

Experiencing the sublime: Assessing the aesthetic values of the Great Barrier Reef World Heritage Area

Dr Anita SMITH*, Ms Chris JOHNSTON**

(* Deakin University (Australia), address, phone, *e-mail anita.smith@deakin.edu.au*

(**) Context Pty Ltd and Deakin University (Australia), address, phone, *chris.johnston@deakin.edu.au*

Abstract

To underpin effective management of aesthetic values of the Great Barrier Reef World Heritage Area, a new systematic approach to assessing aesthetics has been developed that accommodates the vast scale and complexity of the dynamic Reef environment. Equally important, the method encapsulates the idea that aesthetic values arise in the experience of place and sensory responses to it by recognising both environmental and experiential attributes of these values. Our research defining and ‘conceptually mapping’ these attributes provides a new approach to understanding and managing aesthetic values in large ‘natural’ landscapes.

Key words: Aesthetic values, World Heritage, landscapes, experiential

Introduction

Australia’s Great Barrier Reef is a vast, complex and highly dynamic land and seascape that was inscribed on the World Heritage List in 1981. A Statement of Outstanding Universal Value (SoOUV) for the site was approved by the World Heritage Committee in 2012. The Reef is one of the largest properties on the World Heritage List, having an area of over 348,000 km² and extending over 2000 kms along the north eastern Australian coast. It is managed by the Great Barrier Marine Park Authority (GBRMPA), an agency of the Australian Government.

The Great Barrier Reef was inscribed on the World Heritage List for its natural values including aesthetic values but until our research, discussed in this paper, there had not been a comprehensive analysis of the aesthetic values and their attributes. A major review of the OUV of the Reef in 1997¹ had concluded that knowledge about the aesthetic attributes of the Reef was ‘poor’ and that there was a ‘lack of methodologies’ and a ‘limited understanding of what constitutes aesthetic value’. Subsequent research in the 2000s greatly increased understanding of perceptions of the Reef today and in the past, building an extensive body of perception data and providing a starting point for our project to address the OUV of the Reef.

The project was commissioned by the Australian Government in response to a joint UNESCO World Heritage Centre and IUCN monitoring mission in 2012². The mission report concluded that a sound basis for management of all aspects of OUV of the Reef was vital given the threats to the property from land-based development, expanding ports and shipping, and climate change. The report noted in particular that the aesthetic values of the property described under World Heritage Criterion vii were poorly understood, but also the lack of an accepted methodology to identify aesthetic values in World Heritage properties.

Our task was to examine the aesthetic values expressed in the SoOUV and, considering contemporary approaches to assessing aesthetic values, build a methodology that would enable these values to be mapped and analysed across the whole of the Reef. The report arising from this project is available online³.

¹ Lucas 1997:x

² UNESCO World Heritage Centre and IUCN 2012

³ Context Pty Ltd 2013

Aesthetic value and heritage

The Great Barrier Reef is an ideal place in which to examine human response to a landscape that is internationally recognised for its superlative beauty. The desire to understand aesthetic values has a long history. Human response to the environment is in essence experiential and sensory, as well as utilitarian. The sublime and the beautiful often represented as opposites in fact both form part of an understanding of experiential aesthetics, although each has challenged precise definition.

Assessing aesthetic value has long been considered problematic in the heritage domain and is commonly derided as being subjective. Efforts to apply a systematic and more objective assessment have seen considerable research in landscape aesthetics since the 1960s, and a variety of ways of attributing public preferences to landscape characteristics have been developed. The focus predominantly on 'visual' attributes and the 'seen landscape' being driven by the need to ensure that land uses and development did not visually dominate in valued landscapes⁴.

Our examination of the 23 World Heritage properties inscribed under World Heritage Criterion vii⁵ since 2003 revealed that assessment of 'natural beauty or aesthetic importance' is generally framed in terms of scenic beauty argued through the rhetorical power of descriptive text rather than a systematic analysis. Rarely does the SoOUV distinguish between the two components of Criterion vii, 'superlative natural phenomena' and 'natural beauty or aesthetic importance', with the former usually justified through a quantitative measure⁶. The Great Barrier Reef SoOUV follows this model, framing the Reef's aesthetics as being '*superlative natural beauty above and below the water ... some of the most spectacular scenery on earth*' and observing the patterns, colours and diversity of this place in phrases such as '*vast mosaic patterns of reefs, islands and coral cay*', contrasting colours '*green vegetated islands*' and '*azure waters*' with the '*abundance and diversity of shapes, sizes and colours ... of hard and soft corals ... and thousands of species of reef fish provide a myriad of brilliant colours, shapes and sizes*'⁷.

An international study by IUCN⁸, completed shortly after our project, drew similar conclusions: that the assessment of 'exceptional natural beauty and aesthetic importance' is not well understood, commonly qualitative and often considered subjective and lacking in a systematic and transparent method. The report also supported the earlier view of IUCN that aesthetics is 'a personal and emotionally based response (not just visual but including a range of senses and associative responses) and therefore the concept is rooted in a community/culture'.

A similar view of aesthetics is now embedded within the assessment of places for inclusion on Australia's National Heritage List, an indicator of aesthetic significance being 'features of beauty or features that inspire, emotionally move or have other characteristics that evoke a strong human response'. This recognises the experiential qualities of a place that impact on human senses as the key to understanding aesthetic values. The influence of knowledge, culture, past experiences, and other factors on 'human response' is also acknowledged⁹.

Appreciating the aesthetics of the Great Barrier Reef

In developing a new methodology to identify and map the aesthetic values of the Reef, our first challenge was to respond to the vast scale of the Reef, its biological diversity and physical complexity, and its dynamic nature, a place that is alive and responsive to climate and human actions. The Reef

⁴ Context 2013:18-22

⁵ World Heritage Criterion vii: 'to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance'

⁶ Context Pty. Ltd 2013:8-14

⁷ Australian Government 2012

⁸ IUCN 2005:9; Mitchell 2013:77

⁹ Australian Government nd.

also has a long Indigenous history and active contemporary connections, and offers a wealth of place-based experiences to locals and visitors alike. The Reef is not a single entity, it is encountered in many ways and these encounters are perceived through different lenses, cultural and experiential.

Our task was to develop a rigorous and evidence-based methodology that would provide a sound and coherent basis for management of the aesthetic values as they are described in nine statements in the SoOUV that describe the ‘natural beauty and aesthetic value’ of the Reef. It was essential that our methodology went beyond purely visual aesthetics, and that it could be applied at a variety of scales, from the whole of the Reef through to more detailed analyses of specific locations within the World Heritage site. To develop an appropriate methodology we analysed World Heritage inscriptions to understand the approaches taken to assessment against Criterion (vii); reviewed a wide range of heritage place assessment methods; and examined earlier research on the aesthetic values of the Reef.

This included studies of the visual or scenic resources of the Queensland coast and continental islands, that offered broad landscape characterisations and scenic quality ratings¹⁰; research focusing on historical and current tourist perceptions of the reef landscape¹¹; the non-visual aesthetic experience of places and elements of the landscape and how their appreciation has changed over time¹²; and local community attachments to and meanings of Great Barrier Reef¹³. The work of Pocock¹⁴ looking at the sensuous qualities of the Reef and how these qualities helped construct an understanding of place for visitors – the feel of the water, the sounds of the wind, the texture of sand and even the tastes and smells of reef experiences - was particularly useful in extending our thinking in relation to experiencing the Reef.

Responding to IUCN¹⁵ and drawing on Australian practice, we defined aesthetic value or aesthetic significance as including sensory, experiential and emotional response to place, acknowledging too the influences of culture, knowledge and other experiences. Given that the nature and scale of encounters with reef environments can vary from an intimate underwater encounter with colourful fish and corals, to beach combing and boating, through to experiencing a vast panorama of cays and islands from the air, we defined three distinct lenses through which people experience the Reef to assist in the analysis of this aspect of aesthetic value – underwater, at water level and panoramic. Further, to recognise that aesthetic response to a place is linked to both the characteristics of the environment and to culturally or personally derived preferences, we needed to move beyond the limitations of physical expressions of value, by adopting a framework inclusive of two distinct types of attributes of aesthetic value: environmental and experiential (Figures 1, 2 and 3).

Environmental attributes were defined using the typology of marine and coastal ecosystems established by GBRMPA¹⁶ for each environmental attribute we then defined the qualities that enhance its aesthetic value, and the lens through which these qualities are apparent. For example, the qualities that enhance the aesthetic value of the environmental attribute ‘water’ include its clarity, calmness, the intensity of its colour and the intensity of sunlight transmitted through or reflected on the water. Using available data (see below), we concluded that these qualities of water are perceived through all three lenses – panoramic, water-level and below water.

¹⁰ Brouwer et al 1994

¹¹ Pocock 2005

¹² Bowen and Bowen 2002; Love 2000

¹³ McIntyre-Tamwoy 2004; Harrington 2004

¹⁴ Pocock 2003

¹⁵ IUCN 2005

¹⁶ GBRMPA 2012a, 2012b

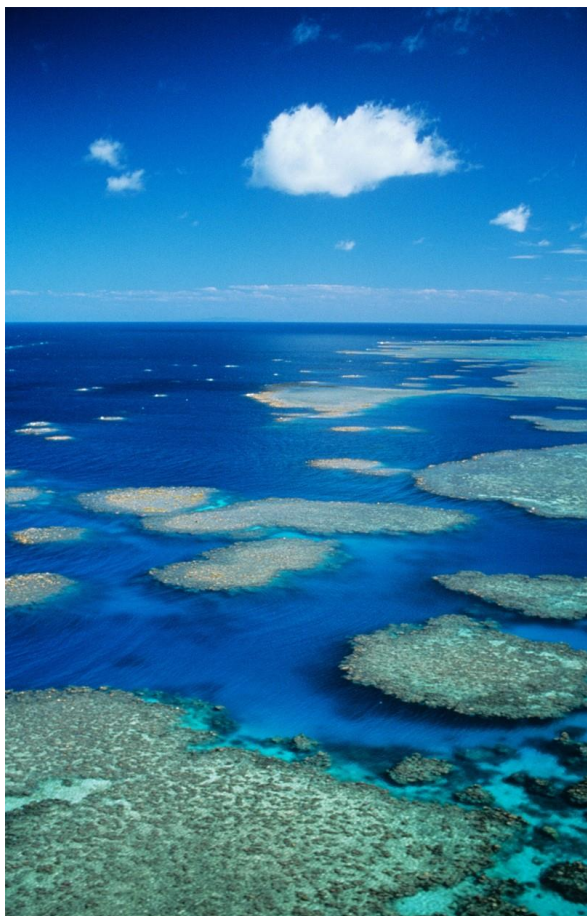


Figure 1: The panoramic lens. Slashers Reef from the air (© Commonwealth of Australia GBRMPA)



Figure 2: the water level lens. North West Reef Island (© Commonwealth of Australia GBRMPA)



Figure 3: *The underwater lens. Giant clam on Kelso Reef* (© Commonwealth of Australia GBRMPA)

Experiential attributes were identified based on selected studies of human perceptions and preferences¹⁷ and a workshop with GBRMPA. On this basis seven distinct experiential attributes were defined: beauty; naturalness, tranquility, solitude, remoteness, discovery, and inspirational. Given that the conditions under which an environment is experienced will influence perceptions and therefore aesthetic appreciation, we also sought to identify both positive and negative factors. For example, discordant and intrusive sights, sounds and smells will negatively impact on the experiential attribute ‘tranquility’. Conversely, some conditions will enhance the aesthetic value of an experiential attribute. For example, we identified sensory immersion in nature (in its sights, sounds, smells and ambience), stillness and reflective qualities, and intimacy as three conditions positively associated with tranquility.

Our methodology therefore centred on these reference points: a broader definition of aesthetics, the three lenses and two types of attributes. While each illuminated and expanded our understanding of the aesthetic values of the Reef, the aim of the project was to develop an assessment methodology that could be applied in managing the Reef, especially in response to potential impacts at particular locations. To integrate these reference points and to provide a method that could be easily adapted and applied we developed an approach that we called ‘conceptual mapping’. Given that aesthetic values are found throughout the Reef our analysis proceeded on the assumption that the environmental and experiential attributes in one location would be equally valued in every location in which they are present and be equal for all types of users. On this basis we were able to conceptually map attributes, linking environmental and experiential attributes to aesthetic qualities. For example, the SoOUV identifies ‘pristine sandy beaches’ as an attribute of aesthetic values. Mapping of this attribute geographically across the Reef would involve identifying many hundreds of such beaches and delineating boundaries, potentially a vast undertaking. On the other hand, our conceptual mapping

¹⁷ Clark & Stankey 1979; Swanwick et al 2002; The Research Box et al 2009; Sherl et al 1997; Ormsby et al 2004

enabled typical or idealised environments of the Great Barrier Reef to be examined, the attributes and locations of these attributes to be illustrated (Fig. 4).

New data collection was not possible within the scope of the project and so our analysis relied on several types of available data. This included historical and current imagery, tourist and promotional materials, research into visitor and local perceptions of the Reef, and recent ‘Reef-community’ consultations. There was relatively little data available on Indigenous community perceptions, and we have recommended future research into this area. The Reef has been extensively recorded in visual images and large collections are available in the GBRMPA library and in other public archives, as well as in on-line image hosting websites. Our analysis of these images sought to discern how people were engaging with the Reef experientially.

It was interesting to observe that many of the Reef’s aesthetic attributes have been consistently valued over a long period of time, even as community ethics around interaction with the natural world and the opportunities and ways of experiencing the Reef have changed. Analysis of historic photographs from over the past century revealed a striking continuity in the types of images, in the selection of natural features or elements, the framing of the image and the subject matter even though the ways in which people have been able to access and experience the Reef have changed markedly. For example a much repeated subject is people delighting in looking into the water to discover what lies beneath whether in the shallows at low tide in early images; looking through glass bottom boats or other ‘windows’ by the mid-twentieth century; or more recently using snorkels and scuba equipment and photographing from beneath the water.

Conclusions

Our investigation of the aesthetic values of the Great Barrier Reef was framed by the immense scale of the Reef, the occurrence of aesthetic values throughout the property, and that people experience the Reef’s aesthetic values at different scales and under different conditions. Although there are few heritage places and certainly few World Heritage properties that are of the scale and complexity of the Great Barrier Reef, this project has implications for the assessment of aesthetic values within the World Heritage system in general.

By developing and testing a new approach we were able to describe in much greater detail the aesthetic values of the Reef, providing an extensive elaboration of the SoOUV in relation to ‘natural beauty and aesthetic value’. We concluded that it is not the occurrence of the environmental attributes alone that influences aesthetic values; the experiential attributes are equally important and fragile. Both must be managed to protect OUV. By using experiential lenses to frame our investigation of the aesthetic values and to identify their attributes we also avoided a focus on well-known geographic locations and the privileging of visual qualities, and maintained a conceptual focus on the Reef as a whole.

Conceptual mapping proved to be an important component of our methodology. As well as suiting the immediate needs of this project, it was recognised that conceptual mapping of environmental attributes and their relationship to experiential attributes could become an effective way to communicate aesthetic values and attributes, and to establish aesthetic values analysis requirements on those seeking land use changes or new developments. We believe that conceptual mapping offers the opportunity to capture other experiential attributes, beyond those we have examined. It is true that there is a risk that this approach may oversimplify a complex environment and nuanced perceptions. On the other hand, it offers a practical framework for linking values to attributes across a vast landscape.

Our experience in undertaking this research tells us that a rigorous approach to defining aesthetic values and their attributes in large ‘natural’ landscapes is possible and necessary for the management

of these values independently of other scientific values, notably those recognised under other World Heritage criteria. Our project did not need to define a threshold for aesthetic values as part of assessing Outstanding Universal Value therefore the usefulness of our approach remains to be demonstrated for places where claims for Outstanding Universal Value are still to be justified.

Our work highlights that all aesthetic values have experiential as well as physical attributes. We agree with the recommendation of IUCN¹⁸ that multiple strands of evidence – beyond a visual analysis or description - are required to justify a claim for Outstanding Universal Value on Criterion vii. Our conclusion is that experiential and environmental attributes are essential expressions of aesthetic values. As our project demonstrates, aesthetic values conceived of within an experiential framework can be assessed using a logical process of data gathering and analysis and this can provide the basis for values-based management. The usual practice of defining physical attributes alone under Criterion vii is not sufficient to justify, manage or monitor Outstanding Universal Value. In this regard our work identifies an area of the World Heritage system that requires review and substantial revision.

Bibliography

- Australian Government 2012. Statement of Outstanding Universal Value – Great Barrier Reef. Australian Government. <http://whc.unesco.org/en/list/154> [Accessed December 2013].
- Australian Government. Criteria of the National Heritage List Criteria. <<http://www.environment.gov.au/topics/heritage/about-australias-heritage/national-heritage/national-heritage-list-criteria>> Accessed 20 July 2014
- Bowen, J. & Bowen, M. 2002. *The Great Barrier Reef: history, science, heritage*, Cambridge University Press.
- Catherine Brouwer Landscape Architects & Chenoweth & Associates Pty Ltd 1994. *Coastal Visual Landscape Evaluation Procedure*, A Report for the Department of Environment and Heritage Coastal Management Branch, Catherine Brouwer Landscape Architects & Chenoweth & Associates Pty Ltd, Brisbane.
- Clark, R. N. & Stankey, G. H. 1979. *Recreation Opportunity Spectrum: A framework for planning, monitoring and research*, General Technical Report PNW-98, USDA Forest Service.
- Context Pty Ltd 2013. *Defining the Aesthetic Values of the Great Barrier Reef*. Final Report to DSEWPaC, February 2013 <http://www.environment.gov.au/resource/defining-aesthetic-values-great-barrier-reef-world-heritage-area-february-2013> [accessed July 2014]
- Great Barrier Reef Marine Park Authority 2012a. *Great Barrier Reef Biodiversity Conservation Strategy 2012: Draft for public consultation*, GBRMPA, Australian Government, Townsville.
- Great Barrier Reef Marine Park Authority 2012b. *Informing the Outlook for the Great Barrier Reef coastal ecosystems*, GBRMPA, Australian Government, Townsville.
- Harrington, J. 2004. 'Being here: heritage belonging place making study community identity formation at Avebury (England) Magnetic Island (Australia) Ayutthaya (Thailand). PhD thesis, James Cook University.
- IUCN 2005. *Enhancing the IUCN Evaluation Process of World Heritage Nominations. A contribution to achieving a credible and balanced World Heritage List*. Proceedings of the IUCN-WCPA World Heritage Workshop at the International Academy for Nature Conservation Isle of Vilm, Germany, November 24th – 28th, 2005.
- Love, R. 2000. *Reefscape: Reflections on the Great Barrier Reef*, St Leonards, Australia, Allen & Unwin.

¹⁸ Mitchell 2013

- Lucas, PHC, T. Webb, PS Valentine and H Marsh, 1997. *The Outstanding Universal Value of the Great Barrier Reef World Heritage Area*. Townsville: Great Barrier Reef Marine Park Authority.
- McIntyre-Tamwoy, S. 2004. My Barrier Reef: exploring the Bowen community's attachment to the Great Barrier Reef. *Historic Environment*, 17, 19-28.
- Mitchell, N. with contributions from Leitão, L., Migon, P. and Denyer, S. 2013. *Study on the Application of Criterion (vii): Considering superlative natural phenomena and exceptional natural beauty within the World Heritage Convention*. Gland, Switzerland: IUCN.
- Ormsby, J., Moscardo, G., Pearce, P. and Foxlee, J. 2004. *A Review of Research into Tourist and Recreational Uses of Protected Natural Areas*. GBRMPA Research Publication No. 79.
- Pocock, C. 2003. *Romancing the Reef: History, heritage and the hyper-real*. PhD thesis, School of Anthropology, Archaeology and Sociology, James Cook University.
- Pocock, C. 2005. 'Blue lagoons and coconut palms': the creation of a tropical idyll in Australia. *The Australian Journal of Anthropology*, 16, 335-349.
- Sherl, L.M. Valentine, P.S. and Millard M 1997. *Recreation and Tourism Experience in the Great Barrier Reef Marine Park and Implications for Management*. GBRMPA Research Publication No. 65.
- Swanwick, C. & Land Use Consultants, 2002. *Landscape Character Assessment Guidance for England and Scotland*. Prepared by Carys Swanwick and Land Use Consultants for The Countryside Agency & Scottish Natural Heritage.
- The Research Box, Land Use Consultants & Minter, R. 2009. *Experiencing Landscapes: capturing the cultural services and experiential qualities of landscape*, Natural England Commissioned Report NECR024 prepared by The Research Box, Land Use Consultants & Rick Minter for Natural England, Cheltenham (UK).
- UNESCO World Heritage Centre and IUCN 2012. *Mission Report – Great Barrier Reef Australia (N152)*, 6–14 March 2012. Paris: UNESCO World Heritage Centre. Document: WHC-12/36.COM/7B.