Landscape archaeology has had at its foundation the requirement of observation. These observations have usually been derived from patterns identified on aerial photographs, maps and plans, revealing palimpsests of relative chronology in landscape use. These two dimensional perspectives have been added to by a concern with how the landscapes are actually experienced on the ground in the present and how this may allow for a new understanding of landscapes at various points in the past. Such approaches have been influenced by phenomenology, but, like their predecessors, the observations have usually privileged vision over other sensory experiences. In this chapter, I consider the possibilities of going beyond vision to incorporate other sensory perceptions of the landscape. I consider the body in landscape archaeology and landscape in sociocultural anthropology and move on to present examples of the roles of sound in the landscapes of the ancient past.

The Body’s Career in Landscape Archaeology

Christopher Tilley (1994) introduced archaeology to the exciting possibilities of a phenomenology of landscape. The starting point of his analyses was that the human body was a universal phenomenon that in physical attributes and abilities differed little from our prehistoric ancestors. Thus, Tilley argued, we could adopt the anthropological method of “participant observation” by bodily engagement with archaeological landscapes and the monuments within it. Walking along monuments such as the 10-kilometer-long Dorset cursus, and assessing the views allowed by the location and alignments of monuments such as long barrows, would provide a three-dimensional experience of space similar to that of the original constructors and users of the monuments and landscape. Lines of sight and intervisibility of monuments thus became a key concern for scholars researching the landscape context of the British Neolithic and Early Bronze Age, the same focus as Tilley himself experienced. The ocular-centric nature of such studies—that is, the focus on vision—caused concern on a number of levels: for example, was the past environment really the same as in the present day (Fleming 1999; cf. Cummings and Whittle 2004); was the meaning of the location of a monument really linked only to what could be seen from there (Brück 2005; Fleming 1999, 2005); and why give primacy to vision when the other senses could be of equal or greater importance (e.g., Hamilakis 2001, 2002, In preparation)?

The Neolithic monuments themselves became subject to a suite of studies that aimed to give greater consideration to the full haptic (that is,
synaesthetic) potential of bodily experience. For example, beyond lines of sight, color was considered in relation to stones chosen for monument building (Lynch 1998), and texture of the stones was observed (Cummings 2002), and Alisdair Whittle (1997) observed that the renowned trilithon stones at Stonehenge were paired rough and smooth. Although most of these observations appear to be based on visual assessment, Gavin MacGregor’s (2002) consideration of texture of Recumbent Stone Circles in northeast Scotland does indicate the likely use of touch in using adjectives such as “waxy” and “smooth” in describing particular stones. The sound propensities of monuments also became a focus of study (Lawson et al. 1998), with findings that even apparently very open monuments, such as stone circles, affected the free flow of sound within them (Watson and Keating 1999).

These studies, although usefully drawing attention beyond vision, did not go much beyond individual monuments and therefore were of reduced significance in relation to landscape archaeology. Recognizing that landscapes indeed had the potential to go beyond vision, Tilley (1999) urged a consideration of other “scapes” for touch, sound, and smell. Curiously, he omitted tastescapes, although I have suggested elsewhere that such may exist. For example, when approaching the sea from the onshore breeze, the salt from the sea may be tasted before the sea is actually seen (Rainbird 2007). Yannis Hamilakis (2002) has in particular looked at the role of the sense of taste in archaeology, discussing it as an “oral history,” whereby the tastes of different foods invoke memories of events or act as mnemonics for particular social behavior.

The body’s role in landscape archaeology has so far been a limited one; its place in the phenomenology of landscape has been questioned (Brück 2005; Hodder 1999). We know, for example, that anthropologists have long recognized that the body is socially constituted (see Csordas 1999), and its cultural and historical mutability means that its status as an individual and independent observer is not likely to have been possible in the past either. Julian Thomas (2002) has used the depositional evidence from Neolithic monuments to propose that what we would consider the live person was only one stage in the biography of the body as constituted in the Neolithic. Placing modern conceptions of experiencing the landscape through modern sensibilities may not tell us any more than something about the psyche of the individual archaeologist conducting the exercise (cf. Brück 2005), especially as we know that categorization (see Ingold 2000). However, the evidence from anthropology also teaches us that a decentering of vision and an attentiveness to other sensual possibilities, as a necessary consideration of agency, rather than “the individual” (cf. Barrett 2000; contra Hodder 2000), opens up interpretative possibilities that can serve only to enhance our imaginings about real experiences of inhabiting landscapes in the past.

Landscape’s Career in Social Anthropology

It may be no coincidence that the phenomenological aspects of landscape archaeology were being acknowledged at the same time as social anthropology as a discipline recognized landscape as a useful field to conceptualize (e.g., papers in Bender 1993a and Hirsch and O’Hanlon 1995). The sacred landscape had been recognized by cultural geographers, as well as ethnographers, but the different perceptions of landscape that ordered and made sense of the world in everyday experience had not often been expressed; this is now being addressed (Feld and Basso 1996; Ucko and Layton 1999).

Anthropologists are aware that people perceive, and thus experience, their existence in many different ways. Barbara Bender (1993b) has highlighted the fact that perception of the landscape depends on the status of the person in relation to such variables as gender, social standing, and previous experience. Anthropologists have recognized that all the senses are key to understanding the embodiment of experience. For example, David Sutton (2001) has worked on taste in relation to the social role of food and memory; the Canadian school has explored how smell is culturally constituted (Classen, Howes, and Synott 1994); and all agree that each of the identifiable senses ought not to be considered in isolation but regarded as a total body experience with all senses working in combination and one or some heightened in relation to the others depending on previous experience. As we have seen for the phenomenology of the Neolithic above, scholars have found it difficult to describe this total experience and in preliminary studies have gone beyond vision in landscape studies by assessing sound, the supposed second of the “higher” human senses.

Steven Feld (1996) has researched sound in the landscape of the Kaluli people of Boasavi, Papua New Guinea. He found through a study of Kaluli singing that the poetics of place merged with a sensuousness of the locale. Places in the Kaluli landscape were heard and felt through bodily
brought out recognizable landscape features, such as the sound of water running over a waterfall. The close connection between the people and their landscape is revealed through the sounds and the body as an organ for both producing those sounds and feeling the landscape resonating within. Feld (1996) found that the landscape and the body were further linked by the Kaluli when the contours of the hills were compared with curves of the body, and the passage of water with the flows of both bodily fluids and a physical sense of the voice:

Voice flows by resounding through the human body, feelingfully connecting its spatially contiguous physical segments, resonating so as to sensually link and stress the whole. Likewise, when water flows through land, it is always multiply connected, always multiply present across and along a variety of relatively distinct, contiguous landforms, linking them and revealing their wholeness. (Feld 1996: 104)

Here, then, sound connects in a direct way the inhabitants and their landscape. The analogies that are drawn indicate a oneness between lived bodies and a vibrant landscape. Alfred Gell (1995), also working in Papua New Guinea among the Umeda, recalls his initial frustration in conducting ethnography in a densely forested environment. In searching for a vista from which he would be able to gaze over the village, he began to realize that, in contrast with the Umeda, his own perception was ocular-centric. In recognizing this, he was then able to identify that the Umeda live in a soundscape rather than a landscape or visionscape. In the forest, vision is of less use than sound in regard to spatial orientation and knowledge of activities. Groups of people on the move mark their presence by various shouts, the chopping of wood, or the pounding of sago—each having distinctive sounds. A heightened sense of sound is the normal sensory experience in the forest.

Among the Yanyuwa community of the Gulf of Carpentaria country in northern Australia, John Bradley and Elizabeth Mackinlay (2000) find that the music of these Indigenous Australians is intimately linked to the traversing and making of the landscape by their Spirit Ancestors. This is a landscape where the histories of features are known through song, and concentrations of power derived from the Spirit Ancestors can be found:

The sharpest concentrations of the Spirit Ancestors’ powers are found in such marks: object behind, raised a tree or entered the ground. These are powerful places, or in contemporary English usage, the sacred sites, the places where important knowledge is said to reside. This knowledge, much of it associated with music and performance, provides a rich soundscape which can still be used by the Yanyuwa to assist in the maintenance of the life-order which is derived from the events of what they call the Yijan, a word that generally and confusingly is translated into English as “Dreaming.” (2000: 4)

The soundscape that Bradley and Mackinlay describe here is one that, although rich in meaning, does not necessarily communicate that meaning by resounding across the landscape in the way that Gell described for the Umeda noises. But in the performative and musical aspects that communicate the knowledge necessary to maintain social life, the sounds of instruments can have particularly important roles. For example, in describing percussion instruments used by Yanyuwa people in postfuneral ceremonies, Bradley and Mackinlay (2000) were told that the heavy thudding of the instruments had the purpose of directing the spirit of deceased people back to their country.

Of course, the sacred landscape of Indigenous Australians is well known in the anthropological literature and provides examples of how different people were able to perceive such places (e.g. Morphy 1993; Munn 1996). The longevity of such perceptions has also been the subject of archaeological analysis and related rock art sites (David 2002), and it also provided much inspiration for Tilley’s (1994) phenomenology of landscape discussed above. I look in more detail at rock art below but first conclude this section with a brief consideration of the sense of touch and landscape in anthropology.

Tim Ingold (2000), drawing on a wide range of disciplinary traditions, has criticized the anthropology of the senses as perpetuation of the potentially limited Western conception, limited to the five senses but also as detached from environmental conditions that most people in modern Western societies have little experience with (see also Finney 1995). Following from this critique, Ingold (2004) has explored the “groundlessness” of Western sensory perceptions of living in the world by the development and now constant and expected use of footwear, machines for walking, and, to a certain extent, chairs, all of which detach sensory experience from the ground. He notes records of non-Western societies in which
squatting rather than sitting is the norm, as it is in much of the world. In particular, for our purposes here, Ingold points out that the formation of the landscape through walking is quite different for people normally unshod and people wearing sandals, shoes, or boots.

**Picturing and Perceiving the Social Landscape**

Rock art studies have had various and at times strained relations with the discipline of archaeology, as they have often in the past been pursued as a type or branch of art history that neglected the archaeological context of its production and use. In recent years there has been a significant rapprochement, and rock art often features as a facet of archaeology and archaeological interpretation more generally (e.g., Bradley 1997; Chippindale and Taçon 1998). In Australia, the early recognition through discussion with traditional custodians that the rock art often acted as a mnemonic for the creation stories of the Spirit Ancestors led to an immediate and obvious relationship with the landscape as a social landscape (Taçon 1994). Although most work on rock art has remained overtly concerned with the visual symbols, there is a growing body of literature that has considered other sensory manifestations of rock art production and associated practices (e.g., Boivin 2004; Fagg 1997; Waller 2002).

Elsewhere I have explored sensory experiences in relation to the production and meaning of petroglyphs at two sites widely separated by space and time (Rainbird 2002a, 2002b). The first is a site named Pohnpaid and located on the Pacific island of Pohnpei in the eastern Caroline Islands of the Federated States of Micronesia. This site consists of more than 750 petroglyphs in two types of location: the first is a large outcrop overlooking wooded lowland areas, and the second is a nearby series of boulders scattered over a grassy plateau (Rainbird and Wilson 1997; Rainbird In preparation). The boulders are known locally to represent human body parts, whereas the motifs on the large outcrop have been related in oral history accounts of foundation myths to the patterns found on a blanket taken from people on the other side of the island (other stories have also been collected). The marks consist of anthropomorphs, footprints, handprints, fish, bows, nets, and various abstract and unidentified shapes. They are currently undated, but a specific motif type known as an “enveloped cross,” which has a wide distribution in the corpus of western Pacific rock the marks of more than 2,000 years (Rainbird and Wilson 2002).

This site has been considered in relation to the sensory perception of feeling and the sense of sound. In some Oceanic societies, tattooing was traditionally a painful process that brought the unsullied body in to a state of hardness and readiness for the period of existence as a corporeal being, only part of the body’s biography (cf. Thomas 2002). The tattooing also inscribed a biography, a history, of the community that could be read and understood by members of the group. The markings on rock, and potentially other media such as ceramics (see discussion in Rainbird 1999), may be related to tattooing and share some of its meaning. For example, penetrating the surface of the stone may be preparing the landscape for social action in the same way that the body is prepared for social life by tattooing, and inscribing motifs on the rock may also be the inscription of history. Observing, or perhaps more importantly touching the engravings may act as a mnemonic for feeling the pain, a pain that is both personal and historical and inscribed in the landscape and on the body. A sense of pain in the landscape may be too much to bear, and we should always keep in mind that memories invoked by such landscapes may also be actively forgotten (see Rainbird 2000 for a 20th-century example).

The second sensory experience explored at Pohnpaid relates to the recognition that the main outcrop had sonic qualities, meaning that when hit (as local children regularly did with sticks of wood during recent times) the sound resonated across the valley floor. The valley floor where settlements are located is shrouded in dense forest when observed from the outcrop, and this forest also inhibits views of any distance, evoking the type of response described by Gell (see above) in his fieldwork in New Guinea. Sound in these environments takes on a much more significant role than vision, and on Pohnpei a rich ethnographic literature provides indications to the significant use and meanings of various patterns of sound created by stone against stone. Through these noises, the location in the landscape of senior members of the community and the stage of certain activities, such as the preparation of kava, a (mildly narcotic drink consumed in proscribed group situations), could be identified. This soundscape may have a greater chronological depth, which has gone unrecorded, such as indicated at the rock art site at Pohnpaid where the motifs might be soundmarks, and the production of the petroglyphs would be sound events perhaps equal to those recorded
In a British context, I related the soundings from the Pacific to the corpus of rock marks, usually dated to the late Neolithic or early Bronze Age, found in the area of Ilkley Moor in West Yorkshire (Rainbird 2002b). Here the engravings of abstract cup and ring marks had been interpreted in a strongly visual sense in relation to views over lowland valleys and intervisibility between markings, perhaps linking significant pathways across the Pennine uplands (Bradley 1997). In considering the recent history of quarrying that has significantly altered the landscape, the location of a number of panels on the valley sides rather than the tops, and palaeoenvironmental evidence indicating a wooded environment when these marks were made some 5,000 to 4,000 years ago, one surmises that vistas were not significant in their placement. I concluded that these rock markings could also be interpreted as sound-marks representing the soundscape; although the gritstone geology was not amenable to high resonance sounds, communal pounding and associated singing and other group activities would provide a less vision-based interpretation. Similar communal activities in this period could include quarrying, especially for stone prized in axe making, and it is clear that communal events were significant in this period for maintaining social rela-

Sven Ouzman (2001) has also pursued issues of sound as basic to the production of San rock engravings in southern Africa. In a paper rich with the detail of direct ethnographic analogy, he argues that the production of the engravings was in the ritual context of the medicine dance (itself often depicted on the engravings), whereby participants attempted to reach altered states of consciousness. As Ouzman (2001: 244) opines:

[T]he only constant in an inverse altered state of reality is the insistent, percussive sound and rhythm of the medicine dance that reminds the shaman of the Ordinary World and guides her/him back to it. . . . Consider also the role of the “audience” at such a medicine dance. . . . They too became caught up in the peristaltic rhythms and sounds of the dance and may have wished to add to the dance’s rhythm or accentuate particularly important passages or phases of the dance. San societies were thus deeply concerned with producing sound—by singing, clapping, dancing and by hammering certain rocks and engraved images.

Beyond sound, Ouzman (2001) also notes that the actual hammering produced a physical

Figure 25.1 Fagg (1997) noted that “rock gongs,” as she called them, typically have cupules at their edges. Such an arrangement can be seen on this boulder at Pohnpaid, Pohnpei Island, Federated States of Micronesia.
vibration," as he describes it. Such a sensation adds to the possibility of reaching an altered state of reality and also into the haptic sense, which Ouzman briefly explores in regard to the presence of "touchstones" at San rock art sites. He finds evidence of human rubbing at a number of San rock art sites, which is typically associated with engravings of large eland-like animals and rhinoceroses, both being spiritually important animals in San society. More than 5% of the 762 engraving sites assessed by Ouzman had been used to flake stone from the rocks on which the rock art was present. Ouzman argues that the engraved panels for stone removal were selected carefully as preeminent rocks within an engraving site. The removal of stone flakes from these sites, according to Ouzman, was in order to collect some of the spiritual potency of these locales. He says (2001: 250, references removed): "These flakes or 'righteous rocks' are not fetishes but metonyms, with the flake a fragment capable of indirectly but powerfully evoking a compound totality comprising image, site, personal relations, the Spirit World and so forth."

Ouzman describes the collection of the flakes as "harvesting potency," and in a rather more speculative turn he suggests that the debris produced by hammering and flaking may have been ingested to further connect the person and the locale. Such practices are not unknown elsewhere, and in this context Thomas, Sheppard, and Walter (2001) provide an exploration of the interplay between bodily experience and landscape in relation to an architecturally embellished hill top site in the Solomon Islands. Here, the hilltop has many stone-built shrines often associated with human skulls, also varieties of marine shells and coral brought from the shore. One such shrine, named Liquutu, is constructed from imported basalt, and oral tradition indicates that "[h]ere they scratched stone and fed it to babies so that they would become strong warriors." (2001: 557).

Conclusions: Thinking through the Body

David Howes (2003) has identified a need to explore the interplay of the senses, and it is this complete bodily understanding of being to which Chris Gosden (2001) refers in introducing a volume dedicated to the study of archaeology and aesthetics. He says that "our sensory apprehension of the world is not purely a physiologic- 
al matter of impulses reaching the brain from engage in actively, albeit unconsciously. . . . The locus of sensory activity is as much cultural as bodily, so that various cultures apprehend the world in different ways" (2001: 163). To fully appreciate bodily presencing in the landscape, there is a need not to exclude vision over the other senses; rather we need to recognize that vision is not the only mode by which being in the world is achieved. Our stories of the past will be greatly enhanced through the simple acceptance of a multisensory present and a multisensory past.

Such an acceptance will allow us to pursue questions in regard to such things as how did the presence of mortuary enclosures or platforms where the dead were excarnated smell and alter perception of the landscape? How did it sound in relation to presence of carrion? And did the smell carry with it a certain potency? In earlier times, did gatherers recognize a tastescape related to subtle differences in fruits and nuts owing to underlying geology? Did coast-dwellers recognize differential salt content in the waters in the vicinity of estuaries, and could perhaps such things allow us to consider a phenomenology of the sea alongside that of the land? (Rainbird 2007). What role might have smell played in a landscape of hunting? In the outback of Australia, on a number of occasions in the sparsely vegetated but undulating landscape I have smelled the presence of a kangaroo, known its direction, and, if it was moving, could tell which way it was going.

Some archaeologists will resist such a landscape archaeology claiming the lack of quantification and substantiation. Computing and virtual reality may in the future allay some of these fears, although current technology is highly visual in orientation with sound an improving addition. The full embodied sensory experience is a long way off, and what the landscapes ought to include, and which senses ought to be heightened in relation to one another, will still be as problematic as ever, even if the presence of computers and their output act as reassuringly empirical.

There is no simple answer to how we get to or how we represent multisensory landscapes of the past, but if we accept that human life is experienced in this manner in the present, then ignoring it in the past reduces our ability to interpret fully past lives and will always leave us falling short of the mark. Thinking about such past landscapes is hard enough, applying it is harder still, but I believe it is an effort that is not only worthwhile
Chapter 25: The Body and the Senses: Implications for Landscape Archaeology

Note

1. *Cursus* is Latin for “circus”—the long parallel earthen banks with ditches often used historically as procession ways, the longest known being the Dorset cursus.

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