

Understanding how Aboriginal culture can contribute to the resilient future of rangelands – the importance of Aboriginal core values

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Abstract. There are numerous examples illustrating the integration of Aboriginal knowledge and participation in rangelands management. At the 2019 Australian Rangelands Conference we aimed to explore how Aboriginal culture and its core values have something deeper to contribute to rangelands management. We explore this through a Yungadhu (Malleefowl) cultural depiction and story. The depiction and story explain the often cited, but not well understood, concepts of Kinship, Country, Lore, and Dreaming. The story provides insight into Aboriginal people's world view and is used in this paper to illustrate how well it aligns with current thinking about resilience in rangelands landscapes and communities. Significantly, we explain how the deep wisdom that resides in Aboriginal cultures has something meaningful to contribute to achieving the conditions for resilience.

Keywords: Aboriginal cultures, Country, cultural research, Dreaming, Indigenous knowledge, Kinship, Lore, mallee, Malleefowl, rangelands management, Yungadhu.

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Introduction

Recent academic literature on the inclusion, integration and insights of Aboriginal culture in rangelands management reflects a growing interest in and acceptance of Aboriginal knowledge and practices (Davies *et al.* 2011; Maru and Davies 2011; Gorman and Vemuri 2012; Barber *et al.* 2014; Nursey-Bray and Arabana Aboriginal Corporation 2015). The emerging challenge is moving beyond just engaging with Aboriginal ecological knowledge to engagement with Aboriginal values. This commentary suggests a way forward by incorporating Aboriginal cultural core values into the way we both think about and foster resilience. This follows the principles proposed by Biggs *et al.* (2015), who define resilience in terms of the social and ecological systems affecting the persistence of human and natural processes in landscapes (Biggs *et al.* 2015). This paper

argues that culture is central to how social systems affecting the principles of Biggs *et al.* (2015) are realised. It is based on a definition of culture that involves the way of life, activities and beliefs of a group of people (Smith and Riley 2009); and applying the conceptualisation of cultural studies that focuses on what culture does, rather than what it is (Potts and Hartley 2014). It is the importance of what culture does that has been most emphasised by the Aboriginal leaders of this work. It is the capacity of culture to evolve and adapt that enables it to contribute to the concept of resilience – what Potts and Hartley refer to as *replication with newness* (Potts and Hartley 2014). The Aboriginal culture presented in this paper evolved from both the deep wisdom of the project's Aboriginal leaders and the theoretical perspective of resilience in social-ecological systems after Biggs *et al.* (2015).



Fig. 1. How project participants experience the Yungadhu ceremony.

Working with culture

To demonstrate how Aboriginal values and concepts can be integrated with models of social-ecological resilience, we utilise findings from the ‘Learning from Yungadhu’ project as presented in two talks and during a plenary session of the 2019 Australian Rangelands Conference. The project was focussed on restoring habitat for Malleefowl (*Leipoa ocellate*) – or Yungadhu in Ngyampaa language. Habitat restoration for Yungadhu is a long-term proposition in Mallee landscapes in semiarid southern Australia. The core objective of the project was therefore how to maintain long-term engagement with a network of people who could continue land management programs on the project’s main research site. The engagement framework that was developed went further than just including Aboriginal people in the process or utilising Aboriginal traditional ecological knowledge along with science. Rather, it utilised core Aboriginal cultural concepts to design the entire engagement framework.

A cultural depiction and concepts

To understand how Aboriginal culture formed the heart of the Yungadhu framework, we share with you the depiction and concepts applied during the project. We do so through story because story is fundamental to how Aboriginal knowledge is shared and understood (Wright *et al.* 2012), and we wish to acknowledge its central role in this project. All who participate in the project experience a Yungadhu ceremony (Fig. 1) that was conceived during the project. It aims to share and build understanding about Aboriginal cultural concepts.

Fig. 2 shows the depiction portrayed as a geoglyph, which the participants construct in the afternoon on the day of the ceremony. Once it is dark that evening, fires are lit to illuminate the



Fig. 2. Yungadhu (Malleefowl) depiction.

geoglyph during the ceremony (as in Fig. 1). The depiction has many layers of meaning that are embedded in different elements of its design. To illustrate how it is used in the ceremony, we now take you through four of these elements.

The depiction has many small segments, which together, comprise a Yungadhu. The segments relate to the concept of Kinship in Aboriginal culture – which concerns how all things are related. Nothing can exist on our planet without being connected with other things on the planet – it’s effectively a closed system. Thus, Kinship exists for everything. Plants have Kinship (as they connect with each other through their roots); animals have Kinship (through the things they eat); and even the rocks have Kinship (by the home they provide to microorganisms). There is no escaping how everything in our world is connected.

Another feature of the Yungadhu depiction is that the segments are grouped into four sections: head/neck, heart, gut, and tail. These sections relate to the Aboriginal concept of Country, or *Ngurumpaa* in Ngyampaa language. Country is a unique combination of relationships we have connection to within the global set of Kinship. It concerns everything you have connection with and are part of. So, just like Kinship, everyone and everything has Country. When we live on or manage the land, we become part of that Country, and it becomes part of us.

Looking closer, each of the four sections takes a different form that connects with its role and function. The head and neck section for example has three lines spanning the width of the neck, followed by four lines partially spanning the width of the neck. The three lines concern the three stages of learning in Aboriginal culture: being born and becoming acquainted with your surroundings; learning about your role and responsibilities; and then living those roles and responsibilities and taking leadership with them – such as having a family or mentoring young people. These are all things we learn and do inside our heads; hence its depiction in this part of the design. This is the role of the head.

The concept of role, acquired through learning, is important and relates to the Aboriginal concept of Lore. As we exist and live in a web of Kinship within Country; everything we do affects other things around us. Lore, in this context, concerns the way we must understand and take responsibility for the way our actions affect everything else. How we learn that, how we live it, and how we take responsibility for it, is reflected in the four lines partially spanning the neck, which relate to the four social sections (skin groups) that operate in Ngyampaa culture.

The last feature of the Yungadhu depiction that we relate here concerns how the head, heart, gut, and tail form a living sequence. Food enters the mouth, it is processed inside the body, in women this is used to grow an egg or in men sperm, which emerges from the rear of the bird and enables new life to continue. The four sections of Yungadhu therefore relate to the continuous lifecycle of all living things. This lifecycle relates to the Aboriginal concept (in English) of The Dreaming. The Dreaming is complicated to convey (cf. Nicholls 2014) because it relates to the physical (plants, animals, rocks) and the non-physical – that special something that enables life and which is timeless or 'every when' (Nicholls 2014). The Yungadhu consumes food that started growing before it existed and it gives life to new Yungadhu that will continue after it has gone. The concept of the Dreaming is therefore important in this context because it helps us reflect on how we are the product of everything that has come before us, and how our actions during our lifetime will have impact on all those that come after us. It therefore binds together Kinship, Country and Lore into a single whole, back to the complete depiction of the Yungadhu.

Aboriginal culture applied

The concepts of Kinship, Country, Lore, and Dreaming represent a set of core concepts for Aboriginal cultures and people. Although they differ in interpretation and practice between Aboriginal communities, the concepts are common to them all (Berndt *et al.* 1988). In the 'Learning from Yungadhu' project, social surveys confirmed that project participants kept coming

back to learn these concepts and practices as part of a more meaningful experience in Yungadhu management. This has become the foundation of long-term engagement in the project. These concepts provide insight into how Aboriginal culture can contribute to the way social resilience is realised in social-ecological systems.

Much has been written on resilience in social-ecological systems, be it governance (Lebel *et al.* 2006); typologies (Alessa *et al.* 2009); rights (Jonas *et al.* 2012); or planning (Bohnet and Smith 2007). What we would like to focus on is how each of the factors that Biggs *et al.* (2015) identified as being characteristic of resilient social-ecological systems are enabled by the cultural concepts of Kinship, Country, Lore, and Dreaming. Biggs *et al.*'s (2015) principles of resilience are:

1. maintaining diversity and redundancy,
2. managing connectivity,
3. managing slow variables and feedbacks,
4. fostering complex adaptive systems thinking,
5. encouraging learning,
6. broadening participation, and
7. promoting polycentric governance

Biggs *et al.* (2015) outline how each factor operates, what they achieve, and how they contribute to resilience. What Biggs *et al.* (2015) do not explore however, is how these factors might be fostered and grown within a social-ecological system. Their research shows clearly why they need to be present, but not how they are created and enabled in the first place. The creation and maintenance of social factors of resilience is closely linked with people's culture (Crane 2010). What we've identified as also important, particularly in Australia, is the value of cross-cultural exchange. Fig. 3 summarises the application of the Aboriginal concepts outlined in this paper to the seven factors of resilience identified by Biggs *et al.* (2015).

Ecological and social diversity can be related to Kinship, in that everything in a social-ecological system is different but connected. Every person or ecological element of a social-ecological system has a unique contribution to make. By celebrating that within the social sphere and enabling and fostering skill diversity, we can ensure resilience through the breadth of knowledge and skills that can be applied to a problem.

Connectivity can be explored through the concept of Country – that the social-ecological system binds people and landscape together into a concept of a shared sense of home with co-responsibilities and obligations. Most importantly, those responsibilities and obligations come with emotional attachment, enabling actors in the social-ecological system to act with empathy.

Slow change can be related to the concept of the timelessness in the Dreaming, and its derivation from the lifecycle. The decisions and actions taken today are a product of our past, and produce the future, which when accepted and embraced, support engagement in long-term planning (cf. Brisbin 2018). The process of being aware about the long-term is important for governing processes that establish feedback loops and thresholds that have a stabilising effect on systems (Biggs *et al.* 2015).

Complexity relates to the cultural principle of Lore (that governs the principles of taking responsibility for our actions). Complexity is unwieldy when we try to understand it individually or from a single standpoint. However, the concept of Lore

Factors of resilience:	Applying aboriginal cultural values:	Outcome:
Diversity	Kinship enables all people to find value in their contribution	Skill diversity
Connectivity	Country is the binder that link everyone and everything together	Emotional connection
Slow change	The dreaming reminds us to consider 7 generations before and after	Long-term planning
Complexity	Lore distributes roles and responsibilities according to relationships	Role distribution
Learning	Culture is the means through which all core values are reinforced	Embrace ceremony
Participation	The ceremony enables everyone to find their identity and purpose	Self motivation
Governance	Core values enable all to lead, enhanced through empathy (spirit)	Personal leadership

Fig. 3. Application of Aboriginal cultural values to resilience factors – after Biggs *et al.* (2015).

enables individual elements to act in good faith, and that all elements adhere to the same principles of mutual responsibility. It also acknowledges that as complex adaptive systems require constant evaluation, so too Lore dictates that we continually manage the relationships with everything around us. Thus, Lore shifts management of complexity from the whole to a level of personal responsibility.

Learning relates to the purpose of culture. If culture is viewed as a tool to reinforce core values – rather than just being a by-product of human society – then engaging in culture is itself a learning and reinforcement process. This is why actions like ceremony are so highly valued in Aboriginal culture – they are the process of deep learning of core cultural concepts.

Participation in ceremony in the ‘Learning from Yungadhu’ project proved to be a powerful tool for enabling participants to find their own identity and purpose in the project – this was confirmed through social surveys undertaken with participants. As one participant stated in response to being asked their most memorable experience from the project: ‘That single event (ceremony) shaped the whole project and turned it from a ‘science experiment’ into a meaningful journey’. The same is also potentially true for social-ecological systems. Cultural programs (when designed to reinforce core-value concepts like in the Yungadhu ceremony) help individuals understand who they are and become accepted as they are. With a strong sense of identity, individuals are motivated to participate on their own terms.

Governance relates to cultural values by virtue of the outcomes of culture. If all people have a strong sense of identity, know their purpose, understand their roles and responsibilities, and act towards a shared sense of Country through emotion, then capacity for individual leadership is possible and maintained via empathetic relationships. This goes to the heart of the intention of polycentric governance.

Conclusion

The important finding from working in partnership with Aboriginal people is not what resilience looks like, but how it is created in the first place. Within Aboriginal culture, we found that fostering resilience comes from the core values of Kinship, Country, Lore, and Dreaming. This commentary suggests a way

forward to enhancing resilience in the rangelands by incorporating Aboriginal culture into the way we both maintain a relationship with and exist within the rangelands. These concepts are applicable to the factors of resilient social-ecological systems identified by Biggs *et al.* (2015).

That application is possible once the value of culture, Aboriginal culture in particular, is recognised. Culture has value as a service (Daniel *et al.* 2012) because it can provide new insights on how resilience is fostered in a community. Culture is a powerful influence on people’s behaviour – and despite all the best scientific observation and theories in the world, implementing solutions to land management always involves people, and people’s involvement revolves around culture. It is time to embrace culture and it is time to immerse ourselves in Aboriginal people’s cultures, because there is much to learn, share, and understand about our core values and how these shape resilience and sustainability.

Conflicts of interest

The authors declare no conflicts of interest.

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