific methods chosen are dependent on the purpose of the mapping, the outcomes sought and who it is for. Importantly, the approach, the process, and good practice – including obtaining free prior and informed consent (FPIC) to implement the mapping exercise – are key. Indeed, a map need not be involved – though it is usually the foundation for a visualisation of intangible culture.

The ethnographic method is the most standard approach to cultural mapping with Indigenous peoples. The most empowering forms of cultural mapping – as actively participatory- offer opportunities for inter-generational knowledge transfer on-Country and in-community. There are many technology options to record local knowledges, notably digital mapping using GIS systems. Importantly, the protection of Indigenous Cultural and Intellectual Property Rights (ICIP) is an essential consideration.

Each state and territory have established a database of recorded and registered sites under their own cultural heritage protection legislation; however, these are very incomplete and should be used with caution. Likewise, the cultural data from native title claims. Distinguishing between a cultural mapping project and a cultural heritage management plan is also important, but equally there is likely to be overlap in some content for regional planning purposes.

International protocols, guidelines and resources will be essential to refer to and engage with when considering how cultural mapping may be incorporated with the proposed EPBC Act regional planning processes

## What are the socio-political considerations of cultural mapping?

Cultural mapping is an intrinsically political process, including both 1) intra-Indigenous politics and 2) inter-cultural and inter-racial politics. Intra-Indigenous considerations need to take into account that

cultural landscapes reflect political relations as people / families are mapped onto landscapes. As these landscapes are within, and subsequently create territories they are reflective of not only cultural identity – but the rights and interests within it, including over resources. Intercultural considerations include that mapmaking and the application of maps in territories has a long history, entangled with exploration, colonialism and political control. As such, the methods used and the purposes of the mapping have to be alert to potential sensitivities and alternative agendas. It is not a neutral process.

**What are the opportunities and risks of regional cultural mapping, as an alternative to cultural heritage approval processes?**

Broad scale cultural mapping is feasible if the time and resources are available, the scoping is adequate and the purpose is clear.

Opportunities include:

- Mapping the interactions and intersections between cultural and natural resources is an opportunity to redefine relationships between the State and Indigenous groups.
- An Indigenous-led and participatory methodology can provide the opportunities for cultural reclamation, recognition, empowerment and inter-generational knowledge transfer. Making visible what was previously marginal is a fundamental purpose of cultural mapping.
- In any cultural mapping project sacred site protection will be a material concern and the protection of places of significance will be a focus.
- Addressing the inadequate protection of cultural landscapes and significant places and providing FPIC rights (with the exception of the NT and parts of SA, state-based cultural heritage protection does not provide FPIC rights).
- Ideally, Indigenous cultural mapping on a regional scale can also account for and mitigate cumulative impacts.

Risks include:

- Undertaking a broad scale or regional cultural mapping exercise, one of which is the potential of “set and forget”. Expectations will need to be managed about whether the resources developed are living documents, such as a cultural heritage management plan (CHMP) should be over the life of a project, such as mining.
- A key risk to Indigenous groups is if external interests are leading the process and their agendas are not central to the outcome.
- Not allowing time for groups to follow their own customary processes and negotiate areas where there may be overlapping interests.
- Ensuring that the purpose is clearly articulated at the outset, as a key risk is over-promising.
- Not progressing the higher standards of cultural heritage protection – as outlined in the Dhawura Ngilan vision and the best practice standards.

## 1. Introduction

The Centre for Social Responsibility in Mining (CSRSM) was commissioned by First Nations Heritage Protection Alliance (the Alliance) to undertake a series of desktop studies. To date, these have included 1) a Review of international cultural heritage legislation with a focus on legislation that impacts on or is specific to Indigenous Peoples (the Review), 2) an associated summary excel spreadsheet of resources and url links and 3) a short Briefing note distilling key implications from this international review for the Alliance's national cultural heritage reform project.

This fourth (4) component, desktop Review of Indigenous Cultural mapping, is part of a larger research program developed by the Alliance in partnership with the Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW). The partnership between the Australian government and the Alliance has been established to develop options to reform First Nations Cultural Heritage Protections.<sup>3</sup>

The topic of cultural mapping has become relevant across several potential reform domains. Discussions with the Alliance to date have proposed that: aside from a general overview of the cultural mapping concept specific matters that have arisen in previous discussions between the Alliance and the DCCEEW (per email 27th Feb email – Matthew Storey), include:

- The feasibility of 'broad scale' cultural mapping as an alternative to project based cultural heritage approval processes
- The question of data sovereignty and product ownership in the context of cultural mapping
- How cultural mapping may interact with the proposed EPBC regional planning process
- The use of cultural mapping in proposed areas of high development potential

These specific matters and topics both informed and/or led the following discussion paper and influenced the subject areas covered.

### 1.1 Method

The author (Holcombe) undertook a desktop literature review on the cultural mapping topic, searched for applied resources and examples of cultural mapping activities. This report also draws on the author's own on-Country and in-community experience across areas of northern Australia, in applied work and in teaching on the topic of cultural heritage management. In addition to drawing on this applied experience the review has been informed by a series of interviews with staff (mostly anthropologists) from Native Title Representative Bodies (NTRBs) across 3 jurisdictions and the Director of an Indigenous business.

Interviews were undertaken with the Northern Land Council (NLC), Central Land Council (CLC), Kimberley Land Council (KLC), Cape York Land Council (CYLC) and the Winyama Indigenous mapping business. Several attempts were made to arrange a meeting with Native Title Service Corporation (NTSCORP) for NSW. These interviews included free ranging relevant contextual discussion, and the questions staff were asked included:

- what does the idea of cultural mapping mean to your organisation?
- to what extent is cultural mapping undertaken?
- and for what purposes?
- how is the data managed?

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<sup>3</sup> See the FNHPA Options Paper: <https://www.dcceew.gov.au/sites/default/files/documents/indigenous-heritage-options-paper.pdf>

- how does the practice intersect with the state/territory cultural heritage legislation?

The Zoom interviews were not recorded, only notes were taken and only the organisation has been identified, not the interviewees.

Note that the author did not meet with government stakeholders for this review. Information referred to was available on-line and in emails with the Alliance.

### What is cultural mapping?

Cultural mapping is widely practiced around the world for a diverse range of purposes by both Indigenous and non-Indigenous people. Map-making is fundamental to human–environmental relationships, and there are complex linkages between place-making, histories and the production of cultural identities.<sup>4</sup>

For UNESCO, cultural mapping is a means to “transform the intangible and invisible into a medium that can be applied to heritage management, education and intercultural dialogue.”<sup>5</sup> In broad and pragmatic terms, cultural mapping has been defined as a:

*“process of collecting, recording, analyzing and synthesizing information in order to describe the cultural resources, networks, links and patterns of usage of a given community or group”.*<sup>6</sup>

This review focuses on the cultural mapping practices used by and for Indigenous peoples within Australia, drawing on some international examples. And likewise, where it is of value, also drawing from resources and methods developed for mainstream cultural mapping (i.e. by local governments). Some of these resources are in the Appendix.

The practice of cultural mapping has been around from the late 1960s. It evolved initially as a means for Indigenous groups to assert their territories, and the rights and interests therein, by mapping their lands. These maps were typically referred to as land use and occupancy maps.<sup>7</sup>

Internationally, the Inuit were world leaders in the practice, as they negotiated Inuit land tenure with the Canadian government, leading to the creation of the independent Nunavut Territory, recognized in 1992.<sup>8</sup> They have since developed the most comprehensive data base in the Arctic and retail environmental information to others.<sup>9</sup>

*“From its inception, cultural mapping [for Indigenous groups] has been understood to act as a bridge between subordinated or marginalised voices and those in a dominant position, usually those who have the power to make certain types of decisions, whether it be the state...or the private sector.”*

Drawn from Crawhall (2007)<sup>10</sup>

Other renowned examples include, the Amazon Conservation Team who have programs in Brazil, Suriname and Colombia. For them, cultural landscape level mapping is critical and they have

<sup>4</sup> Strang, V. 2010. “Mapping histories: cultural landscapes and walkabout methods.”, in *Environmental social sciences: methods and research design*. Pp 132-133. Cambridge: Cambridge University Press, pp. 132-156.

<sup>5</sup> Crawhall, N. (2007). “The role of participatory cultural mapping in promoting intercultural dialogue— ‘We are not hyenas.’” Concept paper prepared for UNESCO Division of Cultural Policies and Intercultural Dialogue.

<sup>6</sup> Stewart 2007: 8, in Longley, A and Duxbury, N 2016. Editorial “Introduction: mapping cultural intangibles”. *City, Culture and Society* 7: 1-7. Special Issue.

<sup>7</sup> Per the anthropologist Milton Freeman. Freeman, M.M.R. (editor) (1976) *Inuit Land Use and Occupancy Project*. 3 vols. Ottawa: Ministry of Supply and Services Canada.

<sup>8</sup> <https://nlca.tunnngavik.com/>

<sup>9</sup> Poole, P. 2003. *Cultural Mapping and Indigenous Peoples: a report for UNESCO*.

<sup>10</sup> Crawhall, N. (2007). “The role of participatory cultural mapping in promoting intercultural dialogue— ‘We are not hyenas.’” Concept paper prepared for UNESCO Division of Cultural Policies and Intercultural Dialogue

developed a range of resources. In Aotearoa New Zealand the Ngāi Tahu group have established the Kā Huru Manu, as a Cultural Mapping Project to record and map their Ngāi Tahu stories and place names onto a virtual landscape via an online, digital Ngāi Tahu Atlas.<sup>11</sup>

## 1.2 Cultural mapping by other names

A broad range of cartographic practices at a local and regional level can fall under the label of cultural mapping. These include, use and occupancy mapping<sup>12</sup> and traditional resource use mapping. Other names include community-based mapping; participatory mapping; counter mapping; radical cartography; country and cultural values mapping, co-mapping, two-way mapping, and some forms of cultural heritage management mapping. Many of these practices have in common a need to bring alternative local Indigenous perspectives to the attention of those who hold power and who control what usually appears on official maps.<sup>13</sup> While in other instances, a local group seeks to record, preserve and foster their cultural assets on their own terms.

## 1.3 How is cultural mapping different to cultural heritage assessments?

Many Indigenous Australians would be familiar with cultural heritage assessments that are undertaken through state and territory based regulatory processes. These assessments are undertaken prior to certain types of developments, such as mining. There is a distinction between cultural mapping as discussed in this document, and cultural heritage assessments. These assessments are typically part of cultural heritage management plans (CHMPs) that are developed under regulatory processes and via which significant sites are often recorded or registered. The development of a CHMP and cultural mapping resources are typically different documents, processes and outcomes.

A cultural mapping approach is commonly independent of development pressures, such as that undertaken by the Lander Warlpiri and led by PBCs (see the following section) and is driven by the group who set the agenda. In contrast, a CHMP is a compliance tool and the process of its development can be disempowering.<sup>14</sup> The example of the Juukan Gorge site destruction in the Pilbara region is a case in point. This site was recorded in the CHMP and its significance recognised, but this did not protect it from destruction.

Likewise, a CHMPs' focus on development corridors, as part of a permitting process, can offer only a very limited window into both the tangible and intangible culture of an area. They also tend to focus on the archaeological or tangible sites and they rarely take a cultural landscape level approach. The core purpose of a CHMP is impact mitigation from development within the limitations of the regulatory regimes. Cultural mapping tends to take a cultural landscape approach, as realizing the inter-connectedness between sites, places and people.

## 2. Where is cultural mapping used?

### 2.1 Mapping the Indigenous estate

Possibly the earliest form of systematic cultural mapping in Australia took place under the *Aboriginal Land Rights Act (NT) 1976* (ALRA), where mapping family estates and collective territories became standardised. In this context, the materials that were prepared for a land

<sup>11</sup> <https://ngaitahu.iwi.nz/culture/cultural-mapping/>

<sup>12</sup> <https://caepr.cass.anu.edu.au/events/effective-indigenous-involvement-living-murray-introducing-use-and-occupancy-mapping>

<sup>13</sup> Crawhall, N. (2007). "The role of participatory cultural mapping in promoting intercultural dialogue - 'We are not hyenas.'" Concept paper prepared for UNESCO Division of Cultural Policies and Intercultural Dialogue

<sup>14</sup> Sutton, M.J., Huntley, J and Anderson, B. 2013. 'All our sites are of high significance': reflections from recent work in the Hunter- Valley- Archaeological and Indigenous perspectives. In *Journal of the Australian Association of Consulting Archaeologists*, Vol 1:1-14.

claim are possibly the most archetypal cultural mapping exercise, though the term ‘cultural mapping’ is not typically used in this context, it does mirror the practice: the data collected is explicitly ‘cultural’; the focus is territorial (Indigenous estates) and maps are produced.

To prepare the case for the land claim the anthropologist undertakes an extensive period of in-community and on-Country fieldwork with the claimant groups and prepares:

- A map of sacred sites and dreaming tracks
- Genealogies of each claimant (“local descent”) group
- An Anthropologists Report outlining: the claims of each local descent group; descent criteria and their primary spiritual responsibilities and attachments (i.e. ceremonies and land management) and historical continuities with the region under claim.

Though these materials are confidential and used only for the purpose of the claim, the Commissioners Report largely summarises this evidence so that it becomes publicly available.<sup>15</sup> This material is focused on intangible culture and current/ongoing attachments to Country and associated knowledges. Importantly, these materials have provided a repository of data about Traditional Owners, and their associated rights and responsibilities, so that they can be consulted for future developments on ALRA land, now more than 50% of the NT.<sup>16</sup> However, as the materials were prepared specifically for legal purposes (land claims) – they are not a thorough archive or cultural knowledge repository for a group or region.

The same limitations can be noted in relation to anthropological and historical research under the *Native Title Act 1993 (Cth)* (NTA), which follows many of the core requirements of the ALRA, in terms of undertaking research to establish the historical and living connections of the native title holding groups. If the claim is successful (determined) the materials become the property of the newly established proscribed body corporate (PBC) and/or remain with the NTRB.

The NTA has been criticized by some Indigenous groups and academics as a “process of recognition [that] entails the objectification, codification and hence reification of certain aspects of cultural practice as property rights under native title”.<sup>17</sup> The methods used for preparing the materials on behalf of claimants in ALRA and NTA claims will be discussed in the methods section (6) as they are nonetheless useful. How these datasets of cultural knowledge are managed, and the associated issues of repatriation will also be considered in the methods section.

The ALRA and the NTA provide an important range of cultural data that could be referred to in a literature review prior to any cultural mapping exercise, but the materials are limited and need to be used with caution.

## 2.2 Cultural Mapping Indigenous place names

Recording Indigenous place names is possibly one of the most fundamental components of cultural mapping. The Inuit were ground-breaking in relation to this, with the Inuit Heritage Trust (IHT) establishing a Place Names Program.<sup>18</sup> As they say in the on-line site “What’s the big deal about place names?:

<sup>15</sup> See the full set of Commissioners Reports, more than 70 reports: <https://nla.gov.au/nla.obj-882163321>

<sup>16</sup> These materials are referred in developing attendance lists for meetings on Aboriginal land, and the archive is referred to as the Land Interest Reference (LIR).

<sup>17</sup> In [eds] Smith, R and Morphy F. 2007. *The Social Effects of Native Title: Recognition, Translation, Coexistence*. Pp 9

<sup>18</sup> Since January 2006, 400 new names and name changes have been added to Canada’s official maps in Nunavut alone, in some cases replacing well known historical names. More than 1000 names are waiting their turn to be added to Canada’s maps.

*“The land has always been alive with names for all places of any significance to Inuit...in an effort to capture and enable this source of knowledge to be shared across generations, maps are essential”.*<sup>19</sup>

The Inuit Heritage Trust has two main goals:

1. The distribution of traditional place names knowledge on topographic, thematic maps in IHT’s Nunavut Map Series.
2. Ensuring the traditional names are made official through a process involving the Government of Nunavut’s Geographic Names Policy.

### 2.3 International guidelines, protocols and resources

It is also worth briefly noting the initiative of “bio-cultural community protocols”, used mostly in African states.<sup>20</sup> Map making is a central component of these community led rights-based instruments, which are a response to the Convention on Biological Diversity 1992 (CBD).

According to Bavikatte, the CBD is perhaps the most far-reaching legal instrument recognising the role of Indigenous peoples and local communities in conserving ecosystems. The principles and the framework of the CBD has spawned a range of other legal instruments all of which underscore the role of communities in conserving ecosystems and affirm community rights to common pool resources as a way to stem the global loss of biodiversity. These instruments include the Akwé: Kon Guidelines and the Nagoya Protocol on Access and Benefit Sharing. The preamble of the Nagoya Protocol notes:

*The interrelationship between genetic resources and traditional knowledge, their inseparable nature for Indigenous and local communities, the importance of the traditional knowledge for the conservation of biological diversity and the sustainable use of its components, and for the sustainable livelihoods of these communities.’ The Nagoya Protocol in Articles 6 and 7 goes further than the CBD and explicitly recognizes the rights of communities to their genetic resources and associated traditional knowledge commons.*<sup>21</sup>

These international protocols, guidelines and resources will be essential to refer to and engage with when considering how cultural mapping may be incorporated with the proposed EPBC regional planning processes.

To borrow from a report that Nigel Crawhall wrote for UNESCO:

*“As the understanding of the value of cultural diversity in sustaining biological diversity increases, there is an interesting opportunity for Indigenous...peoples to redefine their relationship with the State. Experiences of historic marginalisation, rooted in colonialism, can be transformed into new relationships of mutual cooperation, using cultural knowledge systems and practices to help protect and manage...vulnerable resources.”*<sup>22</sup>

<sup>19</sup> See <http://ihiti.ca/eng/place-names/pn-index.html>

<sup>20</sup> See <https://blog.oup.com/2014/09/biocultural-community-protocols-future-conservation/> : Biocultural community protocols in essence begin with the end in mind, which is conservation and sustainable use of biodiversity. They then describe the way of life of the community, its customary laws, cultural and spiritual values, governance and decision-making structures, etc., all of which contribute to the stewarding of the ecosystem commons.

<sup>21</sup> See <https://blog.oup.com/2014/09/biocultural-community-protocols-future-conservation/> : The notion of stewardship is critical for a discourse of biocultural rights, for it provides the ethical content for these rights — whereby rights to land, culture, traditional knowledge, self-governance, etc. are informed by a set of values that are not anthropocentric but biocentric. And also see <https://naturaljustice.org/> Lawyers for Communities and the Environment specializes in human rights and environmental law in Africa in pursuit of both social and environmental justice.

<sup>22</sup> Crawhall, N. (2007). “The role of participatory cultural mapping in promoting intercultural dialogue - ‘We are not hyenas.’” *Concept*

The CBD, the Convention on the Protection and Promotion of the Diversity of Cultural Expressions (2005)<sup>23</sup> and the Convention for the Safeguarding of Intangible Cultural Heritage (2003) all reinforce the important role of Indigenous peoples as major stakeholders in protecting the worlds cultural and biological diversity.

If Australia was to become a signatory to the Convention for the Safeguarding of Intangible Cultural Heritage, then opportunities would emerge to more systematically establish cultural mapping, in order to negotiate greater recognition of Indigenous culture and the environments within which they are embedded. Article 12 of the Convention requires signatory states to establish inventories of intangible culture and to monitor them – cultural mapping would play a key role in this.

### 3. How common is cultural mapping activity in Australia?

A systematic review of bespoke cultural mapping projects across Australia was beyond the scope of this project. However, anthropology staff from NTRBs across several states and territories reported that cultural mapping is not the type of work they undertake and the term itself is not used in their daily work. Those interviewed reported that they don't have the resources to do so and it is not a core function.<sup>24</sup> As one staff member stated:

*“we’re working in a narrow framework. But we need to perhaps challenge that. Depending on how you define cultural mapping – it has the potential for Traditional Owners to reclaim culture and for repatriation programs [of land claim and native title claim materials] to be supported”.*

Nevertheless, most NTRBs also have land management units and/or there are standalone Indigenous land management organisations in their region, such as Dhimurru in Arnhem Land (Nhulunbuy) NT and Balkanu in Cape York (Cairns), Qld.<sup>25</sup> All of these organisations, and also the units within NTRBs, manage Caring for Country programs, employ Indigenous ranger groups and undertake forms of cultural mapping. However, the discussions with NTRB staff indicated that there is limited integration of these knowledges within and across the organisations. And the risk is that “the tendency to map natural and cultural values as separate layers is at odds with the holistic conceptions that local people have of their landscape.”<sup>26</sup>

The risk is that “the tendency to map natural and cultural values as separate layers is at odds with the holistic conceptions that local people have of their landscape”.

Bespoke cultural mapping projects are being undertaken by some PBCs and by Aboriginal Corporations in receipt of mining royalties. This is a recent trend, according to a spokesperson from Winyama – an Indigenous business established to undertake land management and cultural mapping projects, and provide support in establishing data management systems.<sup>27</sup>

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paper prepared for UNESCO Division of Cultural Policies and Intercultural Dialogue.

<sup>23</sup> Australia is a party to this Convention. Article 13 specifically outlines the desirability of integrating culture in sustainable development.

<sup>24</sup> The focus of NTRBs and land councils is to process native title claims, take instruction from TOs and native title holders, negotiate agreements and support the PBCs – that are established after a successful determination. While this often entails cultural heritage ‘clearances’ for projects – either via the PBC or the NTRB – these are often focused and singular activities.

<sup>25</sup> <https://www.balkanu.com.au/umpila-heritage-survey/> and <https://www.balkanu.com.au/tkrp-traditional-knowledge-recording-pathway/>

<sup>26</sup> See Byrne, Denis. 2008. “Counter-mapping: New South Wales & Southeast Asia”. *Transforming Cultures eJournal* 3(1). 256–264.

<sup>27</sup> <https://www.winyama.com.au/>

### 3.1 Examples of bespoke cultural mapping projects

**Winyama, based in WA, has been engaged in a range of projects, including:**

- For the Ngarluma Aboriginal Corporation, using Trust fund monies from mining agreements. This cultural mapping project was also led by a Ngarluma man and the Winyama Managing Director.<sup>28</sup>
- In another project with information available on-line for a different Pilbara Aboriginal group; they indicate that “as a cultural resource the Niyaparli cultural knowledge is a valuable Intellectual Property asset that is intended to be used by the Niyaparli community for training and education. The younger generation of Niyaparli people will learn something in this new digital format, and it will also enable outsiders to understand and share Niyaparli culture”.<sup>29</sup>
- The Gnarla Boodja Mili Mili (Our Country on Paper) project with the WA Department of Local Government, Sport and Cultural Industries Aboriginal History team. The initiative acknowledges the names of Noongar places throughout the Perth metropolitan area and is designed to be a living document that can be updated and expanded over time.

**Kim Mahood (writer and manager for the Paraku Indigenous Protected Area based in Mulan, WA)** has undertaken a range of co-mapping projects using science, art and stories.

- For example, the jointly authored book “Paraku: Art, Science and Stories” (Lake Gregory, WA). Mahood was an early proponent of producing painted maps in concert with people of the region that combine cartography with Dreaming narratives, overlay ecological histories in dots on maps of the country.<sup>30</sup>

**In the NT** – there are multiple examples of bespoke cultural mapping projects, including:

- The Lander Warlpiri Cultural mapping project “undertaken with the aim of grounding people’s identities and relationships to Country and to each other”. The subsequently published article “considers how digitised cultural material – photographs and recordings of songs, stories, histories and interviews – and land claim maps are being repurposed or reused to strengthen people’s sense of place and selves”.<sup>31</sup> Funding was from Granites Mine affected area monies.<sup>32</sup>
- The Cooperative Research Centre for Developing Northern Australia (CRC NA), in addition to the project on Groote Eylandt discussed in the following section, has also funded a project with Centrefarm in Alice Springs called “Co-mapping on Country”, led by Kim Mahood. This project involved creating large multi-purpose canvas maps with Traditional Owners to facilitate communication, discussion and decision making.<sup>33</sup>

**In the NSW/Victoria border region** a Cultural Mapping project has been on-going for some years over Barapa Country in partnership with the North Central Catchment Management Authority

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<sup>28</sup> <https://www.winyama.com.au/andrew>

<sup>29</sup> <https://www.winyama.com.au/aboriginal-cultural-and-heritage-mapping>

<sup>30</sup> See <https://www.publish.csiro.au/book/6848> and <https://aboriginalartandculture.wordpress.com/2013/05/12/the-lake-where-cultures-meet/>

<sup>31</sup> Petronella Vaarzon-Morel & Luke Kelly. “Enlivening people and country: The Lander Warlpiri cultural mapping project”. In [eds] Linda Barwick, Jennifer Green & Petronella Vaarzon-Morel, pp. 111–138 *Language Documentation & Conservation Special Publication No. 18 Archival returns: Central Australia and beyond*

<sup>32</sup> The two funding bodies were the Warlpiri Education and Training Trust (WETT) and the Granites Mine Affected Areas Aboriginal Corporation (CMAAAC). And also supported by the CLC’s community Development Unit

<sup>33</sup> See also <https://centrefarm.com/co-mapping-on-country/>

(NCCMA) and the MDBA through the Water for Country and Living Murray programs.<sup>34</sup> An article about this program focused on a portion of this Country - Gunbower Island – and discusses the process of map making as a way of informing others of their values and on-going presence, as they indicate:

*The purpose of creating the Gunbower Yemurriki map is three-fold: (1) Educate non-Indigenous people about Barapa cultural values (and any associated benefits for Barapa people which will come from that education), (2) represent the values of Barapa Country on Gunbower Island as well as some associated but spatially distant locations, and (3) act as an educational tool for the younger Barapa people, some of whom have not grown up in the area.*<sup>35</sup>

Other examples of cultural mapping sponsored by the state are discussed in the section 5.

#### 4. Cultural mapping methods, approaches and data sovereignty

There are many elements to cultural mapping and the method/s chosen are dependent on the purpose of the mapping, the outcomes sought and who it is for. Importantly, the approach, the process, and good practice – including obtaining FPIC to implement the mapping exercise – are what counts.<sup>36</sup> Indeed, a map need not be involved – though it is usually the foundation for a visualisation of intangible culture. The **map** itself can be multi-layered and include both tangible and intangible culture. For instance, it can:

*“embed spatial and chronological information, description, narrative, sound, moving and still images, and both quantitative and qualitative data through a visual interface that carries affective and stylistic qualities as well as ‘basic’ information. The process of mapping often reveals many unexpected resources and builds new cross-community and cross-sector connections”.*<sup>37</sup>

Cultural mapping is inherently interdisciplinary, and it should openly invite the study of alternate research methods as a hybrid and multi-model means to convey alternative knowledges.

Cultural mapping Indigenous knowledges is usually a form of **participatory action research** and necessarily community based. Community based cultural mapping should operate as a form of empowerment and the collaborative inter-cultural methods are also often associated with shift toward a decolonial approach of co-authorship and Indigenous agency. This approach seeks to be enabling of skills transfer and capability development – where some of the participants also control the technologies used, such as the recordings / photography / GIS mapping. The methods and the outcomes are often closely intertwined.

The most empowering forms of cultural mapping offer opportunities for inter-generational knowledge transfer on-Country and in-community. Providing opportunity for senior knowledge holders to share their expertise with younger family members is often a key value for

<sup>34</sup> Fiona McConachie, Bernhard Jenny, Karin Reinke & Colin Arrowsmith. 2020. “Barapa Country through Barapa eyes: cultural mapping of Gunbower Island, Australia”, *Journal of Maps*, 16:1, 13-20.

<sup>35</sup> Fiona McConachie, Bernhard Jenny, Karin Reinke & Colin Arrowsmith. 2020. “Barapa Country through Barapa eyes: cultural mapping of Gunbower Island, Australia”, *Journal of Maps*, 16:1, 13-20. Pp 15.

<sup>36</sup> Crawhall, N. (2007). “The role of participatory cultural mapping in promoting intercultural dialogue — ‘We are not hyenas.’” Concept paper prepared for UNESCO Division of Cultural Policies and Intercultural Dialogue

<sup>37</sup> Longley, A and Duxbury, N. 2016. “Editorial Introduction: Mapping cultural intangibles” special issue *City, Culture and Society* 7:1-7.

participants. Cultural mapping should also consider gender dynamics and roles within communities and ensure processes are inclusive.

The **quality and depth of the data** will be dependent on both the purpose of the mapping and how inclusive and participatory the process has been. If the Indigenous participants trust the process and are confident that the knowledge will be managed in ways that they can control and benefit from, then the outcomes are likely to be successful. As such, the purpose of the exercise is important to establish at the outset:

- Who is the cultural mapping for?
- Was it initiated by the Indigenous group? Or by external interests?
- If it was initiated by external interests - why is it in the interests of Indigenous group/s to be involved?
- How will the data be managed and controlled?

In the case of cultural knowledge gathered for native title purposes – this data may form a starting point, but it may also be politically divisive within and between local groups. In most cases, such cultural data should be used with caution.

The **ethnographic method** is the most common or standard approach to cultural mapping with Indigenous peoples. This method is based on in-community and on-Country field research, it's qualitative and the quality of the data gathered – i.e., cultural knowledge – is often dependent on the anthropologist establishing a trusted relationship with the knowledge holders. It is a time intensive method. A rule of thumb for field research is that every 5 days in the field requires double (i.e., 10 days) for the writing up and analysis.

The Appendix has several references to Guidebooks from Canada, Australia and Latin America - on methodologies for cultural mapping.

#### 4.1 What is included in cultural mapping?

An encompassing and bespoke cultural mapping exercise driven by an Indigenous group/s over a defined region would include mapping intangible and tangible cultural assets, materials, norms and values, such as:

##### **Intangible social structures, norms and values:**

- The group/s related to the place / region
- Forms of attachment (patrilineal, matrilineal, ambilineal, place of birth, historical attachments)
- Sacred places and the possible connections between them (Dreaming tracks), and ancestral cosmologies
- Language/s
- Social structures, including forms of kinship, association and genealogies
- Oral histories.

##### **Tangible structures and places:**

- Hunting and customary harvest grounds, hunting tracks and fishing places
- Burials and archaeological sites
- Massacre sites.

**If this was also at a broader scale and supported by the state – tangible features that might also be recorded include:**

- Infrastructure that supports the maintenance of culture, i.e., keeping places, living museums
- Programs that support cultural knowledge transmission – cultural programs in schools and Indigenous tourism
- Programs and resources that support Indigenous Ecological Knowledge (IEK): Caring for Country Ranger programs and associated Healthy Country Plans (aka Caring for Country Plans)
- Outstations / homelands and associated organisations
- Programs operating that support language learning and revitalization.

## 4.2 Technologies for recording and data storage

There are many technology options to record local knowledges; from sand drawings and writing on butcher's paper to using tablets connected to GIS programs such as Avenza maps, and Earth observation tools including satellite data, drones and airborne platforms. 3-D visualisations can also be made using Google Earth and Skyline TerraExplorer.

ARC GIS is a common cultural mapping platform – for 1 layer of content and this has been widely used by the Inuit.<sup>38</sup> The Nunavut Inuit database also includes an ARC GIS of Traditional Inuit place names.<sup>39</sup>

An initiative called The Indigenous Mapping workshop (IMW) was first held in Australia in 2018 with sponsors from Indigenous businesses from Australia, Canada and Aotearoa New Zealand.<sup>40</sup> The focus is on digital capacity building and networking for Indigenous groups.

In a cultural mapping project for Ngarluma (Pilbara WA), the Winyama Digital Solutions company started with digital tools, before going out on-Country. An important element in this project entailed combining layers of data: overlaying PDFs of historical surveyor maps and using Google Earth in virtual consultations, via 3.D visuals of the topographic elements of the land. This was followed by Country visits where photos and videos are recorded and tagged onto the interactive map.<sup>41</sup>

The NLC Rangers, for instance gain training in the use of ICT equipment, including MS Teams, GIS/Mapping Software and other data management tools, such as Garmin BaseCamp, Garmin Virb Edit, GeoSetter and Google Earth. See for instance, Figure 1 drawn from an NLC Annual Report illustrating the range of technologies used and associated data governance. All Indigenous rangers are undertaking forms of cultural mapping.

There are many examples of local cultural-data archives that have been established as both bespoke for specific communities with layers of customary data governance – such as the Mukurtu archive in Tennant Creek<sup>42</sup> and Ara Irititja<sup>43</sup> that is also community based.

There are also companies that support cultural data storage in the cloud such as “The Keeping Place”.

- **You Tube** - <https://youtu.be/aaNcYQwE5nM>
- **Website** - [Home - The Keeping Place | Software to protect Aboriginal cultural heritage](#)

<sup>38</sup> See <https://hub.arcgis.com/maps/edu::traditional-inuit-place-names-in-nunavut-1/about>

<sup>39</sup> See <https://hub.arcgis.com/maps/edu::traditional-inuit-place-names-in-nunavut/explore?location=69.566404%2C-91.324912%2C7.00>

<sup>40</sup> <https://www.imwaustralia.com/about>

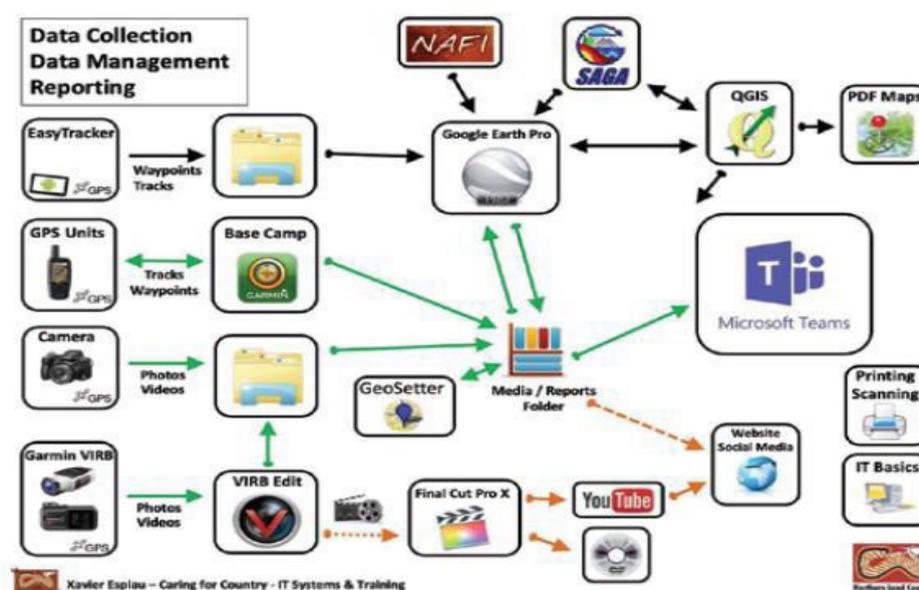
<sup>41</sup> <https://www.winyama.com.au/aboriginal-cultural-and-heritage-mapping>

<sup>42</sup> Christen, K. 2018. Traditional Knowledge and Digital Archives: An Interview with Kim Christen”. *disCLOSURE a journal of Social Theory*. Vol 27 Archives. Article 5.

<sup>43</sup> <https://irititja.com/>

The IT Data Collection, Mapping and Reporting Curriculum gives rangers a pathway to learn the skills required to provide accurate and comprehensible reports to the Caring for Country Branch, to the Traditional

Owners and to their community. For practical reasons, the main camera used to collect geo-referenced photo is the Nikon P900 as the Garmin Virb is slowly phased out.



**Figure 1** NLC Caring for Country IT systems and training, Annual report.

### 4.3 Example of a scope of work (in brief) for a cultural mapping project

It is not essential to engage external expertise, and local cultural experts may be all that is required. However, there may be a case for external independence and a range of specialist expertise. If so, it is usually a male and female anthropologist (to ensure gender inclusion), and possibly an archaeologist and a historian (depending on context) that may be bought in.

Note that the group/s may also seek to work with a particular anthropologist/archaeologist who they have worked with before (this can save time and reduce costs).

#### Scope of work in brief for an external consultant:

- Undertake a desktop literature review prior to any on the ground engagement
- Work through the representative body (NTRB) and/or the PBC if there is one in the region
- Identify the group/s who have connections to the land in question – this will be initially via desktop review and followed-up via field research
- As a highly collaborative and participatory project the timing and the methods are developed with the senior custodians and FPIC obtained
- The field research may require extensive vehicle travel and/or helicopter survey work
- Experience in GPS mapping of sites/places essential
- Attend preliminary meetings and at least two periods of field research
- The draft materials will need to be returned to the knowledge holders for checking and confirmation by the researchers.

#### 4.4 Potential costings of a mapping project

An estimate of the cost of a cultural mapping project is necessarily dependent on 1) the size of the area to be mapped, 2) the numbers of customary land holders and cultural experts to be both consulted and who participate in the mapping, 3) the materials to be developed and 4) the expert consultant costs.

A ready comparison (though not identical) is the research required for a native title claim. The NLC indicated that an average size pastoral lease (NT example) will require approx. 100 days per consultant for a male and female anthropologist. Anthropologists and archaeologists typically charge between \$1200 and \$2000 per day, plus travel costs. So for the consultants alone this could be more than \$300,000 as the field research required is comparable to a cultural mapping project.

Depending on the purpose of the cultural mapping and if it is externally driven the Indigenous participants / Traditional Owners will also need to be paid as experts. Most NTRBs and PBCs will have rates for cultural experts. Catering will also need to be costed and the cost of any material produced and the archive system developed.

The anthropologist, Petronella Vaarzon-Morel, provided the **following costing guidance for the Lander Warlpiri mapping project undertaken in central Australia** (also refer to the example in the previous section). This is a regional project of more than 6,000 square km in the Lander Warlpiri region of the southern Tanami desert. However, of note – this project had a shoestring budget and the experts did not charge standard rates due to the long-term relationships with the Warlpiri people involved.

The Warlpiri Education and Training Trust (WETT) contributed approx. \$85,000 and Granites Mine Affected Area Aboriginal Corporation (GMAAAC) contributed approx. \$122,000, a combined total of \$207,000. Note, the considerable 'in-kind', not only by consultants but also the Central Land Council.

- Costs from late 2014 to 2018 during which time the mapping project ran for 16 weeks overall (approximately 4 weeks a year).
- CLC provided in-kind support in the form of use of CLC vehicles, while the grant from GMAAAC covers fuel, updating of the paper maps by the GIS unit at CLC, support from CLC anthropologists and CLC Community Development Unit staff on occasion, and combining with IPA and ranger burning trips.
- Funds covered fees for local participants in recognition that the project constitutes important 'work', as well as fees for consultants and costs incurred for vehicle maintenance, fuel, food, the artists commissioned paint the canvas with topographic background, and purchase of video recording equipment.
- The rate of pay for participants changed over time. In later years it rose to \$300 a day, with up to \$700 a day for elders, however because it was a community directed and funded project, groups decided on different ways to apportion money. Some said Elders should receive larger payments, with young people \$100 per day. Others wanted the money spread evenly among all participants. Note that people signed green hobby forms so that payments didn't affect any Centrelink money that people received.
- Including mapping work undertaken in collaboration with IPA burning trips, a total of 278 Warlpiri and Anmatyerr people had participated in mapping trips by end of 2018.

Of note, in the minutes from the previous Heritage Councils meetings of Australia and New Zealand it was recorded that the South Australian Government had a recent state budget allocation of

\$450,000 to cultural mapping, the first time an explicit allocation has occurred for this.<sup>44</sup>

#### 4.5 Example of an ethnographic pro-forma checklist for site mapping

The following list is intended as a system of data management as well as a checklist of key questions and areas of enquiry for site specific visits:

- date of the site visit
- audio and/or video tape number
- photographic film number (with a subset of numbers for photographs)
- GPS coordinates
- site language name, and a translation
- clan tract language name, and a translation
- notes on language
- non-Aboriginal name of site
- physical features of the site
- totemic association for the site
- synopsis of the related ancestral story(s)
- description of any related rituals and prohibitions
- past and contemporary usages of the site
- “bosses” for that place
- associated clan names
- related family names
- historical data.

This checklist derives from Strang<sup>45</sup>

#### 4.6 Data management and Indigenous data sovereignty

The protection of Indigenous Cultural and Intellectual Property Rights (ICIP)<sup>46</sup> is an essential consideration in cultural mapping and an agreement for data management should be reached early on in the project development and design process.

Issues to consider include, for instance: if the government pays for the mapping does this then mean that they own the IP and/or does the organisation being funded own it? This was found as a potential issue in the NT in relation to Commonwealth contracts for Indigenous staff working in Indigenous Protected Areas, and thus the cultural mapping work of the rangers.<sup>47</sup>

There are also issues related to who owns the copyright in published materials that need to be considered; the individual and/or the collective? There are however ways to manage copyright collectively and Terri Janke - the Indigenous lawyer focusing on ICIP - has done a lot of applied work in this area.<sup>48</sup>

There is a growing body of research and application on the principles of Indigenous data sovereignty,<sup>49</sup> and a growing network of Indigenous experts.<sup>50</sup>

<sup>44</sup> Per Rachel Perkins email to Holcombe 4/08/2023.

<sup>45</sup> Drawn from Strang, V. 2010. "Mapping histories: cultural landscapes and walkabout methods.", in *Environmental social sciences: methods and research design*. Pp 142-143. Cambridge: Cambridge University Press, pp. 132-156.

<sup>46</sup> This term derives from the UN Declaration on the Rights of Indigenous Peoples – Article 31. And see <https://www.artslaw.com.au/article/australias-cultural-heritage-laws/>

<sup>47</sup> Janke, T. 2009. Report on the Current Status of Indigenous Intellectual Property A report commissioned by the Natural Resources Management Board (NT) Component 3(of 3). <https://www.terrijanke.com.au/iek-management>

<sup>48</sup> See <https://www.terrijanke.com.au/terri-janke-phd-true-tracks>

<sup>49</sup> See [https://www.lowitja.org.au/icms\\_docs/328550\\_data-governance-and-sovereignty.pdf](https://www.lowitja.org.au/icms_docs/328550_data-governance-and-sovereignty.pdf)

<sup>50</sup> See Kukutai, T and Taylor, J. 2016. *Indigenous Data Sovereignty: Toward an Agenda*. CAEPR ANU.

The issue of how best to manage and repatriate cultural data from ALRA and NTA materials is a live one for NTRBs. This was a key issue emerging from discussions with all NTRB staff. For NTA materials - post the native title determination - it should be the PBC who manages the data, but they may not have the capacity to do so. There are also legal questions such as who has the right to waive privilege in native title documents, and also manage issues of privacy and disaggregating the materials for the different knowledge owners and families.

Knowledge about sacred places, Dreaming and cosmological stories, associated rituals and practices is religious knowledge.<sup>51</sup> In Indigenous life worlds such knowledge is powerful and access to it has to be earned. It may also be gendered – women’s or men’s specific knowledge. Traditional Owners may talk about “inside stories” (secret/sacred) and “outside” or public stories. The Google world where “knowledge wants to be free” can be very threatening to the traditional governance of this knowledge<sup>52</sup> and it may be a first order issue for a cultural mapping project. The Mukurtu archive in Tennant Creek is a positive example where customary forms of knowledge governance, by gender; age; family etc. are embedded in the local digital archive. If the group does not already - allocating resources to the group/s for supporting a knowledge management system may be important and could include a local keeping place or living museum.

Nevertheless, culture is a verb not a noun and as religious knowledge was transmitted orally there is also the risk of ossifying tradition in the making of a cultural map and archive; considerations that need to be taken in account.

The Victorian government have established The First peoples ACHRIS tool, (Aboriginal Cultural Heritage Register Information System). They have an Intangible Cultural Heritage (ICH) officer at the First Peoples State Relations Group and they have been working on a purpose-built database repository for Victorian Traditional Owner ICH and IP management for several years. A comment from an NTRB staff member noted that “its management and maintenance do require enormous in-house resources, which evidently is a central theme for implementing best practice methods to the protection of traditional knowledge.” This database may be a good example to explore for ICIP management in relation to state driven cultural mapping.

#### 4.7 The socio-politics of cultural mapping

Cultural mapping include; both intra-Indigenous politics and also inter-cultural and inter-racial politics of colonisation and associated legal and power structures that may impact on the value proposition of the mapping process with the group/s.

Cultural mapping  
is an intrinsically  
political process

#### **Intra-Indigenous socio-political considerations include:**

Cultural mapping is an intrinsically political process.<sup>53</sup> Indigenous cultural mapping could also be understood as a mapping of the regional polity. This is because cultural landscapes reflect political relations – as people / families are mapped onto landscapes. Who gets to say what is mapped and recorded? As these landscapes are within, and subsequently create territories they are reflective of not only cultural identity – but the rights and interests within it, including over resources. Staff in several of the NTRBs spoken with indicated how increasingly their role is in dispute resolution in relation to resource rents, benefits and distributions. Any cultural mapping project would have to be alert to this issue that participants may also have broader agendas in including or excluding certain

<https://press.anu.edu.au/publications/series/caepr/indigenous-data-sovereignty> and see <https://aiatsis.gov.au/publication/116530>

<sup>51</sup> See Anderson, C. [ed] 1995. *Oceania Monograph 45. Politics of the Secret*.

<sup>52</sup> Holcombe, S. 2015. “Anthropology, Confidentiality, and the Digital Economy”. Chapter 17. In M. Rimmer [ed] *Indigenous Intellectual Property: A Handbook of Contemporary Research*. Research Handbooks in Intellectual Property. Edward Elgar, Cheltenham, UK and Northampton, Mass.

<sup>53</sup> Duxbury, N, Garrett-Petts, W.F and MacLennan, D. 2015. “Cultural Mapping as Cultural Inquiry: Introduction to an Emerging Field of Practice”. BOOK Taylor and Francis

people. As one staff member stated, “royalties immediately show where people stand [in relation to Traditional Ownership rights], but they can exacerbate existing disputes”.

As such, the methods used and the purposes of the mapping have to be alert to potential sensitivities and alternative agendas. Across Australia, with some variation, the *native title act* provides an important repository of cultural data in the Connection reports. However, in many contexts this legal process has been divisive within and between groups.

The methods used in mapping also need to be reflected upon. Though access to GPS systems and ICT has been revolutionary for Indigenous groups to assert their knowledges and territories – these are introduced knowledge management systems and their use needs to be closely considered. This is because “the use of digital maps can disrupt traditional structures of knowledge, by giving young people with computer skills control of the same body of knowledge as much older people”.<sup>54</sup>

### Inter-racial and inter-cultural considerations

Cultural mapping “cannot be seen merely as a technical and neutral mechanism, it is strongly influenced by the objectives of whoever performs and/or contracts it”.<sup>55</sup> If done right – cultural mapping is an opportunity for groups to move towards forms of decolonisation, empowerment, cultural revitalisation and recognition. However, if undertaken in a way where external interests are leading the process, then it can become another form of colonisation. This is a real risk.

Each community and region (however defined) also has its own colonial history and experience engaging with state interests in relation to land and people (themselves). These histories may be traumatic and include inter-generational trauma. Ensuring that a trauma informed approach is taken to engagement will be crucial. The importance of this issue will vary across Australia.

“Mapmaking and the application of maps in territories have a long history, entangled with exploration, colonialism and political control”.

See Duxbury et al for the content quote<sup>56</sup>

In very broad terms, the map on the next page also mirrors the impacts of settlement on legal recognition of customary rights: the earliest and most concerted impacts of invasion leading to different forms of customary attachment not recognised by the state.

However, of note are the multiple forms of co-management; we have identified 6, as well as the Indigenous owned estate. These areas also offer opportunity for cultural mapping in these Indigenous managed and co-managed areas (see map below).

<sup>54</sup> Petronella Vaarzon-Morel & Luke Kelly. “Enlivening people and country: The Lander Warlpiri cultural mapping project”. In [eds] Linda Barwick, Jennifer Green & Petronella Vaarzon-Morel, pp. 111–138 *Language Documentation & Conservation Special Publication No. 18 Archival returns: Central Australia and beyond*

<sup>55</sup> Duxbury, N, Garrett-Petts, W.F and MacLennan, D. 2015. “Cultural Mapping as Cultural Inquiry: Introduction to an Emerging Field of Practice”. BOOK Taylor and Francis

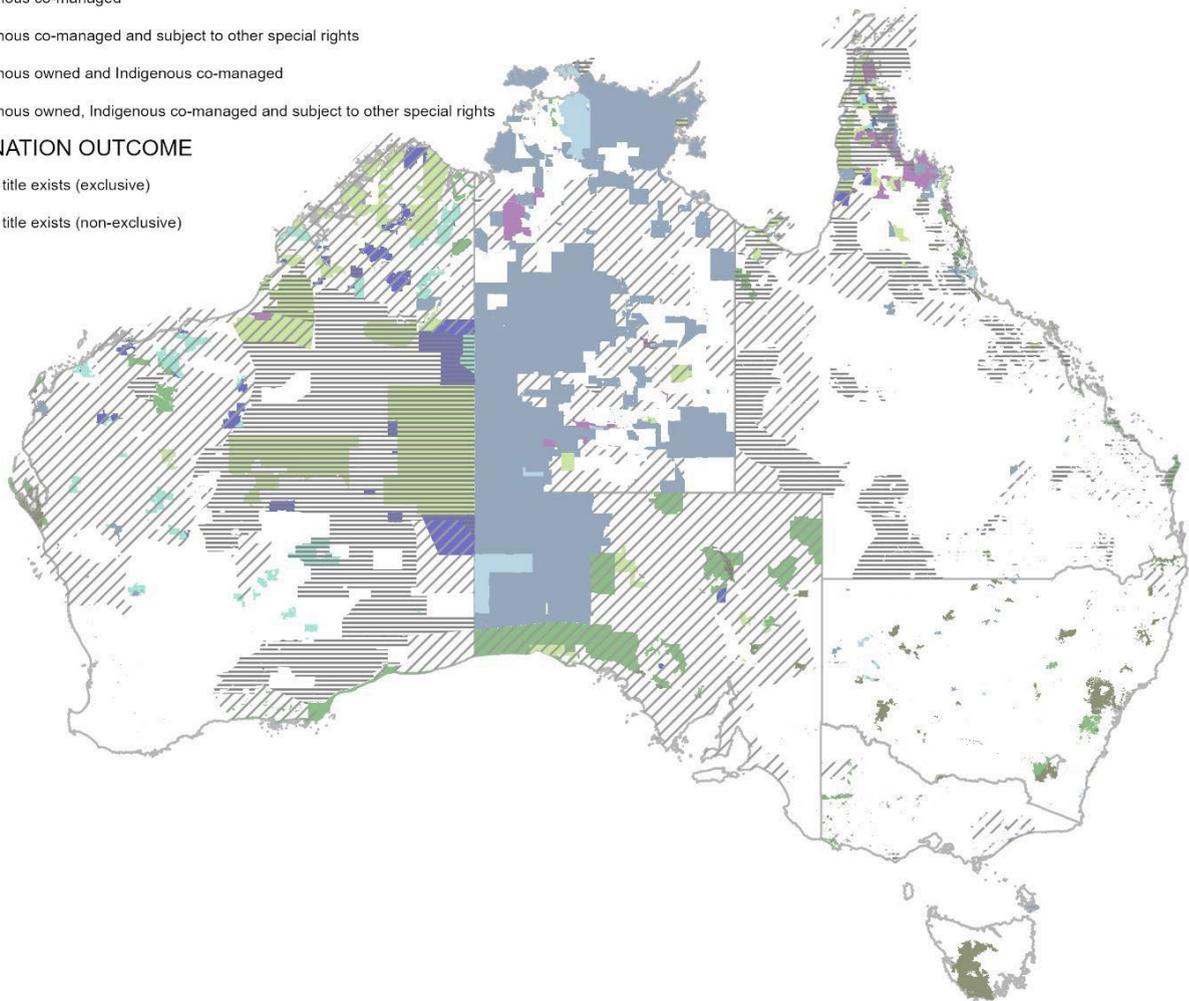
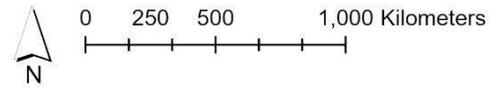
<sup>56</sup> Duxbury, N, Garrett-Petts, W.F and MacLennan, D. 2015. “Cultural Mapping as Cultural Inquiry: Introduction to an Emerging Field of Practice”. BOOK Taylor and Francis

## INDIGENOUS ESTATE

- Indigenous owned and Indigenous managed
- Indigenous owned, Indigenous managed and subject to other special rights
- Indigenous managed
- Indigenous managed and subject to other special rights
- Indigenous co-managed
- Indigenous co-managed and subject to other special rights
- Indigenous owned and Indigenous co-managed
- Indigenous owned, Indigenous co-managed and subject to other special rights

## DETERMINATION OUTCOME

- Native title exists (exclusive)
- Native title exists (non-exclusive)



**Figure 2.** Native Title determinations and the Indigenous estate, including areas of co-management.  
Thanks to Julia Loginova (CSRM) for this map.

## 4.8 Cultural heritage data in state-based repositories and cultural mapping

Each state and territory have established a database of recorded and registered sites under their own cultural heritage protection legislation. Most, but not all, of these places are recorded along corridors of development and as part of a cultural heritage management regime required for compliance under jurisdictional environmental and social impact assessment (EIS) processes. If places are not under threat – they are very likely NOT recorded in state-based registers. As such, these registers are very incomplete, and they are fundamentally transactional archives established for legal purposes. And, with the exception of the Victorian Government ACHRIS tool, these registers focus on tangible or archaeological sites, rather than ethnographic intangible sites. Engaging with the data bases is also very clunky, according to several staff from NTRBs (and the authors personal experience).

## 5. Can cultural mapping be done on a regional scale?

### 5.1 The role of the State and partnership opportunities

Mapping the interactions and intersections between cultural and natural resources is an opportunity to redefine relationships between the State and Indigenous groups. This is already occurring in some regions, such as Groote Eylandt (NT) in a partnership between the Anindilyakwa Land Council, Geoscience Australia, the Australian National University and Geospatial Technology Specialists Aerometrex Ltd. The collaboration is led by the Cooperative Research Centre for Developing Northern Australia (CRCNA).<sup>57</sup>

**Other examples of cultural mapping being supported by the state** include the Limmen Bight (NT) Marine Park Plan of Management and the Murray Darling Basin Authority (MDBA) working with Northern Basin Aboriginal Nations (NBAN).

The Limmen Bight Marine Park Plan proposes “an innovative model of marine management that protects biodiversity, respects Aboriginal culture, safeguards lifestyle and creates sustainable jobs”, with Territory, Commonwealth and local Traditional Owner responsibilities recognised in the regional plan. The plan also includes a map of sites and Dreaming tracks and a section on Marra (regional language group) social structure and sites.<sup>58</sup> The plan draws from a cultural mapping project supported by the NLC and undertaken by an anthropologist and an archaeologist.

The MDBA cultural mapping project was compiled by Canadian experts in First Nations mapping with support from the Northern Basin Aboriginal Nations and the MDBA, the series of maps detail more than 26,000 features across an area from Brewarrina in northern NSW to St George in Queensland. “These maps show the strong, ongoing connection that Aboriginal people have with Country and its water.”<sup>59</sup>

### 5.2 Site protection opportunities

The Traditional Owner groups need to understand what is driving the mapping project and thus the potential extent of the development, as this will directly and materially inform how and what they seek to record and protect. In other words, there is likely to be a focus on areas of development pressure.

As discussed in the earlier Methods section, cultural mapping that involves a participatory approach with the customary landowners is a time and resource intensive process. While broad scale cultural mapping is feasible – if the time and resources are available and the scoping is adequate – a core question that the Indigenous participants may ask is – “how might it contribute to the protection of places?” and “will it be like a cultural heritage management plan (CHMP) – but over a bigger area?”

Though the only jurisdiction in Australia where there is a form of free prior and informed consent (FPIC) is the NT on ALRA land, and northern South Australia in the APY Lands, this issue of protecting sites and places is a fundamental part of the story for Indigenous customary land owners.<sup>60</sup> And the extent of the focus on this issue is likely to mirror the level of the development

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<sup>57</sup> See <https://crcna.com.au/research/projects/integrating-indigenous-priorities-spatially-enabled-planning-indigenous-estate> Research partners are working to ensure traditional knowledge and information is integrated into Geographic Information System (GIS) technology in culturally appropriate and inclusive ways.

<sup>58</sup> Limmen Bight Marine Park Plan of Management. NTG. [https://denr.nt.gov.au/\\_data/assets/pdf\\_file/0008/808514/limmen-bight-marine-park-plan-of-management.pdf](https://denr.nt.gov.au/_data/assets/pdf_file/0008/808514/limmen-bight-marine-park-plan-of-management.pdf)

<sup>59</sup> See <https://www.mdba.gov.au/media/mr/traditional-owners-map-land-water-use-northern-murray-darling>

<sup>60</sup> See McGrath, P. [ed] *The Right to Protect Sites: Indigenous Heritage Protection in the era of native title*. AIATSIS. <https://aiatsis.gov.au/publication/35045>

pressures and threats. The regional planning initiative has identified a “three level spatial system” as defined in the Nature Positive Plan<sup>61</sup> of:

1. Areas of high environmental value
2. Areas of moderate environmental value, and
3. Development priority areas.

This three-level spatial system (see Pp19-20) suggest that this issue of protection is not one that the Indigenous participants will have much control over? If so, this is not an ideal starting point for a cultural mapping project for those Indigenous people with interests in areas 2) and 3). As such, consideration will need to be given in relation to managing the results of the mapping exercise and to protect places of significance, if revealed. Though it might be recognised by the group/s that consultation and consent processes are via the usual state-based approval channels, which translates as limited site protection in most states, this is not ideal. The DCCEEW has an opportunity to lead on implementing FPIC and Dhawura Ngilan vision and the best Practice Standards.<sup>62</sup>

Any program of regional or broad scale cultural mapping should not be a one-off process. If the mapping is in relation to forms of development – every time the footprint of this development changes (within agreed parameters) then good practice entails on-going consultation and visitation for custodians to see and understand the impact. In this way any ‘stakeholder engagement’ plan for an EIS, for instance, has to be dynamic and responsive.

This is because a risk of undertaking a broad scale or regional cultural mapping exercise is the potential of “set and forget”.

A risk of undertaking a broad scale or regional cultural mapping exercise is the potential of “set and forget”

This idea of developing a thorough (at the time) cultural heritage baseline at the beginning of a project and then not revising it as the project footprint evolves, has emerged as a significant risk in cultural heritage management plans (CHMPs) that are developed for EIS projects under state-based legislation. Mining companies, for instance, routinely develop CHMPs for compliance purposes in order to be granted a permit. However, after the permit is issued the CHMP can become a transactional instrument and often the NTRBs or PBCs may not even have copies of it or be aware of it.

Distinguishing between a cultural mapping project and a cultural heritage management plan will be important. However, there is possible overlap in the process for regional planning purposes. Any regional approach would require on-going program of monitoring to ensure continued understanding of impacts and changes to the development footprint.

**A recommended good practice approach** was developed by the CLC, as a system of “work program” or “work area clearances” for mining projects, rather than clearing a whole area (mining lease) as a one-off process with “no-go zones” via a “site survey”. It also provides the opportunity for more frequent Country visits. Across Australia the CLC model is arguably the highest benchmark for cultural heritage clearances – as it entails FPIC followed by on-going on-Country visits to ensure that impacts are understood at each step of proposed change. As the CLC staff member stated “though this is a resource intensive process, it is risk averse, as its hard for TOs to conceptualise proposed impacts – so they have the chance to revisit”. Of note, there have not been legal cases bought against industry for site desecration on Aboriginal Land (that the author is aware of). As a result, it is risk averse for both Traditional Owners and industry.

<sup>61</sup> <https://www.dcceew.gov.au/sites/default/files/documents/nature-positive-plan.pdf>

<sup>62</sup> <https://www.dcceew.gov.au/sites/default/files/documents/dhawura-ngilan-vision-atsi-heritage.pdf>

## Central Land Council heritage protection process: work program clearance model



And the cycle begins again

**Figure 3.** Drawn from a Professional Development Course on Indigenous Cultural Heritage Management.<sup>63</sup>

**Recommendation:** If a cultural mapping project is sponsored at a regional level for input into regional land-use planning, it would be essential that the Indigenous group/s manages the process and that two (or more) documents are produced.

The first document would be for the groups exclusive use and containing all forms of cultural information and the second document would be for inclusion into the public plan. Perhaps similarly to the Limmen Bight Management Plan – where the cultural mapping informed the plan. Resources would also need to be allocated to the group/s for supporting a knowledge management system, which may include a local keeping place or living museum.

### 5.3 Cultural mapping and cumulative impacts

Ideally, Indigenous cultural mapping on a regional scale can also account for and mitigate cumulative impacts. However, currently there is very little regulatory guidance in relation to cumulative impact assessment (CIA) in relation to Indigenous interests. A recent report by the CRC for Transitions in Mine Closure (CRC TiME) found that there are four distinct forms of CIA, these are:

- Form 1: Predictive CIA undertaken as part of regulatory environmental impact assessment
- Form 2: Evaluative CIA to understand baseline conditions within a region
- Form 3: Predictive CIA undertaken to inform regional planning
- Form 4: Ongoing evaluative CIA to monitor and manage cumulative impacts within a region<sup>64</sup>

Regional cumulative impact assessment for regional planning should combine CIA to evaluate baseline conditions, predictive CIA for planning, and ongoing monitoring across a region. It is often within the cultural heritage management stage that cumulative impacts may be considered. This siloed approach is seriously flawed, especially as there is limited guidance.<sup>65</sup>

<sup>63</sup> Holcombe convenes a Professional Development Course at UQ (CSRM) on Indigenous Cultural Heritage Management in the Australian resources Sector, and this schema was developed for the course.

<sup>64</sup> Sinclair, L., Pope, J., Holcombe, S., Hamblin, L., Pershke, D., Standish, R.J., Kragt, M.E., Haslam- McKenzie, F., Subroy, V. and Young, R.E. 2022. *Towards a framework for regional cumulative impact assessment*. CRC TiME Limited, Perth, Australia [https://crctime.com.au/macwp/wp-content/uploads/2022/04/Project-1.1\\_Final-Report\\_14.04.22\\_approved.pdf](https://crctime.com.au/macwp/wp-content/uploads/2022/04/Project-1.1_Final-Report_14.04.22_approved.pdf)

<sup>65</sup> Holcombe, S. 2021. Indigenous Specific CIA: scoping review of the literature and methods. CRC TiME. Interim Report. Project 1.1. <https://www.csrn.uq.edu.au/publications/indigenous-specific-cia-scoping-review-of-the-literature-and-methods>

**Recommendation:** Any cultural mapping exercise – especially in Development Priority Areas (per Nature Positive Plan) – is an opportunity to ensure that a strategic approach to managing cumulative impacts on Indigenous places and sites of significance is managed. Taking a cultural landscape level approach will support this. Likewise, a regional approach is also an opportunity to revisit and reform the limitations of current CIA regulations, standards and methods for incorporating Indigenous interests and expertise.

## Appendix with useful resources & references (in addition to the body of the report)

Inuit place names <http://ihtl.ca/eng/place-names/images/Map-WhereWeLiveTravel-1636px.jpg>

**Qujagivassi alianaigusuqatigivassilu Nunavut Ulluani!**  
**Nunannguamik imaittumik niriungniaqputit titiqqarniarvingni.**  
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**Celebrating Nunavummiut on Nunavut Day**

**A Gift from the Inuit Heritage Trust**  
 Almost 9000 traditionally-named places and a sample of routes show where Inuit live and travel. Thank you for sharing your knowledge with us.

*Look for this gift map in your post office box in the coming weeks.*

A revealing perspective from an Indigenous employee who worked for the then mining company Normandy Poseidon in 1992 (Rod Williams, currently UQ PhD scholar) in relation to establishing a register of sites (**Council for Aboriginal reconciliation Mining Committee, Draft Position paper**, quoted with permission):

Mining industry perspective	Aboriginal perspective
<p><b>Proposition:</b> A register of all sacred sites in Australia is the only way we can resolve the current conflict.</p> <p>When Australia has a data base of all sacred sites and those sites have been placed into various categories of importance then the conflict will end.</p> <p>Site reports should be deposited in places like the Museum where companies are able to access them through consultant anthropologists.</p>	<p>Sites are so important that they can't be disclosed. These issues are far too complex to have a simple register of sacred sites Australia wide.</p> <p>To place sites in categories is simplistic. The complexity of discussions that relate to traditional custodians and the importance of particular sites is a totally foreign concept to western thinking. A data base which captures story lines, song lines, women's and men's sites is an impossibility.</p> <p>The information collated in site reports is the communities information and they should decide who can and can't access it.</p>

## **References for Guides and Tools**

### Latin America:

Amazon Conservation Team. 2008. *Methodology of Collaborative Cultural Mapping*. Available at <https://www.amazonteam.org/media/methodology-guides/>

### Canada

Tobias. T, 2000. *Chief Kerry's Moose: A guidebook to land use and occupancy mapping, research design and data collection*. The Union of BC Indian Chiefs and Ecotrust Canada: Vancouver, Canada. Available at

[https://fingovernance.org/wpcontent/uploads/2020/06/Land\\_UseOccupancy\\_Mapping\\_Guidebook.pdf](https://fingovernance.org/wpcontent/uploads/2020/06/Land_UseOccupancy_Mapping_Guidebook.pdf)

### Global

Cook, Ian & Taylor, Ken. 2013. *A Contemporary Guide to Cultural Mapping. An ASEAN-Australia Perspective*. Available at <https://asean.org/wp-content/uploads/2021/09/Contemporary-Guide-to-Cultural-Mapping-Rev-X.pdf>

Secretariat of the Convention on Biological Diversity. 2004. *Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities* Montreal, 25p. (CBD Guidelines Series). Available at <https://www.cbd.int/doc/publications/akwe-brochure-en.pdf>

UNESCO. 2009. *Building Critical Awareness of cultural mapping: A Workshop Facilitation Guide*. Available at <https://unesdoc.unesco.org/ark:/48223/pf0000190314>

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