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HU | Theologische Fakultät, Seminar für Altes Testament | 10099 Berlin

Theologische Fakultät

Juan Manuel Tebes Pontificia Universidad Católica Argentina Av. Alicia Moreau de Justo 1500 Buenos Aires C1107AFD Argentina

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Altes Testament mit Schwerpunkt Geschichte Israels in der altorientalischen Welt

Sonja Ammann Wissenschaftliche Mitarbeiterin

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Editorial Decision

Dear Dr Tebes

I am pleased to inform you that your revised manuscript "Iconographies of the Sacred and Power of the Desert Nomads: A Reappraisal of the Desert Rock Art of the Late Bronze / Iron Age Southern Levant and Northwestern Arabia" has been accepted for publication in *Welt des Orients*. Your article will be published in WdO 47/1 (2017).

Kind regards,

Sonja Ammann

Postanschrift:

Humboldt-Universität zu Berlin Unter den Linden 6 10099 Berlin

Telefon: +49 30 2093-5882 Telefax: +49 30 2093-5984

sonja.ammann@hu-berlin.de http://zope.theologie.hu-berlin.de/gi

Sitz:

Burgstraße 26 Raum 116 10178 Berlin

S5, S7, S9, S75

Iconographies of the Sacred and Power of the Desert Nomads: A Reappraisal of the Desert Rock Art of the Late Bronze / Iron Age Southern Levant and Northwestern Arabia¹

Juan Manuel Tebes

Abstract:

During the Late Bronze and Iron Ages, the vast arid areas of the southern Levant, northwestern Arabia and Sinai were inhabited by populations whose main way of living was nomadic herding and trade, small-scale agriculture and occasional mining, complemented with a few settled centers. The nomadic, non-literate communities have been traditionally studied through the lenses of the outside written sources (especially, the New Kingdom Egyptian and Neo-Assyrian inscriptions) and sometimes seen as intrinsically stable, unranked societies. However, the desert societies left an enormous record of rock art that has not received similar attention. This article aims to study the local rock art and the iconography of other visual media it influenced, focusing on the information they supply on the social organization of these societies. The analysis provides several – yet still tentative – results on the sacred and power of the desert nomads: it attests the emergence of local nomadic chiefs in the LBA/IA transition and later, leaders who relied on their performance in war and on the realization of ritual huntings and cultic practices that ensured control over nature and access to the tribal deities.

Keywords: Petroglyphs – Nomadic peoples – Imagery – Ranked societies – Near East

Introduction

The vast arid areas of the southern Levant (Negev, southern Transjordan), northwestern Arabia (Hejaz) and Sinai (fig. 1), present a large record of rock art dated from several historical periods and appearing in a wide spectrum of contexts, from

¹ This article was partly written during my stay as Visiting Scholar in the Institute for the Study of the Old Word (ISAW) at New York University during the summer of 2015. I would like to thank the Fulbright Commission and the National Research Council of Argentina (CONICET) for providing me with a Postdoctoral Research Fellowship that allowed me to do research at ISAW. The article was greatly improved by the suggestions provided by two anonymous reviewers.

large rock formations to medium-size rocks in open desert areas, from habitation sites and sanctuaries to mortuary locations.² In these regions, being located south of the 200 mm. annual isohyet, few places with regular access to water exist, except for the loessical plains of the northwestern Negev, the southern Transjordanian plateau and the Hejazi oases. During most of the Late Bronze Age (*ca.* 1550-1140 BCE) and Iron Age (*ca.* 1140-550 BCE)³ these areas were inhabited by populations whose main way of living was nomadic herding and trade, small-scale agriculture and occasional mining; a few settled centers existed in some restricted agricultural terrain or along important trade routes.

[Insert Fig. 1 here]

Although the dichotomy held by former generations of scholars between the desert and the sown is not supported by mainstream scholarship any longer, the nomadic communities living in the southern arid margins of the Levant and northwestern Arabia in ancient times are sometimes portrayed as inherently stable, unranked societies, culturally conservative and with little contacts with the outside world. These areas did posses their own urban centers, but their establishment has

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² For the Negev rock art see especially Emmanuel Anati, L'art rupestre, Negev et Sinaï (Paris: L'Equerre, 1979); idem., "The Rock Art of the Negev Desert," NEA 62 (1999): 22-34; Davida Eisenberg-Degen and Steven A. Rosen, "Chronological Trends in Negev Rock Art: The Har Michia Petroglyphs as a Test Case," Arts 2 (2013): 225-252; D. Eisenberg-Degen and George Nash, "Hunting and Gender as Reflected in the Central Negev Rock Art, Israel," Time & Mind (2014): 1-19; for Saudi Arabia: E. Anati, Rock Art in Central Arabia (Expédition Philby-Ryckmans-Lippens en Arabie) (4 vols.; Louvain: Institut Orientaliste, 1968-1974); Maheed Khan, The Prehistoric Rock Art of Northern Saudi Arabia (Riyadh: Ministry of Education, 1993); Muhammed A. Nayeem, The Rock Art of Arabia: Saudi Arabia, Oman, Qatar, the Emirates & Temen (Hyderabad: Hyderabad Publishers, 2000); Robert G. Bednarik and M. Khan, "Scientific Studies of Saudi Arabian Rock Art," Rock Art Research 22/1 (2005): 49-81; Sandra L. Olsen, Stories in the Rocks: Exploring Saudi Arabian Rock Art (Pittsburgh: Carnegie Museum of Natural History, 2013).

³ For the purposes of this article, given the complexities and current debates in the archaeology of ancient northwestern Arabia, I follow the chronological terminology that is employed in the archaeology of Syria-Palestine.

been traditionally seen as a mostly first millennium BCE phenomenon, related to the expansion of the contemporary Near Eastern world-system and particularly the Neo-Assyrian sphere of influence. This Mesopotamian-centric approach is almost entirely dependent on written sources that are peripheral to the Arabian Peninsula.

New archaeological data are pushing back the earliest traces of settled, ranked societies to the late second millennium BCE, if not earlier, in important economic or commercial nodes such as the oasis towns of Tayma and Qurayyah (Hejaz), the gateway site of Tel Masos (northern Negev) and the copper mines of Faynan in lowland southern Transjordan.4 What is known about the nomadic communities that moved between these areas is extremely more limited. During the LBA/IA transition the Negev was heavily influenced by the hegemony of New Kingdom Egypt over the land of Canaan. The interest of the Egyptians extended further south, where they exploited the turquoise mines of Serabit el-Khadem in central Sinai and the copper mines of Timna in the southern Arabah. The subsistence of the nomadic peoples relied on herding and prospered through their incorporation into the Egyptian-induced economy, the trade of pastoral goods and raw metals with the Levantine communities and the provision of workforce to the Egyptian mining enterprises in the Wadi Arabah. Shasu was the social term by which the Egyptians knew diverse groups they encountered wherever they engaged in military actions in Canaan; although some Shasu seem to have lived in towns, those present in the Sinai and the Negev are portrayed as having a semi-pastoral way of life. Ramses III boasted to have destroyed the Shasu from Seir who lived in tents and possessed large numbers of cattle, whereas an Egyptian border report written during Merneptah's reign describes the arrival of the Shasu tribes of Edom with their flocks looking for pasture grounds near the Wadi Tumilat.⁵ In these and other Egyptian sources *Shasu* were portrayed as being divided

⁴ Juan M. Tebes, "Socio-Economic Fluctuations and Chiefdom Formation in Edom, the Negev and the Hejaz during the First Millennium BCE," in *Unearthing the Wilderness: Studies on the History and Archaeology of the Negev and Edom in the Iron Age* (ed. J.M. Tebes; ANESSup 45; Leuven: *Peeters*, 2014), 4-13; Arnulf Hausleiter, "Pottery Groups of the Late 2nd/Early 1st Millennia BC in Northwest Arabia and New Evidence from the Excavations at Tayma," in *Recent Trends in the Study of Late Bronze Age Ceramics in Syro-Mesopotamia and Neighbouring Regions. Proceedings of the International Workshop in Berlin, 2–5 November 2006 (eds. Marta Luciani and A. Hausleiter; Rahden: Leidorf, 2014), 399-434.*

⁵ Papyrus Harris I, 76:9-11, in *ANET*, 262; Papyrus Anastasi VI, 54-56, in *ANET*, 259.

into "tribes" or "clans" and at times led by "chiefs". Owing to their nomadic character, the archaeological evidence concerning these peoples is hard to find, but their material remains have been found in some places. A characteristic coarse hand-made pottery, known as "Negevite ware", is generally attributed to the nomadic peoples of the LBA/IA Negev and southern Transjordan and found wherever these peoples moved in their pastoral and trade migrations, reaching as south as Timna Valley and southwest as 'Ain el-Qudeirat, and as north as the Shephelah region in Cisjordan.7 Alongside pottery, nomads also left remains of habitation sites, cultic structures and mortuary installations, particularly concentrating in Timna Valley (Negevite ware, habitation sites, open air sanctuaries, rock art sites)8 and the Faynan lowlands of Edom (Negevite ware, campsites, Wadi Fidan 40 pastoral cemetery).9 Following the New Kingdom references there is a lacuna of primary written sources until the late 8th century BCE, when the Neo-Assyrian inscriptions refer to the agreements the Assyrian kings made with the leaders of the Arabian tribes of the northwestern Negev, which included the submission of tribute and the appointment of these notables as "wardens" supervising the people and goods that traveled along the area.¹⁰

While both New Kingdom Egyptian and Neo-Assyrian sources do not say much about the social structure of these nomadic societies, it is clear that they were hierarchically organized, as the frequent references to desert chiefs suggest. Why and how did this social stratification emerge? Anthropological studies make clear that social hierarchies in nomadic groups can emerge because of internal organizational-managerial needs, necessity of interrelations with other nomadic groups, or need of, or

⁶ Tebes, "Socio-Economic Fluctuations," 5.

⁷ J.M. Tebes, "Iron Age 'Negevite' Pottery: A Reassessment," Antiguo Oriente 4 (2006): 95-117.

⁸ Beno Rothenberg, *Timna: Valley of the Biblical Copper Mines* (London: Thames and Hudson, 1972), 63-207.

⁹ Thomas E. Levy, Mohammad Najjar, and Erez Ben-Yosef, eds., New Insights into the Iron Age Archaeology of Edom, Southern Jordan: Surveys, Excavations, and Research from the University of California, San Diego & Department of Antiquities of Jordan, Edom Lowlands Regional Archaeology Project (ELRAP) (Monumenta Archaeologica 35; Los Angeles: Cotsen Institute of Archaeology Press, 2014).

¹⁰ Israel Eph'al, The Ancient Arabs: Nomads on the Borders of the Fertile Crescent 9th-5th Centuries B.C. (Leiden: Brill, 1982), 28-37; Tebes, Nómadas en la encrucijada, 46.

concern on, contacts with sedentary societies.¹¹ In fact, given the non-autarchic nature of the nomadic pastoral societies, their internal socio-political structure is highly reliant on the interaction with sedentary agro-urban communities.¹² It is clear that the LBA/IA southern Levantine and Syro-Arabian nomadic communities interacted profoundly with the Egyptian and Assyrian imperialisms, but the early development of ranked settlements suggests that other internal factors should also be accounted for. In any event, the local chiefs did not hesitate to adopt, and adapt, goods, ideas, technologies and iconography imported from the sedentary states, used as "political currency" to legitimize their own authority in front of the rest of the population. More to the point, the adaptation of imported iconography and symbols, in some cases with a strong supernatural component, connected them to an external source of power inaccessible to others.¹³

The iconography of the sacred and power

Moving through the vast desert tracks in search of pastures or settling down when it was dictated by necessity, the local nomadic peoples recorded their daily pursuits and their ideological world in the thousands of rock formations that dot the area. Their iconography was also probably represented in perishable materials such as wood, leather, and cloth; however, most of the extant evidence comes from incised and painted inscriptions on rocks. When since the mid-first millennium BCE the nomadic peoples began writing their own languages, they spoke about their herding, pasturing, raiding and hunting of animals, told about their hardships in life and love, recorded their genealogical and tribal affiliations, and expressed their prayers, blessings, and sacrifices to the gods. 14 But, before that time, our only source of information about

¹¹ Anatoly Khazanov, *Nomads and the Outside World* (Madison: University of Wisconsin Press, 1994), 161.

Emanuel Marx, "Are there Pastoral Nomads in the Middle East?," in *Pastoralism in the Levant. Archaeological Materials in Anthropological Perspectives* (eds. Ofer Bar-Yosef and Anatoly Khazanov; Monographs in World Archaeology No. 10; Madison: Prehistory Press, 1992), 255–260.

¹³ Tebes, "Socio-Economic Fluctuations," 2-3.

¹⁴ Robert Hoyland, Arabia and the Arabs. From the Bronze Age to the coming of Islam (London & New York: Routledge, 2001), 65.

their society, economy and ideology are the outside written records, the local rock art and other visual media under its influence.

The study of the rock art of the arid southern Levant and northwestern Arabia faces many problems; some are related to the dating of the petroglyphs (see below), while others to the history of archaeological research in the area. There is a disparate comprehension of the archaeology and rock art of the different regions of southern Israel, southern Jordan and northwestern Saudi Arabia. In southern Israel, the Beersheba Valley, the central Negev Highlands and Timna Valley have been thoroughly surveyed and excavated since the 1950s. East of the Arabah Valley, the Faynan lowlands, the Edomite plateau and the Hisma are reasonably well investigated since the 1980s. The archaeology of northwestern Arabia, however, is much less known, and although few surveys and excavations have been carried out in the region since the 1960s, our knowledge is still restricted to a few settled spots, most particularly the oasis town of Tayma and its surroundings. Therefore, the following reappraisal of the evidence is by necessity based on a partial database, the information of which is concentrated on a few places with LBA/IA rock art, in particular the New Kingdom context of Timna Valley.

Subsistence strategies and control over nature

The iconography in the desert rock art is plentiful and displays a wide range of types of scenes; among the most common motifs one should mention the representations of hunting with armed men and the depictions of local fauna – ibexes (Capra ibex nubiana), Arabian oryx (Oryx leucoryx), gazelles (Gazella), ostriches (Struthio camelus), dogs, camels, horses – and flora – particularly palm trees.¹⁷ Recent statistical studies of the petroglyphs of the Negev demonstrate that during the Early Bronze and Iron Ages the ibex was the most popular motif among the local desert population

¹⁵ Juan M. Tebes, Nómadas en la encrucijada: Sociedad, ideología y poder en los márgenes áridos del Levante meridional del primer milenio a.C. (BAR International Series 2574; Oxford: Archaeopress, 2013), 11-17.

¹⁶ Daniel T. Potts, "History of the Field. Archaeology in the Arabian Peninsula," in *The Oxford Encyclopedia of Archaeology in the Near East*, Vol. 3 (ed. E.M. Meyers; Oxford: Oxford University Press, 1997), 77-81.

¹⁷ Eisenberg-Degen and Rosen, "Chronological Trends."

living in the central Negev Highlands, markedly contrasting with the preference for bulls and other horned animals in the imagery of the settled populations in the northern Negev.¹⁸

It is important to note, however, that hunting was not a significant subsistence activity for the desert societies of the Negev and Sinai at least since the Neolithic, when the economy based on pastoralism firstly emerged.¹⁹ The local osteological record demonstrates that since the Early Bronze Age bones of domestic sheep and goat are predominant in the excavated sites, whereas bones of hunted animals are rare.²⁰ This vividly contrasts with the preponderance of hunting scenes where the hunted animal is the ibex; at the same time, representations of domesticated animals such as sheep and goats are almost completely absent.²¹ Thus, the meaning of this rock art should not be seen as reflecting actual specific events, but was probably related with ritual activities expressing deeper mental metaphors, such as the human control and destruction of the natural animal world.

Another important caveat is that subsistence strategies varied with time and therefore not all animals and plants depicted were exploited in all periods. In a few important cases the approximate date of introduction or domestication of certain animals is known, so it is possible to establish a *terminus post quem* for the petroglyphs portraying them. Most importantly, the horse and the camel are considered relatively late arrivals – not before the first millennium BCE – in the Arabian and Negev desert regions.²²

¹⁸ D. Eisenberg-Degen, "Archaeological Views: The Archaeology of Scribbles," *BAR* 8/04 (2012): http://members.bib-arch.org/publication.asp?PubID=BSBA&Volume=38&Issue= 4&ArticleID=15; Eisenberg-Degen and Rosen, "Chronological Trends," 245-246.

¹⁹ S.A. Rosen, "Cult and Rise of Desert Pastoralism: A Case Study from the Negev," in *Defining the Sacred: Approaches to the Archaeology of Religion in the Near East* (ed. N. Laneri; Oxford & Philadephia: Oxbow, 2015), 38-47.

²⁰ Liora R.K. Horwitz, Diachronic Patters of Animal Exploitation in the Sinai Peninsula (Unpub. Ph.D. diss.; Tel Aviv University, 2005).

²¹ For the case of the Early Bronze/Iron Age central Negev Highlands, see Eisenberg-Degen and Rosen, "Chronological Trends," 245-246; Eisenberg-Degen and Nash, "Hunting and Gender," 10-11.

²² Eisenberg-Degen and Rosen, "Chronological Trends," 238-240.

Depictions of horses (*Equus ferus caballus*), in many cases accompanied by chariots, are fairly common in the rock art of pre-Islamic Arabia. Although their dates have been hotly debated, there is nowadays agreement that they cannot be earlier than the second half of the first millennium BCE.²³

Camels (Camelus dromedarius) were already very well known in the rock art of the third and second millennia BCE, probably as wild animals ready to be exploited because of their meat.²⁴ The camel was probably domesticated in the Persian Gulf region in a process that took place over a long period of time, first as source of food and milk and only later as beast of burden; the latter occurred in the first centuries of the first millennium BCE.²⁵ The discovery in Wadi Nasib (central Sinai) of petroglyphs depicting camels apparently being led by walking men has sparked some controversy (fig. 2a). The depictions are located very close to the Serabit el-Khadem mines and the amount of erosion and the color of the patina resemble that of the Proto-Sinaitic inscriptions found in the mining area. Therefore, the petroglyphs have been seen as contemporary with the main peak of activity at Serabit el-Khadem (15th century BCE) and this has been used to support a second millennium BCE date for the domestication of the camel.²⁶ But this conclusion is probably unwarranted, not only

²³ Michael C.A. Macdonald, "Hunting, Fighting and Raiding. The Horse in Pre-Islamic Arabia," in *Furusiya. The Horse in the Art of the Near East*, Vol.1 (ed. David G. Alexander; Riyadh: King Abdulaziz Public Library, 1996), 72-83; idem., "Wheeled vehicles in the Rock Art of Arabia," in *The Arabian Horse. Origin, Development and History* (ed. M. Khan; Riyadh: Layan Cultural Foundation, 2012), 356-395.

Anati, Rock Art in Central Arabia, vol. 2, 47-80; Peter Magee, The Archaeology of Prehistoric Arabia: Adaptation and Social Formation from the Neolithic to the Iron Age (Cambridge World Archaeology; New York: Cambridge University Press, 2014), 200; S.A. Rosen and Benjamin Saidel, "The Camel and the Tent: An Exploration of Technological change among Early Pastoralists," JNES 69 (2010): 75; Juris Zarins, "Pastoralism in Southwest Asia: The Second Millennium BC," in The Walking Ladder: Patterns of Domestication, Pastoralism, and Predation (ed. Juliet Clutton-Brock; 1st ed.: 1989; London & New York: Routledge, 2015), 144-147.

Martin Heide, "The Domestication of the Camel: Biological, Archaeological, and Inscriptional Evidence from Mesopotamia, Egypt, Israel, and Arabia, and Literary Evidence from the Hebrew Bible," *UF* 42 (2010): 339-340; Magee, *The Archaeology of Prehistoric Arabia*, 204-213.

²⁶ Randall W. Younker, "Late Bronze Age Camels Petroglyphs in the Wadi Nasib, Sinai," *Near Eastern Archaeology Society Bulletin* 42 (1997): figs. 6-7; R.W. Younker and Katharina Koudele,

because proximity is not a reasonable measure of establishing cultural attribution in this case,²⁷ but also because these camels are not ridden by men nor carry any load, so there is no indication that they were used as beasts of burden. These petroglyphs may represent a sub-theme of the "control over nature" genre, and its popularity probably extended to other visual media, such as the similar, isolated schematic representations of one-hump camels painted in a bowl from Qurayyah in northwestern Arabia²⁸ (**fig. 2b**) and in a LBA vessel found at Tell Deir 'Alla in central Transjordan.²⁹

[Insert Fig. 2 here]

Iconographies of power

During the LBA/IA transition the New Kingdom Egyptians impacted profoundly in the desert landscape, establishing small sanctuaries and leaving inscriptions incised on rock formations near shrines and roads. Pharaoh Ramses III is particularly famous for having carved his cartouche on rock at Wadi Abu Gada (Sinai), Themilat Radadi (southern Negev) and Tayma (Hejaz), probably as landmarks in the desert roads linking Egypt to the Arabian Peninsula,³⁰ while a panel depicting that king offering libations to the goddess Hathor was inscribed in a cliff just above the

[&]quot;Camel Petroglyphs in the Wadi Nasib and their Implications for the use of Camels in the Late Bronze Age," SHAJ 9 (2005): fig. 7.

²⁷ Heide ("Domestication," 342 n. 17) is very suspicious of the connection between these petroglyphs with the nearby Proto-Sinaitic inscriptions.

Michael L. Ingraham, Theodor D. Johnson, Baseem Rihani, and Ibrahim Shatla, "Saudi Arabian Comprehensive Survey Program: c. Preliminary Report on a Reconnaissance Survey of the Northwestern Province (with a note on a brief Survey of the Northern Province)," *Atlal* 5 (1981): Pl. 79:14.

²⁹ Ernst A. Knauf, "Suplementa Ismaelitica 12. Camels in Late Bronze and Iron Age Jordan: The Archaeological Evidence," *BN* 40 (1987): Fig. 1.

Gunnar Sperveslage and Ricardo Eichmann, "Egyptian Cultural Impact on North-West Arabia in the Second and First Millennia BC," *Proceedings of the Seminar for Arabian Studies* 42 (2912): 371-384; Claire Somaglino and Pierre Tallet, "A road to the Arabian Peninsula in the reign of Ramesses III," in *Desert Road Archaeology in Ancient Egypt and Beyond* (eds. Frank Förster and Heiko Riemer; Köln: Heinrich-Barth-Institut, 2013), figs. 1-3.

temple of Hathor in Timna, in the southern Negev.³¹ There is no question that the Egyptian royal iconography had some influence on the local rock imagery, and Egyptianizing panels with the "smiting pharaoh" (Har Michia, central Negev)³² and "pharaoh hunting from chariot" (Tabuk, northern Hejaz)³³ themes were engraved following the canons of rock art carving. As Eisenbeg-Degen has remarked on the Har Michia inscription, "[t]hrough this image and its iconography the mark maker is transferring his impression of Egyptian power, albeit unofficially",³⁴ and this probably reflects one of several local attempts to symbolically acquire the emblems of power of the Egyptian royalty.³⁵

This social interpretation finds support by reference to the iconography present in the Qurayyah Painted Ware (QPW), a ceramic type manufactured in the late second and early first millennia BCE northern Hejaz and popular among the villagers and semi-pastoral tribes of the Negev and southern Transjordan. Their motifs were profoundly influenced by the contemporary rock art. The most salient feature in the QPW is their bichrome designs, carefully painted on small, delicate bowls and containers. Being at the intersection of distinct cultural areas, the QPW iconography

³¹ Raphael Ventura, "An Egyptian Rock Stela in Timna'," TA 1 (1974): 60-63.

³² D. Eisenberg-Degen, "A Petroglyph of a Smiting Pharaoh in the Negev," *AAE* 26 (2015): 12-15; although the dating of this petroglyph is doubtful.

³³ Macdonald, "Wheeled vehicles," 361-363, Fig. 12.1.

³⁴ Eisenberg-Degen, "Petroglyph," 15.

The Egyptian influence on the rock inscriptions was not restricted to the royal iconography and included the development of a local West-Semitic alphabetic script, the Proto-Sinaitic, known mostly from graffiti inscribed on rock found at Serabit el-Khadem and Timna. Although its dating is hotly debated (either a Middle or New Kingdom date), it was closely related to the local workforce involved in the Egyptian-led mining of turquoise and copper, and most of their signs' shapes took as point of departure the hieroglyph or hieratic scripts. See Stefan J. Wimmer, "A Proto-Sinaitic Inscription in Timna/Israel: New Evidence on the Emergence of the Alphabet", *Journal of Ancient Egyptian Interconnections* 2 (2010): http://jaei.library.arizona.edu; Brian Colless, "Proto-Alphabetic Inscriptions from the Wadi Arabah," *Antiguo Oriente* 8 (2010): 75-96.

exhibits a mixture of Arabian, Levantine and eastern Mediterranean motifs, particularly evident in the geometric forms and schematic motifs.³⁶

Iconography includes schematic human figures with extended arms, bearing external accessories such as feathered headgears or hair, "beak"-shaped mouths, hilted swords or daggers hanging from the waist, and false tails; in at least one case, a human figure is holding a palm tree.³⁷ The closest parallels are provided by the rock art of Arabia and the southern Levant, where there exist countless schematic depictions of men and women, the prevailing position being with the extended arms in position of "adoration", probably denoting worshippers or sorcerers in ritual scenes.³⁸ Other common depictions include armed men, probably representing hunters or tribal "chiefs",³⁹ in hunting scenes such as those present at Timna Site 25 (see below). The second most common QPW motif are the representations of ostriches, painted following the artistic conventions of the depictions of water birds in the Mycenaean and Philistine pottery.⁴⁰ Depictions of ostriches are, again, very common in the Arabian and also northern African rock art, probably representing symbols of hunting and power over the animals and nature and, by association, emblems of leadership.⁴¹

³⁶ J.M. Tebes, "The Symbolic and Social World of the Qurayyah Pottery Iconography," in Unearthing the Wilderness: Studies on the History and Archaeology of the Negev and Edom in the Iron Age (ed. J.M. Tebes; ANESSup 45; Leuven: Peeters, 2014), 163-202.

³⁷ Idem., 164–166.

³⁸ E.g. Khan, *Prehistoric Rock Art*, 168, pl. 74; Nayeem, *Rock Art*, 335; Marie-Lousie Inizan and Madiha Rachad, *Art rupestre et peuplement préhistorique au Yémen* (Sanaa: CEFAS, 2007), 89, fig. 105.

³⁹ Tebes, "Qurayyah Pottery Iconography," 172-179.

⁴⁰ Idem., 166-167.

⁴¹ E.g. Daniel T. Potts, "Ostrich Distribution and Exploitation in the Arabian Peninsula," Antiquity 75 (2001): 188; Annie Caubet, "Animals in Syro-Palestinian Art," in A History of the Animal World in the Ancient Near East (ed. Billie J. Collins; HdO 64; Leiden: Brill, 2002), 226; Julien d'Huy, "Une volonté de s'approprier symboliquement les qualités de l'autruche serait à l'origine de certains jeux graphiques dans l'art rupestre du Sahara oriental," Cahiers de l'AARS 13 (2009): 81; idem., "An Explanation to the Depictions of Humans Touching Animals," Sahara 22 (2011): 176; Tebes, "Qurayyah Pottery Iconography," 182-188; Dominique Collon, "Ostrich," in Iconography of Deities and Demons in the Ancient Near East (eds. Jürg Eggler and Christoph Uehlinger; OBO, Series Archaeologica; Leiden: Brill, forthcoming).

While it is difficult to ascertain its precise meaning, the iconography is an expression of the mental world of these societies, full of cultic but also social overtones, where the otherworld met with men by the performing of intricate rituals mediated through a few important individuals, and whose leadership was associated to their performance in war and hunting or through their access to the tribal deities.

Ritual hunting

It is in the Middle White Nubian sandstone formations at Timna Valley where we have two of the best dated rock art panels. At Timna Site 25, on the rock wall of a cliff bordering a wadi, a large hunting scene is depicted (engraving no. 1) with seventy-four individual elements. Although some are difficult to identify, they include 5 anthropomorphs, 16-18 ibexes, 37 ostriches, 7 dogs, and one four-spoke wheeled chariot being pulled by two ibexes (table 1).⁴² Almost all of the elements are facing right, so the intended movement of humans, animals and chariot is most likely from left to right. Several abstract forms dispersed among the groups of animals are very difficult to interpret, but some can be seen as artificial walls known as desert kites. Desert kites are man-made structures built of stone or of perishable materials and widely scattered through the Syro-Arabian desert that were presumably used as hunting traps or as herding pens.⁴³ The Arabian rock art shows desert kites of different shape, but the two features that are immediately recognizable are the enclosures and the two walls ("arms") attached to them. Enclosures are often of ovoid or hexagonal form and appear represented with wild animals inside being directed by

⁴² Rothenberg, *Timna*, 119-124, Figs. 36, 38.

⁴³ Assaf Holzer, Uzi Avner, Naomi Porat, and Liora Horwitz, "Desert Kites in the Negev Desert and Northeast Sinai: Their Function, Chronology and Ecology," *Journal of Arid Environments* 74 (2010): 806–817; Rémy Crassard, Olivier Barge, Charles-Edmond Bichot, Jacques Élie Brochier, Jwana Chahoud, Marie-Laure Chambrade, Christine Chataigner, Kamel Madi, Emmanuelle Régagnon, Hamida Seba, Emmanuelle Vila, "Addressing the Desert Kites Phenomenon and Its Global Range Through a Multi-proxy Approach," *Journal of Archaeological Method and Theory* 22 (2015), 1093-1121.

men.⁴⁴ Diagonal lines of different length, frequently appearing in pairs and getting closer in one of their sides, represent desert guidelines or arms, artificial structures by which the wild animals were directed to the enclosed area.⁴⁵ Both enclosures and arms are probably represented in engraving no. 1, the earlier in the form of a four-sided figure with two short arms attached (a similar element has been found in an engraving in Timna Site 251⁴⁶) (**fig. 5:a left, c**), the latter as pairs of short diagonal lines (**fig. 5:6 right**).

Some 100 m. to the west, another similar large engraving (no. 2) was cut into the wall of a rock shelter located in a narrow canyon. This time the engraving depicts two scenes of hunting with sixty-five elements, containing 40 armed men – some standing on 9 chariots with two four-spoke wheels and drawn by animals identified as oxen⁴⁷ – accompanied by 7 dogs, and chasing 6 ibexes, 2-5 oryx, 1-3 gazelles, and 3 ostriches (figs. 3, 4; table 1). In a recent article Yekutieli has persuasively demonstrated that the position of the different elements is not random but a calculated composition that follows a systematic logic.⁴⁸ Since the panel can only be understood as a single design framework, it is likely that all of its elements were incorporated at the same time, thus discarding later additions. A close inspection of the panel reveals two groups of animals, people and chariots on the left and right sides converging to the center of the scene, the "kill zone" to which the wild animals are probably directed by artificial walls (desert kites' arms) delineated by long diagonal lines (fig. 5:b right). (Also, a U-shaped element located in the middle of the panel can tentatively be interpreted as a desert kite's enclosure; fig. 5:b left). Within these groups the position

⁴⁴ MacDonald, "Of rock-art, 'desert kites' and meṣāyid," in *Arabia Vitalis: Arabskij Vostok, Islam, drevnyaya, Araviya: Sbornik Naychnykh statej, posvyashchennyj 60-letiyu V.V. Naumkina.* (eds. A.V. Sedov and I.M. Smulyanskaya; Moscow: Rossijskaya Akademiya Nauk, 2005), 332–345.

 $^{^{45}}$ Davida Eisenberg-Degen, "A Hunting Scene from the Negev: The Depiction of a Desert Kite and Throwing Weapon," IEJ 60/2 (2010): 150.

⁴⁶ Rothenberg, Timna, Fig. 37.

⁴⁷ Idem., 122. Anati (*L'art rupestre*, 56) initially identified these animals as horses, but later as oxen ("The Rock Art," 28). Macdonald ("Wheels in a land of Camels: Another look at the Chariot in Arabia," *AAE* 20 (2009): 156; also idem., "Hunting, Fighting and Raiding," n. 9) is more cautious and refers to "indeterminate species".

⁴⁸ Yuval Yekutieli, "The Chariots Engraving of Timna' (Israel) Revisited," *BASOR* 375 (2016), 171-184.

of animals and people is clearly structured: oryx, ostriches, and ibexes cluster in the center, being surrounded by dogs and humans on foot and standing on chariots.⁴⁹

These panels follow the artistic conventions of the Arabian rock art, especially the schematic representation of humans and animals but exaggerating their features, such as the long, straight horns of the oryx, the back-curving horns of the ibex, the shorter horns of the gazelle, and the simultaneous depiction of the chariot's pole and yoke from above but the animals, humans and wheels in profile. The large number of animals hunted in the Timna panels is not infrequent at all in the pre-Islamic Arabian context, and similar or larger quantities are recorded in other rock art and inscriptions. One king of Hadramawt in southern Arabia boasted to have killed in one occasion "thirty oryx, eighty-two ibex[es], twenty-five gazelles and eight cheetahs", while in other he spent twenty days for slaying "four panthers, two cheetahs and six hundred ibexes". In the pre-Islamic Arabia boasted to have killed in one occasion "thirty oryx, eighty-two ibex[es], twenty-five gazelles and eight cheetahs, while in other he spent twenty days for slaying "four panthers, two cheetahs and six hundred ibexes".

[Insert Fig. 3 here]
[Insert Fig. 4 here]
[Insert Fig. 5 here]
[Insert Table 1 here]

There is still, as yet, no definitive (and systematic) way to date the hundreds of thousands of rock drawings that occur in the Arabian Peninsula and adjacent regions, and for that matter the entire world.⁵² Traditional methods of dating, such as the use of stylistic parallels, depictions of flora and fauna, superimposition of images, patination, and proximity to archaeological sites, have many problems; for example, Betts has shown the occurrence of similar representations of wild animals in the Syro-

⁵⁰ Alison V.G. Betts, "Graffiti from Qusayr 'Amra: A note on Dating of Arabian Rock Carvings," *AAE* 12 (2001): 100; Macdonald, "Wheels in a land of Camels," 157-161; Mohammed Maraqten, "Hunting in pre-Islamic Arabia in the light of the Epigraphic Evidence," *AAE* 26 (2015): 214-216; M. Barbara Reeves, "A Petroglyph of a Religious Ceremony at Humayma," *JRA* 2 (2015): 459-460.

⁴⁹ Idem., "Chariots," 176-179.

⁵¹ See the two inscriptions in Hoyland, Arabia and the Arabs, 94.

⁵² But see some promising methods in Bednarik and Khan, "Scientific Studies."

Arabian desert in widely separated historical periods.⁵³ There is enough evidence, however, to date the Timna panels firmly in the late second millennium BCE because of three main lines of evidence: details in the human figures' garments, characteristics of the wheeled chariots, and associated archaeological material. These depictions form part of the wider world of the Bronze and Iron Age Syro-Arabian rock art, but with specific features that place them in the transitional period LBA/IA.

The panels were likely made by local nomads during the time the Egyptians controlled the area, as is indicated by New Kingdom elements like the battle-axes, loin cloths folded into pointed aprons in front, and chariot reins tied around a man's waist.⁵⁴ Four and six spoke-wheeled chariots are typical of Egyptian and Levantine representations during the second millennium BCE,⁵⁵ while it is only since the eighth century BCE that the Neo-Assyrian reliefs began showing the much heavier eight-spoke wheels.⁵⁶ On the floor below the first engraving lie a group of large broken sandstone bowls or basins similar to the ones found in the temple of Hathor at Timna, while some New Kingdom pottery was found around them.⁵⁷

Do these panels portray real hunting scenes? Macdonald⁵⁸ has already noted the improbability that such scenes actually took place, given that mountains and sand-deserts are unsuitable for the use of wagons or chariots. He suggests the rock artists represented scenes of life or representations of them they saw in other places, such as Egypt and Mesopotamia. That some of those scenes are impossible to see in real life (such as the representation of the chariot being pulled by two ibexes) suggests that at least in some occasions they depicted scenes they imagined, were told, or, as Rothenberg⁵⁹ suggested, copied from other petroglyphs. As we have seen, in the LBA/IA rock art the depictions of animals and plants did not exactly correlate with

⁵³ A.V.G. Betts, "The Middle East," in *Handbook of Rock Art Research* (ed. David S. Whitley; Walnut Creek: AltaMira, 2001), 786-824; idem., "Graffiti from Qusayr 'Amra," 800.

⁵⁴ Rothenberg, *Timna*, 122-123.

⁵⁵ E.g. Marian H. Feldman and Caroline Sauvage, "Objects of Prestige? Chariots in the Late Bronze Age Eastern Mediterranean and Near East," *AuL* 20 (2010): Figs. 19-32, 45-50.

⁵⁶ Macdonald, "Hunting, Fighting and Raiding," 78; idem., "Wheels in a land of Camels," 169.

⁵⁷ Rothenberg, *Timna*, 124, Pl. 57. To the best of my knowledge, neither the content nor the contexts of the bowls were analyzed.

⁵⁸ Macdonald, "Wheeled vehicles," 359, 393.

⁵⁹ Rothenberg, Timna, 121.

the real relationship between humans and the local fauna and flora; rather, it reflected the human desires of control over nature. That the panels were related to some kind of rituals is confirmed by the remains of bowls or basins, probably of cultic nature, found beneath the first engraving.

In pre-Islamic Arabia there is ample epigraphic evidence of the close association between hunting and the iconography of power. South Arabian sources show how kings and chiefs used hunting as means to exhibit the leader's prowess and courage, communicating his ability to rule over the wild beasts of the countryside. ⁶⁰ I suggest that the Timna depictions represent one of the earliest examples of ritual hunting, a type of tradition of which we have ample evidences in pre-Islamic southern Arabia, where both rock art and epigraphic sources show the existence of ritual hunt of animals by chiefs and kings, primarily involving ibexes, although other animals may appear as well, including ostriches, ⁶¹ a practice continued in later times and in the contemporary world. ⁶² In first millennium BCE southern Arabia ritual hunting

⁶⁰ Maraqten, "Hunting in pre-Islamic Arabia," 219-221. Similar echoes can be found in the Arabic poetic corpus, from the pre-Islamic and classical qaṣīdah to post-classical ṭardiyyah, where the hunter initially encounters, and often fails to catch, the animals of the desert; see Jaroslav Stetkevych, "The Hunt in the Arabic Qaṣīdah: the Antecedents of the Ṭardiyyah," in Tradition and Modernity in Arabic Language and Literature (ed. J. Smart; Richmond: Curzon, 1996), 102-118; idem., "The Hunt in Classical Arabic Poetry: From Mukhaḍram 'Qaṣīdah' to Umayyad 'Ṭardiyyah'," JAL 30/2 (1999): 107-127.

⁶¹ Alfred F.L. Beeston, "The Ritual Hunt: A Study in Old South Arabian Religious Practices," Muséon 61 3/4 (1948): 183-196; Jacques Ryckmans, "La chasse rituelle dans l'Arabie du sud ancienne," in Al-Bahit: Festschrift Joseph Henninger zum 70. Geburtstag am 12. Mai 1976 (Studia Instituti Anthropos 28; Saint Augustin: Anthropos Institut, 1976), 262, 296; Hoyland, Arabia and the Arabs, 94-96; Inizan and Rachad, Art rupestre, 85-87; Krista Lewis, "Fields and Tables of Sheba: Food, Identity, and Politics in Early Historic Southern Arabia," in Archaeology of Food and Identity (ed. Katheryn C. Twiss; Center of Archaeological Investigations, Occasional Paper 34; Carbondalle: Southern Illinois University, 2007), 206-208; Maraqten, "Hunting in pre-Islamic Arabia,", 221-223.

Robert B. Serjeant, *South Arabian Hunt* (London: Luzac, 1976). There is admittedly less conclusive evidence outside southern Arabia. In the art of the Nabataeans there exist, however, abundant representations of ibexes in the rock art, coroplastic figurines, vessels, temple reliefs and coins pointing to the ritual connotations of this animal; see Glenn J. Corbett, "Tracking the Nabataeans in Jordan's Wādī Ramm," *NEA* 75/4 (2012): 216.

brought together for several days communities of different socio-economic background, with kings of the cities and towns of the edges of Yemen's interior desert polities, such as Saba, sharing the pursuit with nomadic tribal leaders from the desert fringes. Occurring annually at fixed points in time, and also commemorating special occasions such as royal coronations or completion of building projects, they served to coalesce and perpetuate the amalgamation of the different parts of the southern Arabian desert polities.⁶³ Recent archaeological evidence coming from Tayma and Qurayyah attests the existence of oasis urbanism at least as early as the late second millennium BCE, suggesting the existence of desert polities similar to those present in later periods in southern Arabia. However, the rock art from Timna only reveals so far ritual hunting among the nomadic semi-pastoral tribes, not among urban dwellers.⁶⁴

⁶³ Lewis, "Fields and Tables of Sheba," 206-208.

⁶⁴ Yekutieli interpretation's markedly differs from the one offered here. He suggests that the Timna panel depicts a mass hunting of desert animals conducted by Egyptian military units, while its details demonstrate that the artist was well aware of the Egyptian military organization and tactics (division between infantry and chariotry, presence of company commanders waving standards), if not he himself was part of a unit of this sort or a foreign group serving in the Egyptian army. He also views the hunting scene as an amalgamation of different events rather than one moment in time, with scouts first spotting the wild animals, followed by the combined move of the two hunting forces orchestrated by standard-bearers standing on raised positions, and finally the channeling of the animals towards the kill zone, after which the slain animals are carried away (idem., "Chariots," 179-182). The scholarship of Yekutieli's article is impressive, but several features make clear that the engraving is more at home in the southern Levantine-Arabian semi-pastoral background: 1) Humans, animals and chariots are depicted following the traditions of the Arabian rock art, while elements reminiscent of the Near Eastern or Egyptian artistic conventions are notoriously absent. As we have seen, the representations of humans with swords and daggers hanging from the waist are well known in the local rock art and the painted representations in the QPW. Yekutieli ("Chariots," 179-182) acknowledges that the engraver's depiction of chariots adheres to the tradition of informal rock art, but he attributes this to his peripheral Egyptian environment or class or to his serving in a foreign unit of the Egyptian army. A better solution is just to assume he belonged to a local nomadic group. 2) The presence of unrealistic features for a hunting scene (e.g. chariots being pulled by oxen and – in engraving no. 1 – ibexes) does not agree with the hypothesis of an artist well acquainted with the matters of the Egyptian army. 3) The panel does not need to be understood as several events in one frame to be considered

In addition, the depiction of chariots in hunting scenes is specific of the rock art of Timna. During the LBA chariots pulled by horses were objects of prestige desired by the Near Eastern elites - particularly the royalty - and sub-elites,65 and it is probably they were used as symbols of power among the desert chiefs, even if their specific characteristics and mode of use were largely unknown. Although the artists who carved the Timna panels had some knowledge of the chariots and their elite connotations, they probably never saw a horse (another reason for dating these engravings in the second millennium BCE), and instead represented oxen and ibexes animals they were well acquainted with - for pulling their chariots. Other rock art panels found in northern Arabia depict chariots drawn by animals difficult to identify, and at least one of them, carved in Qahzah northeast of Tabuk, portrays draught animals as "stick-figures" resembling those of the Timna panels (fig. 6).66 By the midfirst millennium BCE horses began to appear in the rock art iconography and with time they became "one of the most frequent subjects of these rock drawings, and are shown by themselves and in scenes of hunting, raiding, and fighting. This suggests that they held an important place in the self-image of the nomads."67

[Insert Fig. 6 here]

Wider Processual Considerations

There is some evidence that suggests that the imagery coming from the southern deserts had an impact on the cultic iconography of the southern Levant during the later Iron Age. The most dominant deity in the Palestinian iconography of the Iron Age IIA is the "Lord of the Ostriches" motive, composed of a human figure with upraised hands standing between two ostriches, appearing in scarabs, amulets

credible, since as we have seen the epigraphic record of southern Arabia records mass huntings of large numbers of animals.

⁶⁵ Feldman and Sauvage, "Objects of Prestige?."

⁶⁶ Nayeem, *Rock Art*, 93, Fig. 95; Macdonald, "Wheels in a land of Camels," 156-157, Fig. 9; idem., "Wheeled vehicles," Fig. 12.16.

⁶⁷ Macdonald, "Hunting, Fighting and Raiding," 72.

and pottery.⁶⁸ Although the identification of these figures with the cult of Yahweh has yet to be proven, it is highly likely that the ostrich iconography penetrated from the arid lands south of Palestine.⁶⁹ Edomite god Qos in all probability had similar characteristics, to judge from its Arabic etymon (*qaus*, "bow") and the martial and animal attributes displayed in the statuary and votive gifts found at the Negev openair sanctuaries of Horvat Qitmit and 'En Hazeva – including lots of clay figurines with the form of ostriches –, pointing to his identification as smiting god and "lord of the beasts".⁷⁰ There is also evidence of the influence of the rock art on the cultic iconography of the painted pithoi of Kuntillet 'Ajrud in the northeastern Sinai, especially on Pithos B, which depicts five figures standing in one line and closely resembling the representation of "adorant" figures so popular in the Arabian rock art and the QPW, in particular their schematic rendering, their raised forearms, and the hair coming out of their heads.⁷¹ The pictorial absence of deities associated with these figures has been related to the empty space aniconism so common in the religions of the southern arid regions.⁷²

Research on the rock art of the arid southern Levant and northwestern Arabia presents several problems, some particular to these regions and others general to the rock art of other parts of the world. The most important is, of course, dating, because without an adequate methodology for situating temporally such and such petroglyph it is really difficult, if not plainly impossible, to present a general picture of their sociopolitical framework. Even if the study of the LBA/IA rock art is plagued with such problems, it is important to note that the petroglyphs we have studied – particularly the Timna panels – are reasonably well dated to this period from stylistic, archaeological and contextual data. A second issue is the relationship between the iconography and information present in seemingly unrelated phenomena, such as rock

⁶⁸ Othmar Keel and Christoph Uehlinger, *Gods, Goddesses, and Images of Gods in Ancient Israel* (Edinburgh: T&T Clark, 1998), figs. 162a-d, 195a.

⁶⁹ Idem., 140.

⁷⁰ E.A. Knauf, "Qôs," *DDD*, 675-676.

⁷¹ Pirhiya Beck, "The Drawings and Decorative Designs," in *Kuntillet 'Ajrud (Horvat Teman):* An Iron Age II Religious Site on the Judah-Sinai Border (ed. Ze'ev Meshel; Jerusalem: Israel Exploration Society, 2012), 176-177; Tebes, "Qurayyah Pottery Iconography," 175-176.

⁷² Brian B. Schmidt, "The Iron Age *Pithoi* Drawings from Horvat Teman or Kuntillet 'Ajrud: Some New Proposals," *JANER* 2 (2002): 114-115.

art, pottery iconography, and rock inscriptions of the same area and period. Although they reflect different functions, they certainly were made by the same people, and if the comparative method is used with the due caution, it can provide useful information on the ideology and context of each of the related phenomena.⁷³ Naturally the problem remains as to the use of comparative material from other places and times, and I acknowledge that the recourse to, for example, inscriptional evidence from first millennium BCE southern Arabia is open to question. However, the lack of other comparative material and the evidence of cultural continuity throughout different periods in pre-Islamic Arabia make this attempt worthwhile. Lastly, there is a significant socio-geographical factor to consider: the Negev, Sinai, southern Transjordan and the northern Hejaz are very disparate regions. But, even if functioning in some aspects in very different ways socially, these regions shared during the LBA/IA a similar economic background (nomadic semi-pastoralism, restricted agriculture and urbanism, mining), had strong cultural ties (e.g. the wide geographical distribution of the QPW) and were highly politically interrelated (e.g. the Egyptian and Assyrian imperialism affected them at the same time and in similar degree). Therefore, the use of comparative material crossing these vast regions is appropriate and, as we expect to have shown, highly rewarding.

Conclusion

The study of the desert rock art of the southern Levant and northwestern Arabia, and the iconography of other visual media it influenced – in particular decorated pottery – reveal much information on the social organization and the sources of power of the local nomadic population during the LBA/IA transition and later. Although the evidence is sparse and some of the conclusions remain tentative, the study suggests the presence of emerging chiefs whose leadership was based on their performance in war and ritual hunting and their access to the otherworld. Although the depictions of animals and plans did not exactly correlate with the real relationship between humans and the region's fauna and flora, it reflected the human desires of control over nature.

⁷³ See, for example, the stylistic comparison made by Beck ("The Drawings and Decorative Designs," 176-177) of the pithoi drawings of Kuntillet 'Ajrud with the QPW iconography.

References

- Anati, E. 1968-1974. Rock Art in Central Arabia (Expédition Philby-Ryckmans-Lippens en Arabie). 4 vols. Louvain: Institut Orientaliste.
- Anati, E. 1979. L'art rupestre, Negev et Sinaï. Paris: L'Equerre.
- Anati, E. 1999. The Rock Art of the Negev Desert. Near Eastern Archaeologist 62, 22-34.
- ANET = Wilson, J. 1969. Egyptian Historical Texts. In J.B. Pritchard (ed.) Ancient Near Eastern Texts Relating to the Old Testament. 3rd. ed. with Supplement. Princeton: Princeton University Press, 227-264.
- Beck, P. 2012. The Drawings and Decorative Designs. In Z. Meshel (ed.), Kuntillet 'Ajrud (Horvat Teman): An Iron Age II Religious Site on the Judah-Sinai Border. Jerusalem: Israel Exploration Society, 143-203.
- Bednarik, R.G., Khan, M. 2005. Scientific Studies of Saudi Arabian Rock Art. *Rock Art Research* 22/1, 49-81.
- Beeston, A.F.L. 1948. The Ritual Hunt: A Study in Old South Arabian Religious Practices. *Muséon* 61 3/4, 183-196.
- Betts, A.V.G. 2001a. Graffiti from Qusayr 'Amra: A note on Dating of Arabian Rock Carvings. *Arabian Archaeology and Epigraphy* 12, 96-102.
- Betts, A.V.G. 2001b The Middle East. In D.S. Whitley (ed.), *Handbook of Rock Art Research*. Walnut Creek: AltaMira, 786-824.
- Caubet, A. 2002. Animals in Syro-Palestinian Art. In B. Collins (ed.), A History of the Animal World in the Ancient Near East. Handbook of Oriental Studies 64. Leiden: Brill, 211-234.
- Colless, B. 2010. Proto-Alphabetic Inscriptions from the Wadi Arabah. *Antiguo Oriente* 8, 75-96.
- Collon, D. Forthcoming. Ostrich. In J. Eggler, C. Uehlinger (eds.), *Iconography of Deities and Demons in the Ancient Near East*. Orbis Biblicus et Orientalis, Series Archaeologica. Leiden: Brill.
- Corbett, G.J. 2012. Tracking the Nabataeans in Jordan's Wādī Ramm. Near Eastern Archaeology 75/4, 208-219.
- Crassard, R., Barge, O., Bichot, C.-E., Brochier, J.E., Chahoud, J., Chambrade, M.-L., Chataigner, C., Madi, K., Régagnon, E., Seba, H. and Vila, E. 2015. Addressing the

- Desert Kites Phenomenon and Its Global Range Through a Multi-proxy Approach. Journal of Archaeological Method and Theory 22, 1093-1121.
- Eisenberg-Degen, D. 2010. A Hunting Scene from the Negev: The Depiction of a Desert Kite and Throwing Weapon. *Israel Exploration Journal* 60/2, 146-165.
- Eisenberg-Degen, D. 2012. Archaeological Views: The Archaeology of Scribbles. Biblical Archaeology Review 38/04.
 - http://members.bib-arch.org/publication.asp?PubID=BSBA&Volume=38&Issue= 4&ArticleID=15
- Eisenberg-Degen, D. 2015. A Petroglyph of a Smiting Pharaoh in the Negev. *Arabian Archaeology and Epigraphy* 26, 12-15.
- Eisenberg-Degen, D., Nash, G. 2014. Hunting and Gender as Reflected in the Central Negev Rock Art, Israel. *Time & Mind*, 1-19.
- Eisenberg-Degen, D., Rosen, S.A. 2013. Chronological Trends in Negev Rock Art: The Har Michia Petroglyphs as a Test Case. *Arts* 2, 225-252.
- Eph'al, I. 1982. The Ancient Arabs: Nomads on the Borders of the Fertile Crescent 9th-5th Centuries B.C. Leiden: Brill.
- Feldman M.H., Sauvage, C. 2010. Objects of Prestige? Chariots in the Late Bronze Age Eastern Mediterranean and Near East. Ägypten und Levante 20, 67-181.
- Hausleiter, A. 2014. Pottery Groups of the Late 2nd/Early 1st Millennia BC in Northwest Arabia and New Evidence from the Excavations at Tayma. In M. Luciani, A. Hausleiter (eds.), Recent Trends in the Study of Late Bronze Age Ceramics in Syro-Mesopotamia and Neighbouring Regions. Proceedings of the International Workshop in Berlin, 2-5 November 2006. Rahden: Leidorf, 399-434.
- Heide, M. 2010. The Domestication of the Camel: Biological, Archaeological, and Inscriptional Evidence from Mesopotamia, Egypt, Israel, and Arabia, and Literary Evidence from the Hebrew Bible. *Ugarit Forschungen* 42, 331-382.
- Holzer, A., Avner, U., Porat, N. and Horwitz, L.K. 2010. Desert Kites in the Negev Desert and Northeast Sinai: Their Function, Chronology and Ecology. *Journal of Arid Environments* 74: 806–817.
- Horwitz, L.R.K. 2005. Diachronic Patters of Animal Exploitation in the Sinai Peninsula. Unpublished Ph.D. diss., Tel Aviv University.
- Hoyland, R. 2001. Arabia and the Arabs. From the Bronze Age to the coming of Islam. London & New York: Routledge.

- d'Huy, J. 2009. Une volonté de s'approprier symboliquement les qualités de l'autruche serait à l'origine de certains jeux graphiques dans l'art rupestre du Sahara oriental. *Cahiers de l'AARS* 13, 81-84.
- d'Huy, J. 2011. An Explanation to the Depictions of Humans Touching Animals. Sahara 22, 176.
- Ingraham, M.L., Johnson, T.D., Rihani, B., Shatla, I. 1981. Saudi Arabian Comprehensive Survey Program: c. Preliminary Report on a Reconnaissance Survey of the Northwestern Province (with a note on a brief Survey of the Northern Province). *Atlal* 5, 59-84.
- Inizan, M.-R., Rachad, M. 2007. Art rupestre et peuplement préhistorique au Yémen. Sanaa: CEFAS.
- Keel, O., Uehlinger, C. 1998. Gods, Goddesses, and Images of Gods in Ancient Israel. Edinburgh: T&T Clark.
- Khan, M. 1993. The Prehistoric Rock Art of Northern Saudi Arabia. Riyadh: Ministry of Education.
- Khazanov, A. 1994. Nomads and the Outside World. Madison: University of Wisconsin Press.
- Knauf, E.A. 1987. Suplementa Ismaelitica 12. Camels in Late Bronze and Iron Age Jordan: The Archaeological Evidence. *Biblische Notizen* 40, 20-23.
- Knauf, E.A. 1999. Qôs. In K. van der Toorn, B. Becking, P.W. van der Horst (eds.), Dictionary of Deities and Demons in the Bible. 2nd. ed. Grand Rapids: Eerdmans, 675-676.
- Levy, T.E., Najjar, M., Ben-Yosef, E. (eds.) 2014. New Insights into the Iron Age Archaeology of Edom, Southern Jordan: Surveys, Excavations, and Research from the University of California, San Diego & Department of Antiquities of Jordan, Edom Lowlands Regional Archaeology Project (ELRAP). Monumenta Archaeologica 35. Los Angeles: Cotsen Institute of Archaeology Press.
- Lewis, K. 2007. Fields and Tables of Sheba: Food, Identity, and Politics in Early Historic Southern Arabia. In K.C. Twiss (ed.), *Archaeology of Food and Identity*. Center of Archaeological Investigations, Occasional Paper 34. Carbondalle: Southern Illinois University, 192-217.
- Macdonald, M.C.A. 1996. Hunting, Fighting and Raiding. The Horse in Pre-Islamic Arabia. In D.G. Alexander (ed.), *Furusiya. The Horse in the Art of the Near East*, Vol.1. Riyadh: King Abdulaziz Public Library, 72-83.

- MacDonald, M.C.A 2005. Of rock-art, "desert kites" and meṣāyid. In: A.V. Sedov and I.M. Smulyanskaya (eds.), Arabia Vitalis: Arabskij Vostok, Islam, drevnyaya, Araviya: Sbornik Naychnykh statej, posvyashchennyj 60-letiyu V.V. Naumkina. Moscow: Rossijskaya Akademiya Nauk, 332–345.
- Macdonald, M.C.A. 2009. Wheels in a land of Camels: Another look at the Chariot in Arabia. *Arabian Archaeology and Epigraphy* 20, 156-184.
- Macdonald, M.C.A. 2012. Wheeled vehicles in the Rock Art of Arabia. In M. Khan (ed.), *The Arabian Horse. Origin, Development and History*. Riyadh: Layan Cultural Foundation, 356-395.
- Magee, P. 2014. The Archaeology of Prehistoric Arabia: Adaptation and Social Formation from the Neolithic to the Iron Age. Cambridge World Archaeology. New York: Cambridge University Press.
- Maraqten, M. 2015. Hunting in pre-Islamic Arabia in the light of the Epigraphic Evidence. *Arabian Archaeology and Epigraphy* 26, 208-234.
- Marx, E. 1992. Are there Pastoral Nomads in the Middle East? In O. Bar-Yosef and A. Khazanov (eds.), *Pastoralism in the Levant. Archaeological Materials in Anthropological Perspectives*. Monographs in World Archaeology No. 10. Madison: Prehistory Press, 255-260.
- Nayeem, M.A. 2000. The Rock Art of Arabia: Saudi Arabia, Oman, Qatar, the Emirates & Yemen. Hyderabad: Hyderabad Publishers.
- Olsen, S.L. 2013. Stories in the Rocks: Exploring Saudi Arabian Rock Art. Pittsburgh: Carnegie Museum of Natural History.
- Potts, D.T. 1997. History of the Field. Archaeology in the Arabian Peninsula. In E.M. Meyers (ed.), *The Oxford Encyclopedia of Archaeology in the Near East*. Vol. 3. Oxford: Oxford University Press, 77-81.
- Potts, D.T. 2001. Ostrich Distribution and Exploitation in the Arabian Peninsula.

 *Antiquity 75, 182-190.
- Reeves, M.B. 2015. A Petroglyph of a Religious Ceremony at Humayma. *Journal of Roman Archaeology* 28, 451-460.
- Rosen, S.A. 2015. Cult and Rise of Desert Pastoralism: A Case Study from the Negev. In N. Laneri (ed.), *Defining the Sacred: Approaches to the Archaeology of Religion in the Near East.* Oxford & Philadephia: Oxbow, 38-47.

- Rosen, S.A., Saidel, B.A. 2010. The Camel and the Tent: An Exploration of Technological change among Early Pastoralists. *Journal of Near Eastern Studies* 69, 63-77.
- Rothenberg, B. 1972. Timna: Valley of the Biblical Copper Mines. London: Thames and Hudson.
- Ryckmans, J. 1976. La chasse rituelle dans l'Arabie du sud ancienne. In *Al-Bahit:* Festschrift Joseph Henninger zum 70. Geburtstag am 12. Mai 1976. Studia Instituti Anthropos, vol. 28. Saint Augustin: Anthropos Institut, 259-309.
- Schmidt, B.B. 2002. The Iron Age *Pithoi* Drawings from Horvat Teman or Kuntillet 'Ajrud: Some New Proposals. *Journal of Ancient Near Eastern Religions* 2, 91-125.
- Serjeant, R.B. 1976. South Arabian Hunt. London: Luzac.
- Somaglino, C., Tallet, P. 2013. A road to the Arabian Peninsula in the reign of Ramesses III. In F. Förster, H. Riemer (eds.), *Desert Road Archaeology in Ancient Egypt and Beyond*. Köln: Heinrich-Barth-Institut, 511-518.
- Sperveslage, G., Eichmann, R. 2012. Egyptian Cultural Impact on North-West Arabia in the Second and First Millennia BC. *Proceedings of the Seminar for Arabian Studies* 42, 371-384.
- Stetkevych, J. 1996. The Hunt in the Arabic *Qaṣīdah*: the Antecedents of the *Tardiyyah*. In J. Smart (ed.), *Tradition and Modernity in Arabic Language and Literature*. Richmond: Curzon, 102-118.
- Stetkevych, J. 1999. The Hunt in Classical Arabic Poetry: From Mukhaḍram "Qaṣīdah" to Umayyad "Ṭardiyyah". Journal of Arabic Literature 30/2, 107-127.
- Tebes, J.M. 2006. Iron Age 'Negevite' Pottery: A Reassessment. *Antiguo Oriente* 4, 95-117.
- Tebes, J.M. 2013. Nómadas en la encrucijada: Sociedad, ideología y poder en los márgenes áridos del Levante meridional del primer milenio a.C. BAR International Series 2574. Oxford: Archaeopress.
- Tebes, J.M. 2014a. Socio-Economic Fluctuations and Chiefdom Formation in Edom, the Negev and the Hejaz during the First Millennium BCE. In J.M.Tebes (ed.), Unearthing the Wilderness: Studies on the History and Archaeology of the Negev and Edom in the Iron Age. Ancient Near Eastern Studies Supplement Series Vol. 45. Leuven: Peeters, 1-30.
- Tebes, J.M. 2014b. The Symbolic and Social World of the Qurayyah Pottery Iconography. In J.M.Tebes (ed.), *Unearthing the Wilderness: Studies on the History and*

- Archaeology of the Negev and Edom in the Iron Age. Ancient Near Eastern Studies Supplement Series Vol. 45. Leuven: Peeters, 163-202.
- Ventura, R. 1974. An Egyptian Rock Stela in Timna'. Tel Aviv 1, 60-63.
- Wimmer, S.J. 2010. A Proto-Sinaitic Inscription in Timna/Israel: New Evidence on the Emergence of the Alphabet. *Journal of Ancient Egyptian Interconnections* 2. http://jaei.library.arizona.edu
- Yekutieli, Y. 2016. The Chariots Engraving of Timna (Israel) Revisited. Bulletin of the American Schools of Oriental Research 375, 171-184.
- Younker, R.W. 1997. Late Bronze Age Camels Petroglyphs in the Wadi Nasib, Sinai. Near Eastern Archaeology Society Bulletin 42, 47-54.
- Younker, R.W., Koudele, K. 2005. Camel Petroglyphs in the Wadi Nasib and their Implications for the use of Camels in the Late Bronze Age. Studies in the History and Archaeology of Jordan 9, 53-59.
- Zarins, J. 2015. Pastoralism in Southwest Asia: The Second Millennium BC. In J. Clutton-Brock (ed.), The Walking Ladder: Patterns of Domestication, Pastoralism, and Predation. 1st ed.: 1989. London & New York: Routledge, 127-155.

Figures and Tables captions

- Fig. 1. Main Late Bronze and Iron Age sites in the southern Levant and northwestern Arabia mentioned in the article.
- Fig. 2. Drawings of camels from: a) Wadi Nasib engraving, after Younker and Koudele, "Camel Petroglyphs," fig. 7; b) Qurayyah bowl, after Ingraham et al., "Saudi Arabian Comprehensive Survey Program," Pl. 79:14.
- Fig. 3. Photo and drawing of rock art panel from engraving no. 2, Timna Site 25. Courtesy of Mr J. Otto.
- Fig. 4. Detail of human figures with weapons from engraving no. 2, Timna Site 25.

 Photo by the author.
- Fig. 5. Drawings of probable desert kites from Timna engravings: a) engraving no. 1,
 Timna Site 25; b) engraving no. 2, Timna Site 25; c) Timna Site 251. After
 Rothenberg, Timna, Figs. 36-38.
- Fig. 6. Drawings of chariots from rock art: a) engraving no. 2, Timna Site 25, after Rothenberg, *Timna*, Pl. 55; b) Qahzah, after Nayeem, *Rock Art*, Fig. 95.
- Table 1. Elements of panels 1-2, Timna Site 25.