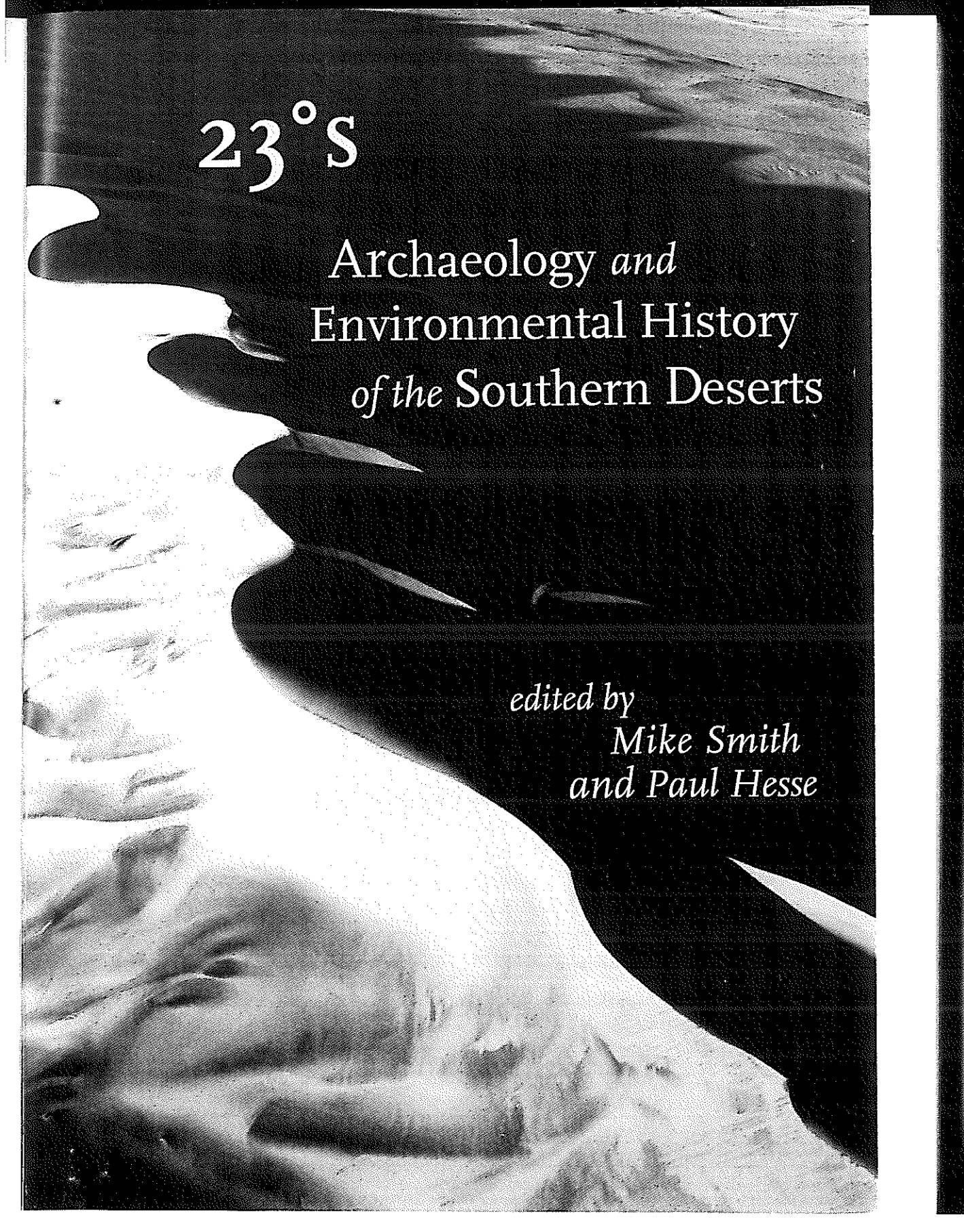
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CHAPTER 22

Ingereth Macfarlane

A water history of the western Simpson Desert, Australia

Scarcity of water defines a desert. The area to the north of Oodnadatta and south-east of Alice Springs, now known as the western Simpson Desert, is silica country: a stony desert bordering a 300-kilometre linear dunefield. Its matrix is rock and sand, but it is the water that exists there in its various guises that is at the heart of the desert for all who live there.

One way to tell a 'water history' of the interactions of the land and the people would be as a neat story of 'digging deeper'. This would track the importation of colonial technological capacities which allowed ever more reliable access to deeper underground aquifers, overriding local Indigenous knowledge of the behavioural dynamics of water in the region. However, I will show that the story is not such a simple linear one of technological replacement. It involves a negotiation of the complex processes of insertion of new 'water places' into an existing cultural landscape, plus the reconfiguration of the old water places.

Thinking about water

In stressing water, I seek to refine our modes of attention to it, not to separate it out as a stand-alone element. Forms of water and its availability are a starting point for understanding people's relations to each other and to places, in altering 'contexts of interaction'. This term, adopted from Anthony Giddens (1984:110), stresses that a place is not a neutral, static backdrop for action, but emerges as an interactive component of ongoing human interaction (see, for example, Pred 1977; de Certeau 1984:117–118; Ingold 1993; Massey 1995). Likewise, water is not simply a neutral substance with which people have a one-way relationship of economic exploitation, but is an active participant in

the social world (Richards 1996; Bradley 2000). A historical perspective on the specificities of people's relationships with a particular body of water through time allows a deeper appreciation of the dynamism of these relations, and the way in which prior practices contribute to contemporary patterns.

Water as a social actor

Objects are a medium through which social relations are produced and reproduced (see, for example, Barrett 1988: 11, 1994; Thomas 1993a, 1993b; Bradley 1993). They contribute to the patterning of what happens next in a place: the way the chairs are arranged in a meeting room both reflects assumptions about how a gathering will be conducted and affects how it can be. Similarly, we can consider how a 'water place', like an object, actively orchestrates people's interactions, and is in turn affected by them. Its properties are revealed in the history of people's involvement. These involvements generate accretions of objects, personal narratives and stories of ancestral beings through which the water is made distinct and memorable. These distinctions then affect how people can act there.

Water is meaningful

All water is not the same. Its forms, name, the histories of people's interactions with it and their stories of it, give it meaning and distinguish place from place. To acquire water for practical use necessitates engaging at the same time with its accumulated histories and meanings. It cannot be separated from its context.

Linkage through people's practices

The webs of relationships between people and objects, water, places and other people through time are made up of people's actions and their narratives. These practices are outward expressions which can, at least to some extent, be traced as they are played out in the various forms of memory available to us: oral testimony, our own experience, written records, images and archaeological materials and spatial configurations.

The temporality of desert water

The Simpson Desert is one of the most arid parts of Australia, with an annual average recorded rainfall of about 100 millimetres and rates of evaporation

about 30 times that amount. It is the variability in rainfall, its unpredictability in space and time, that characterises the area. It is better understood in terms of extremes — long droughts and flooding rains — than averages. The big rains are rare, but they structure the characteristics of the environment, recharging the aquifers and subsurface flows, allowing a greater standing biomass of perennial plants than might otherwise be predicted (Stafford Smith and Morton 1990:261).

When thinking about deserts, the addition of time to water is critical. This is what makes desert water distinct from the water of temperate areas. Outside deserts, time is less critical in the way water behaves, and to acquire it is to be overridingly concerned with its location, not its duration.

Forms of water

After a big rain, most water quickly evaporates or runs into the sand, although it is often sufficient to 'wake up' the life of the country on its way through (Fig. 22.1). Claypans hold water temporarily. Water fills the chain of waterholes in the sandy channel of the lower Finke River where it may remain for up to several months, and overflows into the red sand of the Simpson. Each waterhole is the locus of remembered actions in local histories and is named. The place names retain the Lower Southern Arrernte language of those who speak for this country, and the associations with stories of the ancestral beings that created the waterholes. These include the Arkaya history in which Kirrki the kestrel hunts two snakes. The snakes make tunnels to escape and so give rise to the course of the lower Finke River (Hercus and Potezny 1993). This reflects the covert nature of desert water, found largely below ground. It is patchy and dynamic, not following seasonally predictable patterns.

A significant exception to this pattern in the landscape of the western Simpson is the presence of a complex of more than 60 active artesian mound springs. These result from discharge of ground water at the western edge of Australia's Great Artesian Basin. They form the only permanent surface water for 150 kilometres in any direction. They are so isolated they contain endemic fish species. Each spring is distinctive. They are of different sizes, flow rates, mineralogy and temperature, varying from cool to hot (Zeidler and Ponder

1989). Each has its Lower Southern Arrernte name and associated songs and stories — of Perentie lizard, of Two Boys and of Kingfisher (Potezny 1989; Hercus and Potezny 1996:13). These recognise and maintain the fine distinctions between the springs. For example, one spring is healing but the one beside it is dangerous to touch.

The general name for the locality, Dalhousie Springs, was cast over the spring complex by the surveying parties of the Overland Telegraph Line who first encountered the 'singular spectacle ... welcome sight! waving green reeds ... 18 feet high' in 1870 (Giles 1894–1895:21). The renaming of the springs introduced into this remote and unfamiliar landscape the wife of the then South Australian Governor, and an alien system of patronage and power whose strength was founded elsewhere. It masked the diversity of the suite of springs.

This imported system of meanings and understandings was brought to the western Simpson with the Overland Telegraph Line, completed against the physical and logistical odds in 1872, within a decade of the first crossing of the continent by John McDouall Stuart (Taylor 1980; Wilson 1986; Mulvaney 1989:109–122). A single strand of wire, and of modernity, connecting Adelaide to near Darwin and Australia to the world: it was an epic substantiation of South Australian government sovereignty. It cut a linear incision through the country. Its attendant buildings and tracks provided access to the springs and waterholes for the establishment of pastoral enterprises from the early 1870s. These continued in the area until 1986 when the springs and surrounding station were purchased by the state government and made a national park, leased back to the Irrwanyere Aboriginal Corporation and jointly managed (Davey et al. 1985; Davies 1995; Department of Environment and Natural Resources 1995). The cattle were removed to protect the springs, and have been replaced by high numbers of tourists and four-wheel-drive enthusiasts bent on 'crossing the Simpson'.

Knowing the desert

The geographer Cecil Thomas Madigan, after carrying out the first aerial mapping of the sand desert in 1929, named it the 'Simpson' in deference to the then President of the Royal Geographical Society of Australia (South Australian

Branch). In 1937 Madigan crossed the desert with a dozen camels, defining a desert as 'any area that is difficult and dangerous to cross with camels' (Madigan 1946). He compared his scientific venture to setting foot on the top of Mount Everest; territory then equally unfamiliar to non-local knowledge (Madigan 1946:6). Here Madigan is reflecting a familiar view of deserts as hostile and waterless, a challenge to be overcome. There are no English language or Judaeo-Christian derived metaphors for desert as 'home'.

This represents one way of knowing the desert. It is one that sits most easily with those who know it from the outside looking in, who give names in terms of systems of reference that have their power-base beyond the places named. Their understanding is based on expectations developed in other contexts; contexts where water flows across the surface. But the desert was 'home' for at least 120 generations of Wankangurru *mikiri-nganha* (people from the wells), Wankangurru *mungathiri-nganha* (people from the high sandhills) (Hercus 1985:41), who were permanent residents of the Simpson dunefield, and the Lower Southern Arrernte people to the west. It still is 'home' to their descendants who, since 1989, have been incorporated as the Irrwanyere Aboriginal Corporation (Ah Chee 2002) and, in a qualitatively different way, to European-descended pastoralists such as Molly Clark of Old Andado, the pastoral station located deepest into the Simpson dunefield.

To think about the desert in terms of dwelling instead of conquest involves a shift in scale of attention. As a complement to broad scale, biogeographic or economic perspectives on landscape processes, we also need to know how these processes are lived out at the local level, for example in the particularities of named, remembered, and revisited waterholes.

Changing scales

I have been 'learning the country' at the local, small scale, 'having a good look around', being taught its places and people and the stories associated with them by members of the Irrwanyere Aboriginal Corporation. Mr Bingey Lowe's life is integral to this work. His biography runs through the Witjira Park/Mount Dare station. Each place is known in terms of who lived or worked there. A gifted raconteur and historian, Bingey tells stories of people in places,

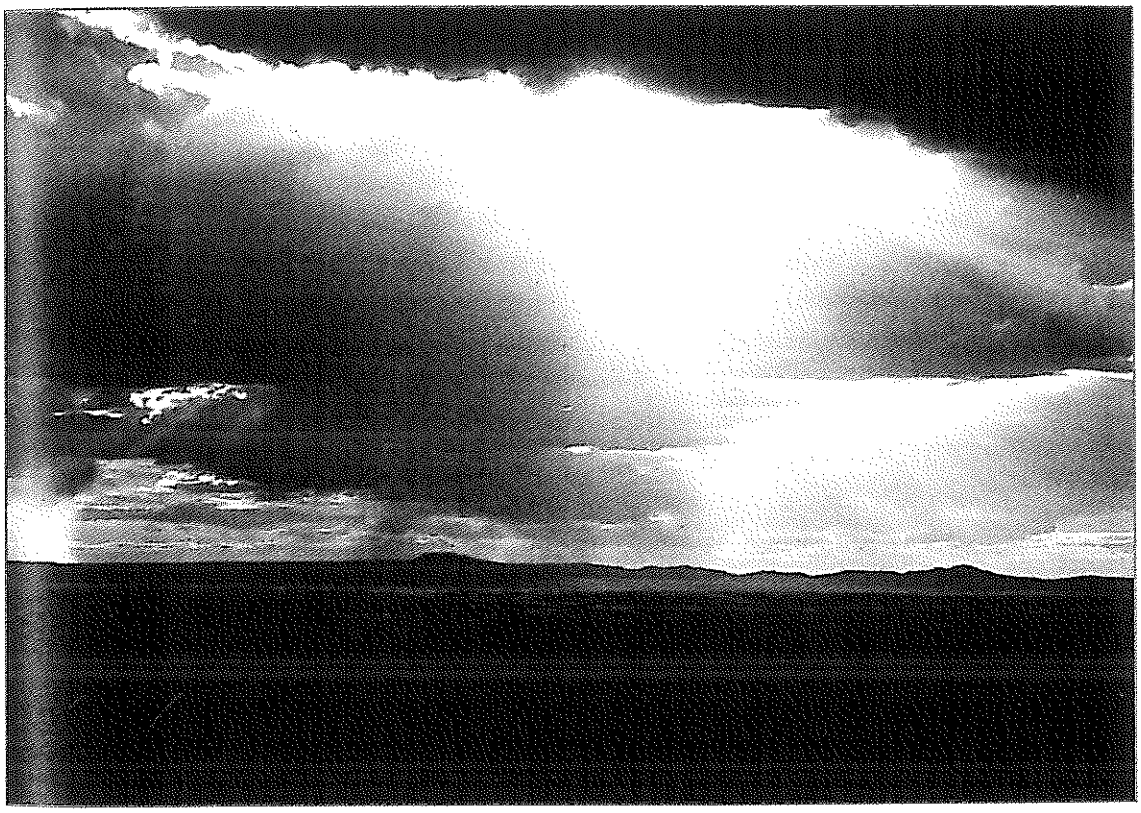

Figure 22.1
'Wake up that green grass': rain storm over stony plains to the north-west of Mount Dare homestead, northern South Australia, looking north from stony uplands, July 1996

'When the country was wild the Old People would look at the sand and dig maybe nine, twelve feet to get water, let it stand, get rid of all that dust and dirt, get clean water. Would dig down maybe to here [indicates elbow] and if sand bit damp, means there's water underneath. Use them little coolamons and sharp stick, dig a bit, then scoop it out. All this country [near Mount Dare has] waterholes. Always same place. Only place no water is round Purni [western edge of the dune field], and high country, too high.' (Bingey Lowe, 26 July 1996)

photograph by Ingereth Macfarlane

ancestral beings in places, and reanimates the country. His life encapsulates the large scale socioeconomic changes of the area. While teaching me, he was a ranger for the Witjira National Park. Formerly he had been head stockman on Mount Dare station, which became the National Park. At the same time he was custodian of the songs and ancestral stories of the places of the country. These were taught to him by the Old People of the area, while sitting behind the Mount Dare homestead when he was a child, having been brought south from the Newcastle Waters area to work in the 1940s. He saw these three ways of knowing a place not as a series of replacements or a linear chronological sequence belonging to separate landscapes, but as additions, all simultaneously present in a particular place.

Michel de Certeau (1984:115–116) points out that narrative is a spatial practice. We organise experience and memory in terms of where things happen, as itineraries of action in place. Stories link places together, make distinctions between them, and produce meaning by integrating fragments. Marilyn Stuart, an Irrwanyere member whose grandmother was born at Charlotte Waters, said to me, 'when you've got a good story, don't just tell it, streeeetch it'. She was indicating the virtue of milking the narrative, enlivening it with more detail. This is what I have been aiming to achieve in the places of the area, which are full of good stories: to return the detail, the situatedness of what goes on in those places, to reanimate them.

Mikiri-nganha

People's most common practice in dealing with the temporality of desert water emerges in their patterns of mobility. This is exquisitely demonstrated in the network of paths and places of the Wankangurru, permanent residents of the Simpson dunefield. Rare, reliable soakages known as *mikiri* were the basis of their residency. These hold water in a shallow aquifer on underlying stony or clay pavements. They were reached by narrow underground passages, up to 20 feet long, which reduced evaporation and spoilage, and required regular clearing and maintenance (Hercus and Clarke 1986). By knowing how to locate and navigate back to them, predicting the amount of water that they would contain and constantly servicing them, the people maintained access to the

more variable supplies of surface waters in ephemeral swamps on the edges of the dunefield and in claypans throughout the southern and central dunes (Hercus 1985:25). Ceremonial stone arrangements were built on claypans 100 kilometres into the dunefield (Tindale 1962), and stone artefacts with gibber cortex were brought at least 80 kilometres into the dunefield from the west (Macfarlane field notes), although they become rarer and smaller in the centre of the dunefield at maximum distance from the stone sources (Hercus and Clarke 1986:53). Ancestral song cycles are associated with the *mikiri* or travel through them (Hercus and Clarke 1986; Hercus and Potezny 1994). Hercus and Clarke (1986:62) are clear that 'the wells are different from each other in their physical environment and also in their mythological associations. They varied in relative importance as habitation sites and ritual centers and each has its own archaeological significance'. They emphasise that 'each well means something'.

In 1934, Tindale recorded an account by Ngaltjagintata, one of the 'people of the wells', of how to travel across the sand desert between Pandi Pandi on the Diamantina River near Birdsville, to the big and ceremonially important waterholes on the Finke River and Dalhousie Springs, through the high sandhills, via several *mikiri*. It is a journey of between two and three weeks. The instructions for travelling include 'good water here, spell 2–3 days here', and 'camp in bush, no water' overnight; the latter an instruction which is repeated nine times.

Fifty years later, linguist Luise Hercus and archaeologist Peter Clark managed to locate nine of the *mikiri* soakages and describe the range of archaeological materials present (Hercus and Clarke 1986). The soakages are variously associated with standing wooden hut structures, grindstones, ground edge axes, flaked stone artefacts, human burials, stone cairns, bone from small native mammals and dingoes, snakes, lizards and birds, emu eggshell, baler shell from the north and some mussel shell. Mick McLean, who lived on the wells until he was about 12 years old, recalled catching birds and carpet snakes, and gathering plants such as nardoo, pigface, native pear, mulga-apples and parakeelya (Hercus 1985:28–30, 34). He recounts the preparations made by his family, resident at Murraburt well, to walk out of the sand country to the southern Diamantina River in the summer of 1899–1900 (Hercus 1985). The

women carried waterbags made of hare-wallaby and rat-kangaroo skins, filled at the soakage. They were the penultimate group of Wankangurru people to leave the wells. There was plenty of water in the soakages: their departure was not forced. Their stated reasons for leaving involved the attraction of the contrasts of the southern country and its fish, and a desire to reconnect with relatives who lived there.

In a landscape which allows us minimal chronological control, these places represent a bracketed time frame. Archaeologists Mike Smith and Peter Clark (1993) dated hearths at some of the wells and showed that the Murraburt *mikiri* was in use at least 2500–3000 years ago. This correlates with dates of about 3000 BP found at Oolgawa Swamp on the south-west edge of the dunefield. Other dates of about 1000 years ago were obtained at other soaks. Smith and Clark argue that 3000 years ago was a maximal dry period, and so the water table is presumed to have been available there during the wetter earlier periods as well.

Without constant maintenance, the *mikiri* filled in with sediment and are difficult to locate now. Perhaps if they had been able to support the demands of cattle, they would have been incorporated into the landscape of the pastoral industry: there was an early twentieth-century plan to build a line of bores and open a stock route across the dunefield, but the country was 'so inhospitable' that after the first bore was sunk at Anacoora, the project was abandoned (Madigan 1946:11).

Wells and bores: Extractive technology and a place to live

Running stock and sinking bores immediately changes one's relations to water. In the late nineteenth and early twentieth century, there was a bullish optimism about the possibilities of just adding water for the desert to bloom. The source of these waters was to be the underground aquifer, once the properties and potential of this unfamiliar form of water were recognised (MacDonnell 1864:343; Gregory 1997 [1906]:274–277). The Governor of South Australia, Richard MacDonnell, considered that:

> dismal, parched, and impracticable as much of the country looked, cattle are now reared there which would be considered fat and good anywhere ... [W]e may possibly yet kill beef fattened on the 'stony desert'. MacDonnell 1864

Governor Tom Bridges, as late as 1925, maintained the rhetoric: 'the truth [is] that, given water (and the Federal Government are taking the necessary steps to provide it) the possibilities of the Australian hinterland are boundless' (Bridges 1996 [1925]:43), with the 'necessary steps' being the sinking of deep bores.

This could be termed the 'absence model' of water in the desert: a seductive narrative form which assumes that the desert offers untapped potential and is changeable through human intervention, 'a resistant landscape which will be finally transformed through technological innovations' (Cronon 1992:1355).

Local pastoralists' testimonies presented to the 1891 Pastoral Land Commission hearings provide a window on the ambivalences of expectations and experiences of the early applications of pastoral procedures in the arid regions of South Australia. At that time, after less than 20 years since their establishment, there had been no increase in numbers of cattle and sheep for many years and extensive abandonment of would-be pastoral country. The commission summarised the causes of these failures as out-competition by adjoining colonies 'enjoying a heavier rainfall', the expenses of dealing with rabbits that had rapidly diminished the carrying capacity of the land, prohibitive distance from market with no train or reliably watered stock routes, an underlying mistrust of Parliament's management of leases and 'the omission on the part of the Legislature to offer sufficient inducements for the development of country by searching for water' (Pastoral Lands Commission 1891). Experienced locals talked of the bush being killed, rather than 'improved', by stocking (for example Pastoral Lands Commission 1891:112). Nevertheless, solutions to this were sought in terms of greater government investment in bores and fencing. It was acknowledged that when the government sold land, they were selling the potential water, not the land (Ward 1946:10).

The wells then in use were generally less than 70 feet deep, sunk into surface soakages. Water was always obtainable in the lower Finke channel, for example, if wells were sunk from eight to 40 feet deep into the sand (for example, Pastoral Lands Commission 1891:110, 123, 124, 128; South Australian Archives GRS 1 1903/33). Otherwise 'well-sinking is quite a lottery in the north' (HJ Richman, pastoralist, to Pastoral Lands Commission 1891: xxvii), frequently producing low flows or excessively salty water. However, the government Conservator of Water and the State Geologist believed that tapping

the deeper artesian water table would provide fresh water. At that time this lay beyond the reach of the drilling equipment that it was possible to bring into the area (Pastoral Lands Commission 1891:xxiv, 112). But larger drills did become available, and by at least 1915 government artesian bores to depths of 2000 feet were in place along the local stock routes, with regular maintenance and inspection crucial to their continuing operation (South Australian Lands Department n.d.; Pastoral Lands Commission 1891:124, 127; Government Records Series 1 1903/33; National Archives of Australia A1640 1892/410).

By the 1950s private bores and associated stockyards were common (Ward 1946:11). Thirty-eight had been sunk in the Mount Dare station, for example, running 2000 head of cattle. There was a repeated pattern for a known existing 'native well' or soakage to be dug out by hand and shored as a well, with an even deeper version put in nearby with drilling equipment later. For example, Bingey Lowe took me with pride to Paradise Bore, which he dug, probably in the late 1940s with two mates, using a pick and shovel and a scoop pulled by a camel. They chose a place near the Finke channel where there was an existing native well (Hercus and Potezny 1993:34). The first two shafts they tried had no water and they had to try again. The associated infrastructure of dams and cattle yards was built. Later a deeper bore was sunk. The non-neutrality of such a place was driven home to me in Mr Lowe's personal history of labour and involvement. This was a two-way historical modification, with the construction changing the builder as much as it changed the land; his labour and initiative leaving its permanent mark.

The labour of Indigenous people built the bores and associated stockyards and worked the cattle (see for example testimonies of FJ Gillen, AD Breaden, WG South, Pastoral Lands Commission 1891:112, 125, 127). But only a minority were supported by the formal station economy or rations. The majority of the local Indigenous people were faced with increasingly restricted access to the full range of precolonial potential water sources and choice of livelihoods. Key areas were occupied or depleted by the cattle and rabbits that focused on the limited areas of richer resources in the landscape (Smith and Morton 1990:271) and diminished the diversity and productivity of the land in-between. They were left with few choices, especially when there was a drought: move off to other stations for work or for rations, or base themselves at a remote well or bore. The

latter were not ration stations. The people who lived there were opportunistic occupants, not employed by the station, out of sight, their presence not officially sanctioned. They utilised the standing infrastructure at no cost to themselves, but with no accumulated gain to themselves either: a form of 'poaching' (de Certeau 1984:25–26, 30, 36–37). Kimber's (1992:128) discussion of 'claypan squatters' indicates that both Indigenous and non-Indigenous people lived on the margins of the stations. They had different histories of entry into the area, and the terms of their exchanges were mixed, but Indigenous men and women again provided labour, working for themselves, or with the small-scale cattle holders, and at least some Indigenous women were sexual partners. Thus while the intent behind bore construction was to exploit a generic water source for profit, an unintended outcome was the establishment of each water point as a differentiated place, enfolded into people's local lived histories.

Anniversary Bore

In this light, the reasons for Bingey Lowe's selection of a difficult-to-access spot on the lower Finke River for the location of a new Irrwanyere homeland in 1997 are revealing. He was influenced by strong past associations and the cluster of memories and structures nearby.

Firstly, he had spent many nights looking after the cattle in the yards he helped build, probably in the 1950s, beside the new Anniversary Bore. Secondly, this stands next to an earlier whip well, known as Taylor's Well, named after Dick Taylor who dug it into the original soakage and lived there with his family in the early twentieth century. Mr Lowe remembered stories of them and their two dwellings made from flattened kerosene-tins. Archaeologically, their residence is remembered in a characteristic mixed assemblage scattered over a compacted area of sand, which includes twisted wire, clay pipe stems, tobacco tins, a liniment jar, a teacup fragment, an olive glass 'Pick axe' beer bottle (a type which dates between 1912 and 1921 [Reed 1977]), a saddle pommel and hobble chain, food tins and two wash tubs. Sixty metres away was the goat yard, with the dunes rising behind them. On these lie surface scatters of stone artefacts. A marked grave lies to the east.

Thirdly, the area's associative cluster continues with a 'stub yard', a basic

stockyard form built from posts driven into the ground close together. This was constructed two kilometres away by Mr Lowe and others to the south of nearby Ewillina Waterhole, which is narrow, steep-sided and up to 6.5 kilometres long when full. There is an unusually rich scatter of precolonial occupation material in the sandy rise beside the waterhole in the form of diverse and numerous grindstones, varied flaked stone artefacts and well-preserved marsupial, rat and lizard bones. 'The Old People used to camp here', Mr Lowe concurred, adding that many died here in the 1919 influenza pandemic. Finally, the powerful Ewillina carpet snake ceremonial place lies on a gibber rise to the north of the waterhole. It is marked by complexes of stone arrangements (Mountford and Campbell 1939), the songs for which Mr Lowe was a custodian.

An important question here concerns whether there is a difference between organising life around a technologically derived water point and basing it around a naturally derived long-term waterhole or well? New water points have no direct reference within the Ancestor stories. But it seems that, through usage, the area's stories have associatively informed the various additions. Their status as elaborations of an already extant point of focus in the prior landscape has ameliorated this potential contrast. The congruence between the requirements of cattle and the network of new bores, and the pre-existing pattern of variable water points and people's flexible movement between them was one reason why the pastoral industry was able to endure (see Ferguson 1991:29 regarding incongruity; Head and Fullagar 1997).

Dalhousie homestead: A case of mistaken identity

Dalhousie was the earliest established homestead in the region (Fig. 22.2). It was built in the early 1870s from the local limestone, at the southern end of the Dalhousie Springs, on a Rain Story site. There are no direct records of the intentions of the original lease holders in their choice of location, but all the indications point to a case of mistaken identity: the 'singular spectacle ... welcome sight!' was taken out of context. The solid homestead was built according to a set of imported expectations that valued permanency, fixity, and tried to construct it on the apparent abundance of the springs. Like the call for more bores, however, the vision of the springs' potential was selective. It did

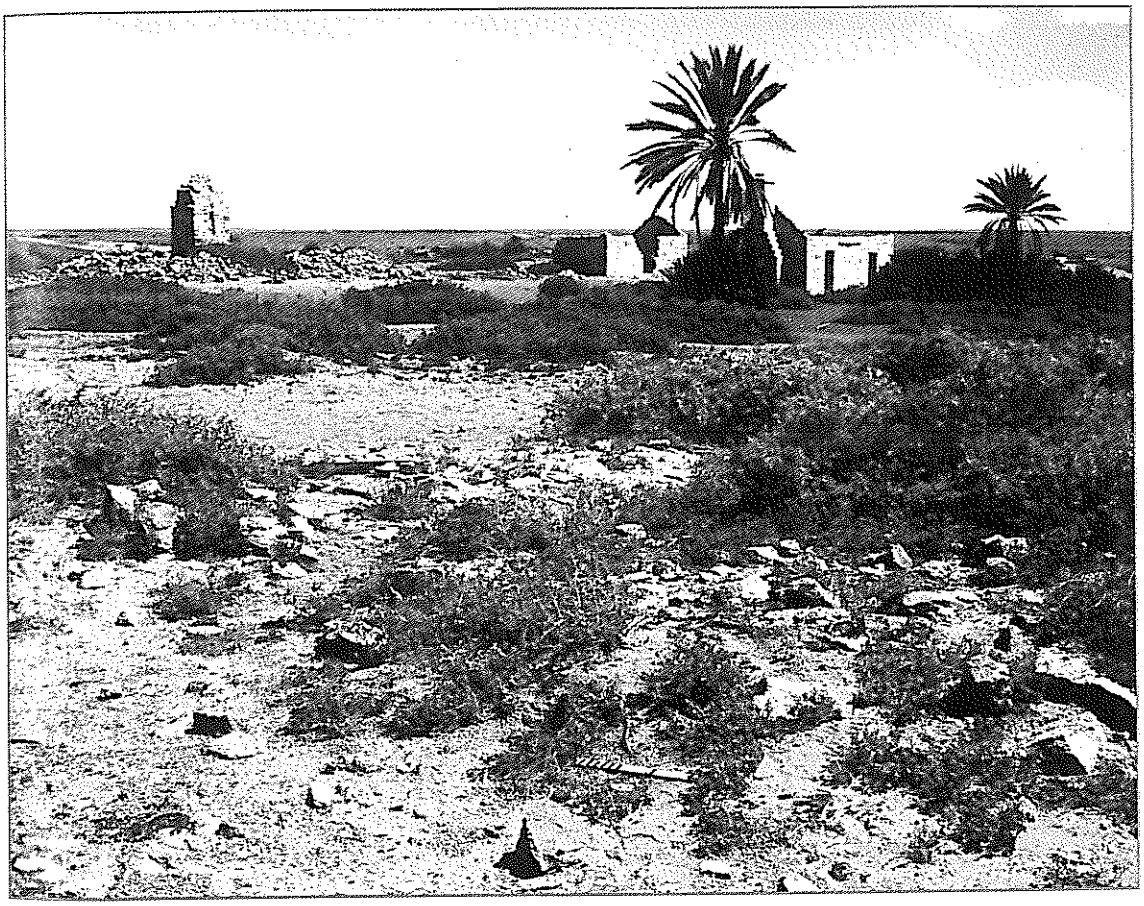

Figure 22.2
Dalhousie homestead (about 1872–1921), built on mound spring mineral sands, showing imported date palm Phoenix dactylifera, *and native Ruby saltbush* Enchylaena tomentosa, *looking east, September 1997*
photograph by Ingereth Macfarlane

not attend to the context: the saline and erosive sediments that turned into a bog after any rain, and their isolation. As Mike Smith (1989) points out, the presence of permanent water is not sufficient in itself to sustain occupation, it is the *density* of accessible water sources and the resource base which they support that count. Dalhousie Springs were a regular watering place on the stock route in the late nineteenth century, with accounts of many mobs of sheep and cattle coming in from 'dried out' stations for water, although the feed was eaten out. Attempts were made to irrigate with the mineral-heavy water, but were unsuccessful (Letters to and from John Lewis relating to Dalhousie Springs Station management: 9 April 1910, 15 February 1911).

In 1913, the ornithologist SA White visited the homestead, and recounts stories of one manager's wife going mad, and a manager who 'sat and cried like a child' in the 'uncanny', 'most woebegone' landscape (White 1914:42, 44). But people necessarily continued to flow through and around the homestead. About five Indigenous people were employed on the station, and up to 50 of their extended family camped off and on at the margins of the main homestead (White 1914:45–47, letters to and from John Lewis relating to Dalhousie Springs Station management), which was a ration station until 1921 (South Australian Archives GRG 52/26/1). Looking at the spatial distinctions in the rich lag deposits of cultural material which surround the homestead, we can start to see some of the details of how Indigenous people reconfigured their lives around the intervention of the homestead in the landscape. Nine stone circles cluster under a low ridge 600 metres west of the homestead, the bases of wurleys. They are associated with twentieth-century ceramic fragments, a pannikin, and several clay pipes. These objects reference those key elements of rationing and products of empire such as tea, sugar and tobacco. There is even a washtub to bring water to this remove from the springs. There is a dense background scatter of a wide range of stone artefacts and flaked glass. Discarded beer bottles, brought 200 kilometres from Oodnadatta on a camel in the late nineteenth century, were redefined as a raw material.

The reeds and water of the springs sustained this cluster of associations for 50 years. The homestead was then abandoned and moved to a good bore and waterholes on Abminga Creek, although the springs remained important in managing the cattle. The presence of permanent water is not sufficient

in itself to sustain permanent occupation. However, the descendants of the people of the area who camped on its margins are living there still, in a caravan, and are now rangers in Witjira National Park — a continuity of presence if not the form of that presence.

Conclusion

At one level it is blindingly obvious that water in some form is vital for all life, and especially so in a desert. Any understanding of people's relationships to places in a desert needs to be grounded in thinking about water. But to think about water only at the broad scale, as simply a resource, is to stop too soon. A 'resource' is more than a generic substance separable from its context. As well as providing basic requirements, it has a history and is a historical actor. It acts as part of the network of relationships through which people's lived experience constructs a meaningful world. There is not a clear binary division between water as a natural feature as opposed to objects which are cultural — water is cultural, not simply because it can be modified, but also because it is woven into people's understanding of the world.

Water places are places of memory and renewal, not simply of bodily needs, but of stories and connections, of identity, of the past, and of future possibilities. In the desert, 'water' is not just for drinking, but for thinking with.

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