Enlivening people and country: The Lander Warlpiri cultural mapping project

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Abstract

This chapter discusses a cultural mapping project funded and directed by Lander Warlpiri Anmatyerr people in Central Australia with the collaboration of the authors and the support of the Central Land Council. The project arose from the concerns of elders over the changing lifeworld of Warlpiri people today and the reduced opportunities for younger people to acquire the embodied place-based knowledge and experiences regarded as foundational to local identity, social interrelationships, and cultural continuity. It aimed to revitalise cultural knowledge through engaging family groups in activities such as country visits and mapping, during which the teaching and recording of place names, Dreaming tracks, and countries occurred along with the performance of associated stories, song, and rituals. This process involved the sharing and negotiation of the knowledge of country elders hold, augmented by ethnographic information derived from archival and other sources; for example, land claim maps and digitised material, including photographs, audio and visual recordings of narratives, places, song, and geo-referenced data. Attending to the ways in which local Indigenous practices of representing and inscribing people's relations with space and place may differ from and interlace with dominant western spatial regimes, cartographic practices, and technologies, we explore outcomes and issues that have arisen during the process of re-animation and evocation of place-based knowledge and memories.

Keywords: Indigenous mapping, Warlpiri, place making, cultural heritage, archives

Introduction[1]

Many Indigenous people in Australia today voice concerns about their displacement from familial country. Linking social problems to the impacts of modernity and the settler state on their lives and cultures, they view engagement with kin and country as offering restorative promise (see Lempert 2018). Lander Warlpiri and others stress the need to understand the nature of cultural relationships to different places and persons affiliated with them, and view the opportunity to live in one's ancestral country as important for wellbeing. As Dwayne Ross Jupurrula stated, "young people need to learn about their country and how they are connected. Land teaches people who they are, their identity, and relationships. They need to know about these things because we are connected through different Dreamings."[2] This chapter discusses a cultural mapping project at Willowra in the Northern Territory (NT), undertaken with the aim of grounding people's identities and relationships to country and each other. It 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.

Like many Indigenous people, Warlpiri view ancestral land as the foundation of moral Law and identity, and stress the importance of gaining embodied knowledge of it. Munn (1996: 453) noted that "the Law's *visible signs* are topographic 'markings'" [emphasis in original]. These 'markings' or traces are not simply surface inscriptions on the landscape, but features created out of the bodies and substances of Jukurrpa (Dreaming) beings as they travelled throughout the land, singing about their interactions with other entities. In the course of their journeys they named significant places[3] and established the "lawful processes" which govern "order, meaning and obligation" (Meggitt 1972: 71) in the Warlpiri world. As discussed later, individuals hold country with which they are spiritually identified. Varying bases of identification give rise to different rights in and responsibilities for country and the Dreaming narratives, songs, sites, and sacred objects associated with them. More broadly, Dreaming tracks articulate relations of similarity and difference between persons and country, which traditionally structure ritual, marriage, and social relations.

The centrality of land to cultural identity, territoriality, and language (Rumsey 1993; Sutton 2003) has prompted some scholars to liken the land to an archive (Neale 2017). In this sense, a return to country is an archival return. But if the land is an archive, its contents

2   Pers. comm. to P Vaarzon-Morel, 2016.

3   See Myers (1986) and Wilkins (2002) for a discussion of Aboriginal concepts of place.

and meanings are mediated by knowledgeable persons (Myers 2000) and ancestral spirits. With the passing of elders whose embodied knowledge of country was gained through long-term immersion, walking from sacred site to sacred site, and exchanging spiritual substance (Povinelli 1993; Myers 2013: 444; Peterson 2017), people are seeking new modes of learning about ancestral country. Although Indigenous peoples' histories, cultures, and situations vary, in recent decades the cultural mapping of country has become a key decolonising strategy aimed at reclaiming Indigenous places and enlivening peoples' language, cultures, and landed identities. Just how this is achieved and what is at stake in the process are important issues.

In the Australian context, Aboriginal people's knowledge of country in the forms of toponyms, Dreaming narratives, songs, design, ritual, language, and other cultural modes of expression form part of their intangible cultural heritage. To this end, language and song revitalisation projects have played an important role in "renewing and re-activating relationships with Country" (Wafer 2017: 28), as have visual media projects involving film, video, photography, and contemporary art.[4] Many such projects have drawn on archival materials and explored how information and recordings generated in the use of such material may be stored for future generations. Yet, although Aboriginal relations to the land are central to these discussions, outside the land and native title claims arena,[5] and with the exception of Peterson (2017) and Walsh & Mitchell (2002), surprisingly little attention has been paid to the potential role of and issues associated with maps and mapping in facilitating intergenerational learning about country.

There is, however, a robust and growing international literature concerned with the ways that maps may misrepresent Indigenous ways of conceptualising and dwelling in their lands. While there are various approaches to these issues, most recognise that cartography is not a neutral practice but is shaped within historical and cultural contexts and employed for political ends. It is widely accepted that western-style cartography has informed colonial spatial and property regimes which have resulted in the dispossession and displacement of Indigenous peoples (Carter 1987; Ryan 1996; Louis et al. 2012; Craib 2017). As Sletto (2009: 445) states "maps are representational objects intimately implicated in projects of place making, and therefore they are tools of power." To this end, there has been an explosion in what Peluso (1995) named "counter-mapping" and alternative ethno-cartography projects,[6] with Canada and USA leading the way (Chapin et al. 2005).[7] The objectives of such projects vary but include "putting people on the map," defending and claiming land, mapping customary use and occupancy, land management, and documenting history and culture for local people and the wider public (Chapin et al. 2005; Wainwright & Bryan 2009; Hirt 2012; Louis et al. 2012; Palmer 2012).

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4   Acrylic desert paintings, regarded as simulacra of maps (Sutton 1998b), have motivated intergenerational learning about country (see Neale 2017).

5   See Koch (2008) for a discussion of issues associated with returns of material produced during native title hearings and held by the Federal Court of Australia.

6   Other names for Indigenous mapping projects include: 'cultural mapping', 'community-based mapping', 'critical Indigenous cartography', and 'participatory mapping'. It is beyond the scope of this chapter to address such matters.

7   Chapin et al. (2005) noted that details of many mapping projects are not publicly available. This remains the case.

Yet, as scholars (Chapin et al. 2005) have observed, counter-mapping projects are not without problems. While issues raised in the literature relate to the type of mapping undertaken (for example, a place names map versus a land utilisation map or a map to advance land claims), a criticism of mapping projects undertaken with, or on behalf of, Indigenous peoples is that the use of scientific cartographic tools and practices can replicate western ontologies and are another form of colonialism (see Hirt 2012). Commenting on contemporary maps employed in land claims, Wainwright & Bryan state:

> Indigenous maps work within the typical set of cartographic abstractions that treat the world as an object comprised of spaces – polygons manipulated in a GIS – that are universally definable in terms of a set of points, lines, and polygons defined by latitude and longitude, scale and projection. (2009: 155)

Sletto (2009) observes that maps can reify dynamic cultural practices by representing knowledge simply as marks on a map. In the context of land management in NSW, Byrne writes that the tendency to map natural and cultural values as separate layers is "at odds with holistic conceptions that local people have of their landscape" (2008: 259). In line with such observations, there is increasing interest in alternative ways of mapping that reflect Indigenous peoples' ways of *being in* country, and their "'more-than-abstract' spatial practices" (Roth 2009: 208; Dieckmann 2018).[8]

In addition to issues of representation, there are concerns about circulation and the failure to implement protocols to protect information contained on maps (Sletto 2009: 451).[9] Worried about the possibility of outside bodies gaining information which might work against Indigenous interests, on the instructions of custodians land councils in Australia have placed access restrictions on maps and related material produced for land claims (see Hercus & Simpson 2002: 2).[10] In discussing such issues in relation to the Central Australian context, Peterson notes that access to places may be restricted by gender and age,[11] and, because many important places are named in the published literature,[12] "once their location was known control over access would be lost, opening the way for further unauthorised visits and potential damage" (2017: 246). Furthermore, custodians of sites may be keen to safeguard place

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8   This reflects a wider debate concerning 'representation' and 'dwelling' (Ingold 1996). As Myers (2013) notes, in Australia the debate has focused on Indigenous art. Myers argues for both "'representation' and 'dwelling' as co-existing frameworks of engagement with landscape" (2000, 2013: 458). This accords with our understanding of Warlpiri engagements with land.

9   Similar issues in relation to genealogies in Central Australia are discussed in Morgan & Wilmott (2010).

10   For a recent example of orders made by the High Court of Australia in response to Aboriginal custodians' request to restrict ethnographic materials produced for their native title claim see Northern Territory v. Griffiths et al. (2019).

11   Places consist of assemblages of topographic features, of which some may be restricted according to factors such as age and gender (Vaarzon-Morel 2016; see also Wilkins 2002). While putting names on a map need not violate protocols but serve to alert people to places to avoid, elders sometimes prefer not to specify such places (Elias 2007: 235).

12   The forthcoming Warlpiri Dictionary contains numerous entries for sites in the Warlpiri region. We also note linguist David Nash's (2010) interest in compiling an atlas of Indigenous place names in Central Australia.

names and locations lest distant others claim knowledge of the land and assert the right to make decisions about it.[13] As Peterson (2017) observes, this situation has produced quandaries for land councils and Indigenous constituents who want access to the maps.

The process of creation of maps can itself highlight power structures and inequalities and be a cause of concern. For example, GIS and digital mapping technologies require skills, infrastructural support, and access to the internet, which Indigenous people may not possess. In reference to Central Australia, Peterson observes that the use of digital maps can disrupt traditional structures of knowledge, by giving young people with computer skills "control of the same body of place location knowledge as much older people" (2017: 247; see also Chambers et al. 2004: 24). Arguing that maps are inherently neither good nor bad, Wainwright & Bryan emphasise the need to focus on "social processes through which maps are produced and read" (2009: 154). Surveying the various issues raised in the counter-mapping literature, what is clear is the need for those involved in mapping projects to be aware of cultural assumptions underlying mapping activities, the sociopolitical contexts in which maps are produced and employed, and how maps may implicate particular ways of perceiving, experiencing, and delimiting the world.

The cultural mapping project that is the subject of this chapter was funded and directed by Lander Warlpiri Anmatyerr[14] people from Willowra in collaboration with the authors (anthropologists) and the support of the Central Land Council (CLC), Alice Springs. Known in English as the Lander, the generally dry Yarlalinji River runs through Willowra, which is located in the southern Tanami Desert about 350 kilometres from Alice Springs. Like many communities in Central Australia, recent decades have seen the passing of members of the older generation who possessed an intimate knowledge of the land. Guided by elder Teddy Long Jupurrula and endorsed by the local community, the project aims at grounding young people's identities, relationships, and cultural futures in country. It is hoped in this way to refigure their sense of country, that is, its social, spiritual, and symbolic meanings. The Warlpiri concept of 'country' is central. It concerns ancestrally animated land, specific tracts of which people identify with and possess rights and interests in (see Sutton 2003, 1998a). While not yet completed, the project has involved visits to and documentation of sacred sites, while elders share their knowledge with family groups as they engage with their ancestral landscapes. In the last phase of the project, archival materials were employed in order to augment the intergenerational transmission of cultural knowledge and support the co-constitution of persons and places.[15] In what follows we discuss the mapping process and consider practical, ethical, and other matters it raises.

The chapter is divided into three sections. First, we provide a historical context for shifts in Lander Warlpiri engagements with country and consider what is at stake for people in the mapping project. We also describe how the project developed. In the second section we discuss

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13 Peterson (2017: 247) notes that where there is more than one place name for a site, or different spellings in different languages, choosing just one may unduly advantage one group over another, given the relationship of language to landed identity and the significance of 'ownership' of land in the legal context (see Peterson 2017: 241–242; Weiner & Glaskin 2007). This is no small matter.

14 Hereafter Lander Warlpiri.

15 See also Wafer (2017: 26–27).

the methodology and resources employed in the project and provide a case study of a cultural mapping trip. In the third section we explore the outcomes and issues that have arisen during the process of re-animation and evocation of place-based knowledge and memories. Relatedly, we illuminate tensions that can result from the complex interplay of archival returns with contested understandings of territorialities, landholding, and differing social formations over time. Throughout we attend to the ways in which local people's practices of representing and inscribing place (see Wilkins 2002) may differ from, build upon, and/or exceed western spatial regimes, cartographic practices, and technologies.

Background to the project

Historical context

The project arose from the concerns of Willowra elders over the increasingly circumscribed opportunities for younger people to acquire the place-based knowledge and experiences that are regarded as foundational to local identity, social organisation, and cultural continuity. As is the case in many parts of Australia, the lifeworlds of Willowra people today are radically different to those of their forebears, whose social relations were anchored in the landscape. The elders acquired visceral knowledge of country during eras in which they travelled on foot, sometimes using horses and/or donkeys, then, post 1970s, motor vehicles. While Warlpiri continue to maintain religious and cultural practices, other domains of life have changed following European settlement of their land.

The process of colonisation of Lander Warlpiri country began in 1860 when John McDouall Stuart attempted to cross Australia from south to north.[16] In 1928, soon after settlers moved into the region with cattle, conflicts over water and Aboriginal women culminated in settlers killing many Warlpiri, Anmatyerr, and Kaytetye people along the Lander and Hansen Rivers.[17] This event became known as the Coniston Massacre. While many locals took refuge in hills, others fled the region, eventually to be settled in government settlements such as Yuendumu, Warrabri (Ali Curung), and Hooker Creek (Lajamanu). Those who remained in the Willowra region continued hunting and gathering on their traditional lands while avoiding encounters with settlers. However, this situation changed after 1948 when the Willowra pastoral lease (PL) was taken over by the Parkinson family, with whom local people established relatively good relations.

In 1973, the Commonwealth purchased Willowra station on behalf of the local residents. Concerned about the vulnerability of leasehold tenure, the traditional owners lodged a land claim to the pastoral lease under the *Aboriginal Land Rights (Northern Territory) Act 1976*. This was followed by a claim to the adjoining Mount Barkly station, which had been purchased by the Aboriginal owned Willowra Pastoral Company. Claims were also lodged to Kaytetye, Warlpiri, and Warlmanpa country adjoining Willowra to the east and to Yurrkuru, on unalienated Crown Land.[18] The claims, lodged by the CLC (involving Vaarzon-Morel), were

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16   See Wafer & Wafer (1983: 35–44) for a description of Stuart's journey and his renaming of Warlpiri places.

17   See Vaarzon-Morel (1995).

18   These claims followed upon the first Warlpiri claim, the 1978 Warlpiri and Kartangarurru-Kurintji land claim.
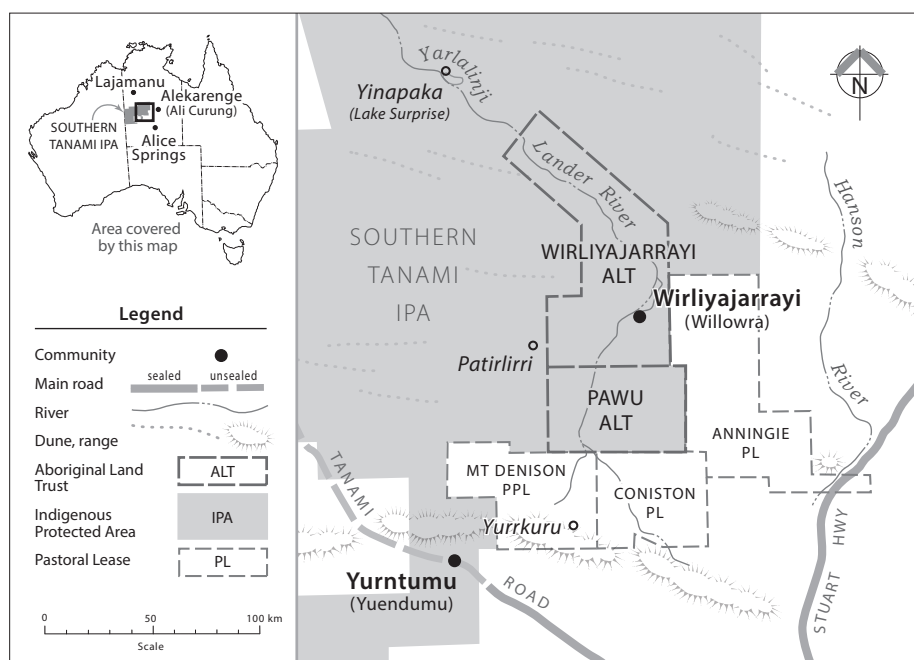
Figure 1. Map showing location of Wirliyajarrayi Aboriginal Land Trust (former Willowra PL), Pawu ALT (former Mount Barkly PL) and other key places mentioned in the text; shaded area is the portion of the Southern Tanami Indigenous Protected Area which encompasses the Lander River (map: Brenda Thornley)

successful and the majority of Lander Warlpiri land is now Aboriginal freehold, unlike the majority of adjoining Anmatyerr land, which is encompassed by non-Indigenous held pastoral leases (see Figure 1).[19]

Mapping country in land claims

In preparation of the above-mentioned land claims, the CLC employed anthropologists and linguists to research the claimants' system of land tenure. In the process they documented Dreaming tracks, sacred sites, and related ancestral stories, songs, and ceremonies. While constraints on time and resources limited the opportunities for country visits, the land claim maps provide the most extensive spatial record of sites in the Lander Warlpiri, Anmatyerr, and adjoining Kaytetye region that existed until recently. While the maps were impressive, a common refrain of elders at the time was that they didn't need "whitefella maps," because they held the knowledge in their heads (see also Peterson 2017; Sutton 2019).

Along with anthropological reports, maps showing place names associated with clan estates and Dreaming tracks became exhibits in claim hearings. Although professional and drawn to scale (Peterson 2017: 246), they lacked the topographic shading and colour of base

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19   At the time of writing, a native title claim has been lodged under the *Native Title Act 1993* (Commonwealth) on Anningie station and in June 2018 a determination of Native Title was made for the Anmatyerr and Warlpiri custodians of Mount Denison PPL (perpetual pastoral lease).

maps now produced with geospatial technologies (such as GPS devices[20] and GIS software), which are readily updated. While numerous sites were accurately located, the positions of many others were estimated using a combination of techniques, including by taking compass bearings of locations pointed out by claimants and 'mud maps' drawn in the sand by Warlpiri men. Moreover, information recorded in the claims was directed to the legal process, which did not require every sacred site to be recorded. Nevertheless, the field trips provided important opportunities for people to visit country, which in some cases had not been revisited since the time of the Coniston Massacre. The trips also meant that younger people raised on settlements could experience their countries firsthand.

While researchers were conscious of the enduring value of the maps, little consideration was given to their future use. At the time, land council efforts were directed toward winning claimants' cases in the face of concerted opposition from various parties, including the Northern Territory Government. Looking back, it was an era of hope, when it was hard to imagine how the impacts of factors such as modernity, demography, changing government policies, and practices of dwelling on the land would affect people's lifeworlds. Moreover, the legal process involved in claiming land and granting property rights to Indigenous peoples is itself not without impacts (Povinelli 1993; Weiner & Glaskin 2007).[21]

Discussing the effects of the mapping and registration of Indigenous customary land in Australia and New Guinea, Weiner & Glaskin note that land claims are not just about securing land rights, but "also about creating a managerial and legal capacity for them through various processes of *incorporation*" [emphasis in original] (2007: 6). Commenting on the impacts of maps produced for Indigenous land claims in Belize and Nicaragua, Wainwright & Bryan observe that an effect of "the cartographic-legal strategy" was a "shift towards conceiving of rights to land in terms of *property*" [emphasis in original] (2009: 155).[22] Closer to home, Elias (2007) has explored the effects of gold mining on ways that Warlpiri people model relations to, and delimit, place in the Northern Tanami. He argues that the land rights and royalty regime has resulted in the reification of people's relationship to place, the objectification of place as space, and new forms of valuation. He notes, furthermore, that the influence of the latter is not insignificant: "It is at the centre of tensions and politicking between people to identify who is eligible to receive money from specific tracts of land, and the criteria upon which such eligibility is based, contested and upheld" (Elias 2007: 224).

The impetus for the Lander Warlpiri cultural mapping project

Over the past decade, many of the older generation who walked the land and gave evidence in land claims have passed away. Furthermore, while initiation, women's *yawulyu*, and other land-based ceremonies are still held, collective knowledge of large-scale ceremonies such as

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20 Global Positioning System devices record points and routes to assist navigation.

21 The negative effects include issues arising from the fact that the burden of proof in claims is on Indigenous people with the "inevitable clash between indigenous and non-indigenous modes of proof" (Gray 2000: 1), and the non-recognition of claims by people who cannot satisfy the requirements of land rights acts.

22 On relationships between mapping, territorialisation, and/or property regimes, see Carter (1987), Nadasdy (2017) and Craib (2017).

Ngajakula and Jardiwanpa, has diminished. At the same time, younger people's lives have altered with their increasing entanglement with settler society and constraints imposed by the government income support system. The Lander Warlpiri region covers a vast semi-arid territory with limited road access. Most individuals cannot afford the properly equipped all-wheel drive vehicles required to access remote areas of country without risking lives. As few people have such suitable vehicles, knowledge of traditional country away from station tracks and roads has declined (Elias 2007; Peterson 2017).

Yet, while the nature of people's engagement with land has transformed, country remains central to their identity and spiritual wellbeing. While it is undoubtedly the case that land has acquired new forms of value as a result of compensatory payments from activities such as mining and leases, land is not regarded as a commodity. Nevertheless, as demonstrated by Elias (2007), the impact of the Australian territorial and property regime on Warlpiri is undeniable. To take an example from Willowra, prior to the commencement of the mapping project, Vaarzon-Morel overheard a young man refer to his father's country as "my station," as he demarcated clear boundaries in the sand. In doing so he conflated the anthropological term 'estate' with 'station' and attributed a non-permeable boundedness to the country that it does not possess for older generations.

During the same period, Willowra community underwent much conflict, some of which arose between families over payments made by the government for the compulsory tenure of land on which Willowra is located.[23] Elders attributed some of the problems to younger people's lack of knowledge about the complexity of people–land relations and conjoined responsibilities for country at a regional level. At the same time, a lack of knowledge of where one's group hands over responsibility of a Dreaming track to another meant that young people sometimes asserted rights beyond their traditional country. Younger people were also anxious about a decline in place-based knowledge with the passing of elders. While such concerns motivated the project, a related impetus was the desire to maintain "strong Yarlalinji Warlpiri" language. Although Yarlalinji or Lander Warlpiri is in the strongest position of the four main Warlpiri dialects[24] spoken today (O'Shannessy 2012), it is still vulnerable.[25] While lack of space prevents us elaborating here, place names, associated stories, and landscape terms index and contain important cultural information (Hercus & Simpson 2002; Burenhult & Levinson 2008).

The CLC was keen to support the project for two main reasons. Firstly the Lander region had not been subject to the same intensive mineral exploration and site survey activity as the northern Tanami, hence maps were not updated. Secondly Brian Connelly, former anthropology manager at the CLC, regarded the situated, bottom-up approach of the project

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23   The leases were a condition for receiving basic infrastructure and services, a requirement of the 2007 Northern Territory National Emergency Response, which aimed to 'normalise' Aboriginal communities (Altman & Hinkson 2010).

24   The four main dialects are Southern (Ngaliya), Western Warlpiri (Warnayaka), Northern, and the eastern Lander River and Hansen River dialects (Laughren in preparation).

25   Willowra people's long-held resolve to maintain the vitality of Lander Warlpiri is demonstrated by their campaign to develop the bilingual education program at Willowra in 1976 (Vaarzon-Morel & Wafer 2017), their ongoing commitment to Warlpiri law and ritual, their funding of the Wirliyajarrayi (Willowra) Learning Centre (WLC), and now the cultural mapping program.

as a possible model for future mapping projects. Land councils throughout Australia struggle with issues concerning the dissemination of ethnographic material created during claim research. In addition to legal issues (see earlier), and amid large workloads involving traditional owner consultations, land agreements, and dispute mediation, most land councils do not have the funds or capacity to systematically undertake a meaningful repatriation process. In this instance the CLC was able to positively respond to the Willowra community's request for support, because – despite material disadvantage and competition for limited resources – the community allocated significant resources to the project. A related factor was the authors' long-term relationships with Willowra.

A vision takes shape

Although elders had long expressed concerns to Vaarzon-Morel about the lack of opportunities for younger people to learn about their countries in situ,[26] the project took shape in conversations with Teddy Long Jupurrula during research for a native title claim over Mount Denison PPL. At the time, Jupurrula and Kelly were discussing sites they had mapped on the PPL, when Jupurrula suggested creating a map of the entire Lander region, extending from Lake Surprise (Yinapaka) in the north to his country Yurrkuru, in the south, where the Coniston Massacre began.[27] Motioning to the end of the wide veranda of his house, he indicated the large scale and scope of the map. It would largely ignore boundaries imposed on the land such as pastoral leases and land trusts created through mechanisms of settler property regimes.

By chance, 'The Paruku Project' (Morton et al. 2013), a major exhibition showcasing scientific and Indigenous understandings of land around Lake Gregory, WA, had opened in Alice Springs. This gave Jupurrula an opportunity to tease out his vision with Kelly. Yet, as impressive as the exhibition was, there were few examples of what Jupurrula wanted. On the return trip to Willowra, while stopping at Ti Tree roadhouse on the Stuart Highway, Jupurrula sighted a mounted map depicting the highway snaking down Australia, dotted with names and images of towns and roadhouses. He indicated that he wanted something similar but larger, with the Lander River as the map's centrepiece. He also suggested graphic illustrations that depicted ancestral activity; for example, dust kicked into the air by ancestral Karnta Karnta 'Dancing Women' as they travelled through the region. Such a map would illuminate Warlpiri cosmography and the sensory experience of country conveyed through song, ceremony, and story. Unlike a sand map, Jupurrula wanted a 'modern' map to appeal to youth. While form was important, the underlying rationale was to use the map as a teaching tool: the telling of stories and reworking of cultural information by family groups while on their country was central to this process.

With the realisation that such a project would be a large financial and logistical undertaking, it was suggested that Vaarzon-Morel and Kelly apply to the Warlpiri Education Training Trust

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26   For example, the late Maxie Jampijinpa would argue that elders should be supported to educate people about Jukurrpa. Elders also pondered why funds were directed to physical and not cultural infrastructure, that is, their intangible cultural heritage.

27   In 1928, Yurrkuru was on Coniston Station, but changes in PL boundaries mean that it is now encompassed by Mount Denison Station.

(WETT) for funding. In part, it was conceived as a community-building opportunity in the hope that it would empower people's sense of governance and help the process of repairing fractured social relations. Projects which had recognised the main families in Willowra, such as the painting of Jukurrpa panels in 2013 for the new Wirliyajarrayi (Willowra) Learning Centre (WLC), had demonstrated positive community impacts. While initially the project was funded for two weeks, it became apparent that a more substantial undertaking was needed. To this end, the authors successfully applied to WETT for larger grants. The Anthropology section at the CLC agreed to act as the project partner, and in principle support was provided by the WLC and South Tanami Indigenous Protected Area (STIPA).

Additional funding was provided by the Granites Mines Affected Areas Aboriginal Corporation (GMAAAC).[28] Funded and directed by Willowra community, the mapping project ran for 16 weeks from late 2014 to 2018.[29]

Methodology and the mapping process

In this section we describe the preparation of the physical map and sketch the mapping process and activities undertaken on the ground. We then provide a background to the legacy materials used in the project and present a case study to illustrate their incorporation.

Map preparation: the base, scale, orientation, and demarcation of Lander country

As Brotton (2012: 13) notes, all map making involves choices as to content that is included or excluded, the perspective, orientation, projection, and scale used, and how territories are demarcated. From the start, project participants agreed that the map should be large in scale and able to be laid on the ground and read like a sand map. This would facilitate group discussion about people's connections to places and each other and ensure that the map was collectively constructed. Furthermore, apart from the fact that internet connectivity is slow and unreliable at Willowra, no local person possessed computer-based geospatial mapping skills. Moreover, the use of such technology at this stage would have undermined elders' command of the mapping exercise. While people are open to learning digital mapping techniques, those techniques should complement Warlpiri geographic knowledge systems and "cartographic responses" (Palmer 2012). The digital imaging and mapping technology used on the ground was largely limited to cameras (including video and smartphones), printed satellite images, and GPS (handheld and mounted in cars).

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28   Supported by the Community Development Program at the CLC, the GMAAAC committee constitutes an informal reference group who invite potential partners to submit community benefit project proposals. Funding is derived from compensation payments from mining in the western Tanami. The benefits of this approach for the community included the use of established CLC Community Development consultation processes, the involvement of community members in project design, and the responsiveness and accountability of project workers to the community.

29   WETT contributed $84,715 and GMAAAC a further $121,883. 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, canvas painting, and recording equipment.

It was agreed to begin with a place names map, to be compiled during country visits and discussions at Willowra. Kim Mahood, who had worked on the Paruku project mentioned earlier, was employed to underpaint a large canvas on which she marked features in the Lander region. (The advantage of canvas was that it is durable, rollable, and easily moved.) Projecting a series of adjoining 1:250,000 topographic maps on a wall, she traced the course of the Lander River, from its rise in the south near Coniston to the flood-out in the north at Yinapaka (Lake Surprise). She drew visual landmarks such as mountains, sandhills, roads, station bores, and fencelines to help people calibrate distance and the relative positions of sites. Then, re-projecting the maps onto the canvas, she added names of well-known places for which we had geo-referenced data.

Encompassing the Lander River from north to south, the map extended east to neighbouring Kaytetye territory and west to the area where Lander Warlpiri territory merges with that of Warnayaka Warlpiri. There is in fact no hard and fast boundary demarcating Lander Warlpiri from other Warlpiri regions. According to Jupurrula, the map broadly covered the estates of Lander Warlpiri and Anmatyerr whose members traditionally intermarried, held ceremonies together and considered themselves "all one family." Just as the region cannot be precisely delineated, neither can individual estates within it. As anthropologists' reports for Warlpiri land claims observe, a clan's 'country' is comprised of the area surrounding clusters of named sites and Dreaming tracks with which patri-groups are affiliated (Peterson et al. 1978; Wafer & Wafer 1980).

Significantly, the orientation of the map along a north–south axis aligned with Lander Warlpiri geo-social groupings of estates. While not the case in every instance, the countries of several clan groups who belong to the patri-moiety containing the subsections Jungarrayi/ Nungarrayi–Japaljarri/Napaljarri[30] and Japanangka/Napanangka–Japangardi/Napangardi are located downstream surrounding the northern Lander. Several other countries belonging to clan groups associated with the opposite moiety, that is, Jangala/Nangala–Jampijinpa/ Nampijinpa and Jupurrula/Napurrula–Jakamarra/Nakamarra, are located upstream on the southern Lander River. Reflecting the spatial distribution of the two groupings, the following terms are used for the two moieties: *Ngurra Kurlarninyarra*, meaning 'camp across the north side' and *Ngurra Yatujumparra*, meaning 'camp across the south side' (Laughren 1982: 76). This arrangement has implications for ritual and social relations.

Mapping on the ground

This part involved visiting as many places as possible with *kirda* and *kurdungurlu* affiliated with the sites and surrounding country. Ownership of most Warlpiri estates and ritual property is passed down the generations through the male line, in what anthropologists variously refer to as patrilineal descent or patrifiliation (see Sutton 2003). Although women inherit their father's country, they do not pass on their same ownership rights to their children. Warlpiri refer to male and female 'owners' in the male line as *kirda*, whereas children of female members of the patriclan are called *kurdungurlu*. The latter act as ritual managers for their *kirda*. The relationship between *kirda* and *kurdungurlu* is complementary and reciprocal.

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30   Men's subsection names begin with 'J', whereas women's start with 'N'.

Observing cultural protocol, estate groups did not map other people's countries. Nevertheless, the 'witnessing' of trips by non-estate members was critical, and the project facilitated various people participating as observers in order to learn about regional links. For the most part, we undertook day and overnight trips.[31] The number of sites visited varied each trip, depending on factors such as accessibility and time spent engaging with country, as people addressed ancestral spirits, cleaned soakages, fired country, sang, hunted, cooked, and performed other activities (see case study below). Many sites proved difficult to locate due to changes in vegetation and difficult terrain, resulting in flat tyres – sometimes seven or eight a day. Nevertheless, the process generated considerable enthusiasm, with young people becoming attuned to the spiritual landscape, reading the Dreaming topography with renewed vigour. This resulted in people locating soakages when hunting in private cars.

The on-ground mapping process blended scientific cartographic techniques with Warlpiri cartographic practices and navigation (see Nash 1998; Vaarzon-Morel 2016). For example, when explaining the location of a site, men sometimes drew a sand map. Employing cardinal points such as north and south to orient themselves (the absolute frame of reference), they indicated the position of sites in relation to one another. Depicting sacred sites and Dreaming paths as circles and lines respectively, these ground maps drew upon the iconographic system employed when painting designs on people's bodies, ritual objects, and acrylic paintings produced for the art market (Munn 1973; Sutton 1998a).

In keeping with Warlpiri methods of imparting cultural information, elders provided details of Dreaming places while in proximity to them. Observing age and gender restrictions, they pointed out topographic features such as rock formations, Dreaming trees, ridge lines, and creeks that revealed ancestral activity and paths of travel. Elders insisted that *kurdungurlu* accompany *kirda* on site visits and, as described below, on visiting a site, *kurdungurlu* would address ancestral spirits, announcing the identity of visitors and asserting their rights to be there.

While elders instructed younger people about the landscape, the anthropologists docu-mented GPS locations, place names, mythology, the extent of sites, and the nature of people's affiliations to them. Elders, who had not visited some sites since their youth, benefitted from recourse to land claim maps. In addition, photographs and legacy recordings were employed to prompt people's memories of places, resulting in the recollection of stories, information, and ritual performances. Younger people videoed activities and recorded events on mobile phones, later sharing images with relatives, who circulated them on devices using applications such as Bluetooth. Back at the WLC, newly documented toponyms were marked in the correct locations on the canvas map, which was used to facilitate further discussions of people's rela-tionships with places and Dreamings (see Figures 2 & 3). Data was entered in a spreadsheet and provided to the CLC geospatial unit to add to their database to produce revised maps.[32] Copies of photos and recordings were provided to participants on trips and uploaded to a designated

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31 Not counting IPA trips (involving about 80 people), a total of 198 people participated in mapping trips. Of these approximately 25 per cent were 60 years plus, 40 per cent 30–50 years, and 35 per cent 16–30 years.

32 To give an idea of sites located on Mount Barkly and Willowra claim areas, 233 were recorded prior to the project, of which 49 were located. The project has since located 136 sites, of which 20 were not previously documented.

heritage computer at the WLC. Geo-referenced by place name and coordinates, the media is also stored at the CLC. On completion of the project, copies of material will be provided to the GMAAAC committee, who will discuss archival options for long-term preservation.

Figure 2. Cecilia Nampijinpa and Doris Napaljarri add place names to canvas map, Willowra Learning Centre (photo: Petronella Vaarzon-Morel)

Figure 3. Map talk at the Willowra Learning Centre. Elder Lucy Nampijinpa instructs Doreen Nakamarra and others (photo: Petronella Vaarzon-Morel)

Augmenting GMAAAC-funded mapping trips, we participated in two Warlpiri ranger and community country visits organised by the CLC Land Management section. In 2018, we camped for a week at Yinapaka, 80 kilometres to the north of Willowra. The area is part of an Indigenous Protected Area (IPA) in the Tanami region. Under the IPA plan of management, cultural values and practices are regarded as integral to natural resource management. Thus, while a key objective of expeditions was burning to regenerate country and promote biodiversity, the trips provided an opportunity for traditional owners to undertake cultural activities in their countries.

In addition to the ground-based burning of country, aerial burning was undertaken by helicopter in remote country and, when not required for burning, we employed the helicopter to locate sites. For example, on one occasion, navigating without a whitefella map, elder George Jungarrayi directed the pilot as we[33] followed the route taken by the ancestral *Mala* 'rufous hare-wallaby', hoping to locate *Mala* sites on the ground. Jungarrayi's method was first to orient himself to a known place, then taking cues from changes in topography and vegetation as we flew, he looked for distinguishing trees and features which 'marked' the places in question. In this way we located several sites. At night senior women led *yawulyu* singing sessions and instructed younger women about song items related to the identity and features of surrounding estates. The metaphorical nature of many songs means that information about places can remain opaque to those without firsthand knowledge of them. For example, *wurrpardi* 'spear bush' grows on the high sandhill which runs east–west for 13 kilometres on the northern side of Yinapaka. One song concerns an ancestral being who fashions ritual spears from *wurrpardi.* While straightening spears in the fire, the ancestor notices another being in sandhill country further to the east and calls out: "I'm Yinapaka, and I'm Warlpiri," to which the other ancestor replies, "I'm Ngunulurru and I'm Warlpiri." In this way they establish relations of similarity and difference. Song is an important mnemonic practice for Warlpiri, and such sessions stimulate multilayered understandings and poetic evocations of country.

As part of the project, one week was devoted to recording the Ngajakula songline. Ngajakula is owned by *kirda* belonging to the moiety associated with *Ngurra Kurlarninyarra* (see earlier) and is the reciprocal ceremony to Jardiwanpa, *kirda* for which belong to the opposite moiety. While it is beyond the scope of this chapter to elaborate, Ngajakula and Jardiwanpa songs encode cosmological details of places and link estate groups belonging to the same subsections. In so doing they invoke a level of social organisation beyond the local (Vaarzon-Morel in press). The intent of the Ngajakula session was to instruct young people about socio-spatial relations in the Lander region and relate places mentioned in songs to sites on the map.

Deeming the content of the songs and their performance too powerful to perform within the WLC, elders took the map to the ceremonial ground at Willowra, where they hung it from a Toyota correctly oriented (see Figure 4). Before instruction began, young men collected wood, constructed bough shades, and prepared the ceremonial ground, while elder George Jungarrayi carved clapping sticks. Teddy Jupurrula introduced the proceedings, explaining the purpose of the map. He spoke to the ethical imperative of understanding how far one's group takes a songline and not "jumping over" into other countries to claim royalties. He began:

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33   Jungarrayi's daughters and Vaarzon-Morel.

I know a lot of young people and middle-aged people have still got to learn Law proper way. At royalty time people talk up but they don't know Jukurrpa from *warringiyi* (father's father). [Gesturing to the map.] You've got the proper story and Jukurrpa along these soakages and places. I bin thinking about this map a lot. I was the one behind the map. We've been working on this map with Napangardi (Vaarzon-Morel) and Jungarrayi (Kelly) a couple of years now. We've been putting all the waterholes and names.

Figure 4. With the map correctly oriented on a north–south axis, Teddy Long Jupurrula instructs a group of men and women (out of sight, Dwayne Jupurrula on Teddy's left) about interrelationships between countries in the Lander River region (photo: Petronella Vaarzon-Morel)

After Jungarrayi traced the path of Ngajakula ancestors through the region, men sang the songline. In the event, over 60 song items were recorded on video. Subsequently, USBs with the recordings were provided to elders to share with family. Although a Ngajakula ceremony was filmed at Yuendumu in the 1970s (Sandall 1977), people wanted their songs documented in full as the songline may never be performed in its entirety again.

Use of archival materials

In this section we describe how Vaarzon-Morel's legacy collection of media relating to the Lander region is being incorporated in the mapping project. For background, Vaarzon-Morel has worked with Willowra community for over 40 years, firstly as a school teacher in 1976–1977, then conducting anthropological research for land claims, and housing, history, environmental, and social justice projects. Her collection, which documents Lander Warlpiri intangible cultural heritage, includes photographic images, audio and visual recordings

of women's rituals, men's public ceremonies, and narratives, much of which was recorded during Vaarzon-Morel's PhD research in the 1980s. In the 1990s she collaborated on *Warlpiri women's voices*[34] with different generations of women, some of whom have sadly passed away. Their families still cherish the book, which describes events in the Lander region following colonisation.

Over the years Vaarzon-Morel had provided innumerable copies of photos and recordings to families at Willowra. However, the lack of suitable places to store material, combined with constant handling, heat and dust, and people's observance of protocols concerning the deceased (requiring them to destroy images or possessions of a person following his/her death), meant that material rarely survived long. Moreover, the equipment for playing old recordings was obsolete. Although the CLC had digitised some of Vaarzon-Morel's photos and placed them on their version of Keeping Culture KMS (keepingculture.com) for community access, no Aboriginal houses at Willowra currently have internet. While the internet became available for community use in 2013 when the WLC was established, low capacity makes it impractical to use Keeping Culture KMS and other cloud-based platforms for the sharing of digital cultural media.

In 2016, Vaarzon-Morel became Research Associate on an ARC Linkage grant[35] with partner organisations the CLC, the University of Sydney and the University of Melbourne. The aim of the project was to apply research on archiving and community access to find practical solutions to managing recorded cultural material of interest to the CLC and its constituents. This involved connecting collections to appropriate people and supporting CLC activities in land management and intergenerational knowledge transfer, and contributing to people's wellbeing. The linkage project enabled Vaarzon-Morel's Willowra collection to be digitised and reintegrated into the community, with instructions taken for long-term preservation and access.

After explaining what the linkage project was about, Vaarzon-Morel informed people about the content of the collection, from which they selected media that they wanted to listen to or view. On first encountering an item, an individual frequently chose not to share it. That access restrictions apply to secret-sacred, gendered materials also means that people need to view the contents of material before they can make informed decisions. In addition to the fact that "secrecy and economizing with knowledge is central to the relations between the generations" (Peterson 2017: 235), individuals do not want to violate protocols by revealing information to the wrong people. A fundamental principle of the system of protocols surrounding cultural property in Central Australia is that one should not speak for, and make decisions about, country, songs, ceremonies, or ritual objects for which one does not hold customary rights and responsibilities (Michaels 1986; Myers 1986; Sutton 2003). While the exercise of an individual's entitlement depends on seniority and context, a general rule is that cultural property should be managed by relevant *kirda* and *kurdungurlu.* As indicated by Napanangka, the latter should be close kin:

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34   For a critique, see Grossman (2013).

35   LP140100806, 'Re-integrating Central Australian community cultural collections'.

> The people with the authority to make decisions [about archival material] are older and middle-aged persons. If people have passed away it should be their descendants, through mother and father, but with mother's side it should be close up, not distant people.[36]

While changing attitudes concerning the deceased means that families are now keen to have photos and recordings of deceased relatives, affective qualities of such media are apprehended differently, so that widows avoid material associated with deceased spouses or children. In keeping with customary mortuary practices, adult children manage photos and records of their parents. However, photos and recordings are not simply material objects, but are imbued with the persona of those who figure in them, and they can provoke deep emotions in viewers. For example, on first viewing footage from the 1970s of their relatives, senior women referred to them by their Dreaming names, in recognition of their ancestral status. They touched images with tenderness, weeping tears of joy and sorrow at reconnecting with 'dear ones'. In this manner they cleared the way to re-engage with the material much as they sweep places after an absence (see below), thereafter relating to them in quotidian ways. Listening to relatives discussing a Dreaming, Jeannie Nampijinpa remarked: "the old people are calling up we mob, and we still hold 'em [songs, stories, ceremonies]. This is good to have these stories and songs to teach young people." For her part, Vaarzon-Morel was relieved to know the media would be reused in ways long envisaged. The recordings awakened memories of good times, underscoring the women's enduring – if at times diffuse – involvement in each other's lives. While more can be said about the returns process, we make some general observations before addressing how material was put to work for the mapping project.

Where media featured groups of people performing public ceremonies, the return process was straightforward, involving Vaarzon-Morel consulting participants or, if deceased, close kin, as to what they wanted done. Invariably she was asked to copy material onto USBs and USB bracelets to distribute to nominated individuals for viewing on TVs, iPads, and PlayStations. Photos and recordings deemed suitable for wider community access were copied to computers housed at the WLC. Where media involved one or a few deceased persons, Vaarzon-Morel consulted their adult children (if not available, then other kin) about the material. After items were returned to individuals, other people quickly asked for copies, asserting their relatedness to people featured in them. Such demands of sociality can cut across other considerations. This was generally not a problem, as designated 'holders' of material became comfortable sharing with extended family. However, Vaarzon-Morel was sometimes instructed to withhold material from kin due to disputes.

The material brought back memories and provoked much discussion. People not yet born at the time of a recording were keen to learn more. While metadata was available for items, individuals frequently asked Vaarzon-Morel to sit with them while they listened to, or viewed, recordings and photos of relatives and country. This provided an opportunity to further annotate material. We also translated stories, songs and interviews, noting place names, Dreamings and other details relevant to the mapping project. During this process, individuals selected material to take with them when visiting their country.

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36   That is, genealogically distant, e.g. MDDDD or S (man's daughter's daughter's daughter's daughter or son).

For example, a recording made in the late 1980s of a conversation between Vaarzon-Morel and the late Japangardi, senior *kirda* for Ngarnalkurru, contained important information about sites in his country. Listening to the recording, his daughter, Napanangka, was able to identify forgotten toponyms, thus enabling her to revive them. She discussed the places with her aging mother, Nampijinpa, who recalled their location, and when we visited them, remembered further details. Additionally, photos with descriptions of sites, some of which feature in *Warlpiri women's voices*, proved valuable to custodians. It also happened that while listening to old recordings, people identified unfamiliar language terms, which they followed up with elders. In this way, terms pertinent to earlier modes of relating to country were reintroduced to people's language repertoire.

The following provides a case study of a mapping trip. While incomplete and not addressing all the elements of the project, it nevertheless offers a view onto the multilayered process through which people are mobilising archival material to remake their sense of place. It shows how they reinscribe names, stories, and song in country, incorporating aspects of elders' knowledge into their own.

Case study: Visit to Patirlirri, 2018

Driving west from Willowra, we headed away from the Lander River toward the limestone country of Patirlirri. Patirlirri is the name for the assemblage of sacred places, Dreamings, and biophysical features that comprise the patrifilial country of the Kitson family, who we accompanied this day. While not the only trip to Patirlirri, it was the first on which elder George Jungarrayi had come to help locate elusive sites. Although Patirlirri is not his country, he knows it intimately, having visited the area on foot before settling at Willowra.

Jungarrayi holds primary responsibility for the countries Yinapaka and Ngunulurru which adjoin Patirlirri to the northeast. Linked by shared Dreaming tracks associated with the same subsections, these neighbouring countries are said to be in a 'company relationship'. *Kirda* for Patirlirri, Yinapaka, and Ngunulurru are associated with the Jungarrayi/Nungarrayi and Japaljarri/Napaljarri subsections, and *kurdungurlu* with Jupurrula/Napurrula and Jampijinpa/Nampijinpa subsections. That they share the same subsection affiliations means that the countries stand in an equivalent kinship relationship to each other.

As Jungarrayi is the senior surviving male of the related countries, *kirda* and *kurdungurlu* of Patirlirri deferred to his vast knowledge. On such trips there is a palpable sense of urgency to learn from elders. On their part, the elders demonstrate their deeply felt responsibility to uphold the law and sustain country by teaching younger generations. When not on their own country, and mindful of ancestral spirits, they are careful to deny their entitlement, exclaiming, as did Jungarrayi, "this is not my country, I'm just showing it, learning the younger ones."

During this trip we stopped at numerous places where Jungarrayi pointed out features and shared his knowledge of the cosmography. While younger people recorded events on cameras and phones, the anthropologists noted GPS positions, place names, features, stories, and details of people associated with places. Utilising Jungarrayi's sand maps and satellite photographs, we collectively checked newly recorded locations against those marked on land claim maps and calibrated likely positions of sites yet to be re-located (see Figure 5). Throughout, people learnt about country while sensorially immersed in it.

Figure 5. Dwayne Jupurrula, George Jungarrayi, and Luke Kelly discussing site locations (photo: Petronella Vaarzon-Morel)

On approaching sacred places, *kurdungurlu* would walk ahead, addressing ancestral spirits and identifying everyone present. They cleaned waterholes by digging out sand and burning surrounding grass. Such rituals are generally performed after considerable time has elapsed between visits. Places resonate with spirits and memories, and the death of a person connected to a site moves women to keen when first revisiting that place. Using eucalyptus branches, everyone would file past the site while sweeping the surrounds to erase traces of the deceased. Moving on, as we travelled from place to place, people collected bush medicine, hunted for food, fired undergrowth in order to regenerate the country, and otherwise engaged with the ancestral landscape.

On this occasion we travelled in two vehicles: men in one car and women in another. As we travelled through Patirlirri, Julie Napaljarri plugged a USB into the dashboard of the Toyota and played a recording of her late father, Jimmy Jungarrayi. It was one of the items digitised through the linkage grant that Napaljarri had suggested we take to remind us about places. It had been recorded 30 years earlier, when Jungarrayi had taken Vaarzon-Morel to Patirlirri to show her where he wanted to establish his outstation. Momentarily collapsing the passage of time that now separated them, Jungarrayi's voice could be heard teaching the young anthropologist about the country, calling out the names of places she now drove past with his daughters and grandchildren:

> Mijarrkunyangu—swamp, Nganawulpayi, Jamirdiwurduwurdu. We'll get along Rabbit Bore, going up Patirlirri area … there's a bit of a creek starts in [the] spinifex – that's Ngatijirri Jukurrpa [Budgerigar Dreaming]. The little hill north, close to the road is Lirrapirtipirti, Ngatijirri starts there …

Continuing his commentary, Jungarrayi described the paths taken by Dreaming beings as they deposited their spiritual essence and created the landscape through which we drove. He explained that the neighbouring countries Pawu and Yurrkuru stood in an in-law relationship to Patirlirri, meaning that they produce *kurdungurlu* or ritual managers for Patirlirri and vice versa. Through this emphasis, Jungarrayi stressed that the different countries in the Lander region were *jintangka* 'in one' and that "you can't cut 'em out," that is, treat them as unrelated. At the site Kulumalaji he recalled a ceremonial gathering during which young men played a game of *pulja*, in which players from opposing teams and generation moieties competed for possession of a hairstring football. As we approached Tipirnpa, Jungarrayi pointed out where his brother and three other relatives were shot by the whitefella Nugget Morton during the Coniston Massacre.

Continuing on, Napaljarri played another recording. This one featured her mother and sisters-in-law singing Ngatijirri *yawulyu* for Patirlirri country. They also sang related *yawulyu* for the neighbouring countries Yinapaka and Ngunulurru (*Wurrpardi* 'women's ritual spears', and *Jurlarda* 'bush honey' Dreamings respectively). Listening attentively, it was not long before the women broke into song, accompanying their now-deceased relatives, 'holding' the country, as we followed in their tracks. Sitting around the campfire that night, Dwayne Jupurrula, *kurdungurlu* for Patirlirri, recalled that earlier, when changing a tyre in the heat of the day, a cool breeze had struck his skin and he sensed the presence of *milarlpa*, spirits of the country. Napaljarri, his mother, reflected that they would have heard the voices of the Nungarrayis, her aunties, singing their country, and were looking after us.

Reflections

An advantage of working on the mapping and archival projects concurrently was seeing how intangible cultural heritage, such as place names, Dreaming tracks, stories, and songlines, can be rewoven in people's lives. What became clear is the multilayered, dynamic, and emergent nature of the process. By way of conclusion we briefly consider how archival returns may intersect with changing social formations and people's understandings of territoriality and landholding. Finally, we outline future directions for the project.

In the 1970s, people had little access to cars or telephonic communication, and memories of kin who lived far away could fade. Over time, those kin tended to become incorporated into the estate groups of people with whom they lived. In the past, being conceived and growing up in country could confer certain rights in places (Sutton 2003). However, now people who no longer live in their country can maintain contact with their families, and there is a shift toward a more codified landholding system. This is reflected in the following statement by Napanangka:

> We need family tree[s] because younger ones might lose that knowledge. We need to update them because it might have been made 10 years ago and we can add more people. We can put it in Willowra Learning Centre computer with the cultural mapping project. Some people have grown up in country and think it's theirs, but we take country through father and mother's father. (Pers. comm. to P Vaarzon-Morel, 2017)

Nevertheless, the need to engage with, and exercise responsibility for, country is regarded as important. And, against the background of the royalty regime, some people are concerned that people from the Warlpiri diaspora may use information gained from archives to "talk over" custodians living near, and caring for, country:

> you have to go and live in country and look and listen to the person talking and teaching you face-to-face. If they just listen to or read words and watch video, when royalty time comes the person who has been to country asks "have you been to that country?" … We have to look with our own eyes on country visits, in-person, listening to people telling a story and listening on country and to the country. (Napanangka, pers. comm. to P Vaarzon-Morel, 2017)

Another issue concerns variation in the weight assigned to heritage material according to factors such as a person's seniority, gender, and knowledge of country. For example, elders did not automatically accept as 'true' what someone said 30 years ago. They would listen to recordings to ascertain whether the person had the story 'straight'. At the other extreme, Vaarzon-Morel had requests from people who wanted photos of their father taken on land claim trips, because they said they were 'proof' that he spoke for country and had rights in it. In fact, he was there as a knowledgeable elder but did not claim the country as his own.

Yet, despite potential tensions and ambiguities surrounding heritage media, people recognise the need to preserve and archive cultural information for the future. In order to become better informed about possibilities, two Willowra women visited archives at PARADISEC[37] at the Sydney Conservatorium of Music and at AIATSIS in Canberra. Reflecting on PARADISEC, Napanangka stated:

> When I flew down here, I saw that the archive and digitisation process was real … we went to Lauren's computer … She clicked the NT and showed what you've [Vaarzon-Morel] been doing with my family and other people at Willowra when I was a little kid. She clicked Molly's recording – she was singing about *Mala Jukurrpa*. She showed us photos that you took of old people at *yawulyu* and ceremony, sharing and caring for each other, living a good life and being strong. We have only four Nampijinpas and two older Jupurrula left. It made us think how important it is that you did that work and that we have those old recordings. (Pers. comm. to P Vaarzon-Morel, 2017)

To date, the project has been intensive in terms of visiting places, recording, cataloguing, and returning information in the form of recordings to participants and reports to GMAAAC and the CLC. The next phase will focus on finalising the map to be hung in the WLC and developing Dreaming track and other maps that show connections between estate groups and countries.[38] It is planned to have the canvas map photographed by AIATSIS digitisation studio, enabling surrogates[39] to be made for display by the community (see Figure 6; Australian Broadcasting

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37   The Pacific and Regional Archive for Digital Sources in Endangered Cultures. See www.paradisec.org.au.

38   For example, alliances between intermarrying countries and the Ngajakula songline.

39   Sponsorship is needed to fund reproduction of the map.

Figure 6. Warlpiri women performing *yawulyu* against the backdrop of the canvas map displayed at Yurrkuru during the 90th anniversary of the 1928 Coniston Massacre. The 2018 memorial event was held to commemorate the estimated 100 people killed during the massacre; the locations of killings are recorded on the map (photo: Petronella Vaarzon-Morel)

Corporation 2018). A high-megapixel shot will be archived at AIATSIS with access restrictions. As a way of disseminating information on country, the project will develop multiple booklets for estate groups based on John Bradley's (Bradley et al. 2010) atlas and the storied places model. It is also hoped to conduct mapping activities with the school. Additionally, four young adults are funded to receive training in digital mapping at the Indigenous Mapping Workshop 2019 to be held in Perth, WA. The long-term aim is to develop stand-alone computer maps that use the geographic coordinates recorded in the databases to attach cultural media to relevant place names, tracks, and songlines. The community has engaged linguist and anthropologist Jim Wafer to transcribe and translate Ngajakula songs with Willowra men as a step toward revitalising the material. Although there is no ongoing funding for the project after 2019, elders hope that we can find outside sponsorship for future activities, including a book and possible exhibition (see CLC 2018: 13).

Peterson (2017: 248) has questioned whether maps produced by anthropologists have a role to play in Warlpiri futures, observing that they "cannot substitute for 'traditional modes of cultural production'." We concur with this point but feel that cultural mapping projects such as the one we describe can play a significant role in place making and ongoing processes of "cultural production" (Ginsburg & Myers 2005). While the project may not resolve disputes over ownership of country, it can facilitate the renegotiation and sharing of knowledge.

Our chapter illustrates the importance of attending to the *process* of community mapping rather than simply focusing on cartography as an end in itself. In bridging different perspectival regimes and technologies, the mapping project is part of an ongoing process which involves the re-storying of places and refiguring of people's relations with each other and their environment. Cultural mapping complements, but cannot substitute for, other community-development activities. In recognising that a radical shift is needed in the way the government engages with the community, Teddy Long's vision for the Lander Warlpiri cultural mapping

project calls for an "ethics of dwelling that is a politics of worldbuilding" (Zigon 2018: 150). Although the situation of Aboriginal communities varies,[40] we suggest that the project offers a positive approach to Indigenous mapping that may have wider applicability.

References

Australian Broadcasting Corporation. 2018. *Mapping the Coniston Massacre.* Podcast on *Awaye!* (https://www.abc.net.au/radionational/programs/awaye/2018-09-08/10209510) (Accessed on 8 September 2018.)

Altman, Jon C & Melinda Hinkson (eds.). 2010. *Culture crisis: Anthropology and politics in Aboriginal Australia.* Sydney: University of New South Wales Press.

Bradley, John, with Yanyuwa families. 2010. *Singing saltwater country: Journey to the songlines of Carpentaria.* Crows Nest, NSW: Allen and Unwin.

Brotton, Jerry. 2012. *A history of the world in twelve maps.* London: Penguin Books.

Burenhult, Niclas & Stephen C Levinson. 2008. Language and landscape: A cross-linguistic perspective. *Language Sciences* 30(2). 135–150.

Byrne, Denis. 2008. Counter-mapping: New South Wales & Southeast Asia. *Transforming Cultures eJournal* 3(1). 256–264.

Carter, Paul. 1987. *The road to Botany Bay: An essay in spatial history.* London, Boston: Faber and Faber.

Central Land Council. October 2018. Lander River map passes knowledge to children. *Land Rights News Central Australia* 8(3). 13. (http://www.territorystories.nt.gov.au/jspui/bitstream/10070/305766/1/CLC-Land-Rights-News-October-2018.pdf) (Accessed 20 October 2019.)

Chambers, Kimberlee J, Jonathan Corbett, Peter C Keller & Colin JB Wood. 2004. Indigenous knowledge, mapping, and GIS: A diffusion of innovation perspective. *Cartographica* 59(3). 19–31.

Chapin, Mac, Zachary Lamb & Bill Threlkeld. 2005. Mapping indigenous lands. *Annual Review of Anthropology* 34. 619–638.

Craib, Raymond B. 2017. Cartography and decolonization. In James Akerman (ed.), *Decolonizing the map: Cartography from colony to nation,* 11–71. Chicago: University of Chicago Press. (https://www.academia.edu/34010438/CARTOGRAPHY_AND_DECOLONIZATION) (Accessed 19 October 2019.)

Dieckmann, Ute. 2018. *Cultural maps and hunter-gatherers' being in the world.* Panel 17, Twelfth International Conference on Hunting and Gathering Societies (CHAGS XII), School of Social Sciences, Universiti Sains Malaysia, Penang, 23 to 27 July 2018.

Elias, Derek. 2007. The measure of dreams. In James F Weiner & Katie Glaskin (eds.), *Customary land tenure & registration in Australia and Papua New Guinea: Anthropological perspectives* (Asia-Pacific Environment Monographs 3), 223–246. Canberra: ANU Press.

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40   We note that other communities have expressed interest in undertaking similar mapping projects.

Ginsburg, Faye & Fred Myers. 2005. A history of Aboriginal futures. *Critique of Anthropology* 26(1). 27–45.

Gray, Peter RA. 2000. Do the walls have ears? Indigenous title and courts in Australia. *Australian Indigenous Law Reporter* 5(1). 1–17.

Grossman, Michele. 2013. *Entangled subjects: Indigenous/Australian cross-cultures of talk, text, and modernity* (Cross Cultures 158). Amsterdam: Rodopi.

Hercus, Luise & Jane Simpson. 2002. Indigenous place names: An introduction. In Luise Hercus, Flavia Hodges & Jane Simpson (eds.), *The land is a map: Placenames of Indigenous origin in Australia*, 1–23. Canberra: Pandanus Books in association with Pacific Linguistics.

Hirt, Irène. 2012. Mapping dreams/dreaming maps: Bridging indigenous and western geographical knowledge. *Cartographica* 47(2). 105–120. (ouverte.unige.ch/files/downloads/0/0/0/2/7/7/9/4/unige 27794 attachment01.pdf)

Ingold, Tim. 1996. Hunting and gathering as ways of perceiving the environment. In Roy Ellen & Katsuyoshi Fukai (eds.), *Redefining nature: Ecology, culture, and domestication*, 117–155. Oxford: Berg.

Koch, Grace. 2008. *The future of connection material held by Native Title Representative Bodies: Final report* (Native Title Research Report vol. 1). Canberra: Native Title Research Unit, AIATSIS.

Laughren, Mary. 1982. Warlpiri kinship structure. In Jeffrey Heath, Francesca Merlan & Alan Rumsey (eds.), *The languages of kinship in Aboriginal Australia* (Oceania Linguistic Monograph 24), 72–85. Sydney: University of Sydney.

Laughren, Mary (compiler). (in preparation). *Warlpiri–English encyclopaedic dictionary.* Draft ms. University of Queensland (electronic files accessed via Kirrkirr application).

Lempert, William. 2018. Generative hope in the postapocalyptic present. *Cultural Anthropology* 33(2). 202–212.

Louis, Renee Pualani, Jay T Johnson & Albertus Hadi Pramono. 2012. Introduction. *Indigenous cartographies and counter-mapping* 47(2). 77–79. (https://www.utpjournals.press/doi/abs/10.3138/carto.47.2.77)

Meggitt, MJ. 1972. Understanding Australian Aboriginal society: Kinship systems or cultural categories? In Priscilla Reining (ed.), *Kinship studies in the Morgan Centennial Year*, 64–87. Washington: The Anthropological Society of Washington.

Michaels, Eric. 1986. *The Aboriginal invention of television in Central Australia 1982–1986* (Institute Report Series). Canberra: Australian Institute of Aboriginal Studies.

Morgan, Rebecca & Helen Wilmot. 2010. Written proof: The appropriation of genealogical records in contemporary Arrernte society. *Land, Rights, Laws: Issues of Native Title* 4(5). (https://www.nintione.com.au/?p=3276)

Morton, Steve, Mandy Martin, Kim Mahood & John Carty. 2013. *Desert lake: Art, science and stories from Paruku.* Canberra: CSIRO Publishing.

Munn, Nancy. 1973. *Warlbiri iconography: Graphic representation and cultural symbolism in a Central Australian society.* Chicago: University of Chicago Press.

Munn, Nancy. 1996. Excluded spaces: The figure in the Australian Aboriginal landscape. *Critical Inquiry* 22(3). 446–465.

Myers, Fred. 1986. *Pintupi country, Pintupi self: Sentiment, place, and politics among Western Desert Aborigines*. Washington, DC: Smithsonian Institution Press.

Myers, Fred. 2000. Ways of placemaking. In Howard Morphy & Katherine Flynt (eds.), *Culture, landscape, and the environment*, 72–110. Oxford: Oxford University Press.

Myers, Fred. 2013. Emplacement and displacement: Perceiving the landscape through Aboriginal Australian acrylic painting. *Ethnos* 78(4). 435–463.

Nadasdy, Paul. 2017. Imposing territoriality: First Nation land claims and the transformation of human environment relations in the Yukon. In Stephen Bocking & Brad Martin (eds.), *Ice blink: Navigating northern environmental history*, 333–376. Calgary: University of Calgary Press.

Nash, David. 1998. Notes towards a draft ethnocartographic primer (for Central Australia). Unpublished manuscript. Canberra.

Nash, David. 2010. *An atlas of Indigenous country in central Australia?* Abstract. (http://www.anu.edu.au/linguistics/nash/abstracts/ICIPN2010-Nash-abstract.pdf) (Accessed 20 October 2019.)

Neale, Margo. 2017. The third archive and artist as archivist. In Darren Jorgensen & Ian McLean (eds.), *Indigenous archives: The making and unmaking of Aboriginal art*, 269–294. Perth: UWA Publishing.

Northern Territory v Griffiths et al. [2019] HCA 19. (Judgment of the High Court of Australia).

O'Shannessy, Carmel. 2012. *Report on children's Warlpiri in Willowra, NT*. University of Michigan. (https://www.youtube.com/watch?v=9RQi1xrg8lw) (Accessed 19 October 2019.)

Palmer, Mark. 2012. Indigenous cartographies and counter-mapping: Theorizing indigital geographic information networks. *Cartographica* 47(2). 80–91.

Peluso, Nancy. 1995. Whose woods are these? Counter-mapping forest territories in Kalimantan, Indonesia. *Antipode* 4. 383–406.

Peterson, Nicolas, Patrick McConvell, Stephen Wild & Rod Hagen. 1978. *A claim to areas of traditional land by the Warlpiri and Kartangarurru-Kurintji*. Alice Springs: Central Land Council.

Peterson, Nicolas. 2017. Is there a role for anthropology in cultural reproduction? Maps, mining, and the 'cultural future' in Central Australia. In Françoise Dussart & Sylvie Poirier (eds.), *Entangled territorialities: Negotiating Indigenous lands in Australia and Canada*, 235–252. Toronto: University of Toronto Press.

Povinelli, Elizabeth A. 1993. *Labor's lot: The power, history, and culture of Aboriginal action*. Chicago: University of Chicago Press.

Roth, Robin. 2009. The challenges of mapping complex indigenous spatiality: From abstract space to dwelling space. *Cultural Geographies* 16(2). 207–227.

Rumsey, Alan. 1993. Language and territoriality in Aboriginal Australia. In Michael Walsh & Colin Yallop (eds.), *Language and culture in Aboriginal Australia*, 191–206. Canberra: Aboriginal Studies Press.

Ryan, Simon. 1996. *The cartographic eye: How explorers saw Australia*. Cambridge: Cambridge University Press.

Sandall, R. 1977 [1967]. *A Walbiri fire ceremony, Ngatjakula* (motion picture). Canberra: Australian Institute of Aboriginal Studies.

Sletto, Bjørn Ingmunn. 2009. "We drew what we imagined": Participatory mapping, performance, and the arts of landscape making. *Current Anthropology* 50(4). 443–476.

Sutton, Peter. 1998a. Aboriginal maps and plans. In David Woodward & G Malcolm Lewis (eds.), *The history of cartography, vol. 2, book 3: Cartography in the traditional African, American, Arctic, Australian, and Pacific societies*, 387–416. Chicago: University of Chicago Press.

Sutton, Peter. 1998b. Icons of country: Topographic representations in classical Aboriginal traditions. In David Woodward & G Malcolm Lewis (eds.), *The history of cartography, vol. 2, book 3: Cartography in the traditional African, American, Arctic, Australian, and Pacific societies,* 353–386. Chicago: University of Chicago Press.

Sutton, Peter. 2003. *Native title in Australia: An ethnographic perspective.* Cambridge: Cambridge University Press.

Sutton, Peter. 2019. *The mapping of Aboriginal language countries.* (Paper presented in Session 7, Re-placing language and place, language keepers conference, National Library of Australia, 10 February 2019.) (https://youtu.be/-obX7huNnWk?t=2298) (Accessed 19 October 2019.)

Vaarzon-Morel, Petronella (ed. and compiler). 1995. *Warlpiri women's voices: Our lives our history.* Alice Springs: IAD Press.

Vaarzon-Morel, Petronella. 2016. Continuity and change in Warlpiri practices of marking the landscape. In William A Lovis & Robert Whallon (eds.), *Marking the land: Hunter-gatherer creation of meaning in their environment,* 201–230. New York & London: Routledge/Taylor and Francis.

Vaarzon-Morel, Petronella & Jim Wafer. 2017. 'Bilingual time at Willowra': The beginnings of a community-initiated program, 1976–1977. In Brian Clive Devlin, Samantha Disbray & Nancy Regine Friedman Devlin (eds.), *History of bilingual education in the Northern Territory: People, programs and policies,* 35–48. Singapore: Springer Publishing.

Vaarzon-Morel, Petronella. (in press). Sutton's model of underlying and proximate customary title and the Lander Warlpiri region. In Julie D Finlayson & Frances Morphy (eds.), *Ethnographer and contrarian: Biographical and anthropological essays in honour of Peter Sutton.* Adelaide: Wakefield Press.

Wafer, Jim & Petronella Wafer. 1980. *The Lander Warlpiri-Anmatjirra land claim to Willowra pastoral lease.* Alice Springs: Central Land Council.

Wafer, Jim & Petronella Wafer. 1983. *The Mount Barkly land claim.* Alice Springs: Central Land Council.

Wafer, Jim. 2017. Introduction: Everything got a song. In Jim Wafer & Myfany Turpin (eds.), *Recirculating songs: Revitalising the singing practices of Indigenous Australia*, 1–42. Hamilton: Hunter Press and Asia-Pacific Linguistics, ANU.

Wainwright, Joel & Joe Bryan. 2009. Cartography, territory, property: Postcolonial reflections on indigenous countermapping in Nicaragua and Belize. *Cultural Geographies* 16. 153–178.

Walsh, Fiona & Paul Mitchell (eds.). 2002. *Planning for Country: Cross-cultural approaches to decision-making on Aboriginal lands.* Alice Springs: Jukurrpa Books, IAD Press.

Weiner, James F & Katie Glaskin. 2007. Customary land tenure & registration in Australia and Papua New Guinea: Anthropological perspectives. In James F Weiner & Katie

Glaskin (eds.), *Customary land tenure & registration in Australia and Papua New Guinea: Anthropological perspectives* (Asia-Pacific Environment Monographs 3), 1–14. Canberra: ANU Press.

Wilkins, David P. 2002. The concept of place among the Arrernte. In Luise Hercus, Flavia Hodges & Jane Simpson (eds.), *The land is a map: Placenames of Indigenous origin in Australia,* 24–4. Canberra: Pandanus Books in association with Pacific Linguistics.

Zigon, Jarrett. 2018. *Disappointment: Toward a critical hermeneutics of worldbuilding.* New York: Fordham University Press.