

A Contribution to the Study of Nabataean Pottery

by
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Preface

This article was first published in German in *Archaeologischer Anzeiger* vol. 83 (1968) no. 3, page 496 - 519. The author was kindly invited by the Department of Antiquities to prepare an English version of it. The draft translation was submitted to Mr. P. J. Parr of the Institute of Archaeology, London, who was kind enough to read it and make a number of suggestions.

As the map (fig. 1) could not be altered the German spelling of geographic terms has been maintained. It has also been decided to retain the introductory chapter, although this is not essential for readers of this *Annual*. Only the catalogue of finds has been shortened, mainly with regard to the technical description of the pottery, for which the specialized reader is referred to the original publication. Otherwise, this article is a literal translation of the original version.

The author wishes to express his thanks to the Zentralkommission des Deutschen Archaeolo-

gischen Institutes in Berlin and to Messrs. Walter de Gruyter for permission to use the original illustrations.

Summary

As Nabataean pottery has up till now hardly been discussed in the German literature, it is first of all attempted to give a short introduction¹ concerning the historical and cultural background from which the pottery here described emerges. Furthermore, it tries to give a summary of what is known about this pottery at the present time.

The origin of these comparatively little-known neighbours of the ancient Jews is lost in the darkness of Arab pre-history. According to our present knowledge the nomadic Nabataeans moved into the southern part of Trans-Jordan somewhere between the 6th and 4th century B.C. Most probably this occurred in connection with tribal immigrations that made the Edomites move into southern Palestine after this area had been depopulated to a large extent as a result of the Babylonian captivity of

[For abbreviations used in this article, see table after fn. 37.]

(1) A particularly well arranged general survey of the Nabataeans is given by J. Starcky, "Pétra et la Nabatène", *Dictionnaire de la Bible*, Suppl.VII (1966), section 886-1017, A. Kammerer, *Pétra et la Nabatène*, 2 Vols. (1922/30) re-

presents a comprehensive secondary source and gives the complete picture of what was known about the Nabataeans at the time of its publication (with detailed bibliography). Of more recent date is M. Linder, *Die Könige von Petra* (Ludwigsburg, 1968) with colour photos.

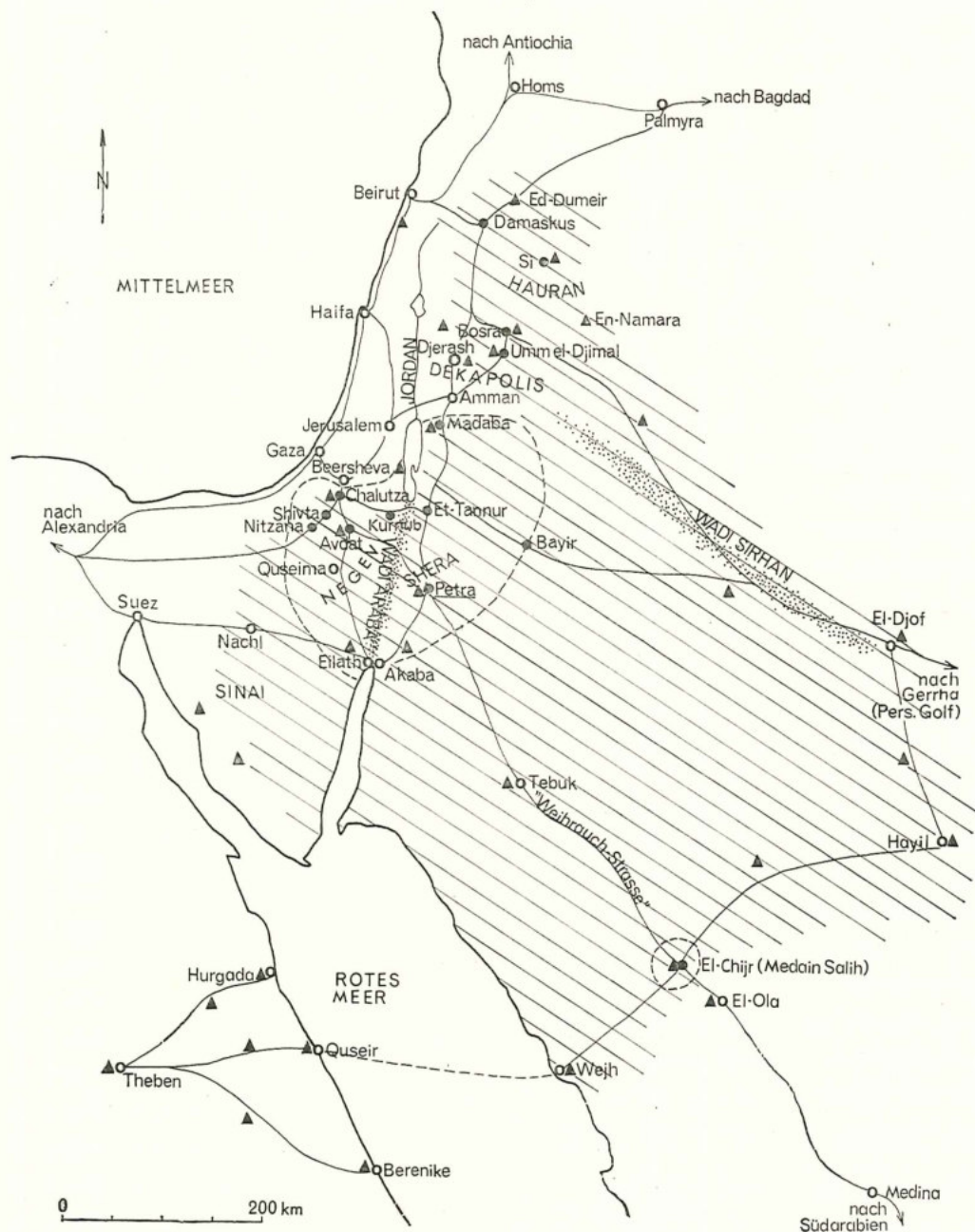


Fig. 1 The Nabataean kingdom at its largest extent and the distribution of the pottery

- important modern or ancient cities
- important sites and cities with clear evidence of Nabataean control (actual names)
- ▲ regions of occurrence of Nabataean inscriptions
- important ancient caravan trade routes
- /// the Nabataean kingdom in the days of Aretas IV (9 B. C. - 40 A. D.), approx. extension
- ... principal area of occurrence of fine Nabataean ware (occasional finds on other places disregarded). The broken line between Quseir and Wejh marks the sea route to Egypt.

the Jews. The first firm evidence of the Nabataeans' appearing in history are reports about the year 312 B. C. when Antigonas, the Diadoch of Syria, tried in vain to conquer their country.

The first document in which the Nabataeans speak directly to us is the inscription of Khalasa (Chalutza) from about 169 B. C. which mentions an "Aretas, king of the Nabataeans". From then onwards we can follow the dynasty of the kings till 106 A. D. although the chronology is uncertain at various points. It was through the control of caravans trade between Southern Arabia and the Mediterranean coast that the Nabataeans held for centuries a key position in the transit commerce of the Orient. The development of sophisticated irrigation techniques enabled them to pursue activities in agriculture to a very considerable extent. The capital of the kingdom was Petra where hundreds of sumptuous rock-carved tombs testify their wealth until the present day.

Apart from the central area in Trans-Jordan the Nabataean kingdom comprised a large part of the Negev with the Nabataean cities of Avdat (Oboda), Shivta (Sobata), and Nitzana (Nessana)² which were important stages on the way from Petra to Gaza. About 85 B. C. the Nabataeans gained dominance in Southern Syria over the Hauran region and the area of the cities Posra (Bostra), Si' (Seeia), and Umm el-Djimal (Thantia?).

This prevalence lasted (with interruptions) for about 200 years. Even Damascus was sub-

ject to the kings of Petra for a short time. However, they were not able to subdue the Hellenistic decapolis with the powerful cities of Amman (Philadelphia), Djerash (Gerasa), and Beth Shean (Skythopolis) as a result of which the connection with their northern part had to be made through the Wadi Sirhan. The southern boundary of the kingdom was El-Hijr (Hegra), also called Medain Salih, which lies half way in between Mekka and Damascus. In the valleys of Sinai and the region around Thebes numerous rock inscriptions testify the presence of the Nabataeans who passed this area with their caravans (map, fig. 1).

The Nabataeans, originally purely nomadic people, acquired the Greek civilization within an unusually short span of time under their king Aretas III (ca. 87 - 82 B. C.) who proudly called himself "Philhellene" on coins. It was through the expedition of Aelius Gallus to Southern Arabia (ca. 24 B. C.) that the Nabataeans came into direct contact with Rome. The peak of power in their history is marked by Aretas IV (9 B.C. - 40 A.D.) who was a father-in-law of Herod Antipas. But in the long run it was not possible to stay independent outside the Roman Empire and thus the Nabataean kingdom was annexed by order of Trajan in 106 A.D. and made the Roman province Arabia Petraea. This caused a gradual decline of the creative power identifiable with the Nabataeans. The last epigraphical mark in Nabataean letters is the inscription of en-Ne-mara dating from 328 A.D. At the time of the Islamic conquest the Nabataeans had already become an almost forgotten nation. Petra was

(2) The quotations in brackets are the ancient names recorded. In the literature often Arabic names are given supplementary to the geographic terms currently in use, e. g. Abde Eboda = Avdat; Khalasa = Chalutza; Subeita, Sbaita,

Isbeita = Shivta; el-Audja. Audja, el-Hafir = Nitzana; Bir es-Saba, Birsabee = Beersheva; Wadi Musa = Petra (Nabataean; Raqmu); Bosra eski Sham = Bosra; Beisan = Beth Shean.

not re-discovered until 1812 by the Swiss explorer Burckhardt.

Ancient sources mentioning the Nabataeans are primarily Flavius Josephus and in addition to this Diodorus Siculus, Strabo, Plinius, Eusebius of Caesarea, Suidas and the Bible. The scientific exploration of Nabataean culture began in the last decades of the past century. The first excavations in Petra were undertaken by Horsfield and Conway in 1929.

General Features of Nabataean Pottery

Nabataean pottery is technically and artistically a group on its own within the ceramic art of the Hellenistic-Roman Orient.³ In particular the painted plates and bowls are characteristic and can be clearly differentiated from other pottery of the same period. In the field of the large functional types (amphoras, craters and jugs) the Nabataeans produced a less typical ware. There are still difficulties in drawing a border line between the Roman-Hellenistic ware on the one hand and the Byzantine on the other as far as the unpainted pottery is concerned. A classification of the most common shapes has been submitted by Hammond.⁴ Within plates and bowls the following

types can be distinguished:

- a) plain pottery, unpainted
- b) plain pottery, painted, with and without surface polish
- c) rouletted pottery, unpainted

Geographical Distribution

Amongst the painted ware the colour of the patterns varies from pink to red-brown, dark-brown and black. Other colours do not occur. The patterns consist predominantly of stylized floral motives.

We owe our knowledge concerning the distribution of Nabataean pottery largely to the explorations made in 1932 - 1947 by N. Glueck, then Director of the American Schools of Oriental Research in Jerusalem.⁵ He concluded that the distribution of the pottery does not coincide with the political territory of the Nabataeans but is limited to the southern part. Northwards of a line which can be drawn from the northern end of the Dead Sea through Madaba to the desert the pottery only occurs as occasional finds. e. g. in Amman⁶ and Djerash where a few bowls or fragments respectively have been found. The ruined Nabataean cities of the Hauran yielded no surface finds of this ware (however the possibility of finds by future excavations cannot be precluded) It

(3) An outline of the Nabataean ware and its connection with Eastern Sigillata Wares in general is given by J. H. Iiffe, "Sigillata Wares in the Near East", *QDAP* VI (1938) p. 4-53. He points to some clearly traceable lines of influence upon the Nabataean pottery, namely for the painting: Hellenistic wares, especially Hadra Vases from Alexandria; for shapes and incised decoration: general features of Terra Sigillata in the Eastern Mediterranean area; for the technical execution: Parthian pottery.

(4) Hammond, *AJA*, LXVI (1962) p. 169-180. More extensively dealt with in the thesis P. C. Hammond, *A Study of Nabataean Pottery*

(Yale Univ., 1956). For a thorough study of Nabataean ware this work should not be omitted. The subsequent publications by Hammond (v. a. m. item and footnotes 23 & 25) are extracts from this dissertation.

(5) N. Glueck, "Explorations in Eastern Palestine I-IV," *AASOR* XIV (1934), XV (1935), XVIII/XIX (1939), XXV/XXVII (1951) as well as the smaller contribution by Glueck in *BASOR* cited therein. Cf. particularly Explorations I p. 73-76 & pl. 21, 25-27 and Explorations IV. 1 p. 13-18.

(6) G. L. Harding, "A Nabataean Tomb at Amman", *QDAP* XII (1946) p. 58-62.

is felt that the reason for this absence lies in pottery of local manufacture which the Nabataeans met in this colony and were prepared to use.

In the western part of the kingdom finds were made extending from the Nabataean pentapolis nearly to the coast at Gaza ⁷ and, further to the south-west, over the Negev desert to the Sinai peninsula where particularly the Quseima region yielded various places. According to B. Rothenberg Nabataean fragments are even met in the remotest parts of Sinai. ⁸ It remains, however, an open question whether the ware had actually been manufactured in the Sinai or was only carried there for use in cases. The southernmost point of occurrence in Jordan lies near Akaba. Glueck assumed in 1951 that Nabataean pottery would have spread to the southern point of the kingdom, el-Chijr. This has recently been confirmed by Parr and Reed ⁹ independently from each other. Thus it appears probable that the pottery spread over the southern area as a whole. The easternmost point of larger finds is marked by the desert oasis of Bayir.

To sum up: The distribution of the pottery is limited to the central area in South-

ern Transjordan and Palestine and extends — apart from the question of its very southern limit — approximately over the region of a quadrangle marked by Madaba, Bayir, Aqaba and Quseima. Eastwards of the Wadi Araba regular finds occur on more than 500 sites, whereas in the west several dozen sites were found. The principal place of finds remains Petra itself (map, fig. 1). The manufacturing centres of the Nabataean ware are not yet clearly recognizable. After the first discovery of a Nabataean potter's workshop in Avatd one may safely assume further discoveries, particularly in Petra.

Chronology of the Pottery

The Nabataean pottery was first brought to light by Horsfield and Conway during their excavations in Petra in 1929 ¹⁰, was then recognized as a group on its own and subsequently identified as Nabataean. The only earlier illustrations known to the present author were by Dalman in 1912 ¹¹ as a result of surface finds, but he paid little attention to the subject. More extensive finds were made in 1932-36 by G. Horsfield and in 1937 by Murray and Ellis. Both published ¹², ¹³ and represent the most comprehensive material for the study of this pottery at present.

(7) J. H. Iliffe, "Nabataean Pottery from the Negev", *QDAP* III (1933) p. 132-135 & pl. 45-48 reports finds of Nabataean pottery from el Audja (Nitzana), el Khalasa (Chalutza), Kurnub, Tell es Sabi (near Beer Sheva), Tell el Ajul (near Gaza) and Tell Faria (in between Beer Sheva and Khan Yunis). He points out that the pottery steadily decreases in quantity with approach to Gaza, the terminus of the great caravan route from Petra to the Mediterranean Sea.

(8) B. Rothenberg, *Die Wueste Gottes - Entdeckungen auf Sinai* (1961) p. 37, 39, 56, 78, 129, 133, 155, 162 & fig. 88. (English edition *God's Wilderness Discoveries in Sinai*, 1961, not available for citation).

(9) Personal resp. letter communication in

Nov. 1967.

(10) G. Horsfield - A. Conway, "Historical and Topographical Notes on Edom with an Account of the First Excavations at Petra", *The Geogr. Journal* LXXVI (1930) p. 369-390. A. Conway "Exploring a City of Mystery", *ILN* (Feb. 1, 1930) p. 160, 161 & 192.

(11) G. Dalman, *Neue Petraforschungen* (1912) p. 27-28, particularly fig. 15b.

(12) G. A. Horsfield, "Sela-Petra, the Rock of Edom and Nabatene," *QDAP* IX, 2/4 (1941) p. 105-204, fig. 1-55, pl. 5a-49b. Henceforth cited as 'Horsfield'.

(13) M. A. Murray - J. C. Ellis, *A Street in Petra* (1940), henceforth cited as 'Murray'.

Horsfield assigns tentative dates ranging from 1st century B. C. to 2nd century A. D. to most of the finds, however, this datation appears not sufficiently detailed. In contrast, Murray avoids dating most of her finds.

Although the painted ware is so distinctive in its pattern range that in many cases even small isolated sherds can be safely identified as Nabataean a precise chronology and a detailed development have not yet been expected in due course.

Since 1958 excavations in Petra have been in progress by P. J. Parr of the British School of Archaeology, Jerusalem, among other things with the decided purpose to work out a chronology of Nabataean pottery.

These excavations recovered much new material about which a certain amount of information is already available from preliminary publications.¹⁴ It is to be hoped that a detailed chronology will follow before long.¹⁵

The Hebrew University, Jerusalem, started in the same year excavations in the Nabataean town of Avdat¹⁶ which yielded further im-

portant pottery finds and the only Nabataean potter's workshop discovered so far. The evidence concerning the pottery which has been prepared by A. Negev is most regrettably still unpublished. It is to be expected that a chronology will also be derived from this material. A quantity of prepared clay was found in the potter's workshop but hardly any actual vessels. Coins, oil lamps and imported Terra Sigillata prove that the potters were active over a period of about 150 years (30 - 40 B. C. to ca. 110 A. D.).¹⁷ Imported Gaulish ware, which apparently was resold by the potters, dates to between 20 and 50 A. D.¹⁸

The existence of the classical Nabataean ware until at least 72 A. D. is attested by finds at Masada¹⁹ where large quantities of sherds were recovered from the top of the fortress and the area below the hill. This furnished us a *terminus ante quem* for that site. In Kurnub a bowl with classical design was found in a tomb which could be dated to 44 A. D. by a Nabataean coin of Malichus II.²⁰ The latest example of this particular pattern which can be dated with any degree of certainty is put between 119 and 126 A. D.²¹ The evidence from Petra so far studied permits — according to Parr and Ben-

(14) Harding, *PEQ* (1958) p. 12-15; Parr, *PEQ* (1960) p. 124-135; Bennett, *Archaeology* XV (1962) p. 233-243; Parr, *ILN* (Nov. 10, 1962) p. 746-749 & (Nov. 17, 1962) p. 789-791; Parr, *Scientific American* CCIX (1963) p. 94-102; N. Glueck, *Deities and Dolphins* (1965) pl. 76; Parr in *Le Rayonnement des Civilisations Grécque et Romaine sur les Cultures Périphériques* (=8e Congr. Int. d'Arch. Classique, Paris, 1965) p. 527-533 & pl. 131-132.

(15) A detailed study of part of the evidence will appear in a paper by Parr contributed to the forthcoming (1970) *Nelson Glueck Festschrift*.

(16) Preliminary reports: Avi-Yonah, *RB* LXVII (1960) p. 378-381; Avi-Yonah — Negev, *ILN* (Nov. 26, 1960) p. 944-947; A. Negev, *Avdat* (booklet no. 45, Educat. Div. of the Isr. Army,

1962, in Hebr.); Negev, *Archaeology* XIV (1961) p. 122-130 (with photo of the potter's workshop); Negev, *Bible et Terre Sainte* XL (1961) p. 4-12 (also with photo of the potter's workshop); Negev, *IEJ* XI (1961) p. 127-138; Negev, *IEJ* XIII (1963) p. 113-124; Negev, in *Safer Eilath* (Isr. Expl. Soc., 1963), p. 118-148 (in Hebr.); Negev, *IEJ* XV (1965) p. 185-194; A. Negev, *Cities of the Desert* (1966). See also Negev, *PEQ* CI (1969) p. 5-14 (with further citations). This latter article was not yet published when these lines have been written.

(17) Negev, *Archaeology* XIV (1961) p. 124.

(18) Personal communication of May 1966.

(19) Y. Yadin, *Masada - Herod's Fortress and the Zealot's Last Stand* (1967) p. 225.

(20) Negev, *IEJ* XVII (1967) p. 48 & pl. 11 d.

(21) Murray p. 21, section 10.

nett — the following conclusions to be drawn concerning the chronological development of the pottery ²²:

Throughout the 3rd and 2nd century B. C. occurs imported black-glazed ware. There seems to be no evidence for a locally made imitation of the imports. In the 1st century B. C. the Nabataean painted pottery appears quite abruptly, an extremely fine ware which is perhaps more peculiar to its originators than the famous sepulchral rock architecture. The pottery is almost invariably found associated with Eastern Sigillata A. The evidence from other sites is that the latter was introduced in Palestine during the second quarter of the 1st century B. C. It was obviously the Hellenistic painted ware with its greatest popularity in the 2nd century that inspired the Nabataeans. They continued the tradition of the Hellenistic wares at a time when this gave way to Roman Terra Sigillata or to plain wares. It is now possible (according to Parr) to distinguish clearly three phases within the painted ware: ²³

Phase I begins during the 1st century B. C. and the shapes of the vessels — shallow bowls for the most part — recall contemporary Hellenistic pottery. The decoration, however, is

something new. The floral and leaf pattern were applied in a light red-brown paint to the pink surface of the clay and are of the greatest delicacy.

Phase II covers most of the 1st century A. D. and part of the 2nd. The design becomes less naturalistic and more stylized, the paint tends to be darker and the pottery itself is thinner.

Phase III probably belongs to the 3rd century or even later. The decoration is even more conventionalized, the now almost black paint is applied on a generally coarser ware.

Throughout all this time shallow bowls and plates continue to be the commonest painted shapes, though cups and juglets are also found.

Characteristic Groups of Pattern

Here three especially typical groups of patterns from the more stylized painted ware ²⁴ are described without intention to submit a classification, be it chronologically or artistically ²⁵:

Palmettes: The most significant and apparently largest group comprises designs of pal-

(22) Bennett, *Archaeology* XV (1962) p. 240-241; Parr, *Scientific American* (Oct., 1963) p. 100-102; Parr, *Le Rayonnement* etc (loc. cit.) p. 530-533.

(23) In this period plates and bowls up to 2 cm thickness occur which exhibit a remarkable monotony in the pattern range. The equally fine unpainted pottery cannot be included into this preliminary chronology and the different hues of the clay does not provide sufficient evidence for a separate classification based on the colour variation of this ceramic. P. C. Hammond, "The Physical Nature of Nabataean Pottery", *AJA* LXVIII (1964) p. 259-268 reports on laboratory experiments which revealed that the unpainted ware was originally fired at 725-775°C. The painted pottery was generally burnt at 800°C and remained therefore resistant against colour

changes during firing experiments at this temperature. Hammond concludes furthermore that the colour variations in the red-tan clay were the results of firing errors, not aesthetics. They were probably the direct result of firing which could have been brought into uniformity (i. e. a 'red' ware) with more uniformity in firing as related to clay make-up.

(24) The stylized group was apparently preceded by a period of very naturalistic floral patterns, cf. Parr, *ILN* (Nov. 17, 1962) p. 790 fig. 10 & p. 791 fig. 17 or Glueck, *Deities and Dolphins* (1965) pl. 76 a-b.

(25) For an attempt of a pattern classification cf. P. C. Hammond, "Pattern Families in Nabataean Painted Ware", *AJA* LXIII (1959) p. 371-382. Unfortunately the various patterns were dissected into such minute detail that the under-

mettes mainly with various other motives in between. Some sort of standard design is given by a palmette next to a double-cone and grape, usually in a triple arrangement at angles of 120 deg. on shallow bowls. The first reconstruction of this type was given by Crowfoot ²⁶ in 1936. Fragments of this type can be found on practically every site which yields Nabataean pottery and are a clear means of identification for this period of historical settlement.

Trellis with eyes : Another typical pattern shows a network as a decorative element of geometrical origin together with dots and circles or ovals interconnected like a pearl necklace encircling further dots ("peacock - butterflies"). ²⁷ These pattern elements occur alone or as some sort of frame housing different central motives.

Radial decorations : A third group depicts more or less stylized floral patterns — preferentially in a rotatory or a radial arrangement — comprising only a few different motives on each vessel. This group exhibits the greatest individuality in the painting.

Examples of these 3 groups from the present collection are:

Palmettes : Especially no. 37, also nos. 4 - 9, 12 - 14, 21, 22, 27 - 29 and 46 - 50.

Trellis with eyes : no. 38 is a masterpiece of this type, also nos. 10, 11, 51 and 52.

Radial patterns : particularly no. 36 as well as nos. 19, 26, 32, 35, 53 and 54.

Further examples can be seen in the Table of Comparisons. A number of most charming radial patterns are given in reconstructions by Horsfield (pl. 5 a, 49 a, and figs. 31 - 33, 42 - 50).

It is very noticeable that until now hardly any intermediates of the pattern groups have been found which would illustrate the development of some particular motives. Animal representations are extremely rare and until now only one undisputable specimen ²⁸ has been recovered. Inscribed pottery also is recorded in only one case. ²⁹

We owe some most instructive remarks to Murray and Ellis concerning the utilization of painted Nabataean pottery. ³⁰

In 1940 the authors pointed to the striking feature that in general the painted vessels lack a ring-base. Painted vessels are broken into fragments in almost every case ³¹ and sherds thereof occur in great quantities specially in the neighbourhood of Holy Places where the relevant levels have a depth of several feet. In contrast to this, unpainted pottery mostly has a ring-base. Although this ware is as fine as the painted variety completely preserved specimens, particularly cups, were found in a number of cases.

From these observations Murray concluded that the unpainted ware was intended for daily use whereas the painted ware was reserved for

standing of the pattern arrangement as a whole is largely lost.

(26) Crowfoot, *PEQ* LXVIII (1936) pl. 1.

(27) 'Peacock - eyes' is used here as a merely descriptive term.

(28) Murray, pls. 34 & 35.

(29) Crowfoot, *loc. cit.* p. 20 & pl. 20, no. 2. Apart from this a few Nabataean ostraca were found at Petra, cf. Harding, *PEQ* (1958) p. 14 - 15.

(30) Murray p. 2, 15 & 21.

(31) It is very rare that the fragments of more than half a vessel can be recovered. Until now only 2 entirely undamaged small painted Nabataean bowls are known: Horsfield no. 153 and another vessel of the same shape depicting two palmettes facing each other which is in French possession. With regard to the occurrence of ring-bases it should be noted that Horsfield made an error in the description of the unbroken piece. It actually does not have a ring-base as an examination in Cambridge revealed.

religious ceremonies and was possibly broken on purpose to prevent reuse after having been taken for offerings.

It is noticeable that out of the 26 examples repaired out of fragments to more than half of the original size 5 examples do belong to the palmette type with double-cone and grapes (2 further specimens are bowls with triple-cones besides a long palmette in the centre). The motive on these pieces, which seems to represent some sort of standard pattern within the painted Nabataean pottery, is almost identical in these 5 cases, the double-cones representing an apparent rotatory motion which is always counter-clockwise. None of the remaining 19 pieces has a pattern which is similar to another. It must be mentioned that this standard pattern until now was found exclusively on bowls of the same shape without ring-base which supports the idea that it served one particular purpose. As a result of the frequency of pottery finds from this pattern group a longer tradition has to be postulated. And eventually it may be recalled that it was a bowl of this pattern which was unearthed some time ago in Kurnub in one of the very few unrifled Nabataean tombs discovered so far. Perhaps this type represents the Nabataean bowl of worship *par excellence*.

Catalogue of Finds

In default of a detailed chronology it is not possible to assign proper dates to the finds here described. For sake of completeness similarities with pieces already published are given in a Table of Comparison. Unless otherwise stated the clay of the pottery is brick-red.

The black core reported for a number of fragments is a result of underfiring.³² All specimens here listed originate from Petra.

(32) There are 12 sherds with grey to black core amongst the nos. 1-36 (except 25 and 34)

(The author wishes to point out again that the technical description of the finds is given in more detail in the German version of this article to which the specialist is referred for study.)

Fragments (Figs. 2 - 4)

1 - 3 Unpainted rim sherds coming from plates which originally had a diameter of ca. 22 cm 26.5 + (or -) 1 cm and 16 + (or -) 1 cm resp.

4 - 9 Painted sherds with palmette design, pattern dark brown.

10 - 11 Painted sherds of the "eye" pattern with dots and network, design red-brown.

12 Painted sherd with edges of palmettes and remains of a circle and an oval. Between the round ornaments a straight line is painted. Design medium red-brown. The rear shows 2 clear wheel marks of 100 + (or -) 10 and 125 + (or -) 5 mm. The segments of the round objects are sufficiently characteristic to allow a reconstruction of the bowl. (Fig. 4). The palmette indicates the outer diameter of the bowl. The distance from the centre is given by the wheel marks. It was found that the straight line running obliquely across the hatching gives precisely a square within the outer diameter of the vessel. The rare quadruple pattern arrangement (cf. Horsfield fig. 23) was only recognized as a result of this line, and without it a reconstruction as triple arrangement would have been equally possible. The one round design is most probably an actual circle, whereas the other is clearly of oval shape. The latter is reconstructed in accordance with Horsfield (fig. 24, pl. 34) as a "tear" which is a typical oriental element of decoration until the present day. Cf. also Horsfield no. 298 (fig. 28, pl. 37) and no. 295 (fig. 22, pl. 33).

and 46-55, i. e. 26%.

13 - 19 Painted sherds of various patterns, design medium to dark red brown. no. 19 pattern in blood-red colour.

20 Painted rim, design on the upper side of the rim and on the outer side (dark-brown), coming from a cup of originally 6.5 cm diameter and *ca.* 5 cm depth.

21 - 32 Painted sherds of various patterns in red-brown to dark-brown colour. No. 25 has a simple band decoration different from all other patterns. This is most probably not a Nabataean sherd.

33 Ring base of unpainted cup or bowl of originally *ca.* 10 cm diameter and 6 cm height (estimated).

Plates, Bowls

34 Unpainted small bowl with ring base, 6.7 - 6.9 cm diameter, of crude workmanship with two surface faults showing white grits. Fig. 10.

35 Painted small bowl or cup without rings base with pattern of strokes, 8.0 cm diameter, 3.2 cm depth, pattern dark red-brown. Fig 5 & 6.

36 Painted small bowl without ring base with vortex ornament resembling oleander blossoms. Diameter 10.2 cm, depth 2.0 cm, pattern bright red-brown. Fig. 5 & 6.

37 Painted bowl without ring base, pattern of palmettes, double cones and grapes in blackish brown. On the outer surface remains of a surface polish. Yellowish-white coating on the outer side of rim. Diameter 7.4 cm, depth 4.5 cm, thickness *ca.* 3 mm. Fig. 7 & 8.

38 Painted kylix with two handles (without ring base). Asymmetric pattern consisting of a trellis with "peacock eyes", dots and disks. Central motif "pomegranate" and "ear". Design in medium to dark red-brown, 15.2 cm diameter, 4.3 cm depth, with cylindrical edge, left handle restored. Fig. 8 & 9.

Cups, Jugs

39 Unpainted conical cup with ring base and a broad flat rim. Diameter (including rim) 9.0 cm, depth 5.6 Fig. 10.

40 Unpainted unguentarium with grooved decoration, conical bottom without ring-base (not visible due to a ring support in the photo). Diameter 3.2 cm, original height 8 - 10 (estimated). Fig. 10.

41 Unpainted small jug consisting of two independent fragments apparently put together in modern times, lower part with remain of a handle and with ring-base. Diameter 4.85 cm height 14 cm, Fig. 10.

Oil Lamps

42 Oil lamp without handle with a pattern of 4 small circles, 10 dots and radiant strokes. Very similar to one published by Horsfield, though somewhat smaller and from clay of ocre colour. According to Horsfield Nabataean from the 1st cent. A. D. Fig. 11 left.

43 Oil lamp with two handles and a sevenfold pattern like a heart, apparently from the same mould as an oil lamp published by Horsfield. Ocre clay. According to Horsfield Nabataean, later than first half of 1st cent. A. D. Fig. 11 right.

Figurines

44 Head of camel figurine (hollow), clay brick red. In contrast to a similar published piece (see Table of Comparison) the harness does not extend below the jaw. Fig. 12.

45 Camel figurine, completely preserved, broken at the neck. Brownish clay, crude work, hollow. Head without detail contours, eyes and ears not being expressed. Head distinctly inclined, legs closed, with hole pierced for bridle at the mouth.

Additional Fragments (Fig. 12)

46 - 55 Painted sherds of various patterns in

medium to dark red-brown. Nos. 46 - 48 come from a bowl of originally 24.5 cm diameter. Fig. 14 shows a reconstruction of the arrangement. It appears that a fragment found at Bayir (see Table of Comparison) should be similarly restored.

Comparison with Published Pottery

According to the inquiries made by the author it appears that no Nabataean pottery is to be found in museums of Eastern or Western Germany.³³

Collections are held by the museums of Amman, Petra, Jerusalem (Palestine Archaeological Museum, as well as Israel Museum), in several museums of the U.S.A. and in particular in England. Horsfield's finds are in Cambridge and the British share of the excavations by Parr will be distributed to several university and other museums of the United Kingdom. Neither the British Museum nor the Louvre has any Nabataean pottery. The Association Bible et Terre Sainte in Paris possesses a small collection which apparently will be published sometime.

As a result of this situation it is only possible to compare the pieces here under discussion with material that is already published. As already mentioned, the most comprehensive catalogues of Nabataean pottery are those of Horsfield¹² and Murray¹³. Glueck³⁴ has recently illustrated a number of selected pieces,

however, without detailed discussion.

This comparison refers first of all to the painting, unless otherwise stated. Only the more completely preserved specimens and the rims enable statements to be made about shape, profile etc.

Since this translation was prepared an exhibition on the pottery and culture of the Nabataeans has been organized in W. Germany by the Prähistorische Staatssammlung München and the Naturhistorische Gesellschaft Nürnberg in cooperation with the author. The exhibits included material from British excavations in Petra and from the Jerusalem Museum. They were on display between July and December 1970 in Munich and Nuremberg respectively and two publications were released:

'Die Nabatäer — Ein vergessenes Volk am Toten Meer' Herausg. H. - J. Kellner, Kataloge der Prähistorischen Staatssammlung München, No. 13 (Munich 1970).

'Petra und das Königreich der Nabatäer' Herausg. M. Lindner, Abhandlungen der Naturhistorischen Gesellschaft Nürnberg, Bd. 35 (Nuremberg 1970).

The former represents the exhibition catalogue whereas the latter is an illustrated textbook, both containing contributions about various aspects of Nabataean archaeology including a typological study of the painted pottery by the present author.

Karl Schmitt-Korte, M.D.

(33) The Naturhistorische Gesellschaft at Nuremberg (Germany) has very recently prepared the display of a study collection of Nabataean

pottery.

(34) N. Glueck, *Deities and Dolphins* (1965) pl. 73-82.

Table of Comparisons

Specimen No.	Horsfield	Murray	Glueck ³⁵
1		no equivalent found	
2		no equivalent found	
3		no equivalent found	
4	No. 299	—	—
5	No. 300	pl. 25, no. 4	pl. 79, no. 3
6	Nos. 295, 299	pl. 25, no. 4	pl. 79, nos. 2,3
7	No. 300	—	—
8	No. 300	pl. 25, no. 4	pl. 79, no. 3
9		no equivalent found	
10	Nos. 334, 342	pl. 13, no. 69	pl. 80, nos. 8, 16
11	No. 334 shape as Nos. 328, 331	pl. 13, no. 71	—
12	No. 295 and pl. 34	pl. 34	—
13	Nos. 175, 295	—	pl. 79, no. 5
14	No. 295 and pl. 34	pl. 34	—
15	No. 296	pl. 12, no. 24	—
16	No. 341	pl. 12, no. 10a pl. 25, no. 3; pl. 34 (below the pigeon)	—
17	Nos. 312, 346	—	—
18	No. 303b	—	pl. 77b; pl. 80, no. 19
19	Nos. 353 a, b; 361	pl. 13, nos. 40, 52	pl. 80, no. 1
20	No. 330	shape as pl. 29, no. 99	—
21	Nos. 298, 309b	pl. 34	pl. 73a, pl. 79, no. 10
22	No. 302	—	pl. 75a, b
23	No. 329	—	—
24	No. 329	—	—
25	No. 477	—	—
26	No. 327	—	—
27	Nos. 300, 303a	pl. 12, no. 10a	—
28	No. 299	pl. 25, no. 4	pl. 79, nos. 2,3
29	No. 299	pl. 25, no. 4	pl. 79, no. 2
30	No. 297	—	—
31	No. 297	—	—
32	Nos. 352, 356, 357, 367	pl. 13, no. 35	pl. 80, no. 9
33	—	pl. 29, no. 90	—

(35) The original publication does not give a numerical sequence to the sherds. The nos.

here applied correspond to the arrangement of the fragments on the picture plates.

34	—	pl. 31, no. 119 pl. 27, no. 62	pl. 78 b, no. 3
35		no equivalent found	
36	Shape: No. 335 (Fig. 51 no. 4) rim profile: No. 153	pl. 13, no. 39	—
37 ³⁶	Pattern: Nos. 300, 303a shape: No. 335 (Fig. 51, no. 4) rim profile: No. 329	pl. 12, no. 10 a pl. 28, no. 68	—
38	Nos. 333 - 338, 325 Handle: No. 342 wheel mark on reverse side: No. 391	pl. 27, no. 45	pl. 76, no. 4 pl. 77 a, c
39 ³⁷	Nos. 318 b, 385 (Fig. 52, no. 2)	—	—
40	No. 173	pl. 9, no. 51 pl. 27, no. 55	—
41	—	—	pl. 78 c
42	No. 42	pl. 36, no. 15	—
43	No. 162	pl. 36, no. 17	—
44	Nos. 54, 448	—	—
45	(No. 166); No. 109	—	—
46 - 48 ¹⁹	No. 295, 296 pl. 34 Fig. 26 pl. 36 (Bayir)	pl. 12, no. 17 pl. 34 pl. 34	pl. 74 b, c pl. 79, no. 3
49	No. 295 pl. 34		—
50	No. 295	—	—
51 - 52	Nos. 334, 342	pl. 13, no. 44 pl. 13, no. 69	pl. 80, nos. 16, 17
53	Nos. 315, 332	pl. 12, no. 3 pl. 12, no. 4	pl. 80, no. 19 Pattern arrangement: pl. 77b
54	Nos. 308, 327	pl. 13, no. 48	—
55	No. 308	pl. 12, no. 28	pl. 79, no. 11

(36) Cf. W. L. Reed, *AASOR XXXVI/XXXVII* (1964) pl. 55; G. L. Harding, *The Antiquities of Jordan* (1959) pl. 18; Negev, *IEJ XVII* (1967) pl. 11 d. The shape and execution of this vessel do not have similarities with Hellenistic wares; however parallels occur in Parthian pottery, i. e. N. C. Debevoise, *Parthian Pottery from Seleucia on the Tigris* (1934) p. 17 fig. 3 nos. 42 - 43 &

fig. 3 - 4.

(37) Cf. Bennett, *Archaeology XV* (1962) p. 241 fig. G. This shape similar to Dragendorff Form 46 and its variants, cf. F. Oswald - T. D. Pryce, *An Introduction to the Study of Terra Sigillata* (1920) pl. 55, nos. 22 & 25. Similar shapes occur in the Terra Sigillata Chiara.

Table of Abbreviations

In this article the following abbreviations are used.

AASOR = Annual of the American Schools of Oriental Research

BASOR = Bulletin of the American Schools of Oriental Research

AJA = American Journal of Archae-

ology
IEJ = Israel Exploration Journal
ILN = Illustrated London News
PEQ = Palestine Exploration Quarterly
QDAP = Quarterly of the Department of Antiquities in Palestine
RB = Revue Biblique

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