Geotourism is often thought to refer solely to ‘geological tourism’, however, more recent views suggest that the term in fact refers much more broadly to encompass not only geology, but also fauna and flora as well as cultural aspects. An area’s geo-heritage can be defined as the geological base that, when combined with climate, has shaped the plants and animals of an area, which in turn determine an area’s culture; that is, how people have lived in that area both in the past as well as in the present. This link has rarely been explored in academic literature, so this paper aims to address the way in which geology has shaped Indigenous tourism in Australia. An example of the ways in which the link between geotourism and a place’s culture may be misunderstood is given through discussion of Uluru-Kata Tjuta National Park in central Australia, where tourists have climbed Uluru (Ayers Rock) for generations, despite protest from traditional land owners, the Anangu people. Evolving understandings relating to the importance of cultural authenticity in tourism have led to the climbing of Uluru being banned effective from 2019.

Keywords: Australia, Collaborative Approaches to Tourism, Cultural Tourism, Geotourism, Indigenous Tourism, Uluru-Kata Tjuta National Park

Introduction

Geotourism is an emerging sector of sustainable tourism with global growth (Dowling, 2011). Despite having been defined over a decade ago as ‘geological tourism’, in more recent times, it has been understood to be more ‘geographical’ in nature and to foster both natural and cultural heritage (Dowling, 2013). This link between geotourism and cultural heritage has been largely unexplored. However, because geotourism supports cultural values and interests, it represents an area of potential opportunity to provide both socio-cultural benefits and economic benefits. This paper discusses geotourism as an emerging tourism sector and explores its potential in Australia to aid in the protection of Aboriginal cultural heritage through socio-culturally sustainable tourism practices. Indigenous tourism is growing in Australia but is still under-represented as a major type of tourism, despite high demand by international visitors (Whitford, Ruhanen & Carr, 2017). Co-management issues are even less well advanced (Shibish, Dowling & Willson, 2017). However, some parks are co-managed as in the case of Uluru-Kata Tjuta National Park which is managed jointly by the Director of National Parks and the Uluru-Kata Tjuta Board of Management (http://www.environment.gov.au). It is suggested here that geotourism may well be a useful tool to advance both Indigenous tourism and co-management, though it is recommended that such development should be undertaken with sensitivity to cultural values and include a collaborative approach between the local government, the tourism operators, and the local Indigenous communities.

Geotourism

Travellers have been fascinated by and drawn to geological features for as long as people have travelled, so although geotourism is regarded as a relatively new tourism sector, the basic concept is not (Norris, Sanders, & Dowling, 2013). Today geotourism is viewed as both a ‘form’ of tourism as well as an ‘approach’ to it which firmly ties itself in the first place to the geologic nature of an area’s ‘sense of place’ (Dowling & Newsome, In Press, A). Such tourism development generates benefits for conservation (especially geoconservation), communities (through cultural interpretation and appreciation), and the economy (though job opportunities and economic development).

Essential to the development of geotourism is the understanding of the identity or character of a region or territory. To achieve this, geotourism is viewed as being based on the idea that the environment is made up of Abiotic, Biotic and Cultural components. This ‘ABC’ approach comprises the Abiotic elements of geology and climate, the Biotic elements of...
animals (fauna) and plants (flora), and Cultural or human components, both past and present (Dowling, 2013). Geotourism argues that to understand and appreciate the environment fully, we must know about the Abiotic elements of geology and climate first, as these determine the Biotic elements of animals and plants which live there. By extension, the combination of the Abiotic and Biotic components of the environment determine the Cultural Landscape of how people have lived in the area in the past, as well as how they live there today, in the present (Dowling, 2015; Dowling & Newsome, In Press, B).

Although sometimes referred to as a sub-sector of natural area tourism, geotourism may also occur in urban environments, with geotourism opportunities occurring in natural areas, mining sites, or urban areas with geological attractions such as in Sydney, where ‘The Rocks’ sandstone features attract visitors (Robinson, 2015; Norrish, Sanders, & Dowling, 2013). This ability for geotourism to occur in built areas differentiates it from natural area tourism and ecotourism, as not all geotourism is required by definition to occur in natural areas only.

The development of geotourism projects in Australia represents considerable potential for improved socio-cultural sustainability in terms of the protection and maintenance of Aboriginal Australian cultural heritage (Kiernan, 2015). Whilst geotourism is based on its geological attributes, it also embraces environmental and cultural aspects of the region in a more holistic manner than ecotourism. Natural landscapes and formations are often regarded as sacred sites by Aboriginal communities and potential exists for these areas to be damaged by increased visitation or installation of tourism infrastructure (Kiernan, 2015). In addition, sacred sites which are considered protected areas by local communities based on traditional knowledge and belief systems may not be protected in a government-recognised capacity, and thus could be threatened by development of transport routes or lost through lack of recognition and support (Dudley, Higgins-Zogib, & Mansourian, 2009).

**Socio-cultural Benefits of Geotourism**

Geotourism can provide local communities with the opportunity to interpret their geological landscapes and traditional heritage for tourists (Gordon, 2012). Local participation in tourism activities can contribute to guest satisfaction, as tourists, particularly those choosing to visit natural areas, desire authentic experiences, with 61% of US travellers claiming to enjoy tourism experiences more when natural, historic, and cultural sites were preserved (Stokes, Cook, & Drew, 2003). As an emerging sector, geotourism represents an area of potential development as it appeals to a growing number of environmentally and culturally aware tourists (Stokes, Cook, & Drew, 2003). Visitors to natural areas and geological attractions tend to be more concerned with environmental and cultural conservation than traditional mass-market tourists, and as such, geotourism is experiencing industry growth as it generally takes place in natural areas appealing to tourists and operates in line with conservation goals (Newsome, Moore, & Dowling, 2013). The 2003 National Geographic Geotourism Study found that almost 75% of American tourists did not want their visit have any significant harm natural environments at destination areas, and more than half believe it is becoming more difficult to find ‘unspoiled’ or authentic travel destinations (Centre for Sustainable Destinations, 2010; Stokes, Cook, & Drew, 2003). As well as appealing to environmentally conscious travellers, geotourism also appeals to adventure travellers as activities such as rock climbing, caving, and hiking naturally take place in geological areas.

The National Geographic Centre for Sustainable Destinations (National Geographic, 2007) outlines 13 principles recommended to government and tourism organisations considering the implementation of geotourism through the establishment of geoparks, geotrails, and information centres in its ‘Geotourism Charter’. It is suggested that geotourism approaches must be focused on cultural as well as environmental assets. It also should inspire cultural pride, involve local communities, and encourage environmental, heritage, and cultural sustainability through protection and enhancement of significant areas. The European Geopark Network states that one of the aims of geoparks is to enable inhabitants to re-appropriate the values of the territory’s heritage and actively participate in the territory’s cultural revitalisation (http://www.europeangeoparks.org). This indicates that the geopark development should be supported and led by local communities. Thus, geotourism has been shown to be beneficial to local communities as well as an aid in the preservation of culture and this success encourages the growth of geotourism in culturally rich regions such as Australia (Gordon, 2012).

**Indigenous Tourism in Australia**

Indigenous tourism can be defined as any form of tourism which simultaneously involves Aboriginal people and is sensitive to Indigenous culture (Ruhanen & Whitting, 2014). Aboriginal community involvement in tourism is an area of significant debate, as opportunities for economic independence and cultural rejuvenation are contrasted with possible threats to communities such as further cultural degradation if tourism is not effectively managed (Butler & Hinch, 2007). Anecdotal evidence suggests that failed attempts at Indigenous tourism often result from little attention being paid to the concerns and requirements of Aboriginal communities. Therefore, it is suggested that they may desire outcomes beyond economic benefit such as fostering consideration of, and respect for, sacred places and behaviours (Walker & Moscardo, 2016). Low rates of success from government-funded, community-led tourism ventures make the establishment of Aboriginal tourism enterprises difficult, and if development is not led by the community, then it may be difficult for tourism ventures to be supported fully by local Aboriginal groups, particularly if the development is not seen to be of benefit to them or their cultural heritage (Schmiechen & Boyle, 2007). Thus, it is important for research to be undertaken to determine the expectations and goals of Aboriginal communities and support must be provided to them in terms of training and research-based frameworks for tourism development. This can then assist Aboriginal tourism businesses to achieve increased community participation and improved commercial outcomes (Schmiechen & Boyle, 2007; Walker & Moscardo, 2016).

As geotourism concerns both environmental and cultural aspects of a region in which it occurs, geotourism within Australia can be seen to intersect with Indigenous tourism in areas of both geological and cultural significance where tourism activity takes place. One of the aims of the Australian Government’s former Australian National Landscape (ANL) Program (www.environment.gov.au/topics/national-parks/national-landscapes) was to increase the value of tourism to regional economies, to enhance the role of protected areas in these economies, and to provide support for the protection of cultural assets and the engagement of local communities. Protection of key geological and cultural areas may be improved if areas of significance previously identified as part of the ANL Program, or not protected under any program, are considered for development. Studies have shown that tourism which allows tourists to develop a ‘sense of place’ through interaction with the natural environment may encourage tourists to develop a sense of responsibility for the conservation of these environments, and that interpretation of Indigenous culture and lifestyle represents a useful tool in encouraging tourists to develop a
Geotourism Potential in Australia

Tourism in Australia is a significant industry, attracting 8.1 million international visitors in 2017 (Tourism Research Australia, 2018), many of whom were drawn to unique and diverse natural environments (Dowling & Pforr, 2017). The environment can be defined as being comprised of three components – abiotic, biotic, and cultural, with geology and climate representing abiotic elements, flora and fauna representing biotic elements, and cultural environment referring to past and present human components (Dowling & Pforr, 2017). Tourist attraction to environmental areas in Australia has previously been concerned mainly with biotic components, but the global emergence of geotourism allows tourism development to occur in areas of abiotic and cultural significance. Australia’s abundant geological and geomorphological heritage means that opportunity for geotourism development is considerable, but despite having some of the oldest geological sites and the oldest surviving culture in the world, geotourism in Australia has not grown to the same degree as in Europe or Asia, where geotourism is growing in popularity as a niche tourism sector. A variety of UNESCO World Heritage Sites listed in Australia provides the potential to be supported as UNESCO Global Geoparks in mountain, island, coastal and wilderness areas, many of which are located in or around national parks such as Kakadu, Uluru-Kata Tjuta, and Purnululu. In 2010, 12 of 17 UNESCO World Heritage listed areas were major geological sites and many more sites of geological importance not yet recognised by UNESCO have been identified by the Geological Society of Australia and the Australian Heritage Commission (Joyce, 2010).

Growing national and international interest in Australian Aboriginal cultural heritage means that Indigenous tourism is an area with potential for growth if it is undertaken with recognition of and sensitivity to cultural needs and expectations (Buultjens & Fuller, 2007). Lack of conservation threatens Australia’s cultural history, as demonstrated by the relocation of and damage to 1,700 engraved boulders on Western Australia’s Burrup Peninsula in the 1980s, despite rock art representing an area of interest to tourists (Taçon, 2014). Culturally sensitive tourism has been shown to play an indirect role in the maintenance of Aboriginal identity in Australia, as growing domestic and international interest in traditional culture can be seen as an opportunity for revival and conservation of Indigenous beliefs, language, traditions, and knowledge (Buultjens & Fuller, 2007). As natural areas recognised as geologically significant often intersect with sites of historical Indigenous importance, geotourism can thus be considered an area of key opportunity for the conservation of Aboriginal culture in Australia, as it can increase recognition of culture and culturally significant geological landscapes, and provide awareness of the importance of conservation in these areas (Walker & Moscardo, 2016).

Co-Management Issues

Problems have occurred in the past where protected areas such as national parks were considered ‘untouchable’ due to their natural ‘wilderness’ status, as the ‘wilderness’ protection of natural areas strives to allow is based on ideals of the lands ‘natural state’ at the time of Australia’s colonisation (Callicott, 1994; Rose, 1996). In recent decades, it has been acknowledged that this ‘natural state’ was in fact achieved through specific maintenance strategies, in particular Aboriginal fire regimes, and has led to cooperation between Aboriginal community groups and the government in the form of co-management of protected areas as demonstrated at various national parks and other natural areas. Despite this recognition, lack of education regarding the importance of cultural beliefs and practices continues to cause tension in protected areas where tourism fails to consider socio-cultural conservation as highly as environmental conservation. The International Union for Conservation of Nature (IUCN) Protected Area Management Categories define protected areas as “clearly defined geographical space, dedicated… to a[i]eving the long-term conservation of nature with associated ecosystem services and cultural values”, indicating that the principal purpose of protected areas is nature conservation, with cultural values considered only where they are associated with nature (Lee, 2016).

Thus, geotourism represents an area of potential for improved protection of Aboriginal culture and culturally significant areas as it, by definition, aims to sustain or enhance the distinctive geographical character of a place — its environment, heritage, aesthetics, culture, and the well-being of its residents (National Geographic, 2018). For the purpose of improving cultural conservation in tourism areas, it is vital that community involvement and expectations be understood, and that development of geotourism facilities be led by regional councils and local communities to ensure that their interests are considered.

A recent example of successful co-management between the Aboriginal custodians and the State government occurs in the case of Yawuru Nagulagun Roebuck Bay Marine Park in the northwest of Western Australia (Shibish, Dowling & Willson, 2017). A Joint Management Agreement was initiated in 2010 enabling the Aboriginal Yawuru people to become directly involved in the creation and management of the Park. As part of the terms of the Indigenous Land Use Agreement (ILUA), a Yawuru Park Council (YPC) was established (a formal body consisting of the local Shire of Broome, Yawuru and the Western Australian State Department of Parks & Wildlife). The YPC is responsible for the management of the jointly managed lands and waters and is tasked with undertaking the drafting of park management plans and is the decision making group for the area under Native Title (Figure 1). The YPC is responsible for:

- the conservation and protection of the environment and wildlife therein;
- the preservation of Aboriginal heritage and culture directly through the land and sea for its cultural and spiritual significance to the Yawuru people;
- and sustainable development as a vehicle to creating jobs, injecting wealth into the local economy and providing social wellbeing benefits for the community as a whole.

Another longer established co-managed national park is that of Uluru–Kata Tjuta in Australia’s Northern Territory.

![Figure 1: Yawuru Rangers with researcher at Yawuru Nagulagun Bay Marine Park, northwestern Australia. Source: Lori-Ann Shibish.](image-url)
Cooperation between traditional land owners and non-Indigenous custodians, the Anangu Aboriginal people, and asks that tourists not climb Uluru. This ‘We Don’t Climb’ sign expresses the traditional laws of the traditional Uluru – Kata Tjuta National Park

Uluru-Kata Tjuta National Park is a protected area located in the Northern Territory of Australia. It is also a UNESCO World Heritage site. The park covers 1,326 square kilometres and includes the features it is named after – Uluru (Ayers Rock) and Kata Tjuta (The Olgas). The park is managed jointly by Indigenous and non-Indigenous agencies. Here the spectacular geological rock formation provides a unique tourism destination within an area of Anangu homeland (Figure 2). This combination of roles means that the park remains a major tourism destination in Australia, though issues continue to arise when Indigenous laws and responsibilities are ignored as tourists engage in behaviour discouraged by traditional Anangu knowledge, yet legally allowed under World Heritage and national park regulations (Waitt, Figueroa, & McGee, 2007). Historically, it has been something of an Australian rite of passage to climb Uluru, an activity which many generations of Australians and international visitors partake in, some even proudly wearing tee shirts bearing the slogan ‘I climbed the Rock’. However, this has been in conflict with the local Anangu people’s wishes for tourists to the park not to climb Uluru. Though this information is communicated to park visitors through local guides and signage, it has largely been ignored (Figure 3). In recent decades, calls to respect the local Indigenous community by not climbing Uluru have increased, with guides suggesting 9km circumnavigational walks around the base of the rock as an alternative (Dowling, 1996). Finally, in 2017 in response to years of protest by the Anangu people, it was announced by the Uluru-Kata Tjuta National Park’s Board of Management that climbing Uluru will be banned from 2019 (Aikman, 2017).

Figure 2: Aboriginal guides with tourists near Uluru. Source: Retrieved from http://www.discovercentralaustralia.com/regions/uluru

Figure 3: This ‘We Don’t Climb’ sign expresses the traditional laws of the traditional custodians, the Anangu Aboriginal people, and asks that tourists not climb Uluru. Despite this, in the background many people can be seen climbing it. Source: https://opentextbc.ca/introtourism/chapter/chapter-12-Aboriginal-tourism

Conclusion

Geotourism represents a niche area of growth within global tourism, but has yet to be successfully recognised or supported within Australia, despite the ideal geotourism ‘product’ being so vastly present across the country in the form of both geological and cultural heritage. Geotourism has proven successful in aiding in cultural conservation and awareness in countries such as China, and this success represents possibility for Aboriginal cultural conservation efforts to improve in Australia through the establishment of nationally or internationally recognised geotourism ventures such as geoparks or geotrails. Ideally, geotourism development in Australia will allow the establishment of UNESCO Global Geoparks, which may permit cultural concerns to be more effectively represented in protected areas where cultural values are not currently considered as important as economic or political concerns. Community led development of geotourism projects including information centres within established national parks, geotrails, and national and global geoparks has the potential to ensure geotourism success within Australia, and to aid simultaneously in cultural sustainability through the recognition and support of Aboriginal cultural heritage, and through economic contributions to regional communities.

Thus, if undertaken with respect for cultural values, the development of ‘geo’ related products provides an opportunity for geotourism to emerge as a successful sector within tourism in Australia, particularly where it is led by local communities and governments through a collaborative approach. It is suggested that such development would increase cultural sustainability by improving the recognition and awareness of Aboriginal cultural heritage.

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