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Carving interactions: rock art in the nomadic landscape of the Black Desert, north-eastern Jordan

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CHAPTER 7 | Images and interactions

7.1. Introduction

The Safaitic rock art of the North Arabian basalt desert is a unique and understudied material, one of the few surviving traces of the elusive societies that inhabited this region in antiquity. Yet little is known about the actual cultural practice of making rock art, and the accompanying inscriptions, by the desert societies. Why did these peoples carve images throughout the *harra* and what did the engravings mean to them? Many studies have addressed similar issues in the research into the different types of rock art that can be found across the globe. Various theories have been proposed on the role of rock art in nomadic societies, but few have studied it as a cultural practice in societies where herding formed part of the nomadic way of life. Those studies that have looked at herder rock art have primarily interpreted it as a mediator of territorial disputes and boundaries, similar to various theories for nomadic hunter-gatherer rock art. However, these explanations do not suffice to elucidate the complexity of the rock art or the herding societies themselves and their very particular interaction with the domestic and wild landscape. The ancient societies of the Black Desert are no exception to this and, so far, what was known was based primarily on the inscriptions that they made. Rock art, as visual expressions of people's lives and worldviews, can provide unique insights into its makers and how they perceived and interacted with the world around them.

For this reason, this study set out to explore the Safaitic pictorial engravings from the Jordanian Black Desert. It aimed to understand the carvings as a cultural practice in the desert societies and to understand how these peoples interacted with the landscape they inhabited. The basis for this study was a corpus of rock art from the Jebel Qurma region in north-eastern Jordan. To investigate these issues, I used an archaeological, material approach, studying the content of the images and the traces and places of its production and consumption. In this final chapter, I discuss the results of this study and what they reveal about the practice of rock art and about the societies who carved it.

7.2. Desert images

In Chapter 4, I studied the content of the Jebel Qurma rock art. I examined the motifs and scenes with the aim to uncover what is depicted in the images. Zoomorphic figures dominate the corpus, making up almost three-quarters of the petroglyphs. In comparison, anthropomorphs are few and appear to play primarily 'supporting' roles in the rock art, as they are most commonly depicted interacting with animals. When humans are shown interacting with each other in, for example, conflict scenes, the animal in the scene still plays the central role, such as the equid being ridden or camel being raided. The mysterious women figures are the only exception to this rule and, although they are rare, they may have played an important role in certain narratives. Similarly, the sets of dots and lines are difficult to interpret but their frequent inclusion in compositions suggests that they had a special purpose in the carvings.

Reviewing the content of the rock art reveals three main themes: pastoralism, wildlife and hunting, and conflict in combat. This raises two questions. First, how are we to interpret these depictions? Are they depictions of everyday life, actual events, or perhaps ritualised narratives? Second, why are the themes of pastoralism, wildlife and hunting, and conflict depicted repeatedly through motifs and scenes? What do they tell us about the societies that made these carvings? In the following sections, I will address these questions.

7.2.1 Selective narratives

The Safaitic inscriptions appear to reflect the current and past experiences of the authors. Expressions of grieving, worries about droughts, and acts of being on the lookout and pasturing animals give an impression of the every day and significant events in the life of the desert nomads (Macdonald 1992b, 1993, Al-Jallad 2015). Yet the individual author is not expressing just anything of interest and relevance to him. Al-Jallad (2015, 3) has shown that the inscriptions are highly formulaic and selective in their form and content. They follow ‘stylistic and thematic formulae’, suggesting that when individuals learned to write, they learned what to write and how (ibid., 6). The frequent and uniform expression of daily life suggests that the subject matter of the inscriptions was influenced by the experiences of the authors (ibid., 7). The content need not reflect a real-time event though. The grammatical structure of the texts means that they ‘could equally describe activities in a more distant past, “he had pastured”, the future “he will pasture”, or even wishes “may he (have the opportunity to) pasture”, and not necessarily what the author was doing directly before carving an inscription’ (ibid., 7).

This study of the rock art provides similar evidence. The events, subjects, and narratives in the rock art appear to be rooted in the reality of the desert nomads, influenced by every day and significant events and the domestic and wild landscape around them. Depictions of herding life, wildlife, and conflict seem to reflect the daily and the significant aspects of the desert nomadic world. Additionally, how they are depicted shows a great intimacy with these aspects. For example, although some zoomorphic figures are simple in form, many show knowledge of the animals themselves; dromedaries are depicted with anatomic detail and wild animals are portrayed with their species-specific characteristics. Similarly, the patterns in the depiction of prey and hunting techniques indicate a sense of realism in the carvings. This is supported by the fact that there are no indications for mythical or fantastical beings in the rock art.

Yet this is not to say that the carvers were just depicting the world around them and what they experienced. As with the inscriptions, the temporality of the narratives is unclear; the depictions may reflect a past or future event or a prayer or hope for an event. What is more, like the inscriptions, the rock art is highly selective and thematic. The motifs and scenes were by no means random depictions of subjects and narratives of interest to the individual carver. There were certain conventions in what was depicted and how. The dromedary camel is depicted repeatedly, often on its own or being led by a person, as a mother or young, or as the object of a raid. Domestic equids are usually ridden by people carrying weapons and hunting or fighting. Other domestic herd animals that one might expect are not depicted, such as goats and sheep and, with a few possible exceptions, donkeys. Wildlife is an important theme in the rock art, but not all desert fauna is depicted. Those that are portrayed tend to feature in specific contexts. For example, ostriches are almost always carved in flocks, while lions are usually depicted on their own or hunting animals. The depiction of hunting also appears to have followed certain rules; oryx are hunted from horseback, bovids are hunted in groups using dogs, wild asses are hunted by the solitary archer, and ostriches are often hunted by packs of carnivores. Humans feature in the rock art but, with the exception of the women, are always simple in form.

The carvers were thus depicting only a selection of reality, just as they were only writing about some topics. They were depicting these subject matters in specific ways, just as they were writing about those topics using specific formulae. Studying what the nomads portrayed and chose to emphasise can provide clues into what was significant for these societies. For this reason, in the following sections, I explore the three themes dominant in the imagery: pastoralism, wildlife, and conflict.

7.2.2 Pastoralism and the dromedary camel

The first subject that stands out is the dromedary camel. This motif makes up almost half of the zoomorphic figures and a third of the entire rock art corpus. Its presence in the imagery is thus more dominant than any other. While it is most commonly depicted on its own, the dromedary also features in scenes that appear to depict aspects of the every day of a pastoral lifeway: people holding and walking with camels and female camels nursing their young. Similarly, the many individual camels portrayed with their foreleg bound represent an aspect of camel herding. Camels are rarely depicted being ridden. Their dominant presence in the rock art and depiction in pastoral scenes fits with what we know from the content of the Safaitic inscriptions. Many texts from across the *barra* contain narratives referring to camel herding, of which a common phrase is ‘he pastured the camels.’⁶⁰ The rock art thus supports the impression given by the inscriptions that the camel herding was important to the nomads.

Although little is known about the exact subsistence system of these nomads, the importance of the dromedary camel in the rock art appears to reflect a wider significance of this animal in the Near East from the Iron Age onwards. As outlined in Chapter 4, it had a substantial impact on the development of the region by facilitating the expansion of nomadic groups into marginal environments and the development of long-distance trade across the peninsula (Bulliet 1975, Köhler-Rollefson 1993, Magee 2014, Seland 2015). Textual references and iconography from sedentary centres in the early first millennium BC refer to the use of dromedaries by (semi-) nomadic groups in northern Arabia (Magee 2014, 210). The imagery of camels dominates not only Safaitic rock art but also other corpora in Northern Arabia, such as the Himaic rock art from southern Jordan (Corbett 2010) and Thamudic rock art from northern Saudi Arabia (Guagnin et al. 2016). It is also depicted frequently in other forms of iconography, from Iron Age camel figurines from Saudi Arabia, Oman, UAE, and Yemen (Magee 2015) to Palmyrene reliefs (Seland 2015) and Nabataean reliefs and figurines (Corbett 2010).

Additionally, there is interesting archaeological evidence on the possible symbolic role of the dromedary from the southern part of the peninsula. Camel burials have been excavated here that show evidence for the sacrifice of animals in funerary rituals, possibly representing *balīya* graves. The *balīya* ritual has been described in later textual sources and is regarded as ‘the sacrifice of an animal for a deceased individual to use in the afterlife as it was conceived in the pre-Islamic period in Arabia’ (King 2009, 81). The textual sources write that usually a female animal, commonly a dromedary, was chosen for the ritual (King 2009). King (2009, 87) notes that ‘the choice of the female camel for a *balīya* to provide the dead with a riding animal in the hereafter corresponds with practice in life. The female is preferred to the male camel for riding because of its more benign temperament.’

There is a myriad of evidence for *balīya*-like camel immolations from UAE, Oman, Yemen, and al-Bahrayn, most of which date from between the fourth century BC and the third century AD (King 2009, Curci and Maini 2017). As King (2009, 91) points out, we cannot assume that the archaeological evidence for these practices in southern and south-eastern Arabia equates with similar practices in the rest of the region. However, there may be some archaeological and epigraphic evidence that indicate similar rituals. A possible *balīya* burial was found in Wādī Rumm, southern Jordan, where the burnt remains of a camel were found in a pit, accompanied by a Nabataean inscription referring to *blw*’ (Hayajneh 2006). This word probably relates to the Classical Arabic term *balīya* (ibid.). There are also Safaitic inscriptions referring to the *blw*, which, like the Nabataean *blw*’, is interpreted as *balīya*. For example, one inscription reads ‘By ’tm son

60 E.g. ‘By Ṣbh son of Znn son of Ṣbh and he pastured the camels’ (ASWS 71) (see Appendix B for sigla references).

of ‘n son of Z’n and he set up this Baliyya for his brother’.⁶¹ The use of this term in Safaitic inscriptions suggests that the *baliyya* ritual, perhaps involving camels, occurred in North Arabia too, either in practice or symbolically.

It has been suggested as early as 1932 by Rostovtzeff (1932, 111) that the dromedary camel carvings in the Arabian and Sinai deserts were ‘dedications or recommendations to preserve the camel from harm’. Rostovtzeff (1932, 110-111) likens them to the camel figurines that have been found elsewhere in Arabia (for a recent overview of these finds see Magee 2015). More recently, Corbett (2010) has argued that the camel images, and especially the she-camels, depicted in the contemporary Hismaic rock art from southern Jordan were offerings or sacrifices. Similarly, Eksell (2002) proposed that all of the Ancient North Arabian carvings were offerings to deities, although it has since been shown that Eksell’s conclusions are based on unsupported evidence (cf. Macdonald 2006, Al-Jallad 2015). It is possible that the widespread camel depictions functioned as symbolic sacrificial camels, for example as votive offerings to deities, as suggested by previous scholars, or as a sacrifice for a deceased in the afterlife, like in the *baliyya* ritual. I discuss the carvings as rituals further below.

The widespread representation of camels in the rock art of the Jebel Qurma region thus appears to be part of a wider tradition in which this animal played an important symbolic role in the nomadic societies of ancient Arabia. Furthermore, the rock art provides evidence that, for the carvers of the Safaitic engravings, this role was not only one of economic value but of a much more deeply entrenched socio-ideological significance (Brusgaard forthcoming). Parkes (1987) has argued that imagery in pastoral societies focuses on the main animal being herded, which plays a central part in the symbolic and ritual sphere of society. The economic importance of the herd animal is only part of a wider cultural significance. This can be seen in, for example, the cattle herding societies of eastern Africa (Herskovits 1926, Lincoln 1981, Insoll et al. 2015) and the Sahara (Lenssen-Erz 2012) and goat herding societies in Central Asia (Parkes 1987). Lenssen-Erz (2012, 105) has also shown that the cattle depictions in Saharan rock art evolve from being represented in scenes of everyday life to being depicted on their own or in herds and in elaborate aesthetic styles. He argues that this signals a shift towards their value as individual animals with identities and symbols of wealth and status (ibid., 105).

The camels in the Jebel Qurma rock art show similar features. A small percentage is depicted in scenes representing pastoral activities, aspects of everyday life. However, the majority is depicted on its own, indicating that the significance of this motif lies in itself and not specifically in its interaction with other motifs or narratives. The inscriptions refer to them on an individual basis, referring to ‘the young she-camel’, ‘the male camel’, etc. This suggests that these animals were regarded as individuals with a special status. Furthermore, the camels have often been produced in detail and according to an elaborate production process, and more so than other zoomorphic motifs. On the one hand, they are depicted with realistic details and, on the other, they have unnaturalistic features such as the straight neck and the exaggerated hump. Perhaps the depictions represent ‘the ideal camel’ with all the desirable qualities. This may also reflect their status as symbolic wealth, a common feature in herding societies that have large livestock (Russell 2012). This is supported by their role as the objects of raids and, in this, the female camel may have especially had an important status. I will discuss these points further in the section on conflict and raiding.

This may also explain why goats, sheep, and donkeys are rarely portrayed in Safaitic rock art even though the inscriptions indicate that at least some of the carvers in the *barra* had these animals. Although

61 WH 165.

these animals may have contributed economically to the subsistence of the desert nomads, they likely did not acquire an equally elevated socio-ideological importance. The depictions of pastoral activities, such as the leading and nursing of camels, seem to therefore only portray a selection of herding life, that which is focussed on the dromedary camel.

7.2.3 Wildlife and hunting

The representation of wildlife and people's interaction with it manifests itself in the individual depictions of wild animals and the hunting scenes. Ibex, oryx, wild asses, ostriches, gazelles, and lions feature in the rock art, depicted on their own, some in herds and flocks, and being hunted by humans and carnivores. Faunal remains from various periods, the later pre-Islamic poetry, and 19th and 20th-century travel accounts, combined with the rock depictions, provide evidence for the presence of these animals in antiquity. The depiction of wildlife is discriminate; many desert animals are left out of the depictions, such as snakes, birds of prey, and small felids and canids. The focus is also wholly on the faunal landscape. Plants are not depicted, although this is rare in rock art in general (cf. Veth et al. 2017). There are no faunal records of the wildlife from the eastern *badia* from the Hellenistic and Roman periods so it is currently not possible to reconstruct from the archaeology how these animals figured in the economic and ritual world of the Safaitic authors. The pictorial and textual engravings cannot aid in reconstructing the subsistence economy of the desert nomads and to what extent wild animals played a role in it. However, the selective portrayal for specific wild animals and how they are portrayed can provide valuable insights into the role that the wildlife played in the cosmology of the nomadic societies.

The emphasis on specific, recurring wild animals indicates the symbolic importance of these animals for the carvers. They are also not just depicted as the object of the hunt, but on their own as well. This in combination with the identification of these animals in the inscriptions by the authors ('is the oryx/ibex', 'is the lion', 'are the ostriches', etc.) suggests that the nomads saw them as individuals, perhaps with particular identities. However, it is clear that their relationship to them must have been very different than with their own domestic camels. How the wild animals were perceived appears to also have varied per type of animal.

The wild asses that could be positively identified are those being hunted. However, many of the equid *unid.* figures are likely wild asses as they resemble them strongly. The majority are male. The wild asses animals are always the visual focus of the hunting scene, they are depicted as elegant animals, and have been made using elaborate techniques. This suggests that wild asses were regarded as important animals. In the later pre-Islamic poetry, they are often likened to the author's mount, the she-camel, and described as fast and strong animals (S. Stetkevych 1993, J. Stetkevych 2002) (see Chapter 4.4.4). It is possible that they had a similar status in the earlier desert societies. Similarly, the oryx is often depicted on its own and usually in more detail than the other bovids. Their sex is also more often indicated and in all cases as male. Oryx 'bulls' may have had a special significance. Interestingly, when they are depicted being hunted by a rider on horseback, they are simple in design and the visual focus of the scene is on the equid instead. The many ibex depictions likely also represent males as they are depicted with the characteristic large, scimitar-shaped horns. The ibex, oryx, and wild asses thus all feature prominently in the rock art hunting landscape of the carvers. All three would have been difficult animals to hunt, especially the males. Killing these animals may therefore have carried prestige and, at the same time, these animals may have been admired by the nomads.

In contrast to the ibex, oryx, and wild ass, ostriches are almost always simple in design and depicted in flocks rather than individually. They are often depicted as being hunted by canids and lions. Therefore, their presence in the rock art may be a representation of the wild landscape rather than a focus on the

animal itself. Conversely, ostriches are one of the few wild animals mentioned in narrative inscriptions. They are therefore somewhat of an enigma, being depicted in large numbers but lacking detail and mentioned in the inscriptions but never as individuals.

Lions are one of the few other wild animals mentioned frequently in narrative texts. They are also the only clearly identifiable wild carnivore. The texts express the danger lions posed to humans and domestic animals alike. The inscriptions from Jebel Qurma mention authors attacking lions and being attacked by lions; in the latter case, the author's poor dog was the victim. In inscriptions from other areas in the *barra* authors state, for example, being on the lookout for lions,⁶² killing lions,⁶³ and being attacked by lions.⁶⁴ One particularly creative inscriber wishes a lion upon the person who effaces his inscription.⁶⁵ The threat that lions presented is mirrored in the rock art. They are depicted in large dimensions and in a threatening posture, portrayed as if roaring and ready to pounce. The scenes show them attacking or being hunted by humans and hunting other animals. That the people inhabiting the desert would have perceived these animals as a threat is unsurprising. In areas where lions and pastoralists still coexist, such as in East Africa, human-lion relationships are fraught and often marked by humans killing lions and lions killing livestock (Prins 1992, Mogensen et al. 2005, Hazzah et al. 2009). Pastoralists hunt and kill lions as retaliation for them preying on their livestock, but often also out of a perceived rather than an actual threat that these animals pose (Prins 1992, Hazzah et al. 2009). Tensions are increased when humans encroach more and more on lions' territories, for example in times of drought, which often leads to lions killing more livestock (Mogensen et al. 2005). Historically, many pastoral tribes also actively hunt big game such as lions for a multitude of social and ritual reasons (Prins 1992).

The relationship between humans and lions in the Black Desert in antiquity was likely characterised by similar conflicts. Owning livestock, whether camels, goats, or sheep, would have made the nomads vulnerable to attack. The importance of these animals for their livelihood would have necessitated their protection (cf. Ingold 1980, 27). The fear of attack on the nomads' animals probably extended to their dogs as well, as evidenced by the inscription from Jebel Qurma. It is also possible that the killing of lions was not just done out of necessity or fear, but undertaken as part of ritual or sport hunting. There is evidence from ancient Yemen for the hunting of lions for sport by elites and tribal leaders (Maraqten 2015, 219). It is unclear if this can be translated to the societies of the Black Desert, but it is possible that the killing of lions was associated with prestige or skill. The depiction of lions on their own as well as in hunting scenes, like with other animals, suggests that they were significant in the worldview of the nomads.

In general, the hunting scenes appear to reflect the importance and status of the wild animals. The prey is almost always the visual focus of the scenes, in terms of composition, production technique, and detail. The only exception is when the hunt takes place from horseback; in these cases, the horse or hybrid is visually emphasised. This suggests that the equids had a special role, perhaps a special status. In contrast, dogs are often depicted as helpers in the hunt but are simple and small in design. There are a few inscriptions mentioning dogs in narratives that suggest that the author valued their dog emotionally. For example, 'By my son of 'kl of the lineage of Hly and he grieved for his dog that had strayed. So O Lt grant a returning [of the dog]'.⁶⁶ As hunting accomplices, dogs would have been important animals, helping to minimise risk and maximise hunting success (Mitchell 2008, Perri 2016). In many cultures where dogs are used for

62 E.g. SIJ 14, ASWS 183.

63 E.g. HaNSB 333, RSIS 198.

64 E.g. LP 161.

65 LP 461.

66 HCH 131.

hunting, they are extended symbolic importance and a special social status (Mitchell 2008, Perri 2016). It is noteworthy that this does not seem to be represented in Safaitic rock art. However, their frequent presence in hunting scenes does indicate that they played an important role in hunting strategies. Similarly, the human hunters are never the focus of scenes and appear to have no particular status in the rock art. They are generally small and simply carved. This may in part be a representation of the hunting landscape, depicting the hunter as hidden and stealthy. However, it is also clear that they are not the focus. Although they play a role in the narratives, the human hunters do not appear to be associated with specific symbolism or status in the imagery.

The frequency of hunting representations in the rock art reveals the symbolic importance of these interactions to the carvers. The scenes illustrate two forms of hunting, each perhaps representing a different aspect. The scenes depicting animals hunting other animals portray an aspect of the natural environment: large carnivores hunting prey. Humans do not feature in these scenes and they appear to instead reflect a perception of the wild landscape around them. The majority of hunting scenes depict humans hunting animals. Although we cannot discern if these were portrayals of real events, as opposed to, for example, idealised events, the realism and standardisation of the depictions suggest that hunting was culturally significant in the world of the desert nomads. It is possible that it was ritualised or a form of sport, a development often evident in pastoral and agricultural societies (Russell 2012, 163). The representation of hunting may also have been highly symbolic. As will be discussed below in § 7.6, the global rock art record has various examples of areas where the animals depicted widely in the rock art do not match those found in large numbers in the zooarchaeological record (Keyser and Whitley 2006, Russell 2012). The desert nomads may have been depicting that which was symbolically important rather than economically important, both in terms of hunting and in terms of the specific wild animals represented. In many societies, certain animals are loaded with symbolic associations, associations which are ‘socially created and maintained’ (Lewis-Williams 2004, 44). Thus the frequent depiction of the oryx hunt and the ibex hunt may represent the prestige of hunting these animals rather than the hunt itself.

While we cannot reconstruct the economic importance of hunting in the absence of zooarchaeological evidence, the rock art attests to its socio-ideological importance. This appears to have been part of a wider ideology as well. Hunting is depicted frequently in Himaic and Thamudic rock art as well (G.M.H. King 1990, Corbett 2010, Guagnin et al. 2016). Further textual and iconographic evidence from across Arabia reveals the socio-ideological importance of hunting in the societies of antiquity in this region (Maraqten 2015).

It is noteworthy that references to hunting are rare in the Safaitic inscriptions. There are a few texts in which the author states being on the lookout for a particular animal or lying in wait for an animal, like the ostrich scene from QUR-839 (fig. 4.62). However, these phrases are used in a variety of contexts, so it is unclear what the authors mean exactly with being on the lookout or lying in wait, whether this was in the context of hunting. Explicit references to hunting do exist⁶⁷ but are rare. In this, the pictorial and textual engravings thus diverge from each other in content.

7.2.4 Conflict and raiding

Conflict is represented in the individual figures by people on horseback wielding weapons and, more frequently, in the scenes. The scenes portray people fighting each other and people on raids. The dromedary

⁶⁷ E.g. ‘By S¹’d son of Ġnm of the lineage of Qmr and he hunted until exhaustion, so may he eat and be protected’ (C 4348).

camel is often represented as the object of the raids. Like in the hunting scenes, the horse or mule/hinny is frequently depicted as the mount in conflict scenes. Visually, the camels and equids that feature in the conflict scenes are always the objects of focus. Therefore, although the combat is being carried out by people, the visual emphasis in these scenes is still on the zoomorphic figures. Conflict is mentioned in the Safaitic inscriptions in a variety of ways. There are references to fighting, being on the lookout for enemies, and raiding. For example, 'By Bnll son of 's'lm and he was on a raid and so O Lt [grant] security'⁶⁸ and 'By 'nm son of 'hd and he was on the look out for the raiding party.'⁶⁹ Conflict between particular groups and tribes is also apparent from the inscriptions. Most notably, when the tribe *Hnll* is mentioned in the texts, it is always in hostile terms (Macdonald 1993, Norris and Al-Manaser 2018). These inscriptions indicate that conflict and raiding were part of the desert nomads' lives.

Raiding is a common feature in herding societies. The ethnographic record shows that, in societies that own and rely on herding, livestock often constitute wealth (Russell 2012). Animal wealth is an integral part of life, determining social status and prestige, social relations, such as marriage, and ritual exchanges (Herskovits 1926, Lincoln 1981, Russell 2012). For this reason, livestock raiding often goes hand in hand with animal wealth as a quick way to accumulate large herds and thus wealth (Russell 2012). It is associated with prestige, status, and the veneration of martiality and warriors (Lincoln 1981, Russell 2012). It can take on different forms. In the extensively studied 'cattle complex' societies of East Africa, tribes acquire wealth directly through raiding by accumulating livestock as well as the prestige and status associated with successful raiding (Herskovits 1926, Lincoln 1981). In comparison, among the Blackfeet people of the North American Plains, horse raiding was a communal affair in which booty was shared among raiders (Ingold 1980, 163). It was therefore a source of prestige and status, but wealth could only be accumulated through subsequent successful breeding of horses (ibid.).

Similar complex relations have been observed in the raiding activities among the camel-herding Rwala Bedouin of North Arabia. Wealth was measured not by how many camels one owns, but by how many one gives away and how (Lancaster 1981). Camels were the means with which to pay bride gifts, compensations, gifts, inheritances, etc. and were thus constantly distributed and circulated (Sweet 1965). To build up a reputation and maintain it by giving away camels in these transactions, a person needed to acquire and continue to acquire camels, and raiding provided the means to do so (Lancaster 1981). It was considered almost a sport, governed by strict rules; 'raiding was more than just an economic activity ensuring the circulation of surplus camels to be exchanged for reputation; it was a code of conduct' (ibid., 141). The most prized objects of raids were milking camels and fine riding camels, of which females were preferable (Sweet 1965). Successful raiding was also a source of prestige and influence (ibid., 1146). This was also acquired through the capturing of horses during a raid, but they were not the objective of raiding (Sweet 1965, Lancaster 1981). Musil (1928, 371) noted that horses were always used for raids and that they 'are of no economic value but serve merely as weapons for the getting of booty and influence.' For this reason, they were called *al-murnijat* in Arabic, the enriching, and the more horses a tribe has, the more it is feared by its neighbours (ibid., 371).

The ethnographic parallels cannot be applied directly to the ancient nomadic societies of the Black Desert, but it is apparent that there are certain general mechanisms involved in raiding in societies that own large livestock. The Safaitic inscriptions attest to the occurrence and importance of raiding and conflict among these societies. This is mirrored in the rock art where symbols of conflict are depicted, such as

68 HaNSB 350.

69 HaNSB 48.

horse riders with weapons, and scenes illustrating fighting and raiding. The mount of, for lack of a better word, ‘warriors’ is almost always an equid, although there are two raiding scenes where camels are being ridden. The visual emphasis on equids in hunting scenes, in conflict scenes, and on their own with a rider suggests that they had a special status. They were probably not a means of subsistence, but they might have been valuable animals as the ‘vehicle’ for raids and the means to acquiring booty and prestige. The relative frequent use of patterns to enhance the aesthetics of the equid and its rider reflects the importance of this animal and its role (cf. Lenssen-Erz 2012).

Camels, on the other hand, appear to have been the object of the raids. It is noteworthy that, of the ten scenes that depict camel raiding, eight scenes feature a female dromedary camel as the centre figure of the raid. The depiction of camels being raided considered together with their frequent depiction in the rock art in general and the elaborate way in which they were carved relative to other figures supports a scenario in which camels functioned as animal wealth in the desert societies. Russell (2012, 333) has proposed that, when animals represent wealth in a society, this can be signalled by artistic representations of them and depictions of age and sex can indicate which animals were considered valuable. The idealised depiction of the camels in the rock art, including the exaggerated hump, suggests that these animals had a special status. Female camels appear to have been particularly significant, based on their frequent depiction and important role in raiding scenes. Of the females, the young she-camel might have been especially important. This is unsurprising if these societies relied on herding and if the camels functioned as wealth. Female herd animals are especially valuable because they bear young. Owning a few bull camels and many females leads to a quicker accumulation of animals and thus wealth. Additionally, female camels tend to make better riding animals because of their temperament, which might also have made them extra desirable and allowed them a special status in the desert society. If camels functioned as wealth in these societies, it does not imply just an economic importance. Contrarily, it suggests a close relationship between camels and people in which camels could function as wealth in different social and ritual relations because of their socio-ideological status in society (cf. Brusgaard 2016).

The depiction of conflict and raiding does not just speak to the importance of the camel, but also to the importance of these activities. It is remarkable though that the raiders and fighters themselves are rarely depicted elaborately or emphasised. The ethnographic record of raiding indicates that the glorification of the warrior is a common characteristic of societies that practice raiding. Yet, the Jebel Qurma rock art consistently emphasises the animals in the conflicts: the equid and the camel. There are a few exceptions with detailed riders. This may be distinctive for the region or a particular style of Safaitic rock art. There are examples from other areas in the *harra* where riders are depicted large and in detail. The Jebel Qurma corpus shows no clear depictions of women being raided, but there are rock art scenes from other areas in the *harra* that do appear to depict this (Macdonald 2012). The depictions of ‘slave girls’ may represent women captured through raiding. However, the infrequent depiction of women in the Jebel Qurma rock art makes it difficult to deduce their role. Compared to, for example, the camels, it appears to have been minor.

7.3. Traces of production and consumption

The in-depth study of the content of the Jebel Qurma rock art provides invaluable insights into what was important to the societies producing it. Many of the motifs, including the enigmatic dots, lines, and women figures require further study to interpret. Altogether, the themes of pastoralism, wildlife and hunting, and conflict stand out in the depictions. In Chapter 5, I examined *how* these figures and scenes were made,

studying production techniques, *chaîne opératoire*, and style and what happened to the rock art after it was made, looking at effacement, modification, superimposition, and accumulation. Through discussing the traces of these processes in the petroglyphs, I explore how the rock art was produced and consumed.

7.3.1 Producing petroglyphs

In the section above, I argued that the content of the Jebel Qurma rock art is selective and that there are specific patterns in the compositions and style of these images. This is also reflected in the techniques used to produce the petroglyphs and the process by which some were made. The figures were most commonly carved using the pounding technique. Incised and pecked figures also occur, but the latter is quite rare. Figures have also often been carved using a combination of techniques, whereby one technique is used to carve the figure and another is used to add details. Conversely, sometimes one technique is used to make an outline or sketch and another is used to fill the figure in. Through reconstructing this *chaîne opératoire*, it is revealed that some of the figures were made following multiple, sometimes detailed steps. Both methods of carving would have allowed for more precision in making the images and they indicate an element of planning in many of the images. This is also visible in the compositions when the figure is associated with an inscription or depicted in a scene.

The relatively consistent use of technique, composition, and process and the resulting style indicates that there were conventions in not just what was carved, but also *how* it was carved. It is possible that this distinct process was essential to the conception of meaning through the rock art. Morphy (2010, 266) proposes that ‘art is a form of action’. It is not just a static visual representation, but a way of acting and ‘production is integral to meaning creating processes’ (ibid., 266). Seeing rock art from this perspective proposes seeing the production process as a meaningful act and not just the means to the end result, the image. Following the ‘correct’ steps and using the right carving techniques may have been an essential component of creating meaning through producing. The carvers learned rules about what to write about and the correct formulae to do so (Al-Jallad 2015). Likewise, I argue that they learned what to depict and *how* to depict them. This entailed the necessary technique and process for carving, but probably also the social rules and conventions, and perhaps taboos, surrounding the production process. This could explain the relative standardisation of the production techniques traceable in the Jebel Qurma petroglyphs and, especially, the multi-staged process used to make some of them. This knowledge must have been transferred between carvers. Perhaps the instances of multiples authors signing one image are examples of people carving together and learning from one another. Conversely, these may be examples of people claiming each other’s creations. Either way, the standardisation of the content and the carving process suggests social conventions that would have been known and repeated.

The question is then why the production process and the content were standardised and what meaning was created through it. On the one hand, it may imply a ritualisation of the carving process. The making of an engraving may have been a form of ritual. It is important to consider that rock carvings might not have been directed exclusively to a human audience (Bradley 2009, 197). The images and inscriptions may have also been intended partly for a divine audience. Some of the inscriptions contain prayers to deities, for example, asking for protection, praying for rain, or wishing for an abundance of pasture (Al-Jallad 2015). This suggests a ritual component to some of, or parts of, the carvings. Earlier I outlined the possibility that the camel carvings were intended as symbolic sacrifices to deities. In this case, it may not have been merely that the image of the camel was intended as a symbolic sacrifice or offering, but that carrying out the ritual, carving the image, was just as significant. Many of the camel carvings show a series of production steps and

considerable care in the execution, including planning and preparation through sketching and outlining. The practice of planning, sketching the outline, carving the camel, and finally adding small details like the hairs might have been important elements in a long symbolic act that ended with the image of the camel. The use of the correct techniques, process, and execution might have been necessary for the communication with the deities (cf. Lødøen 2010, 38).

Conversely, the use of particular techniques may have been the product of complex social beliefs and rules. The technological aspects of the carvings (the techniques, tools, surface rocks used, etc.) can signal group identities as much as the forms, compositions, and motifs of the figures (Domingo Sanz 2009, 54). Indeed, these aspects are very much intertwined. The use of particular techniques and, especially, the careful planning behind some of the images would have been necessary to ensure that the final image achieved the correct proportions and appearance. Meaning created through the production process would have been tightly interwoven with the meaning of the motif or scene being carved and its final appearance. Furthermore, conveying the meaning appropriately through the production process and style would not only have been important for a divine audience but a human audience as well. The inclusion of curses and blessings for other people in the inscriptions shows that the texts were intended to be read (Al-Jallad 2015, 10). For this reason, Al-Jallad (2015, 10) has argued that the formulae used to write the texts ‘may have had an additional functional value – to facilitate reading and comprehension’.

Considering that the carvers intended for their inscriptions to be read by others, it follows that they intended for their images to be viewed. For the same reason, the structural depiction of specific motifs and scenes in specific ways may have been conducted to convey the right narratives and meanings for the viewers. For example, the depiction of a camel in the centre of a raiding scene using bold techniques (such as pounding or pecking and filled in) with added details may have been done to emphasise the object of the raid. The use of less noticeable techniques (such as an incised outline) and small dimensions to carve the humans around it may have helped to create the narrative of the scene without drawing attention away from the most important motif, the camel. Similarly, carving the wild ass in a hunting scene using large dimensions and elaborate, well-executed techniques in the centre of the composition emphasised the importance of the prey and this animal. Carving the archer hunting it in small dimensions, to the side, and using a less elaborate technique placed emphasis on the wild ass, while simultaneously ‘hiding’ the archer from view and thus creating a narrative of a hunting scene.

7.3.2 Destruction and accumulation

That people subsequently did read and view other people’s carvings is apparent from the texts in which authors state finding an inscription and reacting to it (Al-Jallad 2015; see Chapter 3.5.2). We cannot reconstruct if they viewed and consumed the rock art narratives in the way I reconstructed above. However, other traces of interactions are visible in the rock art record. The study of these traces has shown that acts of modification and superimposition are very rare in the Jebel Qurma corpus. The act of effacement occurs on a more frequent base. In general, zoomorphic figures are most commonly effaced and, of these figures, the lion is most often effaced, followed by the bovinds. Certain parts of the animals appear to have been specifically targeted. The heads especially are more often effaced than any other part of the animal. It is especially noteworthy that the act of effacement occurs more often among the corpus of inscriptions. Underlining this, there are also numerous examples of compositions where the text has been effaced, but the image has been left alone.

The specific targeting of the inscriptions, certain animals, and certain parts of the animal figures

indicates that these effacements were not just random acts of destruction. Instead, it is possible that the ‘power’ of the carving, whether ritual, social, or other, lay in specific parts of the composition, such as the inscription or the head of the animal. It would therefore not be necessary to efface the entire carving, but only those elements, to negate the effects or influence of the carving or to make it ‘invalid’. In the cases where only the inscription has been effaced, it is also possible that doing so was an act to destroy or invalidate the carver’s authorship over the image. It is difficult to say who was responsible for the destructive acts. It was done by people who could read the inscriptions, as evidenced by the examples of people adding specific marks to texts to render them nonsensical. The act of effacement was clearly a matter of concern for the Safaitic authors, as attested by the curses against it. This underpins the importance for carvers that their compositions endured and the importance of the carvings.

The process of accumulation of carvings on boulders and at sites demonstrates a very different type of consumption. Instead of destroying others’ compositions, in these cases, people were adding their own carvings to the same surface or location as pre-existing ones. The results show that, overall, the images and compositions were carved on many separate, generally small, boulders. However, the very big boulders that occur at some sites have attracted a large number of carvings over time. It is possible that carvers made an explicit choice to either carve their composition on an empty panel or to add it to an already carved panel. This may have been influenced by the type of composition the carver wished to make, the types of pre-existing carvings at a site, the rocks available, and the people who had already carved at that location.

Similarly, while there are many sites with a small number of carvings, the majority of the Jebel Qurma engravings occur at a handful of sites. These places attracted a large amount of accumulation. In reviewing this, it is important to consider the power of images to affect and influence, how ‘imagery affects the production of new images’ (Fahlander 2012, 98). The accumulation of rock art and inscriptions at particular places, and sometimes certain boulders within these places, suggests that people were more likely to engrave a text, image, or composition in locations where others before them had done the same. The presence of images may have stimulated more production, with people being compelled to carve their compositions in the same location as others had done before them. These acts were consumption through production.

7.4. Places of production and consumption

The accumulation of carvings at a small number of sites suggests a correlation between the rock art and inscriptions at particular places in the landscape. For this reason, in Chapter 6, I investigated the places of production and consumption, exploring whether there was a relationship between the carvings and the natural and anthropogenic landscape. I studied this on two scales of landscape: the micro and the macro-landscape.

7.4.1 Carvings in the micro-landscape

The depiction of a number of ‘hidden hunter’ scenes formed the basis for an exploration of the micro-landscape of the Jebel Qurma rock art. They represent the deliberate interaction between the producer and the boulder topography to give the hunting scene an extra dimension: the hidden hunter. They have in common that the hunter, in most cases an archer, is depicted on another panel than the prey, effectively hiding him or her from view. In some scenes, the panel topography plays a large role in creating this effect and in others, differences in technique have also been used to ‘hide’ the hunter. The common factor of the hidden hunter implies a repeated convention in how to depict these scenes. This is also indicated by the fact

that in the majority of scenes featuring a hidden archer, the archer's bow and arrow curves across the panels, connecting the two panels and narratives. The narrative created by the interplay between image and medium, and sometimes technique, was thus a consistent one: the hunter hiding from view, waiting to ambush the prey. This may also have been a representation of the physical hunting landscape, in which the hunter uses the natural elements to hide from and ambush prey. In doing so 'the artist is creating a metaphor, whereby humans and animals possibly portray the extent of landscape or, at least, part of that landscape that is most beneficial' (Nash 2002, 187).

It is probable that the carvers intentionally chose these boulders based on their physical qualities for the creation of these hunting scenes. Conversely, it could also be suggested that the carvers perceived these images as already existing in the rock, ready to be brought forward through the act of engraving, as has been suggested for, for example, South African San rock art (Lewis-Williams and Dowson 1990, Ouzman 1998). Either way, it is clear that the rock surface is not merely a passive backdrop for these images, it enhances the image and is *part of* the image (cf. Boivin 2008, Nash 2017). The shape and features of the boulder are used to 'hide' a hunter from the prey, sometimes enhanced by the use of different techniques to create varying degrees of visibility. The carvers have hereby created scenes in which the hunting narrative unfolds itself to the viewer and in which the hunter's use of the landscape is depicted.

This was probably a deliberate choice with the audience in mind. The producers of the carvings were conscious of the fact that other people would interact with their compositions, either negatively or positively, as evidenced by the content of the Safaitic inscriptions. As argued earlier, it is likely that the authors intended for their carvings to be viewed and read in a certain way and that they conveyed meaning through the use of particular motifs, techniques, and compositions. The hidden hunter scenes are another interesting example of this, whereby the nature of the rock is used as an added enhancement for the narrative. The use of the boulder surface in the creation of a scene is a rare variation on the compositions in the rock art corpus. The majority of hunting scenes, and scenes in general, instead appear to primarily use technique and composition to enhance and emphasise. However, in all cases, it can be argued that the producers are creating micro-landscapes in the rock art, depicting the role of the hunter, prey, and landscape. Similarly, the choice to portray scenes on empty panels may have been motivated by the desire to create a highly visible narrative. The creation of a composition on a boulder with pre-existing carvings suggests, in these cases, the carver wished to add to what others had created. This occurred at micro-landscape level but also at macro-landscape scale, as will be discussed in the next section.

7.4.2 Carvings in the macro-landscape

The results of this study show that there is a strong association between the Safaitic carvings and specific locations in the landscape. They cluster at sites that are located on the periphery of the region, on the edges of the basalt plateau, and on high hilltops. The distribution of the engravings indicates that they were being produced in places that were easy to access from routes across the low-lying plains, valleys, and mudflats. However, the carving sites themselves were more difficult to access, requiring a climb up the basalt-covered hills or travelling across the basalt plateaus. The concentrations are densest at high locations on top of the basalt hills with good visibility of these surrounding low-lying areas. The carvings therefore appear to be clustered at vantage points in the landscape. The various forms of Safaitic inscriptions that refer to being on the lookout indicate that these were indeed probably viewpoints used to keep watch for enemies, game animals, and domestic herds. Some of these locations may have been viewpoints used to watch over extensive areas and distant opportunities or threats, such as the prominent hills of Jebel Qurma and of the

sites QUR-952, QUR-186, and QUR-956. Others perhaps functioned as more localised vantage points to watch over campsites and pasture grounds, such as QUR-171, QUR-965, and QUR-20. Yet it is noteworthy that the majority of the Jebel Qurma carvings concentrate at specific vantage points and other strategic locations, clustering tightly at these locations. This indicates that the authors were not making their carvings in just any strategic location or place where they spent time. They were producing compositions at very specific, contained places.

These results contradict the two previous observations made about the landscape distribution of Safaitic carvings. Oxtoby (1968) claimed that the Safaitic inscriptions can mainly be found at cairns. Macdonald (1992a, 303) has shown that this is a misleading distribution. The data from Jebel Qurma also indicates that, although cairns and Safaitic carvings tend to cluster together, there is not necessarily a direct relationship between them. It is merely that the production of carvings and construction of cairns might have been symbolically associated with the same types of places in the landscape. Macdonald (1992a, 305) has argued, based on data from the Jawa area, that the carvings are scattered across the region and that 'they occur, in greater or lesser numbers, almost anywhere that the rock is suitable for inscribing'. The results from the Jebel Qurma area contradict this claim. The carvings cluster significantly in certain places and are not found just anywhere where there is a suitable rock surface.

There are some similarities between the landscape distribution of the Jebel Qurma carvings and other contemporary carvings from the Arabian deserts. The Hismaic inscriptions and rock art from southern Jordan appear to concentrate near drainage points, places where the nomads likely spent time while pasturing or watering their domestic herds or hunting wild animals (Corbett 2010). Both types of engravings, Hismaic and Safaitic, therefore appear to concentrate in places that inhabitants or frequent travellers of these desert regions, people with intimate knowledge of the environment, would have sought out and spent time in. The study of Thamudic engravings from Jubbah, Saudi Arabia, has revealed that these carvings concentrate in areas that were likely routes through the landscape (Jennings et al. 2013). However, in contrast to the Jebel Qurma carvings, the Thamudic engravings are found at the bases of the hills (*ibid.*). They are therefore not connected to vantage points, but may still represent places where travellers or inhabitants spent time. This comparison of rock art landscape studies is very preliminary. The datasets used for the other analyses are very small in comparison to this dataset: 835 Hismaic carvings from Wadi Hafir (of which only 95 petroglyphs) (Corbett 2010, 38) and 60 Thamudic carvings sites from Jubbah (the number of carvings is not specified) (Jennings et al. 2013, 670) versus 7208 Safaitic carvings from the Jebel Qurma region. More landscape studies from the different rock art regions may therefore provide new insights into cross-regional patterns or differences in landscape use by the ancient desert nomads.

Following on the distribution of the carvings at lookout points, the results of this study also show that the carvings are not distributed at just any or all vantage points in the landscape. They are primarily located in dense clusters at specific places. It is necessary to explain why the carvings are found especially in these places even though there are other areas with similar landscape features and equally suitable surface rock (*cf.* Bradley 1997, 90, Purcell 2002, 74). One possibility is that the carvings were produced and subsequently accumulated in locations that were of particular importance. It has often been suggested that the production of rock art can be a means to emphasise and draw attention to significant places in the landscape (*e.g.* Bradley 1997, Jones 2006). These places may have been of strategic significance. Several studies have discussed the use of rock art in enhancing landmarks or 'checkpoints' along routes (Hartley and Vawser 1998, 191). The results of this study show that the main locations of the Jebel Qurma carvings

probably did not function as landmarks as the majority are not more visible than other places from a distance. However, similar to its use in signing landmarks, rock art could also be used to mark particular vantage points in the landscape. As a visual cue, rock art can aid in the representation of a network of places in a known environment (Hartley and Vawser 1998, 191). As such, the presence of carvings may have communicated strategic viewpoints. These particular viewpoints, hilltops, routes, and territories may have held extra socio-ideological significance for the desert nomads as important (strategic) locations in the landscape, thus inviting the production of carvings. In this way, the act of engraving and its content may also have been influenced by the special nature of the landscape setting (cf. Bradley 1997, 119).

Another possibility is that these particular places gained extra significance precisely because of the presence of carvings. Carvers were attracted to places where others before them had also carved their texts and images, resulting in an accumulation of carvings at specific sites and sometimes on specific boulders. The processes of production and consumption of carvings were thereby closely intertwined; consumers became producers and added their own names and images to the accumulative history of a place. How the processes of production and consumption were intertwined, with each other, with the micro and macro-landscape, and with the content of the rock art is the topic of the following section, in which I discuss what the results of this study and the issues explored above reveal about the practice of rock art in the nomadic societies of the Black Desert.

7.5. Rock art as cultural practice

In Chapter 1, I discussed how the role of the Safaitic rock art has until now been poorly understood, with the few existing theories being based on the study of the inscriptions and, moreover, on primarily the content of the inscriptions. Therefore, many questions have remained about the carvings as a whole and, especially, about the rock art: why were the images carved; who carved them and for whom; in what context were they made? This study set out to gain a better understanding of these issues through an in-depth, archaeological study of the rock art. I studied the content of the pictorial engravings and how and where they were produced and consumed. Using the results of these studies, it is possible to discuss the practice of making and engaging with rock art in the desert societies. Subsequently, it is possible to gain a better understanding of the interactions between the nomads and their desert landscape, which I will discuss in the next section.

The pastime theory proposed by Macdonald (2010) argues that the engravings were idle graffiti, made to pass the time away while, for example, being on the lookout for enemies or watching pasturing herds. The results of this study indicate that the landscape context of production may indeed have been associated with lookout places, a point I will discuss further below. However, the notion that carvings were produced out of boredom can no longer be substantiated. Similar theories have been proposed in the past for both rock art and graffiti art. They stem from 19th-century ideas about ‘art for art’s sake’, art as a product of an abundance of leisure time and boredom (Lewis-Williams 2004, 42, Nash 2010, 51). Such a view also implies that the production of rock art is the result of individual ‘inspiration’ (cf. Lewis-Williams 2004, 42) rather than socio-cultural ideas, norms, or cosmologies. However, this perspective on rock art, and art in general, cannot be supported by evidence for the majority of global rock art and has since been rejected by scholars for several reasons (for an overview see Lewis-Williams 2004). Most pertinent to the interpretation of the Safaitic engravings is the recognition that the theory of rock art as the product of individual boredom and self-expression does not account for the particular patterns in what is depicted. As

Lewis-Williams (2004, 44) argues for Upper Palaeolithic rock art, 'the narrow range of painted and engraved subjects suggests social norms rather than personal predilections. Upper Palaeolithic artists were, essentially though not entirely, bound by rules of custom'.

Similarly, this study on the Safaitic rock art has demonstrated that the content of the images is selective and repetitive, depicting a restricted range of specific motifs and scenes. Additionally, they are depicted in specific compositions using a fairly consistent production process and form. Macdonald (2010, 15) argued that 'since they were carving purely for their own amusement they could say whatever they liked, in whatever order new thoughts occurred to them, and it did not matter if they made mistakes.' However, the carvers were not depicting just anything of interest to them or in any way they wanted. There were conventions about what to depict and how. Al-Jallad (2015, 7) has proposed that when individuals learned to write, they also learned what to write and the correct formulae to express it. In addition to this, I suggest they also learned what to depict, in which compositions, and the correct techniques and process to do so. Mistakes were not desirable, evidenced by the element of planning in many of the images. The correct appearance of the rock art was important.

This is not to imply that there was no room for individuality. While the content hardly varies, the motifs and scenes can vary in the details of style, composition, and technique. Therefore, it seems that there were certain socio-cultural conventions to follow, but that certain elements were open to individual expression and desires. The production of an image would have also been dependent on the skill of the carver, also accounting for differences in its form and content.

The epigraphic evidence also shows that the nomads were not just producing the carvings for themselves; they were conscious of and desired an audience. One possibility is that this was a divine one. The theories proposed by Corbett (2010) and Eksell (2002) have suggested that the carvings were intended as rituals communicating with deities. The role of the dromedary camel in Ancient Arabia could imply that their depiction had a ritual significance, intended as symbolic sacrifices to the gods. Additionally, there are Safaitic inscriptions that include prayers and address deities. Does this indicate that there was a ritual purpose to the carvings, that the carvings were intended as offerings or ritual practices? Not only the dromedary camel figures show signs of planning and careful execution, but other zoomorphs also do, albeit on a smaller scale, as do many of the scenes. The wild animals depicted frequently in the rock art were clearly also an important part of the worldview of these societies. Were their images symbolic sacrifices, directed at divine audiences? Carving them in rock may have been an especially suitable medium for communicating with the divine. 'The materiality of the rock offers both a suitable resistance (representing the offering) as well as a promise of durability' (Fahlander 2012, 110). The durability of the carving would have been an important factor if the carvings were intended for deities. The subsequent effacement of a carving would have been a powerful destructive gesture. It is possible that the ritual power of the carvings lay especially in certain elements, such as the author's name or the animal's head. Therefore, targeting specific aspects of the carving for defacement would have been enough to break the ritual.

This would explain the need for curses to protect the carving from other people; destruction could break the ritual. Additionally, certain parts of the composition may have been designed to protect the carving from destruction. It has previously been suggested that the set of seven dots or lines could have been an apotropaic symbol, used to protect the carving or the author himself from harm (Winnett and Harding 1978, Clark 1980, Macdonald 2012). Considering that this motif never occurs on its own, but always in association with a composition, it is possible that it was carved to safeguard the rest of the engraving and

ensure that it endured. Similarly, some inscriptions contain a prayer aimed directly at a deity, which nearly always follows a narrative (Al-Jallad 2015, 8). For example: 'By Mğyr son of Ms¹k son of 'md son of Mlk son of Qh^s and he pastured the camels so, O [S²'hqm], may pasturing bring abundance'.⁷⁰ Part of the text is a narrative and part is a prayer to the deity 'O [S²'hqm]'.

It is thus possible that some elements of the engravings were directed at deities, for example, to ask for protection or to ensure the carving would endure. However, the evidence does not support a scenario in which the carvings themselves were all a form of ritual practice. Instead, it strongly suggests that the carvers intended the compositions for a human audience. Texts with blessings for people who would read their texts aloud and responses to finding inscriptions by people they knew demonstrate the awareness of subsequent human audiences and the interactions that might occur. The rock art scenes have a strong narrative component, suggesting that the carvers were also expressing certain thoughts, experiences, and beliefs with a human audience in mind. The images were meant to be seen and the texts were meant to be read. This context would have influenced the production of the carvings; knowing that one's composition is (near) permanent and that for generations others will see and interact with it, either positively or negatively, would have had a substantial influence on the production process and the final carving. This is visible in the hidden hunter scenes, where an awareness of the audience probably played a role in the conscious interaction with the boulder topography in the scene's production. Similarly, the use of technique and composition to create visual emphases in other scenes and figures would also have been for the benefit of creating a clear narrative for subsequent consumers.

The rock art therefore appears to have been intended, at least in part, to be seen by other people. Who were these people, the consumers, and who was making it? What was then the purpose in making it? The content of the carvings and their situation in the landscape provide clues to answer these questions. The results of this study show that, while there are carvings throughout most of the Jebel Qurma region, they are densest at vantage points in the landscape. These places provide extensive views of the low-lying valleys, mudflats, and wadis. As proposed by Macdonald (2010), these were likely places where the nomads spent long periods of time, being 'on the lookout' or 'lying in wait', as suggested by the inscriptions. Good lookout points near major routes, valleys, mudflats, and wadis would have had great strategic significance on various occasions. They would have been necessary for watching their herds of dromedaries pasturing on the hill slopes and accessing water in the wadis. They would have been important for waiting for game animals to migrate through the region or waiting for them when the animals came to access the wadis and valleys for water and vegetation. They would have been important for keeping an eye out for enemies or planning a raid. The importance of these activities and these elements of the domestic and wild environment are reflected by their frequent depiction in the rock art.

The content of the rock art and the inscriptions and their location in the landscape also indicates that the producers of the carvings were people living in and exploiting the desert. They had knowledge of suitable routes and vantage points in the landscape and they depicted frequently and accurately a specific selection of domestic and wild desert animals and activities. The producers were thus people with intimate knowledge of the environment and the natural landscape. The locations of the carvings, including their remoteness, suggests that their audiences would have been restricted to similar groups of people, people travelling in and exploiting the desert environment, accessing these places for the same reasons as the producers. The inscriptions tell us that the vast majority of the carvers were men. This may suggest that they

⁷⁰ KRS 1886.

were also the ones carrying out the activities associated with these places in the landscape and those depicted in the rock art. However, it is noteworthy that the carvers rarely indicate gender among the anthropomorphs in the depictions. The rare women figures stand out, but otherwise, the people are not often clearly indicated as male. In general, people not feature prominently in the rock art. The emphasis is on animals and the interactions with them. As an interesting juxtaposition, the carvers do include their names clearly in the texts so, in this way, the carver is present in the composition.

It is unclear, however, whether the nomads would have been making the carvings *while* being on the lookout. Is it possible to keep an eye out for enemies or game animals or keep an eye on herds while making a carving? This depends partly on the time, effort, skill, and concentration needed to make a carving. Additionally, it is worthwhile to consider the amount of noise that the carving practice would have made. Hammering on a rock is a loud activity and sound carries far in the desert. To exemplify, during fieldwork it was often possible to hear the other survey team on the next hill over as if they were standing right behind us. It does not seem fruitful to combine such a loud action with keeping watch. To gain more insight into this, it may prove useful to investigate the rock art soundscape, an increasingly researched topic in rock art studies (e.g. Díaz-Andreu and Mattioli 2016, Mattioli et al. 2017). Additionally, research and experiments on the time, tools, effort, and skill needed to produce a carving could help answer the question of whether it was possible to make these carvings while on the lookout.

I argued above that there is little evidence to substantiate the theory that the nomads produced the carvings out of boredom during the long hours spent keeping watch. However, that is not to say that there was no connection between the creation of carvings and the activity of sitting keeping watch and being on the lookout for herd animals, game animals, or enemies. Whether or not the rock art was made *while* the nomads were actually on the lookout, it is evident that there was a strong connection between important lookout points in the landscape and the carvings. There was probably a powerful interplay in between the importance of the location, the practice of carving, and the content of the carvings. The nomads may have been depicting images and narratives that they had experienced, or were waiting for, or prayed for when on the lookout. In this, the content of the rock art was, like the inscriptions, inspired by the daily experiences and activities of the authors. Conversely, as important places in the landscape, the nomads may have desired to mark them with images of what was significant in their everyday life and wider worldview.

The need or desire to mark significant places in the landscape through rock art has been proposed as the motivation behind the production of rock art by various past societies (e.g. Bradley 1997, Jones 2006, Frachetti 2008a). As discussed above, these places may have been significant due to their strategic location for the nomads. In Chapter 1, I discussed how several scholars have interpreted the rock art of both herders and hunters as the communication of territorial claims and disputes in the landscape (e.g. Ingold 1986, Bradley 1997, Frachetti 2008a). Similarly, herder rock art is often associated with increased territoriality and conflict in these societies (e.g. Brandt and Carder 1987, Holl 2004). The Safaitic inscriptions and rock art indicate that there was inner or intra-group conflict. One possibility is that the carvings themselves may have been used to sign or claim strategic vantage points or sign territorial claims to pasture or hunting grounds. This might explain why the carvings cluster at specific vantage points rather than being spread out; they are signing specific locations or vying for the same ones.

However, three factors undermine this explanation for the purpose of the rock art. First, there are no indications in the inscriptions or images that the conflict was specifically in the context of territorial disputes. There is a clearer emphasis on raiding, which, based on the ethnographic record, would have

been more about the gaining of wealth and prestige through the acquisition and accumulation of livestock, rather than the acquisition of land or territories. Second, if this were the incentive behind the carvings, one would expect more competition and iconoclasm in the rock art and inscriptions, with people effacing each other's carvings or superimposing them with their own creations. Effacement does occur but not to the extent one would expect if these were acts of competition, and superimposition is very rare. Overall, there seems to have been respect for the carvings of others and it was more common for carvers to add their own composition to a panel or site than to destroy someone else's. Lastly, and more overtly, in contrast to, for example, the abstract geometric rock art of Britain (cf. Bradley 1991, Bradley 1997), the Safaitic images are highly figurative and therefore appear to communicate to others a complex reflection of the significant every day and worldview of the authors.

These places in the landscape would instead have been important to the desert nomads, strategically, economically, socially, and ideologically, and their significance was marked and enhanced by the production of carvings. Furthermore, the importance of these places meant that they would have been used and reused by nomads, probably over generations. Frachetti (2008a, 24) proposes that mobile pastoralists use and invest in 'historically meaningful places that accumulate significance through a palimpsest of interactions'. This palimpsest would have been directly visible to new or recurring visitors through the presence of carvings made by many different people. And it was likely precisely this that also attracted the production of more carvings. Adding one's name and/or image to a panel or site created a lasting reminder to oneself and to others that the author was there. As Nash (2010, 51) has argued for British graffiti-art, 'By inscribing themselves onto the landscape, they acquired a kind of immortality', and the history of carvings in the place was probably an important factor in the choice of where to inscribe. I argue that this also played an important factor in the practice of making Safaitic carvings. In the inscriptions, we see references to forefathers and genealogies, the emotional responses to finding inscriptions by people they know, and the desire to have their own inscriptions read by others. There was thus a sense that one's relatives, ancestors, tribal members but also unknowns may have visited the same site and that, thereafter, one's relatives, descendants, tribal members, and others would visit it in the future. When producing carvings, the authors did so with an awareness of the past and the future of that place. Knowing this also necessitated the creation of narratives that could be seen, read, and understood by others. It was then evidently important for them that their carvings endure and continue to attest to their presence at a site and their addition to the history of the site.

Therefore, it was also the history of these locations that perpetuated the production of carvings, continuously creating new visual histories while reinforcing old ones. Through the creation and accumulation of narratives, these places probably took on special socio-ideological meanings for the desert nomads. It is possible that the presence of older structures, such as the wheels, enclosures, and cairns, formed part of these narratives, a sense of the long history of the place. In a similar way, the builders of the tower tombs, which communicated their own history and identification with place and the landscape (cf. Huigens 2018, 214), would have been aware of the carvings and may have constructed their own narratives based on them. Equally, the reuse of carved panels in the tomb construction may signal that these social groups were ignoring or actively deconstructing the history invoked by the carvings, suggesting they no longer identified with the authors of the Safaitic engravings.

Carved in stone, the rock art was a powerful visual expression of one's presence in the landscape. Rock art adds to the historical narratives of the landscape, by signing, creating, and maintaining significant places (A. Smith 2005a). Producing carvings was a way to interact with other people in the landscape. By

engraving on the same boulder or at the same site, by reading and viewing others' compositions, even by destroying another's carving, the nomads interacted with others through time and space. This role of the rock art may have been especially important in a desert landscape. These environments are often marked by solitude (cf. A. Smith 2005b) and may therefore have necessitated indirect human interaction to counter this. That the pictorial carvings functioned in mediating social relations between people and between people and place does not exclude a ritual intention. These practices were likely intertwined, which 'does not necessarily imply that the carvings are "a bit of both"'. Rather, they articulate more of one than the other according to fluctuating local circumstances' (Fahlander 2012, 110). For example, some of the dromedary camel images might have been symbolic sacrifices or visual prayers for the divine. Similarly, some elements of the compositions, such as the symbol of seven or a particular part of the text, might have been directed at deities, while other elements were intended for a human audience. The anthropological record shows us that art is not one way of acting, but many ways (Morphy 2010, 284). It can have different interpretative frameworks that will combine and interact and different systems may be combined in the same complex artwork (Morphy 2010, 284). The social and ritual elements of the carvings may have been combined, intertwined, and divergent at different times or for different people.

The following question is then whether the rock art and the texts fulfilled the same practice. This study has revealed a number of significant similarities between the two types of engravings, most notably the use of 'formulae' – selective and standardised content and forms – and the distribution in the landscape. However, there are differences in what was expressed through which medium, as evidenced by the strong presence of hunting scenes in the rock art, but little to no reference to this activity in the texts. Additionally, the more frequent targeting of the inscriptions for effacement suggests that the two types of engravings had different connotations. There are more inscriptions than images in the Jebel Qurma region, suggesting that carving texts was a more frequent occurrence. However, the study of the production process of composite carvings shows that, in almost all cases, the rock art was carved first and then the inscription. This may indicate that the image was more important for the total carving than the text.

The nature of expression through the two mediums would have been different on one very clear point: the one is visual, while the other is textual. Through language, the inscriptions provide a direct insight into what the author wishes to express. In contrast, the rock art, as imagery, is open to many more interpretations by the viewer. And it is precisely the capacity for people to take this into account in their representations that makes art powerful (Morphy 2010, 283). Creating narratives through the rock art would thus have required a different process and had a different effect than through text. An in-depth comparative study of the pictorial and textual engravings is needed to determine how the two types of engravings connected and diverged in their roles. However, it is clear that, together, the carving of image and text was an effective creation of a permanent symbol in the landscape that, at least so the carver hoped, would endure, continuing to mediate between people, place, and perhaps the divine.

It remains to be shown why the production of the carvings stopped somewhere in the mid-1st millennium AD and how this was connected to new developments in the *barra*, such as the changing funerary practices (cf. Huigens 2018). Was there a cultural or population shift? What change occurred that meant that these pictorial and textual expressions were no longer required or desired? It also remains to be shown what triggered the *start* of the Safaitic tradition in the 1st millennium BC. Rock art can be seen as a social strategy or 'solution' for coping with arising social changes, stress, or conflict (cf. Brandt and Carder 1987, Walderhaug 1998). If mediation with other people and with the divine became necessary, what triggered

this development? To answer these questions, interregional studies of the carvings, textual *and* pictorial, is necessary, as is a better understanding of their chronology and the chronology of the region. The holistic study of the engravings and their continued archaeological research of this period and region will no doubt shed light on these matters.

7.6. Interactions in and with the landscape

The study of the content, production, and consumption of the Safaitic rock art and an understanding of the role that it played in the desert societies provides new insights into the way that the nomads operated in and interacted with their landscape. The content of the rock art reveals that the dromedary camel and the pastoral everyday life, hunting and wildlife, and conflict and raiding were important aspects of their lives and ideologies. The significance of the dromedary camel and the herding activities associated with it is also apparent from the Safaitic inscriptions. Furthermore, that these nomads depended on the dromedary and held it in high regard fits with the historical context of Ancient Arabia in which this animal was firmly established as highly influential for the development of the region, the subsistence economies of its peoples and, moreover, their symbolic world. The widespread depiction of the camel in the rock art also suggests that the camel was of great ideological significance and that its role was more than just subsistence-based. Like important livestock in most herding societies, it probably figured prominently in the ritual and social lives of the nomads (cf. Lincoln 1981, Russell 2012). The raiding scenes suggest this as well; the camel would have been the object of the raids because it meant wealth and prestige for its owners.

Interestingly, there is a dichotomy between what is depicted in the rock art and what is written in the texts in one major topic: hunting narratives. The dominance of this subject matter in the rock art suggests that it was highly significant to the nomads. Together with the abundant wild animal depictions, it shows a reverence for the wild landscape around them. Furthermore, the many, realistic, depictions of humans hunting animals suggest that this was also an important aspect of their lives. The rock art cannot tell us to what extent it was economically important. On the one hand, it may actually be misleading in this. Studies from other areas in the world where rock art can be compared to the faunal record have often revealed disparities between the two datasets (for an overview see Russell 2012, 14). Most famously, the sympathetic magic or hunting magic theory has been discredited on various accounts, but most convincingly by the failure to find faunal assemblages in the archaeological record that matched what was depicted in the cave art (Keyser and Whitley 2006, Russell 2012).

It is therefore possible that hunting was a symbolic and ritualised event rather than an economic activity. On the other hand, the large number of depictions of wild animals, often depicted in detail with anatomical features and sex, and the detail in the hunting scenes with specific patterns in prey and hunting techniques suggest that these nomads were intimately familiar with and interacted with the wildlife. This would fit into the increasing amount of evidence from Arabia showing that camel pastoralism did not replace hunting and gathering as a means of subsistence, but was merely incorporated into a broader economic strategy. This is possibly also reflected in the rock art record from other deserts in North Arabia as well, such as the Himaic rock art of southern Jordan and the Thamudic rock art of northern Saudi Arabia, which also depict dromedaries and hunting scenes.

The desert nomads were thus perhaps ‘herder-gatherers’, subsisting on domestic herd animals, but also exploiting the full scale of wild resources provided by the desert environment. To what extent they were ‘herders’ and to what extent they were ‘gatherers’ cannot be deduced from the rock art, but the pictorial record

does illustrate that both aspects were of great ideological importance. Economically, hunting might have been a marginal activity, but ritually or socially it could have been highly significant. This has implications for how we understand the relationship between the nomads and the faunal landscape. Ingold (1980, 1994) has argued that the shift from hunting to herding animals represents a shift from a relationship based on trust to one based on domination. Others have followed this, continuously developing the notion that there is a sharp distinction between the herder-animal relationship and the hunter-animal relationship (e.g. Cribb 1991). Some scholars have argued against Ingold's theory by proposing that the relationship between humans and domestic animals is actually one of trust and intimacy rather than domination (Armstrong Oma 2010, Sykes 2014). However, the dichotomy between the two forms of relationships is still highlighted in archaeological and anthropological literature. While it is clear that the relationship between humans and their livestock and humans and the wild animals they hunted would have differed on many levels, it seems unwise to continue to label these relationships in terms of the subsistence economy of the society. The increasing evidence for herder-gatherer societies underscores this. The rock art reveals that animals, domestic and wild, overall held an important position in the worldview of the nomads and formed the centre of their activities and experiences, be it herding, hunting, or raiding. Certain animals appear to have had more distinct symbolic roles than others, evidenced by their frequent depiction, the context they are depicted in, and the way in which they were made. Exploring these animals through their depiction in the rock art can provide unique insights into past human-animal relationships and human-landscape interactions, especially when we move beyond traditional dichotomies.

In considering how the desert nomads operated in the desert landscape, it is, of course, possible that it fluctuated depending on their form of subsistence. I.e. were they reliant on the needs of their herds, such as pasture and water? Or were they as, or more, dependent on the movement and migration patterns of wild animals for hunting? Furthermore, which other social and economic factors affected how the nomads moved through and operated in the landscape? For example, they may have been influenced by the presence of caravan trade routes in the region or hostile desert groups. More research is needed on this topic, for which archaeological and zooarchaeological sources are imperative. However, the role of the rock carvings shows that there might have been overarching principals: the importance of routes and vantage points in the landscape. In many studies that consider the relationship between rock art and the landscape, and especially the significance of strategic locations in the landscape, such as paths and vantage points, rock art is interpreted as a communication of territory or as mediation in territorial disputes. Remarkably, this is proposed separately for both herding societies (Brandt and Carder 1987, Holl 2004, Frachetti 2008a) and hunter-gatherer societies (Ingold 1986, Bradley 1997) and in both, it is expressed as a distinct feature of each type of society. This suggests that rock art is always a mediation of conflict or arises out of the tension of conflict. However, the majority of these studies also recognise the role of rock art in creating and signing meaningful places in the landscape. I propose that it is here that we should seek further. The Safaitic rock art shows little evidence of it being a communicative device of disputes or claims; instead, it suggests the accumulation of interactions between people in meaningful places. At times these interactions were negative, often on an individual level, and at times they were positive. The places that held significance for the nomads were strongly linked to their socio-economic and ideological world, reflecting places where they spent time and experienced or perhaps remembered or hoped for good pastures, a successful hunt, or a bountiful raid. The cosmological importance of these places would have been intertwined with their nomadic way of life, whether largely dependent on herding or hunting, or both.

7.7. Conclusions

This study began with the aim to understand the Safaitic rock art as cultural practice in the societies that produced it in the late first millennium BC to early first millennium AD in the Black Desert, north Arabia. I investigated this through the study of a dataset of rock art from the Jebel Qurma region in north-eastern Jordan and through including relevant data from the associated textual material and archaeological remains from the same region. To gain insights into the practice of this rock art, I took a material approach, investigating its content, the process of its production, and the process of its consumption. By understanding the images and people's interactions with them, from the beginning of production to the end of consumption, it is possible to uncover their role in the desert societies.

The study of the content of the Jebel Qurma rock art revealed that the subject matter is selective and can be divided into roughly three recurrent themes: pastoral images, images of the wild and people's interactions with it, and images of conflict. All three themes are expressed through individual figures and scenes. The portrayal of the pastoral world is predominantly visible in the figures through the prevalent depiction of the dromedary camel. Representations of the wild can be seen in the individual figures of wild fauna and in the large number of hunting scenes, featuring humans hunting animals and animals hunting other animals. Conflict is a slightly less frequently occurring theme but is still visually prominent in the depictions of horsemen with weapons, combat scenes, and raiding scenes. Anthropomorphs are much less commonly depicted than zoomorphs, but some do stand out, such as the archers, horsemen, and the women figures. Geometric motifs are more common, of which the majority are sets of dots, sets of lines, or a line with a set of dots. These almost always consist of seven dots/lines and are always associated with an inscription, suggesting they are intrinsically linked to the texts.

Overall, the focus of the content is on the world of animals and people's interactions with them. Even in figures and scenes representing conflict, there is generally an emphasis on the role of animals, such as the horse or mule being ridden into combat and the dromedary being raided. The rock art reveals these peoples' perspective of the domestic and wild landscape and their interaction with it. Through this, we gain insight into the worldview of the desert nomads. They appear to be depicting subject matters that probably played a role in the (every day) lives of the desert societies, such as pastoralism, hunting and wildlife, and conflict. The dromedary camel was clearly one of the most important aspects of their world, which fits into what we currently know of the important economic, social, and ritual role of the dromedary in the Arabian nomadic societies from the Iron Age on. The horse and/or hybrid appears to have fulfilled an important role as well, mostly expressed through how it was used for combat and hunting. Additionally, the pastoral ideology clearly not only included the domestic animals that were part of the nomads' everyday lives, but also the wildlife that inhabited the desert region and the importance of hunting.

Whether the figures and scenes depict actual, idealised, or general events and experiences, they reveal what was important to the carvers. Furthermore, the subject matters are depicted in standardised, structured ways and the carvers were not depicting all aspects of life. The rock art, like the inscriptions, was thus a formulaic expression and it is possible that individuals learned how and what to write and what to depict and how. The latter is revealed by the study of the production process. The images were most commonly produced using the pounding technique or a combination of techniques. In a large number of carvings, the production process was a multi-staged event, with the use of outlines or sketches and the addition of details at the end. This is visible in individual figures, scenes, and compositions of text and images. However, an elaborate execution of the image, including multiple steps in the *chaîne opératoire* is

more common in some types of figures, such as equids and camels. Specific details, like patterns, are more common in others, such as bovids. These results show that the production process was a planned, structured event, which was also governed by conventions and shared ideas.

The use of particular techniques and especially the use of a multi-staged process was important to ensure the correct appearance of the final image. The preliminary study of the Jebel Qurma rock art style, with emphasis on the dromedary camels, suggests that there was a standardised appearance. A planned production process would have allowed the carver more precision to achieve this. Additionally, the production of the image may have been an important part of creating meaning through the carving. There are indications that some elements of the carvings were directed at a divine audience. If the engravings were intended as votive offerings or prayers to deities, then the production of the carving would have been an important part of the ritual, enhancing the significance of the final composition. Additionally, this would have stimulated even more need for the carving to remain permanent. The use of curses and possibly apotropaic symbols would have been necessary to protect the carvings from harm. The subsequent effacement of an engraving may have been used to break the ritual or prayer.

However, the results of the study of the rock art's production and consumption in combination with the evidence from the inscriptions reveal that the carvings were certainly also intended for a human audience. The inscriptions were meant to be read and the images were meant to be viewed by other people. The awareness that others would view one's creation and interact with it, either positively or negatively, influenced the process of production. With later audiences in mind, the carvers made use of technique, composition, and sometimes the micro-landscape of the rock to create visual emphases and narratives in the figures and scenes. The act of effacement was therefore also a powerful form of social destruction, making another's work illegible and invisible. Interestingly, however, it is much more common to find traces of what could be called positive consumption, the addition of new creations to the site of pre-existing carvings. People were attracted to carve their compositions in places where others had done so too. As a result, the rock art and inscriptions accumulated in dense clusters at specific places in the landscape.

The study of the topography and setting of these places reveals that they were locations that likely functioned as vantage points in the landscape, providing views of the surrounding low-lying areas, such as the plains, valleys, mudflats, and wadis. Their position on the periphery of the basalt ensured good visibility of these areas but also meant that they were accessible via traversable routes through the region. These were places where the nomads would have spent time being on the lookout for enemies, wild animals to hunt, or their own domestic herds, pasturing below. As important locations in the landscape, generations of nomads would have visited these places. By producing carvings here, authors were leaving a permanent mark for future visitors to see, fully aware of these later audiences. Simultaneously, by adding one's engraving to these sites, the carvers were adding to the history of the place, aware of the many people who had come before and done the same. These places were therefore not just strategic vantage points for the desert nomads, but places of carved history that compelled the accumulation of visual and textual expression. The presence of carvings enhanced the significance of these places in the landscape, just as the position of these places in the landscape enhanced the significance of the carvings.

In conclusion, the rock art of the Jebel Qurma region shows evidence for the interaction between people and between people, place, and material. The content of the images and the processes of the rock art's production and consumption reveal that this material, together with the inscriptions, was an important cultural practice of signing significant places in the landscape. The nomads desired to leave behind their

permanent mark on these places, adding to the historical significance of the location and becoming part of this history. Furthermore, the carvings played an important role in mediating in social relations between people by creating and compelling interactions between people. They connected people through time and space, be they tribal members, ancestors or descendants, or unknown people. This purpose may have been intertwined with a ritual one, in which some of the carvings or certain elements were intended for communication with the divine, for example, to request their mediation in social interactions with other people or in direct prayers and wishes to deities. The social and ritual practices may have been intertwined or at times clearly distinguished. Above all, however, the structured expressions through image and text functioned in binding people together and people to place, ensuring a lasting reminder for generations of the nomads' presence and interaction with the desert landscape.

7.8. Implications and final reflections

Rock art provides an insight into the worldview, beliefs, and experiences of its makers. It must be used critically, like any archaeological material, but when done so, it can complement other archaeological sources and provide information when other resources are lacking. Through studying it in-depth, we can learn about the role that this material played in the societies that made it and learn more about the societies themselves. In the case of the desert nomads of the Black Desert, there are few sources that can inform us about them and their material culture. The potential of rock art as an archaeological source therefore cannot be underestimated. For one, it demonstrates the importance of challenging preconceived notions about subsistence lifeways and the ideology associated with them. Based on the inscriptions, historical sources, and ethnographic parallels, scholars have traditionally discussed the authors of the Safaitic carvings in terms of a pastoral existence. While the rock art supports such a scenario, it also reveals how significant the desert wildlife and hunting was to these societies. Although it does not necessarily imply the importance of hunting in subsistence terms, it indicates that it played a large role in their belief world.

As such, it is important to reconsider what we understand by a 'pastoral ideology'. It is often considered a key characteristic of herding societies, but what this actually entails is still poorly understood (cf. Parkes 1987, Rosen 2008). Ingold (1980, 1994) proposes that the development of pastoral ideologies can be linked to the difference between owning a herd and hunting one. Although various strands of evidence, including the Safaitic rock art, point to a pastoral ideology embedded in the ownership and care of dromedary camels for the ancient desert nomads of this region, the rock art also suggests that wildlife and hunting were of great significance. Therefore, the pastoral ideology should be revised to encompass not just the domestic animals on which these peoples relied, but also the wild landscape that they exploited and probably revered. Simultaneously, the prevalence of wild fauna and hunting in what could otherwise be termed 'pastoralist' rock art also provides new insights for the interpretation of other rock art across the globe. All too frequently, the depiction of wild animals and hunting is used as an argument to assign the rock art to an early period and hunter-gatherer communities, such as has been the case for Galician rock art (Bradley 1997, 202). The results of this study again demonstrate the need to revise these kinds of assumptions.

This study has also shown the value of investigating the images and inscriptions in tandem. The two types of engravings are intrinsically linked and the insights that can be gained from one complement the other. By studying only one, we are missing a vital half of the material culture of the desert nomads. In this study, I incorporated the inscriptions in the research on the relationship between the landscape and

the carvings and endeavoured to as much as possible include insights from the inscriptions in examining the content and traces of production and consumption of the rock art. The joint study of both types of carvings in future research is essential to better understand this material culture and its makers. The content of the two types of engravings remains to be compared in detail, as do the production techniques and style. This could provide new insights into cultural and temporal diversity in the Black Desert. Following on this, more complete datasets are necessary from across the *barra* to form a better picture of the societies that inhabited it in antiquity. Of utmost importance is that the carvings are systematically surveyed and documented as one. This includes recording the context of the carvings and traces of production and consumption.

Lastly, this study has demonstrated the potential of a material approach to rock art in which content, production, and consumption are examined holistically. The shift from the image to especially production and context in many global rock art studies has been a crucial one in moving the sub-discipline forward. However, it is clear that the images themselves, the content, is still of vital importance to gain a complete picture of this type of material. Additionally, it is important to consider the subsequent process of consumption, studying the biography of rock art from beginning to end. This study has shown how intertwined the process of production and consumption, and the producer and consumer, can be, especially when investigating the role of context and landscape. A material approach integrating the study of content, production, and consumption is therefore essential in gaining new insights into the role of rock art in societies and into the societies as a whole. This opens up the possibility to understand rock art as a cultural practice and explore its significance on various levels. It is important to note that this should be a focus not only when processing the rock art material, but also when recording it in the field. Doing so affords the opportunity to document minute traces that can shed light on content and the practices of production and consumption.

Many questions remain about the enigmatic pictorial carvings left behind by nomads in the basalt desert of Northern Arabia. Various avenues are still to be explored for us to gain a better understanding of this rock art and of the societies that made it. On a broader scale, rock art holds immense potential for studying the often elusive pastoral nomadic societies that inhabited many, frequently marginal, regions across the globe. For the makers of the Safaitic engravings, their images provide a window, albeit perhaps a foggy one, into their everyday lives, beliefs, and the desert world. What they chose to depict, how they did so, and what happened to the images subsequently exposes a vast scale of interactions between the desert peoples and their domestic and wild landscape. Additionally, it reveals the many complex interactions that the nomads participated in with each other, interactions that spanned time and were intimately connected to the places that held significance for their way of life.