

# Mapping Meaning: learnings from indigenous mapping technology for Australia's digital humanities mapping infrastructure

Bill Pascoe, 2020

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## Introduction

The Time Layered Cultural Map (TLCMap)<sup>1</sup> digital humanities mapping infrastructure is for everyone, but the inspiration, conception and development of it has always had Aboriginal and Torres Strait Islander mapping at its heart. If Australian culture is world famous for anything it is the world's oldest living culture, a culture for which connection to country is of vital importance. Many years ago, when a simple desire took shape to make it possible for people to add cultural layers to maps that other people could find, it was unthinkable without first considering Aboriginal and Torres Strait Islander culture and mapping technology. Indigenous views on country and its representation have factored into the software architecture and vision from the beginning. The transformational effect that the Colonial Frontier Massacres project has had on Australian culture was a catalyst sparking recognition of the important role digital humanities maps can play in the lives of Australians and played a role in the truth telling process of reconciliation. Five of the main projects in TLCMap are focused on Aboriginal and Torres Strait Islander culture and both acknowledge history and celebrate living culture. These projects come to TLCMap already as collaborations with Aboriginal and Torres Strait Islander people, and indigenous Australians are employed in TLCMap software development and research.

## Apology

The pandemic disruption has delayed some things anticipated to have been complete by now and it wasn't until the last week that I was sure I could contribute to DH2020, and so was not able to update the abstract by the deadline. This paper may differ slightly to the abstract.

## Maps and Translation

Because this is an international audience I will make some points with reference to Anmatyerre artist, Clifford Possum Tjapaltjarri's *Warlugulong*<sup>2</sup>, a seminal work of writing/art/mapping in the internationally recognised style of western desert 'dot painting'. There are many art styles and story and song genres, traditional and contemporary, across more than 200 Aboriginal and Torres Strait Islander languages and peoples in Australia, but this one illustrates many points well. Please note that there is a controversial history in Aboriginal and Torres Strait Islander art over misappropriation,

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<sup>1</sup> TLCMap, <http://tlcmap.org> is a mapping platform of interoperable digital humanities mapping systems with development on new and existing systems, initiated through an ARC grant Project ID: LE190100019.

<sup>2</sup> Tjapaltjarri, Clifford Possum *Warlugulong* 1977, (Anmatyerre) National Gallery of Australia <https://artsearch.nga.gov.au/detail.cfm?IRN=167409>

theft, secret knowledge, exploitation and intellectual property. This particular piece was made specifically for public viewing.

Clifford Possum Tjapaltjarri's *Warlugolong* demonstrates how indigenous ontologies and ethics can be *translated* across cultures. This work is a landmark masterpiece in Australian and indigenous art. It is both traditional in using traditional symbolic systems to represent Tjukurpa, and contemporary in using the western convention of oil on rectangular canvas, use of the dot technique, and its 'abstract' aesthetic. It is also a map and a text, with elements of nine Tjukurrpa relating to places and navigation that can be read, if you learn how to read. Some of the things we can learn about how to do mapping, especially 'deep mapping', from indigenous mapping technology, through this include:

- Country is an organising principle for navigating knowledge.
- A map can exist in many media, not just a 2D grid of longitude and latitude. It can exist as a story, song, dance, painting, etc.
- The meaning of a place is across many layers and through its connection to other places in an intersecting mesh.
- Mapping is personal and social. Each place and part of a story is the responsibility of an individual. If anyone wants to hear the whole story they must travel to see that person and learn from them. Being connected to a place, understanding, and holding its story, means you are important to the longevity of culture, of the meaning of that place. When we look at a map we see our part in a greater whole and where we stand in relation to the world. Understanding the stories associated with places enhances our personal connection to where we grew up and where we live and work. Broadly defined culture is shared experience. By learning the meaning of the places we inhabit we are connected to our past and our future, and generations before and to come.
- Having learned the meaning of a place through a map (painting, sand, words, etc), the meaning of that place is evident when next we see the land and water features, or the buildings. A map is a tool for teaching us 'how to read country'. The land or place itself then means the lessons of the story. More broadly, places tell the story of our history and being in them, and remembering being in them is a mnemonic for that history. This is identity forming – how we came to be who we are where we are.
- There is much more that could be discussed - many more complex details in indigenous mapping technology, and diversity across the continent, such as use of what is called 'redundancy' in information theory, polysemy, rhetoric, mnemonics, and relationships to seasons, land management and law but there isn't space here.

What I can learn by analogy from Clifford Possum Tjapaltjarri's map is far from the experience of Anmatyere and Warlpiri living and growing up within their own culture. What I mean to do here is illustrate an act of 'translation'. In any translation something is lost and something is added. There is no one to one 'mapping' of meaning across cultures or individuals. Aileen Moreton-Robinson describes this as 'incommensurable' and an ongoing process:

"This must be theorised in a way which allows for incommensurable difference between the situatedness of the Indigenous people in a colonizing settler society such as Australia and those who have come here. Indigenous and non-Indigenous peoples are situated in relation to (post)colonization in radically different ways - ways that cannot be made into sameness. There may well be spaces in Australia that could be described as postcolonial but these are not spaces inhabited

by indigenous people. It may be more useful, therefore, to conceptualise the current condition not as postcolonial but as postcolonizing with the associations of ongoing process which that implies.”<sup>3</sup>

Incommensurability doesn't mean there is no understanding. Language exists both because we don't understand each other and because we can understand each other better. This works initially by relating (mapping) new things to things already within our ken, and as we proceed our ken adjusts and changes. The *Warlugolong* painting is an illustration of how indigenous knowledges can be translated into something non-indigenous people can begin to understand. It has contributed greatly towards international recognition and respect for the sophistication of Aboriginal and Torres Strait Islander culture.

Gary Foley points out that (paraphrasing) if you want to help indigenous people, teach yourself, then teach your own people.<sup>4</sup> It is as a sad irony that in a country famous for an indigenous culture where the connection to and meaning of country is of central importance, most of us living here don't know much at all about the places we live. Raewyn Connell suggests a way to avoid the history of objectification in academic indigenous study is to 'learn from' instead of 'learn about'.<sup>5</sup> If we are to do that, learnings such as those from Tjapaltjarri, Foley, Moreton-Robinson and many others must be built into TLCMap system architecture. It is incumbent on me then as system architect to take the responsibility to 'learn from' to heart. TLCMap, as a national digital humanities mapping infrastructure, has a role to play in enabling people to teach people to read the meaning of places in Australia.

## Decolonising Software Development

As Aileen Moreton-Robinson points out 'postcolonising' or 'decolonising' is a *process*. It's not as if we will ever arrive at an 'uncolonised' state since the future cannot be disentangled from the past. TLCMap involves a complicated mix of activity. 'Decolonising' is a term often used in terms of archives and collections, but TLCMap is more about 'agency'. It is a platform enabling people to do research in spatiotemporal humanities that may produce archives, to work with the meaning of place – it isn't a map but ways to *do* mapping. We have to consider what agency is involved, who designs that agency, with what assumptions, who has that agency and who can be effected by it. We could look at 3 ways in which decolonisation might occur in TLCMap software systems:

- **Content**  
where indigenous 'content' is put into existing 'colonial' IT systems.
- **Bricolage**  
where existing systems are turned to other purposes.
- **From the first**  
Where the needs or world view/concepts/metaphors etc of indigenous people drive technological development from the beginning, without limiting possibility to already existing capabilities.

In practice these abstractions aren't mutually exclusive, and most situations involve something of all these approaches.

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<sup>3</sup> p30, Moreton-Robinson, A. (2003). 'I Still Call Australia Home: Indigenous Belonging and Place in a White Postcolonising Society'. In Ahmed, S., Castañeda, C., Fortier, A. & Sheller, M. (eds) *Uprootings/ Regroundings: Questions of Home and Migration* Oxford & New York: Berg

<sup>4</sup> Foley, Gary 'Advice for white Indigenous activists in Australia' and Foley, Gary 'Educate YOURSELF, then educate the people'

<sup>5</sup> Connell, Raewyn *Southern Theory: the global dynamics of knowledge in social science* Crows Nest: Allen & Unwin, 2007

For example, one of the early successes of TLCMap is the Gazetteer of Australian Historical Placenames (GHAP). It's been commented that the gazetteer has colonial assumptions built in. It is based around placenames demarcated using a coordinate system and surveying technologies that were developed to serve the project of European colonisation. The gazetteer begins as a list of 'official' placenames as decreed by a colonial government. The naming of places is itself an exercise of power, in stating what exists, and by omission, what does not, and in what language places are named. We provide a means for users to contribute place names. This is more at the 'content' end of the spectrum. None the less, this simple addition of functionality means anyone has an opportunity to intervene in the 'authoritative' government naming of places, including indigenous people, or researchers in consultation with indigenous people. Awareness of something being there can do something to counteract cultural blindness which factors into government and commercial decisions over land and water use.

Other unexpected uses also arise, where we turn the gazetteer to various other ends simply because it is ready to hand. There are some indigenous place names with meanings that have become uncertain in places colonised for a long time. The quick and easy availability of the GHAP means we can quickly obtain maps and information that can help inquire into the meaning of the prefix 'Coo' in many south east Queensland placenames. Search results can be exported in open interoperable formats for visualisation, analysis and layering.

As research contributions are made, the GHAP will be an increasingly valuable resource for people not only looking for a specific place, but simply wondering "What's here?" to learn about both indigenous and non-indigenous history and meaning of place.

## Problems On The Way

Unfortunately the pandemic has put us months behind in some cases, which is significant in a 1 year undertaking. The lock down has meant that trips to country that were to be a crucial part of the Ngadjeri Heritage project were cancelled, for example. One common difficulty highlighted by researchers in a recent discussion was the need to re-consult to obtain permission to do new things with information provided earlier such as putting it on the web.

## TLCMap Projects

TLCMap is an infrastructure or platform of interoperable tools and it involves a suite of projects to drive requirements and development and to demonstrate usefulness. The following are projects that have a specific focus on Aboriginal and Torres Strait Islander culture and history. At the *InASA 2018: Unsettling Australia conference*, Waanyi woman Josephine Davey, with her companions Ostiane Massiani and Kate Van Wezel movingly expressed her disappointment at the majority of the papers being about the history of violence towards Aboriginal and Torres Strait Islander country and culture which created the impression it was inevitable the same thing happen in her country.<sup>6</sup> By contrast she was present to speak about how a ranger program was helping people travel great distances to access important traditional sites. This is a critique echoed in Walter & Suina's critique of deficit based quantitative indigenous research, and elsewhere.<sup>7</sup> The following TLCMap projects from across Australia include both history and traditional knowledge, and both acknowledge the bad and celebrate the good.

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<sup>6</sup> Davey, Josephine (Waanyi) *InASA 2018: Unsettling Australia Conference* 3/12/2018 - 5/12/2018

<sup>7</sup> Walter, Maggie & Suina, Michele (2019) *Indigenous data, indigenous methodologies and indigenous data sovereignty*, *International Journal of Social Research Methodology*, 22:3, 233-243, DOI: 10.1080/13645579.2018.1531228

### Colonial Frontier Massacres<sup>8</sup>

Contact: Dr Bill Pascoe, Prof Lyndall Ryan

<https://c21ch.newcastle.edu.au/colonialmassacres/>

This project maps colonial frontier massacres in Australia from 1780 to 1930.

### Ngadjuri Heritage Mapping

Contact: Dr Julie Nichols, Prof Ning Gu

This project is a collaboration between Ngadjuri people, particularly Quenten Agius, and University of South Australia staff, particularly Prof Ning Gu and Dr Julie Nichols. This project aims to improve best practice for digital mapping of indigenous heritage including virtual reality, panoramas and 3D architectural modelling.

### Journey Ways

Contact: Dr Francesca Robinson, Prof Paul Arthur

This project is a collaboration with Dr Noel Nannup (Nyoongar), Prof Paul Arthur and Dr Francesca Robinson, in consultation with Aboriginal people across WA. It is based on research that went into the 'Great Journeys' booklet<sup>9</sup> and making this available in digital form. It describes the Aboriginal perspectives and stories that relate to major roads across Western Australia, which often follow traditional routes, and which have become further storied with historical use. It delves also into deep time, showing how stories relate to events of thousands of years ago according to geological time.

### NSW Aborigines Protection/Welfare Board 1883-1969: A History

Contact: Prof Victoria Haskins and Prof John Maynard

<https://www.newcastle.edu.au/research-and-innovation/centre/purai/history-of-nsw-aborigines-protectionwelfare-board-1883-1969>

This project provides a web interface and map into a research collection of Aboriginal Protection/Welfare Board sites in NSW and interviews with and photographs of people about their personal experiences with them. This project is lead by indigenous academic/s, employs indigenous research assistants, and presents Aboriginal perspectives. Aboriginal historians on this project are Prof John Maynard (UON), Dr Lawrence Bamblett (ANU), Dr Lorina Barker (UNE), Dr Ray Kelly (UoN) and Prof Jaky Troy (USyd) and indigenous PhD student, Ms Ashlen Francisco.

### Endangered Languages Map Data

Contact: AProf Mark Harvey

This project aims to consolidate and archive an overview of information about indigenous languages, particularly endangered languages in Australia in a way that can be accessed by others. Care has been taken to ensure that only information that can be made public is included in the open archive. This is part of long term work with speakers of endangered languages.

### OzSpace

Contact: AProf Bill Palmer

This linguistics project looks at how spatial relations and orientation is conceptualised and spoken about in Australian indigenous languages. It has two main parts, one is a database of languages with information describing the spatial and orientation features of languages, providing an overview. The other is visualisation tools, in particular tools that attempt to illustrate how space and orientation works in that language.

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<sup>8</sup> Ryan, Lyndall et al *Colonial Frontier Massacres v3.0* C21CH, University of Newcastle, Australia, 2020  
<https://c21ch.newcastle.edu.au/colonialmassacres/>

<sup>9</sup> Robertson, Francesca; Nannup, Noel; Barrow Jason *Great Journeys Undertaken By Aboriginal People In Ancient Times in Western Australia* Batchelor: Batchelor Institute

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