

## Heritage designation and scale: a World Heritage case study of the Ningaloo Coast

Tod Jones <sup>a\*</sup>, Roy Jones <sup>a</sup> and Michael Hughes <sup>b</sup>

<sup>a</sup> *Department of Planning and Geography, School of Built Environment, Faculty of Humanities, Curtin University, Perth, Australia;* <sup>b</sup> *Environmental Science, School of Veterinary and Life Sciences, Murdoch University, Perth, Australia.*

As heritage research has engaged with a greater plurality of heritage practices, scale has emerged as an important concept in Heritage Studies, albeit relatively narrowly defined as hierarchical levels (household, local, national, etcetera). This paper argues for a definition of scale in heritage research that incorporates size (geographical scale), level (vertical scale) and relation (an understanding that scale is constituted through dynamic relationships in specific contexts). The paper utilises this definition of scale to analyse heritage designation first through consideration of changing World Heritage processes, and then through a case study of the world heritage designation of the Ningaloo Coast region in Western Australia. Three key findings are: both scale and heritage gain appeal because they are abstractions, and gain definition through the spatial politics of interrelationships within specific situations; the spatial politics of heritage designation comes into focus through attention to those configurations of size, level and relation that are invoked and enabled in heritage processes; and researchers choice to analyse or ignore particular scales and scalar politics are political decisions. Utilising scale as size, level and relation enables analyses that move beyond heritage to the spatial politics through which all heritage is constituted. **Key words:** heritage and scale, heritage geography, world heritage, heritage designation, Ningaloo.

Alan<sup>1</sup> did some of the things that you would expect of an Australian in Paris for the first time. He visited the Eiffel Tower. He had a croissant and coffee in a patisserie. However, most of his time and energies were devoted to a more unusual task: preventing the World Heritage designation of the Ningaloo Coast.

Alan lived in the small town of Exmouth on the remote Western Australian northwest coast. At the time, he was the Chairperson of the Exmouth Chamber of Commerce and Industry and had become quite prominent as a local voice opposing the Ningaloo Coast World Heritage designation. An unusual partnership of interests had donated funds for Alan's ticket to Paris,

---

\* Corresponding author. Email: T.Jones@curtin.edu.au

including: the Chamber of Commerce and Industry, sandstone mining interests located within the proposed World Heritage boundary, and pastoralists concerned about the future of their pastoral leases.

While in Paris he met with the Australian delegation and the Chair of the World Heritage Committee, who explained the rules for addressing the Committee to voice his opposition. Such an intervention would have been embarrassing for the Australian delegation. It would also add uncertainty into a World Heritage designation process that had cost the Australian federal and Western Australian state governments millions of dollars over an 8 year period. Alan's presence and potential actions were disturbing the hierarchies of scale that characteristically underpin the World Heritage designation process, and much of the research in heritage studies.

### **Scale and heritage**

Graham et al. (2000, 259), in their seminal book on heritage, observe that scale "significantly complicates the geography of heritage". In particular, the authors relate scale to the means by which (imagined or formalised) communities or groups can claim, access and interpret any heritage resource. Scale is thereby related to the 'who' and 'how' questions of heritage management:

an intrinsic attribute of places is that they exist within a hierarchy of spatial scales. Places therefore have a heritage at local, regional, national, continental and international scales, while, in turn, a particular heritage artefact can function at a variety of scales. (2000, 4)

A definition of scale that emphasises hierarchical levels<sup>2</sup> is useful. The capacity for conflicts resulting from conflicting heritage interpretations made at different scales has been well documented (Silverman 2011). Such a definition also creates a framework for analyses and comparisons that challenge what Collinge (1999) calls scalar fixes, or a relatively stabilised hierarchy of levels that privileges activities at one scale over those at others, thereby leading to the assertion of a singular heritage, with national heritage often being privileged.

Understanding scale as primarily hierarchical level also has its shortcomings (Harvey 2015). If heritage is a cultural process (Smith 2006, Harvey 2001), the assertion that it is fluid and political has implications for our understanding of scale. Places are too easily assigned to scales (often multiple) rather than being subjected to an investigation of how this happens. More specifically, scale and heritage are co-constituted through a political process that is generally at its most dynamic during the period of designation. If attention is only given to already-designated heritage, its boundaries and its geographical distribution, such research can overlook the dynamism and fluidity of heritage. Heritage designation is the phase at

which a multitude of influential players and their scaled practices most obviously create and use networks, and confirm and contest meanings, management and boundaries. This has the potential to provide an important critique of the case study method in Heritage Studies; players who are critical to the heritage process are too easily assigned roles (become ‘stakeholders’) in a hierarchical structure overseen by an institution (often the state and/or UNESCO) that itself is assigned a management capability well beyond its capacity. Such an understanding can therefore overlook the dynamism of the heritage process, deny the agency of many of the players in this process, and rewrite a messy negotiation as an ordered history. It also conflates the perspectives of heritage research and conservative heritage management, assigning and protecting pre-existing values in ways that limit both awareness of the multiplicity of heritage and the potential for innovation in the research on and management of heritage.

Debates over scale in Human Geography can provide insights into how scale can be rethought as a key element in a dynamic Heritage Studies process. Traditionally, scale was a means by which researchers balanced the extent (boundaries) and resolution (depth of information) of their research (Smith 1993, 97). The broad acceptance of this conception of scale and the order of space resulting from it was widely challenged in the wake of the political upheavals of the 1960s, after which geographers and others began to analyse the social construction of scale through political economy approaches and analyses of the production of space (Taylor 1982, Harvey 1989, Smith 1993, Brenner 1997, Swyngedouw 1997).<sup>3</sup> In a critique that called for hierarchical scale to be abandoned as an analytical approach, Marston et al. (2005) argued that works using scale to analyse hierarchical relations between levels tended to attribute agency and causal power to global forces, thereby stripping agency from local actors and events. Additionally Marston et al. argued that scale research tended to use a small number of, often arbitrarily defined, levels (body, neighbourhood, urban, regional, national and global).

A number of Geographers responded by reaffirming the importance of the social construction of scale while adopting a more varied, “relational” approach to practices that emphasised a much wider range of scales and the agency of living and non-living things (Leitner and Miller 2007, Neumann 2009). The concept of scale that emerged was more than a response to a critique of local-global binaries. It also sought to overcome human-nature binaries critiqued in political ecology (Robbins 2012) and post-natural, post-social geographies (Castree 2011, Whatmore 2002). The more-than-human critiques of the social sciences have informed these revisions of scale in ways that are highly political (in particular due to their links to Global Environmental Change (Castree 2015)), and therefore inform this paper (a connection we return to in the last section).

Contemporary use of scale makes a clear distinction between geographical scale, defined as the spatial configuration and extent of a set of practices, and hierarchical levels (household, town, region, nation, global) (Neumann 2009, Sayre 2005). Howitt (2003, 144), in addition to 'size' and 'level', explicitly includes relationships by adding 'relation' as a third component of scale. Howitt's argument, which remains central to the use of scale in Human Geography today, is that:

'scale' is rendered most meaningful in its development as an empirical generalization—a concept made real by building up an understanding of complex and dynamic relationships and processes in context. (2003, 151).

Developments in political ecology have built on these understandings of scale while incorporating non-human agents, predominantly through emphasising the overlapping of geographical scales that influence or are ignored by political processes. For instance, Neumann (2009) contends that scale is concerned with power relations, resistance and agency since these influence the scale of practices of living and non-living things. Due to the importance of context and relation, there is no one way of "doing" scale. What arises is a set of linked concepts (size, level, relation) that are both important for understanding spatial politics, and are made concrete through that politics.

Ethnographer Anna Tsing's research on the production of scale emphasises the dynamics of its relational construction as part of ongoing processes of social and political change (2000, 2005, 2012). In *Friction* (2005), Tsing focusses on the messy process through which abstract universal forces (what she calls 'universals' such as nature, globalisation, markets) gain force and traction through practical and smaller scale encounters and the agency of many different actors:

Universals are effective within particular historical conjunctures that give them content and force. We might specify this conjunctural feature of universals in practice by speaking of engagement. Engaged universals travel across difference and are charged and changed by their travels. Through friction, universals become practically effective. ... They are limited by the practical necessity of mobilizing adherents. ... *All* universals are engaged when considered as practical projects accomplished in a heterogeneous world. (2005, 8)

The relevance of Tsing's ideas for this paper is in her attention to details of empirical generalisations, in particular the messy detail of engagement with heritage that makes it attractive to so many people, creating anger and hope for elite and excluded alike. As in Geographical writings on scale (Howitt 2003, Leitner and Miller 2007, Swyngedouw 1997), Tsing recognises that scale's usefulness lies in its capacity to facilitate the analysis of how processes like that of heritage simultaneously function across a variety of scales and spaces: "the cultural processes of all 'place' making and all 'force' making are both local and global, that is, both socially and culturally particular and productive of widely spreading

interactions” (Tsing 2005, 352). What distinguishes Tsing’s scholarship is how she draws out the contingency of universals through attention to “discontinuity and awkward connection, as this proves key to emergent sources of fear and hope” (2005, 11). It is in the very messiness of designation and negotiation that we can see the potential, and, at times, the emergence, of new articulations of heritage, and the haphazardness of its global spread.

Geographer David C. Harvey (2015, 579) makes use of developments in Human Geography (in particular the work of Doreen Massey (2005)) in his call for “a more sophisticated theorisation of heritage scale relationships”.<sup>4</sup> Using examples from the United Kingdom, he identifies and interrogates shifts in the politics of scale in heritage, in particular the destabilisation of national heritages and the increasing acceptance of “local” claims to and uses of heritage. Harvey’s challenge to critical heritage research is to tie processual concepts of heritage to relational understandings of place and space (2015, 589-90), in particular rejecting simple associations of local scales with authenticity and community, and representations of the national scale as an “automatically reactionary straitjacket”. While Massey’s work unsettles scale, she rarely refers directly to scale in *For Space* (2005), and does not include the term in her index. However, she argues that local, global and, by extension, other scales are determined relationally, or “mutually constituted” as trajectories that are elements of place- and time-specific negotiations (2005, 184). This is a destabilising critique since it is open to the co-presence and creation of multiple scales that are invoked and shaped in the heritage process.

Analyses of scale in World Heritage designation processes can both unpack the spatial politics of heritage and demonstrate how understandings of (World) heritage are linked to relations within and between places, and are therefore unique. Bringing this concept of scale into Heritage Studies requires analyses of the operation of the three key elements of scale: geographical scale (size), vertical scale with or without hierarchies (level), and the importance of specific relationships and circumstances (relation). This paper applies this conceptualisation of scale through a heritage case study of the World Heritage designation of the Ningaloo Coast in Western Australia. We interrogate specific ways in which scale has been represented and negotiated in order to understand local manifestations of heritage, the multiple meanings of national and global heritage, and the outcomes of these heritage processes in the three subsequent sections.

The first section provides an account of recent changes to World Heritage designation processes read as a relational configuration across places and times with a focus on how changing power relations are redefining heritage scales. The second section is a case study of the World Heritage designation of the Ningaloo Coast. Here we argue that to designate is to mark out or define, and that a designation process is a time of possibilities that promises new futures, connections and ruptures. The case study includes two sets of analyses: an account of

the changes in the proposed boundaries for the World Heritage area; and a recounting of how the proponents and opponents of World Heritage designation engaged with the residents of Exmouth thereby creating new meanings of World Heritage. This engagement demonstrated the multiple identities and relational construction of World Heritage, and showed how configurations of hierarchies and geographical scales were negotiated as part of this process. The third section identifies the contribution that scale, understood as an empirical generalisation of size, level and relation, can make to Heritage Studies, and in particular what this reveals about the politics of heritage research.

### **World Heritage: changing power relations and scales**

The global scalar politics of World Heritage designation itself has been configured through its relations to some unlikely places a long way from Paris and Rome. The references to ‘safeguard’ and ‘protect’ heritage in the *The Convention Concerning the Protection of the World Cultural and Natural Heritage* (World Heritage Convention) are directly related to the threats to temples posed by the construction of the Aswan High Dam in Egypt in the 1950s and international action to safeguard Venice from floods in the 1970s (Harrison 2013). The cultural landscapes criteria included in the definition of World Heritage in 1992 were shaped through the complaints of the Aboriginal Anangu people in central Australia about the separation of natural and cultural heritage in the nomination of Uluru (Ayers Rock-Mount Olga) and criticisms from Maori in relation to Tongariro National Park in New Zealand (Fowler 2004). Pressure over threats to storytelling in Jemaa el Fna Square in Marrakech, Morocco instigated UNESCO’s approach to Intangible Cultural Heritage, and led to the *Convention for the Safeguarding of the Intangible Cultural Heritage* in 2003 (Schmitt 2008). These examples have led Rodney Harrison to argue that “at the very least ... the authority of the World Heritage Convention is co-created by local actors as much as it is by state officials” (2013, 138) and that, if the local disturbs the universalising claims of the global sufficiently, it can have a material effect on its operations. We argue, following Tsing’s (2005, 8) concept of the engaged universal, that what these examples demonstrate is that the ‘global’ is always configured through relations between specific places and therefore is always co-constituted, shifting and multiple. These examples are the most obvious, but this negotiation occurs with every World Heritage designation process.

The relations between scalar levels can also quickly change, leading to new relations and agencies. Laurajane Smith (2006, 87-114) argues that international heritage processes privilege experts through the power relations that they establish between groups in different locations and marginalise non-expert meanings and connections. While governments produce nomination documents within which specific sites and structures are levered into categories (the “criteria”) found in the World Heritage convention’s Operational Guidelines, experts assess these efforts and recommend a course of action to the World Heritage Committee.<sup>5</sup>

Recently, two shifts have reduced the influence of heritage experts in the designation processes, contributing to a rescaling of World Heritage designation processes. First, Meskel (2012) identified that international alliances and discontentment with a perceived Western bias in the assessment of sites allowed national priorities to be asserted over expert appraisal. She reports that, in 2010, 21 sites were inscribed while the expert bodies only recommended 10, and, in 2011, the Committee overturned 22 of the advisory bodies' recommendations. In 2014, this practice continued: 10 of the 31 nominations were inscribed against the recommendations of expert organisations. The second shift relates to a formal change in the designation process. Initially, bids for World Heritage designation were the almost sole responsibility of experts and officials. Over time, World Heritage processes have paid increased attention to the concerns of local and community stakeholders leading Millar (2006:53) to observe that "communities have moved centre stage in the World Heritage debate". This trajectory was formalised in UNESCO's Budapest Declaration, which sought "to ensure the active involvement of local communities at all levels in the identification, protection and management of [member states'] World Heritage properties."<sup>6</sup> Local communities, as noted by Jones and Shaw (2012), often oppose heritage designations as they seek to retain their traditional economic and social practices in the face of increasing numbers of visitors and/or regulatory change.

This section demonstrates that the politics of flows of resources and of access through World Heritage processes can be demonstrated to be fluid even without reference to a specific designation. Introducing questions of scale reveals the importance of networked flows of information and resources across scales to the World Heritage process, but it leaves open the politics of the (re)construction of the global scale into specific localities. We cannot stop in Paris or Budapest as this is only a part of the trajectory, and one that ignores those elements of engagement that are most open to creativity and closure, inclusion and exclusion. Concrete engagements (Tsing 2000, 2005), like the World Heritage designation of the Ningaloo Coast, exhibit the heterogeneity of global forces.

### **World Heritage designation of the Ningaloo Coast case study: grounding global heritage**

The Ningaloo Coast region falls within the Australian Bureau of Meteorology's arid zone. While the fragile coastal environment supports a wide range of terrestrial life (Department of Environment and Conservation 2010), the region is best known for the marine life associated with Australia's largest fringing coral reef. The Ningaloo Reef stretches for over 300 kilometres. It is highly accessible from the shore and has many popular dive and snorkel sites. The region is frequented by whale sharks, humpback whales, turtles and manta rays (Department of Environment and Conservation 2010). Cape Range, a spectacular karst feature rising up to 300 metres, dominates the northern Ningaloo Coast landscape.

In community terms, the designation process was focussed on Exmouth (population 2392 in 2011). Exmouth is the largest of the two towns close to the Ningaloo Reef. Exmouth is located at the northern end of the reef, 350 kilometres north of the regional centre of Carnarvon and 1350 kilometres from the state capital city of Perth (See figure 1). While the presence of traditional custodians often disturbs ‘natural’ heritage listings (Skilton, Adams and Gibbs 2014, Fowler 2004), the Yinikutira people perished in an unknown event within two decades of the advent of pastoralism in 1880 (Dagmar 1978), and their absence both simplifies current heritage and planning conflicts and unsettles them. Now only a few Aboriginal people in Carnarvon claim kinship connections to the Yinikutira.<sup>7</sup> The town of Exmouth was established in 1963 to support the American Harold E. Holt Naval Base. The USA withdrew its personnel in 1992 and the town population subsequently declined by 15 percent between 1991 and 1996. Tourism, facilitated by an increased state focus on regional development, and an investment fund from the sale of local American properties (Glasson, Jennings and Wood 1997, McKenzie and Tonts 2005), played a significant role in reversing this decline. Tourism is the most important economic activity in the region and is focussed on the coastal and marine environment (Jones, et al. 2011).<sup>8</sup> It is highly seasonal due to Exmouth’s mild winters and extremely hot summers. Smaller employers include fishing (approximately a third of Western Australia’s prawns are caught in the Exmouth gulf),<sup>9</sup> state administration, the Australian Defence Forces, and local government.

Figure 1: Map of Western Australia with insert of Exmouth

INSERT FIGURE 1 NEAR HERE.

The initial driver of state-wide interest in the future of the Ningaloo Coast was a 1987 plan for a large tourism resort at a location known as Maud’s Landing. The Western Australian (WA) opposition Labor Party’s objection to this proposal contributed to its surprise state election victory in 2001. The new Labor Premier officially rejected the Maud’s Landing proposal in 2003—in the same speech in which he stated that the WA State Government would seek World Heritage designation for the Ningaloo Coast region. The Labor government also sought to develop a more integrated plan for the region with a stronger legal basis and increased centralised control.<sup>10</sup> This plan, the Ningaloo Coast Regional Strategy, limited large scale development to Exmouth and Carnarvon with small nodal developments along the coast (Western Australian Planning Commission 2004). The local community and long term repeat visitors were divided about the merits of these proposals and environmental protection initiatives (Jones, Ingram and Kingham 2007). The coastal nodes were popular camp grounds, and their future development was a contentious element in negotiations with the pastoral leaseholders for whom the campers provided a revenue stream.

The state focus on protecting environmental assets and increasing the level of coastal regulation as the basis for tourism growth became a source of local controversies. A local conservation estate was first designated in 1964 and has since grown in both areal extent and level of protection.<sup>11</sup> Management of the conservation estate became particularly controversial in the 2000s when the boundaries of the Ningaloo Marine Park were extended in 2004 and, in 2005, when DEC oversaw a controversial increase in sanctuary (non-fishing) zones from 10 percent to 34 percent of the marine park which prevented access to some popular fishing spots (Ingram 2008). Another set of controversies was fuelled by an announcement that the government intended to annex a two kilometre coastal strip from the pastoral stations as part of the state-wide pastoral lease renewal process in 2015. This led to tensions between government, pastoralists and coastal campers. The World Heritage designation process therefore took place in the context of ongoing commercial negotiations and local concerns over access to and management of the region's coastal zone and waters, where locals felt that they had been marginalised within previous planning processes. In addition, this process occurred in a location geographically remote from the political decision makers, including the state government based in Perth (1,350km south) and the federal government in Australia's capital city of Canberra (4,900km east).

### ***Data collection***

Data was obtained on the Ningaloo region's World Heritage designation process from a review of documents and literature followed by in-depth interviews with 21 key informants involved in the designation process in mid-October, 2011. Interview participants were selected using purposive sampling to provide a selection of key actors at the local, state, national and international levels, albeit with a focus on local residents on the Ningaloo Coast (see Table 1). The authors had been researching sustainable tourism planning for the Ningaloo Coast for four years and were very familiar with the local community. The intent was to obtain a detailed understanding of the World Heritage designation from a representative cross section of the local host community. Thus, representatives locally resident on the Ningaloo Coast constituted 18 of the 21 interviewees, with a focus on those living in Exmouth (12) Carnarvon (3) and Coral Bay (3). Eight of the interviewees had lived in the region for over a decade, and four for over two decades, and our respondents had multiple roles in Exmouth (for instance, as a leader in an environmental NGO, a nurse, and a member of a mothers group). Two interviews were undertaken with state level actors, and one with the Director of the World Heritage Centre, UNESCO. All interviews followed the same schedule (with the exception of the UNESCO employee for whom the questions would have been inappropriate). Interviews addressed the broad areas of the designation process and perceived personal and community impacts of the designation on the region. Several steps

were taken to ensure research rigour. First, data was gathered from interviews, the local newspaper (the *Northern Guardian*), and from reports and promotional materials and triangulated. Second, empirical findings are reported if they received three or more responses in interviews or could be confirmed by other sources. Finally, two researchers conducted the interviews on the same fieldtrip, using written notes to record responses and comparing responses and notes after each interview, and a third researcher with a strong knowledge of the area reviewed the analysis.

Table 1: Interview respondents  
INSERT TABLE 1 NEAR HERE.

### *Analysis 1: Designation as the ordering of geographical scale*

The designation process is a period when the multiplicity of scale is most apparent. Plans for the designation boundaries are, to borrow from Dovey (2010, 29), representations of potential futures that resonate with the desires of different groups. World Heritage is incorporated into new geometries of power that shape heritages and make them comprehensible. Here we focus on the range of geographical scales of practices (size) implicated in the proposed and actual boundaries of the Ningaloo Coast World Heritage area in order to interrogate the spatial politics of World Heritage designation (the negotiated ordering of scales of practices). The geographical scales of different human actors' activities, together with those of non-human actors, intersect with the various planned boundaries in different ways. These negotiations place certain scales and certain locations inside or outside the official considerations of World Heritage. They force analyses to move within and beyond the various proposed designation boundaries, revealing the contingency of such boundaries and the interrelations that both question and shape their location and meaning.

The choice of scales is a political act and is potentially decisive in determining outcomes (Sayre 2005). This includes scales of time. For instance, the nomination document (DEWHA (Department of Environment Water Heritage and the Arts) 2010) considers Ningaloo Reef in geological time, assessing residents' practices only to the extent that they endanger these long and non-human arcs of spatial creation and existence.<sup>12</sup> Since Ningaloo is a 'natural' listing, the scales of practices of living non-human agents are particularly important to designation.<sup>13</sup> The annual presence and behaviours of whale sharks were central to the nomination successfully meeting the World Heritage criterion. Whale shark movements are both global and not well understood (Rowat and Brooks 2012, 1033-4). Tourist experiences of whale sharks are shaped by licensing (Catlin, Jones and Jones 2012), regulation of their interactions with humans, and by their choices in their visits to the region including their choice to stay at the surface or dive down when confronted by snorkelling tourists (Whatmore 2002). They

visit the area for three months of the year in varying numbers and for variable lengths of time. While they are hunted in parts of Asia and South America, whale sharks are a tourism icon of the Ningaloo region. Following Dominique Lestel (2014), the shift in human-whale shark relations from agricultural commodity to iconic creature necessarily entails new ways of being for the human visitors. These experiences underpin the Ningaloo Coast's 'natural' heritage, and therefore whale shark practices and scales of horizontal and vertical movement are crucial to World Heritage designation.

The first "preferred boundary" for the Ningaloo Coast World Heritage area was identified in a 2005 report written by a committee of three Exmouth residents in senior management positions, assisted by a DEC employee and conservation expert (World Heritage Consultative Committee 2005). This boundary (see Figure 2) emphasised ecological "integrity", capturing the key ecological systems that supported the reef, notably Exmouth Gulf, and the adjacent Ramsar listed Lake McLeod wetlands. It excluded Commonwealth waters since the then conservative Australian Federal Government did not support the World Heritage nomination. This delimitation was at odds with other scales of activity noted in the report, most prominently, the offshore location of hydrocarbon reserves and prospective developments for their exploitation (see Figure 3). The inclusion of areas subject to these incompatible activities put this boundary at odds with the IUCN's approach to World Heritage delimitation. The IUCN's approach since 2000 has been that mineral exploration and extraction be prohibited in IUCN Protected Area categories I-IV (Dudley 2008, 48).<sup>14</sup> Exmouth is at the southern limit of exploration on the Northwest Shelf, a significant offshore oil and gas reserve, and is therefore a potential port for service vessels for oil and gas rigs.

Insert Figure 2: Preferred boundaries identified by the World Heritage Consultative Committee (derived from World Heritage Consultative Committee 2005, 108).

Insert Figure 3: Current and planned resources projects for the northwest of Western Australia (excerpt). Source: (Cooper, et al. 2014).

The second proposed boundary (Figure 4) was focussed on the area with the highest existing level of environmental protection but also included a two kilometre coastal strip taking in pastoral land. It excluded the mining exploration sites, Exmouth Gulf, Lake McLeod and most of the pastoral station land. This boundary was aligned with the state's regional planning priorities for small-scale coastal tourism development. The second boundary proposal was of great concern for the pastoral station campsite repeat visitors and the pastoralists since it included where the campers stayed and recreated (the most attractive sites

for future development). This strip also comprises the most productive pastoral land since the coastal land receives more rainfall.

The boundary finally recommended in the report prepared by the IUCN and the World Heritage Centre in 2011 excluded all of the pastoral station land (Figure 5). The Director of the World Heritage Centre stated that the WHC was very unlikely to list an area that the long-term lessees do not want listed (Interview N2, phone interview, 9 February 2012). It is worth noting that the scale of the recreational activities of local residents was not part of this debate, which was configured as a consideration of economic activity versus environmental conservation. Our interviews indicated residents feel a sense of loss and inability to intervene in the shifting regimes of use and management. For instance, Tony, the manager of a tourism business, had been living in Exmouth for 10 years. He remembered camping on crown land and recalled how his favourite campsite on a pastoral station was ruined when six tents tried to squeeze into a space appropriate for two tents. When considering how he used to use the coast, he stated that “the limits on activities are already in place and freedoms have already been curtailed” due to increased regulation. (Notes from Interview E15, Exmouth, 17 October 2011). The negotiations did not directly address the strong connections and feelings of many local residents who often referred to their past leisure practices, such as camping and fishing along the coastline.

This section demonstrates how a heritage designation process can be read as an element in a reordering of relations of geographical scales. This ordering is a process of inclusion and exclusion and can be both passive (e.g. by failing to address local connections created through past and present recreational practices) and active (e.g. by excluding pastoral and mining sites). Hierarchical scale is important to this process but not conclusive. The influence of pastoralists, the Australian Federal government, the Western Australian State government, IUCN and World Heritage Committee on the final boundary emphasises the importance of the specific relations between players at different levels. Ideological divisions, such as the nature/culture binary, also influenced which geographical scales were emphasised or ignored in the process. What remains inside and outside the geographical and ideological boundaries of heritage results from political decisions that give shape to very different practices and understandings of heritage that will privilege certain groups while excluding others. However, the analysis so far has not fully captured how social relations in space were fundamental to the co-constitution of scale and heritage in this case. Many groups actively influenced the heritage outcomes, and the politics of heritage designation did not respect the boundaries of the formal process.

Insert Figure 4: National heritage listing boundary for the Ningaloo Coast (2011)

Insert Figure 5: Final World Heritage boundary for the Ningaloo Coast (2011)

### *Analysis 2: the meaning of World Heritage*

Alan's presence at the World Heritage Committee meeting in Paris was a disturbance for representatives of Australia and other nations, and for the World Heritage Centre. Local stakeholder concerns should have been dealt with much earlier in the process. From Alan's perspective, he was in exactly the right place, and World Heritage was out of place in Exmouth. World Heritage conflicted with his and his allies' attempts to mobilise and relate social networks, economic resources and political institutions, or in other words to create new scales, that were the basis for a different vision for Exmouth. Foregrounding these relations reveals how the visions and actions of different networked groups (that spread beyond Exmouth) shaped this World Heritage designation process and impacted the everyday politics of many Exmouth residents.

Two alternative visions for the future of Exmouth generated by two networked groups influenced the responses and actions of many of the Exmouth residents. Alan's vision for Exmouth emphasised ties to the resources sector, including a larger population, ideally between 4000 and 5000, to offset problems stemming from seasonality in tourism, and local staffing issues and skills shortages (Interview E7, Exmouth, 18 October 2011). He saw the resources sector as a key driver of growth. An alternate vision emphasised a pathway to prosperity based on the recognition and conservation of ecological systems. A member of the Exmouth based organisation, the Cape Conservation Group, said:

There is an increasing awareness of the conservation significance—that Exmouth is not just a beautiful place. (Interview E5, Exmouth, 18 October 2011)

Another respondent who had worked in environmental consultancies and in World Heritage areas linked World Heritage to this vision: “World Heritage listing would also deter oil and gas development in Exmouth, which could prevent or slow Exmouth becoming another Karratha”—a coastal mining port town north of Exmouth that has experienced extreme social, economic and environmental disruption from mining expansion, including a large, itinerant workforce (Interview E2, Exmouth, 17 October 2011).

As World Heritage is situated quite differently in these two visions, encompassing the desirability of the designation, the size of the boundary and its place in economic and social networks, there was inevitable local competition over its implications and desirability. This

often included wild rumours about the implications of World Heritage for Exmouth residents. These included:

- You would need permission from Paris to put a veranda on your house.
- Exmouth would run out of water as the supply was in the World Heritage area.
- All World Heritage areas are “trashed” by tourists.
- You would need permission for meetings larger than 12 people due to the Environmental Protection and Biodiversity Conservation Act.

Many of these rumours referenced Shark Bay, a World Heritage area approximately 500 kilometres south of Exmouth that had been listed in 1991. A previous Shire President of Shark Bay, travelled to Exmouth in 2004 and vehemently opposed the Ningaloo Coast designation in a public meeting on the basis of his Shark Bay experience (World Heritage Consultative Committee 2005). The rumours, spread through this regional network, generated local meanings opposed to the state’s positive representations of the outcomes of World Heritage designation.

It is worthwhile reflecting on how geographical and hierarchical scales were articulated in the two visions of Exmouth in order to examine how rescaling leads to spatial effects. The conservation vision argued for a world heritage listing encompassing a larger conservation area for a disconnection from the resources industry networks along Western Australia’s coast, and for Exmouth to become a node in World Heritage and international ecotourism networks. The resources industry vision argued against World Heritage designation and for a larger town size with more industrial infrastructure, close ties to resource industry networks, and no change in the conservation area. The World Heritage boundary was only one aspect (and not the most important) in the scalar shifts that these two groups perceived to be at stake.

The official path through which residents came to understand and appreciate the implications of World Heritage designation was through a program of public participation, whereby state, federal and international representatives visited the region to meet office holders and prominent residents. Three town-hall style events were held in Exmouth between 2004 and 2011. Two pastoralists utilised their networks with repeat coastal campers to bring in large groups of people who were opposed to any changes that were seen to reduce their access to their favourite campsites. Seven respondents remarked on aggressive behaviour in these town meetings. A senior DEC employee who had lived in Exmouth for many years noted that “The atmosphere in town was affected. [...] The atmosphere at the meetings was also quite confronting” (Interview E1, Exmouth, 20 October 2011). In this environment, supporters of World Heritage were afraid to speak up. Attempts to address misinformation in these forums were further complicated by communication issues. A local supporter commented:

The response to the situation was to fly in experts who then provided information in hard to understand language, leading the community to believe trusted locals who

spoke in a language they could understand. (Interview E5, Exmouth, 18 October 2011)<sup>15</sup>

Opponents of the World Heritage listing found these meetings so useful that they organised a further one after the nomination had been submitted. Local meanings of World Heritage therefore resonated more strongly with residents than did official announcements.

The week of the World Heritage Committee meeting in Paris was a time when these locally engaged proponents of social action had the greatest potential to disturb the hierarchy that characteristically underpins the designation process. These events were linked to Alan's standing amongst Exmouth residents. His prominence in the town had grown through his arguments against World Heritage designation. He was frequently quoted in the regional paper and contacted by local politicians and researchers. Most of the Exmouth respondents stated that he was an important, although not necessarily an accurate, information source. Among supporters of a conservation vision for Exmouth, there was a source of frustration that peaked when Alan travelled to Paris as a self-described community representative, although, as noted previously, one paid for by mining, pastoral and commercial interests.<sup>16</sup> Shortly before the World Heritage Committee meeting, the mobile number of the World Heritage Committee's Chair was displayed in a local shop in Exmouth with a request for anyone who read it to send him an SMS opposing the designation. This evoked a response from the supporters of the designation:

A response around town [to Alan's trip] was to SMS a message to a number [...]. The message was "Alan does not represent the Exmouth community."

This latter message reached a wider audience because the local environmental group circulated the number through its email networks. The World Heritage Committee Chair received over 100 SMS messages about Ningaloo. He estimated that 90 percent supported the designation. As this example illustrates, community, like heritage, is a construct that selectively draws "on narratives of place, history and belonging" (Crooke 2008, 423) and it is a product of social relations that can be affirmed or changed by engaged universals (Tsing 2005, 245-62).<sup>17</sup> In these circumstances, the question of community representation was being fiercely contested revealing ruptures in the local scale even as Alan sought to assert what he perceived as community opinion in Paris. Although the Chair and an Australian delegate had told Alan how he could address the World Heritage Committee, he did not speak. The resources group's opposition to World Heritage faltered at the point where it would have caused its greatest disturbance.

### **Scale and Heritage Designation**

Harvey (2015) argues that scalar approaches in Heritage Studies have largely been of limited utility due to the privileging of particular scales as pre-eminently more powerful or more

politically progressive. However, the first section indicated that revisions of scale in Human Geography address do not just address the local—non-local (national or global) binary but also other binaries, in particular nature—society and human—non-human as part of the broader project of addressing the contemporary patterns of impacts of humanity in the Anthropocene.<sup>18</sup> Heritage could play a key role in these debates. The purpose of this section is to draw on the preceding discussion in order to identify the implications of our analysis for Heritage Studies, including articulating how scale as size, level and relation address the binaries we have identified as part of analysis of the spatial politics of the heritage process.

First, we advocate for an understanding of scale as an empirical generalisation (Howitt 2003) and for heritage as an engaged universal (Tsing 2005). Both scale and heritage gain appeal because they are abstractions, and definition through the spatial politics of specific engagements. While scale is characteristically a concern for analysts and heritage for activists, both are co-constituted through the relational networks that they reveal (scale) or enable (heritage). World Heritage in Exmouth gained meaning through its articulations with the desires or fears of many different groups, through the dynamics of local debate and information networks, and through the capacities of different networks to use the World Heritage designation process for their own ends. Amongst residents, the World Heritage designation process generated heat and engagement due to its intersection with local debates about access to land and sea and about the future of Exmouth rather than through discussions about the global importance or the conservation of Ningaloo Reef. One of the reasons why any heritage status is seen as desirable is that it allows for assertions of, and at, new scales through which actors use the capacity of both heritage and scale to articulate relationships between and within places. Designation is therefore a period of becoming when the meaning and scope of heritage are particularly fluid. The engaged universal approach recognises messiness as a likely feature of every heritage designation, precisely because designation provides opportunities for the expression of different desired futures, and for shifts in the geographical scales of diverse activities and networks. The generalisation of the heritage process (Di Giovine 2009) is inevitably paired with quite specific and more interesting negotiations on the ground. Misinformation, disturbance and agitation are as important and likely as collaboration, dialogue and consensus. The emphasis on relation attunes scale and heritage to their diverse articulations through the spatial politics of different locations while retaining their importance as analytical tool (scale) and social process (heritage).

Second, utilising scale in heritage research requires attention to all of its three components of size, level and relation. The spatial politics of heritage designation comes into focus through attention to those configurations of size, level and relation that are invoked and enabled in heritage processes. In the Ningaloo Coast case study, responses to the various World Heritage boundaries were founded on competing attempts to rescale Exmouth's economy, ecology and community. There were also unintended consequences at different scales, such as the creation

of local antagonisms and contests over who represented the ‘community’. An important contribution of attention to size, level and relation is the recognition of overlapping scales of practices (size) that can be excluded from the heritage process. Hence a whale shark’s movements and relations substantially contributed to world heritage designation while residents’ recreational activities (which are also a set of relations with animals and their shared environment) were excluded from consideration except insofar as they constituted a threat to be managed. Scale as size, level and relation has the potential to open up a conversation about how these relations are fundamental to ‘natural’ heritage, and the ethics and implications of celebrating certain interactions and ignoring others. Non-human does not only refer to animals. Changes in technology can also enable rescaling and new connections. Alan and his supporters demonstrated how accessible communication and transport technologies enabled local disputes to impact World Heritage hierarchies of scale, a shift that has global implications. In the spatial politics of heritage designation, technologies can enable new scales of practices and networks across levels and space.

Researchers are political actors and their choices of the scales and scalar politics that they analyse or ignore is political. This raises the question of how the choices of geographical scale within heritage research can impact on the conservation and use of any given site. Many heritage researchers are sympathetic to exclusion of local residents from heritage processes (Winter 2007, Lu, Valdivia and Wolford 2013, Gillespie 2013, Skilton, Adams and Gibbs 2014), yet this may not be reflected in their choices of scales within their research. An example is Josephine Gillespie’s (2013) article on boundary making at Angkor Wat. Her research identifies that residents’ understandings of the World Heritage boundaries differ from the official boundaries. This difference points to the existence of an alternative spatial politics that could be revealed through attention to the scaled politics and practices of the residents in and around Angkor Wat. Attention to residents’ scales presents an opportunity to identify how residents’ lives intersect with the site, the kinds of local negotiations that shape residents’ acceptance or rejection of various boundaries, and their strategies of engagement and/or resistance. As mentioned in the preceding paragraph, relations between humans and living non-humans are also essential to ‘natural’ heritage listings. Krauss (2008, 427-8) uses networks to demonstrate that the spatial politics of heritage designation is always ongoing and lies in its “participatory construction”. The involvement of new ‘actors’ leads to new articulations of place and therefore to the envisioning of new futures. This underlines the need to articulate the politics of such analyses through recognising that researchers themselves are part of Kraus’ ‘networks’. Utilising scale as size, level and relation enables analyses that move beyond heritage to the spatial politics through which all heritage is constituted.

## Acknowledgement:

This research was funded through a grant from the Department of Environment and Conservation (Western Australia) and Tourism Western Australia. The authors would also like to thank Dr Ali Mozaffari, the two anonymous reviewers and Prof. Laurajane Smith (in her capacity as Editor of this journal) for their comments and feedback.

## Notes

1. We use pseudonyms throughout this paper when referring to Western Australian interviewees.
2. Aplin (2002) similarly defines scale as hierarchical levels.
3. New approaches to the politics of space, in particular that of Lefebvre (1991b [1974]), have been particularly important in inspiring researchers to interrogate the politics and causes of spatial difference, and therefore the construction of scales.
4. The basis for his approach is the relational approach to space articulated by Doreen Massey in her book *For Space*, and, more specifically, her three propositions about space (2005, 9): space is a relational product constituted through interactions from the global to the tiny; the multiple nature of space makes it a sphere of possibility; and space, as the product of relations-between, is “always under construction”, always emerging.
5. The listing process is overseen by the World Heritage Centre. National governments make submissions based on the World Heritage Convention and its Operational Guidelines, assessment reports are generated by international NGOs (the International Council on Monuments and Sites (ICOMOS), the International Union for the Conservation of Nature (IUCN) and The International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM)). Submissions are assessed by the World Heritage Committee which consists of representatives of the nation-states who have signed the World Heritage Convention (member-states).
6. UNESCO (2002) *Budapest Declaration on World Heritage*, 26<sup>th</sup> Session of the World Heritage Committee. CONF 202 9. URL: <http://whc.unesco.org/en/decisions/1217/>.
7. According to Przywolnik (2003), no one living claims direct descent from the Yinikutira people, although there are people who have the ancestral authority to give welcomes to country in Exmouth.
8. Total visitation to the Ningaloo Coast region in 2008 was 176 000 and approximately 95,000 tourists visited Exmouth. The most recent (2009) estimate of annual regional visitor expenditure is \$141 million (Jones, et al. 2011), a significant sum in the context of a regional population of 8900.
9. This is based on Western Australian Department of Fisheries information from 2011. <http://www.fish.wa.gov.au/Species/Prawn/Pages/Prawn-Commercial-Fishing.aspx>
10. Central control was exercised through a development order that made all coastal development in the region outside of Carnarvon and Exmouth subject to state government approval. The order lapsed after a change in state government in 2008.
11. The reserve was extended in 1969, and was amended to a Class A reserve in 1971 (CALM (Department of Conservation and Land Management) 1987). A marine reserve was first declared around the tourist resort town of Coral Bay in 1968 under fisheries legislation, and declared a marine park which included Commonwealth waters (outside of three nautical miles from shore) in 1987 under the management of the Department of

Conservation and Land Management (now the Department of Protected Areas and Wildlife Services (DPAW)).

12. Krauss (2005, 46) notes a similar process of stripping the cultural, political and social meanings from an assessment of the Wadden Sea in the Netherlands, Germany and Denmark.
13. We do not adopt the Actor Network Theory (ANT) framework for non-humans (reviewed by Sayes 2014) but instead follow Ingold (2011, 3-14) and Lestel (2014, Forthcoming) who view humans as a species of animals, that relations occur between animals of the same and of different species, and therefore all species engage and shape each other in the course of living.
14. A 2008 IUCN report on the use of their protected area categories analysed the categories' relationship with World Heritage, concluding: "Natural World Heritage sites occur in all the IUCN categories, but with a distinct bias towards the more strictly protected management objectives of category Ia, Ib and II" (Dudley 2008, 72). These categories have the highest level of conservation and prioritise unmodified or slightly modified areas. The IUCN website has extensive information on the protected area categories: [http://www.iucn.org/about/work/programmes/gpap\\_home/gpap\\_quality/gpap\\_pacategorie/s/](http://www.iucn.org/about/work/programmes/gpap_home/gpap_quality/gpap_pacategorie/s/).
15. Rumours were eventually addressed through a pamphlet from the local member of the Western Australian parliament answering 45 questions in May 2008.
16. The mining interests were for a limestone lease, and consisted of a small investor and a medium sized Australian limestone and cement company. The pastoralists were very active at this time due to the impending renewal of their pastoral leases and the possibility of excision of the coastal strip that was then under negotiation. While there were commercial interests at stake, Alan was a willing advocate and an important local information source according to nine of the twenty interviewees.
17. Harvey (2015) and Massey (2005) make similar points that senses of authenticity and localness arise through power geometries and that any understanding of them requires politically engaged analysis of specific claims and counter-claims.
18. Both Tsing (2005) and Massey (2005) also engage extensively with the nature-society binary.

### Notes on contributors

Tod Jones is a Senior Lecturer in Geography in the Department of Planning and Geography at Curtin University in Perth, Western Australia and co-Director of the Research Unit for the Study of Societies in Change (RUSSIC). Tod's research interests are cultural and political geographies in Australia and Indonesia. His current projects are on Indigenous heritage and urban planning, social movements and heritage, and applying a sustainable livelihoods approach to assess heritage initiatives. His most recent book is *Culture, Power, and Authoritarianism in the Indonesian State. Cultural Policy across the Twentieth Century to the Reform Era*.

Roy Jones is an Emeritus Professor in the Department of Planning and Geography at Curtin University where he has worked since 1970. He is also a Visiting Professor of History at the

University of Gloucestershire. His research has focussed on regional change with a recent emphasis on heritage and tourism.

Michael Hughes is a Senior Lecturer in Environmental Management at Murdoch University in Perth, Western Australia. Michael has an interest in managing land for different values as well as the interaction between public and government approaches to environmental issues.

## Bibliography

- Aplin, Graeme. 2002. *Heritage Identification, Conservation, Management*. Oxford: Oxford University Press.
- Brenner, Neil. 1997. "State Territorial Restructuring and the Production of Spatial Scale: Urban and Regional Planning in the Federal Republic of Germany, 1960-1990." *Political Geography* 16 (4): 273-306.
- CALM (Department of Conservation and Land Management). "Cape Range National Park Management Plan, 1987-1997." Perth: Department of Conservation and Land Management, 1987.
- Castree, Noel. 2015. "Changing the Anthro(S)Cene: Geographers, Global Environmental Change and the Politics of Knowledge." *Dialogues in Human Geography* 5 (3): 301-16.
- . 2011. *Nature and Society. The Sage Handbook of Geographical Knowledge*. [English] London: SAGE. doi:doi: <http://dx.doi.org/10.4135/9781446201091>.
- Catlin, James, Tod Jones, and Roy Jones. 2012. "Balancing Commercial and Environmental Needs: Licensing as a Means of Managing Whale Shark Tourism on Ningaloo Reef." *Journal of Sustainable Tourism* 20 (2): 163-78.
- Collinge, C. 1999. "Self-Organization of Society by Scale: A Spatial Reworking of Regulation Theory." *Environment and Planning D: Society and Space* 17 (5): 557-74.
- Cooper, RW, PB Abeysinghe, C Strong, and F Irimies. "Major Resource Projects--Western Australia." Perth: Geological Survey of Western Australia and Department of Mines and Petroleum (Western Australia),, 2014.
- Crooke, Elizabeth. 2008. "An Exploration of the Connections among Museums, Community and Heritage." In *The Ashgate Research Companion to Heritage and Identity*, edited by Brian Graham and Peter Howard, 415-25. Aldershot: Ashgate.
- Dagmar, Hans. "Aborigines and Poverty: A Study of Interethnic Relations and Culture Conflict in a Western Australian Town." Catholic Nuniversity of Nijmegen, 1978.
- Department of Environment and Conservation. "Ningaloo Coast World Heritage Nomination Fact Sheet." Perth: Department of Environment and Conservation, 2010.
- DEWHA (Department of Environment Water Heritage and the Arts). "Ningaloo Coast World Heritage Nomination." Canberra: Department of Water, Environment, Heritage and Arts, 2010.
- Di Giovine, Michael A. 2009. *The Heritage-Scape: Unesco, World Heritage, and Tourism*. Lanham: Lexington Books.
- Dovey, Kim. 2010. *Becoming Places. Urbanism/Architecture/Identity/Power*. Oxon and New York: Routledge.
- Dudley, Nigel. "Guidelines for Applying Protected Area Management Categories." Gland, Switzerland: IUCN, 2008.
- Fowler, Peter. 2004. *Landscapes for the World: Conserving a Global Heritage*. Bollington, Cheshire: Windgather Press.
- Gillespie, Joesphine. 2013. "World Heritage Management: Boundary-Making at Angkor Archaeological Park, Cambodia." *Journal of Environmental Planning and Management* 56 (2): 286-304.

- Glasson, John, Stephen Jennings, and David Wood. 1997. "Regional Planning in Western Australia: New Initiatives, but Old Problems?". *Urban Policy and Research* 15 (1): 31-41.
- Graham, Brian, Gregory J. Ashworth, and John E. Tunbridge. 2000. *A Geography of Heritage: Power, Culture and Economy*. London: Arnold.
- Harrison, Rodney. 2013. *Heritage: Critical Approaches*. Oxon: Routledge.
- Harvey, David. 1989. *The Urban Experience*. Baltimore: Johns Hopkins University Press.
- Harvey, David C. 2015. "Heritage and Scale: Settings, Boundaries and Relations." *International Journal of Heritage Studies* 21 (6): 577-93.
- . 2001. "Heritage Pasts and Heritage Presents: Temporality, Meaning and the Scope of Heritage Studies." *International Journal of Heritage Studies* 7 (4): 319-38.
- Howitt, Richard. 2003. "Scale." In *A Companion to Political Geography*, edited by Jonathon Agnew, Katharyne Mitchell and Gerard Toal, 138-57. Malden, MA: Blackwell.
- Ingold, Tim. 2011. *Being Alive: Essays on Movement, Knowledge and Description*. London and New York: Routledge.
- Ingram, Colin. "Parks, People and Planning: Local Perceptions of Park Management on the Ningaloo Coast, North West Cape, Western Australia." Masters Dissertation, Curtin University, 2008.
- Jones, Roy, Colin Ingram, and Andrew Kingham. 2007. "Waltzing the Heritage Icons: 'Swagmen', 'Squatters' and 'Troopers' at North West Cape and Ningaloo Reef." In *Geographies of Australian Heritages: Loving a Sunburnt Country?*, edited by Roy Jones and Brian Shaw, 79-94. Hampshire: Ashgate.
- Jones, Roy, and Brian Shaw. 2012. "Thinking Locally, Acting Globally? Stakeholder Conflicts over Unesco World Heritage Inscription in Western Australia." *Journal of Heritage Tourism* 7 (1): 83-96.
- Jones, Tod, David Wood, Michael Hughes, Marg Deery, Liz Fredline, Roy Jones, Beth Fulton, *et al.* "Ningaloo Collaboration Cluster: Exploring the Socio-Economics of Tourism through the Ningaloo Destination Model." Canberra: CSIRO, 2011.
- Krauss, Werner. 2008. "European Landscapes: Heritage Participation and Local Communities." In *The Ashgate Research Companion to Heritage and Identity*, edited by Brian Graham and Peter Howard, 425-38. Aldershot: Ashgate.
- . 2005. "The Natural and Cultural Landscape Heritage of Northern Friesland." *International Journal of Heritage Studies* 11 (1): 39-52.
- Lefebvre, Henri. 1991b [1974]. *The Production of Space*. Translated by D. Nicholson-Smith Oxford: Blackwell.
- Leitner, Helga, and Byron Miller. 2007. "Scale and the Limitations of Ontological Debate: A Commentary on Marston, Jones and Woodward." *Transactions of the Institute of British Geographers* 32 (1): 116-25.
- Lestel, Dominique. Forthcoming. "Like the Fingers of the Hand. Thinking the Human in the Texture of Animality." *Environmental Humanities*.
- Lestel, Dominique, Jeffrey Bussolini, and Matthew Chrulew. 2014. "The Phenomenology of Animal Life." *Environmental Humanities* 5: 125-48.
- Lu, Flora, Gabriela Valdivia, and Wendy Wolford. 2013. "Social Dimensions of 'Nature at Risk' in the Galapagos Islands, Ecuador." *Conservation and Society* 11 (1): 83-95.
- Marston, Sallie A., John Paul Jones, and Keith Woodward. 2005. "Human Geography without Scale." *Transactions of the Institute of British Geographers* 30 (4): 416-32.
- Massey, Doreen B. 2005. *For Space*. London: SAGE.
- McKenzie, Fiona M. Haslam, and Matthew Tonts. 2005. "The Re-Emergence of Regional Policy and Planning in Western Australia." *Planning, Practice & Research* 20 (2): 201-19.
- Meskell, Lynn. 2012. "The Rush to Inscribe: Reflections on the 35th Session of the World Heritage Committee, Unesco Paris, 2011." *Journal of Field Archaeology* 37 (2): 145-51.
- Neumann, Roderick P. 2009. "Political Ecology: Theorizing Scale." [In English]. *Progress in Human Geography* 33 (3): 398-406.
- Przywolnik, Kathryn. 2003. "Shell Artefacts from Northern Cape Range Peninsula, Northwest Western Australia." *Australian Archaeology* 56: 12-21.
- Robbins, Paul. 2012. *Political Ecology: A Critical Introduction*. Malden, Mass.: J. Wiley & Sons.

- Rowat, D., and K. S. Brooks. 2012. "A Review of the Biology, Fisheries and Conservation of the Whale Shark *Rhincodon Typus*." *Journal of Fish Biology* 80 (5): 1019-56.
- Sayes, Edwin. 2014. "Actor–Network Theory and Methodology: Just What Does It Mean to Say That Nonhumans Have Agency?". *Social Studies of Science* 44 (1): 134-49.
- Sayre, Nathan F. 2005. "Ecological and Geographical Scale: Parallels and Potential for Integration." *Progress in Human Geography* 29 (3): 276-90.
- Schmitt, Thomas M. 2008. "The Unesco Concept of Safeguarding Intangible Cultural Heritage: Its Background and Marrakchi Roots." *International Journal of Heritage Studies* 14 (2): 95-111.
- Silverman, Helaine. 2011. "Contested Cultural Heritage: A Selected Historiography." In *Contested Cultural Heritage: Religion, Nationalism, Erasure, and Exclusion in a Global World*, edited by Helaine Silverman. New York: Springer.
- Skilton, Nick, Michael Adams, and Leah Gibbs. 2014. "Conflict in Common: Heritage-Making in Cape York." *Australian Geographer* 45 (2): 147-66.
- Smith, Laurajane. 2006. *Uses of Heritage*. edited by Corporation Ebooks London, New York: Routledge.
- Smith, Neil. 1993. "Homeless/Global: Scaling Place. ." In *Mapping the Futures: Local Cultures, Global Change*, edited by J. Bird, B. Curtis, T. Putnam, G. Robertson and I. Tickner, 87-119. London: Routledge.
- Swyngedouw, E. 1997. "Neither Global nor Local: 'Glocalization' and the Politics of Scale." In *Spaces of Globalization*, edited by K. Cox, 137-66. New York: Guilford Press.
- Taylor, P. 1982. "A Materialist Framework for Political Geography ". *Transactions of the Institute of British Geographers* 7 (15-34).
- Tsing, Anna Lowenhaupt. 2005. *Friction: An Ethnography of Global Connection*. Princeton, N.J.: Princeton University Press.
- . 2000. "The Global Situation." *Cultural Anthropology* 15 (3): 327-60.
- . 2012. "On Nonscalability: The Living World Is Not Amenable to Precision-Nested Scales." *Common Knowledge* 18 (3): 505-24.
- Western Australian Planning Commission. "Ningaloo Coast Regional Strategy Carnarvon to Exmouth." Perth, Australia: Western Australian Planning Commission, 2004.
- Whatmore, Sarah. 2002. *Hybrid Geographies: Natures, Cultures, Spaces*. London: Sage.
- Winter, Tim. 2007. *Post-Conflict Heritage, Postcolonial Tourism Culture, Politics and Development at Angkor*. Abingdon & New York: Routledge.
- World Heritage Consultative Committee. "Report on a Proposal to Nominate the North West Cape - Ningaloo Reef Area for Inscription on the World Heritage List. World Heritage Consultative Committee Final Report." Perth: Government of Western Australia, 2005.

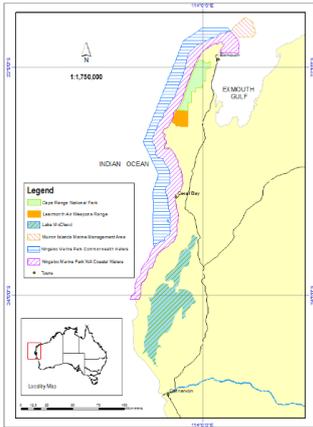


Figure 1

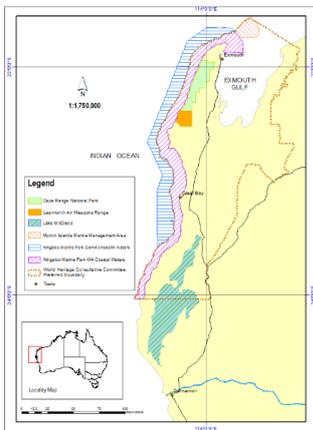


Figure 2

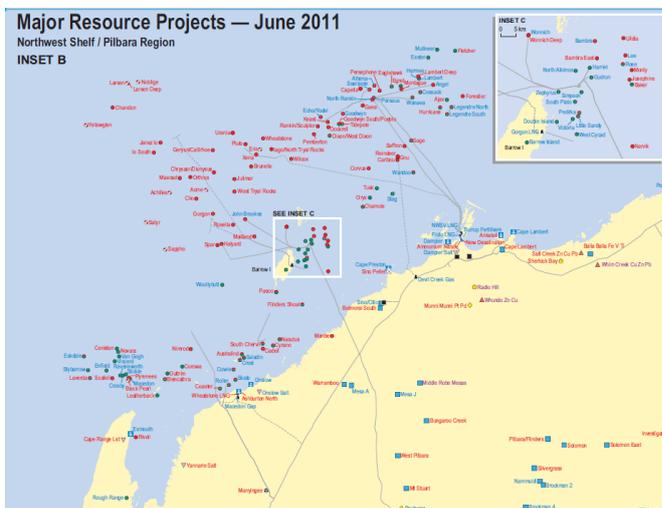


Figure 3



Table 1: Table of groups interviewed

Group	Number of Respondents interviewed
Environmental Agencies	2
Other Agencies	2
Pastoral	2
Local government	3
Business	2
Tourism related business	6
NGO/University	3
Indigenous	1