

Future Pasts

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Future Pasts?

Sustainabilities in west Namibia - a conceptual framework for research

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Bath Spa University, School of Oriental & African Studies, University of Edinburgh

with Namibian partners:

The National Museum of Namibia, Gobabeb Research and Training Centre, Save the Rhino Trust



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Future Pasts draws on Arts and Humanities research methodologies to document and analyse culturally-inflected perceptions and practices of sustainability. It has a particular geographical focus on west Namibia, where three of our core research team have long-term field research experience.

The project seeks to:

- enhance understanding of sociocultural, economic and environmental changes in historical and post-independence contexts;
- document and support cultural heritage and indigenous knowledge regarding present and historical cultural landscapes of west Namibia;
- extend analysis and understanding of the historical ecologies of the Namib;
- interrogate interpretations of ‘sustainability’, particularly those contributing to the promotion of a linearly growth-oriented ‘green economy’;
- foster cross-cultural public discussion of concerns relating to environmental change and sustainability;
- critically engage with the power dimensions shaping whose pasts become transferred forwards to the future in contemporary approaches to environmental conservation and sustainability.

Future Pasts is funded primarily through a Major Research Grant from the UK’s Arts and Humanities Research Council (AHRC award no. AH/K005871/2), under the Care for the Future Theme’s highlight notice on ‘environmental change and sustainability’ (see <http://careforthefuture.exeter.ac.uk/>). Starting in October 2013, **Future Pasts** involves UK academics Sian Sullivan (Principal Investigator and Professor of Environment and Culture, Bath Spa University), Angela Impey (Co-Investigator and Senior Lecturer in Ethnomusicology, School of Oriental and African Studies), Rick Rohde (Co-Investigator and Research Fellow, Centre for African Studies, University of Edinburgh), Mike Hannis (Research Fellow, Environmental Ethics, Bath Spa University) and Chris Low (Research Fellow, Anthropology, Bath Spa University). Namibian partner organisations include the National Museum of Namibia, Gobabeb Research and Training Centre, Save the Rhino Trust and Mamokobo Film and Research.

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Future Pasts? Sustainabilities in west Namibia - a conceptual framework for research

Sullivan, S.,¹ Hannis, M., Impey, A., Low, C. and Rohde, R.F.²

Abstract. *Future Pasts* is a cross-disciplinary project researching critical and cultural conjunctions between ‘sustainability’ and ‘environmental change’. Funded primarily through the UK Arts and Humanities Research Council’s (AHRC) ‘Care for the Future’ research theme, and developed in conjunction with our primary Namibian partner organisations (the National Museum of Namibia, Gobabeb Research and Training Centre, Save the Rhino Trust, and Mamokobo Film and Research), *Future Pasts* explores understandings and practices of ‘sustainability’ and ‘environmental change’ in west Namibia, where three of our UK academics have long-term field experience. Through combining methods and theoretical perspectives from social anthropology, cultural geography, environmental history, environmental ethics and ethnomusicology, we intend enquiry that is cross- and trans-disciplinary, drawing on a hybrid range of disciplinary and situated perspectives. This inaugural working paper in the *Future Pasts Working Papers* series introduces our research aims and orients our project in the historically globalised and diverse cultural landscapes of west Namibia. We note that concerns about ‘environmental crises’ also constitute opportunities for engagement, and highlight emergent ‘green economy’ responses through which the creation of markets for products arising from the production of sustainability is considered to ‘perform green’. We engage these market-based green performativities in juxtapositions with varied cultural histories, discourses, values and practices regarding socioecological phenomena, observing that the latter may be both delegitimised and/or capitalised through entanglements with modern technical and economic interventions. We acknowledge the range of cultural registers through which socio-environmental knowledges may also be transferred and mediated, emphasising combinations of songs, dances, poetic stories and memories. We note some ways in which these enactments and embodied knowledges may continue to ‘haunt’ the present, even as they are masked by currently hegemonic trajectories of economic development amidst contexts of environmental crisis. To further engage with narratives of environmental change in west Namibian contexts we present a comparative assessment of repeat images of west Namibian landscapes, as well as bringing varied sources of data - from samples of indicator species to audio recordings of places and landscapes - to bear in reconstructing historical ecologies of the Namib. We draw the different threads of our research together into a theoretical approach that asks questions of the ethical outcomes effected by different cultural understandings of sustainability and environmental change, and thus of assumptions regarding best practice in transferring socioecological value(s) forwards to the future. Our title ‘*Future Pasts*’ acknowledges that understandings of the past guide present recommendations for the future, while querying whose version of past values may become privileged in present productions of sustainability.

Keywords: cultural landscapes; sustainability; conservation; green economy; environmental change; biodiversity; heritage; memory; globalisation; justice; (ecocultural) ethics; cross- and trans-disciplinary analysis; west Namibia

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² *Contribution statement.* Sian Sullivan is lead author on this working paper, with all co-authors contributing to the elements constituting their specific threads of research. The paper has benefitted from close reading and editorial comment from Mike Hannis.

1. Introduction

With *Future Pasts*, we seek to research and juxtapose perceptions and cultures of sustainability in west Namibia, a context in which three of our research team (Sullivan, Rohde, Low) have long-term research experience, interests and collaborations. The project has developed in conjunction with the National Museum of Namibia, with whom we have formal research affiliation contracts. Gobabeb Research and Training Centre (hereafter ‘Gobabeb’)³ and Save the Rhino Trust (SRT)⁴⁵ are important collaborating organisations located in west Namibia, and the project is endorsed by the University of Namibia, through the Dept. of Geography, History and Environmental Studies. Our field research is conducted with research and work permits from the Ministry of Home Affairs, as well as a Ministry of Environment and Tourism (MET) permit for Sullivan to work in the Skeleton Coast National Park so as to document cultural histories associated with places and landscapes therein⁶. The Namibian production company Mamokobo Film and Research, and particularly its director Andy Botelle, is working with us to generate filmed material through which we can explore and share non-textual evocations of *Future Pasts* documentation.

In what follows we present a summary of the scope of *Future Pasts*, identifying the project’s key terms and threads of concern. We follow this by anchoring the project in the context of its funding, sharing information regarding the specific call for arts and humanities research in the environmental domain that we responded to in developing the project. We then work through in more detail the project’s aims, objectives and methodologies, explaining the key terms by which our empirical and theoretical approach(es) are guided. We close by outlining our strategies for publication and dissemination of *Future Pasts* research and reflections. Throughout, reference to publications arising directly from *Future Pasts* research is signalled by an asterix (e.g. Sullivan and Hannis 2015*).

2. Project summary

Our main objective is to explore how perceptions of crisis are shaping responses to perceived and

³ <http://gobabebtrc.org/>

⁴ <http://www.savetherhinotrust.org/>

⁵ Acronyms used in this paper are listed alphabetically here: ABS - Access and Benefit Sharing; AHRC - Arts and Humanities Research Council; ANVO - ANke and Volker Grellman Hunting Safaris; CBD - (UN) Convention on Biological Diversity; BBOP - Business and Biodiversity Offsets Programme; BDO - Biodiversity Offsetting; CBNRM - Community-Based Natural Resources Management; CRIAA - Centre for Research, Information and Action in Africa; DAT - Digital Audio Tape; ENGO - Environmental Non-Governmental Organisation; EPL - Exclusive Prospecting Licence; GCM - General Circulation Model; GHGs - Greenhouse Gases; GPS - Global Positioning System; HSRC - Human Sciences Research Council (Cape Town); ICH - Intangible Cultural Heritage; INGO - International Non-Governmental Organisation; IPCC - Intergovernmental Panel on Climate Change; IPTT - Indigenous Plants Task Team; MEA - Millennium Ecosystem Assessment; MET - Ministry of Environment and Tourism (Namibia); IRDNC - Integrated Rural Development and Nature Conservation; MME - Ministry of Mines and Energy; MWCT - Ministry of Wildlife Conservation and Tourism; NACSO - Namibian Association of CBNRM Support Organisations; NGO - Non-Governmental Organisation; REDD+ - (UN Programme for) Reducing Emissions from Deforestation and Forest Degradation in Developing Countries; SAP - Structural Adjustment Programme; SRT - Save the Rhino Trust (Namibia); SRZ - Summer Rainfall Zone; TEEB - The Economics of Ecosystems and Biodiversity; UK - United Kingdom; UNCCD - United Nations Convention to Combat Desertification; UNEP - United Nations Environment Programme; UNESCO - United Nations Educational, Scientific and Cultural Organisation; UNFCCC - United Nations Framework Convention on Climate Change; WRZ - Winter Rainfall Zone.

⁶ MET permit 2023/2015, for collaborative project on ‘The significance of the Namib Desert endemic !nara (*Acanthosicyos horridus*) as a keystone species in ecology, phenology, culture and horticultural potential’, led by Dr Gillian Maggs-Kölling, Executive Director, Gobabeb Research and Training Centre.

actual environmental change in west Namibia, and hence acting to support the transference of particular past and present values forwards towards the future. In summary, *Future Pasts* investigates how different ideas of the past, in particular imagined past relationships between people and nature, are conditioning the futures being urgently created now in pursuit of ‘sustainability’ and the avoidance of ‘environmental crisis’. *Future Pasts* thus explores tensions and/or resonances between traditional, indigenous and local conceptions of human/nature relationships, on the one hand, and new conceptions underlying modern market-based methods for creating ‘green’ futures, on the other. We complement engagement with these varied understandings and productions of environmental change(s) and sustainability with in-depth analysis of (perceptions regarding) environmental change, assisted in particular by the collation, analysis and exhibiting of repeat landscape photographs. Contemporary photographs reveal how landscapes have changed (or not) since early archival images, dating back to the late 1800s, were made, permitting reconstructions of the historical ecologies of our study context. We seek to synthesise and theorise findings and reflections from these interconnected research elements through a further thread, namely a consideration of the philosophical and ethical issues arising at the interfaces between different culturally-inflected understandings of human/nature relations and entanglements. We intend our work here to flesh out a new cross-disciplinary domain of ‘ecocultural ethics’ that considers sustainability imaginaries as entwined with the cultural production of particular pasts, presents and futures. In juxtaposing specific ethical principles underlying different sustainability perspectives, this theoretical component draws together the more empirical material generated in the rest of the project.

In the west Namibian context of our research, tensions present in many contemporary circumstances globally are illustrated. Here, old and new conceptions of human relationships with beyond-human-natures are colliding spectacularly as resources such as uranium are extracted from land which is home to diverse indigenous Namibian cultures, who also live in close proximity with globally valued (and sometimes endangered) animal and plant species. Perceptions of environmental change and crisis are simultaneously engendering market opportunities for the production of ‘green’ entities that are created, marketed and traded so as to produce or perform ‘sustainability’. For west Namibia, examples of interconnected and variously commodified ‘green things’ designed to perform sustainability in various ways include:

- i. animal hunting trophies, income from which supports some of the running costs of local conservancy organisations in Namibia’s remaining communally-managed areas;
- ii. natural products associated with indigenous plant knowledge;
- iii. KhoeSan rock art heritage, which forms a basis for regional cultural and heritage tourism;
- iv. the production of ‘green uranium’, so-named because of its proposed contribution to low-carbon energy generation but also because the impacts of its extraction are to be ‘offset’ through
- v. ‘biodiversity offsets’, in which environmental harm arising from development in one location is considered offset through investments in conservation activity elsewhere.

We seek to juxtapose some of these ‘sustainability objects’ and their production with contrasting conceptions and memories of landscape and other species found in cultures characterised by more longstanding connections with places and landscapes in west Namibia, as encoded and enacted through use practices, as well as in stories, songs, dances and healing rituals.

A 'hybrid analysis'?

We are thus applying a range of methodological and disciplinary approaches to an interconnected series of socio-environmental dynamics and associated 'sustainabilities'. Through a cross- and trans-disciplinary approach to research, we seek to fully address 'environmental change' and 'sustainability' as complex 'wicked problems' calling for transdisciplinary imagination (Brown et al. 2010a, after Rittel and Webber 1973; also Nightingale 2016). 'Wild' and 'wicked', as opposed to 'tame', socio-environmental problems invite both 'cross-' and 'trans-' disciplinarity: the former emphasising the potential for drawing simultaneously on different academic specialisms in generating understanding through research; the latter affirming that appropriate 'collective understanding' also arises through 'including the personal, the local and the strategic' (Brown et al. 2010b: 4). Wicked problems require 'acceptance of different views of the world, multiple ways of knowing that world, and using the imagination in trying to understand and act in that world' (Brown et al. 2010b: 1-2). They demand openness regarding the ethical basis for enquiry towards a more 'just and sustainable future', combined with clarity concerning the dimensions of power structuring enquiry, honesty in recognising that the ensuing results of research can never be complete or final (Brown 2010b: 4; Reid 2010), and sensitivity regarding the 'ontological politics' shaping what is deemed to be reasonable knowledge of reality (as highlighted in Green 2013; also Sullivan 2010, 2013a, 2016*). In acknowledging that 'wicked problems are part of the society that generates them', they simultaneously invoke 'resolutions' that bring with them calls for societal changes (Brown et al. 2010b: 4).

We thus approach the wicked problems of 'environmental change' and 'sustainability' as arising through complex interactions of cultural, biophysical and political economic phenomena, inviting analyses that cross a range of boundaries. Our research applies and 'hybridises' methods and theory from the disciplines of social anthropology, cultural geography, environmental history, environmental ethics and ethnomusicology. As such, we are generating research(ed) material through interviews, oral histories, participant observation in varied contexts, discourse analysis, archival research, the generation and review of biophysical data, and the production and analysis of audio recordings and filmed material. Simultaneously, we invite knowledges and perspectives that exceed and even unsettle these disciplinary (and disciplining) references, so as to explore and generate a range of engagements through which socionatural knowledges, experiences and encounters may be embodied and enacted. Examples here include participation in and sharing of storytelling events, healing rituals, and other embodied and poetic practices of care, as gestured towards below and detailed in our publications.⁷ Through the multiplication and iterative triangulation of information contained variously in recordings, images, narratives, texts and enactments, we participate in the continuing activity of creating 'versions' of 'sustainability' and 'environmental change', whose multiple perspectives may thereby enter into dialogue (cf. Hoffman 2009a: 13; Pereen 2009). As such, we aim for an exploration of correspondences and tensions between different views, voices and versions of 'sustainability' and 'environmental change', so as to contribute a mutable process of engagement that is perhaps fitting for the unsettling uncertainties

⁷ Indeed, such approaches are becoming highly valued as sources of information regarding understandings of environmental sustenance and dynamics, even in mainstream international environmental decision-making contexts. See, for example, <http://futureearth.org/blog/2016-feb-17/telling-local-stories-scientists-discuss-scenario-building-ahead-ipbes> accessed 22 February 2016.

of a contemporary moment framed as so human-shaped as to be somehow ‘after nature’ (Sebald 2003(1988); McKibben 1989). Both the hybrid natures of ‘sustainability’ and of ‘environmental change’, and the hybrid methodological approaches through which we explore and respond to these ‘wicked problems’, thus constitute our research as a *hybrid analysis*: i.e. an analysis ‘of mixed character, composed of different elements’⁸ (see Latour 1993; Whatmore 2002).

A key and iterative component of our project will be the sharing of images, audio and video material from our research (with appropriate permissions), in particular through our website at www.futurepasts.net. Here, a series of working papers (of which this is the first) will be freely available to download, as will be a booklet series called *Future Pasts Local* which we will also make available in printed form in Namibia. To complement these text-based contributions, and with the intention of stimulating conversations regarding the information collated and generated through *Future Pasts* research, we also intend to offer material arising from the project to public spaces - from schools to galleries - through posters, films, exhibitions and installations.

Future Pasts was developed in response to a 2012 UK-based funding call for Arts and Humanities engagements with ‘environmental change’ and ‘sustainability’. We describe the context of funding for our research in more detail in the next section.

3. ‘Arts and Humanities’ engagements with ‘environmental change’ and ‘sustainability’

Future Pasts is funded primarily through a Major Research Grant from the UK’s Arts and Humanities Research Council⁹ (award no. AH/K005871/2¹⁰), under the Council’s Care for the Future¹¹ theme’s highlight notice on ‘environmental change and sustainability’¹². The AHRC’s Care for the Future research theme emphasises that pathways to the future require nuanced understandings of the past. Important dimensions include thinking forward through the past, how relationships between the past, present and future shape understanding, and how (perceived) structures of time intersect with awareness of place, identity and creativity. The theme creates opportunities for researchers to draw on arts and humanities methodologies ‘to generate ... novel understandings of the relationship between the past and the future, and the challenges and opportunities of the present through a temporally inflected lens’¹³. Core elements for exploration include:

- the values and beliefs of individuals, communities and institutions;
- the roles that narratives, experiences, visualisations, performances and stories have to play in understanding the presence of the past in the present;
- modes of cultural learning and intergenerational equity;

⁸ As defined by the online google dictionary, 29 February 2016.

⁹ <http://www.ahrc.ac.uk/>

¹⁰ <http://gtr.rcuk.ac.uk/projects?ref=AH/K005871/2>

¹¹ <http://careforthefuture.exeter.ac.uk/>

¹² <http://www.ahrc.ac.uk/documents/panels-members-and-awards/care-for-the-future-research-grants-highlight-environmental-change-and-sustainability/> last accessed 18 February 2016.

¹³ <http://www.ahrc.ac.uk/research/fundedthemesandprogrammes/themes/careforthefuture/> last accessed 18 February 2016.

- questions relating to authority, ownership and justice within and across time;
- the societal influences of technological development;
- and the influence of different ways of thinking about and conceptualising time.¹⁴

Within the overall theme of ‘Care for the Future: Thinking Forward Through the Past’, ‘environmental change and sustainability’ are proposed as critical areas for arts and humanities engagements with how to care for the future. Given a context of globalising fears regarding the trajectories of climate and other environmental changes, the AHRC thereby emphasises the potential of a temporally-inflected lens, combined with arts and humanities methodologies, to provide new insights on the challenges of environmental change and sustainability. For the AHRC, interconnected areas of concern inviting arts and humanities responses include:

- environmental values, belief systems and scientific and lay understandings relating to ‘nature’/the ‘natural’, the environment, and human-environment relationships, and the ways that these have changed over time;
- cultural memories, representations, narratives and sensory experiences of past environmental change at global, local, cultural and other levels, and the ways that these contribute to diverse and changing public understandings of environmental change and of social adaptive capacity;
- understanding the different ‘sustainabilities’ of different models of behaviour, culture and responsibility;
- problematising common tendencies to ‘linearise’ temporality in perceptions of environmental dynamics, i.e. such that environmental change often tends to be assumed to be for the worse, engendering tropes of crisis, catastrophe, and apocalypse, whilst projections of the future are linked to doubts regarding sustainability;
- envisioning alternative perspectives on the future as simultaneously both warnings and opportunities;
- exploring the ways that heritage (cultural and biological) conservation policies and organisations institute particular practices and cultures of caring for the future;
- highlighting the role of historical approaches and/or records in enhancing our understanding of environmental change and of the ways in which societies have experienced and responded to changes in the environment over time and in different cultural contexts;
- and illuminating ways that different cultural notions, beliefs, values and visions relating to ‘environmental futures’, for example in relation to environmental ‘custodianship’ / ‘stewardship’ and intergenerational equity, have influenced practices and approaches relating to the environment and the development of notions of ‘sustainability’.¹⁵

In developing *Future Pasts* as a response to these identified elements of concern, we pursue a series of interconnected research threads. Our overall intention is to support knowledge production and public engagement that is in service to understanding multiple perspectives on environmental change, and responses to this, in west Namibia. We seek in general to:

- enhance understanding of sociocultural, economic and environmental changes in historical and post-independence contexts;

¹⁴ <http://www.ahrc.ac.uk/documents/projects-programmes-and-initiatives/care-for-the-future-thinking-forward-through-the-past/> last accessed 18 February 2016.

¹⁵ AHRC 2012 *Care for the Future Highlight Notice: Standard and Early Career Research Grants*.

- document and support cultural heritage and indigenous knowledge regarding present and historical cultural landscapes of west Namibia;
- explore possible contrasts and connections between modern market-based responses to environmental crisis and the creation of commodities designed to effect ‘sustainability’, and local notions of ‘sustainability’ expressed via engagements with landscape and entities therein in songs, stories, music and dance, and healing practices;
- interrogate interpretations of ‘sustainability’, particularly those contributing to the promotion of a linearly growth-oriented ‘green economy’;
- extend analysis and understanding of the historical ecologies of the Namib;
- foster cross-cultural public discussion of concerns relating to environmental change and sustainability;
- critically engage with the power dimensions shaping whose pasts become transferred forwards to future in contemporary approaches to environmental conservation and sustainability.

We are guided by four core research questions, namely:

Q1. How are ‘the past’ and constructions of ‘pastness’ being fashioned into new green materialities that act to perform ‘green economy’ responses to ecological crisis?

Q2. How do these new green materialities intersect with differing cultural conceptions of environmental change and sustainability?

Q3. How can archival and repeat landscape photographs anchor understandings of environmental change, constructions of environmental pasts, and visionings of environmental futures?

Q4. What normative assumptions underpin contemporary sustainability technologies and innovations, and what are the philosophical implications of juxtaposing these with other(ed) ‘ecocultural’ ethical frameworks?

We will return to these questions below, as we work through the key threads weaving the fabric of *Future Pasts*. The full title of our project, as submitted to the AHRC, is:

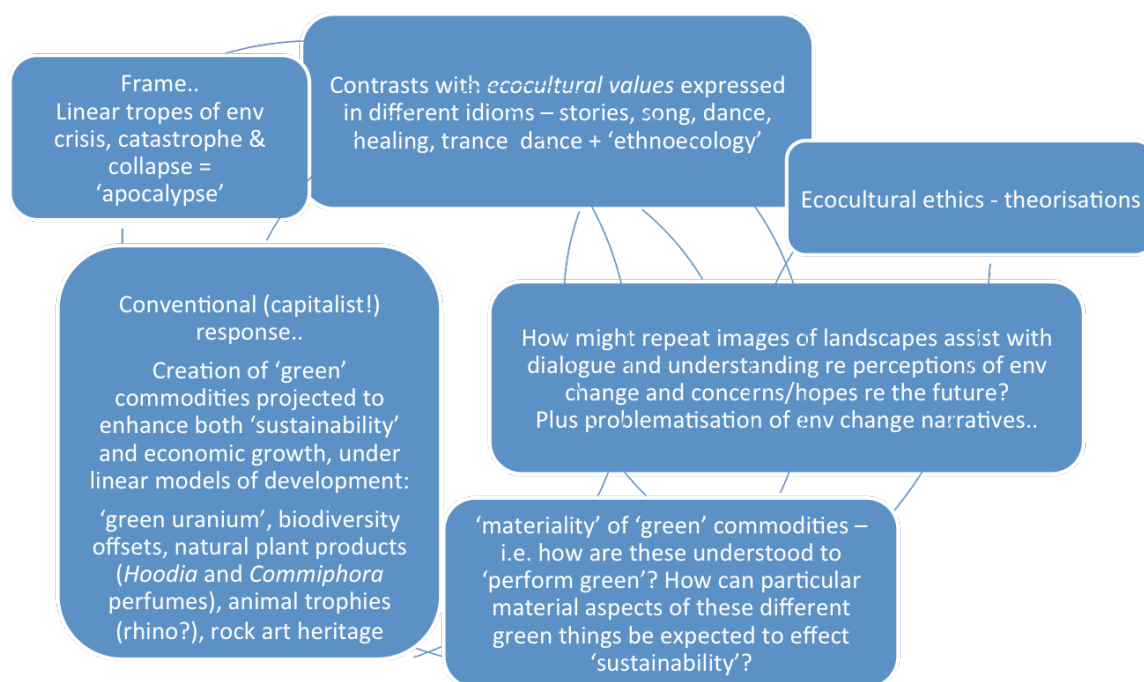
Future Pasts in an Apocalyptic Moment:

*A Hybrid Analysis of Green Performativities and Ecocultural Ethics
in a Globalised African Landscape.*

Figure 1 below presents an initial ‘sketchmap’ of how the key terms in our title - those marked in italics above - connect with each other. It what follows we deepen this introduction to our project and intentions by working in more detail through the key terms of our title and the threads of enquiry proposed and emerging under the guidance of our four defining research questions. The paper is based on a combination of our original ‘Case for Support’ submitted to the AHRC in October 2012, our application for formal research affiliation to the National Museum of Namibia (submitted in January 2014), an initial online post introducing our research on the AHRC’s ‘Debating Time’ blog (posted in January 2015¹⁶), and the emergence of elements of our research as these have come into focus since our project started in October 2013. We will begin with the last term of our title, which locates our project both geographically and historically.

¹⁶ See <http://careforthefuture.exeter.ac.uk/2015/02/future-pasts/>

Figure 1. Preliminary ‘map’ illustrating the core and interacting domains of *Future Pasts*.



4. West Namibia - A globalised African landscape

West Namibia - the current Erongo and southern Kunene Regions (see Figure 2)¹⁷ - has long been the focus of a complex interplay of overlapping indigenous and global(ising) concerns. One early account, provided by British explorer James Edward Alexander of his 1830s journey from the Cape to Walvis Bay and into the inland region of the Kuiseb and Swakop Rivers, thus describes the west Namibia of this time as a complex cultural landscape populated by varied peoples who were becoming entwined with global trade networks and interests (Alexander 2006(1838); also see Kinahan, Jill 2000). Alexander speaks of working with Nama (‘Namaqua’) peoples of the southern part of what is now Namibia, as well as with ‘Bushman’ (‘Boschman’) pursued as guides through the landscape (Alexander 2006(1838): 19). He finds the area of the Kuiseb river and Walvis Bay to be densely populated with people and livestock (sheep and cattle). Here he eats *!nara* fruit (from the cucurbit *Acanthiosicyos horridus* Welw. ex Hook.f., see below), noting the husbanding of patches

¹⁷ ‘West Namibia’ distinguishes our research from ‘Kaoko’ - a term evoking the multiple imaginaries associated with the north-western corner of Namibia and evoking a specific confluence of ‘wilderness’ (Hall-Martin et al. 1990) and exotically traditional people - the otjiHerero-speaking Himba (Jacobsohn 1992). ‘Kaoko’ constitutes a focus for a rich revisionist historiography (Miescher and Henrichsen 2000; Hayes 2000; Rizzo 2000, 2012) and ethnographic engagement (for example, Bollig 2009). This centres in part on the lingering dynamics of indigenous consolidation in the early 20th century, associated with the former Himba-Herero Native Reserves in the very north of current Kunene Region (from west to east, Kakurukouye’s Reserve, Vita Tom’s Reserve, Muhonakatiti’s Reserve, Bollig 1997: 24), as well as on historical texts detailing colonial and apartheid administration as this constructed and encountered the north-west of the country (especially Manning 1917 NAN SWAA.2516.A552/22; van Warmelo 1962(1951)). Our emphasis connects more with the historical geographies of Nama-Damara Native Reserves on and south of the Hoanib River, as well as with the echoes in the present of the former ‘Damaraland’ ‘Homeland’ established in 1970 (see Rohde 1993, 1997; Sullivan 1996, 1998; although we also note that in some maps ‘Kaokoland’ is depicted as stretching southwards beyond the Huab River towards Dâures / the Brandberg, (see, for example, map of Namibia of 1937 reproduced in Hartmann et al. 1998: viii). At the same time, we acknowledge dynamic overlaps and entanglements between Erongo and southern Kunene Regions with areas to the north of the Hoanib River, as well as with administrative and other contexts elsewhere.

of *!nara* bushes by Khoe-speaking peoples (also see John Kinahan 2011: 33-35), and perhaps becoming the first European to grow plants from Namibian *!nara* seeds on his return to England (Alexander 2006(1838): 111).

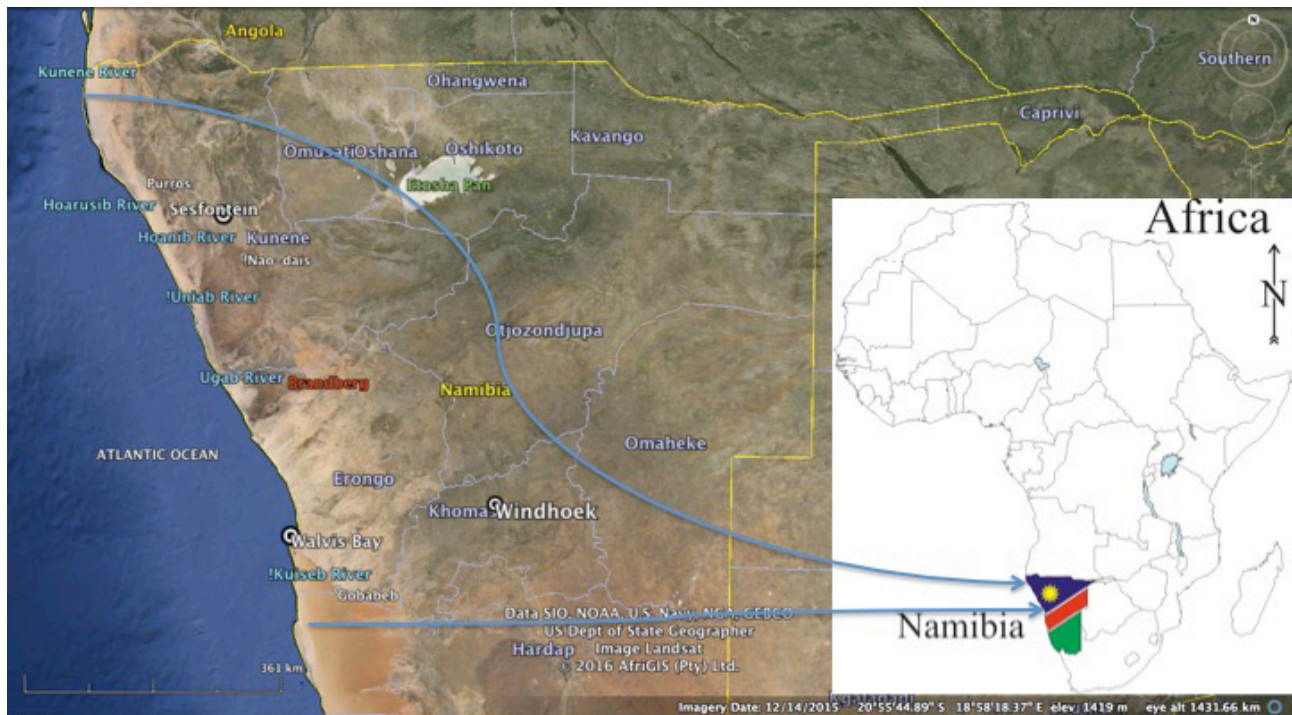
Alexander relates the occurrence of vicious fighting over inland territory between ‘Hill’ Damaras (contemporary Damara or *≠Nūkhoen*¹⁸) and ‘Plains’ Damaras (Herero)¹⁹, and describes ‘Boschman’ dancing in firelight and to rhythmic clapping songs sung by women (Alexander 2006(1838): 25). The landscape he journeyed through teemed with rhinoceros, elephant and lion (Alexander 2006(1838): 103), and his account is liberally peppered with tales of hunting these ‘majestic beasts’. At other moments he recounts the refusal of his Nama escort to go after a lion whose spoor was found around his camp ‘because he [the lion] had spared us’ (Alexander 2006(1838): 111); and elsewhere describes a ‘Boschman’ habit of making material offerings to ‘the old man of the water’ prior to gathering this valued ‘resource’ (Alexander 2006(1838): 125), a practice recognisable in recent ethnographic research conducted amongst Damara / *≠Nūkhoen* in southern Kunene (Sullivan 2009; Sullivan and Hannis 2016*). He speaks of waiting on the coast for the arrival of the American whaling ship captained by Commodore Perry of New England (Alexander 2006(1838): 87), and of the possibility that the Bay may act as a port for the export of ivory acquired from the large elephant herds of the interior (Alexander 2006(1838): 101). His narrative includes vivid descriptions of the ‘soundscapes’ of the landscape of his expedition - its ‘impressive air of solitude’ and ‘awful silence’ (Alexander 2006(1838): 13). He also repeatedly notes the songs, dances and healing ministrations of the various KhoeSan peoples he encounters, his quite detailed descriptions echoing in songs and observations recorded in ethnographic research more than 150 years later (Wagner-Roberts 2000; Sullivan 2006(2001); Low 2008a; Alexander’s expedition and encounters with west Namibian landscapes and peoples is detailed further in Sullivan in prep. a*).

Almost two hundred years ago, then, the diverse dryland and coastal environs of west Namibia was already becoming a ‘globalised cultural landscape’, its biophysical resources and indigenous practices shaped by cultural projections and extractive demands arising in far off locations and peoples (John Kinahan 1991; Jill Kinahan 2000; Wallace 2011: 7). The traces of this historical interplay are inscribed in the present, influencing proposals for both economic development and environmental conservation into the future. Regional entanglements of longstanding indigenous cultural diversity, livelihood and tradition with modern market demand, as well as global curiosity and investment, have of course intensified since the time of Alexander’s ‘expedition of discovery’. Following a century of dramatic administrative changes and coercive constraints on Namibia’s indigenous African populations - beginning with German colonial rule, closing with decades of

¹⁸ In this context, so-called Damara Khoe-speaking people tend to refer to themselves as *≠Nūkhoen*, meaning literally ‘black’ or ‘real’ people and thus distinguished from *Nau khoen* or ‘other people’ (Sullivan, fieldnotes).

¹⁹ Historically, ‘Dama-ra’ was simply the Nama or Khoe name for ‘black people’ generally. Since it was Nama people that early European travellers first encountered in the western part of southern Africa, they also used the term ‘Dama’ in this way. This gave rise to a confusing situation in the historical literature whereby the term ‘Damara’, as well as the central part of Namibia that in the 1800s was known as ‘Damaraland’, tended to refer to cattle pastoralists called Herero (see, for example Alexander 2006(1853); Galton 1853; Tindall 1959). The terms ‘Hill Damaras’ and ‘Plains Damaras’ were used to distinguish contemporary Damara or *≠Nūkhoen* (i.e. ‘Khoe-speaking black-skinned people’) from oshiHerero speaking peoples respectively, and signals historically-constitutive processes whereby pressure on land through expansionary cattle pastoralism throughout Namibia pushed Khoe-speaking Damara *≠Nūkhoen* further into the mountainous areas that became their stronghold (Vedder 1928; Lau 1979).

Figure 2. Map indicating general area (southern Kunene and Erongo Regions) we are referring to as the globalised landscape of west Namibia.



Source: Generated by Sian Sullivan using Google Earth Pro. Inset map from http://faculty.kutztown.edu/friedhauf/namibia_2011/ accessed 8 March 2016.

apartheid administration under South Africa, and accompanied by various forms of resistance and accommodation throughout²⁰ - today's Namibia is modern and cosmopolitan, welcoming private sector as well as bi- and multi-lateral investment so as to generate economic growth. Building on earlier strategies for alleviating poverty with sustainable economic growth (World Bank 1992), the country's formal economy is now shaped by a national planning strategy envisaging the industrialisation of Namibia by 2030 by way of 7% annual economic growth, the removal of bottlenecks that hinder such rapid growth, and the promotion of economic diversification strategies (see, for example, Malumo 2012). Inaugurated in 1998, this 'Vision 2030' began as a call to Cabinet by Founding President Dr. Sam Nujoma for 'a vision that will take Namibia from the present into the future and guide the country to make deliberate efforts to improve the quality of people's lives to the level of their counterparts in the developed world by the year 2030' (Malumo 2012: 1).

In west Namibia this proposed economic growth entails major infrastructure projects including the redevelopment of the Walvis Bay port and harbour, as well as the consolidation of railway links from here to other southern African countries. It will involve the promotion of existing towns as

²⁰ We are of course skating over the surface here of a complex history of land dispossessions and the iterative reorganisation of administrative boundaries and of peoples. A detailed timeline of events for west Namibia will soon be available as a *Future Pasts Working Paper* (Sullivan in prep. b). For historical analysis of German colonial rule and subsequent South African apartheid administration as they played out in west Namibia see especially Miescher (2012) and Rizzo (2012). Dederling (1997) assesses the influence of missionaries in especially southern Namibia in the early 19th century, Lau (1994(1987)) analyses the expansion of Oorlam Nama influence associated especially with the leader Jonker Afrikaner in the mid- to late-1800s, Bley (1998) details the unfolding of German colonial rule in the late 19th and early 20th centuries, and Olusoga and Erichsen (2010) analyse the emergence of the genocidal German colonial moment of 1904-07. Wallace (2011) offers a general history of Namibia up to independence in 1990, and Melber (2014) presents an analysis of Namibia's post-independence history.

new investment hubs (such as Arandis, since 1978 the urban centre for the workers of Rössing Uranium), the significant expansion of communications infrastructure (Malumo 2012: 2; Pogisho 2012a and b), and an expanding mining industry, with a particular focus on growth in the production and export of uranium (MME 2010-11; Swakop Uranium 2013a and b). Simultaneously, west Namibia is the focus of a thriving international tourism industry attracting significant external investment. Visitors come from all over the world to experience the region's dramatic arid land scenery, its spectacular wildlife and unusual endemic species, as well as its indigenous cultural heritage in the form of both ancient rock art and extant cultural practices.

The economic investments and projections noted above overlap and intersect with a diversity of national and local land designations. These designations include protected areas (such as Dorob, Namib-Naukluft, and Skeleton Coast National Parks, and the Brandberg Nature Reserve) as well as protected cultural heritage sites. Of the latter, three deserve mention: the prehistoric petroglyphs of the Twyfelfontein Prehistoric Reserve, a National Monument since 1952 and UNESCO World Heritage Site since 2007; the Brandberg Mountain National Monument area, nominated to the UNESCO Tentative List in 2002 as a mixed natural and cultural designation due to its unique flora and fauna and wealth of rock art (Kirk-Spriggs and Marais 2000); and Spitzkoppe, proclaimed in 2010 as a Section 54 Conservation Area by the National Heritage Council of Namibia²¹. Alongside these designations, a patchwork of 'communal area conservancies' on communally-held land in the region, some of which was previously managed under freehold tenure held by European settler farmers (Sullivan 1996), now organises local inhabitants into new collective resource management units called 'conservancies' (see Figure 3). These communal area conservancies derive income primarily from commercial tourism investments (particularly lodges and associated activities) as well as from trophy-hunting safaris²² (for recent reviews see NACSO 2014; Naidoo et al. 2016). These post-independence conservancies intersect in complex ways with the earlier administrative Ward system of the second-tier administration of Traditional Authorities formalised under the pre-independence apartheid government, as well as with the post-2013 delimitation of 121 constituencies²³, and the current registration of individualised land holdings occurring under the 2002 Communal Land Reform Act.²⁴ Commercial Tourism Concessions (Palmwag, Etendeka and Hobatere) leased to external operators retain an enduring regional influence in post-independence Namibia, having been established with the support of the 'Damaraland' Regional Authority based in Khorixas in the latter decades of the country's South African administration.

This diversity of organisational, administrative and economic structures is populated by a similarly varied array of individuals embodying and enacting different histories, experiences and perceptions regarding relationships with the landscape. They include livestock herders, conservationists, miners, tourists, tourism lodge managers and varied entrepreneurs, who are also Damara / ≠Nūkhoen of various *!haoti* (land and lineage based groups), Herero and Himba pastoralists, settler Europeans and visitors from many countries globally. All these inhabitants and visitors enact and generate shared values and 'lifeworlds' - or 'imaginaries' - regarding whose land this is, what human-

²¹ See http://www.nhc-nam.org/news_article.php?id=3&title=Proclamation%20of%20Spitzkoppe

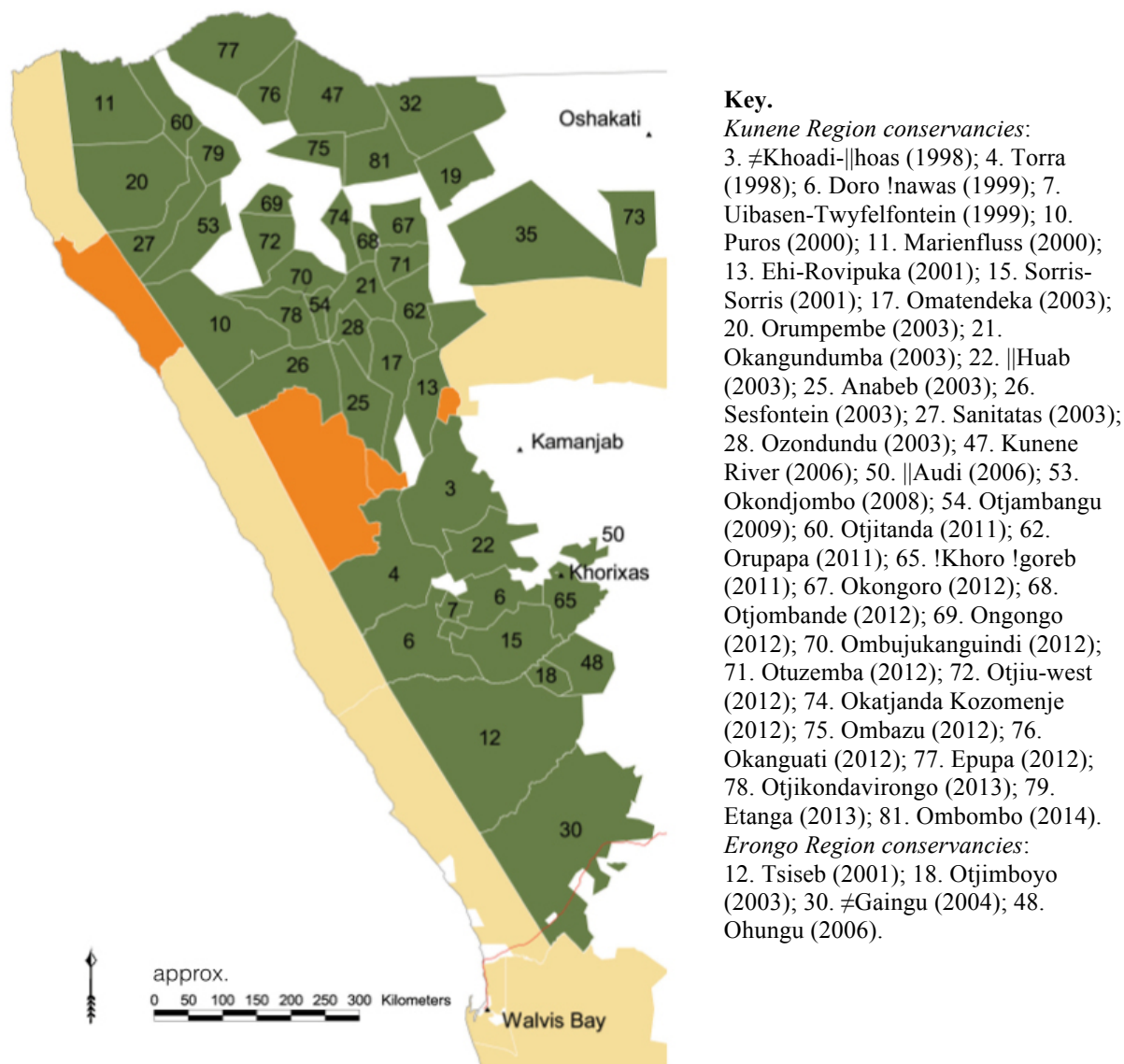
²² Such as through the UK-based 'Hunting Agency', www.thehuntingagency.com.

²³ See <http://www.gov.na/regional-government>, last accessed 23 March 2016,

²⁴ Jonathan Benabou, pers. comm; Sullivan pers. obs.

landscape engagements are most appropriate, what threats are imminent, and what futures are desirable.

Figure 3. Boundaries of communal area conservancies (in green) in west Namibia, as of March 2016. The yellow areas are state protected areas, and the orange areas are tourism concessions. The conservancies are numbered according to order of registration (the missing numbers relate to conservancies established elsewhere in the country).



Source: Map and information sourced from http://www.nacso.org.na/SOC_profiles/conservancysummary.php 21 March 2016.

To summarise, although much of this west Namibian landscape is imagined and marketed today as untouched or unspoilt, and thus as ‘pristine wilderness’, it has long been inhabited by diverse African cultures who have also been entangled with wide-ranging networks of trade and exchange. For more than two hundred years west Namibia has been entwined with specifically European and North American commodity markets and strategies of resource extraction - involving the products of living entities such as whales, elephants, rhinos, and ostriches, as well as inorganic resources such as diamonds, copper and guano (Alexander 2006(1838); Johansson 2007; Wallace 2011).

Beyond-Africa entanglements have been latterly shaped by Cold War contexts, with Chinese, North Korean, Russian and Cuban support for Namibia's struggle for independence from South Africa's apartheid administration translating into current support for post-independence development and memorialisation²⁵. In other words, the context of our research has long-been a *globalised African landscape*: connected with desires from afar, which have both shaped and been shaped by Namibia through colonial and apartheid histories, the Cold War, and now through the application of a strongly neoliberal (i.e. market-oriented) developmental pathway. Resource extraction for global markets, accompanied by shifting population and other pressures on landscapes related to political and administrative boundary making and marking, have additionally heightened awareness and concern regarding parameters of environmental health. This complex context, then, provides a rich setting for studying diverse culturally-inflected understandings of 'sustainability', amidst a setting of widely but also diversely perceived environmental crisis which at times borders on the apocalyptic.

5. An apocalyptic moment?

Since gaining independence in 1990, Namibia has experienced new versions and intensifications of the earlier market realities identified above. New market opportunities are often linked with discourses of crisis and loss in environmental and economic arenas, becoming shaped by the imperative to be 'green'. From scientists to philosophers, global environmental catastrophe and even 'apocalypse' are widely projected as determining of future realities (see, for example, MEA 2005; IPCC 2013; Žižek 2009, 2011). Philosopher Slavoj Žižek thus states that 'we live in apocalyptic times' (Žižek 2009: 92)²⁶, in which the accelerating ecological alterations of the Anthropocene²⁷ are moving us beyond known collective human experience.

This apparent rush towards eco-catastrophe and its containment is simultaneously a productive socio-economic *milieu* (Foucault 1998[1976]), populated by creative responses and diverse attempts at sustainability or 'green' solutions. A major response to the confusion and loss generated by ecological crisis (Sullivan 2009; Bastian 2012; Yusoff 2012) is a performative revisioning of economic market activity as productively 'green'. Through this revisioning, dominant neoliberal²⁸

²⁵ For example, the Husab uranium mine near Swakopmund, expected to be the largest open-pit mine in Africa, is 90% owned by a subsidiary of the China General Nuclear Power Group (https://en.wikipedia.org/wiki/Husab_Mine accessed 24 March 2016), while North Korea has funded a range of investments, from the Independence Memorial Museum opened in Windhoek in March 2014, to an ammunitions factory near Rehoboth that is currently under investigation by the United Nations Security Council Sanctions Committee (Kaira and Rorooa 2016).

²⁶ Indeed, theorising 'apocalyptic' thinking is itself an increasingly important trope for writing and analysis. See, for example, *Combined and Uneven Apocalypse* by Williams (2010) and *Dancing with Disaster* (Rigby 2015).

²⁷ The post-WW2 nature of accelerated change in socio-environmental trajectories has led to proposals for this time-period to be named as the new geological epoch of the Anthropocene. Through this epochal designation, human activity under advanced capitalism is promoted to the status of a geological force shaping planetary dimensions and dynamics. See, for example, Zalasiewicz et al. (2010), Hamilton et al. (2015).

²⁸ 'Neoliberalism' here refers to the coalescing of globalising political and economic policies that have flowed from the Washington Consensus drawn up in 1989 by economic advisors to the major international financial institutions (primarily the World Bank and the International Monetary Fund). This global(ising) economic framework is complex in structure and effects but includes: deregulation of international finance flows; protection of business interests, in part via the establishment of so-called 'free trade' regions; and structural adjustment programmes (SAPs) to which 'developing' and/or failing economies (Greece being a recent example) are expected to agree and adhere in order to access lending and investments for development purposes. SAPs introduce a range of conditionalities, frequently oriented towards the opening up of markets and utilities to international business, and the 'rolling back of the state' to permit further trade and donor permeability in such contexts. Some

‘sustainable development’ formulations are given new impetus as a globalising ‘Green Economy’ (UNEP 2011). Green economy solutions to environmental concerns embrace the modern linear, and frequently stagist (Rostow 1960; also see Soudien 2013: xii), developmental time of progress (Chakrabarty 2007), to propose sustainability interventions that suture economic and ecological trajectories to create ‘green economic growth’, or simply ‘green growth’ (Sullivan 2016*). The putative reconciliation of environmental crisis and economic growth is thus to be achieved through further subsuming external nature into the transcendental circulations of late capitalism, through the creation and exchange of new ‘green’ materialities. Minerals, bodies, species and knowledges are thereby rebranded and revalued to perform sustainability in accordance with hegemonic imaginaries of environmental change and sustainability.

Broad global concern regarding the environmental impacts of economic development and growth (as expressed, for example, in World Bank Group 2012), is thus responded to with ‘green economy’ assertions and solutions, through which interventions are intended to address actual and projected environmental crises whilst simultaneously sustaining economic growth (UNEP 2011, 2015; ten Brink et al. 2012). Crisis becomes economic opportunity, through which new markets and marketised products in the sustainability and conservation of both natural and cultural heritage are created (discussed further in Sullivan 2009, 2010, 2013b). Green economy interventions thus (seemingly) resolve the contradictions between economic development and environmental conservation, through encouraging market solutions to problems frequently caused by the extraction and manufacture of products for markets (for discussion, see Büscher et al. 2012).

Namibia’s current and desired economic growth and development is occurring amidst this heightening of global concern regarding the environmental impacts associated with economic development (Steffen et al. 2015). Global disquiet is particularly acute for relatively extreme climatic contexts such as those characterising the dryland environments of west Namibia, for which broader concerns regarding environmental crisis relate in particular to a triad of climate change, ‘desertification’ and species extinction. At the same time, developmentalist green economy approaches are set within controversy regarding linear narratives and understandings of environmental change in west Namibia (see discussion in Rohde 1997; Sullivan 1998, 2000a, 2002a; Sullivan and Rohde 2002; Rohde and Hoffman 2010, 2012), controversies that we approach in more detail in Section 7 below.

As part of the world of international environmental concern and policy, then, Namibia is signatory to a series of overlapping international conventions, policies and designations. Those pertaining to the variously unique biophysical and cultural heritages of west Namibia include the intergovernmental Ramsar Convention on Wetlands, to which Namibia has been a signatory since

commentators note with concern the ‘grabbing’ of resources that can be engendered through this structural opening to market forces, as well as the deepening dispossession of people from land and autonomous forms of production with which this grabbing can be accompanied (Harvey 2004; for historical processes of accumulation and dispossession in South Africa specifically, see the volume edited by Beinart et al. 1986). Major international non-governmental organisations (INGOs) and environmental non-governmental organisations (ENGOS) have mushroomed in this context to fill the facilitating and implementation vacuum left in circumstances of weakened states and public sectors. The ways in which the combination of such structuring processes have vested sovereignty in locations beyond the nation state has famously been termed *Empire* by Hardt and Negri (2000). For delineations and discussion of key neoliberal structures and processes see Hulme and Edwards (1997), Stiglitz (2002), Chapin (2004) and Sullivan (2006).

1995 (the Walvis Bay Wetland is recognised as of International Importance under this convention)²⁹, the UN Conventions on Biological Diversity (CBD)³⁰, Combatting Desertification (UNCCD)³¹, and Trade in Endangered Species (CITES)³², the UN Framework Convention on Climate Change (UNFCCC)³³, and the UNESCO heritage designations noted above.³⁴ Specific environmental concerns revolve around the localised impacts of resource extraction, mining and commercialisation. In west Namibia, heightened environmental concern revolves in particular around two elements of commercial pressures, namely:

1. expanding mining interests, particularly for uranium. As illustrated in Figure 4, west Namibia has been experiencing a ‘uranium rush’ with attendant impacts on the integrity of regional biological and cultural heritages (including archaeological sites) (MME 2010-11; Conde and Kallis 2012; Sullivan 2013c; Wassenaar et al. 2013). Prospecting licences overlap with (at least) the Tsiseb and #Gaingu conservancies shown in Figure 3;
2. trade in the body-parts of rare and high-value species, particularly horn from the desert-adapted black rhino (*Diceros bicornis bicornis*, see Figure 5) whose current range is limited to the western areas of Kunene Region and the very north-west of Erongo Region (!Uri-||Khub in prep.(2004)*). Current intensification of demand and hunting pressure for rhino horn is generating anxiety regarding conservation effectiveness and emphasis (discussed in Muntifering et al. 2015), as well as stimulating, as elsewhere, more military-style policing.

The global lists, designations, policies and agreements mentioned above wrap specific places, species and habitats as well as cultural artefacts and practices, within layers of global recognition and responsibility for this indigenous heritage, accompanied by the possibility of flows of financial resources for its conservation. At the same time, concern and contestation exists regarding how best to simultaneously amplify economic growth and investment, sustain natural and cultural heritage, and support diverse local self-determinations (cf. Namibia’s Green Plan ‘to secure for present and future generations a safe and healthy environment and a prosperous economy’, Brown 1992). As elsewhere, many development interventions raise concerns about actual and projected impacts on local ecologies and cultures, as well as deeper questions concerning relationships between economic development choices and environmental sustainability. Nonetheless, development interventions and especially market innovations tend to be discursively designed and implemented so as to minimise the contradictions that may arise between such different and co-existing dimensions of value (discussed in Sullivan 2002b: 172, 181-184; also Büscher 2014). This situation invites reflection on how exactly new ‘sustainability products’ and the matters, materials and materialities with which they are associated, are predicted and understood to ‘perform green’, i.e. to engender futures that can be imagined and measured as ‘sustainable’. This type of engagement is the focus of the next section, in which we begin to trace our responses to our guiding research questions noted above.

²⁹ See http://www.ramsar.org/cda/en/ramsar-pubs-notes-anno-list-16497/main/ramsar/1-30-168%5E16497_4000_0

³⁰ <http://www.cbd.int/>

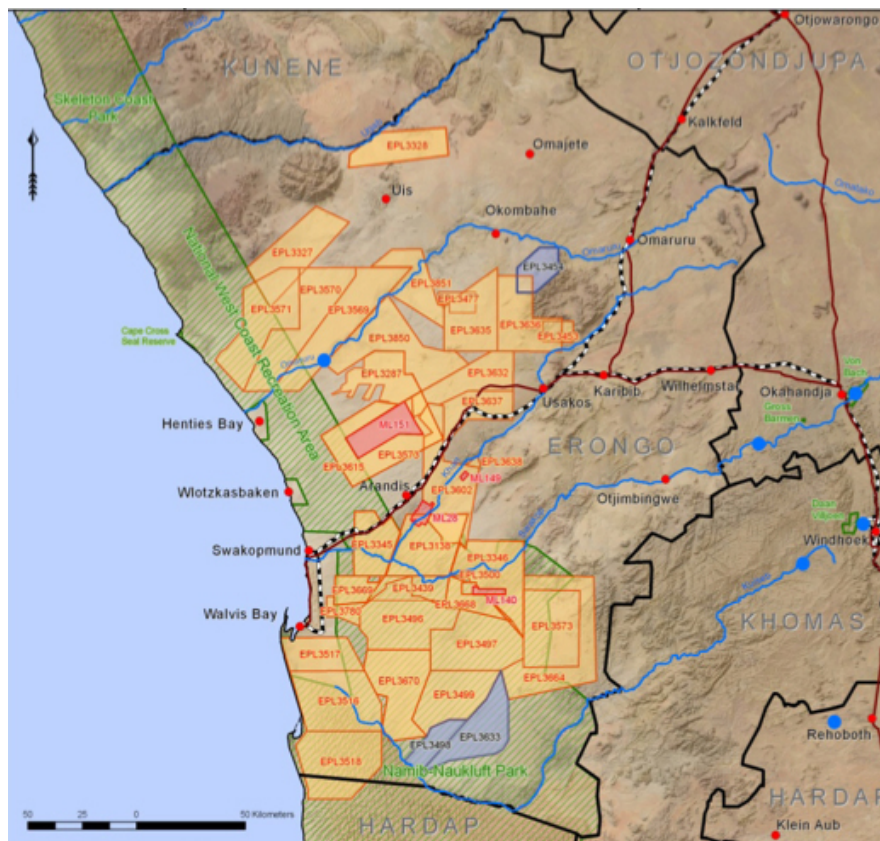
³¹ <http://www.unccd.int/>

³² <http://www.cites.org/>

³³ <http://unfccc.int/>

³⁴ For a full review of environmental law and policy relating to Namibia, see Ruppel and Ruppel-Schlichting (2013(2011)), also <http://www.environment-namibia.net/>.

Figure 4. Uranium Exclusive Prospecting Licenses (EPLs) (in yellow) awarded in the central Namib desert, Erongo Region, with operating uranium mines in red (as of 2011).



Source: MME 2010-11: ES-2.

Figure 5. Black rhino (*Diceros bicornis bicornis*) in west Kunene.



Source: Sian Sullivan personal archive, 251115.

6. Green performativities? Sustainability ‘imaginaries’, cultural landscapes, and the ‘green economy’ in west Namibia

Q1. How are ‘the past’ and constructions of ‘pastness’ being fashioned into new green materialities that act to perform ‘green economy’ responses to ecological crisis?

Enduring fear that the landscape of west Namibia is on the brink of ecological collapse and catastrophe - associated with ‘desertification’, climate change, species loss and industrial development - engenders apocalyptic framings that invite innovative sustainability interventions. Global ‘green economy’ discourses and policy approaches, as outlined above, are key to understanding approaches to ‘sustainability’ in west Namibia. At the same time, Namibia has been a global leader in some aspects of developments in broader ‘green economy’ approaches (see, for example, Brown 1992). Put simply, the landscape of west Namibia is indelibly entwined with a key international concern to generate a global ‘green economy’ that seeks to produce both economic growth *and* environmental sustainability. The specific combination of ways in which this is unfolding here provides a rich setting for exploring in detail the production of ‘green economy’ discourses, policies and interventions. Key dimensions include drawing into the open the versions of past relationships between people, landscapes, and associated organic and inorganic entities on which interventions are built, as well as elucidating the versions of future relationships that these interventions seek to amplify. Simultaneously, these interventions can be brought further into dialogue with the sometimes rather ‘other’ versions of ‘sustainability’ and ‘culture/nature’ relationships embodied in what is becoming known as the intangible cultural heritage (ICH)³⁵ of some of the region’s variously indigenous inhabitants. Opening up the circumstances through which particular green economy and sustainability proposals (have) become uttered and established can thereby deepen understandings of the historicity - the actuality of contexts and events, as well as their inclusions and exclusions - structuring the unfolding of conditions in the present (de Certeau 2010: 26).

In this dimension of *Future Pasts* research, then, we are interested in exploring how exactly environmental ‘sustainability’ is understood to be generated through the production and circulation of particular objects and commodities produced in west Namibia and asserted to be ‘green’. Relevant sources of information include discourse analysis of policy and other texts (see, for example, Sullivan and Hannis 2015*), interviews with key actors, and participant observation. Through these engagements, we seek to clarify and juxtapose proposals by different actors associated with the west Namibian landscape for generating ‘sustainability’ into the future, focusing in particular on:

1. the ways in which new ‘green’ commodities and the institutional contexts guiding their production are understood and projected to produce sustainability into the future;
2. the ways these ‘green economy’ responses intersect with understandings of ‘sustainability’ and of ‘culture/nature’ relationships expressed in the intangible culture heritage (ICH) of indigenous and local ecological knowledges.

³⁵ See the UN Convention for the Safeguarding of Intangible Cultural Heritage (ICH) at <http://www.unesco.org/culture/ich/>.

For example, west Namibia is a stronghold of the country's ground-breaking CBNRM programme under which the patchwork of communal-area conservancies noted above (Figure 3) has been established (IRDNC 2011). CBNRM in Namibia tends to be reframed in line with shifts in global discourses regarding environmental management. Thus it has recently been presented as one of the world's longest standing Payments for Ecosystem Services (PES) schemes, through which consumers of environmental benefits compensate through payments those who bear the costs of producing and maintaining them (Naidoo et al. 2011). Communal area conservancies (the core management unit of the CBNRM programme) have also been revisioned as 'carbon conservancies' that might gain from global discourses and accumulated funds for carbon management under REDD+³⁶ (Barnes and Quail 2011: 96). More broadly, CBNRM and associated initiatives are conceived as a modernisation programme generating *improvement* (following Murray Li 2007) in the management and governance of natural resources in rural communal areas. This improvement is considered to be multifaceted, producing multiple wins for environmental conservation, local development and business opportunities. Positive conservation and development outcomes are thereby seen to be produced through supporting business opportunities, and *vice versa* (NACSO 2014). Indeed, a communal area conservancy is described in the following terms as:

a business venture in communal land use... although its key function is actually to *enable* business [such that conservancies] do not necessarily need to run any of the business ventures that use the resources themselves. In fact, these are often best controlled and carried out by private sector operators with the necessary know-how and market linkages' (NACSO 2014: 25).

CBNRM is thereby clearly positioned as a state-, NGO- and donor-facilitated process of outsourcing access to significant public natural/wildlife resources and associated potential income streams to private sector (frequently foreign) business interests, a governance arrangement associated with neoliberalism (as defined in footnote 28 above). CBNRM in Namibia strengthens market-based approaches to biodiversity conservation in particular by increasing income sourced from international tourism travel and trophy-hunting (Lapeyre 2011a; Naidoo et al. 2016). Recent research, however, introduces complexity into analyses of CBNRM success in Namibia, highlighting discontent with CBNRM as a development strategy (Silva and Mosimane 2012; Silva and Motzer 2015); insufficient, i.e. low value and low volume, levels of incentives (Suich 2012); concerns regarding the long-term financial viability of many communal area conservancies (Humavindu and Stage 2015); a concentration of skilled knowledge, resources and decision-making power in the hands of tour operators and NGOs (Newsham 2007; Lapeyre 2011b, c and d); and the exacerbation of local differences through privileging particular local constellations of people over others with similar claims to conservancy opportunities and resources (Pellis 2011; Pellis et al. 2015; also Sullivan 2003).

Future Pasts research (Sullivan in prep. c*) seeks to complement such analyses by drawing on several months of ethnographic engagement to illustrate ways in which CBNRM as a powerful instrument of 'improvement' (Murray Li 2007) may be destabilised through particular combinations of historically and culturally embedded frictions and resistances (cf. Tsing 2005). Here, local desire for land and natural resources is set within a complex history of eviction of peoples from ancestral

³⁶ i.e. Reducing Emissions from Deforestation and Forest Degradation in Developing Countries, <http://www.un-redd.org/aboutredd>

homes in the course of manufacturing the west Namibian landscape as a ‘world-class pristine, unspoilt wilderness’. Memories of peoples’ different relationships with landscapes prior to eviction linger and thus *haunt* the present, constituting a basis for on-site oral history research through journeys back to places experienced and remembered as homes by remaining elders now living on the periphery of tourism concessions and conservation areas. Through ‘recovery’ of invisible(ised) experiences, the alterities haunting present and past land appropriations (de Certeau 2010(1981): 24; also Hoffman 2009a and b) can be brought further into dialogue-across-difference, so as to pay ‘attention to the multiplicity of knowledge claims’ regarding land, places and natures (Tsing 2005: 81). A range of *Future Pasts* publications are emerging that explore the affective geographies (cf. Dragojlovic 2015) of former dwelling places and the broader cultural landscape, focusing on their continuing resonances for people in the present: see Sullivan and Hannis 2016*; Sullivan 2016*; Ganuses and Sullivan in prep.*; Rohde and Sullivan in prep.*; Sullivan et al. in prep. a* and b*.

This situation is further complicated by the fact that in practice, pastoralist aspiration for access to grazing and water sources often renders conservation area boundaries more porous on the ground than the lines on maps may signify. Furthermore, since 2012 international demand for rhino horn (cf. Mason et al., 2012) has brought significant rhino poaching to west Namibia, which, given the current role of rhinos in the region as a critical source of economic value for CBNRM and associated tourism business ventures (NACSO 2014: 14-15), constitutes a significant destabilising factor. An associated increase of military security strategies for anti-poaching in the region (see discussion in Muntifering et al. 2015), accompanied by proliferating accusations of witchcraft and even murder associated with rhino poaching in the region, contributes socio-cultural dynamics that are a far cry from the projections of modern, rational management associated with indicators of CBNRM success. Given such complexities, humanities-inflected research can perhaps contribute nuanced interpretations, drawing on observations of the complex socio-cultural dimensions that can intersect productively and unpredictably with the linear projections of progress, improvement and development assumed by market-oriented conservation interventions.

In this context of a general marketisation of biodiversity conservation, commercial hunting of selected indigenous fauna species is promoted as one route towards conserving regional populations of wild animal species, at the same time as contributing to economic growth. Hunted trophies - parts of animals (heads, skins, horns, ivory, bodies) that become tangible reminders of a hunted charismatic animal - constitute paradoxical sustainability objects. Viewed and promoted as supporting biodiversity conservation through the controversial killing of individuals of valued species, they effectively signal a ‘killing for conservation’ as Duffy (2000) has put it (discussed further in Hannis in prep.*). In west Namibia, commercial trophy hunting has taken place for decades. As Owen-Smith (2002: 2) writes, in 1978, the former Dept. of Bantu Administration:

granted a ten-year trophy hunting concession to Volker Grellman of ANVO Safaris in the still game-rich and largely unoccupied area to the south of the Hoanib River (formerly the western Etosha Game Park). Apart from common game, ANVO’s annual quota included two trophy elephants north of the ‘Red line’ veterinary cordon fence and problem elephants as they occurred anywhere in Damaraland. Between 1977 and 1981, a total of 18 bull elephants were shot, mainly south of the vet. fence³⁷.

³⁷ The ‘vet. fence’ or ‘Red Line’, established so as to control the movements of livestock and people and thereby to control the spread of disease whilst protecting commercial (white) farming areas in southern Namibia and containing African economies

In recent years, trophy hunting in the conservancies and concessions of west Namibia has been organised through non-Namibian booking agents, who offer commercial tented safari hunts in a north-west Namibia marketed as ‘pure, un-touched, un-fenced Africa’ so as to contribute to the management of MET hunting quotas on conservancies³⁸. Globally, the promotion of commercial trophy hunting is in some tension with socio-cultural dimensions of local and indigenous hunting practices (Aiyadurai 2011; illustrated for west Namibia in Sullivan and Hannis 2016*), even whilst income from trophy hunting might also be critical to local communities through negotiated joint tourism ventures and hunting safaris (Naidoo et al. 2016). At the same time, insights from theorists of human-animal relationships (see, for example, Whatmore 2002; Lorimer 2007; Haraway 2008; Kohn 2013) can assist with thinking through how animals as objectified trophies come to be brought into being as such. In sum, the production and consumption of hunted trophies as objects containing and producing conservation outcomes has controversial ethical dimensions, particularly when involving rare and even endangered populations and/or species whose commercial and charismatic value is enhanced by their very scarcity (Hannis in prep.*)

Indigenous plant species, and associated regional ethnobotanical knowledge and ICH, have also been developed and commercialised into exported natural products considered to enhance the economic value of local biodiversity whilst fostering ‘economic development’ through local resource harvesting and income generation. A common tendency globally is for high-value indigenous plant species and accompanying local and indigenous knowledge to be commercialised through the development and sale of ‘natural products’, and the sharing of benefits and incomes that thereby arise, thus ‘selling nature to save it’ (McAfee 1999). Namibia encompasses several examples of such ‘biotrades’ (see Cole 2014a), regulated by a requirement for ‘Prior Informed Consent’ from the community ‘holding’ the relevant indigenous knowledge (IRDNC 2011: 80) by NGOs working within Namibia such as CRIAA³⁹ and IRDNC (IRDNC 2011: 79-88), the trade association Phytotrade⁴⁰, and with the co-ordination of the now discontinued Indigenous Plants Task Team (IPTT) (Albertyn 2011). With this thread of research we are interested in historicising the processes whereby particular plants and plant parts become commercialised. We seek to draw on past and current research to illuminate complexities of prior use that can become sources of friction regarding the Access and Benefit Sharing (ABS)⁴¹ agreements with which such commercialisations are enacted, focusing on:

1. *Hoodia* spp., marketed globally as an appetite suppressant, whose indigenous technical knowledge has tended to be linked with San / Bushmen peoples (for example, Hinz and Ruppel 2008: 45; Vermeylen et al. 2008; Wynberg 2009; Laltaika 2013: 387; Ruppel 2013: 413; Cole 2014b), with Nama latterly acknowledged as stakeholders (German Federal Ministry for Economic Cooperation and Development 2009; Cole 2014b). Damara / ≠Nūkhoen in west Namibia have also long been both harvesters and growers of *Hoodia* (called *!khobas*) for the same reasons (see Figure 6), i.e. to facilitate endurance whilst ‘in the field’ hunting and gathering plant and invertebrate foods (see Sullivan 1998: 91, 2005: 79). ≠Nūkhoen knowledge and

in the northern areas under communal land tenure, dissects Namibia from east to west (World Bank 1992: xv). In the west, this boundary extends through southern Kunene Region, having shifted from, for example, following the line of the Omaruru / ≠Eseb River south of the Brandberg in 1937 (Hartmann et al. 1998: viii) to its present location north of the Huab River (see Figure 8 below). For a detailed historiography of the Red Line, see Miescher (2012).

³⁸ <http://thehuntingagency.com/tour/kaokolandUnfenced/>, last accessed 28 February.

³⁹ <http://www.criaasadc.org/>

⁴⁰ <http://phytotrade.com/>

⁴¹ See <http://www.cbd.int/abs/>

associated practices have been excluded from ABS arrangements regarding the commercial development of this species, illustrating the complexities that emerge when attributing discrete elements of knowledge to bounded groups of people. At the same time, users of *!khobas* in west Namibia are now constrained by a legal context that criminalises longstanding harvesting activities and requires harvesters to carry a government-approved permit (Hinz and Ruppel 2008: 45; Ruppel 2013: 413). This is even though ‘traditional’ harvesting constraints mean that only one or two stems are removed at a time so as to ensure sustainability into the future, and many harvesters also plant and grow *Hoodia* in home gardens (Sullivan 1998: annexe 10-11; see Figure 6 below). These complexities will be explored further in Sullivan and Low in prep.*;

2. a suite of aromatic plants focusing on *Commiphora* spp. and the pods of *Colophospermum mopane* are marketed as highly refined perfume oils through ABS agreements facilitated by a range of national and international NGOs. IRDNC, for example, has worked to establish an ABS agreement between Himba communities in north-west Namibia and Afriplex (a South African flavours and fragrances company) for the harvesting of *Commiphora wildii* resin (IRDNC 2011: 80; Nott 2014a), long utilised as one of a large suite of aromatic plants by both Himba women and Damara / ≠Nūkhoen in west Namibia who know the species as *herare* (Sullivan 1998: annexe 25, 2000b; Low 2007a). Marketed as ‘Namibian Myrrh’⁴², further entrepreneurial fundraising aiming to ‘change the world one product at a time’ is seeking to expand the product range utilising *C. wildii* through supporting purchase of the harvested resin for processing in a community factory in Opuwo⁴³. The aromatic seeds of *Colophospermum mopane*, documented as used in west Namibia for perfume (Sullivan 1998: annexe 46-47), are similarly the focus of commercialisation strategies (Nott 2014b);

3. the endemic cucurbit *!nara* mentioned above (*Acanthosicyos horridus*), long associated with ‘Topnaar’ or ≠Aonin Nama in the geographical vicinity of the lower Kuiseb (!Kuseb) River (Alexander 2006(1838): 111; Galton 1853: 11), is currently a focus of commercial development and marketisation, particularly of the oil cold-pressed from its seeds (Maggs-Kölling et al. 2014)⁴⁴. Nonetheless, historical sources indicate that the harvesting of *!nara* has been enacted by other peoples and in other localities in the Namib⁴⁵. On-site oral history conducted through *Future Pasts* indicates that *!nara* has long been harvested in the lower reaches of a number of more northerly westward flowing ephemeral rivers (the !Uniab, Hoanib and Hoarusib). A number of elderly people now residing in Sesfontein and environs and who self-identify as ||Ubun and !Narenin⁴⁶ remember growing up in areas of what is now the Skeleton Coast National Park and harvesting carefully managed *!nara* fields growing there (see Figure 7). This work is reinscribing the environmental histories and cultural landscapes of inhabitants of the northern Namib in a context of historical and contemporary marginalisation of these histories (Sullivan et al. in prep. b*).

⁴² <http://www.mbiri-skincare.com/>

⁴³ See <http://www.lionessesofafrica.com/blog/2016/2/21/namibian-entrepreneur-tammy-nott-launches-crowdfunding-campaign-to-bring-greater-economic-opportunity-to-the-himba-women>

⁴⁴ See, for example, <http://www.nara.com.na/>

⁴⁵ In 1909, German Schutztruppe lieutenant Walter Trenk trekked across the southern Namib sand dunes in search of the fabled ‘Sossus-Vley’ (Sossusvlei), also known as ‘Bushman Paradise’, encountering people he identified as ‘San (Bushmen)’ eating *!nara* when he eventually arrived at his destination (Gondwana Collection Namibia 2011: 30-31). These San ‘had attached ostrich wings to the Nara shrubs which apparently functioned as scarecrows’ (Gondwana Collection Namibia 2011: 30).

⁴⁶ ‘!Narenin’ names a land-associated lineage grouping of ≠Nūkhoen who lived at least partly from *!nara* (*Acanthosicyos horridus*) harvested in the Hoanib River mouth and northwards towards the Hoarusib River and Ganias springs. ‘||Ubun’ also speak the same Khoe language (Khoekhoegowab or Nama-Damara) but distinguish themselves from ≠Nūkhoen. According to oral history they diverged from ≠Aonin (Topnaar) Nama of the !Kuseb River, moving northwards through the Namib and harvesting especially *!nara* from different localities along the Skeleton Coast, as well as moving inland where they utilised a different suite of plants and animals and also interacted with other ≠Nūkhoen *!haoti* they encountered there. Often ||Ubun are referred to as Nama (as opposed to Damara), although some ||Ubun oral histories also maintain that their ancestry was distinct from that of ≠Aonin, with ||Ubun individuals referring to themselves instead as ‘Bushmen’ (Sullivan et al. in prep. b*; also see Sullivan and Hannis 2016*).

Figure 6. Harvesting (Ruben Sauneib Sanib), growing (Martha Tsuses) and eating (Hildegard |Nuas and visitor) *Hoodia* sp. cf. *currori* in west Namibia.



Source: Sian Sullivan personal archive, 170215, 1999, 060414.

Figure 7. Returning with Franz ||Hoëb (L) and Noag Ganaseb (R) to formerly managed and harvested *!nara* (*Acanthoscyos horridus*) plants in the lower Hoanib River, November 2015.



Source: Sian Sullivan personal archive, 231115.

Access to the wealth of rock art heritage and other cultural monuments in the region is similarly commercialised with a view to fostering conservation through enhancing the market value of indigenous cultural heritage. The west Namibia landscape is replete with rock art objects and places, and access to this art is marketed in terms of supporting future preservation through heritage and cultural tourism, involving the commodification and repackaging of KhoeSan rock art heritage otherwise connected with specific cultural ontologies of extant peoples (explored in Sullivan and Low 2014*). In further engaging with the presentations and interpretations of ancient rock art informing this commercialisation, and particularly in comparing earlier interpretations of the ‘art’ with current interpretation as presented by local guides and found in popular, academic and museum accounts, we consider a range of questions:

- i. has interpretation changed, and if so how and why?
- ii. has the search for an alternative ecological future pinned itself onto a growing essentialisation of KhoeSan as benign eco-earth stewards in this promotional material (as occurs in contexts such as San village displays in commercial wildlife reserves and lodges and explored in Sullivan in prep. d*; also see, for example, Hüncke and Koot 2012), and, if yes... ;
- iii. ... how well does this represent current circumstances of San in Namibia?
- iv. to what extent and in what ways do plans for the preservation and development of rock art sites reflect different commercial and non commercial ambitions?
- v. how do current inhabitants in close proximity to existing heritage-tourism sites view and interpret rock art features and futures?

Beyond the tourism and heritage related commodifications described above, are different moves to wrap significant regional economic developments in innovative sustainability policies. Expansionary uranium mining activities in west Namibia, for example, are thus presented as contributing to environmental sustainability, in part through celebrations of uranium as fuelling low-carbon energy production globally, but also through their proposed use of ‘biodiversity offsetting’ (MME 2010-11: 10-11). Echoing the ‘guano rush’ on islands off the coast of west Namibia in the 1840s (Wallace 2011: 66; van Sittert and Crawford 2003), and as noted above, west Namibia in recent years has been the focus of what is described as a ‘uranium rush’ – marked by a rapid proliferation of prospecting and extraction licenses held by international companies (MME 2010-11; Conde and Kallis 2012). Uranium is prefigured as ‘green’ in international discourses through its association with the production of ‘low-carbon’ energy (Lovelock 2004; Monbiot 2011; Lynas 2012). Within Namibia, the intention is for a common approach towards the management of the so-called uranium rush such that Erongo - as the ‘Namib Uranium Province’ - ‘will be a living example of how mining can contribute to the achievement of sustainable development’ (MME 2010-11: ES-2). Cognisant of the environmental implications of such an extractive industry, the recent Strategic Environmental Impact Assessment makes a range of recommendations so as to enable Namibia to ‘position itself to capitalise on a “green” brand of uranium’ (MME 2010-11: 10-1). Various measures are proposed to mitigate anticipated environmental harm, including giving specified biodiversity, tourism, and heritage sites ‘Red’ or ‘Yellow Flag’ status that will make them off-limits to mining.⁴⁷ Nonetheless, it is acknowledged that ‘a large residual impact on biodiversity is expected’ and that ‘for this reason it will be essential to include the establishment of sustainable offsets’ so as to compensate for the ‘unavoidable’ direct loss of organisms due to projected

⁴⁷ Although with the proviso of ‘unless an extraordinary mineral deposit of national importance occurs in the area’ (see MME 2010-11: ES-11).

landscape disturbance, as well as indirectly caused ‘habitat loss, degradation and fragmentation’ (MME 2010-11: 7.89). As noted above, ‘biodiversity offsets’ are part of the suite of approaches seen as adding to the environmental sustainability of extractive industry (Sullivan 2013c; Benabou 2014). As a new conservation technology, biodiversity offsets permit development-related impacts to be ‘offset’ through investment in conservation elsewhere (BBOP 2012), and are being promoted in Namibia so as to ‘green’ environmental harm, including through uranium mining. Drawing on our ongoing research regarding the development of ‘biodiversity offsetting’ (BDO) in the UK (see, for example, Hannis and Sullivan 2012; Sullivan and Hannis 2015*), in this element of our study we seek to learn more of how BDO is being instituted in the ‘developing country’ context of Namibia, and how involved actors understand BDO as enhancing environmental sustainability in this context.

Summary

We propose the new ‘green’ value entities outlined above as illuminating foci for environmental humanities research. Drawing theoretically on new humanities discussions of ‘materiality’ (Bennett 2010; Coole and Frost 2010; Miller 2010; Ingold 2011), ‘value’ (Appadurai 1986; Graeber 2001; Miller 2008), speech act theory (Austin 1962; discussed in Bastian 2012) and performativity (Mol 2003; Latour 2004; Callon 2008), we suggest that these new commodity forms are materialised and performed (cf. Hoffman 2009b: 37) through drawing particular mineral, biological, and heritage assemblages into conceptual and productive accordance with linear temporal dynamics and dominant sustainability imaginaries. Through interrogating how these material and virtual objects in a sense ‘contain’ or distil their socioecological contexts (de Laet and Mot 2000), we thus ask how the commodified objects created as hunted trophies, natural plant products, rock art heritage, ‘green uranium’ and biodiversity offsets might both act, and be envisaged to act, so as to ‘perform green’. We thereby seek to learn how the specific pasts and value frameworks embodied in these new ‘green’ objects are understood by a range of actors, whilst being alert to possibility of unintended socioecological outcomes that may arise through the ‘liveliness’ of the ‘actants’ and contexts from which these objects are made.

The new green materialities introduced above, and the ‘glocal’⁴⁸ imaginaries with which they are infused, shape and perform choices around whose and which pasts will be transferred into the future. They intersect with local values, knowledges and practices in interesting ways: building on selected elements so as to add economic value, whilst simultaneously sometimes eroding the contexts wherein these knowledges and practices can be enacted. Through empowering the particular present utterances of ‘pastness’ that become commodified forms of intangible cultural heritage (Neusner 1996; Holtorf 2009; Ingold 2012), they invoke and constrain possibilities for the future regarding the situating of ‘the human’ in and with ‘the natural’. In particular, we suggest that apparent rapprochements between economic growth trajectories and perceived environmental crisis may disempower different modes of response, by wrapping local and immanent experience into global and transcendent futures (de Certeau 2010: 24). This is because these rapprochements of

⁴⁸ The term ‘glocal’ combines ‘global’ and ‘local’ to signal the collapsing of temporal and spatial scales that is characteristic of the contemporary moment. ‘Glocalisation’ is associated in particular with hyper-connecting aspects of new information and communications technologies, which can act to amplify simultaneous experiences and productions of macro and micro. Concepts and metaphors associated with the ‘glocal’ are discussed in Sullivan (2008).

necessity prefigure and/or preclude specific environmental futures. As such, green economy performativities have significant ethical, as well as ecological, implications, leading to our second guiding research question, namely:

Q2. How do these new green materialities intersect with differing cultural conceptions of environmental change and sustainability?

As hinted at above, developmentalist green ‘materialities’ and ‘performativities’ jostle with a range of alternative understandings of environmental change and sustainability, as well as with conceptions of human endeavor that might be perceived as differently entrained and embedded with natural rhythms and cycles (Norberg-Hodge 2000). Held and practiced by the ‘other’ to global modernising and economising trajectories - by that which is ‘local’, ‘indigenous’ and even ‘traditional’ - such alternative understandings may be infused by rather different conceptions of ecological and temporal dynamics (Chakrabarty 2007), of the sources of agency (see Sullivan and Hannis 2016*), and of what practices constitute appropriate present behaviours in terms of caring for both pasts and futures.⁴⁹ These may be (come) alterities that haunt the green economy trajectories described above (Taussig 1993; de Certeau 2010(1981): 24): their traces remaining as ‘othernesses’ that embody spectral ambiguities and pluralities of value regarding bodies, places and artefacts (Pereen 2009), so as to mirror or reflect back, and thus perhaps illuminate, the particularities of where these trajectories may be heading (cf. Foucault 1984(1967)). So, for example, we can complement theoretical work on ethical considerations regarding the hunting of trophies from endangered species (as in Hannis in prep.*), with investigation of the discursive and perceptual processes performing animals as sustainability-enhancing trophies whilst excluding indigenous access, practice and values (as considered in Sullivan and Hannis 2016*). Drawing on interpretive theories of rock art (e.g. Lewis-Williams and Pearce 2004; Sullivan and Low 2014*), as well as investigating contemporary indigenous perceptions, memories and embodied practices connected with rock art imagery and sites, we can explore ways in which indigenous ecocultural pasts are reimagined for tourism and heritage consumption (Sullivan in prep. d*).

We thereby affirm that ‘difference can make a difference’ (Kohn 2013 after Bateson 1972; also Chakrabarty 2007): i.e. that peoples’ positionalities regarding axes of difference such as ethnicity, language, gender, age, socioeconomic opportunities and so on significantly, although indeterminately, shape perceptions, knowledges and experiences regarding socio-ecological phenomena. At the same time, we recognise dangers of idealisation and romanticisation. We aim to be alert to the possibility of *recognising* (see Fraser and Honneth 2003; Martin et al. 2013) and even *yielding* to alterity (following Taussig 1993; see discussion in Sullivan in press a*), whilst simultaneously affirming possibilities of reciprocal identification with specific values (discussed further in Sullivan 2001, 2006(2001)) as well as the converse dangers of exoticising reifications of difference (Skotnes 1997; Hoffman 2009a).

We thus acknowledge research that engages otherness to be a mode of enquiry fraught with ethical

⁴⁹ This is less about placing ‘others’ as somehow beyond the ‘here-and-now’ of the contemporary moment (as theorised and critiqued in Fabian 2014(1978)), and more about acknowledging that different culturally-inflected temporalities may shape action and intervention ‘in-the-world’, as well as assumptions ‘about-the-world’ (Chakrabarty 2007).

complexity. We are cognisant of both of the history of colonial anthropology's frequently problematic encounters with the 'vanishing races' created through the confident 'manifest destiny' infusing modernity's imperial project, as well as of the powers and privileges shaping the possibility of our own field research engagements through *Future Pasts*. Our intended orientation, then, is toward the possibility of democratising knowledge production around socio-ecological phenomena through recognising different perspectives, whilst being alert to the power relationships entwined with codifying and 'casting' the values and experiences of others (Skotnes 1997; Hoffman 2009a; McNay 2008). In aiming to convey people who collaborate with us in our research as consultants, informants and companions in this process who are 'people, with names, families, lives, histories, worries and wishes – just like anybody else – and not as exotic examples of ... "strange races"' (Hoffman 2009b: 7), we thereby also aim to honour the deep reciprocity of these relationships:

... deep down we hope that by writing and circulating other peoples' histories, by giving their voices places to speak and shout and sing from, we in some measure combat and counter the longstanding arrogance of colonial and imperial authority, of history written in one language, in one voice, as one narrative. (Feld 1994: online)

In pursuing ethnographic research regarding the productions and performances of sustainability in west Namibia we draw on the opportunity for three of us (Sullivan, Rohde, Low) to revisit and interview individuals, families and communities known in west Namibia through earlier in-depth ethnographic and ethnoecological study.⁵⁰ Through this updating of biographical information and the generation of 'written portraits' we are able to better understand sociocultural, economic and environmental changes since the early 1990s (Ganuses and Sullivan in prep.*; Rohde in prep. a*). This represents a critical period in Namibia's history, covering both the first 20 years since independence in 1990 and the global ascendancy of neoliberal development policy approaches - approaches which, as outlined above, have tended to emphasise market-based solutions to environment and development, as well as other, issues (Melber 2014). Through this engagement we hope to enhance understanding of the socioeconomic realities experienced by specific individuals and families in west Namibia during this time. As well as documenting the complexities of peoples' experiences - their movements between places, their struggles, losses and gains - we hope to add to a knowledge-base of needs, concerns and desires for this subset of study area inhabitants.

⁵⁰ From 1992 to 2000, Sullivan conducted detailed resource use, ethnoecological and ethnographic research with a number of specific Damara families in three key study areas in southern Kunene Region, namely: 1. Sesfontein, 2. at former free-hold farms near the Aba-Huab River (Malansrust, Rietkuil, Morewag and Driekrone, now !Doro-Nawas conservancy), and 3. at Anixab and Sores-Sores on the Ugab River (now Tsiseb conservancy) (Sullivan 1996, 1998, 1999a and b, 2000a and b, 2001, 2002a and b, 2003, 2005, 2006, 2006(2001); Konstant and Sullivan 1997). This work includes the recording of a number of oral testimonies regarding life history circumstances and perceptions of environmental change. Rohde worked closely with Damara informants (and extended family members) from Okombahe (Erongo Region) who took part in a photography project that resulted in the exhibition *Matida Sida ra Mûgu* at the National Art Gallery of Namibia in 1996 (Rohde 1997, 1998). In this, a biography of each photographer was made, along with narratives and captions related to each photograph. As many of these photographers and their families as possible will be revisited. Copies of the original biographies, photographs and accompanying texts will be returned to each individual and a record of the histories of personal change that have occurred over the intervening 20 years will be made. Low will revisit specialist healers of the region to determine if there have been transformations in what appear to have been very long standing ideas about how the environment relates to health (Low 2007b, c, 2008, a, b, c, 2009, 2012). He will look for the emergence of new or transformed narratives and actions associated with local ideas of eco-crisis. For example, do people work with the rain as they used to or do they perceive changes in rainfall and recognise old ideas and strategies as inappropriate? Have new diseases emerged that are linked to perceptions or realities of climate change? Is there a perceived need for community or personal healing or nurturing, or even nurturing of the land, that is linked to the rhetoric and reality of environment change?

Following threads from previous oral history research in the area regarding peoples' pasts and particularly their past relationships with places in the broader landscape, is thus leading to collaborative journeying with Khoe-speaking elders to map places and cultural histories that have been erased from official discourses regarding land where they used to live, particularly in the Palmwag tourism concession area (see Figure 8). This, then, is becoming a (necessarily incomplete) recovery of stories and experiences that have remained outside the official record (cf. Hoffman 2009: 24). The Palmwag landscape is frequently cast as a 'first class wilderness area'⁵¹ but, as noted above, was cleared of people within living memory. Through visiting former dwelling sites in this landscape with people who remember living there, memories arise both of past ways of living and the associated autonomous enacting of shared values, and of direct experiences of past injustice through which people were constrained to leave places they considered to be home (also see Brody 2002; Bank 2006; Dieckmann 2007, 2009; Hoffman 2009b: 6). This work is enabling the mapping of remembered places and associated names through GPS logging of coordinates (see Figure 9), whilst generating a dataset of long hours of audio and video recordings⁵². Working with these recordings is an iterative process. They are translated into English at the place and time of the recording, with the assistance of Welhemina Suro Ganuses, who is a key local Namibian collaborator in *Future Pasts*. Initial transcriptions in English are made by Sullivan, with selected key passages transcribed and translated directly by Suro in '≠Nūkhoen'⁵³, and then worked through with Sullivan to generate and triangulate interpretations. *Future Pasts* publications arising from this research include Sullivan 2016*; Sullivan and Hannis 2016*; Sullivan in prep. a*, e*; Ganuses and Sullivan in prep.*; Sullivan et al. in prep. a* and b*.

This on-site oral history and journeying methodology has enabled participation in relevant practices as well as ongoing conversations regarding peoples' histories of association with places, their past movements through landscapes, their remembered experiences of living there and of the pressures that required them to leave. A few such experiences and associated temporalities will be mentioned here. The first is the practice of *tse-khom*⁵⁴, which involves talking to ancestors, in this case those buried at and associated with numerous places throughout the Palmwag tourism concession and beyond (see Figure 10). *Tse-khom* introduces travellers to the ancestors – or *kai khoen*, i.e. 'big or old people' as they are known. In *tse-khom* ancestral agencies are requested to act in the present to open the road so that travellers can see the best way to go. In *tse-khom*, the ancestors are souls whose ontological reality means that they can assert various kinds of agency in the present, sometimes over other kinds of agency, such as that of animals (for more detail see Sullivan 2016*; Sullivan and Hannis 2016*).

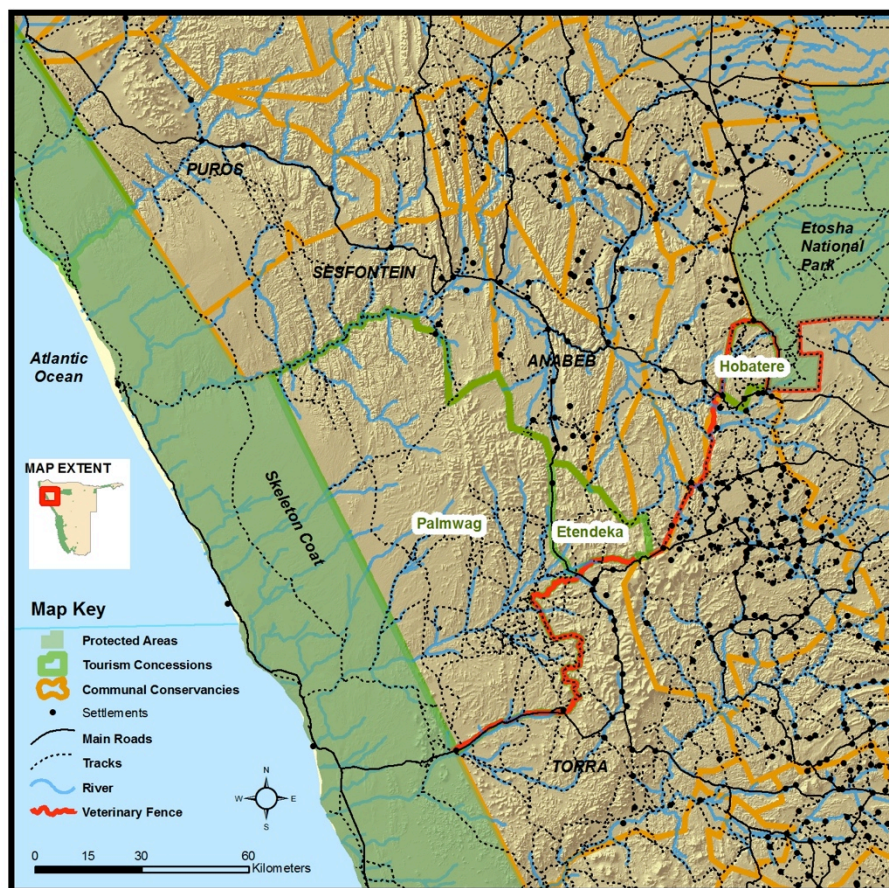
⁵¹ See, for example, <https://www.expertafrica.com/namibia/damaraland/palmwag-lodge/in-detail>, accessed 28 February 2016.

⁵² (Re)inscribing place names is, of course, a significantly political act, given a complex context of historically overlapping claims to land, as well as the links between acts of 'naming' and acts of 'claiming' where land is concerned (as highlighted for otjiHerero 'praise poems' by Hoffman 2009c: 117).

⁵³ Officially the language is often referred to as Khoekhoegowab (see Haacke 2008). When speaking with people locally, however, they tend to refer to the language by the autonym '≠Nūkhoen', hence this usage here. The Dâure Daman Traditional Authority (2013: 200) also refers to the 'Dâure Daman regional dialect of Khoekhoegowab' as '≠Nūkhoegowab'. An additional politics here relates to overlapping and contested ≠Nūkhoen and otjiHerero claiming of land and pastures, in a context wherein otjiHerero historically both lost access to immense tracts of land into which they were expanding, and deploy naming through praise songs (sing. *omitandu*; pl. *omutandu*) as one means of claiming places and spaces (Hoffman 2009c: 117).

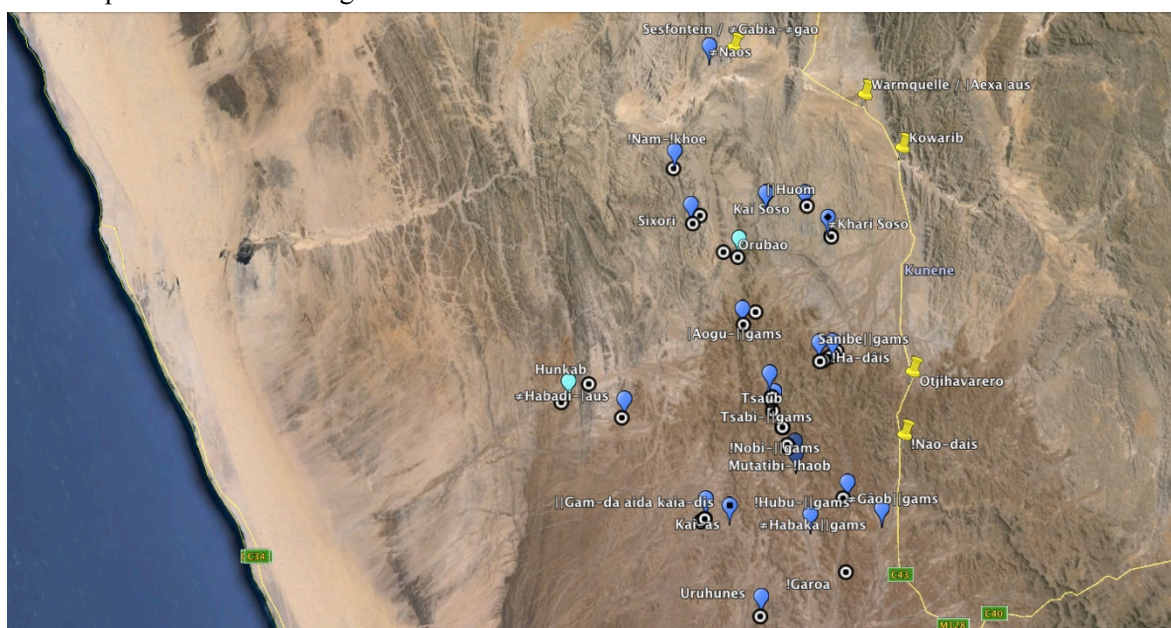
⁵⁴ Spelt *tsēkhom* by the Dâure Daman Traditional Authority (2013: 194, 207) and described as 'a ritual activity performed by an elder to communicate with the community's ancestors' (p. 194), required in particular prior to climbing Dâures Mountain (the Brandberg), regarded as 'the sacred ancestral origin of the Dâure Daman' (p. 207).

Figure 8. Map focusing in on the boundaries of current tourism concessions and surrounding communal area conservancies and state protected areas in southern Kunene Region, west Namibia.



Source: Jeff Muntifering, 5 March 2016.

Figure 9. Preliminary map of springs (blue markers) and former \neq Nūkhoen dwelling places (black dots) south of Sesfontein, located through on-site oral testimony and journeying to remembered sites of significance in the landscape of west Namibia. The main road northwards to Sesfontein is marked in yellow here and depicted in black in Figure 8.



Source: map constructed by Sian Sullivan using Google Maps Pro based on coordinates and place names recorded during field research with Ruben Saunaeib Sanib, Sophia Obi |Awises, Filemon |Nuab, Ezekiel |Awarab and Welhemina Suro Ganuses (Oct-Dec 2014 and Feb-March 2015).

In the moment of practicing *tse-khom* depicted in Figure 10, Ruben Saunaeib Sanib included mention of a key ancestor hero known in this area as *Haiseb*, who features in broader KhoeSan folklore as *Haitsi-Aibeb* (Hahn 1881; Schmidt 2014). The *Haitsi-Aibeb/Haiseb* cluster of stories and practices are inscribed on the landscape through large cairns found throughout the drylands of south-west Africa, from the Cape in the south to Kunene Region in the north (as shown in Figure 11). *Haiseb/Haitsi-Aibeb* cairns have featured in colonial records since the 1650s, interpreted, perhaps erroneously (cf. Schmidt 2014), as symbolically marking the graves of an always resurrecting *Haitsi-Aibeb*. As part of our intention to trace and theorise particular amodern conceptions and experiences of the west Namibia landscape we are currently triangulating several sources of information – mapped and recorded encounters with cairns, colonial records, national monuments listings, databases of cairn sites, and ethnographic encounters with local people - to better understand the *Haiseb* cairns and their meanings, both past and present. We have mapped and photographed *Haiseb* cairns in the west Namibian landscape (see Sullivan and Hannis 2016*), and recorded and transcribed a number of stories and songs documenting *Haiseb*'s antics and associated storytelling practices (Low and Sullivan in prep.*). *Haiseb* and other key *≠Nūkhoen* motifs will be a focus of filmed story-telling events facilitated by Low in March 2016 with community members in *Soris-Soris* near the Brandberg mountain, and *Sesfontein* on the *Hoanib* River.

In translating and interpreting this material, and in continuity with our earlier research in the area, we look in particular for elements that signal and embody culture-nature relationships, perspectives on environmental change and dynamics, and cultural understandings of appropriate socioecological practices. A focus here is consideration of creative and aesthetic encodings of land, the elements, and beyond-human-entities in the contemporary sounds (songs), gestures (dances/embodiment) and poetic recitations (stories), through which socioecological relationships may be expressed and enjoyed using particular symbolic and/or metaphorical registers (see, for example, Hoffman 2009c; Lewis 2013; Impey in prep.*; Sullivan in prep. e*). We understand songs and associated embodied practices as rich repositories of historical information, and are drawn to the mnemonic potential of sung and danced 'performances' in terms of recovering oral narratives from other times and places, as well as through the possible re-enactment of performances at particular 'sites of memory'. We also ask how changes in expressive traditions may have occurred over time and places, through engagement with records and recordings housed in a variety of archives (especially the National Archives of Namibia⁵⁵ and the Resource Centre of the Basler Afrika Bibliographien⁵⁶), and recordings by *Future Pasts* researchers in the course of past ethnographic engagements in the area. Of particular note is our access to the entire collection of master recordings of Namibian music made in the 1990s and early 2000s by French ethnomusicologist, Emmanuelle Olivier. Through *Future Pasts* this archive of 176 DAT tapes plus images and metadata has been collected from France by Impey, and deposited for digitisation in the British Library Sound Archives, where it will be available as part of the World and Traditional Music - Africa collections (collection no. C1709)⁵⁷. Following this digitisation process, recordings will be repatriated to appropriate Namibian contexts, as well as being mobilised as memory prompts in current research.

⁵⁵ <http://nlas.info/sub-divisions/national-archives/>

⁵⁶ <http://baslerafrika.ch/en/>

⁵⁷ <http://sami.bl.uk/uhtbin/cgiirsi/?ps=aD8frzoH13/WORKS-FILE/260360064/123>, accessed 17 March 2016.

Figure 10. Ruben Saunaeib Sanib enacts *tse-khom* as we approach places where he used to live in the Barab River area of the Palmwag Tourism Concession.



Source: Sian Sullivan personal archive, 201114.

Figure 11. Haiseb cairn or ‘||ho||hobab’ in top Barab River, west Namibia.



Source: Sian Sullivan personal archive, 211114.

In sum, we aim to recover and triangulate different versions of landscapes and culture-nature relationships - sensory, corporeal, mythical, allegorised, autobiographical, shared, inherited - all of which may be assembled to reveal a broad spectrum of real and imagined representations of places over time (see, for example, Impey 2007a and b, 2011, 2013). We will also be alert to any performative responses to current landscape transformations, and how these responses may reveal affective experiences of anxiety, resistance, nostalgia - or indeed, of new aspirations and creative opportunities. An emphasis will be on the ways in which Khoe conceptions of health - expressed traditionally through healing dances accompanied by rhythmic songs - are intimately bound with broader emic socioecological understandings of 'things-that-go-together-work-together'. Examples include wind being understood as connecting people with god, animals and other people, and rain being linked with conceptions of fertility and growth (Low 2007c, 2008b, 2012; Sullivan and Low 2014*). With this work, then, we complement cultural geography, social anthropology and environmental philosophy methodologies (e.g. Ingold 2000; Crouch 2001; Carolan 2009) with ethno- and eco-musicology analyses (e.g. Bender Shetler 2009; Guy 2009; Von Glahn 2009) and perspectives in the field of 'memory studies' (Connerton 1989; Halbwachs 1992; Basso 1996; Jedlowski 2001; Climo and Cattell 2002; Till 2003; Lafabvre 2012). In doing so we hope to engage fully with 'ecocultural' experiences and embodiments expressed in registers such as dance, song, music, story, and healing ceremony.

7. Environmental change(s) in west Namibia, and the historical ecologies of the Namib

Q3. How can archival and repeat landscape photographs anchor understandings of environmental change, constructions of environmental pasts, and visionings of environmental futures?

As noted in section 5 above, narratives of impending ecological crisis are prominent in environmental discourse in Namibia. Future scenarios based on general and downscaled climate models⁵⁸ have predicted increasing aridity and drought, leading to degradation, loss of productivity and biodiversity declines (see, for example, Midgley et al. 2005; Thuiller et al. 2006; Haensler et al. 2010; discussed in Rohde and Hoffman 2010). This 'future catastrophe anxiety', positing an expansion of desert and arid shrubs into present grassland savannas and reductions in net primary productivity and economic potential, provokes mitigation strategies including increased protection of land areas, biodiversity conservation measures and carbon offset schemes (see, for example, Eitel et al. 2002; Barnes and Quail 2011; David et al. 2013). Nonetheless, detailed diachronic evidence of regional vegetation change since the late 19th century is almost non-existent⁵⁹, and studies of long-term ecological responses to land-use and/or climate change are either site specific or lack historical context (Konstant and Sullivan 1997; Sullivan 1999a; Ward et al. 2000; Eitel et al. 2002; Heine 2005). Understanding the extent and cause of change based on observation and empirical (rather than modeled) evidence is thus important in order to detect and accurately identify trends and

⁵⁸ For example, see Intergovernmental Panel on Climate Change (IPCC), Fifth Assessment Report <http://www.ipcc.ch/report/ar5/>

⁵⁹ Although it should be noted that other studies take analysis of past regional vegetation back as far as 30,000 yr BP. See, for example, Scott et al. (2004).

threshold events.

We seek to open up and complement such narratives through a unique opportunity to mobilise and extend a large dataset of repeat landscape images for west Namibia gathered by one of us (Rohde), dating back to the late 1800s.⁶⁰ These images form the basis for analysis of the historical ecology of the arid and semi-arid areas of west Namibia using a repeat landscape photography and comparative survey methodology developed over the last two decades by Rohde (Rohde and Hoffman 2010, 2012; Hoffman and Rohde 2011a and b). The images in Figures 12 and 13 below, for example, assist with illuminating processes of environmental change associated with combinations of pastoral grazing, socio-economic developmental changes and climatic events in this arid savanna region.

Bringing together archival images of specific landscape scenes from the past, with repeat photographs of these same scenes in the present, can permit sometimes surprising empirical (re)assessments of the materialities of environmental change. Our aim is to enhance understanding of the historical ecologies of the Namib, through a comparative analysis of archival and repeat landscape photographs in relation to understanding recent regional environmental change, constructions of environmental pasts, and projections of environmental futures (Rohde and Hoffman 2010, 2012). Selected sites for new repeat photographs being taken by Rohde to expand this image dataset through *Future Pasts* include:

1. approximately 25 repeat photo locations around Spitzkoppe, Brandberg and Ojimbingwe that were last surveyed in 1995;
2. a selection of 12 sites from the repeats made of the Palgrave expedition photographs of 1876⁶¹;
3. images from Duggan-Cronin's WWI album⁶² as well as Pole-Evans' 1920 photo collection, John Acocks' southern Namibia photos from the 1950s and 1960s, and more recent photos for Twyfelfontein area by Edwards⁶³.

More than 50 new repeat landscape photograph sites have now been imaged and surveyed through *Future Pasts* located through the broader Namib and pro-Namib landscapes - primarily in the vicinity of the settlements of Okombahe, Spitzkoppe, Usakos and Arandis and the Khan, Swakop and Kuiseb Rivers (see Figures 14 and 15). Preliminary analysis of vegetation visible in these repeat images indicates a steady increase in woody vegetation across all habitat types, even in the coastal desert plains. The ephemeral rivers are very dynamic although there is an interesting divergence between the Kuiseb and Swakop rivers in relation to change: the Kuiseb is highly disturbed showing rapid turn-over of phreatic vegetation, whereas the Swakop is much more stable and shows less overall cover in the main channels. This is possibly related to the upstream damming of the Swakop, affecting the magnitude of flood events and alluvial aquifer recharge.

⁶⁰ The full dataset will be archived and available for viewing at the web archive of rePhotoSA (the Repeat Photography Project of Southern African Landscapes) at <http://rephotosa.adu.org.za/>.

⁶¹ Copies of the Palgrave photographic Album are housed in the South African Library, Cape Town and the National Archives of Namibia, Windhoek. Also, see Palgrave, 1877.

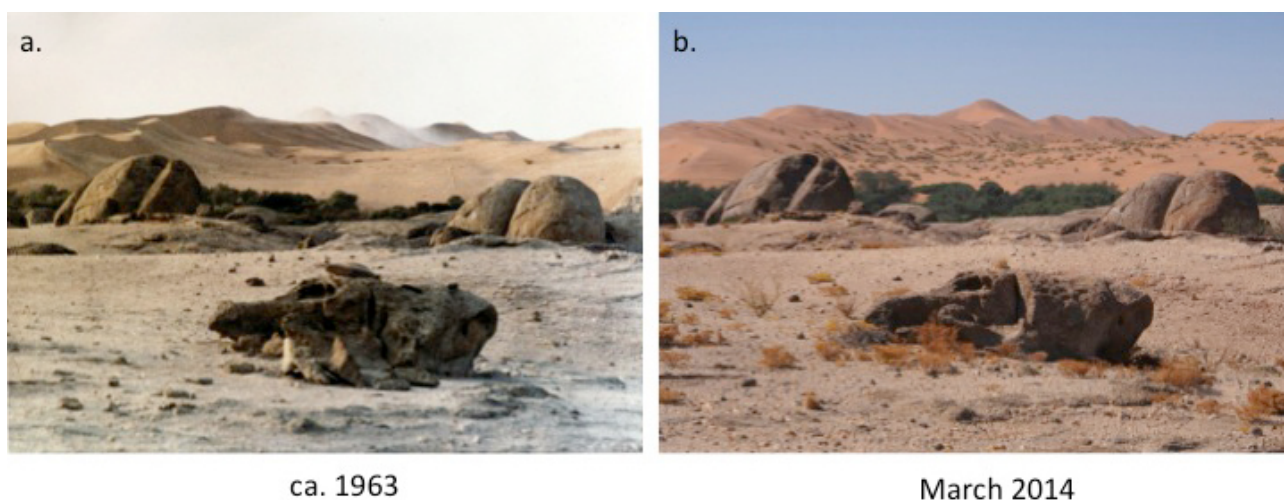
⁶² Photographic Collection, McGregor Museum, Kimberley, South Africa

⁶³ All located in the Photographic Archive, PCU, Department of Biological Sciences, University of Cape Town.

Key questions guiding this analysis include:

- i. what have been the major patterns of change in grass, shrub and tree cover?
- ii. how have anthropogenic impacts influenced these changes?
- iii. Are the trajectories of change consistent in direction and magnitude with the model predictions of global warming scenarios?

Figure 12. Repeat photographs taken from behind the library building at Gobabeb Research and Training Centre (southern Erongo Region), looking towards the !Kuiseb River and dune sea. In these images, the increase in dune vegetation from 1963 (a.) to 2014 (b.) may be related to high rainfall recruitment events since 2000, and/or the increase in fog moisture caused by changes in the sea surface temperature of the adjacent Benguela Current. The increased of phreatic vegetation (i.e. vegetation supported by groundwater) in the !Kuiseb River from 1963 to 2014 is probably related to the intensity of flood events prior to 1963 and subsequently.



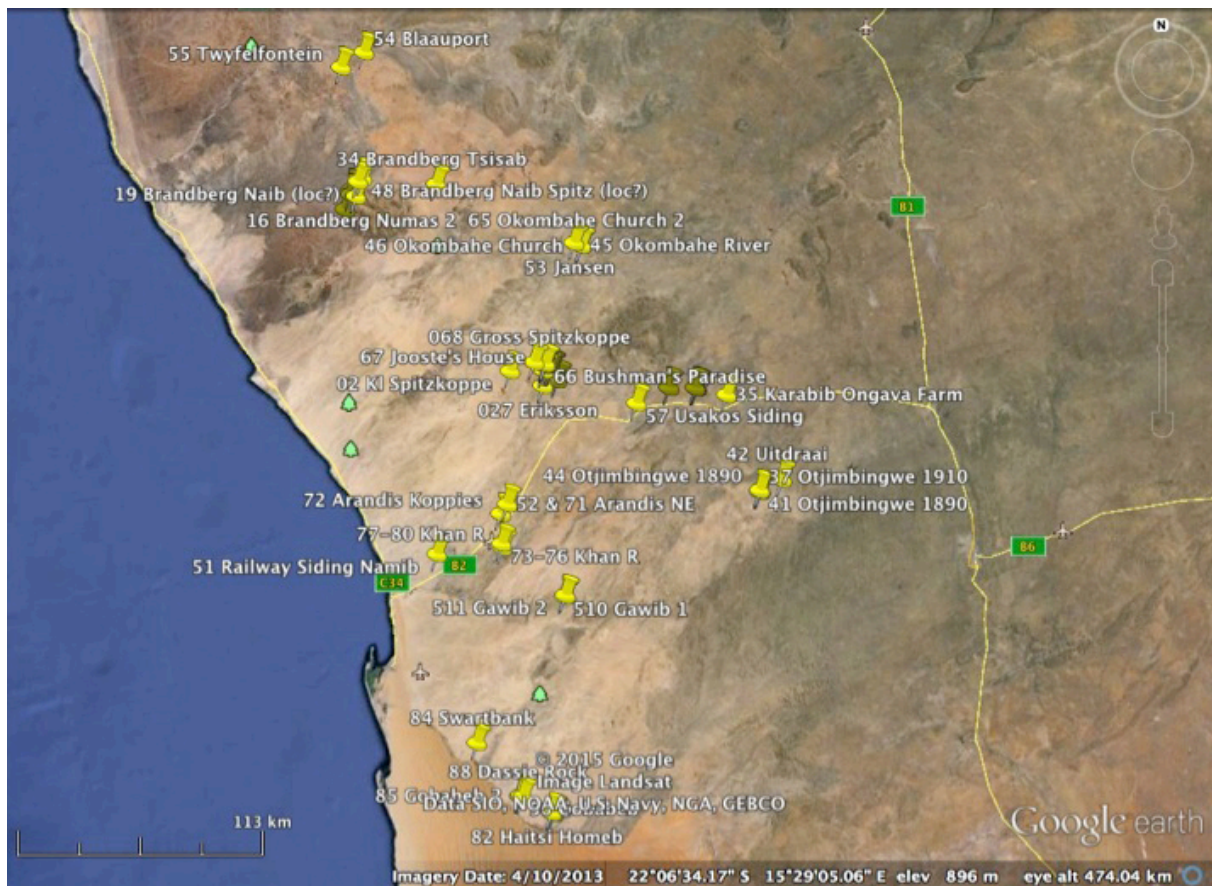
Source: Rick Rohde collection – a. found in Gobabeb library, b. repeat photograph taken by Rick Rohde.

Figure 13. Archival and repeat photographs for Otjimbingwe (a. 1910, b. 1995 and c. 2009), one of the oldest permanent settlements in Namibia situated on the Swakop River. The three images illustrate the environmental impacts of grazing, inter-annual climatic variability and human disturbance on both grasses and long-lived tree species. The increase in riverine trees and shrubs (seen here as a line of vegetation mid-frame) is partially due to the upstream damming that mitigates the destructive effects of large flood events. The distant plain shows a reduction in shrubs and increase in larger tree species consistent with grazing practices that prevent young seedling recruitment of woody species.



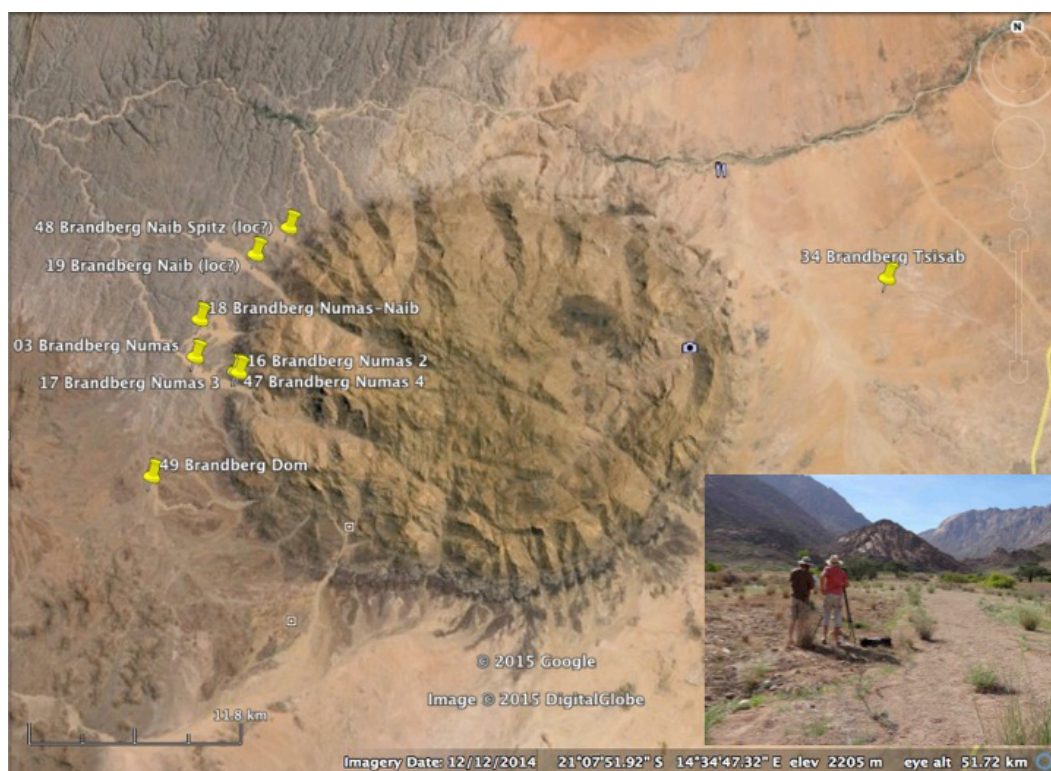
Source: Rick Rohde collection – b. and c. are repeat photographs taken by Rick Rohde.

Figure 14. Map of repeat photograph sites in the Namib by Rick Rohde.



Source: map from Rick Rohde collection.

Figure 15. Focusing in on photograph sites for the Brandberg, with Rick Rohde and Chris Low retaking an image in the Numas gorge (inset).



Source: map from Rick Rohde collection, inset photograph from Sian Sullivan personal archive (190314).

In this thread of our research, a robust and replicable method of assessment is applied to matching site images from different temporal moments in this dataset, involving selection and statistical analysis of bio-climatic, land-use and vegetation community variables (for detailed methodology, see Rohde and Hoffman 2010). Historical context regarding baseline conditions forms an essential element in building narratives of change. It is also intended that a sample of repeat photographs will be shown to local residents, farmers, agricultural extension officers, conservation officials and policy makers in order to elicit insights and interpretations of change from these various perspectives of embodied experience, ideological and cultural knowledge, and to stimulate visions of future environmental conditions. A specific *Future Pasts* collaboration arising from this thread of our research is with the FogLife research programme⁶⁴, a long-term monitoring programme established recently by one of our Namibian partner organisations Gobabeb Research and Training Centre⁶⁵ to explore how fog-dependent species of the Namib Desert are responding to global environmental change. An analysis of archival photographs from the FogLife project study area, some of which date from 1876, will be undertaken by Rohde in conjunction with complementary repeat photographs (see Figure 12).⁶⁶

In developing and expanding our research regarding historical ecologies of the Namib and perceptions of environment change we are additionally exploring two new research threads, involving soundscape studies and assessments of the specific role that a single species is playing in the generation of understandings of climate change in west Namibia. These threads are outlined separately below.

1. *Soundscape studies in the Namib*

Interesting possibilities exist for mobilising the study of sound in the Namib as a route through which environmental change can be elucidated. As already noted by Alexander in the 1830s (see above) the Namib is striking for its silence. More recently, Irish soundscape researcher, Paul Moore (2007: 2) has noted that:

It is perhaps not surprising that the Namib is not confronted as such an aural space. Paradoxically the vastness of the dunes, the extremes of climate, the archaeological depth, the peculiarities of the biology, the continual presence of what Seely terms the desert's 'detritus'... and an exaggerated sense of space all conspire to create a notion of emptiness, an impression that one is traversing some kind of spatial void. Naturally this void, this emptiness, is silent.

Nonetheless, there may be potential to deploy audio recordings of biophysical sounds - the calls of birds and other species in a dawn chorus, the hum of silence in the desert perhaps increasingly distressed by layers of industrial sound from expanding extractive industry - as indicators of change in the natural world. This is an approach in development by Impey, who seeks to connect the study of landscape sound recordings in the Namib (i.e. acoustic ecology and soundscape studies⁶⁷) with assessments of the meanings given to sound by people⁶⁸, so as to contribute to the detection and

⁶⁴ <http://www.gobabebtrc.org/index.php/research/ecological-long-term-monitoring/foglife>

⁶⁵ <http://www.gobabebtrc.org/>

⁶⁶ An early output from this work is the presentation 'Low-cost fog monitoring', by Marais, E., Maggs-Köling, G. and Rohde, R. at the Second FogLife Colloquium, 13-14 November 2015, Gobabeb Research and Training Centre, Namibia.

⁶⁷ See, for example, Bernie Krause on soundscape ecology and 'The voice of the natural world' here:

http://www.ted.com/talks/bernie_krause_the_voice_of_the_natural_world.html, also Krause (2013) and Peter Cusack on soundscape recordings here: http://www.berliner-kuenstlerprogramm.de/en/veranstalt_detail.php?id=658

⁶⁸ Known analytically as cultural acoustics or 'acoustemology' - the 'exploration of sonic sensibilities'. See, for example, Feld 1994.

understanding of change (Impey in prep. *).

This thread of research draws on recent work in ‘soundscape ecology’ which emphasises the ecological characteristics of sounds and their spatial-temporal patterns as they emerge from landscapes. Soundscape ecology thus focuses on the causes and consequences of, as well as interactions between, biological, geophysical, and human-produced sounds - or ‘biophony’, ‘geophony’ and ‘anthrophony’ respectively. The intention here is to collect baseline sound information in the vicinity of the Gobabeb Research Centre in the Kuiseb river valley vicinity. Such ‘signature soundscapes’ are conceptualised as parallel to the repeat photographic images of landscapes (described above), aiming to provide baseline information for a comparative monitoring of environmental change over time. Particular attention has been given to the recording of the dawn chorus at Gobabeb which, from a soundscape ecology perspective, is aimed at using sound for:

- i. species identification (visual not always easy – dark, woody, lots of movement etc);
- ii. analysis of spatio-temporal patterning and a study of Bernie Krause’s ‘niche theory’;⁶⁹
- iii. patterns of bird interaction change in relation to ecological variables, such as fog, temperature/moisture (effects sound transmission), seasonality, human disturbances etc.

From a cultural-ecology or ‘acoustemological’ perspective, recordings of the dawn chorus will be used as one point of entry into an examination of human-environment interactions.

In addition, sound studies with elderly members of the Topnaar communities in the settlement of Rooibank and its vicinity will be conducted so as to elucidate local perceptions of environmental change through sound in two ways. Playback analysis, will simply involve playing audio recordings back to people and soliciting their responses. Human-environment interactions are highly complex, involving multiple feedbacks that may generate information about functional as well as cultural perceptions of nature. It is hoped that recordings of birds at sunrise, for example, will generate more extended discussions about seasonality, livelihoods and socio-economic behavior, whilst natural sounds might stimulate memories regarding cultural activities including songs, stories and rituals. ‘Soundwalks’ involves listening and recording *in situ* with local people while moving through places, and will be explored with ≠Aonin / Topnaar people residing close to the !Kuseb River to enhance awareness and interpretation of environmental conditions and climate change (also see Impey 2013). Through this methodology in ‘participatory listening’, conducted with the assistance of sensitive microphones and headphones, environmental sounds are amplified and intensely focused listening is encouraged. The intention is that this becomes an effective way to stimulate conversation about what people hear and what sounds mean in terms of local cultural registers. Aiming at enhanced understanding of indigenous ecological and cultural knowledge, including perceptions of environmental change, participatory listening is intended as a method of listening to environments *with* the people who live in them. Issues to be explored include:

- i. the meanings of sounds - i.e. how sounds may inform subsistence practices, local knowledge and species identification including local names, cultural taxonomies and functional relationships;
- ii. how sounds in the environment take on symbolic/cultural significance that may manifest in the musical and ritual life of listeners, with the possibility that such songs may offer important insights historical experience and environmental change.

⁶⁹ See <http://www.wildsanctuary.com/>

2. The importance of *Aloe dichotoma* Masson in understandings of climate change in southern Africa

Climate change is one of the most researched and modelled phenomena in the history of science with computer generated general circulation models (GCMs) designed to project future climates based on assumptions of biosphere sensitivity to increased greenhouse gasses (GHGs) in the context of a variety of future socio-economic scenarios. In southern Africa, future scenarios based on speculative science have predicted increasing aridity and drought, leading to degradation, loss of productivity and biodiversity declines since the late 19th century. Namibian government policy is informed by this research (see, for example, Thuiller et al. 2006; Barnes and Quail 2011), aiming to mitigate anthropogenic climate change impacts that are predicted to:

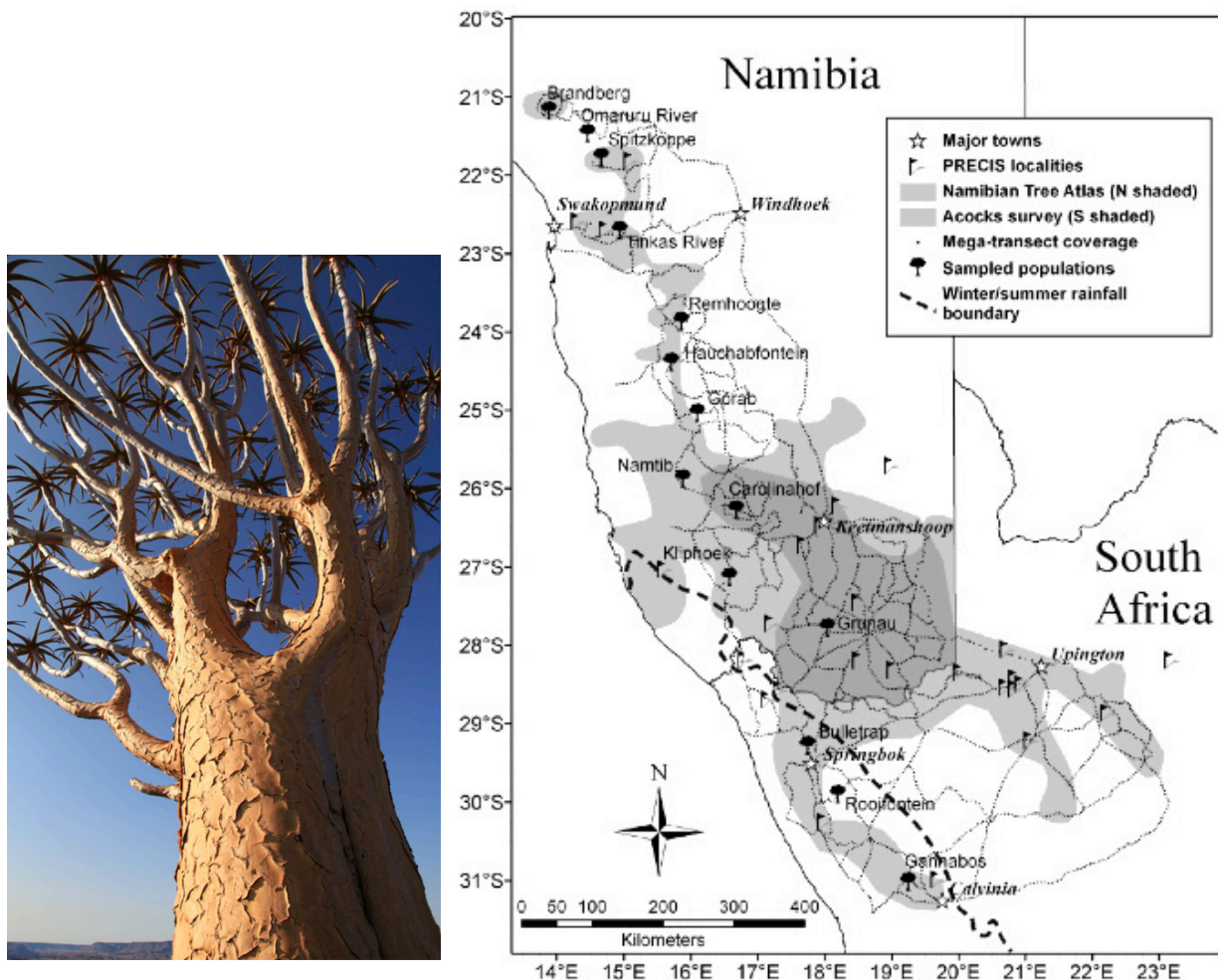
- cause widespread drought, with increased temperatures;
- decreasing and more variable rainfall with consequent negative impacts on savannah grassland systems, livestock production, and wildlife;
- biodiversity loss and biome shifts causing decreased vegetation cover (or increased shrub and tree cover in some scenarios) that will endanger up to half of Namibia's endemic species.

Nonetheless, there is very little (if any) empirical evidence that these trends or projections are discernable in terms of observed ecological change since the onset of rapid atmospheric GHG deposition. To our knowledge, only one substantive and frequently cited evidence-based study supports these assertions in southern Africa, published by Foden et al. (2007). This publication claims that *Aloe dichotoma* Masson, a long-lived succulent tree species, is a useful indicator of climate change in southern Africa (Foden et al. 2007). In particular, analysis of a detailed population census throughout the entire geographic range of *A. dichotoma* is mobilised to assert that a range shift in this species has occurred, and that this constitutes a 'fingerprint' of anthropogenic climate change. Foden et al.'s (2007) argument is that, due to global warming, populations at the equatorward extreme of the species' range (from the Brandberg in Erongo Region, southwards through central and southern Namibia) are dying out, whilst those at the southern, poleward extent (Namaqualand and Calvinia in South Africa) of the range are expanding (see Figure 16).

This new thread of research led by Rohde, aims to respond empirically to these assertions by mobilising a selection of pertinent repeat landscape photographs from our existing and new dataset of images (as described above). *Aloe dichotoma* is a succulent tree up to nine metres high, widely distributed in the drier western parts of South Africa and Namibia in both summer and winter rainfall areas (see below). The species' range covers 11 degrees of latitude. *Aloe dichotoma* is relatively long-lived. Repeat photographs demonstrating that individuals can live for up to 350 years. Environmental history analysis of repeat photographs confirms that recruitment into the population overall is highly episodic, related primarily to periods of above average rainfall. *Aloe dichotoma* is generally confined to what is known as the semi-arid Nama Karoo and succulent Karoo biomes: the former eastern and northern sections of the range falling in the more arid, variable and hot summer rainfall zone (SRZ); and the latter western and southern sections, where most of the populations occur, falling in the cooler, wetter, more reliable winter rainfall zone (WRZ). As Foden et al. (2007) indicate, relatively high levels of mortality, low recruitment and a decrease in population size have been recorded for sites in the northern zone, whilst populations in

the southern zone show relatively low levels of mortality, a high incidence of new recruits and an increase in the number of individual trees in the population over time.

Figure 16. *Aloe dichotoma* species range including the northern branch (Tinkas to Brandberg) which falls within the broad *Future Pasts* research area.



Source: Jack et al. 2014* (image); Jack et al. (accepted with revisions)* (map).

Using repeat photographs taken 35-98 years apart, combined with field transects to determine age class distributions, this thread of *Future Pasts* research extends assessments of the extent and rate of change in *A. dichotoma* populations across its entire range as well as significantly broadening our cross-disciplinarity into natural sciences approaches to understanding environmental change. Changes over time will be further analysed in relation to long-term records for rainfall, drought events and temperature for the region. Results to date confirm previous reports (i.e. Foden et al. 2007) of the spatial pattern of population change (as described above), but analysis suggests that this pattern is *not* the result of recent climate change impacts (Jack et al. accepted with revisions*). In particular, there is no evidence to confirm that rainfall has declined and droughts and temperature have increased significantly during the last 65 years. Indeed, where *A. dichotoma* populations have declined, repeat photographs confirm instead that this occurred in the first half of the 20th century, primarily due to deaths of old individuals during extended drought periods and a lack of recruitment events (Jack et al. 2014*, accepted with revisions*). Especially in the harsh northern summer rainfall zone, which crosses into the *Future Pasts* geographical study area, populations are subject to high

inter-annual and spatially variable rainfall patterns which lead to high spatial and temporal variability in recruitment and mortality, as well as long periods between recruitment events. As such, the evidence thus far (*contra* Foden et al. 2007) supports an hypothesis that the different recruitment and mortality dynamics of *A. dichotoma* populations living in the summer and winter rainfall zones are outcomes of the particular rainfall-linked phenotypic plasticity⁷⁰ of this species. In other words, the combination of rainfall dynamics and phenotypic responsiveness is in this case a more parsimonious explanation than anthropogenic climate change for how *A. dichotoma* populations have survived over long (centuries) time frames, as well as for the different population dynamics that exist across the SRZ/WRZ divide. Indeed, it is tempting to perceive the Foden et al. (2007) paper and its uptake in confirming a poleward shift in biota due to climate change, as an iconic study exemplifying how anxiety associated with climate change finds expression in a flawed scientific argument that then becomes uncritically accepted and incorporated into the consensus climate ‘science’ opinion (discussed further in Rohde in prep. b*).

In order to consolidate this study of *A. dichotoma* population dynamics, in relation to future climate change, the repeat photographic record within southern Namibia (i.e. the ‘heartland’ of *A. dichotoma*) is currently being completed by Rohde (and in collaboration with M.T. Hoffman) so as to constitute a smoother continuum from the south to the north of the species’ range. New images will be created in the vicinity of the famous and much photographed Kokerboom Forest near Keetmanshoop (Namibia), but also the dispersed populations in the more arid areas of the Klein Karasberg and Aroab. This aspect of *Future Pasts* is intended as a means of comparing narratives of future change with empirical evidence, thus facilitating a political ecology analysis of any observed disjunction between analysed data and broader regional discourses of environmental change.

8. Ecocultural ethics

Q4. What normative assumptions underpin contemporary sustainability technologies and innovations, and what are the philosophical implications of juxtaposing these with other(ed) ‘ecocultural’ ethical frameworks?

As can be seen, *Future Pasts* is extending along multiple lines of enquiry to explore, interrogate and become resonant with different understandings and embodiments of sustainability and environmental change, in the geographical and temporal contexts of our research. Given our various disciplines, approaches and influences, a challenge is to create analytical and theoretical coherence through the juxtapositions of the different elements of our project. One way through which we seek to pull our different empirical and theoretical threads together, is by drawing on approaches in environmental ethics and moral philosophy to flesh out and theorise what we are calling *ecocultural ethics* - i.e. an ethical approach that foregrounds cultural variability in ethical assumptions regarding human relationships with natures-beyond-the-human (Kohn 2013). The term ‘ecocultural’ is also used by Ivakhiv (1997) and Pretty (2011) to foreground the cultural dimensions of human-nature relations. The former author emphasises the importance of environmental parameters being woven

⁷⁰ i.e. the ability of an organism to change its phenotype in response to changes in the environment, allowing individual plants to ‘fit’ their phenotype to different conditions.

into critical theory more broadly; the latter celebrates the knowledges of nature(s) that frequently accompany ‘place-based’ cultures. Böhm et al. (2015) iterate Pretty’s (2011) emphasis, using the term ‘ecocultures’ to refer normatively to communities considered to be making choices that affirm sustainable, resilient alternatives to ‘mainstream’ society, seen as problematically consumerist and growth-oriented. Our own uptake of the term ‘ecoculture’ differs slightly in that we use it to denote differing views and values embodied in cultural knowledges and practices oriented towards (and shaping) ecologies, rather than to signal a particular and/or normative set of practices. As such, we see ‘ecocultural ethics’ as a cross-disciplinary domain that more explicitly theorises the sustainability imaginaries entwined with the cultural production of particular pasts, presents and futures. We use the term ‘ecocultural ethics’ because we are interested in the ethical assumptions that underlie different cultural attitudes to nonhuman worlds.

In this component of our research we draw on established theoretical frameworks in environmental philosophy, to further interpret elements of the empirical and textual material generated in pursuit of our other research objectives. These frameworks include theoretical environmental ethics (Sandler and Cafaro 2005; O’Neill et al. 2007; Curry 2011), concepts of sustainability, substitutability and intergenerational responsibility (O’Neill 1993; Dobson 1999; Barry 2012), and imaginaries of human/nature relationships past, present and future (MacIntyre 1999; Page 2006). Through this research thread, then, we are conducting a more formal philosophical enquiry into the ethical assumptions and framings underlying contemporary ‘green economy’ policies and practices, in juxtaposition with those that might be seen to be embodied in the knowledges and practices highlighted in other components of our research. In synthesising relevant insights from capabilities, rights and virtue ethics approaches, in particular, we seek to explore ecocultural differences regarding underlying assumptions and judgments about what kinds of relationships between humans and ‘the rest of the world’ are required for flourishing human lives, and therefore considered sufficiently valuable to be deliberately protected and facilitated for future generations.

Whilst cognisant of producing a set of perhaps problematic dualisms, we are analysing and comparing two distinct tendencies in ecoethical framings, as represented by the different but geographically overlapping cultural contexts, or ‘ecocultures’ we discuss in section 6 above. The first tendency is the complex of so-called ‘green economy’ policies and practices that loom large in our study area, as already described. The second tendency centres on indigenous, and particularly varied KhoeSan, attitudes to relationships between human and nonhuman spheres. This juxtaposition throws up several sets of theoretical questions, two of which we outline here.

First are questions of ethical theory, both descriptive and normative. Does the rise of calculative ‘green economy’ and ‘natural capital’ approaches to the nonhuman world mean that a utilitarian approach is becoming hegemonic in environmental decision-making (see, for example, Sullivan 2016*)? If so, why is it that calculative approaches are considered less problematic in this context than in others (such as medical ethics) (Hannis in prep.*)? Might it be more appropriate to link human and nonhuman flourishing by way of a eudaimonist⁷¹ environmental virtue ethics (discussed

⁷¹ Meaning literally ‘good’ or ‘harmonious’ in ‘soul’, and frequently translated as ‘flourishing’ (see Hannis 2015*, 2016*; also discussion in Sullivan 2016*).

in detail in Hannis 2015*, 2016*)? Are there overlaps between this kind of approach and the ways in which local stories and practices may connect the flourishing of humans and of nonhumans?

Secondly we will analyse differing concepts of sustainability and substitutability, particularly in relation to different imaginaries of *what should be sustained* into the future. How, for instance, might an understanding that all one's ancestors are still present in the landscape affect how one interacts with and values that landscape, and the entities therein? To what extent might varied egalitarian principles of KhoeSan peoples reach out beyond the boundaries of the human (as explored in Sullivan and Hannis 2016*; Hannis and Sullivan forthcoming*)? We suggest that indigenous KhoeSan 'ecocultures' value the maintenance of relationships of respect and reciprocity between humans and numerous other agents including human ancestors, other animals, plants, landscape features, climatic phenomena, and spirits (also see Sullivan and Low 2014*). We also consider that while utilitarian and deontological approaches to environmental ethics struggle to adequately conceptualise or understand such worldviews, a eudaimonist ecological virtue ethics, with its strong focus on relationality, may be better equipped to do so. We thus propose linking human and nonhuman flourishing by way of a eudaimonist environmental virtue ethics (Hannis 2015*, 2016*), and find that there are overlaps between this kind of approach and the ways in which local (especially KhoeSan) stories and practices may connect the flourishing of human and nonhuman agencies (Sullivan and Hannis 2016*; Hannis and Sullivan forthcoming*). We also bring ethical approaches from moral philosophy into conversation with a range of terms mobilised in anthropological and cultural geography, and have to this end been pursuing ethnographic and theoretical work to explore and connect concepts of mimesis, ontology, affect, embodiment and alterity (see Sullivan 2016*, in press a*, b*, c*).

9. Future pasts?

These considerations bring us back to the first term of our title, namely 'future pasts'. Overall our project is inspired by a framing of *environmental conservation* - a domain of negotiated activity linked with notions of 'sustainability' - by environmental philosophers Alan Holland and Kate Rawles. These authors articulate conservation as being 'about *negotiating the transition from past to future in such a way as to secure the transfer of maximum significance*' (Holland and Rawles 1996: 46, emphasis in original). In this definition, then, we have an indication that:

- what is of conservation significance needs to be *negotiated* between different parties;
- that *difference will make a difference* in terms of *what* is considered to be significant, and *how* practical and policy choices are made regarding conservation;
- and that the fields of conservation and sustainability, i.e. of 'green' choices, are sites of deep contestation regarding *whose pasts*, i.e. whose values and ontologies regarding nature-beyond-the-human, are or should be transferred into the future.

'Sustainability' and 'environmental change' are thus infused with productive antagonisms regarding what constitutes the past, what to value (and how), and what configurations of entities and relationships beyond-the-human are deemed possible and desirable in imaginings of 'the future'. Our title '*Future Pasts*' encapsulates these antagonisms, constructions and understandings.

Research ethics, publication strategy and repatriation of data

Research for *Future Pasts* involves adult participants and a range of humanities research methods including interviews, participant observation and analysis of stories, songs and dance. We engage varied participants, from local and indigenous people to business leaders and actors in environmental policy. We are sensitive to the power dimensions shaping peoples' situations (including our own), and will develop appropriate ethical procedures to protect informants and shared knowledge, or alternatively to name those for whom this is important. For recorded interview material we gain verbal or written consent and, where appropriate, ask interviewees to confirm interview transcripts, as well as offering anonymity where requested. In participant observations and ethnomusicology scenarios we take time to introduce ourselves and will be reflexive about our representations of field contexts. We follow the ethics guidelines of the Association of Social Anthropologists⁷² and have completed formal research ethics approval procedures through our respective Research Organisations in the UK. We are also working on an ongoing basis with our Namibian collaborating organisations to enact appropriate research protocols.

Regarding the accessible publication of research material, we have developed the *Future Pasts Working Papers* series as a means of publishing academic research and analysis that can be downloaded from our website for free (at <http://www.futurepasts.net/#!/future-pasts-working-papers/c1vud>). We are also in the process of developing *Future Pasts Local* as a series of booklets arising from local collaborations. These will be available for free download (at <http://www.futurepasts.net/#!/future-pasts-local/pr4yv>) and will also be available in printed form in Namibia. Other publications and outputs will also be shared on our website as they arise (at <http://www.futurepasts.net/#!/other-academic-publications-/1850l> and <http://www.futurepasts.net/#!/other-outputs/ggppc>). In addition, we seek to develop a range of non-textual outputs, to include images, audio and video, which we hope will stimulate public engagement with ideas of environmental change and 'green futures'. For example, we have begun work with Mamokobo Film and Research (Namibia) on a series of film collaborations, the first being a short film generated from local storytelling events (facilitated in March 2016 by Low) regarding environmental perceptions and relationships.

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⁷² <http://www.theasa.org/ethics.shtml>

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