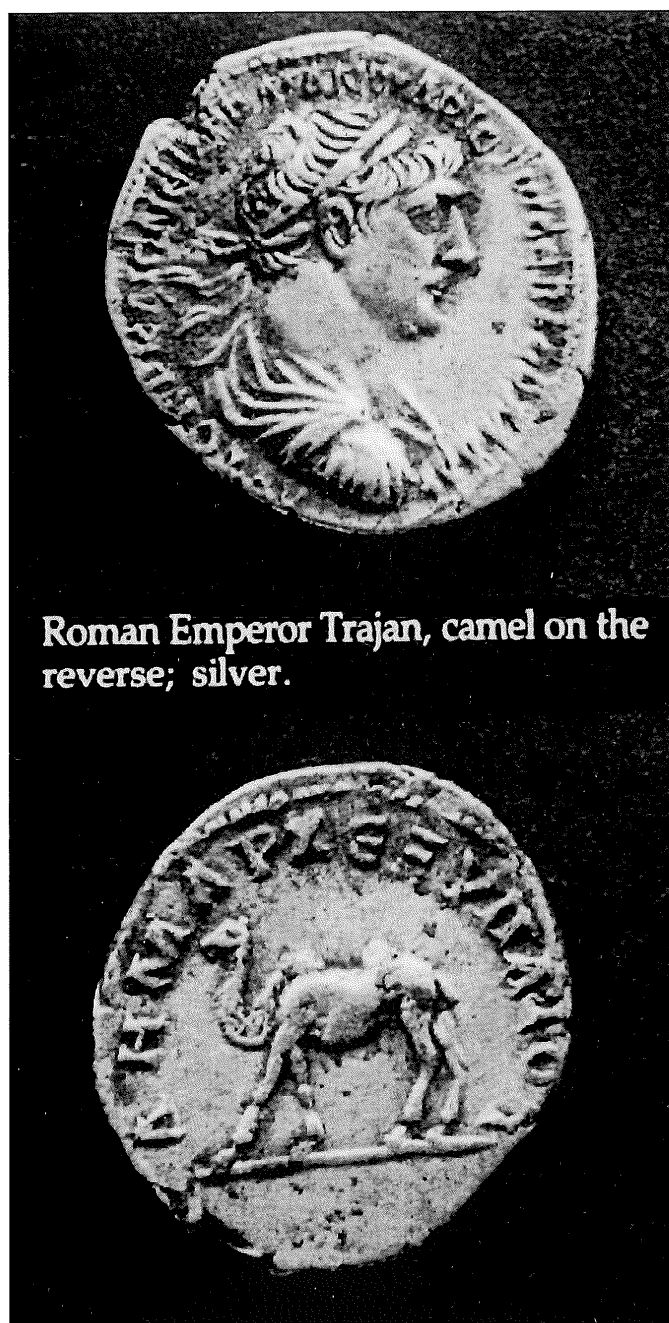


Two-Humped Camel Drachms: Trajanic Propaganda or Reality?

In the reign of the Roman emperor Trajan (98-117AD), during his sixth consulship (112-117AD), several years after the annexation of the Nabataean kingdom in 106AD, two series of silver drachms were issued depicting camels. Trajan is on the obverse of both, but the images of the camel on the reverse differ. On one there is a personification of the goddess of Arabia, standing adjacent to a small dromedary at her feet to the left. The other issue has a two-humped camel on the reverse (FIG. 1). They are generally designated as the 'standing Arabia' and 'camel' types. The later type has proven to be controversial both in regard to the provenance of the mint and the interpretation of the 'two-hump camel' on the reverse. The mint where they were issued was originally postulated as Caesarea in Asia Minor, but more recently is attributed to a local Arabian mint. What has remained particularly puzzling is the presence of a two-humped camel (*camelus bactrianus*) on the coins, since it is normally associated with the region of Afghanistan and the Far East, not Arabia. Why should such a seemingly exotic foreign image be selected for coins that were intended to circulate in the new province of Arabia where the one-hump camel (*camelus dromedarius*) was dominant?

Various solutions have been proposed to account for this iconographic problem. Some have seen the two-humped camel as an economic symbol for the establishment of security of the trade routes between the Near and Far East that would result with the annexation of the Nabataean kingdom, bringing caravans from central Asia to Bostra and the Levant (Metcalf 1975: 96; Kindler 1983: 96). Others have seen it as political propaganda, an overt declaration of Trajan's military ambitions of seizing control of the Parthian realm and with it the Iranian plateau and Afghanistan (Bowersock 1983: 84). More re-



Roman Emperor Trajan, camel on the reverse; silver.

1. A two-Humped Camel Silver Drachm.

cently, it has been advanced that the image is nothing more than an error on the part of the officials at Rome who were responsible for designating the types of coinage. This proposal assumes that either the coins were minted at Rome and then were sent out to the relevant provinces for distribution or the dies were cut at Rome and sent out to the provincial mints (Butcher 1988: 36-37). In either case, the inappropriate symbol of the 'Bactrian camel' was selected for the Trajanic drachms and apparently "nobody in the mint at Rome knew or cared about the difference" (Butcher 1995-96: 114). The 'camel' issues are then neither propaganda nor a reflections of reality, but simply a mistake.

In my opinion, there are substantial reasons for attributing the silver 'camel' drachms of Trajan to a local provincial mint, rather than Rome. Furthermore, there is some basis for assuming the two-humped camel was an inappropriate symbol for coins representing the new province of Arabia. First, let me set forth the reasons why a local mint in Arabia is the most attractive possibility for the 'camel' issues.

- (1) The 'standing Arabia' type is found in large quantities in hoards in the Levant — 1,838 at Mampsis, 43 at Eleutheropolis, 23 at Wādī Murabba'āt, and 242 at Tall Kalak near 'Am-mān. The 'two-humped camel' drachms are found in lesser quantities in the same hoards — 204 at Mampsis, 5 at Eleutheropolis, 9 at Wādī Murabba'āt, and 68 at Tall Kalak (Metcalf 1975: 92-94 and 100), but are completely absent in hoards from Asia Minor and Syria. In addition, none of the 'Caesarean' issues are present in the Arabian hoards. These facts suggest that both issues are the product of a local Arabian mint.
- (2) The fact that a number of the local 'Arabia' drachms from the Mampsis (Negev 1971: 116) and the Tall Kalak hoards (Metcalf 1975: 95) were overstruck on Nabataean coins leads to the same conclusion: they were minted locally in Arabia, not Caesarea. This was already argued for the 'standing Arabia' type, but it has been overlooked that there also are clear traces of overstriking on a Nabataean coin on at least one of the 'two-hump' camel issues (Kindler 1983: 96). This provides further support for the 'two-hump camel' drachms being produced by a local mint in Arabia (as surmised already by Spijkerman 1978: 32-34, n. 1).

- (3) Analysis of Roman silver coinage by bulk chemical and optical microscopy is proving to be a useful technique in measuring the silver standard of issues from the mints at Rome and the provinces. The present results reveal that the Romans appear to have deliberately overvalued provincial silver coinage against the standard imperial issues as a way of restricting the circulation of the provincial issues to a single province or sector of provinces (Butcher and Ponting 1998). In essence, the 'Rome' style coins were issued simultaneously with coins of 'local' style, but with dramatic differences in regard to the silver content. The Roman issues had from 67% or more silver content, versus about 50% for the provincial issues. Such analysis of the Trajanic issues has just begun, but the examination of several 'two-hump' camel drachms (BMC 65 and 66) has been conducted and both were struck on the 50% silver standard, not the 67% silver standard of the tetradrachms issues of the Roman mint. In addition, the silver-gold ratio of the 'camel' drachmas shows the same variability as the 'standing Arabia' type (cf. Butcher and Ponting 1998: 316-317, with chart on 325, nos. 1-5). This same 50% standard was used earlier in Nabataean silver issues (Schmitt-Korte and Cowell 1989). This 50% standard remained typical of the Eastern provincial issues long after Trajan, and was adopted for the West only in the reign of Septimius Severus in 197AD (Gitler and Ponting 2003). In sum, at least at present, there is no basis for separating the Trajanic drachms into a 'Rome' type (the 'two-hump camel' issues) and a 'local' type (the 'standing Arabia' issues) on the basis of silver content.
- (4) The provincial character of the Trajanic portraits on the Trajanic coins is indicated by the iconographic style of the representation of the emperor. On imperial coinage, Trajan is depicted in rather delicate style, but the provincial issues of his sixth consulship portray him with exaggerated lips, a larger nose, a broader skull, and a different hairstyle (Weder 1977).
- (5) Finally, the titulature of the two issues is the same, with one exception: the 'two-hump camel' issues of the sixth consulship add *optimus* (in Greek, ΑΡΙΣΤΟΣ), a title adopted by Trajan sometime between August 10th and September 1, 114AD. Trajan later adopted the title

'Parthicus' sometime between the end of May and August 28, AD 116, but it does not appear on either of the Arabian drachm types (Metcalf 1975: 101; cf. Richier 1997: 603-606). This suggests the 'two-hump camel' issues were issued between August 114AD and May 116AD, evidently replacing the previous 'standing Arabia' type, which were issued between 112-114AD (Metcalf 1975: 101). This also helps to explain the disparity in the larger number of the earlier 'Arabia' type versus the smaller number of the 'camel' type. Metcalf's argument that the 'standing Arabia' and 'two-hump camel' drachmas were issued sequentially and separately as local issues, not concurrently as a 'Rome' and 'local' type, is still compelling.

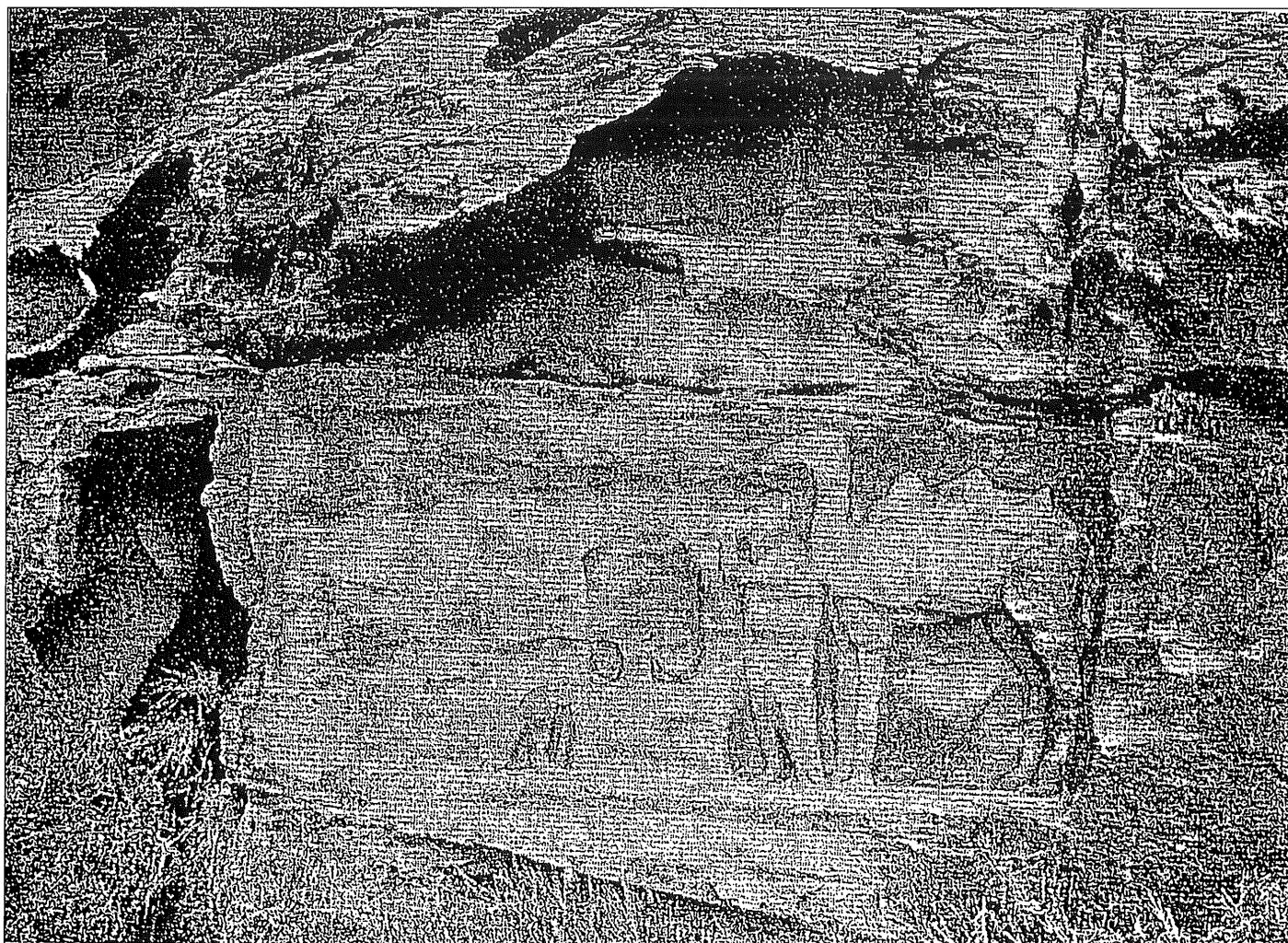
What remains to be explained is why the 'two-humped camel' was selected for the later issues. Is the image advance publicity for the objectives of Trajan's Parthian campaign? Or is it merely a mistake by the engravers? In this regard, it should be emphasized that Trajan was familiar with the fauna on the landscape of the Near East. During the time his father was governor of Syria between 73/4-78/9, earning *ornamenta triumphalia* during a campaign against probably Parthia (Bowersock 1973: 135), Trajan joined him in Syria, sometime probably between 73-76, to begin his military career as a tribune in one of the Syrian legions (Pliny, *Pan.* 14.1 and 15.1-3), either the *III Gallica*, *IV Scythica*, *VI Ferrata* or *XVI Flavia* (Bowersock 1973: 140; Bennett 1997: 22-23). Afterwards, he served on the German frontier. There is no evidence that he returned to the East again, either during Domitian's reign or immediately after he became emperor in 98AD. Between 101-106AD, he directed the Dacian Wars and afterwards returned to Rome, and remained in Italy between 107-113. His only known return to the East was at the end of his reign, when he conducted the Parthian campaign. In January 114, he arrived at Antioch in Syria (Mal. *Chron.* 2.272), and then journeyed to Satala on the Upper Euphrates in April, where he assembled his army and marched into Armenia (Bennett 1997: 191-194). Trajan is then known to have been in Syria on two occasions, early in his career and late in his reign as emperor. The 'two-humped camel' coins were placed into circulation after his arrival in Syria and during his Parthian campaign, not before. It then seems highly unlikely that the coins were issued without the emperor's authorization or at least ap-

proval. It does not seem likely that the two-humped Bactrian camel issues were a mistake by bungling engravers.

But was the 'two-humped' camel a symbol of political propaganda by the imperial authorities or just a metaphor for Trajan's recent annexation of the former Arabian Kingdom of the Nabataeans? If the latter is the case, why was the common one-humped camel of Arabia not chosen as a symbol, rather than the two-humped camel that is commonly associated with Iran and Afghanistan further East? In response, it may be suggested that the two-humped camel is not as unusual in Arabia or the Levant as has been commonly assumed. What has been neglected, but is entirely relevant for the Trajan's 'two-humped camel' coins is the rock-cut relief on the ad-Dayr plateau, high above the civic center of ancient Petra (FIG. 2). Just to the north of the ad-Dayr tomb monument is a rock-cut depiction of two camels being led by men facing one another; much of the left side of the relief has been eroded, but the drover on the right is clearly leading a double-humped camel (Fig. 1 = Dalman 1908: 275-76, Abb. 218: Kamelrelief Nr. 464; cf. Brunnow and v. Domaszewski 1904: 336, Fig. 368. Petra: No. 466; and 188 "Skulpturen einer Kamelgottheit"). The date of the relief is undetermined, but it has a striking resemblance to the large relief of a caravan of four dromedaries with drovers recently discovered at a bend in the southern cliff of the as-Siq at Petra. The camels in both reliefs are in profile with the drovers represented in frontal position. The relief in the as-Siq is dated to the early first century BC, before the paved road was constructed in the late first century BC (Bellwald 2003: 40-52). The ad-Dayr relief is not as easily dated, but it at least suggests the two-humped camel on the Trajanic drachms is not as unusual for Arabia as has been assumed. In fact, there is substantial evidence from literary sources, artistic representations, and archaeological evidence to suggest the so-called *camelus bactrianus* is not as rare and unusual in the Levant as was previously thought, and that its selection on Trajanic coinage requires no ulterior explanation.

Two-Humped Camels in Neo-Assyrian Texts

There are at least three words in Akkadian for designating the 'camel', one general and two specific. The generic word for 'camel' is *gamnalū*, probably an Aramaic loanword and appearing only late in



2. The ad-Dayr plateau Relief from Petra (Dalman 1908: 275-76, Abb. 218 =BD no. 464).

Neo-Assyrian texts (Gelb 1956: 35-36); the term *ibilu* (= the logogram ANŠE.A.AB.BA) is the specific word for the ‘Arabian camel’ or ‘dromedary,’ and never appears in other Semitic languages, but is the distinctive ‘Arabic’ word for camel (Gelb 1960: 2; cf. Pellat: 1971: 665-668), finally, the word *udru* specifically refers to the “two-humped camel”. It is a loanword of uncertain derivation, but perhaps is to be associated with Iranian *uštra*, as preserved in the name ‘Zarathrustra’ (Walz 1954: 68-69 and Von Soden 1981: 1401; cf. Bulliet 1975: 154-155, who suggests a hypothetical Indo-European root *vegh*, ‘to carry’). The special Arabic word for dromedary, *ibilu*, is mentioned in Sumerian texts of the third millennium BC, where it is clearly implied that the camel is already domesticated. The logogram for the generic word *gammalu* is also written sometimes with a phrase to indicate the ‘two humped’ camel: ‘camels whose backs are two (humped)’ (ANŠE.A.AB.BA ANŠE.A.AB.BA *ša*

šu-na-a-a ši-ri-ši-na) or ‘camels which are called two (humped)’ (ANŠE.A.AB.BA *ša 2-a za-kar-ru-u-ni*). But the distinctive word for designating the two-humped camel is *udru*.

The term *udru* first appears in Neo-Assyrian texts in the 11th century BC. The “Broken Obelisk” text found at Konyunjik, records that the Assyrian King Ashur-Bel-Kala (1074-1057BC) dispatched merchants to acquire “two-humped camels”, so that he could form herds of them, breed them, and display them to the people of his land with other exotic fauna he had amassed (Grayson 1976: 55 who incorrectly translates *udru* as ‘dromedaries’ in this text). Its next appearance is in the ninth century BC, in a text that mentions the tribute collected by Tukulti-Ninurta II (890-884BC) from the Aramaean king Amme-alaba of the city of Hindanu, in the Ḥabur region of North Syria (Wäfler 1975: 237); included among the agricultural products and fauna itemized in the list are 30 “two-humped”

camels (Grayson 1976: 102, who again incorrectly translates *udru* as 'dromedaries'). A few decades later, in 859 BC, Hayanu, the ruler of the same Aramaean state of Hindanu, sent 'two-humped' camels as tribute to the Assyrian king Ashur-nasir-apli II (Grayson 1976: 125). In the very next year, the new king Shalmaneser III, collected "horses (and) camels with two humps" from a string of cities: Hargu, Harmasa, Ulmānu, Simera, Sirišu, and Gilzānu — areas north of Assyria between Lake Van and the Caspian (Grayson 1996: 103 and cf. 149; for the geography see Wäfler 1975: 263-265, and Reade 1979: 176). In campaigns in the land of Nairi, in the Zagros mountains east of Assyria, the Neo-Assyrian kings conducted raids for "camels with two-humps" regularly from the tenth to the seventh centuries BC (Grayson 1996: 184), but this was by no means the only area they were found. In Sennecherib's campaign against the Babylonian rebel Merodach Baladan and his Arab allies, 81 walled towns and 820 minor settlements were conquered and looted in western Babylonia, including the seizure of "dromedaries" (ANŠE.A.B.BA) and "two-humped camels" (*udru*) from the allied armies (Eph'al 1982: 40-41). In sum, the "two-humped" camel is found in a northern crescent around Assyria, extending from northern Syria in the west across to the northern borders of Elam in the east, and as far south as southern Babylonia.

There are also indications of two-humped camels in Egypt. On the Black Obelisk of Shalmaneser III around 856BC, there are depictions of two-humped camels and the royal inscription on the Obelisk indicates: "I received tribute from Egypt (*Muṣri*): two humped camels (ANŠE.A.AB.BA ANŠE.A.AB.BA *ša šu-na-a-a ši-ri-ši-na*), a water buffalo (lit. "river ox"), a rhinoceros, an antelope, female elephants, female monkeys, (and) apes" (Grayson 1996: 150; cf. Deller 1983). This startling reference to two-humped camels from Egypt threw Assyriologists into turmoil, with various proposals offered for the possible location of another 'Muṣri' — in Anatolia, Arabia, or even Armenia (Garelli 1957: 1468-74; Wäfler 1975: 171-176; cf. Marcus 1987: 89). Strong bull elephants were known to have been in the Harran and Khabur River region in the 12th century BC (Grayson 1976: 16) and the depiction of a small-eared elephant on the relief associated with the text seems more appropriate for Asia than Africa; apes also appear as tribute received from the Levant in the ninth century BC (Grayson 1976:

142-43, cf. 149). Nevertheless, Africa certainly seems as the most appropriate source for the other zoological tribute in the list. So after the speculative dust settled, the view that Egypt is at stake is now the consensus (as persuasively argued as early as Tadmor 1961; see now Wapnish 1984: 180 and Kessler 1997: 497). The problem is that the camel is virtually unknown in Egypt in both written records and artistic representations in Saharan and Egyptian rock art during the historical periods (Midant-Reynes and Braunstein-Silvestre 1977). This silence about camels in Classical literary texts had led scholars to suggest the camel is a historical latecomer in Egypt and North Africa, introduced by the Severan emperors in the early third century for military reasons (Mason 1984: 20-25).

The facts belie the hypothesis. Today, African camels dominate Asian/Arabian camels four to one. In 1978, there were approximately 95,000 camels in Egypt, and 12 million in Africa, with less than three million in Asia and Arabia combined (Wilson 1984: 19-20). Pre-historians also have known the camel existed in Africa in much earlier periods, with finds of camel bones in the Paleolithic period appearing from northwest Morocco to southern Tunisia. This began with an amateur archaeologist in 1882, a veterinarian named Philippe Thomas, who discovered some camel bones of the Lower Paleolithic period that he interpreted as an extinct species of camel, so it was named *Camelus thomasi*. It is now clear from subsequent finds in North Africa and the Sudan that *C. thomasi* is larger than the dromedary, and may be in fact represent *C. Bactrianus*. (Gautier 1966; Kohler-Rollefson 1989: 146). That camels existed in historical periods in North Africa also seems evident, but it has only been recently recognized that the nineteenth century scenario of the camel disappeared in historical periods until being reintroduced by the Romans was a classic case of the *argumenta ex silentio* that ignores all the contrary evidence (see the fundamental discussion of Shaw 1979 for the details). In actual fact, Caesar captured 22 camels from Pompey's ally, King Juba II of Mauretania in 46BC (pseudo-Caesarian, *Bellum Africum* 68) and another resident of North Africa, Apuleius of Madauros, in the *Golden Ass*, alludes to the Bactrian camel in opposition to the dromedary (7.14, *camelo Bactrinae*), as if he were familiar with both. There is no reason to reject then that the reference to two-humped camels in the text on Shalmaneser III's Black Obelisk is accurately

reflecting the tribute received by the Assyrian king. As the other references in Neo-Assyrian texts illustrate, the two-humped camel was present right across the Fertile Crescent in antiquity, from Egypt across Syria to southern Babylonia.

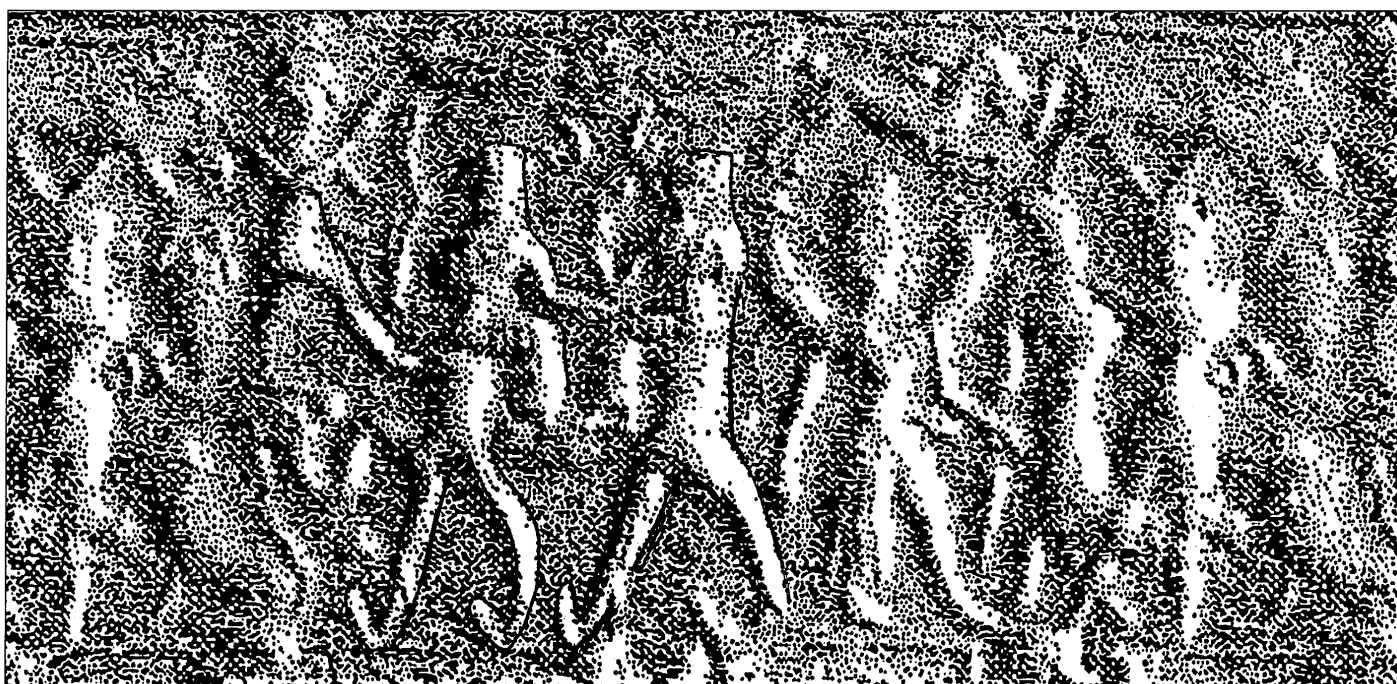
Artistic Representations of Two-Humped Camels

There is also abundant evidence for the two-hump camel in Arabia in pre-Islamic times. The literary evidence for two-hump camels in Arabia is admittedly limited. There is only a solitary reference in Diodorus Siculus to camels being bred in Arabia "in very great numbers and of the most different kinds, both the hairless and the shaggy, and those which have two humps, one behind the other, along their spines and hence are called *dituloi* (i.e. 'double humped') (II. 54.6). It is unclear if Diodorus means the Syrian desert, East Arabia the interior of Arabia, or South Arabia, but there is no reason to reject his testimony. There are ample ancient artistic representations of two-humped camels throughout Syria and Arabia to support his testimony. The following list is not meant to be complete, but should sufficiently illustrate the possible presence of the 'two-hump' camel from Syria to Yemen in antiquity.

1) A North Syrian cylinder seal in the Walters Art Gallery in Baltimore (WAG C 61) depicts, rather clumsily, a two-humped camel with two figures in long flounced robes seated on the humps

facing one another (FIG. 3). The figure on the right holds up a cup. A date for the seal between 1800-1400BC has been proposed (Gordon 1939: 21, Pl. VII.55; cf. Brentjes 1960: 30, no. 2, who dates it to the 15th or 14th century BC; Wapnish 1981: 106, to the early second millennium BC). The significance of this representation of the two-humped camel at this time has been ascribed to its use as a pack animal on the international routes during a period of "intensive commercial activity in Western Asia" (Collen and Porada 1977: 345).

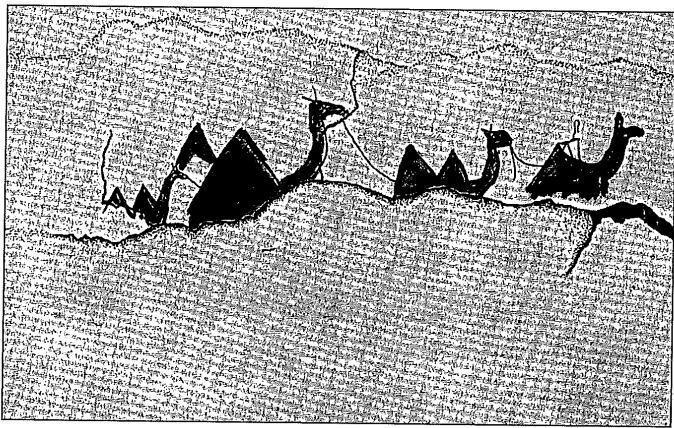
- 2) A petroglyph of a camel caravan from Demir-Kapu in Northern Mesopotamia, on the caravan road between Nisibis and Mossul (FIG. 4). The camel caravan depicts a walking human figure leading the camels, one of which has only one-hump, but the other two camels appear to have two humps (Von Luschan 1922: 188, Fig. 45, and discussion on 192). The date is a problem, but sometime in the second millennium BC has been proposed (Müller 1924: 179).
- 3) At Dura-Europos, a graffito on a stucco wall in the 'House of the Ravine' depicts a caravan of camels, each camel attached by a rope to the preceding camel, with a rider on the lead camel (FIG. 5). The lead camel appears to have one hump, but is followed by three two-humped camels. It was initially proposed that the two triangles on the backs of the camels were two loads



3. North Syrian Seal, 1800-1400 BC (Walter Art Gallery C61 =Gordon 1939: no. 55).



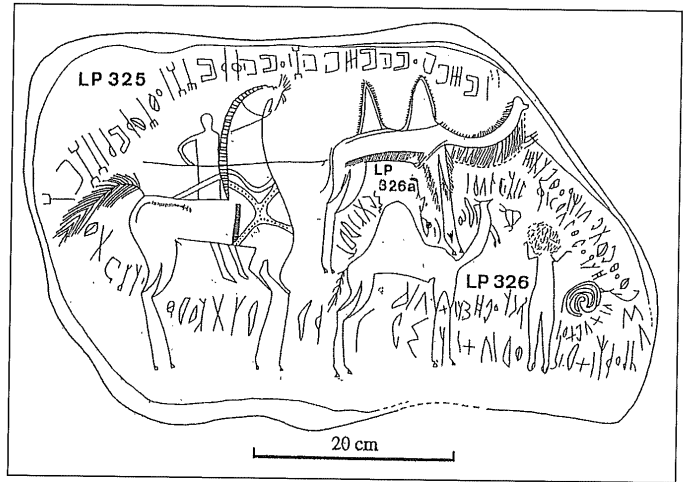
4. Early North Mesopotamian Petroglyph (von Luschan 1922: 89, fig. 45).



5. Dura-Europos Graffito (Baur, Rostovtzeff & Bellinger 1933: 221-222, Pl. xxiii.2).

fastened on each side of the hump (Rostovtzeff 1933: 221-222, Pl. XXIII.2), but this interpretation is unnecessary. Two-humped camels were still present in caravans traversing the route between Baghdad and northern Syria as late as the 18th century AD (Russell 1756: 170 as cited in Bulliet 1975: 306, n. 57).

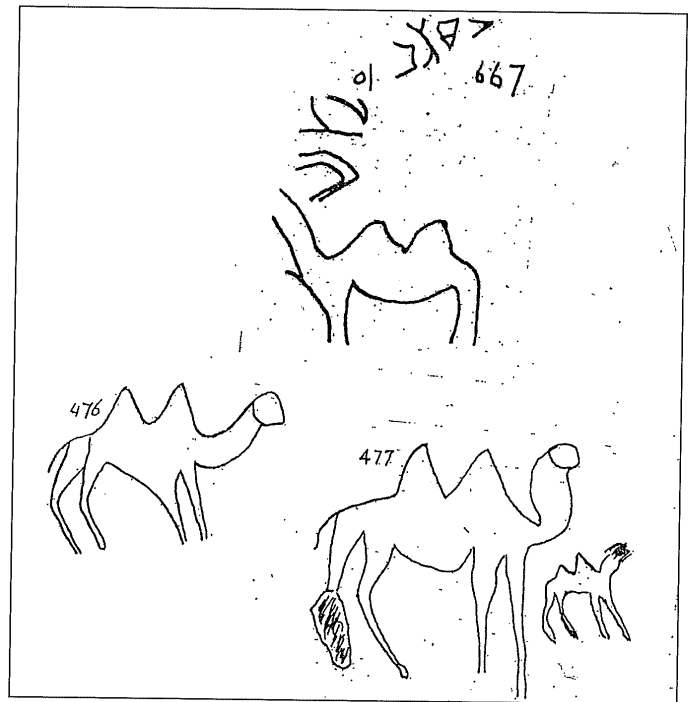
- 4) A graffito from al-‘Īsāwī in the Southern Ḥawrān in Syria, depicts a shaggy two-humped camel in front of a horseman with lance, a dog, and what appears to be a standing figure (Littmann 1943: 80-81, No. 325) (FIG. 6). Several Safaitic inscriptions are strung around and between the figures (recently reinterpreted by Macdonald,



6. Safaitic Inscriptions with Rock Art from Al-‘Īsāwī in the Southern Ḥawrān in Syria (Macdonald, Mu‘azzin and Nehmé 1996: 468, fig. 19).

Mu‘azzin and Nehmé 1996: 467-477).

- 5) In the Wādī Miqāt region near H4 in the ḥarra of northeast Jordan, a series of drawings of two-humped camels were found on the lava stone while dismantling Cairn 9B (FIG. 7) (Winnett and Harding 1978). The drawings are unaccompanied by inscriptions, but they must pre-date the construction of the cairn.
- 6) In the same location, at Cairn 9, there is a graffito by *Sawa bn ‘Alham* accompanied by a drawing of a two-humped camel (FIG. 7) (Winnett and Harding 1978: no. 667).



7. Rock Art from the Wādī Miqāt region near H4 in the ḥarra of northeast Jordan (Winnett and Harding 1978: nos. 476-477, 667).

- 7) A Safaitic inscription from the Amman Museum (Registration No. J.13943) is on a basalt stone of unknown provenance acquired from Mr. Mahmud al-Afghani. The text surrounds a drawing of a two-humped camel (FIG. 8) (Macdonald 1979: 106-107, no. 12, pl. XXXVII for a drawing of the inscription and XLIV for photo). The text is fragmentary and difficult to read, but clearly in Safaitic script.

There are other representations of two-humped camels in Safaitic rock art which remain unpublished, one of which designates the two-humped camel as a *gml*, the same word that is used for single-humped camels (King 1990: 63-64). Another drawing has been interpreted as a rider sitting between the two humps of a camel (Knauf 1988: 79-82 and pl. 24), but it seems actually a horse-man sitting on a saddle that has two upright horns (cf. Macdonald, Mu'azzin and Nehmé 1996: 471 n. 100). Khalid Jabour of the Department of Antiquities also is preparing to publish another Safaitic rock art representation of a two-humped camel, and is likely there are others yet to be discovered. What is striking is that there are no such depictions of two-humped camels in the rock art associated with the Thamudic inscriptions found throughout the Transjordan

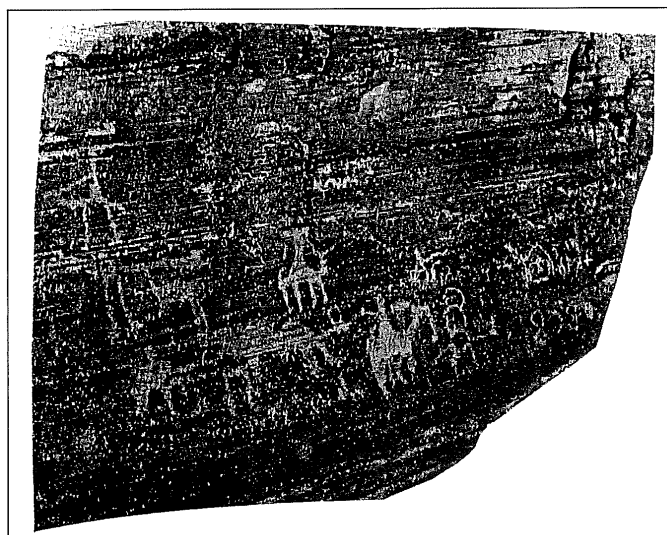
- 8) From al-Jaw, just over 100km south of Tabūk in the Northern Ḥijāz, there are a series of camels



8. Safaitic Inscription with Rock Art of two-humped camel from Jordan (Macdonald 1979: no. 12, pl. xlv = Amman Museum Reg. No. 51 3943).

depicted on a rock surface, one of which seems clearly to have two-humps (FIG. 9) (Koenig 1971: 196, photo 62 = Tdr 21). It should be noted that the two-humped camel is drawn shorter and stockier than the one-humped camels that surround it.

- 9) Just west of the Dahthami wells, approximately 250km southeast of Mecca, in Central Arabia, a two-humped camel is depicted with a group of one-humped camels (FIG. 10) (Anati 1972: 76, Figs. 43-44). It appears in the center at the top of



9. Northern Hijaz Rock Art (Koenig 1971: 196, photo 62).



10. Central Arabia Rock Art (Anati 1972: 76, fig. 44).

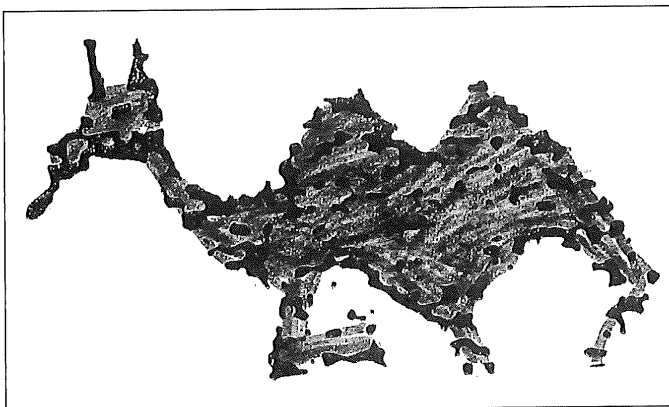
the group. Of the many rock engravings collected in the Philby-Ryckmans-Lippens expedition, this is the only representation of a two-humped camel discovered. Tchernov's suggestion that the artist may have made a mistake or that his hand accidentally slipped while making the engraving (Tchernov 1974: 215-216), is later modified to suggest the representation "may illustrate an unsuccessful attempt to introduce this kind of camel into the peninsula" (1974: 247).

- 10) a graffito from Rawḍa in South Arabia seems to depict a two-humped camel, although the two humps have been interpreted as the saddle (FIG. 11) (Rathjens 1953: 117, Fig. 121; cf. Jüng 1994: 236-237, Fig. 6).

These numerous examples of depictions of two-humped camels in Arabian rock-art should demonstrate that this type of camel was not an anomaly on the Arabian landscape. Such frequency and continuity in the representations argues for actual encounters with two-humped camels in Arabia, not mere reminiscing of witnessing the animals somewhere else (pace Köhler-Rollefson 1989: 145). It has been suggested that the Assyrian rulers possibly reused Bactrian camels received as tribute from their eastern conquests as baggage carriers for their military expeditions in the West, and that this accounts for their presence in the Levant (Wapnish 1984: 180). But the survival of the two-humped camel into later periods in Syria and Arabia suggests another explanation for accounting for their continual appearance in antiquity.

Hybrids

The genus *Camelus* is normally divided into two species: *C. dromedarius*, the one-humped camel whose habitat is Africa, Arabia, and the Near East; and *C. bactrianus*, or two-humped camel, whose



11. South Arabia Rock Art (Rathjens 1953: fig. 121).

original homeland is ascribed to eastern Iran, Afghanistan, and Turkmenistan in antiquity, but today in southern Russia and Central Asia. But separating the types into separate categories is acceptable (Mason 1984: 18-19). Such a division of the genus *Camelus* is dependent purely on morphological differences and the premise that hybridization between a *dromedarius* and a *bactrianus* is not possible and that any offspring would be infertile (Pellat 1971: 665). In fact, the two species are indistinguishable embryonically and modern experiments in hybridization in southern Russia have demonstrated that crossbreeding is not only possible, but effective. The hybrids produced by crossbreeding two-humped stallions with one-humped female camels, or the reverse, produces heterosis ('hybrid vigor'), in respect to size, hardiness, endurance, and longevity. The hybrids resemble the two-humped father only in regard to hair on their chin and legs, but have an elongated hump that is smaller than the dromedary (Wilson 1984: 48, with Fig. 3.13). This makes the hybrids extremely useful as baggage and draught animals. In the nineteenth century, some 8.000 dromedaries were imported into Turkey as studs for two-humped females precisely for this purpose, and the resulting hybrids were popularly known as the 'Turkoman' camel. The same practices existed at the time in northern Iraq and Afghanistan. In antiquity, it is argued that crossbreeding was practiced by the Parthians, with hybrids considered ideal pack animals for caravans between Afghanistan and Mesopotamia (Bulliet 1975: 164-175). If the artistic representations outlined above are any indication, similar practices must have existed elsewhere in Syria and Arabia. In Asia today, the two-humped camel can carry 220-270kg for 30-40km daily, and a rider of one can carry 120kg for 80-100km a day (Walz 1954: 56), whereas dromedaries in the same region carry smaller loads of 150-200kg and for less distance (Gommans 2002: 126; cf. Pellat 1971: 668). It would then be advantageous for any camel breeder and caravaner to have a few two-humped camels in his herd available for crossbreeding and producing hybrids.

These practices are not attested in literary sources to my knowledge, but there is some archaeological evidence to support the hypothesis. In excavations at Milleha in the interior of the Sharjah Emirate (UAE), some animal burials were found including nine dromedaries and some camel hybrids — cross-

breeds of bactrian and Arabian dromedaries. Their central position in the burial site suggests they were status animals and part of a ritual burial. The whole assemblage of grave structures and other evidence suggest a date between 300BC and 290AD (Ueerpman 1999: 103). At Pella in Jordan, a similar discovery was made of seven camel skeletons killed in an earthquake in 747AD, their large size suggests that they may have been 'Bactrian' or hybrids, not dromedaries (Köhler-Rollefon 1989:142-149). But it is another such burial that may illuminate the Trajanic two-humped camel coins of Arabia, and strangely enough, from a rather remote quarter. At Intercisia, the Roman town along the Danube, excavation of a pit revealed the remains of animal sacrifice consisting of two camel skulls without mandibles, but two mandibles similar in size were found in the vicinity. The large size of the skulls suggests they may have been two-humped camels. The pit dates to the second and third centuries AD (Borkonyi 1989: 402; cf. Bartosiewicz 1996: 448-49). More camel bones were found at the site with a large cut-mark on its dorsal surface suggesting the skull had been severed. There were the skeletal remains of other animals in the pit — cattle and dogs, but only of the meatless areas. All this is suggestive of the practice of ritual sacrifice, such as was practiced by Arabs in pre-Islamic and Islamic times (Henninger 1948: 10; Chelhod 1955: 60-67, 93-125; Simons 1961: 87; Pellat 1971: 666). It is well known that Syrian troops were stationed at Intercisia — namely the *cohors I milliaria Hemesenorum* (Fitz 1972: 45-51). Both dromedaries and two-humped camels entered Europe here and elsewhere with military units transferred from the Near East to the western regions, and camel remains found along the fortified roads of the western provinces reflect this practice (Dabrowa 1991; Bartosiewicz and Dirjec 2001; Muñiz *et al.* 1995).

We can now more appropriately assess the Trajanic drachms that depict the two-humped camel on the reverse. It seems clear that they were issued during Trajan's Parthian campaign in 114-116AD, but were local eastern issues, and are found predominantly within the boundaries of the province of Arabia. Although it is assumed that the two-humped camel was foreign to the Arabian landscape, there is abundant evidence of such camels in the Levant and Arabia from the Neo-Assyrian period into Hellenistic times. Artistic representations of two-humped camels from Syria to Yemen also

appear throughout the same period, but especially in the Roman era in Arabia. In this regard, of particular importance is the ad-Dayr relief at Petra that depicts a double-humped camel. The depictions of two-hump camels in rock-art elsewhere in North Arabia suggest this was not a distortion of reality or an anomaly. Although the dromedary dominates Arabia, the two-humped camels were ideal baggage carriers and advantageous for crossbreeding, as the hybrids were even more suited for long-distance caravans. It is entirely possible that Trajan witnessed such two-humped camels on the Syrian landscape in his youth and recommended later as emperor that they be used as the symbol for the Arabian issues. No ulterior political message in the image needs to be sought.

Bibliography

- Anati, E. 1972. *Rock Art in Central Arabia*, 3: *Corpus of Rock Engravings*. Parts I & II. Louvain.
 — 1974. *Rock Art in Central Arabia*, 4: *Corpus of Rock Engravings*. Parts III & IV. Louvain.
 Bartosiewicz, L., 1996. Camels in antiquity: the Hungarian connection. *Antiquity* 70: 447-53.
 Bartosiewicz, L. and Dirjec, J. 2001. Camels in antiquity: Roman period finds from Slovenia. *Antiquity* 75: 279-285.
 Bellwald, U. *et al.* 2003. *The Petra Siq: Nabataean Hydrology Uncovered*. Amman: Petra National Trust.
 Bökönyi, S. 1989. Camel Sacrifice in Roman Intercisa. *Acta Archaeologica Academiae Scientiarum Hungaricae* 41: 399-404.
 Bowersock, G. W. 1983. *Roman Arabia*. Cambridge: Harvard University Press.
 Brentjes, B. 1960. Das Kamel im Alten Orient. *Klio* 38: 23-52.
 Brünnow, R. and v. Domszowski, A. 1904. *Die Provincia Arabia*, Vol. I. Strassburg: Trübner.
 Bulliet, R. W. 1975. *The Camel and the Wheel*. Cambridge: Harvard University Press.
 Butcher, K. 1995/96. Bactrian Camels in Roman Arabia. *Berytus* 42: 113-116.
 — 1988. *Roman Provincial Coins*. London.
 Butcher, K. and Ponting, M. J. 1998. Atomic absorption spectrometry and Roman silver coins. Pp. 208-334 in W. A. Oddy and M. R. Cowell (eds.), *Metallurgy in Numismatics*, vol. 4. London: Royal Numismatic Society.
 Chelhod, J. 1955. *Le sacrifice chez les Arabes*. Paris: Presses Universitaires de France.
 Collon, D. and Porada, E. 1978. 23rd Rencontre Assyri-

- ologique Internationale. *Archaeology* 30: 353-345.
- Dabrowa, E. 1991. *Dromedarii* in the Roman Army: A Note. Pp. 364-366 in V. A. Maxfield and M. J. Dobson (eds.), *Roman Frontier Studies* 1989. Proceedings of the XVth International Congress of Roman Frontier Studies. Exeter: University of Exeter.
- Dalman, G. 1908. *Petra und seine Felsheiligtümer*. Leipzig: Hinrichs.
- Deller, K. 1983. Die Affen des Schwarzen Obeliskens. *Assur: Monographic Journals of the Near East* 3/4: 31-32 [167-168].
- Eph'al, I. 1982. *The Ancient Arabs: Nomads on the Borders of the Fertile Crescent, 9th-8th Centuries B.C.* Leiden: Brill.
- Fitz, J. 1972. *Les Syriens à Intercisa*. Collection Latomus 122. Bruxelles: Revue d'Études Latines.
- Garelli, P. 1957. Musur. Col. 1468-1474 in *Dictionnaire de la Bible*, Vol. 5. Paris.
- Gautier, A. 1966. *Camelus Thomasi* from the Northern Sudan and its bearing on the relationship *C. Thomasi* - *C. Bactrianus*. *Journal of Paleontology* 40: 1368-1372.
- Gelb, I. J. et al. (eds.) 1956. *The Assyrian Dictionary*, vol. G. Chicago: Oriental Institute.
- 1960. *The Assyrian Dictionary*, vol. I-J. Chicago: Oriental Institute.
- Gitler, H. and Ponting, M. 2003. *The Silver Coinage of Septimius Severus and his Family (193-211 AD). A Study of the Chemical Composition of the Roman and Eastern Issues*. Milano: Edizioni Ennerre.
- Gommans, J. 2002. *Mughal Warfare: Indian Frontiers and High Roads to Empire 1500-1700*. London and New York: Routledge.
- Gordon, C. H. 1939. Western Asiatic Seals in the Walters Art Gallery. *Iraq* 6: 3-34.
- Grayson, A. K. 1976. *Assyrian Royal Inscriptions part 2: From Tiglath-Pileser I to Ashur-nasir-apli II*. Wiesbaden: Harrassowitz.
- 1996. *Assyrian Rulers of the Early First Millennium BC, II (858-745 BC)*. Toronto: University of Toronto Press.
- Henninger, J. 1948. Le sacrifice chez les Arabes. *Ethnos* 13: 1-16.
- Jüing, M. 1994. On Representations of Camels and Camel-Riders in the Rock Art of North Yemen. *East and West* 44: 231-248.
- Kessler, K. 1993-1997. Musri. P. 497 in D. E. Edzard (ed.), *Reallexikon der Assyriologie*, Vol. 8. Berlin/New York: de Gruyter.
- Kindler, A. 1983. *The Coinage of Bostra*. Warminster: Aris & Phillips.
- King, G. M. H. 1990. The Basalt Desert Rescue Survey and Some Preliminary Remarks on the Safaitic Inscriptions and Rock Drawings. *Proceedings of the Seminar for Arabian Studies* 20: 55-78.
- Knauf, E. A. 1988. Ein şafaitisches Felsbild vom Ġebel Qurma und die "Meder" in Bosra. *Damaszener Mitteilungen* 3: 77-82.
- Koenig, J. 1971. *Le site de Al-Jaw dans l'ancien pays de Madian*. Paris: Geuthner.
- Köhler-Rollefson, I. 1989. Zoological Analysis of Camel Skeletons. Pp. 142-165 in R. H. Smith and L. P. Day (eds.), *Pella of the Decapolis*, Vol. 2. The College of Wooster.
- 1993. Camels and Camel Pastoralism in Arabia. *Biblical Archaeologist* 56: 180-188.
- Legge, C. M. 1936. The Arabian and the Bactrian Camel. *Journal of the Manchester Geographical Society* 46: 21-48.
- Macdonald, M. C. A. 1979. Safaitic Inscriptions in the Amman Museum and other Collections I. *ADAJ* 23: 101-119.
- Macdonald, M. C. A., Al-Mu'azzin, M. and Nehmé, L. 1996. Les inscriptions safaitiques de Syrie, cent quatre ans après leur découverte. *CRAI*: 435-494.
- Marcus, M. I. 1987. Geography as an Organizing Principle in the Imperial Art of Shalmaneser III. *Iraq* 49: 77-90.
- Mason, I. L. 1984. Origins, Evolution and Distribution of Domestic Camels. Pp. 16-35 in W. Ross Cockrill (ed.), *The Camelid: An All-Purpose Animal*, vol. I. Uppsala: Scandinavian Institute of African Studies.
- Metcalf, W. E. 1975. The Tell Kalaf Hoard and Trajan's Arabian Mint. *Museum Notes, American Numismatic Society, New York* 20:39-108.
- Midant-Reynes, B. and Braunstein-Silvestre, F. 1977. Le chameaux en Égypte. *Orientalia* 46: 377-362.
- Müller, V. 1924. Die Petroglyphen von Demir-Kapu. *Zeitschrift für Ethnologie* 56: 176-179.
- Morales-Muñiz, A. Riquelme, J., and Von Letto-Vorbeck, C. 1995. Dromedaries in Antiquity: Iberia and beyond. *Antiquity* 69: 368-75.
- Negev, A. 1971. Notes on some Trajanic drachms from the Mampsis hoard. *Jahrbuch für Numismatik und Geldgeschichte* 21: 115-119.
- Pellat, C. 1971. Ibil. *Encyclopedia of Islam* 3 (Leiden: Brill): 665-668.
- Rathjens, C. 1955. *Sabaeica. Bericht über die archäologischen Ergebnisse seiner zweiten, dritten und vierten Reise nach Südarbien, I: Der Reisebericht*. Mitteilungen aus dem Museum für Völkerkunde in Hamburg XXIV.

- Reade, J. 1979. Hasanlu, Gilzanu, and Related Considerations. *AMI* 12: 175-181.
- Richier, O. 1997. Les thèmes militaires dans le monnayage de Trajan. *Latomus* 56: 594-613.
- Rostovtzeff, M. 1933. "Graffiti." Pp. 207-222 in P. V. C. Baur, M. Rostovtzeff, and A. R. Bellinger (eds.), *The Excavations at Dura-Europos, Preliminary Report of the Fourth Season*. New Haven: Yale University Press.
- Schmitt-Korte, K. and Cowell, M. R. 1989. Nabataean Coinage-Part I. The Silver Content Measured by X-Ray Fluorescence Analysis. *Numismatic Chronicle*: 33-58.
- Shaw, B. D. 1979. The Camel in Roman North Africa and the Sahara: history, biology, and human economy. *Bulletin de l'Institut Fondamental d'Afrique Noire* 41, série B, no. 4: 663-721 = *Environment and Society in Roman North Africa*. Brookfield: Ashgate 1995.
- Simoons, F. J. 1961. *Eat Not This Flesh*. Madison: University of Wisconsin Press.
- Spijkerman, A. 1978. *The Coins of the Decapolis and Provincia Arabia*. M. Piccirillo (ed.), *Studii Biblici Franciscani Collectio Maior* 25. Jerusalem: Franciscan Printing Press.
- Tadmor, H. 1961. Que and Musri. *IEJ* 11: 143-150.
- Tchernov, E. 1974. A Study of the Fauna from Sectors A-Q. Pp. 209-252 in Anati 1974.
- Uerpmann, H.-P. 1999. Camel and horse skeletons from protohistoric graves at Mleiha in the Emirate of Sharjah (U.A.E.). *Arabian Archaeology and Epigraphy* 10: 102-118.
- Von Luschan, F. 1922. Über Petroglyphen bei Assuan und bei Demir-Kapu. *Zeitschrift für Ethnologie* 54: 177-194.
- Von Soden, W. 1981. *Akkadisches Handwörterbuch*, vol. 3 (S-Z). Wiesbaden: Harrassowitz.
- Wäfler, M. 1975. *Nicht-Assyrer neuassyrischer Darstellungen*. Neukirchen-Vluyn: Butzon & Bercker Kevelaer.
- Walz, R. 1954. Neue Untersuchungen zum Domestikationsproblem der altweltlichen Cameliden: Beiträge zur ältesten Geschichte des zweihöckrigen Kamels. *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 29: 45-87.
- Wapnish, P. 1981. Camel Caravans and Camel Pastoralists at Tell Jemmeh. *Journal of Ancient Near Eastern Studies* 13: 101-121.
- 1984. The Dromedary and Bactrian Camel in Levantine Historical Settings: The Evidence from Tell Jemmeh. Pp. 171-200 in J. Clutton-Brock and C. Grigson (eds.), *Animals and Archaeology: 3. Early Herders and their Flocks*. Oxford: BAR International Series 202.
- Weder, M. 1977. Zu den Arabia-Drachmen Trajans. *Schweitzer Münzblätter* 107: 57-61.
- Wilson, R. T. 1984. *The Camel*. London and New York: Longman.
- Winnett, F. V. and Harding, G. L. 1978. *Inscriptions from Fifty Safaitic Cairns*. Near and Middle East Series 9. Toronto: University of Toronto.