



KEYWORDS: *Safaitic inscription – Rock art – Black Desert – Jordanian Badia – Jordan*

PIGS ON STONE: SOME ROCK ART FROM THE EASTERN PART OF AL-ḤARRAH, NORTH-EASTERN JORDANIAN BADIA

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Abstract. This article presents the first examples of rock drawings showing wild boars with Safaitic inscriptions. In one of the drawings, the animal is described as *ḥzr*, the word for 'pig' which is widespread in the Semitic languages. The study ends with a summary of the various types of rock drawing in the north-eastern Jordanian Badia.

Introduction

The petroglyphs presented here were discovered during the first field season of the Badia Epigraphic Survey (BES) in 2015. The BES is an offshoot of the *Online Corpus of the Inscriptions of Ancient North Arabia* (OCIANA) (<http://krcfm.orient.ox.ac.uk/fmi/webd/ociana>)¹ and was created with the principal objective of finding inscriptions and rock art which had been recorded previously but with no precise locations. Most of these had also been recorded simply in hand-copies of varying

¹ The Online Corpus of the Inscriptions of Ancient North Arabia (OCIANA) is a project that was instigated at the University of Oxford. The project aims at renovating our knowledge of ancient Arabia in term of history, cultures and languages. This objective is being achieved by crafting an electronic corpus of all identified pre-Islamic engravings from central and north Arabia. It delivers a reading of each script, both reproduced fonts of the ancient letters and in Roman transliteration, in addition to an English translation, references to previous readings, explanation where needed, bibliography, and all recognised data about the engraving such as origin, the technique of engraving, and relation to other scripts or petroglyphs. The record of each text is supplemented with photographs (if present) and facsimiles, and these can be downloaded for free at adequate resolutions for publication purposes. The Corpus can be straightforwardly updated when new findings are reached and can be entirely searched based on words, names, subjects and grammatical feature. <http://krc2.orient.ox.ac.uk/ociana/>.

quality and only occasionally in photographs. The BES records the GPS co-ordinates and digital photographs of the texts and drawings and their environments. These are then entered into the OCIANA database which is freely available online. In the course of finding and recording these known inscriptions, many thousands of previously unknown texts and drawings are discovered and these, too, are systematically recorded and entered into OCIANA. In the past, surveys were not systematic in their search methods and often did not record all the inscriptions at a particular site, so this is also something which the BES has been able to rectify. So far, five surveys have been carried out in the period

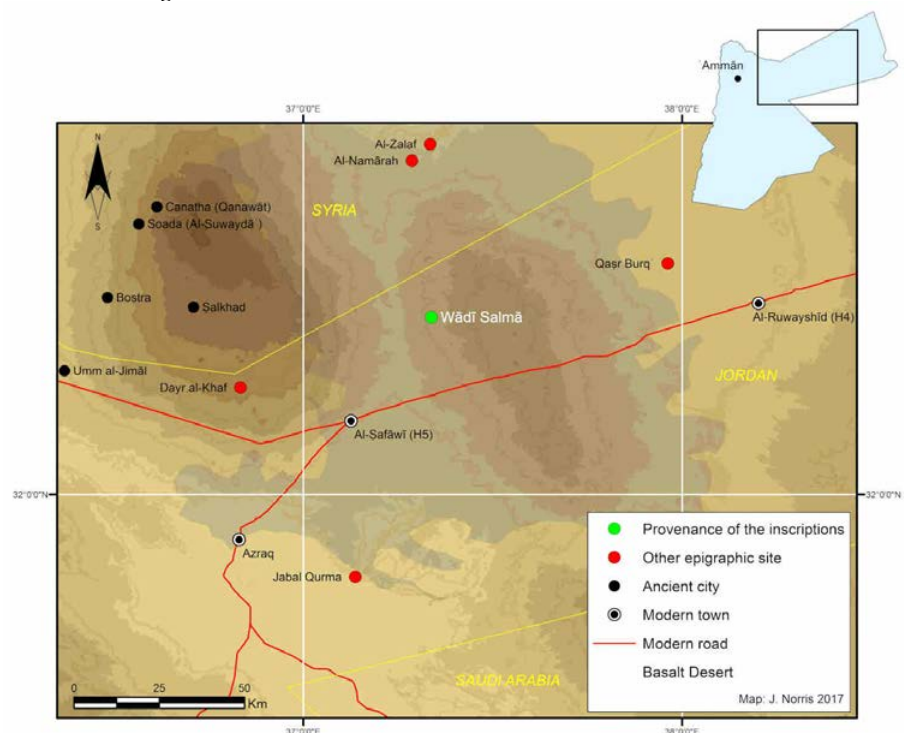


Figure 1. A map showing the sites on which the inscriptions were recorded (Map: J. Norris).



Figure 2. A view of wadi Salmā (photographs by AAM).

between 2015 and 2020 (Macdonald and Al-Manaser 2019a, 2019b) and these have led to the discovery of approximately 10 000 new Safaitic, Nabataean, Palmyrene, Greek, Islamic, mediaeval and modern Arabic inscriptions. Many projects were implemented in the Jordanian Badia to document the inscriptions. These include the Hashemite University project supervised by Sultan Al-Maani, Hussein Al-Qudrah and Mahdi, a project at the Yarmouk University supervised by Hani Hayajneh; and the Surveys Project of the South of Wadi Al-Khudari, which is implemented by Younis Shdeifat, Ziad Al-Salamin and Rafie Harahsheh.

Petroglyphs and inscriptions are commonly found on the basalt rocks in al-Harrah, a volcanic desert region that extends from south-eastern Syria through north-eastern Jordan into northern Saudi Arabia (Fig. 1). The two rocks presented in this study were discovered in wadi Salmā, which is located in al-Harrah, approximately 34 km to the northeast of the village of aṣ-Ṣafawī. The wadi stretches for 13.5 km and is approximately 825 m above sea level (Fig. 2).

Rock 1

Transliteration: l 'mr bn ḥmyn h- ḥzr

Translation: By 'mr son of Ḥmyn is the boar – The [drawing] of the boar belongs to 'mr, son of Ḥmyn.

Commentary



Figure 3. Rock 1, wadi Salmā, Jordan.

This Safaitic inscription and drawing are engraved on a basalt rock measuring 40 × 46 cm (Fig. 3). The inscription forms a crescent under the drawing of what looks like a wild boar. The inscription accompanying this drawing bears the name of the author of the inscription. This inscription can be translated that the drawing or the animal that is mentioned in the inscription belongs to the author of the inscription. According to OCIANA, the author's name and patronym have been found in this combination ten times in Safaitic, but because there are only two names and they are unvocalised, it is impossible to be sure that they all refer to the same person (Ryckmans 1951: 1307; Littmann 1943: 475).

As for the word *ḥzr*², this is the first time it has been found in a Safaitic inscription, but compare Akkadian *ḥuzīruw* (Soden 1981: 2/362), Ugaritic *ḥu-zi-rū/ḥuzīru* (Aistleitner 1963: 1048; Lete and Sanmartin 2003: 399; Huehnergard 2008: 128), Aramaic *ḥāzīrā* (Mankowski 2000: 56–57; Fox 2003: 87), Hebrew *ḥāzīr* (Gesenius 2007: 4/335), Syriac *ḥzūrā* (Sokoloff 2009: 437–438), Geez (Ethiopian) *ḥanzīr* (*hanzar*, *ḥanzīr*, *ḥenzīr*), thought to be a loanword from Arabic into *Classical Ethiopic* where the native word is *ḥarāweyā* (Leslau 1987: 244, 263; pers. comm. Michael C. A. Macdonald) and Arabic *ḥinzīr* (Lane 1863–1893: 732a).

Rock 2

Transliteration: l gmr bn rb bn yṯ' bn rbn w h-ḥyt

Translation: By Gmr, son of Rb, son of Yṯ', son of Rbn [is the inscription] and the animals.

Commentary

This stone bears a Safaitic inscription and a drawing of what looks like two wild boars and a dog (Fig. 4). The author of the inscription indicated that the drawing on the rock belongs to him.

The *w* immediately after the genealogy is not part of the last name but the connective 'and' (e.g. Harding

² The Safaitic spelling *ḥzr* is the expected outcome of the common process of n-assimilation in these dialects. If we assume an original form similar to Classical Arabic *ḥinzīr*, we should expect Safaitic *ḥezzīr*, spelled *ḥzr*, cf. Classical Arabic intazara to Safaitic *tzr/ettazara/* (advised by Ahmad Al-Jallad).

1953: 2; Clark 1979: 90, 620; OCIANA n.d.: 1658; Winnett and Harding 1978: 2840; pers. comm. Michael C. A. Macdonald). The substantive *ḥyt*, 'animals', occurs in many Safaitic inscriptions referring to the drawing of the animals accompanying the inscription on the stone (e.g. Ryckmans 1951: 4664; Winnett and Harding 1978: 643; OCIANA n.d.: 783).

Rock drawings in the basalt desert

The basalt desert al-Harrah contains thousands of inscriptions and rock drawings that can be roughly dated to several different periods. Some of the rock drawings date back to pre-History, but most of the inscriptions (Safaitic, Nabataean, Palmyrene, Greek and Latin) date to the end of the first millennium BCE and the beginning of the first millennium CE. So far, about 50 thousand of these inscriptions have been documented. Current evidence suggests the presence of a human settlement in the Jordanian Black Desert that dates back to approximately 14 400 years BP in the Shubayqa (Qa' Shubaykah) area (Arranz-Otaegui et al. 2018). This settlement started from the Epipalaeolithic (Late Natufian) period onwards (c. 9000 BCE) (Betts 1998) and lasted, almost continually, until the beginning of the Early Bronze Age (Müller-Neuhof 2014a, 2014b). Petroglyphs in the basalt desert were inspired by the daily life of the residents of this region. All of these drawings are two-dimensional, likely due to the limited capacity of the primitive tools used for engraving on the medium-hard basalt rocks.

These rock drawings include representations of various animal species such as 'camels' (both the dromedary and two-humped Bactrian), 'horses, donkeys, mules, hinnies', and 'onagers, gazelle, oryx and ibex; snakes, scorpions and dogs' as well as both 'men' and 'women'. These rock drawings also show various activities including 'hunting, fighting and entertainment using musical instruments'. It is interesting to note three drawings purportedly of ploughing have also been discovered. For many years, interest has been focused on studying inscriptions and merely referring in passing to the drawings that accompany them. However, Michael Macdonald has published many articles discussing these rock drawings (Macdonald 2007, 2009 and 2019), and studies of the rock drawings accompanying Safaitic inscriptions have also been published by Muhammad I. Ababneh (2005), Betts (1987) and Alzoubi and others (2016). In 2019, Nathalie Brusgaard produced the first-ever systematic study of the Safaitic petroglyphs from the Black Desert in a comprehensive study of over 4500 rock drawings from the Jebel Qurma in Jordan (Brusgaard 2019).

Engraving tools

The inscriptions and drawings are engraved onto basalt rock. Basalt is a 'medium-hard' rock, and so an equally hard or a harder tool is needed to incise it. These tools are believed to have been made from basalt, quartz and flint, all of which are readily available



Figure 4. Rock 2, wadi Salmā, Jordan.

in al-Harrah. Most drawings were done by incising, chiselling and scraping (Brusgaard 2019).

Pig in the historical context

It is a well-known fact that one is very unlikely to find pigs in the arid desert. Therefore, the question that arises is where the authors of these drawings had hunted these pigs or even where they had seen them?

Pigs are not fit for the mobile pastoral life, which comprises walking over long distances in search of food. Furthermore, pigs are omnivores, meaning that they need to eat meat in addition to insects, roots and vegetables. Also, in contrast to goats and sheep, pigs do not eat grass which is indeed harmful to them. The natural habitat for pigs is forests and jungles, where water, as well as nutritional resources, are plentiful. Studies demonstrated that breeding of pigs is restricted by water availability (Harrison and Bates 1991: *Sus Linnaeus* 1758) (pers. comm. Michael C. A. Macdonald). Also, it has been shown that pig raising is also limited by the presence of a 250 mm isohyet (Collins 2002). In contrast, al-Harrah has dry weather, and the rate of rainfall there ranges from 50 mm to 200 mm per year (Brusgaard 2019).

Research has revealed the presence of pig bones in many archaeological sites in the ancient Near East: Anatolia, Mesopotamia, Canaan, Jordan and Egypt (Collins 2002). In Jordan, pig remains have been found at many sites whose history extends from the Neolithic to the Ayyubid/Mamluk periods, such as 'Ain Ghazal (Simmons and Rollefson 1984), Wadi Shu'eib (Makarewicz 2016), Teleilat Ghassul, Pella, Tall abu al-Kharaz and Tall Hesban (Van Wyk 2014).

It appears that pig farming has undergone various changes throughout the ages. For example, the fifth millennium BCE witnessed the emergence of dry agriculture as a response to climate change at the time, and archaeological excavations from this period show a dramatic decrease in the number of pig bones in the faunal assemblages discovered. It is believed



Figure 5. A rock with a depiction of 'hunting oryx' with 'Canaan dogs' and Safaitic inscriptions (http://krc.orient.ox.ac.uk/ociana/corpus/pages/OCIANA_0023934.html).

that drought during this period and the shift towards raising other types of animals led to the reduction in pig breeding. It also appears that in the fifth and fourth millennia BCE there was a close connection between environmental conditions and the distribution of archaeological sites in which pigs played a small but important economic role.

As for the third millennium BCE, it seems that raising sheep and goats was more important than raising pigs in the economies of the southern Levant. Therefore, the increase in drought at the end of the third millennium BCE is thought to have had a resultant dramatic decrease in the number of pigs in the south of the Levant. The deterioration of the climate at the end of the third millennium BCE led to the collapse of many settlements during the Middle Bronze Age and the transition to a more pastoral and mobile life (Albarella et al. 2007). On the other hand, there was a substantial increase in pig breeding in the Iron Age. It is believed that the first major entry of European pigs into the south of the Levant occurred during the Iron Age around 900 BCE, and during the subsequent period, there was an inter-site fluctuation in the degree of pig breeding (Larson et al. 2007). This fluctuation is likely due to cultural and religious differences between the inhabitants of the sites considered.

Later on, in the Hellenistic and Roman periods, there was an increase in pig breeding and dependence on pork as food, especially in the main coastal urban centres. However, this trend decreases in the rural areas as the transfer of pigs to the inland part of the southern Levant contributed to the death or, at least, weight loss of many of them (cf. Meiri et al. 2013; Topleyn 2006).

During the Roman period, the raising of sheep and goats in the southern Levant was negligible. This is thought to be due to the lack of grazing and fodder



Figure 6. The Canaan dog (Brusgaard 2019: 73).

during this period. This period also witnessed a dramatic increase in the population size and the prohibition of slaughtering calves in order to spare them for usage in agricultural work. The need for wild boar meat could have become increasingly important because of the shortage of

livestock meat (cf. Horwitz and Studer 2005; Meiri et al. 2013). Also, it was necessary during that period to get rid of the wild boars in order to preserve the crops from being ruined by these wild animals, especially during the night.

Horwitz and Studer (2005: 234) note that during the Byzantine period, the Levant became a centre for religious activities that included building churches and monasteries as well as a dramatic influx of Christians into the region. Consequently, the increased consumption of pig meat in the Byzantine period may be attributed primarily to the growth of Christian societies in the region, reflecting their nutritional behaviours. In the past, raising pigs and relying on pig meat was dependent on several factors, including climate and lifestyles, as well as cultural and religious behaviours.

The wild boar still lives to this day in the inner parts of the southern Levant, including the area near the Jordan River. They reproduce seasonally in the area near Sea of Galilee as well as the border region between Jordan and Israel along the course of the Jordan River down to the Dead Sea. These areas are characterised by an abundance of water as well as the presence of long weeds, thus making them suitable habitats for the survival of pigs.

Conclusion

Rock art is a manifestation of the culture of the people who created these drawings. Through these drawings, they subconsciously show a part of their culture and heritage and rock art was likely an essential part of their daily experiences. The study of rock drawings is an important and complementary part of studying the inscriptions. Such studies are believed to provide a better picture of the lives of the people who lived in the area and the nature of their lives. Most likely, the



Figure 7. A rock with a depiction of 'two-humped camel' (*Camelus bactrianus*) (http://krc.orient.ox.ac.uk/ociana/corpus/pages/OCIANA_0021626.html).

authors of the accompanying inscriptions have drawn what they had seen at some time somewhere.

The drawings shown in this study represent the first drawings of pigs to be discovered with Safaitic inscriptions, their identification confirmed in one case by the inscription. Further research may lead to the disclosure of more information about pigs in al-Harrah region.

The natural habitat for pigs, whether being domestic pigs or wild boars, is generally characterised by an abundance of rain and other water resources, an abundance of suitable nutritional sources and moderate temperatures. Therefore, references to pigs, whether textually or pictorially, have not been reported in Safaitic inscriptions. As such, the current study presents the first two rock drawings of pigs and the first textual reference to them. The drawing of the pig on the first rock was created differently compared to the drawing of the two 'pigs' on the second rock. The rock art on the first boulder is likely meant by the author to represent a very young wild boar as it was depicted in a smaller-headed form. As for the drawing on the second rock, the author tried to show the relatively large size of the heads of two wild boar figures to indicate that they are meant to represent adult wild boars. Also, behind these pig figures, there is a drawing of a 'dog' likely to represent a hunting hound.

It is known that the authors of Safaitic inscriptions commonly used dogs for hunting (Fig. 5). Depictions of hunting dogs appear in many rock drawings in the basalt desert (Brusgaard 2019). The type of the dog illustrated in the second rock is likely to represent the modern Canaan dog with a close resemblance to the dog breed portrayed in the Saudi Arabian rock art (cf. Guagnin et al. 2018). This type is of similar appearance to that of the modern Canaan dog exhibiting curled tail and pointed ears (cf. Guagnin et al. 2018) (Fig. 6).

There are numerous rock drawings that one does not expect to find in the basalt desert al-Harrah, including drawings of the 'two-humped camel' (*Camelus bactrianus*) (Fig. 7) and those of agricultural activities



Figure 8. A rock with a presumed depiction of ploughing (King 1990: 78; http://krc.orient.ox.ac.uk/ociana/corpus/pages/OCIANA_0022490.html).

such as 'ploughing' (Fig. 8). These unique drawings likely indicate the connection of the inhabitants of al-Harrah with the neighbouring civilisations and cultures. As such, it could be proposed that the authors of the inscriptions of the present study may have seen wild boars somewhere in the interior of the Levant.

Acknowledgment

The authors are greatly indebted to Prof. Michael C. A. Macdonald (University of Oxford) for his very helpful comments on an earlier draft of this paper. All errors remain their own.

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