

## Southern Deserts 6: Overview and the Way Forward

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### DAY 1:

**Opening:** Dedication to **Mike Smith**, convenor of the first Southern Deserts conference (SD1, Canberra Australia, 2003), led by **John Kinahan**.

### SESSION 1:

**Tides of the Desert** fleshed out the deep history, flexibility, dynamics and long-distance trade networks of the desert people of the Namib and other southern hemisphere (SH) deserts, with special reference to coastal societies. **John Kinahan** in his talk, and in his book,<sup>1</sup> outlined how ancestral hominins made their way down the escarpment into the Namib desert pulsing in phase with climatic cycles until the Holocene when they became more territorially fixed. Strontium analyses of ostrich egg shell (OES) show there are large social landscapes and people are not isolated. Ritual sanctions provided pathways for times of extreme resource scarcity and these evolved to interact with fringing farmers over the last 2,000 years. John raises the possibility of dating Middle Stone Age (MSA) stone structures and plaques with engravings and paintings (for this purpose I'd suggest optically stimulated luminescence (OSL), 14C deposits and cosmogenic of the scar).

**David Thomas** busted the myth of lack of earlier evidence for MSA occupation in the Kalahari/Makgadikgadi Basin with 'riparian corridors of opportunity' and ages of 84 to 57 ka for silcrete artefact scatters on saline lakes beds – likely pulsing wet and dry for long periods of time. Lithic provisioning over great distances suggests planning and extensive movement of raw materials. The previous coastal-rim margin focus by archaeologists has meant that the desert interior had been neglected. While the coast was seen as key previously, this was likely due to low visibility of sites and survey strategies in the interior deserts. Increased dating of art/sites in Patagonia and interior deserts of Australia has shown this to be the case.

As **Kane Ditchfield** demonstrated from the coastal zone of north-west (NW) Australia, 'maritime deserts' have been utilised since 50,000 years ago with a mixed economy of marine and terrestrial fauna and very flexible settlement strategies, artefact sourcing and making. Despite fluctuating sea levels, the marine zone was productive with evidence of movements across the now submerged NW Shelf and increased use of the ranges by the Holocene. This is in contrast to changes in marine productivity in coastal northern Chile – where **Claudio Latorre** describes how changes in coastal upwelling caused changes in marine productivity over the last 9,000 years. Detailed shell midden work examined marine reservoir departures, upwelling intensity and the dietary suites of coastal people. Desert people have clearly exercised changes in residential mobility to accommodate boom and bust cycles. When marine productivity increases – people are there!

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<sup>1</sup> Kinahan, J. 2020 *Namib: The Archaeology of an African Desert*. Windhoek: UNAM Press.

Work by **Roger Swart** on dune sands derived from a palaeo-river resonated with our pre-conference excursion with **David Thomas** – where the Namib Sand Sea was shown to be sourced from the Orange River. These kinds of longer-term landscape processes, shorter-term taphonomic cycles of sites – combined with highly adapted, and socially and technologically flexible desert groups, create a complex record of desert use, management and recovery.

**Marion Meyer**'s presentation on *Euphorbia damarana* in north-west Namibia demonstrated the complexities of understanding plant population dynamics in relation to highly variable rainfall/drought dynamics.

The session closed with a film on *The Namib Sand Sea World Heritage* introduced by **Agnes Shiningayamwe** of the National Heritage Council of Namibia.

## **SESSION 2:**

The **Marking the Desert** session examined the dynamics of symbolic behaviours from the Southern Deserts, through a range of media – with the fascinating historic analyses of introduced glass and beads which showed reliance, agency and persistence of groups in the Namib, Namaqualand and Fuego-Patagonia – despite colonisation. **Jill Kinahan**'s study of differences in relations of exchange are echoed in Contact Australia. Here groups either persisted in technology and styles of earlier stone industries in glass (adzes, scrapers and engravers) despite massive impacts of pastoralism and mining; through to remembrance of country in glass points on Barrow pearl camp and Wadjemup; and mass production for museums/collectors as a new commodity by 1900s. (But they have valency – nb. R. Love quote).

**Angela Kabiru** shows how the uptake of glass beads in the *mporo* necklace was linked to increased supply from explorers, missionaries and traders. But this was not just fashion – as necklaces made for family/group ceremony and ritual were treated quite differently to the more colourful beads made for public European consumption. Such changes are culturally constituted and authentic through time.

**Jacqueline Correa Lau** reminds us that style/shape/form does matter; with life-histories of people from the Atacama desert and coast reconstructed from Inka tunics. Each of three tunics was representative of localities annexed by the Inca empire; and each speaks to different identity formation by looking at high and low visibility attributes: e.g dyes and structural techniques. Personal and group relations with the Inca State are unwoven from just three tunics.

The 'long reach' of desert societies is also seen in the funeral bundle mortuary practices in *Chenque 1* cemetery in La Pampa (Argentina), as presented by **Mónica Berón**. Although separated in time, mode and place of death, the bundles are transported very significant distances in the last 1,000 years. Reasons could be peoples' beliefs about ongoing relations with the deceased to practical ones, seeing people returned to 'their Country'. **Mónica Berón** believes it is likely both.

**Jayson Orton**'s work on lithic, pottery and OES beads from Namaqualand suggests that dynamics/presence of hunter-gatherers(HGs)-herders and their associated assemblages is more complex than previously thought. He notes differences may be due to Karim Sadr's task/function/activity.

Existing categories are also broken down when the massive silcrete tool and quartzite grinding stone sites showing (over) production from the Channel country in SE Australia are considered. The crescent arc engraving iconography is a shared language (after Nancy Munn) for these people and their huge trade and exchange networks (also with Pituri, ochres, axes to the north). Is this 'industrial' trade by incipient agriculturalists – or specialisation which many other desert groups display in art, lithics, axes, languages? Certainly, the cultural landscapes are huge as **Natalie Franklin** and later **Phil Habgood** show with the wooden swords coming from central Queensland.

The role and social agency of rock art in Patagonian contexts, in multi-disciplinary papers by **Anahí Re** and **Guadalupe Villanueva**, were very impactful. Puma petroglyphs in Southern Patagonia were depicted through paw prints, tracks and figuratively; more so than their prey – the guanaco. As higher altitude areas were used systematically by the late Holocene, and resource distribution shifted to greater patchiness, puma depictions increased there and elsewhere. The case is made for communication strategies, using Information Exchange Theory (IET), to reinforce medium and long-distance social networks in the face of environmental change.

The plateau site of Cueva Huenul 1, at 1,000 m elevation in NW Patagonia, has a 12 ka occupation with a gap in the middle. Nearly 900 motifs are dated by association to this missing mid-Holocene period. The site has excellent controls and has giant sloth and other fauna in pre-habitation levels (I was lucky enough to visit it). Plasma Oxidation pre-treatment and Accelerator Mass Spectrometry (AMS) dating of tiny paint samples from standardised motifs, provided evidence for 3,000 years of image making when the climate was much more arid. Clearly connections to this place continued with maintenance of a 'cultural keystone place', despite groups not or minimally residing in the site. So, there is no abandonment of country but rather symbolic connection and maintenance.

## **DAY 2:**

### **SESSION 3:**

**Tending the Desert** looked at many natural and cultural maintenance issues in the southern deserts (SDs). **Sian Sullivan** and **Welhemina Suro Ganuses** discussed the remembered landscapes of the Skeleton Coast National Park, associated with *Inara* fruit (*Acanthosicyos horridus*), eating of mussels and knowledge of graves. The limited access of traditional owners (TOs) to their traditional lands resonates with other park regimes where natural values are privileged over cultural estates. These themes were also explored in the oral history film *Lands That History Forgot: Three Journeys With Nami-Daman Elders in North-west Namibia*,<sup>2</sup> introduced in an evening session by the Deputy Director, Wildlife Monitoring and Research, Ministry of Environment, Forestry and Tourism, **Kenneth Uiseb**.

Co-management of National Parks is now increasing in Australia with many Ranger positions tied to Indigenous Protected Areas (IPAs) – though the balance is shifting. The Central Kalahari Game reserve was depopulated of San between 1997 to 2005; however, as **Robert Hitchcock** outlined, they re-gained access in 2007 with 350 people now residing there using a combination

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<sup>2</sup> Viewable at <https://vimeo.com/906331479>

of traditional strategies and limited outside support. I believe hunting rights for these groups are limited, as is effective water access.

The critical role of water on granite domes, and associated diversity of economic seed-bearing plants, and marsupial fauna, was highlighted by **Wendy Reynen** from the NW of Australia. Tens of thousands of grinding patches on these domes have very high-density artefact scatters and grinding stone fragments in association. Thalanyji Traditional Owners stress the significance of this site on their cultural landscape, with ongoing ethnobotanical, plant residue and faunal studies continuing. The age of seed grinding can be tested here.

More ephemeral, low population material records present real challenges, as **Kiah Johnson** outlined from more recent sites in Namibia and South Africa. Using large scale landscape approaches, and existing oral history and site databases such as SAHRIS (South African Heritage Resources Information System), she tackles this more ephemeral record.

In contrast, substantial structures known as ‘kites’ have now been recorded for the first time from the Southern Hemisphere in the Bushmanland-Kalahari Duneveld ecotone. Likely gazelle harvesting structures, both **Marlize Lombard** and **Matt Lotter** make compelling cases for their strategic location to water and migratory routes being partially out of sight, for pre-colonial hunters. Stone structures are very common in Australia but obviously not to herd animals. The closest harvesting structures would be intertidal fish traps and eel races.

**Jeremy Hollmann** also examines the central place of animals in the petroglyphs of the Northern Cape and links them to their wind and potency, connecting with propositions made earlier by **Anahí Re** and **Guadalupe Villanueva**.

#### **SESSION 4:**

In the **Mining the Desert** theme there were papers examining the transitions to a more sustainable resource regime, with **Karin Hoal** describing industry efforts, such as RESOLVE to place First Nations people, communities and delicate environments more firmly in the decision-making space through Environmental, Social and Governance (ESG) standards and sustainable development. **Vanessa Elliot** argued potently for shared benefit and inclusive capital and asked what First Nations’ greatest asset and contribution to the mining and energy sector should be. Transitional technologies to bring waste disposal and landfill into a circular economy and benefit local communities in Namibia was well made by **Juris Burlakovs**.

In many respects the glaring need for new beneficiary approaches is due to a legacy of colonial Christian redemption and European extractive capitalism throughout southern Africa, as argued by **Chris Hill**. The history of uranium enrichment and cold war mentality is intriguingly linked by Chris to the Montebello Islands, where the British were invited to detonate the first nuclear device on the Destroyer Pymm in 1952. This area was subsequently made a national marine park about 20 years ago.

The recognition of sea country and marine resources of the Topnaar/ǀAonin Nama has been hampered and equally needs remedial attention, as discussed by **Elsemi Olwage**. Powerful extraction and conservation regimes are both hurdles and opportunities. (Note: Dorinda Cox’s Sea Country Bill being heard now in Australia).

Namibia's cultural heritage came under repeated focus with a lens on regulation, practice, standards and opportunities. The National Heritage Council of Namibia is charged to protect cultural heritage (tangible and intangible) – and does this within its means – as discussed by **Lenishwa Engelbrecht**. At the same time, there is a raft of challenges which are shared across agencies in the southern hemisphere – including cross-ministry decision-making, and illegal mining despite permits. Regulation is largely self-managed and central resources stretched. Suggestions for improvements were given which would apply across the deserts.

**John Kinahan** stepped boldly into this space, noting non-compliance is endemic and traditional owner consultation negligible. No mining application is rejected and the grey literature reports remain inert. He suggests there should be a separation of cultural heritage management (CHM) from environmental assessments and that land-users fund post-mitigation resources for the benefit of community, the heritage sector and planning and research. There should be professional standards and peer-review for major works, with stronger regulatory powers and community involved at multiple stages. **Mike Hannis** shared how ethical theory, overlying ethical practice, might assist in the development of such mining protocols for heritage.

### **DAY 3:**

**Seeing the Desert** – Excursion to archaeological and historical sites in the Namib, led by John Kinahan, combined with evening public lecture at the Swakopmund Museum by David Thomas.

### **DAY 4:**

#### **SESSION 5:**

**Living in the Desert** – I (**Peter Veth**) presented on behalf of the Desert People Project (DPP) team on central questions, aims and new actions with 10 Northern Territory (NT) Corporations over 320,00 km<sup>2</sup>. These covered early use of the deserts, as early as in other regions; persistence through climate change; early and ongoing use of maritime coasts despite major sea-level change; and major exchange networks across the deserts – baler and pearl shell, rock art and ochres, that continue until today in different ways.

The theme of ongoing use of marine resources was expanded on by **Fiona Hook**, tracing 46,000 year old shell knife making tradition, long-term use of mangrove resources and transport of edible species over 20 kms. This is one of the oldest shell tool making traditions in the world. While few sites in Australia, including Barrow Island have direct evidence of exploiting megafauna, **Patrick de Deckker** presented deep sea core data that made a compelling case for people co-existing with megafauna. **Daniela de Matos** similarly reconstructed human adaptation and environmental dynamics in south-west Angola.

Regional responses in human activities to climate forcing from the Andean/pre-Andean Drylands was outlined by **Paul Hesse**, providing multiple data sets from fluvial and aeolian records, and archaeological sites. In the arid diagonal of South America they concluded there was a high sensitivity of the arid zone to Holocene climate change with implications for past, present, and arguably future societies. **Nora Franco** moved to the Pleistocene / Holocene transition in South and Central Patagonia (post-Late Glacial Maximum (LGM)) where the impact of the Younger Dryas may have reconfigured populations, with possibly new settlers arriving in

the Holocene with Guanaco. While rockshelter data is quite well constrained she noted the need to date frequent open sites outside the caves. Note the ‘between the caves’ project of Meg Conkey.

Continuing the theme of arid-adapted technologies, **Erik Marsh** talked about the early adoption and widespread use of the sling with stones in the Andes and elsewhere. Earlier spears and armatures are not gracile and there is a sharp divide between arrow heads from bows only from 1500 BP; and this likely linked to Amazonian trade; and with delayed transmission to Patagonia due to large arid barriers. For treeless, open areas the sling is the optimal hunting implement and presumably much less open to failure and shortage of raw material supplies than the bow and arrow. (I’ve linked him to Chris Clarkson – projectile study).

Further focus on arid interior areas, here from southern Namibia, through the ARIMAS project presented by **Matthias Blessing**, noted a rockshelter with 3m deposit, rock art and complex assemblages (suggest Ground Penetrating Radar (GPR) or calibrated seismometer before you excavate). This combined with careful contextualisation of the open sites, and sourcing studies, will yield important new insights on landscape use.

Continuing the interior landscape theme, the ongoing insights from Spitzkloof A Rockshelter from northern Namaqualand were exciting. **Genevieve Dewar** outlined likely pre-50,000 BP occupation with bead manufacture, long-distance exchange of OES deduced from Strontium, changing dietary faunal breadth and use of quartz. The LGM here as Hadde Cadde has modelled for arid Australia is wetter. The adaptive flexibility of these desert people means there are few barriers and these are likely temporary. ZooMs (zooarchaeology by mass spectrometry) work by **Courtney Hopper** shows the potential of biomolecular approaches to enigmatic dietary material – where in arid Australia 97% of elements may be unidentifiable.

There were some great and very different papers concluding this session including the critical role of camelids in the Atacama Desert to coastal fisher-hunter-gathers, by **Daniela Valenzuela**. While not a major dietary food, camelids become dominant in most other aspects of life including rituals, depictions, rock art, fibre, textiles and guano as fertiliser.

**Carla Lancelotti** focused on the roles of Indigenous Knowledge in how agrifood production systems drawing on such knowledge may demonstrate greater longevity than modern agricultural infrastructures. Looking at chemical ‘memories’ of sediments from mobile pastoral settlements in the arid interior, the work of **Stefano Biagetti** aimed to flesh out the details of these ephemeral sites and relate them to surviving archaeological and other features.

#### **DAY 5:**

**Closing session** including plenary led by **Peter Veth**, on which this summary is based.

#### **Conclusion**

So, by the end of the conference, we have come full circle from ESA to modern cultural landscapes and heritage futures. We have seen that deserts are occupied early, with people showing great adaptive flexibility and that long-distance exchange of objects like OES, rock art and information exchange provide the glue for success. Terrifying desert landscapes popularised by 19<sup>th</sup> century explorers, missionaries and mercenaries have no place in our

modern vernacular – as they clearly didn't for Ralph Bagnold and his T-Model trekkers – who kept meeting the people and deep history of the Libyan Desert everywhere they went in 1929 – as highlighted in an early film of Bagnold's *Sahara Desert Exploration in Egypt and Libya*,<sup>3</sup> introduced by **David Thomas**.

**Ways forward:**

- 1) Continue to SD7 – either Flinders Ranges in South Australia or other site?
- 2) Maintain the mining/management/beneficiary stream – protocols for heritage;
- 3) Continue to develop the human behavioural and landscapes models and theory to contextualise *why* this kind of reconstructive work is done;
- 4) Centrality of cultural landscapes (and conservation estates) to First Nations people can include discussions of governance, beneficiary and joint venture pathways;
- 5) I note it is 21 years since Mike Smith and convenors hosted SD1 at Canberra. The increased understandings of the deep and more recent history of southern deserts is huge and I think we all thank him and the original organisers for making this happen.

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<sup>3</sup> Viewable at [https://www.youtube.com/watch?v=Qmcx8ju2\\_dg](https://www.youtube.com/watch?v=Qmcx8ju2_dg)