A custodial ethic: Indigenous values towards water in Moreton Bay and Catchments

Abstract

Most Australian jurisdictions, including Queensland, have struggled to sufficiently incorporate Indigenous values into their institutional frameworks. As a result, opportunities for formal Indigenous participation in water governance remain scarce. This study sought to fill a gap in knowledge through a qualitative exploration of Aboriginal water values in south east Queensland (SEQ). It explored how Traditional Custodians value SEQ waterways and how understanding these values can assist managers to adequately integrate Indigenous interests into water management and policy. Twenty Traditional Custodians, from across the SEQ region, participated in either a focus group with others from their Custodial group, or an individual interview (a choice was offered). Analysis was according to Kellert's typology of values. The research shows that Traditional Custodians' values towards estuarine and marine waterways in SEQ are multi-dimensional. Indigenous cultural values of water encompass more than spiritual and customary objectives, and extend beyond cultural heritage paradigms. Aesthetic values were strongly associated with ecosystem health, a point of difference from studies of non-Indigenous values towards water. As expected, identity is closely associated with the values and so a strong sense of personal loss was associated with damaged waterways. Understanding people's connections with waterways will help managers to engage and partner more effectively with Indigenous people, and to integrate social dimensions in their future management of waterways.

Keywords: water, south east Queensland, Kellert

Introduction

Aboriginal water values have received increased attention in recent decades. Population growth, climate change and an expanding urban footprint have led to environmental decline, prompting calls for change within water planning policies to recognise and better involve Aboriginal people in water management (see for example 1, 2). Most

Australian jurisdictions, however, including Queensland, have struggled to sufficiently incorporate Aboriginal values into their institutional frameworks (3–5)[1]. Instead, Aboriginal interests in water management are defined by limited notions of ‘cultural value’, confined to descriptions of spirituality and custom. This restricted perception of Indigenous peoples’ values towards water means opportunities for formal participation of Indigenous peoples in water management are limited.

Their ambiguous and complex nature, coupled with a lack of definition of what ‘cultural values’ *are*, provides little guidance for water planners and decision makers (7). Australian literature commonly refers to ‘cultural values’ to define Aboriginal water interests; however, few articulate the meaning or their interpretations of this term (see for example (8–12)). Indeed Lee (13 p. 358) warns against concepts of country being ‘shoehorned into a contrived view of “cultural” values’. This leaves water managers and decision makers to rely on limited policy interpretations of ‘cultural values’ (14), ‘cultural purpose’ and ‘traditional activities’ as encompassing Aboriginal cultural heritage and ‘tradition’ or ‘custom’ (15). Maclean (16 claims that while Aboriginal water values, knowledge and interests are more than ‘just culture’ p. 143), existing planning approaches and paradigms continue to marginalise Aboriginal interests to static and pre-settlement stereotypes (17 pp. 123-124), helping to create a barrier between water planners and Aboriginal people. Better articulation of the idea of ‘cultural values’ is required to show that ‘cultural affiliations to water are expressed in many different ways’ (18 p. 138). This research aimed to expand understandings of Aboriginal water values as more than cultural, for the purposes of improved Aboriginal involvement in water management.

Process

The research was carried out in south east Queensland (SEQ), focusing on Moreton Bay Marine Park and the rivers and creeks that flow into the Bay. The study area extended from Ipswich in the west to Caloundra in the north, and included the Moreton Bay islands and the Gold Coast in the south (see Fig. 1).

The study was part of a larger ARC Linkage project (19–21, Ross *et al*. 2019a (22) and b (23) this volume), in which Aboriginal Custodians of the region were full partners alongside the state government and two government-non-government collaborations involved with land and water. The original partner organisation, an Aboriginal organisation through which most Custodial groups of the region coordinated over shared issues, closed very early in the study.

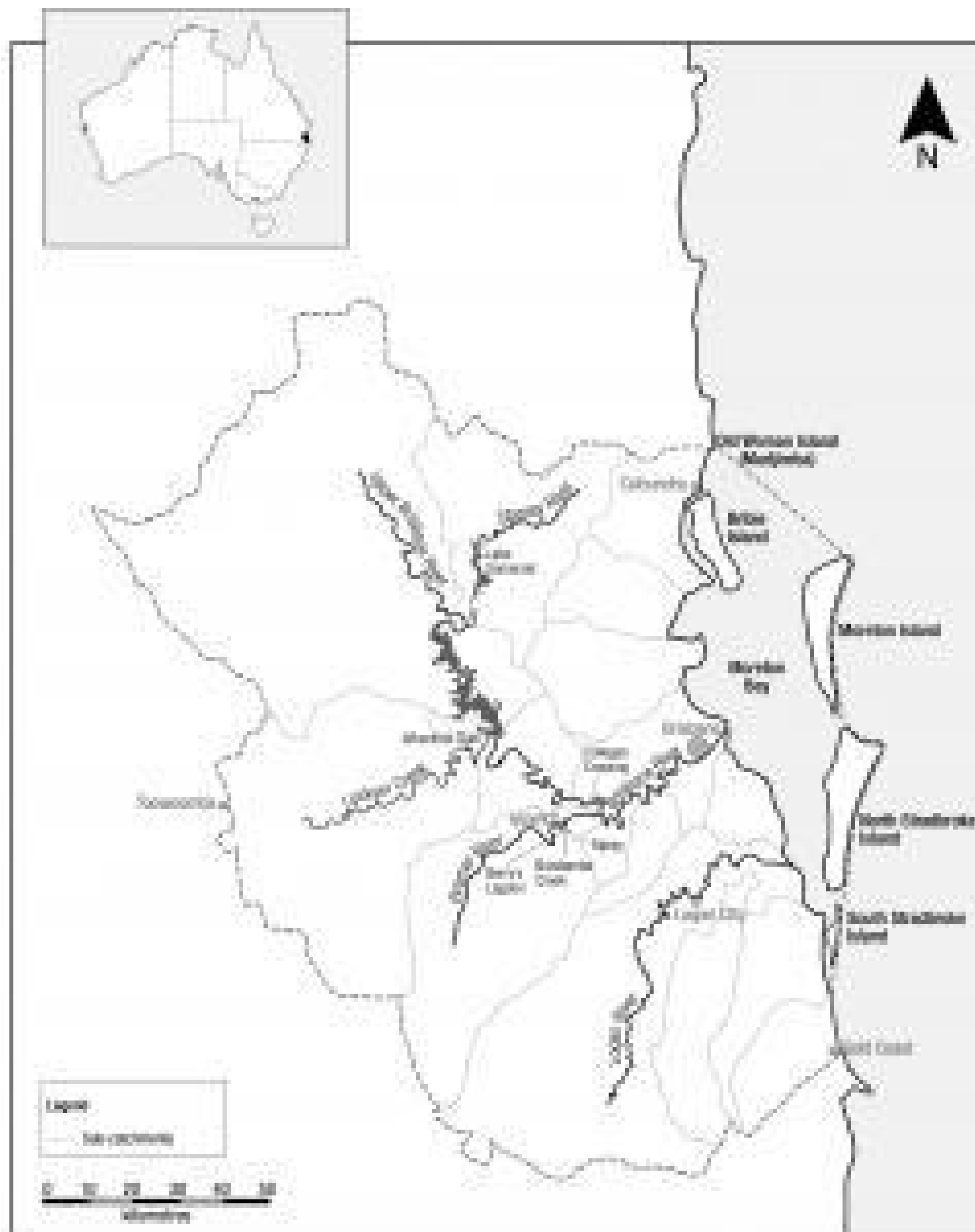

Figure 1. Study region from Caloundra in the north, Ipswich in the west and the Gold Coast in the south.

Thereafter the Aboriginal partner role was coordinated through four workshops held between January 2013 and March 2015 with SEQ Traditional Custodians, covering design, monitoring work in progress, and interpretation. An Aboriginal person (former staff member of the closed organisation) represented the Aboriginal partners at project meetings and maintained regular communication with the groups between meetings and workshops. The Aboriginal partners (and individual participants in the study) identified with Kombumerri, Nunukal, Gorenpul, Ngugi, Quandamooka, Gubbi Gubbi/Kabi Kabi, Jinibara, Mulinjarlie, Jagera, Yuggera and Ugarapul.[1]

Custodians were offered a choice of methods (while the non-Indigenous participants had semi-structured interviews). They chose a mixed methods approach, with options of

individual interviews or focus groups. Most people preferred individual interviews, because they provided an opportunity for confidential and in-depth conversations between the researcher and the interviewee, and it was often easier to schedule these around time constraints. Some felt a group discussion to be more appropriate for cultural or sensitive information, thereby allowing for group decisions on information disclosure and story sharing for inclusion in reports. Others simply expressed greater comfort in talking in a group setting.

Twelve semi-structured individual interviews and two focus groups were conducted with twenty Traditional Custodians between May and October 2014. All were conducted by the Aboriginal first author. In all cases permission was given for recording. The same questions were asked at each: participants were presented with a map of the study area and asked to mark the waterways important to them. These were used as a reference point to talk about how people interact with waterways, and why those waterways are meaningful to them.

The audio recordings from interviews and focus groups were fully transcribed and copies of the transcripts provided to participants. Analysis of the transcripts used a relational approach, based on Stephen Kellert’s (24, 25) framework of ten nature-centred values, to explore Indigenous relationships with waterways and the values that emerge from those associations. The framework was derived from empirical research and has been tested repeatedly over many decades with respect to a wide range of environments, as well as animals, and in a number of different countries and cultures (26). To our knowledge it has not been used with Indigenous people. However, some literature on cultural values has elicited many of the same values for example Gould *et al.* (27) with respect to Indigenous Hawaiians, and Arias-Arevola *et al*. (28) in Colombia. A particular attraction is that this framework specifically links nature-related values with ethical behaviours for land and seascapes, and is relevant to environmental management and monitoring.

Kellert (29) argued that researchers and managers should seek to understand and engage with the values of all people interested in a given environment, in order to find approaches that respected a range of concerns. It is not sufficient to manage according to use values versus moralistic values to protect an area or species: there are many more values than these. Further, Kellert argued that this set of values has ancient origins related to humans’ needs to survive, and achieve well-being in their environments (25).

In choosing Kellert’s framework, we do not treat it as partitioning the ten types of value in ways that contradict Aboriginal holistic (and very relational) ways of thinking about people and nature. Rather, we see it as potentially illuminating facets of the holism.

Kellert argued that individuals hold several values at once and that the sharing of some values across groups of people can help build consensus. We argue that Kellert's set of values is effective for an analytical consideration of an Aboriginal way of thinking that recognises that the well-being of people and environments are inseparable. We argue that the framework has the potential to examine the interconnecting parts in order to more effectively see the complex whole. We have taken a flexible application of Kellert's values typology to draw out some of the dimensions (and ambiguities) that underpin the overarching concept of Aboriginal cultural values.

Throughout the larger study with Aboriginal and non-Indigenous participants, Kellert's framework was used in a first round of coding, then open coding was used to allow other types of values, and variants to the Kellert framework, to emerge (30). The coding was entirely by one person, the Aboriginal first author, for sensitivity and consistency.

Interview and focus group transcripts were sent back to interviewees to ensure they were comfortable with how the information they had shared was rendered in written form. To ensure the views of Traditional Custodians had been correctly presented, multiple rounds of feedback were sought from participants through personal dialogue and the workshops to gain their opinions on the process and presentation of research findings.

The study received ethics clearance from the University of Queensland, based on design for strong Aboriginal participation in all aspects of the research, Aboriginal benefits from the research, informed consent by all individuals invited to participate in interviews and focus groups, and privacy and confidentiality provisions.

Humanistic values

Kellert defines humanistic values as those which encompass 'tender feelings of affection, solicitude, and caring for certain plants, animals, and places' (25 p. 67) that facilitate emotional attachments with the non-human world. Traditional Custodians expressed affection for certain waterways, explaining their emotional connections with waterways which were fostered through a range of experiences with waterways including work, recreation, and social or personal activities.

Many participants reminisced about childhood experiences shared with family and friends, often provoking strong emotional responses. Traditional Custodians recalled times *fishing* (TC2, TC5, TC9), *swimming* (TC2, TC5, TC12) or *playing* (TC14) in rivers and on beaches. One participant shared childhood memories about two rivers with which he maintains a close bond:

> *These two here, the Bremer and out at Ripley, Bundamba Creek there, that's where I spent my childhood, that was my background, that's where I played. I would go home, leave, have breakfast in the mornings, just take off, and that's where I'd spend my days* (TC8).

Childhood memories surrounding waterways were significant to people because of time spent with family. Generational connections to water places were echoed by others with one interviewee explaining that's *probably why I have such close affiliation with them, as I said, my grandmother was born here* (TC11). Waterways are important to the endurance of family traditions as explained by one Custodian who described having passed on their love of fishing and the river:

> *[I] mucked around all the time down there, but we used to fish there and all that sort of stuff. I still do I suppose, I still take [my son] and that down there, he's mad on fishing, but I still take him down there and he catches his dirty running catfish, but he doesn't care* (TC8).

Generational ties to waterways, such as these, are important for family and social relationships, and lend to maintaining ancestral connections and cultural practices.

Kellert claims that where feelings of love and attachment toward nature exist and that a particular animal or place disappear or become damaged, one may justifiably feel 'a profound sense of loss and a sorrow akin to grief' (25 p. 67). Grief and a great sense of loss was evident among many participants who felt their relationships to places were threatened or lost completely due to development processes; whereby various activities were now restricted due to the lack of access to waterways, loss of land (cleared for housing, for example), and degradation of waterways that limits peoples interactions with certain areas. Others expressed very strong emotional responses toward places they feel a connection to, as one participant explained *[t]hat's very close to me, that country there – they ripped my childhood out… you'll never see that again there, it's gone forever. It bugs me.* (TC8). A deep emotional connection between people and their environments is evident in this expression of sadness and anger. These expressions of emotion are very consistent with Turner *et al.'s* (31) discussion of 'invisible losses', including cultural and lifestyle losses, emotional and psychological losses, and lost opportunities.

The connections between SEQ Aboriginal groups and water places are unique to them as a sociocultural group in that these relationships represent ancestral connections that date back thousands of years and are deeply embedded in people's cultural identity. Participants often referred to their cultural connections with various water bodies,

identifying as either saltwater or freshwater people. Traditional Custodians described their *connection to land and water* (TC14), with some identifying themselves as *sea country people* (TC6) and explaining that *land and sea country… is what we are* (TC13). The ‘humanistic’ values for SEQ waterways are expressed as ancestral connections, as well as personal affection for places people visited in childhood and continue to visit today, and other places now lost to them.

Naturalistic values

Naturalistic values arise from direct experiences with the natural environment that can promote feelings of well-being. Values of the natural world emerged mostly through people’s childhood memories of their experiences with waterways. Participants explained that as children they used to go *swimming* (TC5, TC6, TC9, TC12, TC13, TC14) and would *play* (TC8, TC13) in and around waterways, as well as holidaying, camping and fishing which evoked positive memories of family and social interaction. Other naturalistic experiences occurred in recent memory and included direct interactions with nature such as walking along waterways, bird watching, exploring or immersion in nature by simply sitting near waterways and observing the environment. Some participants described visiting places that were *teeming with life* (TC4) where they would see *dugongs, dolphins and all kinds of tropical fish* (TC13).

Kellert claims that people gain a sense of satisfaction from contact with, or immersion in, the natural environment (32 p. 17). This sentiment was echoed closely by one Traditional Custodian who believes *it’s great for people to have natural things around them… [which] provide inner-self satisfaction* (TC12). Wildlife encounters were significant to some who described their experiences with estuarine and marine animals, which included observing the diversity of birds, marine and freshwater animals and in some cases direct contact with wildlife, as described by one participant:

> *I wandered out and I was fishing there, and the next minute this jolly stingray… came up to me. I saw it coming up and I said, “Hello… “What are you doing here?” He sniffed around me, I didn’t worry about it. Next minute, it came up, put its head up out of the water… I touched it on the nose, and it went away. Next minute, a much bigger one, about three times the size… Came up to me, put its head out of the water, and I patted it on the head* (TC12).

The naturalistic experiences described convey the value people have for the natural elements of water places. Through direct exposure to waterways and wildlife, people

build their appreciation, love and concern for nature.

Moralistic values

Kellert (25) describes moralistic values as ethical concern for nature, but what influences a person's ethical judgements? Throughout this research it was apparent that participant's moral concerns for nature were guided by their cultural perceptions and what they have been taught by generations before them. For example, many participants explained that Aboriginal people have an obligation to maintain a reciprocal relationship with the environment to preserve a natural balance. One participant explained this in terms of the intimate relationship between people and marine animals, stating *if all of a sudden, overnight, all the dugong up and die, I think a lot of [Aboriginal] people would die too* (TC4). Maintaining a caring relationship with the natural world was considered a cultural responsibility – *a custodial ethic, an ethic of looking after* (TC9). Caring for waterways was also considered a broader public obligation where *the waterways are everybody's responsibility* (TC14), *regardless of whether you're Aboriginal or non-Aboriginal* (TC13). Judgements about what is considered right and wrong were expressed in people's perceptions of harmful ecological impacts from human activities and development. One participant explained: *whichever way you look at it, healthy waterways are being severely damaged by the growth of industry and population* (TC11). Acting on their concerns for the environment, many participants expressed their desire to educate people and promote environmental sustainability.

Education was a key ethic amongst participants who expressed their desire to *protect* (TC13) and *look after* (TC5, TC9, TC10, TC12, TC13) the environment by *educating* younger generations *to make a difference* (TC1, TC5, TC11) in the broader community. Traditional Custodians also explained some small-scale management activities undertaken to mitigate impacts to waterways. These activities included informal observations and picking up rubbish to protect wildlife from harm and *ensure that [waterways are] better maintained [and] free of pollutants* (TC5). Concern about harmful impacts to waterways suggested a deeper appreciation of flow on effects to broader ecosystems.

Ecologistic values

Kellert infers ecologistic values to be values of function, process and relationships in

nature (25). Traditional Custodians valued the natural processes and connections between nature and people, which were reflected in activities conducted to monitor the health and function of ecosystems. Custodian's holistic perceptions of ecosystem health and function were implied in people's comprehension of the natural elements and wildlife as indicators of waterway conditions. The natural processes of systems were described as *a beautiful chain of command by Mother Nature* (TC10) in which *nature's way to improve the water quality… would be to have oyster banks, and a lot of them. When you have oyster banks, you have seagrass, mud whelks, cockles, and you have fish* (TC3). Scientific methods including *monitoring* (TC4, TC14), observations and *water quality testing* (TC4, TC13) were undertaken by participants working with environmental management bodies, to better understand the natural functioning and health of ecosystems.

Participants spoke about their desire for the broader public to become more *in tune with [their] environment* (TC13) to understand the importance of maintaining balanced ecosystems, claiming *[y]ou've got to have a balance, otherwise if you don't look after it, it's the condition that it's in today* (TC1). The declining condition of local water bodies was a common topic of conversation and concern with many participants detailing the significant impacts to waterways that have occurred.

Ecological degradation of waterways was an important issue to most participants because of the effects upon the natural system as a whole. Knowledge of the natural function and process of waterways was implicit in most discussions where Traditional Custodians gave a comparison of the state of waterways in the past and the deteriorated condition of these today. One participant described the effect on a particular river in detail:

> *The trees way back in the older days… were firmly there and the grass was firmly there, [then] white man came and cut the trees down and loosened all the dirt up and then the rain would come and then wash it [away]… to make it so muddy, because when the floods come through… it's just like a big sheet of mud going over the bridge… That's what I think it is anyway, because… back in those days, it was muddy water but it was still– you could put your hand [under water] and you could still see your hand. But now you pick it up it's like picking a big chunk of mud, watery mud. So I firmly believe that it's people building and chopping down trees* (TC1).

Perceptions such as this indicate that Custodians understand and are concerned with how poor waterway health impacts other natural elements and resources.

Utilitarian values

Utilitarian values represent practical and material use or 'exploitation of the natural world' ((25) p. 63). Many participants expressed utilitarian values of the rivers, creeks and Bay in talking about how water bodies and their resources were used. Freshwater and saltwater bodies are fundamentally important to sustaining life:

> *It's probably the most important ingredient on the planet, aside from sunlight. So in that regard, water is very important, salt water or fresh water, because... it's a life force, it gives life, and it sustains life. It sustains me and my people because we can drink fresh water, or the resources that we depend on are supported by fresh or salt water, so when looked at in that perspective it's essential* (TC4).

Participants echoed the significance of water's life giving properties:

> *If we allow [waterways] to be degraded, our quality of life and the quality of life of those resources that we depend on becomes degraded. To what point are they degraded to such a point that life is not sustainable?* (TC4).

Practical use of water bodies was described by some participants who referred to previous generations and members of their family that would utilise the water for *washing, cooking* (TC14) and *food* (TC1, TC3, TC13), as well as some economic activities such as *oyster leases* (TC7). Today, waterways are used mostly for other recreational purposes such as *camping* (TC1, TC2) or *fishing* (TC3, TC4, TC5, TC12). Kellert argues that in modern society we value nature for its material goods and services and that the use of nature in this way reflects a common perception of nature as a 'natural resource' ((25) p. 49). However, a distinction between natural and cultural resources was noted in the research.

Some Traditional Custodians referred to *cultural resources* (TC6) instead of the commonly used term 'natural resources'. More than just resources for consumption and exploitation, natural elements hold cultural significance for Aboriginal people. TC4 expressed the importance of resources in this way: *[i]t's the medicine that's there, it's the food, it's part of our essence, that's part of what makes us who we are* (TC4). Access and use of resources is important for the continuity of some aspects of cultural lifestyles and symbolise traditional knowledge of place.

Symbolic values

Kellert asserts that as humans we use 'symbols to represent reality', which occur in 'names, images, stories, decoration, and design… [and are] revealed in our metaphors, our myths, and our dreams' ((25) pp.108–109). SEQ Custodians conveyed symbolic values associated with Aboriginal place names in SEQ, which represent historical events, people, stories, animals or environmental features. One Traditional Custodian shared the story of how a place got its name:

> *Old Woman Island was Mudjimba, Mudjimba is the salt water crab, but Mudjimba Island, it was the Old Woman Island, we called it Old Woman Island because that's where the tribe put their older women when they couldn't go walking with the rest of them… there always was a couple of able bodied blokes there too… It was their duty to look after the old people. So that was how it got the name, Old Woman Island* (TC12).

This story is symbolic of the historical use associated with the island. Other place names were symbolic of abundant marine animals such as Bribie Island which is called *yurin or place of mud crabs* (TC3), or of totems; for example, *Ngarang-Wal translates into shovel-nosed shark, an Aboriginal totem* (TC13). Place names indicate a symbolic association with aspects of Aboriginal culture.

Kellert claims that symbols are integral to our capacity for 'language… as well as our capacity to imagine, create, and form culture' ((25) p. 108). This point was reflected in stories where natural features inspired *folklore* (TC3) as told to me by a Traditional Custodian who translated particular Aboriginal place names that represent features of a dugong:

> *Tarangari, as leg or flipper, and it's part of their folklore, where they say that Bribie is a dugong because they call South Point 'Tumbah' and they have 'yippee' for round about where Bongaree is, and where Banksia they call that 'kuku', and here they call Tarangari, then up near Caloundra there was 'waarum' which is the tail… Well if you've got lips, neck or throat, abdomen, legs or flippers, and a tail, then you've got to be a dugong* (TC3).

The symbolic nature conveyed in place names and meanings connects Indigenous people to those places as an expression of their historical, cultural and spiritual belonging.

Negativistic values

Kellert defines negativistic values as fear of or aversion to aspects of nature critical to human well-being ((25) p. 34). Traditional Custodian's negativistic values were twofold in that they related to the physical nature of waterways and to spiritual beliefs associated with particular water courses. Some participants expressed their caution around waterways attributed to the high presence of bull sharks rumoured to travel upstream in many SEQ rivers, meaning that people now avoid swimming in rivers: *[y]ou couldn't pay me enough money to jump in the canals anymore. Not enough fish, too many sharks* (TC13). Another Custodian commented on their fear of sharks saying *I worry too much about sharks and all that. We used to go out Colleges Crossing and all that, swimming at… Twin Bridges and all that sort of stuff but now with the bull sharks getting around, I'm a bit too, [scared]* (TC8). Caution around waterways also centred on concerns about pollution affecting water courses and associated resources:

> *When you see events like that where there's big floods and you start to see all the resources like fish and turtles, and dugongs come up with all these growths and things like that, you're not going to eat them. So it does impact hugely on our natural resources* (TC5).

Participants' responses suggest that fear of the contamination to SEQ waterways and resources affects people's interactions with waterways because they avoid particular places.

A culturally distinct aspect of negativistic values emerged from people's spiritual beliefs, which have been described as influencing people's interaction or lack of interaction with particular water courses. One participant explained that their caution and avoidance of certain waterways was a sign of respect to water spirits and their ancestors, stating:

> *My grandmother… She would always take me [out] there but we wouldn't ever go near that Berry's Lagoon. She'd go wide from that because she knew old matey was in there, that bugger was in there* **[3]**(TC1).

The same participant explained a deeper sense of fear associated with water spirits that has been passed on from previous generations where *generally our ancestors were scared of the river* and that people should always *be careful around the waterways in South East Queensland here* (TC1). Negativistic values reflect Custodian's spiritual beliefs and respect of waterways.

Spiritual values

Kellert explains that spiritualistic values encompass beliefs that all life in nature and humanity share a common underlying connection ‘to a world beyond ourselves that seems coherent and even purposeful’ ((25) p. 94) and which encourages a ‘reverence for life’ ((25) p. 99). Traditional Custodians expressed spiritualistic values of waterways in relation to Kellert’s interpretation of feelings of awe, and also in distinct cultural ways. Some participants recalled a feeling of reverence for nature that proved difficult to articulate. One Custodian described how water places make them feel by saying:

> *Soon as I… get out of the car and get onto the boat or the ferry or the barge, there’s something that ignites one’s spirit. I can’t explain it, especially when you smell the salt water too, beautiful* (TC10).

Custodians spoke about the ways in which visiting significant water places provoked feelings of awe and admiration. Another participant explained *[i]t’s something that you can’t quantify… this feeling… It’s in you. It’s part of you* (TC10). Most Custodians elaborated on the spiritual significance of these connections to country as guided by their cultural beliefs.

Traditional Custodians reiterated their spiritual values of SEQ waterways. Some Custodians made specific reference to a *spiritual connection* with the land and waters (TC1, TC3, TC11, TC13), in one case defined in the following way:

> *We don’t separate land from the sea, and on the land we have the… sand island, fresh water, freshwater creek, runs into that sea, that’s our whole spiritual connection, the two things that have come together* (TC11).

This comment indicates the ways in which Aboriginal Custodians draw together spiritual beliefs and connections to country. The same Custodian explained that *our spirituality is not based on a structured religion, it’s based on our connection to land* (TC11). Custodians also sometimes referred to Dreamtime stories in the process of defining the broader cultural and spiritual significance of their connections to country.

Aboriginal cosmology is embedded in all aspects of the natural environment. A Traditional Custodian explained the interconnection of spiritual beliefs and country by saying *[a]ll the waterways are significant because… our dreamtime and creation stories are all encompassed around the waterways, the mountains, the coastal areas* (TC14). Others referred to their experiences in particular places within country with spiritual

beings like the *moondagudda, junjadees* (TC1), and the *tall man* (TC14). Spirits such as these, that exist in (land and water) country, guide the behaviour and decisions of some participants who expressed a key principle in respecting those spirits. For example, certain practices must be conducted, including *talking to [the] ancestors* (TC7) when visiting the river to show respect to those spirits. Another participant described a practice they undertake when fishing, associated with ancestor spirits:

> *After they'd caught their fish, they would have to rebury the bones back in the bank where they caught the fish. So that next time, there'd be more fish to catch for them to eat* (TC14).

Customary practices, such as mentioned above, convey respect for non-human beings in the country and indicate that spiritual beliefs are important to Custodians wanting to ensure the health of ecosystems.

Another culturally distinct aspect to spiritual values surfaced in the interviews as people explained the significance of marine and estuarine animals as totems for particular groups. For example: *[d]ugong, sea turtle, dolphin and whales, along with many other species are sacred Aboriginal totems for saltwater people in coastal areas* (TC13). One person explained the spiritual connection they feel with a river because of their cultural totem: *my personal totem is connected spiritually to the river because it's the eel* (TC1). Holistic perceptions of the connections between people, environment and animals, show that waterways are a spiritually important aspect of everyday life and an integral part of the cultural connection people have with the environment.

Aesthetic values

Aesthetic values are those of physical appeal and attraction to aspects of nature (25 p. 2). Traditional Custodians' aesthetic values of water often reflected perceptions of ecosystem health and were intertwined with ecologistic values. Interestingly, aesthetic values surfaced through juxtaposed descriptions of appeal and lack of appeal. Participants often recalled the *beautiful* (TC1, TC3, TC8, TC10, TC11, TC12, TC13, TC14) waterways from their childhood experiences as formally healthy environments. One interviewee described their perception of beauty as a thriving system explaining *it was beautiful country, fair dinkum. That creek there was fresh, there's lily pads and there's wildlife all around there* (TC8). Another described memories of a healthy river that *used to be big and wide. It was beautiful* (TC14).

From the interviews it is apparent that the *natural beauty* (TC4) of clear waterways is

perceived to mean clean waterways and indicates pristine and healthy ecosystems. However, descriptions of beautiful waterways were often followed by a comparison of the *brown* (TC8, TC13) and *gross* (TC13) conditions of rivers today that indicate poor water quality. The comparison between past and present water aesthetics and quality was described by one Custodian stating *God, look how dirty the water is. I remember that water used to be so clean and blue* (TC14). Most participants expressed sadness in their reflections on the health of waterways today, dominated by development. The lack of appeal attributed to waterways today, contributed to deeper themes of loss.

Dominionistic values

Kellert describes dominion as a human desire to master and control aspects of nature that ‘contribute to character development and to the acquisition of various mastery skills’ essential to our fitness and survival ((25) p. 83). No dominionistic values were identified in this research. However, it would be naïve to think that in an urban population such as SEQ, Aboriginal people do not undertake any activities that may be deemed dominionistic. On the other hand, explanations as to why such values did not emerge from the interviews may be found within Kellert’s own reasoning that the ‘inordinate desire to control nature is said to be a characteristic of Western society’ ((25) p. 81), whereas in societies where nature and the sacred are enmeshed, people cannot be separated from nature. It follows that ‘people do not aspire to control or master their environments, rather they seek to work with them’ ((33) pp. 223-224). This view was reiterated by Traditional Custodians in the final workshop conducted as part of this research. They explained that Aboriginal philosophy does not seek to control nature, but rather works with it, perhaps through modest traditional management practices such as burning the landscape or building fish traps, as opposed to western philosophies that seek to drastically alter the environment through major physical change.

Values and cultural heritage

Values in relation to material cultural heritage emerged predominantly from interviews and focus groups with Custodians. This category of values does not fit within Kellert’s framework. Nonetheless, the prevalence of cultural heritage values deserves some mention. Many Traditional Custodians referred to the significance of material cultural heritage along or near waterways as *cultural sites* (TC5) or more generally as *artefacts* (TC5, TC13). Sites included *bora ring[s]* (TC3, TC6, TC7, TC13), *middens* (TC3, TC5, TC6,

TC9, TC13), *skeletal remains* (TC13), *fish traps* and *scar trees* (TC5). Each of these examples may be understood in terms of nature and culture entwined, since they contain material evidence of people's activity in specific places in the environment, people's ocean resource use, use of certain tree species, or the bodies of the deceased interred in the soil. These 'sites' are thus emplaced expressions of people's relation to country and how that relation may have changed and been maintained through time. The values for material heritage are also expressions of the future, since expressing value for such places is often linked to their legal protection (see (34)). One participant said that the *archaeology… that's laid claim to us as [saltwater] people* (TC13). For this Custodian, the material heritage investigated in archaeological research and representing prior use, belonging and knowledge of the place by Indigenous people represents tangible evidence of a cultural identity connected to a particular place in country. Thus tangible cultural sites referred to by participants were highly valued in terms of relationships to country. As such, we suggest that the inclusion of a 'cultural heritage' value may link Kellert's set of values about relationships with 'nature' to culture, but also to Indigenous *rights* in land and sea country.

Elaborating understandings of Indigenous values

In this paper, we have applied Kellert's framework as an analytical exercise to tease apart the ways in which Aboriginal Custodians in SEQ articulate their values towards water and sea country. We argue that doing so can highlight an expanded consideration of Indigenous values, their various dimensions and relative dominance through time, rather than suggesting an artificial separation of elements in value systems. For example, this analytical framework enables us to see how cosmological beings in waterscapes ('spiritualistic values') may be dangerous or cause harm to people ('negativistic values'); or how knowledge of processes within country ('ecologistic values') may inform the ways in which it can or should be used as a resource ('utilitarian values'). A second key tension in our approach to an analysis of values may be that it subsumes a discussion of the *rights* of Custodians to speak for and continue relationships with country. We suggest instead that the range of values identified using Kellert's framework demonstrates the complexity and relationships between different values. Furthermore, our additional consideration of values applying to cultural heritage illustrates the ways in which people and place are bound together, and how this relationship through time underlies the multiple dimensions of people's responsibility and right to waters and lands.

The participants in this study expressed all of Kellert's values, towards waterways, with the notable exception of dominionistic values.

Conclusions

This research builds on arguments put forward by Maclean & Bana Yarralji Bubu Inc. (16) and Jackson (35) that Indigenous values towards water encompass more than spiritual, customary and cultural heritage interests. Prior research suggests that there is inadequate recognition of Indigenous values towards water in management contexts due to a number of factors including poor understanding of Aboriginal world views, mismatch between Aboriginal and manager ontologies (36), a lack of guidance for willing managers to integrate Indigenous interests in water planning, and the relegation of Aboriginal cultural values to spiritual, customary and heritage domains. By focusing on Aboriginal relationships to water, the findings of this research expand appreciation of Aboriginal values towards water, which encompass interests in ecosystem health, biodiversity, resources, ancestral connections, spiritual beliefs, identity and cultural heritage among others – all within Aboriginal people's holistic views of culture and the indivisibility of people and country.

Non-Indigenous decision makers and Aboriginal Custodians alike should be able to draw from this research to enhance their perspectives of Aboriginal interests in water, and incorporate inclusive descriptions of water values into planning frameworks and management approaches. Ideally, both cultures could collaborate in this process, especially since there are many points of consensus – as well as some differences – between the Aboriginal and non-Indigenous people of Queensland in their expressions of values towards waterways. It is clear that the diverse water values that Traditional Custodians hold need to be recognised with broader acknowledgement in water management to effectively incorporate Indigenous interests. The range of specific values towards water identified in this research, within a holistic understanding of the interdependence of people and country, gives clearer bases for dialogue among Traditional Custodians, other environmental managers, and the general public, about how waterways can be managed and cared for more respectfully and inclusively.

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Kabi, Jinibara, Mulinjarlie, Jagera, Yuggera and Ugarapul.

[1] In this paper, we specifically focus on Aboriginal *values* towards water. The research was undertaken in the interests of informing and enhancing management approaches, but a development of management implications is beyond the scope of this paper. What sits behind this work is a more complex political and legal issue of Aboriginal water *rights* and the incomplete recognition of Indigenous rights to water in Australian federal and state legislation (see (6) Jackson & Langton 2011).

[2] Traditional Custodians identified themselves in a number of ways according to language, clan or family groups, others according to larger social entities.

[3] ‘old matey’ refers to a spiritual eel believed to live in the river.