CHAPTER 3

PEOPLE IN LANDSCAPES

The landscape of north-east Africa is spectacular. Inhospitable deserts abruptly meet the lush, pulsatile floodplain of the Nile River (Figure 3.1). To the west of the Nile Valley and Delta, wide sand dunes extend into the Sahara, interrupted by scattered rock formations. Five large and a series of smaller oases offer opportunities for life in the Western Desert, while the Fayum depression has been connected to the Nile Valley since the early second millennium. To the east of the Nile Valley lie the Eastern Desert and the Sinai Peninsula, which are rocky. Each of these habitats was occupied by a variety of groups, each with their distinctive lifestyles.

The Nile Valley marks the eastern border of a desert belt that stretches from the Atlantic across North Africa. The river cuts through a complex geological formation.[1] Hard, crystalline Precambrian rocks dating to more than 565 million years ago (mya) protrude into Sinai and the Eastern Desert, and the copper and gold ores they hold made this area particularly attractive to the pharaonic state. Copper was predominantly mined in Sinai; gold in the eastern deserts of Nubia. These old rock formations are covered with Cretaceous (100–66 mya), Palaeocene (66–55 mya), Eocene (55–38 mya), Oligocene (38–22 mya), Miocene (22–5 mya), and Pliocene (5–1.8 mya) layers of soft limestone and sandstone in many of the lower-lying areas of north-east Africa. Limestone, partially interspersed with fossils, makes up most of the upper layers from the Mediterranean to around Esna in Upper Egypt, while Nubian sandstone dominates the surface of the landscape further to the south. At Aswan, igneous granite peeks through the sandstone, creating the islands of the First Cataract.

The modern climate in north-east Africa is hyper-arid with almost no rainfall, including along the Mediterranean littoral. This is the result of a southward migration of the African monsoon belt towards the end of the last wet phase in the Sahara, around 5000 BC, which led to the sharp division in Egypt between the deserts and the riverine environment.[2] Climatic conditions

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Figure 3.1 Maps of sites mentioned in Chapter 3. © Monika Feinen.

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have been fairly stable in this region since around 3500 BC, but environmental change, including varying heights of the Nile flood, is ongoing at regional and local scales, with consequent impacts on the archaeological record.[3]

Ethnographic accounts of the nineteenth and twentieth centuries suggest that many pharaonic customs and technologies survived in rural Egypt, some up to the present day.[4] However, the rhythm of the annual inundation of the Nile, which dominated life in the past, ultimately came to an end with the construction of the Aswan High Dam in the 1960s, the most drastic in a long series of attempts – there and further downstream – to control the flood.[5] The population of Egypt is currently around 100 million, with one-fifth concentrated in the Greater Cairo area and the majority of the remaining 80 million inhabitants living in cities and towns.[6] The largest of these are located in the Nile Delta and include the post-pharaonic cities of Alexandria, Port Said, and Suez. Egypt was the breadbasket of the Roman Empire, but today more wheat is imported into Egypt than is produced, in order to sustain its massively increased population.[7] Sugar cane and rice were only introduced to Egypt during the Arab conquest in AD 640, and long-staple cotton, a pillar of Egypt's textile industry in the twentieth century, was only discovered under the khedive Mohamed Ali.[8] Large-scale transport shifted in the nineteenth century from the river to the railway and eventually to the road, creating new settlement networks.[9] Electricity and the Internet have made the world more easily accessible to villagers. It is tempting to blend modern landscapes and lifestyles into the past, but technological innovations and industrialisation have changed their contexts dramatically.

AGRICULTURE IN THE FLOODPLAIN

The Nile is fed by the Blue Nile, which originates in Ethiopia, the White Nile from Uganda, and the Atbara, a minor tributary that joins the Nile near Khartoum (Figure 3.2).[10] On its way north from Khartoum to Aswan, the river passes six cataracts, each making navigation difficult. The amount of cultivable land between the cataracts varies. Several areas in Upper Nubia offer good opportunities for agriculture, but in Lower Nubia and Upper Egypt the Nile Valley is narrow. It broadens again in Middle Egypt, where the river is around 500 m and the valley up to 20 km wide. A side channel, now called the Bahr Yusuf, splits off at Asyut and flows into the Birket Qarun, the lake in the Fayum depression, before continuing north as the Bahr el-Libeini. North of Cairo, the river branches out into two major and a varying number of subsidiary channels. These form the Nile Delta. The Nile swells in late summer due to the annual monsoon in Ethiopia. Prior to the construction of Nile barrages and dams, the river would deposit fertile sediments, enriched with minerals from the Ethiopian highlands, over Egypt's fields. Planting began in the fields when the floodwaters began to recede, in late autumn.

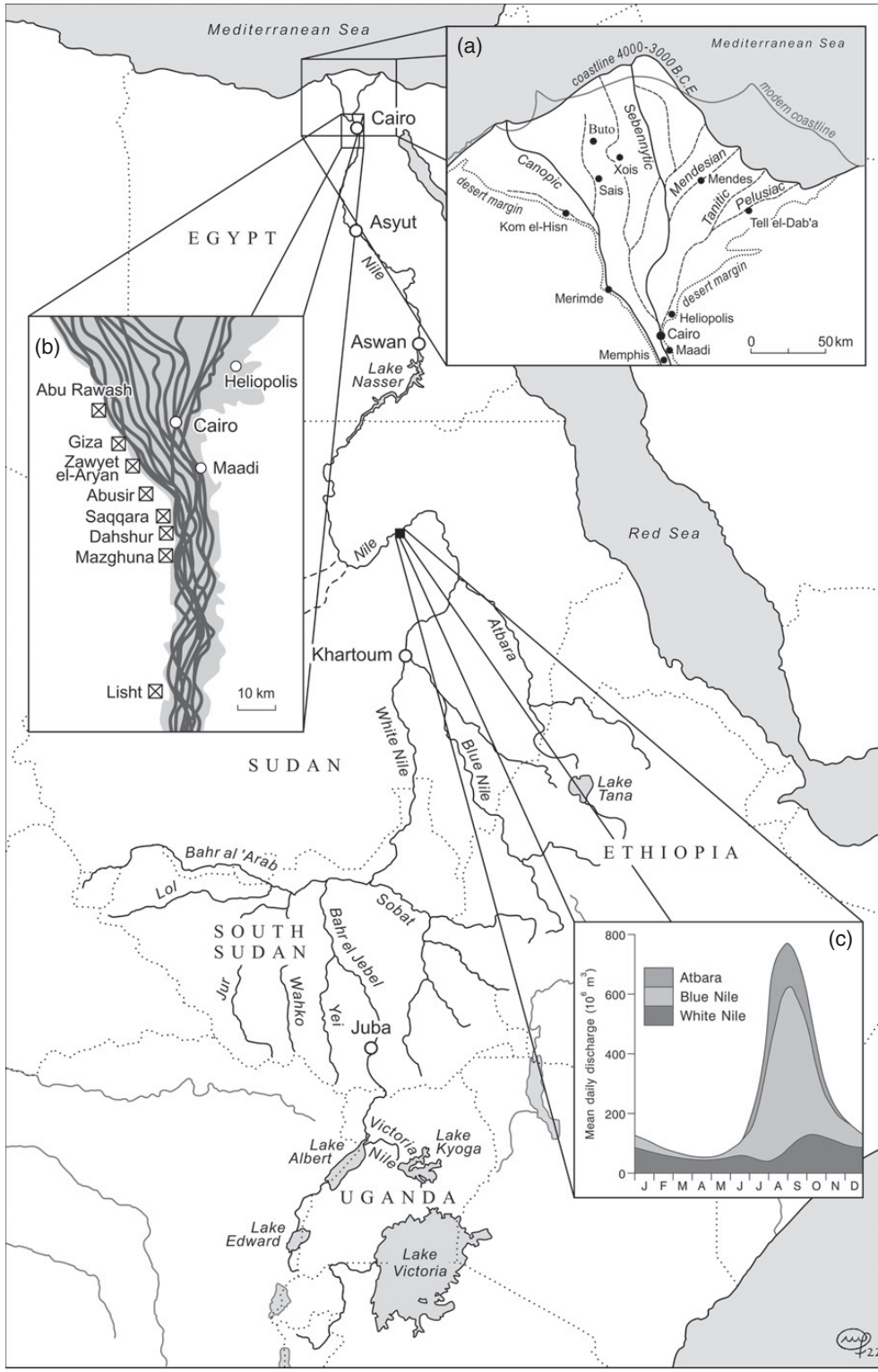

Figure 3.2 Dynamic riverine landscape. (a) Coastline of the Delta in the fourth and third millennia BC. After Butzer 2014, fig. 2. © DAI Cairo. (b) Migration of the Nile River in the area of Memphis ('spaghetti model'). © J. Bunbury and C. J. Lutley. After Bunbury 2019, fig. 6.2. Courtesy J. Bunbury. (c) Discharge of the water and sediments through the year from the White Nile, Blue Nile, and Atbara. After Woodward et al. 2015, fig. 1. Courtesy: J. Woodward. Map © Monika Feinen. Inserts of Delta and 'spaghetti model' redrawn by Monika Feinen.

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According to drillings made in the 1930s, the alluvium was on average 6.7 m thick between Aswan and Qena, and 11.2 m thick in the Delta beyond latitude 31° north.[11] Towns and villages were located on high ground in the floodplain, along the elevated river banks (levées), on rocky islands, or on hills of sand (*geziras*).[12] Photographs of Egypt taken before the Aswan High Dam was constructed suggest that during (very high?) floods the entire valley transformed into a near-continuous lake, dotted with islands of crowded villages and towns. The riverbed migrated laterally, rapidly washing away and forming islands. The extent of that migration varied locally and has been studied with some accuracy in selected zones in the Valley and the Delta.[13] In the area around Memphis, for instance, sand dunes of the Western Desert have migrated towards the floodplain, covering towns and cemeteries that were located along the edge of the cultivated area during the late Old Kingdom.[14]

The Nile Delta is a malleable land mass formed of Pleistocene sands and gravel and cut by river channels.[15] The coastline of the Delta is supposed to have extended approximately 60 km further south in the Old Kingdom than it does today, as rising sea levels in the Mediterranean and the lower energy of the Nile flood since the construction of the High Dam have eroded the coastline.[16] The Wadi Natrun, to the west of the Delta, is a dried-up lake lying 25 m below sea level. It offered rich resources in the form of salty crusts that were used for mummification and glass making and marks the beginning of a desert route toward Farafra Oasis. The remains of the large cities of Buto, Xois, and Sais are located in the central Delta and date to the Late Period, but except for Buto there is only scattered evidence of settlements in this area during the pyramid age. Higher ground in the eastern Delta, however, holds a substantial archaeological record from the Predynastic period onwards, and clearly so into the Middle Kingdom.[17] This is where the 'Way of Horus' began, an overland route connecting Egypt with Sinai and the Levant.[18]

Life in the lower Nile Valley and Delta was dominated by agriculture (Figures 3.3a and 3.3b). Most of the available sources are administrative records from Roman and later times, and idealising depictions on tomb walls.[19] Neither says much about what it meant to be a farmer in ancient Egypt. Part of an agrarian lifestyle was juggling hard-to-predict environmental conditions with the availability of manpower, and demands by the landowner or the state in the form of rent, taxes, or corvée labour.

The Nile flood rose and receded an average of 8 m per year at Aswan between the Old Kingdom and the Roman period.[20] Average numbers are useful for modern scientists to model palaeo-environments, but for people in the past the flood would have fluctuated considerably, meaning either a shortage of water or an extended period of inundation. The former would have resulted in poorer yields, the latter would have increased the number of plant parasites and delayed the harvest into April, when hot winds might destroy the crop.

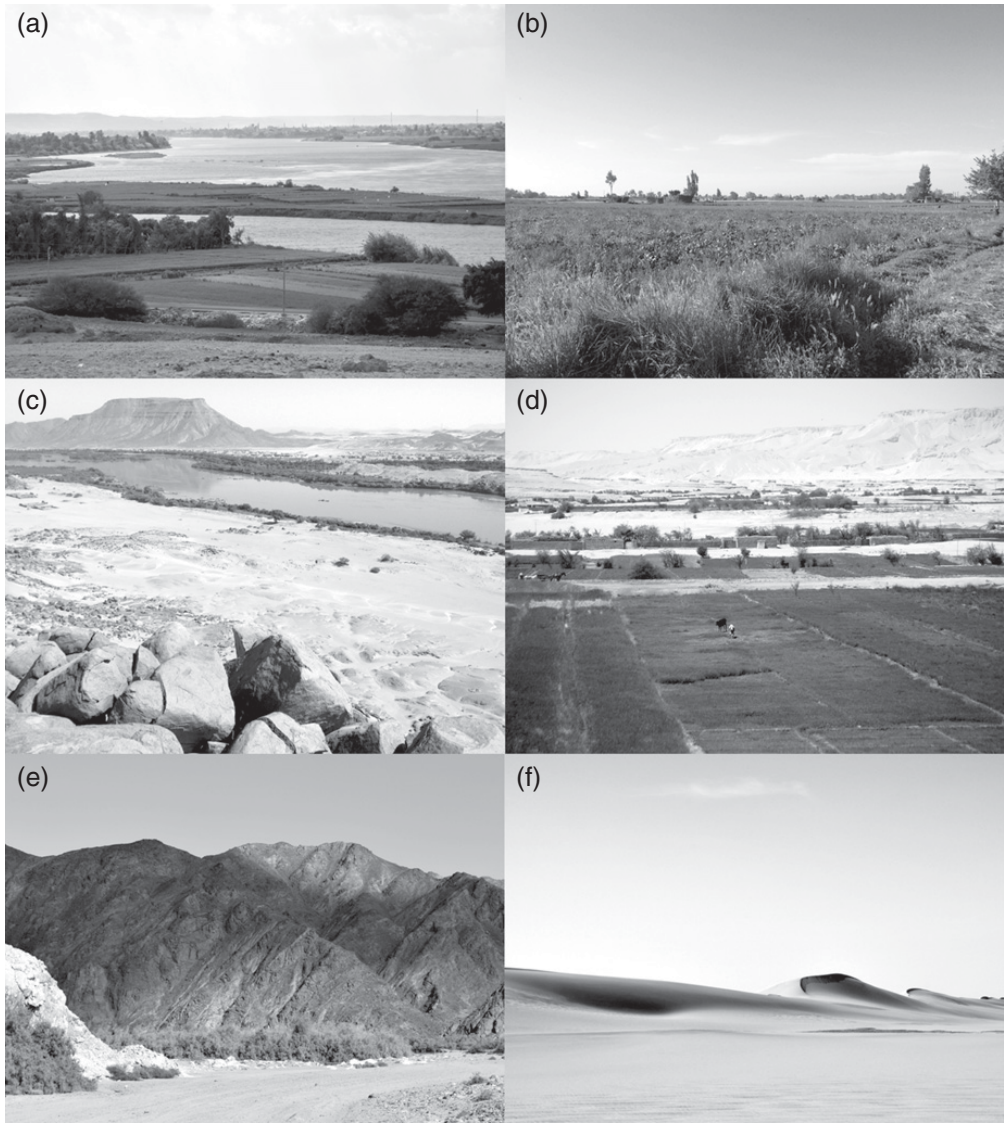

Figure 3.3 Landscapes of northeast Africa. (a) Nile Valley in Middle Egypt near Zawyet Sultan, 2018. Photo: B. Vanthuyne. Courtesy Mission to Zawyet Sultan. (b) Delta near Sa el-Hagar, 2016. Courtesy E. Tiribilli. (c) Nile Valley in Upper Nubia, south of the Batn el-Hagar, view on Gebel Firka, 2015. Courtesy J. Auenmüller. (d) Dakhla Oasis between Balat and el-Qasr, 2007. Courtesy Karin Kindermann. (e) Eastern Desert, Wadi el-Gimal, 2015. Courtesy M. Osman. (f) Western Desert, Great Sand Sea, 2010. Courtesy K. Kindermann.

Canal building for agricultural purposes seems to have been rudimentary in pharaonic times, when cultivation was based on basin irrigation.[21] This allowed for one crop per year, in which receding flood water was kept for a while in artificially created basins with perimeters – dykes – of banked soil. Later, these dykes were carefully breached in order to control the outflow of water.[22] The

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shaduf, a pole-and-bucket lever, was depicted for the first time in New Kingdom gardening scenes, while the water wheel, operated by oxen, was only introduced in the later first millennium and could lift water up to a height of 3 m.[23] The water wheel facilitated higher degrees of agricultural exploitation, perhaps even perennial cropping, which might account for population increase and the export of grain in Roman times. Winter food crops included barley and emmer wheat during the pharaonic period. Lentils, varieties of beans, and chickpeas dominated the legumes, while dates, figs, and pomegranates were popular fruit. Vegetables included leeks, lettuce, onions, celery, watermelons, cucumbers, and radishes. Grapes were widely used for wine production.[24] Flax, used to make linen, was planted during the winter. What might be termed 'cash crops' played only a minor role in pharaonic agriculture, but the production of food crops beyond simple subsistence is evident from market scenes showing prepared food, vegetables, fruit, and fish being exchanged for small-scale craft services (Figure 11.5b).[25] These scenes support the interpretation of the pharaonic economy as a blended mixture of family-based private enterprise, state-controlled redistribution, and institutions operating between households and the central administration.[26]

Many ancient Egyptian farmers also kept oxen, goats, and sheep. In letters sent home to his family, Heqanakht, a farmer who lived in the early Middle Kingdom near the Fayum, devised the purchase and letting of land and mentioned the herding of cattle.[27] Pigs were also kept in the pyramid age.[28] Agriculture tended to tie people to the land and their local communities, so the extent of pastoral mobility in the Nile floodplain is unclear.

Village life is difficult to reconstruct from pharaonic sources, not least because settlement archaeology has long been neglected in Egyptology.[29] Analogies with more recent times, as suggested by Winifred Blackman, stimulate the imagination but emphasise continuities, when in reality there has been much cultural, political, and economic change.[30] In rural Middle Egypt, for instance, place names and historical documents reflect different degrees of post-pharaonic Christianisation, Arabisation, and settlement by Bedouin.[31] Similarly, immigration of people from Nubia and the Levant, and mobility within Egypt, was presumably common.[32] Families and the village very likely formed the core production units. A cloth register from Dynasty 4, drawn up at Gebelein in Upper Egypt, lists the personnel of two villages associated with a funerary foundation, perhaps of King Sneferu.[33] The list includes scribes, clerks, bakers, brewers, boatmen, boat-builders, masons, metal-workers, herdsmen, a measurer and a sealer of grain, huntsmen, and two *heri-she*-Bedouin.[34] Farmers were not listed, either because they lived outside the village, where the list was drawn up, or because they were not deemed relevant for the purposes of the list, which seems to concentrate on specialists. Another interpretation is that people were generally assumed to work in the fields, but that those listed had additional, specialised knowledge. Other lists from the same context record men and women who were apparently recruited for royal projects.

Various methods have been employed to estimate the size of Egypt's population in antiquity.[35] Klaus Baer extrapolated from the hypothesised number of individuals per household, the assumed area cultivated per household, and the maximum area of cultivable land in Egypt to propose a figure of 2 to 3 million for the Old and Middle Kingdoms and 4.5 million for the late New Kingdom. Diodorus Siculus supplied a figure of 7 million for Hellenistic Egypt, and Herod Agrippa 7.5 million for Egypt in AD 66. According to the first official census, 7 million people lived in Egypt in AD 1882, climbing rapidly to 30 million by 1965. Using the number of towns and villages given by Herodotus, Diodorus, al-Makrizi, and later sources, Fekri Hassan estimates that the total population of the Old Kingdom was 1.2 million. Half of it would have lived in 1,400 villages in Upper Egypt, which gives an average number of around 450 people per village, perhaps forty households.[36] Hassan further calculates a population of 1,400 to 3,000 people for each regional capital and suggests that 20,000 to 40,000 people lived around the state capital at Memphis. These calculations convey a sense of the population density – or rather sparsity – in the Old and Middle Kingdoms. If the numbers are broadly correct, there would have been an abundance of cultivable land, but this says little about the accessibility of that land, seasonal working patterns due to the Nile flood, the scarcity of labour, ownership, and the distribution of wealth.[37] Moreover, it is difficult to tell which numbers define critical thresholds, for instance how and to what extent an estimated population rise from 1 to 3 million in the Bronze Age might have affected social and political organisation.

Lower Nubia is separated from Upper Nubia by the *Batn el-Hagar* ('Belly of the Rock'), a strip of over 150 km located between the Second and Third Cataracts, where the Nile Valley is particularly narrow (Figure 3.3c).[38] Today, Lake Nasser covers almost the entire area of Lower Nubia. Archaeological documentation and maps drawn prior to the construction of the Aswan High Dam show that it was a discontinuous strip of land that would have sustained fewer people than Upper Egypt.[39] The communities of Lower Nubia developed a distinct material culture style from the late Old to the early New Kingdom, which George A. Reisner termed the C-Group.[40] It is possible that there was more fluidity between cattle pastoralism, agriculture, and mobile lifestyles in the C-Group than in Egypt. The C-Group exhibits only limited degrees of monumentality, social stratification, and political centralisation in its later phases, and its people did not employ writing.

Further south, the Dongola Reach between the Third and Fourth Cataracts offered ample opportunities for agriculture. The river is placid and navigable here, and the floodplain runs uninterrupted along the Nile up to 2 km wide on either side. Kerma became the central settlement of a complex society in this region, whose reach extended downstream to just north of the Third Cataract, and south to the Fourth Cataract.[41] It was a rival to Egypt and was often called 'wretched *Kush*' in ancient Egyptian texts.[42] Geoff Emberling has argued that

Kerma was a 'pastoral state', based as much on cattle herding as on horticulture.[43] The Abu Hamed Reach between the Fourth and Fifth Cataracts is topographically rough and not very fertile. Further south, the Shendi Reach, between the Fifth and Sixth Cataracts, became a centre of power in Meroitic times.

Despite their geographical proximity, C-Group communities exhibited material features that were closer to those of the Kerma region than those of Egypt, for instance the construction of circular grave monuments, the placement of the wealthier deceased on a bed, and pottery styles. Differences between Egyptians and Nubians existed on a variety of levels, including foodways, bodily appearance and, perhaps most importantly, language.[44] While Lower Nubia was the centre of the C-Group population, the Nubian pan-grave people and Kerma groups also settled in and moved across the area, which made Lower Nubia a multi-ethnic interface between Egypt and areas to the south.[45]

LIFESTYLES IN THE DESERTS

The desert to the east of the Nile Valley is formed of a rocky ridge with peaks rising up to 2,000 m (Figure 3.3e). Occasionally, storm-flood valleys (*wadis*) cut through these mountains and broaden out towards the Nile Valley and the Red Sea littoral, which is dotted with mangrove forests. Seepage water supplies a range of perennial plants in the desert. The Eastern Desert is today inhabited by the Beja and other nomadic tribes (Maʿaza, Rashaida) who migrated there over the past few centuries.[46]

Archaeological remains in the Eastern Desert are rather poorly documented. It is generally assumed that a group whom the Egyptians called *medjay* lived in the Nubian part of the Eastern Desert, and that these *medjay* were identical with an archaeological culture known in the literature as the pan-grave culture, though this identification is debated.[47] The term 'pan-grave' refers to the distinctive pottery and material culture associated with pan-like, flat, circular graves. These people were presumably pastoral and service nomads, living by cattle, sheep, and goat husbandry and offering services to communities in the Nile Valley.[48] Paradoxically, archaeological evidence for pan-grave people is best known from campsites, Egyptian settlements, and small pan-grave cemeteries in the Nile Valley, while little comes from the desert itself, though rock art found across many parts of the Eastern Desert suggests that life flourished there.[49]

Hundreds of hieroglyphic rock inscriptions along major routes from the Nile Valley to the Red Sea testify to large-scale expeditions to the quarries of the Eastern Desert and Sinai, which were organised by the pharaonic state (Chapter 2).[50] Campsites have been found at the Red Sea destinations of these routes, such as Ayn Soukhna, Wadi el-Jarf, and Mersa Gawasis. These are harbour sites from which expeditions that began in the Nile Valley assembled boats for the onward journey to Sinai and the land of Punt.[51]

The Sinai Peninsula comprises a coastal region in the north, a ragged rock plateau that constitutes the greater part of the peninsula, and a mountain massif in the south.[52] Rainfall and vegetation are marginal. Archaeological sites from the Bronze Age attest to a local population whose material culture combined Egyptian and Canaanite styles and who appear to have been pastoralists living by goat herding and some crop cultivation around the oases. Copper mining is attested from the mid-fourth-millennium BC onwards, and involvement in Egyptian activities at turquoise and copper mines and in trade provided the local population with an additional basis for subsistence.

The Libyan Desert to the west of the Nile Valley is diverse and was surprisingly lively in antiquity. During the last wet phase, from 9000 to 5000 BC, highly mobile hunter-gatherers populated the savannah of the eastern Sahara and its oases and moved around between perennial and temporary lakes created by episodic rain events.[53] The desertification of north-east Africa between 5000 and 3500 BC left behind a harsh landscape of sand dunes and limestone plateaux with virtually no rainfall (Figure 3.3f). The oases at Siwa, Bahariya, Farafra, Kharga, and Dakhla, which are located in desert depressions, provide access to subsurface water through wells, but at other sites prehistoric lakes have turned into mud pans, which are sometimes called *playas*. The Great Sand Sea on the border between Egypt and Libya is entirely devoid of any water resources; what happened to people who did not migrate into the Nile Valley or the oases is unclear. The Egyptians referred to groups from the Western Desert as *Tjemehu* and *Tjehenu*, conventionally translated as 'Libyans'. They appear in royal display during the Old Kingdom but only take on a more distinctive shape in later records of the New Kingdom and the Third Intermediate Period, when they assumed control over the Delta.[54] In Sudan, the Wadi Howar dried up in late prehistory, and the communities in this area became disconnected from developments in the Nile Valley. Perhaps these groups migrated in the opposite direction, towards the Ennedi Plateau in modern Chad.[55]

Agriculture dominates life in the oases today, as it did in the past (Figure 3.3d).[56] Of the five major oases, Dakhla holds substantial remains of the Old Kingdom, though Egyptian presence is attested from the Early Dynastic period in the area.[57] Mud-brick architecture and locally made Egyptian pottery that date to Dynasty 3 have been found at Mut el-Kharab, and a large enclosure was built at nearby Ayn el-Gazzareen in Dynasty 4.[58] Another large enclosure was built in the eastern part of the oasis, near Ayn Asil, in early Dynasty 6, and a palatial complex for an Egyptian governor was built in the reign of Pepy II to the south of this enclosure (Figure 8.12).[59] The governor's palace and the associated cemeteries located at Balat have been subjected to extensive excavation since the 1970s.[60] Evidence of settlement activity in the oases is sparse for the later First Intermediate Period and most of the Middle Kingdom, but activity is again attested in the late Middle Kingdom to early Second Intermediate Period at Dakhla and Kharga Oases.[61]

Prior to the arrival of the Nile Valley Egyptians, Dakhla Oasis was inhabited by a local group called the Sheikh Muftah cultural unit in research literature.[62] Remains from the Sheikh Muftah culture date across a period of 1,500 years, from around 3800 to 2300 BC, equivalent to the span from the mid-Predynastic period to the end of the Old Kingdom in Nile Valley chronology. The lifestyle and subsistence strategy of the Sheikh Muftah people was perhaps a variety of pastoral nomadism, but it is not yet fully understood. They apparently lived close to water supplies, but little architecture has been identified that corresponds with Sheikh Muftah finds, which have generally been discovered in surface surveys. In the outline of their current research, Ashten Warfe and Sarah Ricketts have identified three constellations of Sheikh Muftah and Egyptian material culture: intermingling, which suggests cohabitation (at Mut el-Kharab); alternating in vertical stratigraphy, reflecting occasional occupation of a site by the Sheikh Muftah people (at Ayn el-Gazzareen); and spatial separation, which seems to indicate that Sheikh Muftah people and Egyptians lived in discrete, chronologically distinct groups (at Balat).[63]

Access to Ayn Asil and from there into the Libyan Desert was monitored from watch towers located on hilltops at the entries to the oasis.[64] A dense network of caravan routes ran across the Libyan Desert and connected the Nile Valley with the oases, offered the opportunity for trade with sub-Saharan Africa, and bypassed any troublemaking communities on the Nile floodplain. The *Darb el-Arbaʿin* ('Road of Forty Days') departs from Asyut in Middle Egypt, passes through Kharga Oasis and a series of smaller watering stations including Selima Oasis, Laqiya, and el-Natrun, and terminates in the Marrah Mountains of Darfur. These are located in the south-west of the Republic of the Sudan close to the border with the Republic of South Sudan, the Central African Republic, and Chad.[65] It is possible that the route was already in use during pharaonic times, but this has not yet been attested in the archaeological record.

Dakhla Oasis was reached from the Memphis area via Farafra and Bahariya, and from Asyut via a number of roads, of which the *Darb el-Tawil* ('Long Road') is the best known. Another road departed from Thebes and passed through the north of Kharga Oasis and, in the Middle Kingdom, was controlled by a pharaonic outpost at Abu Ziyar, later to be replaced by a control station further to the west at Tundaba.[66] The *Darb el-Tawil* continues south-west as the Abu Ballas Trail to the plateau of the Gilf Kebir.[67] A rock inscription of a King Mentuhotep, possibly Mentuhotep II, was found at Gebel Uweinat, located along a direct continuation of the Abu Ballas Trail to the southwest. The connections from there to central Africa are badly explored, but perhaps Darfur was the final destination. Several campsites, one of which yielded evidence of barley grain kept in a storage jar, water-supply stations, and cairns set up along the trail as road markers, suggest operational infrastructure in the Old Kingdom and First Intermediate Period.[68] A seal inscription bearing the

name of Khufu and rock inscriptions of Dynasty 4 have been found at a site called Chufu 01/1, which is located off the trail and nicknamed 'The Water Mountain of Djedefra' after one of its inscriptions. This appears to show the pharaonic state operating along desert trade routes at an even earlier date.[69]

The rather limited number of rock inscriptions left by pharaonic elites along these routes suggests that the caravan trade was organised by local groups. The pharaonic state interacted with them, invested in infrastructure maintenance, and tried to control traffic into the oases, but it did not regularly send its officials on dangerous and exhausting expeditions into the Western Desert that necessitated adapting to a life of deprivation. Perhaps entire families and clans travelled along the caravan routes, but it is also possible that some members stayed at bases in the oases, like those of the Sheikh Muftah cultural unit.

SOCIAL LANDSCAPES

Geoarchaeological and geophysical methods have advanced our knowledge of the ancient Egyptian environment considerably, and magnetometry, ground-penetrating radar, and auger surveys are now widely employed in archaeological fieldwork.[70] Tell el-Dabʿa is a prime example for how the palaeo-landscape of a large settlement – with its internal harbour basins, waterways, living quarters, palaces, and temples – can be reconstructed on this basis (Figure 4.3).[71] Archaeological surveys and excavations in Egypt have traditionally focussed on a single site, or on a small region, in part due to the way in which permissions are granted by the Egyptian authorities, but geoarchaeological methods combined with the use of satellite images have broadened the spatial scope of scientific analysis.[72] The quantitative increase and wider typological range of information has, in turn, changed interpretations, so that regional-scale dynamics, typically regarding environmental change and settlement patterns, can now be established. Accumulating greater knowledge of the ancient landscape will offer fresh and better data with which to re-address questions surrounding human agency, which have typically veered between environmental determinism and anthropocentric explanations.

The behaviour of the Nile is very often key to understanding the location and orientation of structures at a site.[73] The Theban area has, for example, been subjected to intensive geoarchaeological and geophysical investigation, and it is becoming clear that depictions of the local landscape in Theban tombs seem to be far less idealising and closer to physical reality than was previously assumed.[74] The Karnak temple, Egypt's ceremonial centre of the New Kingdom and later, apparently began in the Middle Kingdom as a shrine located on an island in the Nile.[75] One might speculate that the island was interpreted as representing the primeval hill known from religious texts. Steps and quays were added to the east of the temple, as the river migrated west. Such features that have remained unexplained or were subsumed under typological questions thus emerge as

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being organically embedded in the changing landscape and in wider ritual infrastructure.

Landscape archaeology developed as an ambitious theoretical agenda of British prehistory during the 1990s.[76] Phenomenology, one of its branches, assumes that the landscape offers a means for people to develop a sense of being-in-the-world.[77] Sensual experience – smelling, seeing, hearing, touching – and emotions such as the feeling of threat in a lonely place, fear of a river, or the love of quietness in a secluded space, impact on people's behaviour. Landscape, it is argued, is pervasive and yet often implicit in people's understanding of the world. The debate had philosophical undertones borrowed from discussions of materiality, and fundamental assumptions regarding the opposition of subject and object, mind and matter, and culture and nature were questioned.[78] These are difficult to address empirically, but it seems unnecessary to prematurely dismiss their potential for enhancing interpretation. People anchor their lives in places and internalise a given reality, irrespective of how they choose to respond to it.[79]

Interpretive discussions of the wider landscape in north-east Africa are rare.[80] For nomads and Bedouin who live mobile lives, place-making might have played a different role than for the sedentary society of the ancient Egyptian state,[81] but most studies in Egyptology explore cultic landscapes, and the majority of case studies are situated in the Nile Valley.[82] For example, the Great Wadi and ceremonial buildings at Abydos have been argued to form an interlocking network of sacred areas, connected by axes of visibility (Figure 9.2).[83] Methodologically, 'visibility' means looking through the eyes of people who took decisions on the basis of their experience of the landscape, as opposed to the bird's-eye perspective typical of archaeological maps and plans.

The cultic landscape of Thebes offers rich material for studying the interplay of geomorphology, building activities, and interpretation.[84] According to tomb inscriptions and decoration, the western cliff, in which the funerary mausoleums of high-ranking officials were cut, embodied the goddess of the west, who received the deceased and, from Dynasty 19 onwards, the sun before it entered the netherworld.[85] The royal cemetery of Dynasty 11 at el-Tarif was positioned opposite the Karnak temple, hence the epithet 'The One Who Is Opposite Her Lord' for the West Bank, which is found in hieroglyphic inscriptions. The funerary character of the Theban West Bank fits nicely with religious ideas of the setting sun, since the west was identified as the realm of the dead, though Amenhotep III also had his palace – a non-funerary monument – erected at the southern fringe of the West Bank. Other cemeteries, such as those of Amarna, Naga ed-Deir (Figure 7.4), and Qau el-Kebir (Figure 5.3), were located on the East Bank, and their position was likely determined by other landscape features and the locations of the settlements to which they belonged, rather than by religious norms.[86]

Harco Willems has argued that the local leaders of Deir el-Bersheh, in Middle Egypt, copied elements of the cultic landscape from early Middle Kingdom Thebes and Abydos by designing processional routes from the provincial capital to their tombs.[87] According to him, the local landscape became a theatre for the demonstration of power. One could take the argument further and argue that people internalised the landscape while moving along those processional routes. Alternative experiences of the landscape were marginalised, and the landscape thus contributed to the stabilisation of social order.

Such case studies demonstrate the relevance that landscape archaeology has for adding complexity to the interpretation of ancient Egyptian society and culture. As with objects and buildings, whenever meaning is attributed to a landscape – by ancient Egyptians or by Egyptologists – it need not be the same for everyone. Bernard Knapp and Wendy Ashmore have argued that landscapes are nested, meaning that they are ambivalent or multi-layered.[88] For example, men and women might see different things in the same landscape, or ritualists might experience a cultic landscape differently from farmers. Moreover, the meaning of a landscape is not fixed, but is constantly redefined: ceremonial landscapes formed, changed, and were abandoned. Such changes can be imposed top-down by leaders, as was the case for the elites of Deir el-Bersheh copying cultic elements, or by people shifting the focus of practice in a landscape over time, as has been argued for Abydos.[89]

It is easier methodologically to observe changes in discourse than in embodied experience. A discursive landscape is one that has been made the object of explicit reasoning, systemising, and representation. John Baines has argued that late fourth- and third-millennium scenes of royal and elite ritual – King Scorpion hacking a canal, upper-class women enjoying leisure time in a papyrus thicket – were preferably set in the watery landscape of the Delta because Memphis became the capital around this time.[90] His interpretation implies that representations of landscapes are not only concerned with sensual experience, but with political control. Landscape provides a supportive backdrop for a message focussed on the depicted individuals. As with the Delta, the Theban landscape was increasingly explicated in imagery, texts, and the built environment, after Thebes had become the ceremonial capital of the country during the New Kingdom. Discursive landscapes are contingent upon historical contexts, and the interpretation of a discursive landscape requires the analysis of a representation as much as of the mechanism by which these representations came into being.

Environmental features were incorporated into the visual display of religious content. The annual inundation must have been a key event in the lives of almost all Egyptians and evoked a range of expectations, hopes, and fears. It was a physical event, experienced sensually. In royal display, however, the inundation was depicted in the form of an obese man with a hanging belly and gynaecomastia, 'fecundity figures' representing the abundance brought by the

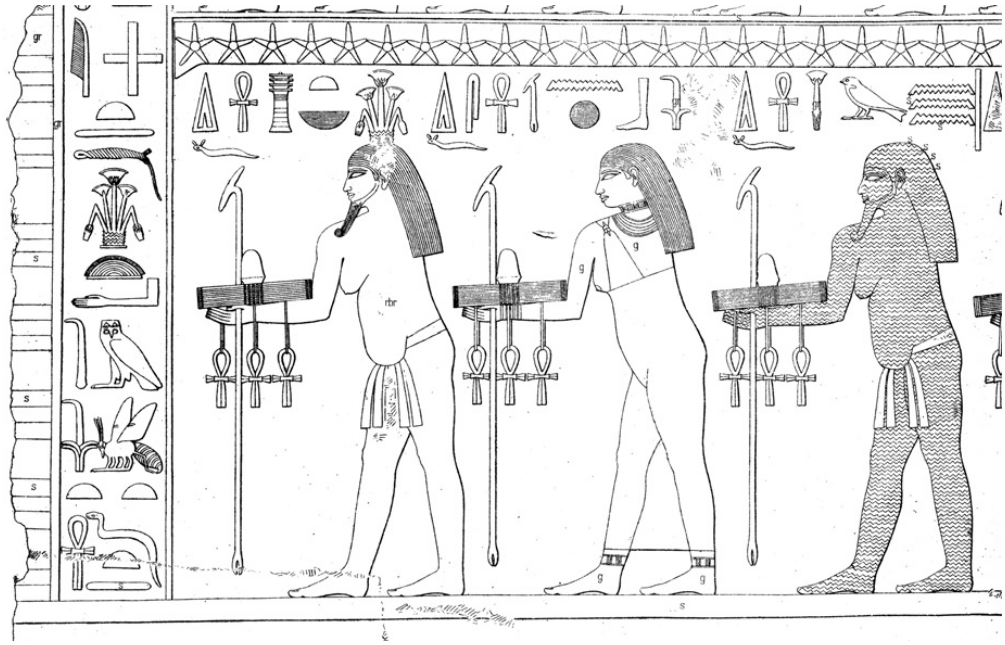

Figure 3.4 Anthropomorphic 'fecundity figurines' bringing offerings to the king, from left to right: 'Delta marshes' (male), '*nekheb*-land' (female), 'Great-Green' [= the sea] (male, with water lines). Pyramid temple of Sahura, Dynasty 5. After Borchardt 1910–13, vol. II, pl. 30. Courtesy: Deutsche Orientgesellschaft.

flood waters (Figure 3.4).[91] It would have been possible to depict an undifferentiated mass of sediment instead, but the physical qualities of the inundation were irrelevant for the purposes of royal display. Rather, *hapi* 'inundation' was distinguished from *iteru* 'river' in Egyptian terminology and was equipped with physical attributes fit for interactions with other beings. It brought offerings to the king and was depicted along with other anthropomorphic figures. It was sometimes depicted as twins, symbolically uniting Upper and Lower Egypt.

Deities can be discussed along similar lines. The name of the goddess Satet means 'The One Who Pours Out', and she was known as the Lady of Elephantine, where the Upper Egyptian Nile originated according to Egyptian mythology. Satet was represented in human form rather than as a well or spring (Figure 8.10a).[92] Similarly, the sun god Ra was depicted as a man carrying a sun disc, rather than as just a sun disc. The pantheon of Egypt is rooted in the sensual experience of the landscape, but fecundity figures, Satet, and Ra are not. They are not experienced landscape but are hypostases of environmental features, recombined in new ways within a representational matrix that was ultimately focussed on the king.

The ancient Egyptians quite naturally accumulated practical knowledge of the landscape, a beautiful example of formalised knowledge being a map compiled in Dynasty 20. Apparently, this map was a guide for, or possibly

a *post eventum* record of, a royal mission sent to extract a special type of greywacke in the Wadi Hamamat.[93] Another type of engagement with the landscape was through rock inscriptions.[94] Members of expeditions, for instance, made use of features in the landscape to make their inscriptions stand out or left their inscriptions in the vicinity of one left previously, the choice made due to other people having marked a site as special. Simply put, people interact with other people through the landscape.

It is a commonplace in Egyptology to assume that the ancient Egyptians identified the desert, where cemeteries were located, with chaos and with the god Seth (the antagonist of Horus), and the floodplain, where there were settlements, with order.[95] Later periods may be instructive when contextualising this interpretation. When Christianity was predominant in Egypt, the desert became the preferred context of religious contestation in literary accounts: the desert fathers lived in caves in the desert, where the devil would try to tempt them.[96] However, most desert fathers lived close to settlements and were regularly visited, even though narrations of their spiritual encounters were set in the remote desert. Correspondingly, death was in the close desert, which people would regularly visit to maintain a funerary cult, while the remote desert was a liminal space because it lacked human sociality.[97]

CONCLUSION

The landscapes of north-east Africa vary greatly. They afford their inhabitants certain lifestyles but do not determine how people live or how they organise themselves socially. Egyptians and other groups who occupied the various habitats of north-east Africa depended on each other. As will be shown in later chapters, understanding interdependency requires historical modelling of the Egyptian state.

The advent of a centralised Egyptian state coincides with a leap in the human manipulation of the landscape, the boldest expressions of which are the pyramids and their associated courtly cemeteries. A new type of landscape was created in the Memphite area that went hand in hand with the greater exploitation of natural resources in the environment. But the Egyptian landscape was not monolithic; like society, it was stratified and diverse, characterised by expressions of power relationships. Although people travelled the country, most Egyptians would have regarded their local landscapes as being more relevant to their sense of being-in-the-world than the distant pyramid fields.

Written and visual culture add layers of complexity to any discussion of the ancient Egyptian landscape. Descriptions and visual representations of the landscape are different from the experienced landscape and were subject to the rules of discourse, genre, and historical change. While experience and discourse might mould each other, it is useful to recognise the difference in order to avoid blithely imposing any interpretation of one onto the other.

Landscape provides context for a range of discussions in this book. The location of settlements and cemeteries in the landscape is key to their interpretation. Formalised expressions in written and visual form amply draw on environmental features, from the heraldic plants representing Upper and Lower Egypt to simple scarabs used for sealing, and from representations of funerary landscapes depicted on coffins to individual hieroglyphic signs. The ancient Egyptian landscape thus seems to have been suffused with meaning, and social context is critical for understanding how such meanings were activated, controlled, and otherwise manipulated. The following chapters explore what those social contexts might be.

NOTES

1. Klemm and Klemm 1993: 2–10.
2. Kuper and Kröpelin 2006.
3. Bárta 2015b.
4. Lane 1842; Blackman 1927: 283–316. For ethnoarchaeology, see Wendrich 1999.
5. Said 1993: 188–256.
6. www.capmas.gov.eg/ (accessed 20 March 2021).
7. Bowman 2013. The Foreign Agricultural Service of the United States Department of Agriculture forecast that 9 million tonnes of wheat would be grown in Egypt from 2021 to 2022, and that 13.2 million tonnes would be imported; see www.fas.usda.gov/data/egypt-grain-and-feed-annual-5 (accessed 25 March 2021).
8. Bowman and Rogan 1999.
9. Hopkins 1987: 1–8.
10. Said 1993: 1–56.
11. Ball 1939: 162–3.
12. Butzer 1976: 57–80; Bietak 1979.
13. Bunbury 2019: 77–92 and *passim*.
14. Jeffreys and Tavares 1994; Moeller 2016: 214–16; Bunbury et al. 2017.
15. Bietak 1975; P. Wilson 2007; Trampier 2014.
16. Butzer 2002.
17. Bietak 2017: 53–6.
18. Hoffmeier and Moshier 2013.
19. Bowman and Rogan 1999; Menu 2004; Moreno García 2005.
20. Seidlmayer 2001b: 104.
21. Butzer 1976: 51.
22. Willems et al. 2017: 255–61.
23. De Garis Davies 1903: 41, pl. 32 for an early depiction of the *shaduf*.
24. See contributions in the section 'Food Technology', in Nicolson and Shaw 2000: 505–671.
25. Livingstone-Thomas 2011.
26. Moreno García 2014.
27. J. P. Allen 2002: 142–78.
28. Boessneck 1988.
29. Eyre 1999; Lehner 2000; Lehner 2010; Moreno García 2011.
30. Blackman 1927.

31. Kemp 2005: 13–18.
32. Moreno García 2014: 239–43.
33. Papazian 2021.
34. Eyre 1999, 41; Posener-Kriéger 2004.
35. The numbers provided by Baer, Diodorus, and Herod Agrippa are discussed by O'Connor 1972a: 81–3, with references to the original publications.
36. Hassan 1993.
37. See Eyre 1987: 15–18 on seasonal work in the Old Kingdom, and Rathbone 2006 for land use and inequality in Roman Egypt.
38. W. Y. Adams 1977; Edwards 2004; Raue 2019; Emberling and Williams 2021.
39. Trigger 1965.
40. Hafsaas 2021.
41. Gratien 1978; 2011; 2014; Paner 2014.
42. S. T. Smith 2003.
43. Emberling 2014.
44. Edwards 1996; S. T. Smith 2003: 10–29; Raue 2018: 65–9.
45. Raue 2018.
46. Krzywinski 2012.
47. Bietak 1966; Liszka and de Souza 2021.
48. Näser 2012.
49. Kemp 2006: 39–41; 2018: 40 suggests that the archaeological remains are those of small groups of pan-grave people, perhaps extended households. See Morrow and Morrow 2002 for rock art in the Eastern Desert.
50. Seyfried 1981.
51. Fattovich 2012; Tallet 2012; Bard and Fattovich 2018.
52. Rothenberg in Rothenberg et al. 1979: 109–80; Eddy and Wendorf 1999; Beit-Arieh 2003, Ben-Yosef 2018.
53. Riemer 2009.
54. Moreno García 2015c.
55. Keding 1998.
56. Pantalacci 2005.
57. Pettman 2019.
58. Pettman 2012.
59. Jeuthe 2018.
60. Pantalacci 2019, for summary of works and publications.
61. Giddy 1987; Förster 2015: 459–90; Darnell and Manassa Darnell 2016.
62. Riemer 2011; Jeuthe 2017; 2021.
63. Warfe and Ricketts 2019.
64. Kaper, Willems, and McDonald 2002.
65. Riemer and Förster 2013.
66. Darnell 2013.
67. Förster 2015.
68. Hendrickx, Förster, and Eyckerman 2013; Riemer 2013.
69. Kuhlmann 2005; Förster 2008; Wagner and Heller 2012.
70. Strutt et al. 2016; Tristant and Ghilardi 2018; Parcak 2019; Schneider and Johnston 2020.
71. Bietak 2010a; Forstner-Müller 2012.
72. Parcak 2009; Trampier 2014; 2017; Willems et al. 2017.
73. Bunbury 2019.

74. Graham, Boraik, and Gabolde 2017; Toonen et al. 2018. Similarly, for Memphis during the Middle Kingdom, see Bunbury and Jeffreys 2011.
75. Bunbury, Graham, and Hunter 2008.
76. Ashmore and Knapp 1999; David and Thomas 2008; Gillings and Pollard 2016.
77. Tilley 1994; critically, and advocating social practice, Barrett and Ko 2009.
78. Boivin 2008: 1–29, 82–128.
79. Bender 2006.
80. Bollig 2009.
81. Edwards 2021.
82. Richards 1999; Jeffreys 2010; Geisen 2020a; Sullivan 2020.
83. Effland and Effland 2010.
84. Jiménez-Higueras 2020.
85. Rummel 2020.
86. Jeffreys 2010: 110.
87. Willems 2020.
88. Ashmore and Knapp 1999: 16–18.
89. Pouls Wegner 2020.
90. Baines 2020.
91. Baines 1985. Examples mentioned in the text of this chapter are on pp. 131–8, 226–325, figs. 23, 52, 53, 76; for rows of fecundity figures carrying offerings, see also Borchardt 1910–13: pls. 29, 30.
92. Seidlmayer 2006b: 227.
93. Harrell and Brown 1992.
94. For example, Gasse et al. 2007.
95. Te Velde 1977: 62.
96. Goehring 1993.
97. One could link this argument to Jan Assmann's interpretation (1990b) of the Egyptian concept of *maʿat* (order, justice) as being an expression of mutuality: where there is no one to respond to an action, as in the remote desert, there is no *maʿat*.

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