

What role for culture in conservation?

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Culture and cultural values are commonly associated in conservation with the spiritual and religious significance of landscapes and wildlife, manifested in sacred sites or spiritual landscapes, and in rituals, customs and ceremonies (Metcalfe et al., 2010; Riley, 2010; McKay et al., 2014; Mikusiński et al., 2014; Gupta et al., 2016). In this issue of *Oryx*, however, these matters are explored from a wider range of perspectives.

The most prevalent rationale for conservation engagement with culture is evident where conservation priorities based on Western science and values naturally align with local cultural values. In many cases, however, the significance of a particular site or species is cultural rather than biological. For example, there is significantly higher biodiversity associated with semi-natural sacred Neolithic standing stone monuments than on surrounding heathland (Shepherd-Walwyn & Bhagwat, 2018). The maintenance of the sites creates habitats for rare and threatened species even though the sites are valued for their heritage, recreation and spiritual attributes rather than for their biodiversity.

Taboos—social norms that protect species or places because of their role in folklore—are common manifestations of cultural values in conservation. In two cases concerning primates (Infield et al., 2018; Baker et al., 2018), beliefs appear to have partially protected particular populations, and sometimes associated sacred sites. However, both cases also report negative impacts such as increased crop-raiding, and protection of culturally significant species rarely extends to other taxa or habitats.

The animist values of the endemic Pemba flying fox *Pteropus voeltzkowi*, combined with scientific information on population decline, motivated village elders to establish bylaws to reduce disturbance and restrict hunting (Infield et al., 2018). In Madagascar, in contrast, the spiritual significance of sacred caves for bats and the taboos inhibiting hunting and consumption of bats are no longer widely recognized (Fernandez-Llamazares et al., 2018). This erosion of customary institutions has implications for the survival of roosts that are largely dependent on customary protection.

Although these cases illustrate synergies between local beliefs and conservation of species of global concern, in many cases the values of conservation policy-makers and practitioners clash with those of other stakeholders. In Uganda, failure to take into account local values brought communities into conflict with protected area authorities

(Infield et al., 2018). In such cases the rationale for attention to cultural values is usually to improve stakeholder relationships and increase voluntary compliance with regulations.

These rationales are largely instrumentalist, seeking to integrate cultural values into conservation to achieve biodiversity outcomes. However, there are also clear ethical considerations for taking an approach based on cultural values. Many international human rights instruments include cultural rights, and for Indigenous Peoples these also include the right to self-determination and respect for customary decision-making processes (Springer et al., 2011). The Convention on Biological Diversity also requires signatory states ‘to protect and encourage the customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use’ (United Nations, 1992).

Delisle et al. (2018) describe a case in which national law recognizes the customary rights of indigenous communities to engage in traditional hunting of marine species whose commercial trade is prohibited by CITES. Using an ecosystem services framework (MEA, 2005), the authors identify the benefits and costs of Torres Strait islanders hunting dugong *Dugong dugon* and green turtle *Chelonia mydas*. Conservation policies tend to emphasize the income and nutritional benefits from wild meat, failing to incorporate socio-cultural factors of crucial importance to hunters, traders and consumers (Nasi et al., 2008). Delisle et al. (2018) demonstrate that traditional owners identify bundles of economic, social and cultural costs and benefits. Greater importance was placed on cultural rather than provisioning services. Where ecosystem services assessments are used to inform decision-making there is a danger that intangible cultural benefits are overlooked even though, as in this case, they are often valued at least as much, if not more, than economic benefits (Chan et al., 2012).

Discourse on the impacts of conservation on people has evolved from do no harm to rights-based approaches (Campese, 2009). It is now recognized that economic measures do not adequately reflect the impact of development on our planet or on us. Hence there have been influential calls to shift from measuring economic production to measuring well-being (Stiglitz et al., 2009), where well-being includes factors such as sense of purpose, self-esteem, control over decisions, social cohesion, life satisfaction and confidence in the future. Many of these elements are derived, at least in part, through fulfilment of cultural and spiritual values.

Gogoi (2018) relates how members of rural communities in Assam use religious beliefs, alongside other socio-cultural

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coping strategies, to foster well-being by managing the stress caused by elephant damage to property and people. The majority of respondents were prepared to lose some of their crop, regarding this as an offering to God.

Holmes et al. (2018) explore how belief in magical animals affects conservation goals, and critique how conservation interventions tend to cherry-pick aspects of culture that appear to be positive for conservation while ignoring or trying to change those that are not.

Many of the examples described here illustrate how failure to consider the full range of stakeholder values can have negative consequences for both resource users and conservation managers. There are dangers in isolating individual cultural practices that align with international conservation priorities whilst ignoring complex interactions of other cultural and socio-economic factors. In practice people hold multiple and sometimes mutually incompatible values for different aspects of nature. These tangible and intangible values are complex and dynamic; they vary over space and time. Their interactions give rise to diverse worldviews that encompass different conceptualizations of nature.

It is increasingly acknowledged that integration of cultural values into decision-making can help to develop co-management processes with mutual biodiversity and well-being benefits (Delisle et al., 2018). However, significant challenges remain. Many aspects of culture are deeply embedded and difficult to articulate to outsiders. Within ecosystem services frameworks, creative and participatory methods are evolving to help assess intangible values but there is still a tendency to favour tangible economic benefits (Daniel et al., 2012).

How then can conservationists ensure that policy and practice take into account local as well as global values? The research presented in this issue of *Oryx* suggests the answer can at least partly be found through wider engagement with the social sciences and humanities, with religious and cultural institutions, and perhaps even with shamans, sorcerers, witches and wizards.

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