Three arcs: observations on the archaeology of the Elands Bay and northern Cederberg landscapes

Alex Mackay
University of Wollongong, amackay@uow.edu.au

Publication Details
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Abstract
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Alex Mackay
Centre for Archaeological Science, School of Earth and Environmental Sciences, University of Wollongong, Australia

ABSTRACT

The area around Elands Bay and the adjacent interior landscapes west of the Doring River have been subject to intense archaeological investigation over the last ~50 years. The result is a region with great depth and diversity of archaeological information. In this paper I discuss three general observations that arise from the integration of data across this region. The first is that redundancy in site occupation is limited: even where many sites are excavated in a small area, understanding of the regional sequence cannot be assumed to be complete. The second is that humans did not live in rock shelters: a focus on rock shelters alone, even where these are abundant, produces a skewed picture of occupational and demographic histories. The third is that the coast and its hinterland are intimately bound: interaction between the two zones is variable, and even where it is limited this observation is important to the understanding of both.

KEY WORDS: Elands Bay; Klipfonteinrand; occupational patterns; late Pleistocene; Holocene; megamiddens.

If you stand on the rocks at the point around which Elands Bay’s famous left-hander peels, you can watch the wave start to break with the face of Baboon Point in the background, and behind it Elands Bay Cave and the massive middens over which it looks (Jerardino 1998). As the wave arcs slowly north and finally peters out you find yourself staring at Dunefield Midden (Parkington et al. 1992; Stewart 2008), some 12 km beyond which is Steenbokfontein (Jerardino & Yates 1996). Immediately behind you is Tortoise Cave (Robey 1984) and the mouth of the Verlorenvlei which extends to the northeast following a high sandstone ridge that some 14 km away breaks down into a series of koppies, in the most prominent of which is Diepkloof (Porraz et al. 2013). The view from Diepkloof takes in the west end of the vlei and a broad sweep of sandveld (Mazel 1981; Manhire 1984), ridges of which obscure Faraoskop (Manhire 1993) to the north but which on a clear day allow sight of the coastal mountain range and the high Cederberg the west flanks of which run into the Olifants River valley (Parkington & Poggenpoel 1971; Orton & Mackay 2008; Hallinan 2013) and the east flanks into its more tempestuous sister river the Doring. The Olifants-Doring system runs initially north before eventually curving back west to the sea around Ebenezer. Between them, those three watery arcs—the wave, the vlei and the river—circumscribe one of the most interesting and well-studied archaeological landscapes of southern Africa, with occupation documented over more than 100 000 years. The unusual density of archaeological data that has been generated here, coupled with the diversity of geological and environmental settings from which they derive and the extensive duration which they cover allows it to address questions of changing human behaviour and land use. In this paper I focus on what I view as three issues of general relevance that arise from the last 50 years of research—driven mainly by John Parkington and colleagues from UCT—in this area: inter-site occupational redundancy, occupational context and coastal/interior interactions.
Prior to the advent of chronometry temporal schemes were built in relative terms using seriation. The characteristics of different items or assemblages of material were described, and placed in sequence with other items/assemblages. Sequencing could be approached in one of several ways. Prior to the availability of deep sequence excavation in southern Africa, researchers would form series either through comparison with already-developing European sequences (e.g. Peringuey 1911) or by assuming that technologies would become more sophisticated through time and thus arranging samples from less complex (older) to more complex (younger) (e.g. Gooch 1882). Some applied a mix of these approaches (e.g. Goodwin & Van Riet Lowe 1929; cf. Mackay 2016).

The excavation of multi-component sites allowed the development of local sequences independent of such assumptions. These also had the advantage of allowing assemblages from single component (usually open) sites to be fitted into the local sequence. Following this approach, particularly deep sequence sites with multiple components assumed considerable importance. The focus on key sequence sites, however, produced some curious results, most notably with the excavations of Klasies River, Nelson Bay Cave and Die Kelders on the south coast (Fig. 1). None of these major Pleistocene sites included a sample of bifacial points, contributing to the demise of the Still Bay as a cultural unit in the southern Cape (Sampson 1974; Volman 1981), even though its type marker was one of the earliest identified lithic artefact types in southern Africa (Minichillo 2005). It was not until the excavation of Blombos that the Still Bay lurched suddenly and vividly back to life on the south coast as a viable techno-cultural entity (Henshilwood et al. 2001).

Yet the absence of a given component from these otherwise impressive sites is not wholly surprising when the dataset from the south coast is considered in aggregate. Looking only at the known components of the Pleistocene sequence, we find fairly limited site-to-site redundancy (Table 1). So far, and in spite of at least nine deep sequence Pleistocene sites on the southern coast Blombos remains the only significant Still Bay sample (pace Minichillo 2005). Similarly, while the
Howiesons Poort is present at four of nine sites, significant post-Howiesons Poort samples have only been reported from two. An early MSA occurs at most sites, but if proposed sub-divisions of this period (e.g. Wurz 2013) are stable and valid, and given that this unit potentially covers greater than 50 000 years at most sites, then the degree of consistency between sites is almost considerably less than implied by Table 1. Die Kelders has an MSA variant that may be absent from all other sites in the area, while Pinnacle Point 5–6 has a Howiesons Poort-like unit that possibly ante-dates the Howiesons Poort elsewhere in the area. Thus, even with nine sites, our understanding of the regional sequence would be sensitive to the removal of just one sample, and we cannot assume that our current knowledge of the southern Cape late Pleistocene sequence is complete. The problem can be described as one of limited inter-site occupational redundancy.

TABLE 1

Occupational presence/absence by culture historic units for late Pleistocene sites on the southern Cape coast. Grey shading denotes periods of occupation. BKK = Bynensrankskop; DK = Die Kelders; CSB = Cape St Blaize; BBC = Blombos Cave; KRM = Klasies River; KDS = Klipdrift; NBC = Nelson Bay Cave; PP13b = Pinnacle Point13b; PP5–6 = Pinnacle Point 5–6.

<table>
<thead>
<tr>
<th>Unit</th>
<th>BBC</th>
<th>BKK</th>
<th>CSB</th>
<th>DK</th>
<th>KDS</th>
<th>KRM</th>
<th>NBC</th>
<th>PP13b</th>
<th>PP5–6</th>
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<td>‘Albany’</td>
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<td>Post-Howiesons P.</td>
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<td>Pre-Howiesons P.</td>
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<td>Early MSA</td>
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</table>

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Elands Bay Cave (this issue) and Diepkloof (Porraz et al. 2013) (Fig. 1) replicate this pattern on the west coast very clearly (Parkington 2016 this issue; Porraz, Schmid et al. 2016 this issue). Both shelters have late Holocene components. But for the remainder of their sequences, the occupation of these two sites appears to have been entirely non-overlapping. If views of the occupation of the Verlorenvlei were based principally on the excavation of Elands Bay Cave, the perspective produced would have been one of weak occupation outside of the earliest MSA until the start of MIS 2. Thereafter, and with a few minor lacunae, populations would have been inferred to have been resident through until recent times. In contrast, if models were based on Diepkloof, the argument could have been developed for rich occupation during the MSA with abandonment during the coldest climates of MIS 2, and a return in the warm, stable conditions of the late Holocene.

A similar lack of inter-site occupational redundancy can be seen at interior sites in the Doring River catchment (Fig. 1). For example, Hollow Rock Shelter and Klipfonteinrand are two rock shelters formed in Table Mountain Sandstones, and
Fig. 2. Excavations at Klipfonteinrand. (A) Overview showing front and rear trenches. (B) South section of trench two composed from multiple images over multiple seasons. The western portion of this section is visible in panel (A). The upper stratigraphic group—Laminated White and Brown Series—is post-Robberg; the underlying Orange Band is unassigned pending further analysis; The White Series, Black Band, and Black, White and Brown Series are all Robberg; The Basal Brown series is Howieson’s Poort. Ages are as per Table 2. (C) Setting of Klipfonteinrand with the Cederberg mountains in the background. Silver shade cloth was used to limit direct sunlight.
located 2 km apart. Both sites fall in the catchment of the Brandewyn River, albeit that the former is situated on the river and the latter on the adjacent ridge. Hollow Rock is an unusual site—a hollowed out boulder perched on the cliffs immediately above the Brandewyn River (Evans 1994). The depth of sediment is quite shallow, and the sequence is limited to two main components—a series of sedimentary units assigned to the ‘Still Bay’ layers and dating ~70 ka, from which >50 bifacial points have been recovered (Evans 1994; Högberg & Larsson 2011; Högberg 2014). These are underlain by a thin body of sediment lacking bifacial points and dating ~80 ka, which has been assigned to the early MSA (Mackay 2009).

Klipfonteinrand was excavated by Parkington in 1969, and again under my direction in 2011–12. The first excavations covered a large area of the site to a limited depth (~200 mm), with a single deep trench to bedrock at the front of the site. The more recent excavations widened the existing front trench and opened a second trench to bedrock at the back of the shelter (Fig. 2) (Table 2). The Klipfonteinrand sequence as we presently understand it features late Holocene, possible early Holocene, late MIS 2 (‘Albany’ or ‘Oakhurst’), early MIS 2 (Robberg), Howiesons Poort and early MSA units. While Parkington’s excavation diary reports that a single ‘laurel leaf’ point without stratigraphic reference, despite the now extensive spatial coverage of the site neither excavation there has produced any Still Bay finds in context. Furthermore there appears to be no significant sequence between the oldest MIS 2 layers dating ~22 ka, and the Howiesons Poort, likely antedating 60 ka (Jacobs et al. 2008; Tribolo et al. 2013).

Subsequent excavations of two square meters to bedrock at the site of Putslaagte 8, a further 20 km north, produced another long sequence, again with similar and different characteristics (Mackay et al. 2015). The site features late Holocene at the top, underlain by particularly rich layers dating to MIS 2. This includes the well-known Oakhurst and Robberg units, but also includes an early Later Stone Age component.

### Table 2

<table>
<thead>
<tr>
<th>Stratum</th>
<th>square</th>
<th>Sample code</th>
<th>Uncalibrated age</th>
<th>Calibrated age</th>
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<tr>
<td>Laminated white and brown series</td>
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<td>D-AMS 001836</td>
<td>11 723 ± 52</td>
<td>13 384–13 703</td>
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<tr>
<td></td>
<td>8</td>
<td>D-AMS 002439</td>
<td>12 303 ± 41</td>
<td>14 003–14 425</td>
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<td>Orange Band</td>
<td>8</td>
<td>D-AMS 003797</td>
<td>13 439 ± 56</td>
<td>15 897–16 314</td>
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<td>8</td>
<td>D-AMS 003798</td>
<td>13 584 ± 58</td>
<td>16 087–16 555</td>
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<tr>
<td>White series</td>
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<td>D-AMS 002440</td>
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<td>16 885–17 407</td>
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<td>9</td>
<td>D-AMS 001837</td>
<td>13 722 ± 49</td>
<td>16 275–16 766</td>
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<tr>
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<td>D-AMS 003799</td>
<td>14 656 ± 55</td>
<td>17 606–17 979</td>
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<tr>
<td>Black, white and brown series</td>
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<td>D-AMS 002440</td>
<td>15 309 ± 65</td>
<td>18 355–18 710</td>
</tr>
<tr>
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<td>8</td>
<td>D-AMS 002441</td>
<td>15 342 ± 65</td>
<td>18 389–18 739</td>
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<td></td>
<td>9</td>
<td>D-AMS 003800</td>
<td>15 871 ± 59</td>
<td>18 902–19 276</td>
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<td></td>
<td>9</td>
<td>D-AMS 001839</td>
<td>18 232 ± 71</td>
<td>21 829–22 294</td>
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</table>
dominated by hornfels blade production and dating ~22–25 ka. This component is otherwise unknown at other rock shelter sites in the region. Below this early MIS 2 component the archaeological record at Putslaagte 8 is persistent but material finds occur in low density. Thus while the site has very minor MIS 3 MSA, post-Howiesons Poort and Howiesons Poort assemblages, the total sample size for each is too low for technological or other behavioural characterisation. The existence of a Still Bay at the site is inferred from a couple of probable bifacial thinning flakes, but as with Klipfonteinrand we have no bifacial points recovered in context.

Finally, in 2013 we initiated excavations at the site of Mertenhof, located on the Bushmans Kloof property 10 km south of Klipfonteinrand (Will et al. 2015; Schmidt & Mackay 2016). The site has grass-bedding deposits towards the top that include glass beads and ceramic pipe fragments that probably date to the last few hundred years. None of the other sites mentioned above has produced archaeological materials likely to be so recent (though Nic Wiltshire noted a glass bead on the surface during a visit to Putslaagte 8). The remainder of the Mertenhof sequence can be described as follows. Underlying the grass-bedding deposits are sedimentary units (denoted R/GBS) the technological composition of which relates to the Robberg. Cut into R/BGS are a number of pits of unknown age, including two burials of human children, and several probable mongoose burials (Fig. 3). Underlying the Robberg at Mertenhof are three major sedimentary units (LGS, LRS, DGS) containing MSA materials, that almost certainly relate to the late or MIS 3 MSA—those absent or very scarce at the other sites in the area. Under these are rich post-Howiesons Poort and Howiesons Poort strata (BGG/WS), and under this Still Bay layers (RGS) that have so far produced half a dozen bifacial points in the limited excavation area—though this is notably far less than the sample from Hollow Rock Shelter. The Still Bay rests on the sedimentary unit DBS that can be characterised as early MSA pending more detailed study (bedrock has not yet been reached anywhere at Mertenhof).

The aggregate occupational data set from the excavated northern Cederberg rock shelter sites is presented in Table 3. The maximum distance across the four sites is 25 km—about a full day’s walk for a hunter-gatherer (Kelly 1995). Most sites have produced at least one component that is lacking or weakly expressed in all of the others. Peak redundancy occurs in late Holocene and the MIS 2 Robberg unit. There may also be some redundancy in the early MSA, but again this cannot be assumed.

The implication of these observations is that no site on its own seems capable of resolving the occupational history of any given region, and that even large numbers of sites are often insufficient. The factors governing site selection in the past were clearly complex (Kandel et al. 2016), and given the present state of our data, effectively cryptic. In order to understand occupational histories, and to build something approximating a regional key-sequence, we need to amalgamate the results of as many sites as possible. And even then we are confronted by the fact that …

PEOPLE DID NOT LIVE IN ROCK SHELTERS

One of the great advantages of the Elands Bay and northern Cederberg regions is that the Table Mountain series geology produces a high frequency of rock shelters. In an otherwise erosional landscape, rock shelters are an attractive target for archaeological research because they can accumulate and protect sedimentary sequences. Away from
the coast it is often human occupation which drives sedimentation in rock shelter sites; despite recurrent and sometimes very long hiatuses, sterile sediment bands are effectively absent from the rock shelters of the interior in this region (Mackay 2010; Mackay et al. 2015) (Fig. 2). Thus excavation in rock shelters with any depth of sediment in these areas is likely to produce reasonably well-preserved sequences of behavioural information. Beyond the rock shelters, however, accumulation of sediment is spatially and temporally relatively rare, and in the case of the coastal sandsheet (or Sandveld), highly episodic (Chase & Thomas 2007). In most cases, material debris from human occupation is left on stable or actively eroding surfaces where preservation of organic material is poor, and where ages can only be assigned based on similarities with material from dated contexts—usually rock shelters. Where such open sites occur close to features that attract repeated occupation (e.g. water), they are susceptible to persistent
over-print, resulting in palimpsests from which time-sensitive information can be difficult to extract (Bailey 2007). The focus on rock shelters as a principal source of archaeological data in such areas is thus a rational use of finite research time. There is, however, an important problem that arises from this research focus: people did not live in rock shelters. Extensive ethnographic studies (e.g. Kelly 1995; Binford 2001) reveal little evidence of rock shelters as occupational foci. Instead, people lived across landscapes, making use of a diverse array of variably-situated resources. Rock shelters account for a miniscule fraction of the landscape contexts used, the proportion of time spent in rock shelters was probably often very low, and ultimately there is no reason to assume that all behaviours in the habitual repertoires of human groups were expressed there. However, while the fact that rock shelters provide an imperfect record of the past is uncontroversial, more troubling is the possibility that the rock shelter record may be structurally biased.

This possibility is beautifully drawn out by Jerardino and Yates (1996), in their study of Holocene occupational patterns along the west coast. A persistent gap in the occupation of major rock shelter sites 2–4 ka may have been taken to imply a population absence from the region. However this is also the period in which the largest shell middens along the coast were formed—the so-called ‘megamidden phase’. Thus, it seems that populations reorganised their movements in this period such that rock shelters saw comparatively little use.

Recent research in the interior reveals similar patterns in the Pleistocene. While MIS 3 MSA assemblages are persistently difficult to find in rock shelter sites in the northern Cederberg (Table 3) and indeed throughout the south west of southern Africa (Faith

<table>
<thead>
<tr>
<th>Unit</th>
<th>HRS</th>
<th>KFR</th>
<th>PL8</th>
<th>MRS</th>
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<tr>
<td>Historical</td>
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<td>Mid Holocene (3–7 ka)</td>
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<td>Early Holocene (7–12 ka)</td>
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<td>Term. Pleistocene (~12–14 ka)</td>
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<td>MIS 2 Robberg (~16–22 ka)</td>
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<td>MIS 2 early LSA (~22–25 ka)</td>
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<td>MIS 3 MSA</td>
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<td>MIS 3/4 post-Howiesons Poort</td>
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MACKAY: THREE ARCS

2013; Mackay, Stewart & Chase 2014), it appears that rich sites dating to this period do occur in open contexts on the Doring River (Mackay, Sumner et al. 2014). Still Bay sites, which have historically not been abundant in rock shelters in the region are very commonly located in the open (Mackay et al. 2010; Hallinan 2013; Mackay, Sumner et al. 2014). Similarly, only Mertenhof has produced a sizeable post-Howiesons Poort sample in the northern Cederberg (Table 3), but extremely rich open-air post-Howiesons Poort sites have been reported on the Doring River and further inland (Hallinan & Shaw 2015, Will et al. 2015). Conversely, Howiesons Poort sites, which have extraordinarily high visibility in rock shelter sequences throughout southern Africa (Mackay 2010; Karkanas et al. 2015), have so far remained elusive despite extensive surveys across multiple catchments (Mackay & Hallinan in press).

A consequence of these observations is that inferences about changing occupation and demography through the last ~100,000 years, when drawn principally from rock shelters, has the potential to conflate rock shelter use with population presence/absence and potential even population size. Ultimately, intensive occupation of rock shelters—whether by larger groups of people, people visiting more often, people staying longer, or all of the above—can only really be understood to imply that rock shelters were being more heavily occupied. Extending that inference to the intensity of regional population more generally necessitates the assumption that rock shelters will be occupied proportional to regional population. And that assumption is risky, given that, for some periods it has proven to be false.

OCCUPATION OF THE COAST IS ENRICHED BY UNDERSTANDING OF THE INTERIOR

Parkington’s (1977) seminal PhD research—Follow the San—was based on the principals of economic archaeology where different and potentially complementary resource zones were argued to have been occupied in sequence as part of a seasonal subsistence round. In the Elands Bay and northern Cederberg regions, the complementarity was suggested to have produced different signals of faunal exploitation in coastal and interior areas reflecting different seasons of occupation. Subsequent work by Sealy and Van der Merwe (1986, 1992) suggested that in fact the two populations in these different areas were largely discrete (though note Parkington 1991). Both studies, however, highlight some of the variable possibilities in coastal/interior interactions which have implications for our understanding of patterns in both.

The renewed excavations at Klipfonteinrand provide new comparative data that implies changing interior/coastal relations during MIS 2. Early in this stage (~22–16 ka), marine shell—necessarily a coastally acquired resource—is absent from the excavated sample. Meanwhile at coastal sites of this age, hornfels is uncommon (Manhire 1993; Orton 2006; Porraz, Igreja et al. 2016 this issue). While hornfels is available as pebbles in ancient terraces at the mouth of the Olifants (Mackay 2011), it is relatively abundant in the interior, being the dominant or sub-dominant rock at sites around the Doring River (Mackay, Sumner et al. 2014; Hallinan & Shaw 2015, Mackay et al. 2015; Will et al. 2015). The interior is thus the likely source for the examples found in coastal and near-coastal sites.

In later MIS 2, several interesting changes occur. From 14–13 ka at Klipfonteinrand, marine shell appears for the first time. The dominant species is white mussel (Donax
serra) with smaller contributions from black mussel (*Choromytilus meridionalis*), Argenville’s limpet (*Scutellastra argenvillei*) and ribbed mussel (*Aulacomya ater*) (K. Bluff pers. comm. 2015). White mussel was used in the terminal Pleistocene and early Holocene coastal sites as a raw material for scrapers (Manhire 1993; Orton 2006). Conversely, by ~14 ka at Elands Bay Cave and ~12 ka at Farasoskop (Manhire 1993), the proportion of hornfels in assemblages begins to rise, reaching its peak at Elands Bay Cave ~13–10 ka (Orton 2006). Hornfels is particularly common in the retouched flake component, most notably in the form of large scrapers known as naturally backed knives (Orton 2006). This artefact type also makes its first appearance at Klipfonteinrand in this period. These data appear to suggest a complementarity of resource movement between coastal and interior zones in later MIS 2, and coincide suggestively with a period of unusually rapid sea-level rise (Stanford et al. 2006). Given the earlier absence of such evidence it seems plausible that the nature of interaction between these two areas was variable through the terminal Pleistocene, with increasing resource transfer potentially tracing the marine transgression at the end of MIS 2.

Further variance in this relationship is apparent in the mid to late Holocene (~2–4 ka). During this period, broadly coincident with the megamidden phase described earlier, proportions of hornfels in Sandveld sites is considerably lower than during the late Pleistocene (Manhire 1993; Jerardino 2010). Jerardino (1997, 1998, 2010, 2010, 2012, 2013), drawing on a wealth and diversity of data, has developed a demographic model to explain changes in coastal occupation in this period. This model contends that the megamidden period was driven principally by increased population density on the coast. The earliest signal of this population change is a reduction in the frequency of large game and intensification of small game procurement, followed by a subsequent shift in emphasis to sessile, resilient and highly productive marine resources. As part of the emphasis on sessile marine fauna, mobility decreased, duration of occupation increased, and indicators of circumscribed mobility—including interments of the dead—became common. The effect was one of resource intensification and increasingly exclusive use of coastal resource patches. While Jerardino’s thesis has been influential, it has not been uncontested. Parkington (2012), for example, citing the dearth of artefacts, paucity of well-defined hearths, and equivocal nature of skeletal isotope data, has suggested that the megamiddens were not in fact residential occupational foci, but rather served as logistical processing locations. More specifically, they were locations where large quantities of black mussel were dried for transportation to and consumption in interior locations.

Two observations encourage development of a third explanation for the megamiddens, more similar to Jerardino’s, but based on different underlying mechanisms. First, while the interior climate data are somewhat equivocal there appears to be a broad trend to aridity in the mid to late Holocene punctuated by briefer periods of humidity (Jerardino 1995; Chase et al. 2010, 2013; Valsecchi et al. 2013; Chase et al. 2015). Second, none of the major dated interior rock shelters in either the Olifants or Doring River valleys show occupation in the megamidden period (Parkington & Poggenpoel 1971; Manhire 1993; Orton & Mackay 2008; Mackay et al. 2015); the only clear evidence for occupation in the interior at this time takes the form of isolated child burials (Sealy et al. 2000). While the above-noted risk of conflating rock shelter use with population presence/absence needs to be borne in mind, the available evidence provides neither the environmental
context nor empirical support for population increase in the interior in the mid to late Holocene, nor for significant coastal/interior interaction.

One commonly used model to explain variance in hunter-gatherer land-use and territoriality is that proposed by Dyson-Hudson and Smith (1978). This model has seen considerable application in southern African archaeology (e.g. Ambrose & Lorenz 1990; McCall 2007; Marean 2014). The Dyson-Hudson and Smith model uses a simple ‘high–low’ dichotomy in two resource parameters—abundance and predictability—to generate a two-axis model of variance in mobility and territoriality. At one extreme, populations inhabiting areas with dense and predictable resources are suggested to form small ‘geographically stable’ territories, while at the other extreme, populations in unpredictable and resource depauperate environments are argued to be dispersed, highly mobile and to lack well-defined territorial areas.

While the model has been influential, it contains an important deviation from the ‘economic defendability’ model (Brown 1964) on which it was based. In that original model, resource density is considered relative to population size, and not an absolute property of environments. Where resources are rich relative to the number of foragers, there is little benefit to be accrued from defending the resource patch (Brown 1964: 162–3). The critical consideration is not the prevalence of resources, but the marginality of resources relative to the population base (Brown 1964: 160).

One of the ethnographic examples provided by Dyson-Hudson and Smith serves to highlight the difference. Prior to increasing disruptions brought about by the fur trade, the Ojibwa of the Canadian subarctic forests had access to large and small game, and generally focused on the exploitation of larger animals such as moose and caribou. This resource configuration effectively precluded the “formation of well-defined territories, since caribou migrations are not restricted by any artificially bounded regions” (Bishop 1974: 209). Later decreases in large game abundance brought about in part by fur traders led to an increased focus on small game. At this time, groups became increasingly territorial, and “[s]ocial sanctions against trespass apparently were an important aspect of defense of hunting territories” (Dyson-Hudson & Smith 1978: 33). Of course, the small game on which the Ojibwa were increasingly reliant had always been present. Thus, and precluding that significant population increase occurred as a response to diminishing subsistence resources, maintenance of a restricted, well-defined foraging territory was likely a means of increasing resource security under increasingly marginal conditions.

The megamidden phase in the Elands Bay area may have parallels with this case. Environmental data suggest aridification, and occupational evidence from the interior is weak. On the coast, the proportion of large game declines and subsistence comes to focus heavily on productive and resilient marine fauna, with some use of small terrestrial game. Interment of the dead—which may have served to circumscribe territorial associations—becomes more common, and the extent of interaction between coastal and remaining interior populations appears to be unusually limited. While absolute population increase has been suggested to account for this pattern, it is not necessary to explain it. Rather, facing diminishing resource abundance, coastal populations around Elands Bay, like the Canadian Ojibwa, may have attempted to sustain their number by relying increasingly heavily on the more resilient of the food items that had always been available in their zone, and improved the security of that resource by the exclusion of other coastal and non-coastal groups.
Combined, these observations suggest great variability in the nature and extent of interior and coastal interaction through the last ~22 ka. To that extent, our ability to understand occupational patterns in either is contingent on the incorporation of information from both.

DISCUSSION AND CONCLUSION

Southern Africa has been the subject of much recent research focus, due in large part to the discovery of relatively early evidence for behaviours inferred to reflect complex cognition. This has resulted, among other things, in the development of many new research projects, the excavation of new sites, and the re-excavation of old sites. Much of this work has been strongly site-specific, reflecting factors including the enduring value of deep sequence sites, increasingly refined but concomitantly slow modern excavation methods, and the increasing amount of post-excavation information that can be generated by specialist analyses. As discussed here, however, the significance of the occupation, abandonment and archaeological composition of any site—or even multiple sites—is hard to resolve without knowledge of the contemporaneous use of surrounding landscapes.

The site of Elands Bay Cave continues to play a central role in our understanding of the archaeology of the Elands Bay and northern Cederberg areas. Its long sequence and excellent Holocene organic preservation, coupled with the site’s locational sensitivity to sea-level change, has made it an unmatched source of information about changing lifeways in the region. As much as the site itself is a key archive, however, the meaning of the information it contains has been enhanced by the degree to which it has been integrated into the archaeology of the surrounding landscapes and the broader region. This integration largely reflects the sustained effort of researchers from the UCT—more recently augmented by contributions from international scholars—and their continued sampling of the many different facets of the region’s archaeology. Indeed, the three points made in this paper are largely Pleistocene extensions of the past work of Parkington and colleagues, with Elands Bay Cave central to all of them. Comparisons between Klipfonteinrand and Elands Bay Cave, for example, were components of the seasonal transhumance model, in which coastal and interior locations were presented as a two components of a single integrated subsistence system. Understanding of the imperfect perspective on regional occupational systems provided by rock shelters is evident from the occupational gaps at Elands Bay Cave and complementary occupation of megamiddens. Limited site redundancy could be inferred as early as the 1970s in contrasts between Elands Bay Cave and Diepkloof.

Ultimately, what work at Elands Bay Cave and the surrounding landscapes seems most strongly to suggest is that the archaeological information-richness of a region is a factor not only of the sequential depth and preservation quality of our available data, but also of its spatial density. Without the constraints provided by multiple sites of different types distributed across different landscape contexts, occupational hiatuses in a one or more deep-sequence shelters might be assumed to imply regional abandonment, while intense shelter use or resource intensification might be assumed to reflect increased population. And these patterns may well carry these implications. However, our ability to disentangle the significance of any given observation is contingent on our ability to situate it within the broader landscapes that people in the past unquestionably used.
NOTE

I focus here on the Doring River rather than adjacent stretches of the Olifants where relatively few deep-sequence and/or multi-component sites have so far been excavated and published. Interesting detail on open site distribution and composition in the Olifants is available in Hallinan (2013).

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