

# Notes on Rock Carvings from Qatar

## ملاحظات حول نقوش صخرية من قطر

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### ملخص

إن الحفاظ على صورة منقوشة في الصخر سلوك بشري عالمي موجود في معظم مناطق العالم. فالنقوش الصخرية هي صور محفورة على أسطح الصخور لأغراض مختلفة، تَكُون عن طريق إزالة الصخور السطحية. لهذا يهدف هذا البحث إلى دراسة وتصنيف الأشكال والرموز المنقوشة على الصخور في ثمانية مواقع أثرية في قطر، ومناقشة تاريخ نحتها، وكذلك توجيه الانتباه إلى الحاجة الملحة إلى الحفاظ عليها وحمايتها من الاندثار.



(Map 1) Site Location in the State of Qatar.

## Introduction

The idea of preserving an image on stone seems universal to human behavior. Such carvings are found in most regions of the world. Petroglyphs are images made on rock surfaces for various purposes. They are generated by removing the rock surface to reveal a brighter underlying surface.<sup>1</sup> The primary objective of this research is to study and categorize representations and symbols carved on the rocks at eight archaeological sites in Qatar to propose approximate dating and to draw attention to the urgent need of preservation.

## Preliminary Data

The rock carvings in Qatar have been known for many years, but have not yet systematically studied according to modern archaeological standards. These rock carvings were first discovered in 1957 by P.V. Glob,<sup>2</sup> who led the Danish excavation team in Qatar. They were also studied by Bibby in 1964,<sup>3</sup> by B. de Cardi in 1973<sup>4</sup> and by Kapel in 1983,<sup>5</sup> who classified the rock carvings at Al-Jassasiyah.

Since 2007, Qatar Museums Authority has directed a series of systematic surveys with the aim of mapping all archaeological sites in the State of Qatar. Three main surveys are in process: a comprehensive survey carried out in collaboration with Birmingham University, England, combined with satellite images, a systematic survey of

the north and northwest parts of Qatar in collaboration with the Qatar Islamic Archaeology and Heritage project and University of Copenhagen, and a systematic survey of southern Qatar in collaboration with the German Archaeological Institute.

There already exists a comprehensive mapping of relevant sites with rock carvings, for example, Danish teams excavated sites at Al Kassar (1956–1964), at Al-Jassasiyah in 1956, and Al Furehah in 1959, they further explored the Al Furehah site with a survey in 1974, whereas the French team excavated Sumaismah site in 1976<sup>6</sup> (Map 1).

## Geographical Profile of the Study Area

Qatar is a Peninsula located along the west coast of the Arabian Gulf, between latitudes 24° 40' and 26° 10' north, and longitudes 50° 45' and 51° 40' east. The Peninsula and a number of small islands surrounding it cover an area of some 11,347 km<sup>2</sup> (Map 1). It lies on the broadest part of 'Arabian Platform' of the Arabian Shelf with the underlying basement rocks of the Arabian Shield. The country extends into the Arabian Gulf for about 180 km, with a maximum breadth of 85 km, and is bordered by the Arabian Gulf from west, north and east, and beyond its southern limit is the Kingdom of Saudi Arabia. In the South, the terrain is mostly flat and stony desert with sand dunes.<sup>7</sup>



(Fig. 1) Double Row of Cup-Marks from Al-Jassasiyah.

In our research, we focus on eight sites as follows: (1) Al-Wakrah, (2) Al-Kassar, (3) Sumaismah, (4) Al-Jassasiyah, (5) Al-Fuwairat, (6) Al-Ghariyah, (7) Al Jubiulat, and (8) Al-Furehah.<sup>8</sup>

### Site Locations

Al-Jassasiyah, Al-Fuwairat and Al-Ghariyah are situated to the North-East of Doha, along the East coast. Al-Furehah is situated to the west of Doha, while Al-Kassar lies about 5 km north-east of Doha. Sumaismah lies north of Doha, Al-Wakrah lies south of Doha and to north of Umm Said, and Al-Furehah and Al-Jubiulat lie to the north-west of Doha (Map 1).

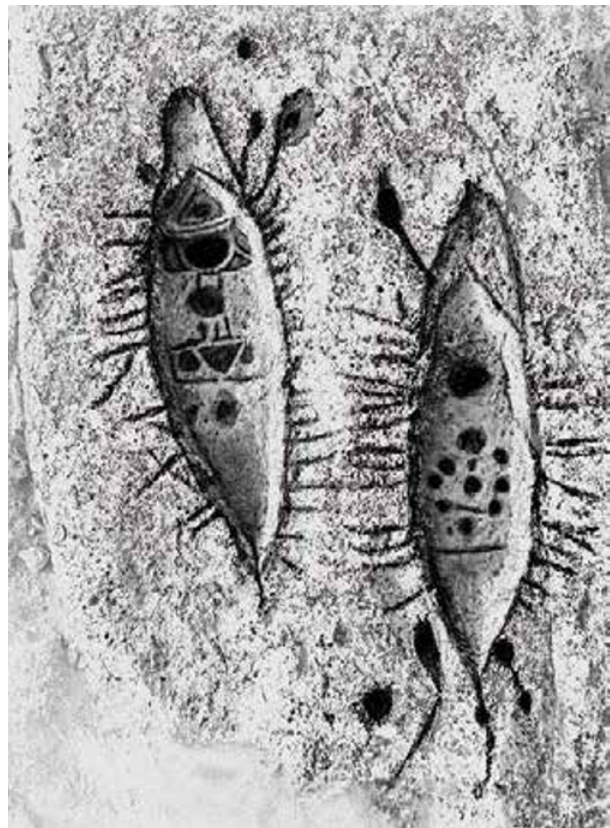
### Classification of Rock Carvings

Badawi<sup>9</sup> and Nayeem<sup>10</sup> classified the rock carvings in the sites of Qatar according to the dominant shapes there including cup marks, boats, animals and a possible scripts as follows:

**1. Cup marks:** Cup marks are the most dominant features of the carvings and provide a means of classification. The carvings in first group classified by cup marks have circular units that compose holes in the rocks, organized in two or four parallel lines beside each other (Fig. 1). Some of them are shaped like a curve that resembles a simple crescent, as found at Al-Jassasiyah and Al Jubiulat.<sup>11</sup> Carvings in the second group classified by cup marks, as found at Al-Fuwairat and Al-Ghariyah,<sup>12</sup> show circular arrangements of cups consisting of deep holes surrounded by other central circular units that are less deep and much smaller. These arrangements are similar to rosettes or a shining sun (Fig. 2).<sup>13</sup> The cup marks have been denoted



(Fig. 2) Rosette of Cup-Marks from Al-Jassasiyah.

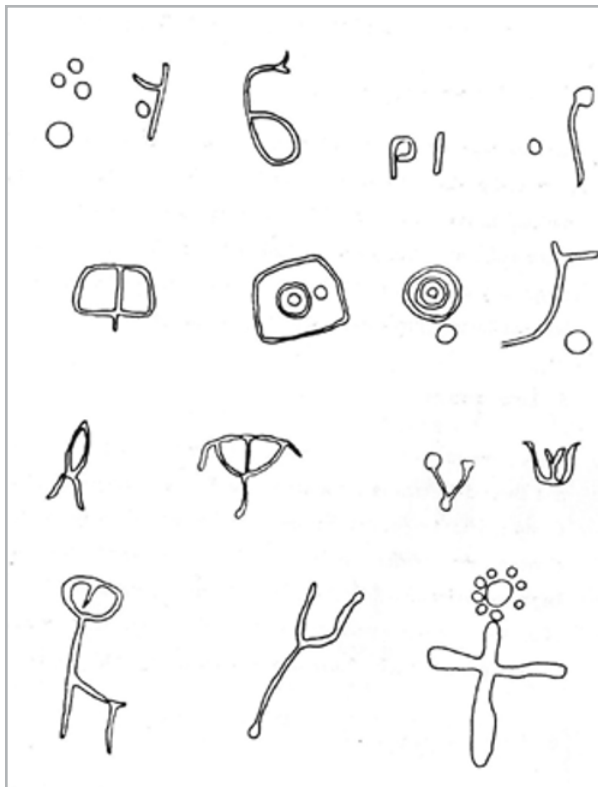


(Fig. 3) Boats carvings from Al-Jassasiyah.

as *board game* carvings, as they resemble an old-style board game, usually known as *Mancala*, repeatedly illustrated by commerce roads from Africa to South-East Asia, which is also known locally as Al-Haloosah.<sup>14</sup>



(Fig. 4) Possibly an ibex.



(Fig. 5) Ancient Script Characters.

This suggestion that they are used for games, however, has been questioned due to the large number of these carvings in small areas, and as Al-Naimi mentioned, in some cases their location is inappropriate for the usage as a gaming board since they are regularly carved on steep slopes.<sup>15</sup> Badawi further suggested that these cup marks might represent a preliminary idea about religious beliefs.<sup>16</sup>

**2. Boat carvings:** Boat carvings are a type of carving common to Al-Jassasiyah (Fig. 3)<sup>17</sup> with few representations at other sites. Carvings at Al-Jassasiyah represent two types of boat carvings. Pelling described them as ‘.... primarily those in plan, as well as some in profile. Those in plan are most prolific as small, pointed oval boats with visible oars. Bigger versions carry anchors, and those larger still have cup marks inside, clearly to denote inner vessel features’.<sup>18</sup> It is thought that the carvings of these boats resemble the boats that were used in the pearl commerce, commonly known as *battil* and *baqqarah*.<sup>19</sup>

**3. Animal representation:** Nayeem<sup>20</sup> mentioned that the Qatar National Museum<sup>21</sup> in Doha has photographs of rock carvings found in Qatar. Of the six photographs, three are of three different animals. The first carving portrays an animal with no head and four legs in a vertical form, while the body is illustrated in a horizontal line, which possibly displays an ibex (Fig. 4).<sup>22</sup> The second rock carving shows a donkey in a standing position with no tail, but its head, ears, four legs are clearly visible.<sup>23</sup> A third representation shows a crawling crab

with unclear head but a complete body.<sup>24</sup> Other different animals were carved at Al-Jassasiyah portraying an ostrich, a turtle and fish.<sup>25</sup>

**4. Ancient script characters:** At Al-Jassasiyah (Fig. 5)<sup>26</sup> and Al-Furehah carved characters were found that resemble ‘the characters or alphabets of the Ancient Arabic scripts, E.G. Thamudic, Musnad, etc.’ dated from the period before the seventh century BCE, as suggested by Nayeem.<sup>27</sup> He also argued that these characters may have possibly been tribal marks (*Wasums*) used by the ancient people for demarcation on domestic animals, designed in different characters,<sup>28</sup> a tradition that has continued to be practiced in the Arabian Peninsula and in Qatar, for the purpose of property identification and to protect from theft or loss.

### Dating the Rock Carvings

Similar carvings were discovered around the Gulf, in Bahrain,<sup>29</sup> Kuwait, United Arab Emirates,<sup>30</sup> Oman and Saudi Arabia.<sup>31</sup> The rock carvings in Bahrain were dated around 3000 BC,<sup>32</sup> whereas in Saudi Arabia they were dated between the fourth and first millennia BCE,<sup>33</sup> Hawkins<sup>34</sup> dated the Al-Furehah carvings to nearly the third millennium BCE and some to 1600–1200 BCE, Rice<sup>35</sup> suggested that ‘This is the most deliberately representational of all the northern group of Qatar rock carvings and would certainly not look out of place in a third millennium, or even earlier, Mesopotamian context’. Khan<sup>36</sup> in his study of the characters and symbols carved at Al-Jassasiyah, compared them to those found in Saudi Arabia at Sinadil. He proposed that they are dated approximately 1200–800 BCE.

A careful examination of the dimensions of the rock carvings would suggest that the tools used in these carvings were probably not made out of stone and that it would have required metal tools to engrave these carvings; therefore, the carvings possibly do not belong to the Stone Age. We may assume that the tools were made out of metal, sharp enough to fit its operations on the surface of the rock, which was probably consistent with the stage of the spread of the first metal (bronze) and the prevalence of its usage in the region, probably dated to the second half of the third millennium BCE.<sup>37</sup>

A recent study by Hassiba, Al-Naimi and others<sup>38</sup> declared that ‘samples of the calcium oxalate containing layers covering the petroglyphs from Al-Jassasiyah site were sent for radiocarbon dating to determine the minimum age they were created’. The research team concluded that ‘The minimum ages of nine samples taken for analysis were found to be very recent, the oldest minimum age being only 235 years BP (Before Present). No evidence was found for the petroglyphs dating back a few millennia as was previously postulated’.<sup>39</sup> However, Hassiba<sup>40</sup> stated that there are known inaccuracies that can occur with this type of dating, since the carvings are in limestone that can damage easily in severe and diverse weather conditions, such as the sandstorms that are common in Qatar. Consequently, the difference in carvings themes, dissimilarity carving methods and corrosion among these carvings might suggest that they were carved during different periods.<sup>41</sup> Theories about dating rock carvings remain problematic; using advanced methods in the future may assist in determining an accurate date.<sup>42</sup>



(Fig. 6) Laser scan of rock carvings at Al-Jassasiyah site by the University of Birmingham team in 2010.

## Discussion

Ancient man inhabited Qatar since the Paleolithic period, which is evident from stone emblems that have been recorded.<sup>43</sup> However, during the Neolithic period<sup>44</sup> ancient inhabitants settled in numerous sites along the coast as well as the interior, surrounded by the sea on three sides, a setting which required its residents to rely mostly on maritime resources for survival. The environment influenced the socio-economic lifestyles of the people establishing a dependency on fishing and herding. These people may have used their leisure time amusing themselves by sketching models of the boats,<sup>45</sup> which were possibly used in daily life for fishing, as in the present. However, Facey<sup>46</sup> suggested that while waiting at the coasts for the arrival of vessels, they might have been entertaining themselves by playing board games as well. Badawi,<sup>47</sup> however, suggested that the carved circular shapes or units might be related to the ancient Arabian *Astronomical Trinity Theory* that formed part of their ancient religion and beliefs. As many of the Southern Arabian tribes worshipped natural phenomena consisting of the moon, as the father, illustrated as a full disk or as a crescent; the sun, as the mother, shown as a circle and the planet; and Venus as their son, portrayed

as a comet.<sup>48</sup> He proposed that the symbols and characters carved on the surfaces of the hills might represent the *Astronomical Trinity*, which would reflect a primitive idea of ancient beliefs during that early time. Further studies are required to compare the rock carvings in Qatar with those found in other Gulf and Arabian countries to understand the social and religious ties with Gulf area and their placement within the regional context.

In conclusion, the rock carvings engraved by ancient inhabitants of Qatar (Fig. 6)<sup>49</sup> possibly reveal intellectual and cultural significance. They reflect the artistic taste of the people who made them, and allude to the behaviors that shaped their daily lives under harsh environmental conditions.<sup>50</sup> More excavations and research are desired in the future to answer more questions and to fill in the gaps of Qatar ancient history.

## Urgent Need for Conservation

The archaeological sites described in this study are regarded as cultural and natural heritage sites for Qatar that are increasingly endangered and threatened by natural causes of decay and man-made disasters, which contribute to a harmful ruin to the heritage of Qatar. This situation necessitates urgent actions for conservation and preservation. The attention drawn to the poor condition of the rock carving sites and the lack of preservation efforts in Qatar, emerged through a preliminary study that took place in a Qatar National Research Fund Undergraduate Research Experience Program (Q NRF-UREP) project.<sup>51</sup> After visiting the Al-Jassasiyah and Al-Furehah sites several times, the team noted that the carvings were in poor condition, experiencing human damage, such as graffiti; and damage from natural causes such as climate changes and weather conditions.

The team expressed the fear that the carvings, if not preserved, would be completely destroyed.

The sites in this study were selected because of their obvious importance, both for archaeological research and for presentation to visitors, and also to highlight the harm affecting those sites from rapid erosion and/or people who do not realize the value of such sites to the heritage of Qatar. Finally, cultural heritage is a common mankind inheritance, which should not be neglected, but needs to be protected and shared.

### Endnotes

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1 M. Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times V* (Riyadh, 1998), 220.

2 P.V. Glob, 'Reconnaissance in Qatar', *Kuml* (1956), 199–202; P.V. Glob, 'Prehistoric Discoveries in Qatar', *Kuml* (1957), 167–178.

3 T.G. Bibby, 'Arabian Gulf Archaeology', *Kuml* (1964), 104.

4 B. de Cardi (ed.), *Qatar Archaeological Report Excavation* (Oxford, 1973); cf. F.A. Badawi, 'Ancient Rock Reliefs in Qatar', *Arrayan* 6 (1982), 60.

5 H. Kapel, 'Rock carvings at Jabel Jusasiyah Qatar', *Arrayan* 8 (1983), 113; for later surveys cf. F. Gillespie, *Discovering Qatar* (France, 2006), 17–24; F. Gillespie, *Qatar Rock Carvings* (2009) QatarVisitor, <http://www.qatarvisitor.com>.

6 Excavations in Qatar were first led by the Danish team (1956–1965), followed by the British excavation (1972/1973), returned in (2000) and (2007), then the French team (1976–1982), returned in (2001–2003) and again (2005–2007), and the Japanese team (1989–1990), besides other Qatari team who excavated at Al-Zubarah, Marwb and Al Wassil under the auspicious of Qatar Museums Authority (QMA). See: فيصل النعيمي وآخرون، لآلى أثرية قطرية (الدوحة، ٢٠١٠)، ٢٥.

7 Cf. R.S. Zahlan, *The Creation of Qatar* (Croom Helm, 1979), 13; M.A.K. Hatem, *Land of the Arabs* (Longman, 1977), 290–292.

8 To the authors knowledge almost thirty-eight sites are known for their rock carvings in Qatar. Cf. R. Pelling, 'The Rock Carvings of Qatar', *Special Issue World Heritage in Qatar* 72 (2014), 58–59.

9 فتحي بدوي، 'دراسة عن النقوش الصخرية في قطر، حولية كلية الانسانيات والعلوم الاجتماعية، جامعة قطر، العدد السابع (١٩٨٤)، ٩١٧٨؛ مجيد خان، دراسة علم الرسوم الصخرية (الرياض، ١٤٢٨هـ).

10 Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times*, 231–258.

11 فتحي بدوي، حولية كلية الانسانيات والعلوم الاجتماعية، جامعة قطر، العدد السابع، صورة ١، ص ١٠٥، صورة ٣، ١٠٦.

12 فتحي بدوي، حولية كلية الانسانيات والعلوم الاجتماعية، جامعة قطر، العدد السابع، صورة ٤، ص ١٠٥، صورة ٥، ١٠٧.

13 محمد جاسم الخليفي، المواقع الأثرية التراث المعماري المتاحف في قطر (الدوحة، ٢٠٠٣)، ٦٠.

14 Pelling, *Special Issue World Heritage in Qatar* 72, 58.

15 For argument cf. Gillespie, *Discovering Qatar*, 17–19; Pelling, *Special Issue World Heritage in Qatar* 72, 56–62.

16 فتحي بدوي، حولية كلية الانسانيات والعلوم الاجتماعية، جامعة قطر، العدد السابع، ١٠٩٢.



- 17 Recorded by Holger and Hans Kapel after Pelling, *Special Issue World Heritage in Qatar* 72, Fig. 2.
- 18 Pelling, *Special Issue World Heritage in Qatar* 72, 59.
- 19 For comparative study of boats see Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times*, 243; Gillespie, *Discovering Qatar*, 23; H.M. Westropp, 'On Rock Carvings', *Proceedings of the Royal Irish Academy* (1836–1869) vol. 10 (1866–1869), 232–234; for boats in Arabian Gulf see M.S.I. Taha, *Boats and Their Significance in the Civilizations of the Arabian Gulf and the Arabian Peninsula to the End of the First Century AD – An Archaeological–Analytical Study*, (MA., Cairo University, 2015).
- 20 Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times*, 232–233.
- 21 Qatar National Museum at Doha is now closed, preparing for inauguration in 2016.
- 22 Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times*, Fig. II/1.
- 23 Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times*, Fig. II/2.
- 24 Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times*, Fig. II/3.
- 25 See Kapel, *Arrayan* 8, 99; For animals' carvings portrays in Fujairah at the Arab Emirates, cf. G. De Ceuninck, 'Les pétroglyphes du Fujairah, Emirats Arabes Unis', *ABIEL II New Research on the Arabian Peninsula, Arabia and Its Neighbors: Essays on Prehistorical and Historical Developments*, (1998), Figs. 2, 6 and 9; for animals' carvings at the site of Sinadil in the Hajjar mountains southeast Arabia E. Haerinck, 'Petroglyphs at Sinadil in the Hajjar Mountains (Southeast Arabia)', *ABIEL II New Research on the Arabian Peninsula, Arabia and Its Neighbours: Essays on Prehistorical and Historical Developments* (1988), plate 3.
- 26 After Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times*, 255, Fig. 8.
- 27 Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times*, 256, Fig. 8; for writings from the period before the seventh century BC in the Arabian Peninsula and the western coast of the Persian Gulf, cf. J. Pirenne, *Paléographie des Inscriptions sud-arabes* (Brussel, 1956).
- 28 Cf. A.M. Nayeem, *Saudi Arabia I* (Riyadh, 1990), 98; M. Khan, *The Origin & Evolution of Ancient Arabian Scripts* (Riyadh, 1993), 24.
- 29 Haerinck, *ABIEL II New Research on the Arabian Peninsula, Arabia and Its Neighbours: Essays on Prehistorical and Historical Developments*, 79–83.
- 30 De Ceuninck, *ABIEL II New Research on the Arabian Peninsula, Arabia and Its Neighbors: Essays on Prehistorical and Historical Developments*, 33–46.
- 31 C. Clarke, 'The Rock Art of Oman 1975', *JOS* vol.1 (1975), 113–122; N. Wood, 'Ancient Graffiti', *Petroleum Development Oman News*, vol. 3 (1989), 6–9.
- 32 Glob, *Kuml* (1957), 177.
- 33 Khan, *The Origin & Evolution of Ancient Arabian Scripts*, 24.
- 34 D.F. Hawkins, 'Rock Carvings at al Furaihah', *Arrayan* 9 (1984), 65.
- 35 M. Rice, *The Archaeology of the Arabian Gulf* (London, 1994), 238.
- 36 Khan, *The Origin & Evolution of Ancient Arabian Scripts*, 24; M. Khan, 'Schematisation and Form in the Rock Art of Northern Saudi Arabia', *Atlat* 11, 1988, 95–98.
- 37 فتحي بدوي، حولىة كلية الإنسانيات والعلوم الاجتماعية، جامعة قطر، العدد السابع، ١٩٩٨.
- 38 R. Hassiba, *et al.*, 'Determining the Age of Qatari Jabal–Jassasiyah petroglyphs', *QScience Connect* 4 (2012), 1–16.
- 39 Hassiba, *et al.*, *QScience Connect* 4, 1, 9.
- 40 Hassiba, *et al.*, *QScience Connect* 4, 9–14; cf. Pelling, *Special Issue World Heritage in Qatar* 72, 61.
- 41 Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times*, 220–221.
- 42 Mariam Al Maadeed and Noora Al Thani from Center for Advanced Materials (CAM) Qatar University suggested that 'Examining Percentage of Elements that Affects these Carvings Would Help in Proposing Approximate Date'.
- 43 Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times*, 259.
- 44 Nayeem, *Qatar: Prehistory and Protohistory from the most Ancient Times*, 260.

- 45 Westropp, *Proceedings of the Royal Irish Academy (1836–1869)*, vol. 10 (1866–1869), 232–234.
- 46 W. Facey, ‘The Boat Carvings at Jabal–Jassasiyah, N.E. Qatar’, *Proceedings of the Seminar for Arabian Studies* (1987), 17, 199–222.
- 47 فتحي بدوي، حولية كلية الإنسانيات والعلوم الاجتماعية، جامعة قطر، العدد السابع، ٩٧٩٤.
- 48 Cf. A.H.A. Sayed, ‘Reconsideration of the Minaean Inscription of Zad il Ben Zayd’, *Proceeding of the Seminar of Arabian Studies* 14 (1984), 93; K.A. Kitchen, *Documentation for Ancient Arabia* (London, 1994).
- 49 Laser scan of rock carvings from Al-Jusasiyah site, by the University of Birmingham team in 2010, shows an integrated set of rock carvings illustrating the link between different elements and shapes on the surface of rock. After Pelling, *Special Issue World Heritage in Qatar* 72, Fig. 3.
- 50 Further studies to measure the impact of climate change would reveal effects on human behavior and settlement patterns.
- 51 Y. Abdulla, Sh. El-Menshawy, ‘Qatar in Antiquity: A Guide to Qatar Archaeological Sites’, *Final Report submitted to QRNF–UREP Second Cycle* (Doha, 2009/2010).