EXCAVATIONS IN THE 14TH CENTURY A.D. MAMLUK PALACE AT KERAK

by Robin M. Brown

Introduction

As part of a broader archaeological study of southern Transjordan during the Late Islamic periods (Ayyubid 1174-1263, Mamluk 1263-1516, Ottoman 1516-1918), a brief excavation was conducted at Kerak Castle in June 1987. It has long been recognized that the ruins of the gal'a (castle) at Kerak (Figs. 1-2) include major constructions that can be attributed to the Ayyubid-Mamluk period in addition to the remains of the original Crusader fortress. The first systematic attempt to distinguish the Crusader and Ayyubid-Mamluk architectural features of the qal'a was carried out by Deschamps in 1929. Deschamps identified, in addition to numerous restorations of the 'Arab' period, some of the most significant Late Islamic components of the fortress, including the lower court or bailey and the massive donion that flanks the southern end of the upper court (1939). Among the features that Deschamps assigned to the Crusader occupation is a complex located in the upper court between the Crusader church and the donjon, which he described as a logis or the private apartments of the Frankish seigneur of Kerak (1939: 88). In reevaluating Deschamps' observations it is clear that this complex (Fig. 2: 6) reflects the plan of an Islamic palace (T. Allen, C.H. Brooker) and as such it represents the most significant aspect of civil architecture within the Late Islamic qal'a. As a result of the 1987 investigation this complex can be dated specifically to the Mamluk period and thus, it now stands as the only known Mamluk palace in Transiordan.

The immediate objective of the oneweek excavation in Kerak was to sample Late Islamic occupation sequences for comparative purposes. The Palace Complex, initially examined and identified by architect C.H. Brooker, was selected for excavation in the hope of obtaining data with which to determine whether it was an Ayyubid or Mamluk construction. As the objectives of the project were met during excavation of a single trench, the investigation was not expanded to include additional archaeological units, though it is hoped that further excavations will be carried out in the future.

I am indebted to Dr. Adnan Hadidi. former Director-General of the Department of Antiquities for his approval for this project. I also wish to thank Dr. Ghazi Bisheh, then Assistant Director of the Department of Antiquities, Mr. Nabil Beqa'in, the Department of Antiquities inspector for the Kerak office, and Dr. David McCreery, former Director of the American Center of Oriental Research for their kind support and advice. Several other scholars contributed their expertise and assistance and I extend my appreciation to: Terry Allen (architectural historian), Khairieh 'Amr (pottery sections), John Betlyon (numismatics), Colin Brooker (architect), Mark Campbell (draftsman), Patricia Crawford (mollusk analysis), Ruba Kanaan (architect), Frank Koucky (geologist), Jonathan Mabry (topographic map), and Kevin Rielly (faunal analysis). The project was conducted by the writer and two hired laborers from Kerak.

SUMMARY HISTORY OF KERAK CASTLE DURING THE LATE ISLAMIC PERIODS

A detailed account of the long and varied history of the *qal'a* lies beyond the scope of this preliminary report. However, a brief introduction may be useful in evaluating the relationship between historical events and trends, and the pattern of deposition. In A.D. 1142 Pagen the Butler,

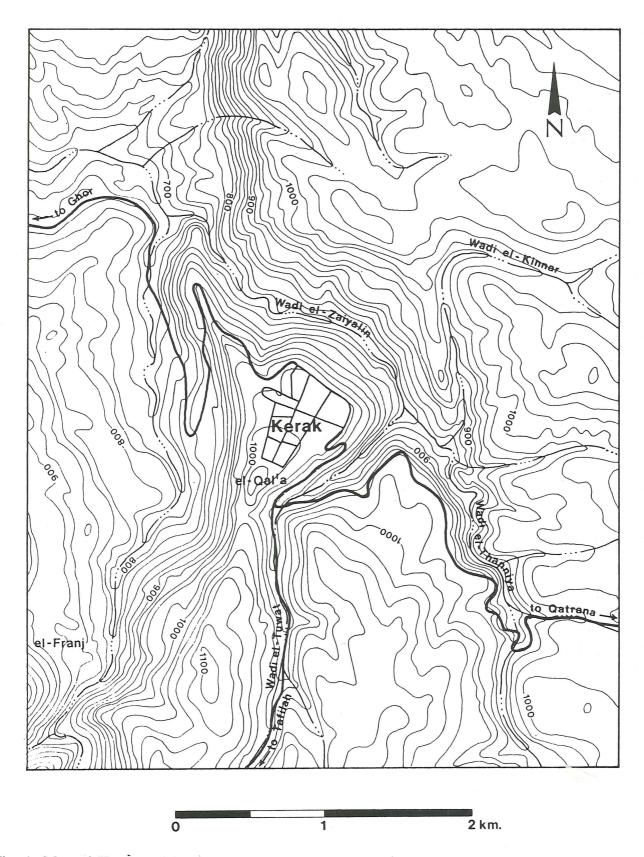


Fig. 1. Map of Kerak and its vicinity.

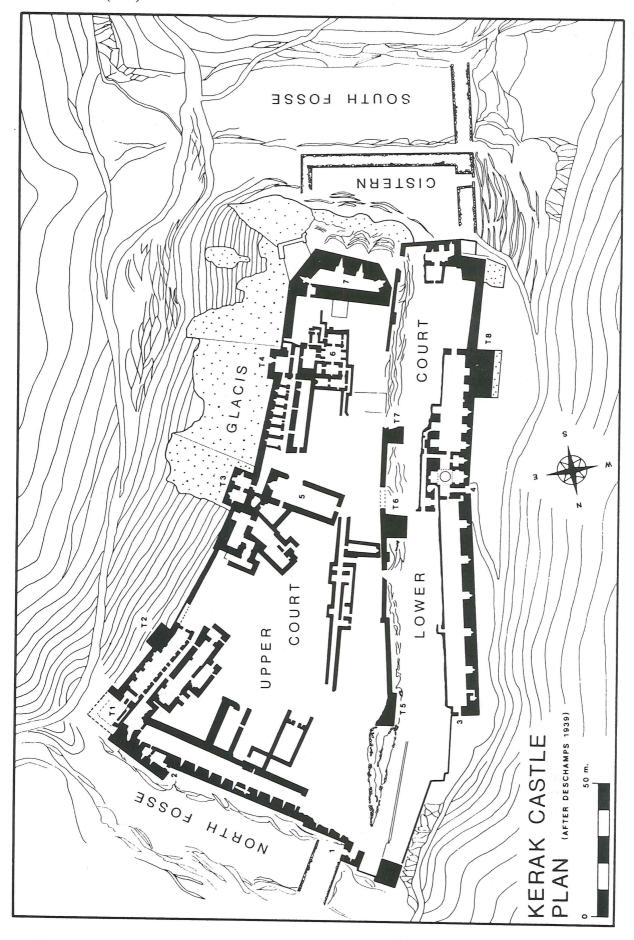


Fig. 2. Key: T1-8 = Towers; 1 = Entrance; 2-4 = Gates; 5 = Crusader Church; 6 = Palace Reception Hall; 7 = Donjon.

seigneur of the Oultre-Jourdain province of the Latin Kingdom of Jerusalem, received permission from King Fulk to begin construction of a new Crusader stronghold that was to take the name of Crac or Crac de Montreal. Despite tremendous investments and energies devoted to the construction of the immense walls of the castle and the central role of this site in the administration and defense of Oultre-Jourdain, Crac was destined to serve only a very brief interlude in the history of the Frankish colonization of the Levant. The capitulation of Crac to Salah al-Din's forces in 1188 marks the beginning of seven centuries of Late Islamic history in Kerak. Throughout this period, Kerak served as the administrative and economic center of its district.

As an Ayyubid principality, Kerak was ruled by a succession of princes, several of whom were responsible for constructions at Kerak Castle. Al-'Adil (1192) 'improved' the fortress (Beha' al-Din, cited in Deschamps 1939: 75); al-Mu'azzam 'Isa rebuilt the towers of the citadel after the 1211 earthquake (Ghawanmah 1979: 211 ff.); al-Nasir Da'ud 'fortified' Kerak (Magrizi, cited in Deschamps 1939: 77); and al-Mugith 'Umar repaired damages following the 1261 earthquake (Ghawanmah 1979: 211 ff.). Aside from these efforts to sustain the defenses of the Ayyubid fortress, additional constructions were also undertaken. Most notably, al-Nasir Da'ud built a Dar al-Saltana or 'residence of authority' within the fortress, which later served as the residence for following governors (Ghawanmah 1979: 211 ff.).

Mamluk records of constructions at Kerak also focus largely on the defenses of the city and town, which suffered heavily from periodic earthquakes. Sultan al-Zahir Rukn al-Din Baybars (Baybars I) carried out a refortification campaign at Kerak in 1264 and included among his works Burj al-Zahir and Burj al-Banawy (Deschamps 1939: 96), towers which were linked to the defenses of the walled city of Kerak adjacent to the *qal'a*. The fortifications of the town and castle were subsequently

damaged by tremors in 1293, 1302, and 1458 as well as during Sulṭan Isma'il Ṣaliḥ's assault on his brother al-Nasir Aḥmad, the ruler of Kerak, events that resulted in a series of reconstruction programs (Ghawanmah 1979: 211 ff.).

With respect to civil architecture, the most concentrated period of Mamluk public works constructions at Kerak occurred during the reign of Sultan al-Nasir Muhammad, who in 1311 embellished the town by providing institutions characteristic of the sophisticated urban centers of the period, including a palace, mosque, bath, school, khan, hospital, and public park (al-'Asqalani 1348-50: 317). While it can be assumed that most of these facilities were located in the city of Kerak, the palace was most certainly constructed within the fortress.

The Palace Reception Hall

The Palace Complex lies on the subterranean level of the upper courtyard (Fig. 2: 6). Presently, a staircase south of the Crusader church leads directly into the corridor that skirted the Palace Reception Hall (Fig. 3) along its west and south sides. This corridor was later blocked by masonry and earthen fill rendering most of it inaccessible. Two entrances lead from the corridor to rooms flanking the Reception Hall. In the center of the hall is the courtyard joined to the north and south by barrel vaulted chambers, forming a tripartite linear arrangement of rooms. Smaller shallow bays or niches project to the east and west of the courtyard. As there is no evidence that this central space was vaulted, it must have remained an open courtyard, as it appears today. Other rooms in this part of the Palace Complex lie adjacent to the Reception Hall, though blockage has obscured the area to the south of the hall. The large room directly to the east of the hall was probably a mosque, for a mihrab was set into its obliquely angled south wall.

The plan of the Reception Hall is derived from a qa'a arrangement in which a central space, or qa'a, was either linked

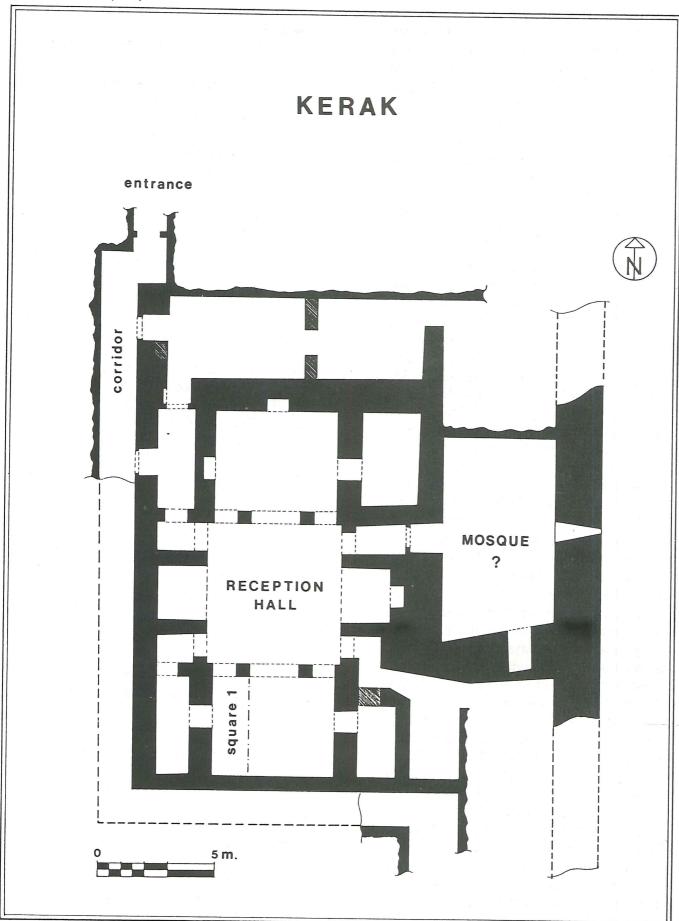


Fig. 3. The Palace Reception Hall.

to a linear series of adjoining chambers or functioned as the central court of a cruciform plan in which four iwans typically opened upon the qa'a. The development of the qa'a as a popular form of secular architecture embodying numerous variations is reflected in both domestic and palace architecture. Early examples include residences in the Fatimid city of Fustat and Qa'at al-Dardin, a 12th century structure in Cairo (Hoag 1977: 150, Pls. 186-7). Among a wide range of examples illustrating this theme in Late Islamic palace architecture are: the Seljukid Qasr al-Banat in Ragga, which has been attributed to Nur al-Din Mahmud ibn Zenki during the second half of the 12th century (Toueir 1985: 318); the A.D. 1241 palace of the Ayyubid Sultan al-Şalih Najam al-Din Ayyub on Rawda Island in Cairo (Hoag 1977: Pl. 218); and the A.D. 1388 Mamluk Dar al-Sitt Tunshuq in Jerusalem (Burgoyne 1987: Fig. 48.5). During the Mamluk period this type of Reception Hall was also an essential feature of private residences of the amirs, as illustrated by al-Tashtamuriyya in Jerusalem (Kessler 1979: 145; Burgoyne 1987: 474, Fig. 45.5).

The closest parallel to the Palace Reception Hall at Kerak is found in the Ayyubid palace at Shobak (Brown 1988a: Fig. 4). In both instances the qa'a or central chamber of the hall was flanked by adjoining chambers on the north-south axis and by small shallow iwans, more appropriately described as bays or niches, on the east-west axis. Although this plan expresses the basic four-iwan style of reception hall, the flanking chambers are not true iwans for they are separated from the central chamber or courtyard by partitions. At both Kerak and Shobak these partitions have large central portals with smaller doorways to either side forming triple entrances. This style of partitioning is also found in the reception hall of the Ayyubid Citadel at Buşra (Abel 1956: Pl. VII).

The historical sources cited above refer to the construction of two palaces at Kerak in the Late Islamic periods, one raised by the Ayyubid prince al-Nasir Da'ud during the first half of the 13th

century and the other sponsored by the Mamluk Sultan al-Naṣir Moḥammad at the beginning of the 14th century. While it is clear that this generic reception hall plan was incorporated within palaces of both the Ayyubid and Mamluk periods, the stratigraphic, numismatic, and ceramic data presented below provide solid evidence for a 14th century construction date. Thus, it appears reasonable at present to suggest that this is indeed the reception hall of Sultan al-Naṣir Moḥammad's palace at Kerak.

The Excavation in the Reception Hall Square 1

Square 1 was located in the south chamber of the Reception Hall, adjacent to the west wall (Fig. 3). The unit measured 4.20 m north-south x 2.0 m eastwest, and was excavated to bedrock (Fig. 4). Two phases of deposition were encountered. The lower Phase I occupation dates to the Mamluk period and the upper Phase II can be assigned to Ottoman occupation. Table 1 provides a list of the excavated loci.

Table 1: Square 1 locus descriptions.

Phase	Locus	Description
I	K1:11 K1:10 K1:9 K1:8 K1:7 K1:6 K1:4	South Chamber South Wall South Chamber West Wall South Chamber North Wall Leveling Fill Leveling Fill Plaster Floor Bedding Occupation Layer
II	K1:5 K1:3 K1:2 K1:1	Pit Occupation Layer Pit Cobblestone Pavement (Floor Bedding)

Phase I: The Mamluk Period

The Phase I features include: (1) two sub-floor layers of leveling fill, (2) the original plaster floor or floor bedding of the south chamber, and (3) occupation

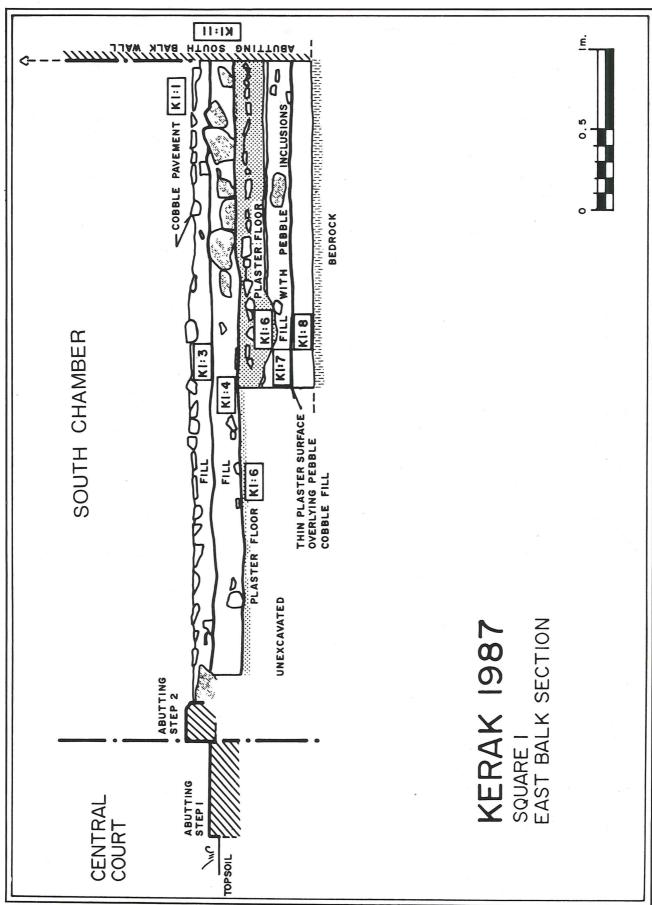


Fig. 4

debris overlying the floor. The walls of the south chamber were founded directly upon the limestone bedrock scarp exposed at the bottom of Square 1. Overlying bedrock was locus K1:8, a fill 0.14 m deep, consisting of beige soil mixed with a high proportion of flint and limestone pebbles and cobbles. The upper surface of K1:8 was covered with a thin layer of plaster. The overlying locus K1:7 was also a fill layer, 0.16 m deep, containing numerous pebbles mixed with a dark brown earth matrix.

The artefacts from these sub-floor fills consisted mostly of very small ceramic fragments that predate the construction of the qal'a, though sherds associated with the Mamluk occupation were also present. Most critical however, is the coin from locus K1:7. Although the exact date of issue is illegible, the coin has been identified as the product of a 14th century Mamluk mint (J. Betlyon, pers. com.). As K1:7 was sealed by the plaster floor, this date determines that the Palace Reception Hall was built during, or possibly after, the 14th century.

The K1:6 plaster floor bedding averaged 0.25 m in thickness. A thin plaster layer was first applied over the K1:7 fill, and then a layer of pebbles mixed with light brown soil and plaster was set. Upon this layer a bed of cobblestones was laid and over them a 0.06-0.08 m thick solid white plaster bedding. This bedding was presumably paved or covered in some manner, though no impressions of an overlying flagstone floor could be detected.

The last feature in the Phase I sequence was K1:4, a ca. 0.20 m thick layer of occupation debris, K1:4, which accumulated over the K1:6 plaster bedding. This layer of light brown soil included a relatively large quantity of animal bone, and a substantial amount of pottery, including types that also occurred in the K1:7 fill beneath the floor bedding. The pottery from K1:4 included a number of types common during the Mamluk period.

In summary, the excavation of the Phase I loci indicates the following construction sequence. The site selected was

either without prior occupation debris or thoroughly cleaned before the construction of the Reception Hall. Leveling fills (K1:7 and K1:8) were inserted to raise the ground level above the foundation course. The plaster floor bedding, dated to the 14th century (or possibly later) was inserted but no indication of the actual floor surface survives, unless for some reason the upper plaster provided the actual floor. The deposition (K1:4) above the floor bedding, which contained a high density of both ceramics and faunal remains, attests to Phase I refuse accumulation after the floor was abandoned. This accruing of domestic debris from the Mamluk period in the Reception Hall demonstrates that this portion of the Palace was occupied much more informally than initially intended, though the reasons for this are not apparent. Earthquake activity during the 15th century is known to have damaged Kerak, yet the Reception Hall remains remarkably intact to this day. However, if other portions of the palace suffered more heavily, it is possible that the entire complex was abandoned as a royal palace or governor's residence.

Phase II: The Ottoman Period

The Phase II features in Square 1 include: (1) a packed earth surface, (2) an overlying fill, (3) two pits, and (4) at the uppermost level, a cobble pavement that lay just a few centimeters beneath topsoil. The Phase I K1:4 debris layer was covered by a packed earth surface a few centimeters in depth. In the southeast corner of the square, pit K1:5 was cut from this surface. Measuring 0.45 m north-south x 0.90 m east-west, it cut through the underlying Phase I K1:4 layer and K1:6 plaster bedding. The overlying K1:3 fill, 0.10-0.12 m in depth, was a layer of dark gray-brown soil. The wide range of ceramic types included in the K1:3 deposit reflect the general occupational history of the site from the Iron Age through the Ottoman period.

The most recent feature of the Phase II occupation is the cobblestone pavement

K1:1. Although the pavement lay immediately beneath the thin dusty topsoil of the south chamber, it was for the most part very well preserved. A large tract of plaster covered the cobbles in the southern portion of the square, while a smaller patch of plaster remained in situ along the north wall K1:9. Thus the pavement originally served as a cobble bedding that supported a plaster floor. A second Phase II pit, K1:2, was located beneath the cobble pavement in the northwest corner of the unit, where it cut through both the Phase II locus K1:3 and the underlying Phase I locus K1:4. As in the case of pit K1:5, this intrusive deposit was easily defined and removed.

In summary, the attribution of Phase II to the era of Ottoman rule in Transjordan needs some qualification, for none of the artefacts from the Phase II loci bear any direct relationship to points of absolute chronology. However, the ceramic distribution shows a marked increase in the number of fragments from handmade vessels. While handmade vessels of this type were produced from the 12th to 20th centuries, a proportional increase in handmade coarse wares is generally characteristic of the Ottoman period, during which time wheel-thrown pottery was extremely rare. Furthermore, some of the technological aspects of this pottery are also characteristic of assemblages from the Ottoman period in Transjordan. This interpretation is supported by historical data as well. The qal'a was the headquarters for the Ottoman garrison from the time of Sultan Suleiman I (1520-1566) until the overthrow of Ottoman rule in 1918. During the long periods of tribal rule when the Ottoman Empire lost its authority in southern Transjordan, the tribes of Kerak also utilized the qal'a, as documented in historical sources (Rafeq 1966: 228) and among the numerous travelers' reports. Elders from Kerak recall the 20th century occupation of the Reception Hall, which apparently served as a prison. Thus the archaeological and historical data support an Ottoman period date for the Phase II occupation.

The Phase I Ceramics

The pottery sections presented in Figs. 5-7 illustrate most of the diagnostic Phase I sherds from the excavation. Only the Mamluk Phase I ceramics are included in this discussion. The overall distribution of pottery from Phases I and II is presented in Table 2. Table 3 specifically summarizes the distribution of the Phase I Late Islamic ceramic groups.

Imported Glazed Wares

Three varieties of imported underglaze painted wares were present in the

Table 2: The distribution of cera	amics from Square 1.
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Loc/ PB	Phase	HMCW	HMCW PNT	Cream	WDPW	Zir	Glaze	Glaze IMP	Byz/Rom	Nab	Hel	Iron	Other	Total
K1:1.1	II	22	1	7	1	3			5	8		2	10	59
K1:2.2	II	7	4	6						2			3	22
K1:3.3	II	17	6	33		3	8	2	28	32		2	18	149
K1:3.4	II			1					1					2
K1:5.5	II	2	1	3		2		1	2	1			5	17
K1:4.6	I	5	2	120		77	15	6	15	12		5	24	281
K1:4.7	I	1		41		24	6	1	1	2			7	83
K1:4.8	I			10		10	1							21
K1:6.10									2	5			9	16
K1:7.11	I	10		17		17		3	22	68		17	90	244
K1:7.12	I									6	1	2	16	25
K1:8.13	I	1							7	6			3	17

Key: HMCW = Handmade Coarse Ware; HMCW/PNT = Painted Handmade Coarse Ware; WDPW = Wheel-thrown Drainpipe Ware; Glaze IMP = Imported Glazed Ware.

Table 3: The distribution of Late Islamic ceramics: Phases I and II*.

Ceramic Types								
Phase	HMCW	HMCW PNT	Cream	WDPW	Zir	Glaze	Glaze IMP	Total
I	17	2	188		128	22	10	367
II	46	11	47	1	6	8	2	121
Totals	63	13	235	1	134	30	12	488

^{*} Excluding pit K1:5

Abbreviations: HMCW = Handmade Coarse Ware; HMCW PNT = Painted Handmade Coarse Ware; WDPW = Wheel-thrown Drainpipe Ware; Glaze IMP = Imported Glaze.

assemblage. The first is illustrated in No. 1; a bowl base fragment reconstructed from three adjoining sherds. This piece has a brown underglaze painted decoration and a pale green tinted glaze. This type of pottery is unusal in Transjordan, though similar types occur in Syria at Terqa (Mahmoud 1978: Pl. 3: 10, Abb. 12b) and Qaṣr al-Ḥayr (Grabar et al. 1978: F-1: 11, F-2: 5-6). The contexts for these pieces have been attributed to the 12th century (from a kiln) and the 12th to 13th centuries, respectively.

The second type of imported ware, commonly known as 'Syrian Blue and White' pottery, is illustrated by bowl fragments shown in Nos. 4-5. These fragments are characterized by blue paint upon a white slip and a clear glaze covering. Base No. 5 is decorated with a floral representation and bears an S-shaped potter's autograph on the underside. Syrian Blue and White ware is well-attested and a number of examples from Hama have been described and dated from the 14th century, Hama Type XII (Riis and Poulsen 1957: 224-30). The broad flaring bowl rim shown in No. 6 represents the third category of imported ware, which features blue and black paint over a white slip with a clear glaze finish. This decorative style correlates with Hama Type XI (ibid: 202-24), which has been attributed to the late 13th and 14th centuries. Additional examples have occurred in Phase D (ca. 1265 - ca. 1390) at Burj al-Ahmar in Palestine (Pringle 1986: 150). As both the blue painted and

blue and black painted pottery appear in Syria and in Egypt (Jenkins 1984), it may be misleading to suggest a definite Syrian origin for the pieces from Kerak.

Glazed Wares

Locally common monochrome glazed wares from Phase I are presented in Nos. 2-3. Such bowls, typically with yellow or green glazes and displaying a wide range of variation in rim profile, were part of the ceramic repertoire of Transjordan from the 12th century to at least the 15th century, as demonstrated by assemblages from el-Wu'eira (Brown 1987: Fig. 10:28); Hesban (Sauer 1973: 52-3, 56-63); and Tell Abu Qa'dan (Franken and Kalsbeek 1975: 131-141; Sauer 1976: 94). Similarly, monochrome glazed wares are attested in Phases B (ca. 1100 - ca. 1150) and C (ca. 1191 - ca. 1265) at Burj al-Ahmar, but become much more common in Phase D (ca. 1265- ca. 1390) (Pringle 1986: 147). These and other distributions show that the monochrome glazed wares achieved their highest popularity from the second half of the 13th century through the 14th century.

Cream Ware

The corpus of wheel-thrown cream wares from Phase I is relatively large. This assemblage is characterized by unslipped fabrics with colours ranging from shades of white, cream, greenish-white, buff, and pink, which have been subsumed under the

designation 'cream ware'. With respect to form, surface collections from Kerak castle indicate that ibriqs, jugs, jars, and occasionally bowls constituted most of the vessel types produced with this fabric. Examples are illustrated in Nos. 7-24. This genre of pottery is also attested at Shobak in the Phase III Mamluk deposits (Brown 1988a: Fig. 15: 34-9). Although moldmade, lamp fragment No. 25 can also be included in this category on the basis of its fabric. The cream wares generally lack paint, though it may be noted that the jug/jar rim shown in No. 12 has some red paint on the interior of the neck, a feature that is puzzling. The bowl fragment shown in No. 11 also shows very faint traces of paint along the rim. However, the inclusion of this sherd in the Phase I corpus should be regarded as tentative, for the form, as well as the paint, indicate that it could be an Iron Age product. The wellknown sugar pot form, shown in No. 15 is also included in this category because it shares similar attributes of technology and ware as found among the other cream wares. Examples of sugar pots have occurred at Tell Abu Qa'dan in Phases H-T (Franken and Kalsbeek 1975: 143-54), which Sauer suggests encompass the Ayyubid and Mamluk periods (1976: 94). Fragments from two vessels with punctured and incised decorations are represented in Nos. 23 and 24. Similar pieces from Burj al-Ahmar first occur during the Phase D (ca. 1265-1390) Mamluk occupation (Pringle 1986: 145, Fig. 48).

Phase I: Handmade Coarse Wares

The only handmade coarse wares from Phase I that are suitable for illustration are the painted pieces shown in Nos. 26-7. Although these fragmentary pieces provide only a limited and inadequate representation of the original painted designs, they do suggest that the vessels were decorated in the geometric style of painting or in a style derived from it. Handmade painted pottery is documented in Transjordan from the 12th century (Brown 1988b) to the 20th century (Mershen 1985: Fig. 2). The speci-

fically geometric style of painting that is commonly referred to as "Ayyubid-Mamluk" appears particularly widespread in Transjordan from the 13th to the 15th centuries, as shown by assemblages from Hesban (Sauer 1973: 53-63, Pl. 4) and Tell Abu Qa'dan (Franken and Kalsbeek 1975: 167-203; Sauer 1976: 94). Because of chronological longevity and the tremendous variability in materials and techniques of production, the chronological interpretation of these wares is still almost completely dependent upon their stratigraphic context.

Zir Ware

This term has been applied to the assemblage of sherds belonging to large handmade zirs, storage jars, and bowls, examples of which are shown in Nos. 28-31. A very large quantity of these sherds was present in the Phase I loci, though very few diagnostic pieces were among them. A rim similar to those of the tall-necked jars shown in Nos. 28-29 occurred at Shobak (Brown 1988a: Fig. 15: 46) but not from a stratified context. Bowl fragments comparable to those show in Nos. 30-31 are also known from the surface at Shobak.

Concluding Remarks

In both its architectural features and material culture attributes, the palace at Kerak provided a symbol of royal prestige designed to reinforce elite status. As such it stood in sharp contrast to the socioeconomic environment of the rural hinterland. This distinction of the royal enclave can be described in terms of patterns of consumption. Pottery, an ubiquitous feature of any household of the Mamluk period, provides a measure of this contrast between the ruling Mamluk elite and the population at large.

The pottery from Phase I constitutes a very different assemblage than would be expected from the average Mamluk site in the Kerak region. Generally, Mamluk assemblages from surface surveys of rural sites on the Kerak plateau (Miller 1979)

contain two types of pottery: a large proportion of handmade coarse ware, often painted with geometric motifs, and a lesser presence of locally common monochrome glazed wares (Brown forthcoming). Other ceramic types do occur but in much smaller proportions. For example, very few cream wares occur among these assemblages and imported wares are rare. An inverse situation is evident in the Phase I corpus from the Palace. In this context handmade coarse wares and local glazed wares are represented to a much lesser extent while wheel-thrown cream wares dominate the assemblage and there is a notable presence of imported glazed wares as well. From these contrasting distributions, which characterize on the one hand the rural settlements of the Kerak plateau and on the other the royal palace at Kerak Castle, there emerges a distinct pattern of ceramic taste that can be attributed to the elite nature of the palace residence and its resources.

As bowls and other serving vessels have high social visibility, it is not surprising to find that almost a third of the glazed wares in the Phase I assemblage from the

Palace are imported pieces that were clearly not widely available to the general population, which relied upon the local southern Levantine monochrome glazed serving vessels. Typically, utilitarian forms bearing less social display value, such as ibrigs, jugs and jars were made by hand during the Ayyubid-Mamluk period and their remains, constituting the handmade coarse ware group, are prevalent among the rural sites of this era. Yet an entirely different industry provided these same vessel types for palace use, as noted in the specialized wheel-thrown cream wares. Again it can be inferred that cost or other restrictions made these wheel-thrown utilitarian vessels less available to rural households. These features of the Phase I assemblage characterize a repertoire of 'palace pottery' that reflects the distinctly elite pattern of consumption among the Mamluk ruling class.

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WARE DESCRIPTIONS

Introduction to the ware descriptions: W = ware; S = slip; P = paint; G = glaze; I = interior; E = exterior; C = core; D = diameter; (m) = mottled; (H) = handmade. Numerical color values from: Munsell (1975) and Kornerup and Wanscher (1981).

Sherd No.	Unit/Loc/PB Reg. No.	Phase	Description: Form/Ware/Surface/Core
1	K1:7.11 242-4	I	Base: W = 10YR 8/2 White; IP = 5/E5 Brown; IG = 25/3B Pale Green; C = none.
2	K1:4.6 238	Ι	Bowl: W = 10 YR $7/4$ V. Pale Brown; I&EG = $4/E7$ Yellow-Brown; C = none; D= 21 .
3	K1:4.6 145	Ι	Bowl: W = 7.5YR 8/4 Pink; IG = 4/B6 Yellow; C = none; D = 25.
4	K1:4.6 111	I	Bowl: W = 10YR 8/2 White (Frit); I&ES = White; I&EP = 21/E5 Blue; I&EG = Clear; C= none; D = 22.
5	K1:4.6 234-6	Ι	Base: W = White (Frit); IS = White; I&EP = 21/D7 Blue; IG = Clear; C= none.
6	K1:4.6 237	I	Bowl: W= White (Frit); I&ES = White; IP = 21/D7 Blue, N3/0 V. Dark Gray; EP = 21/D7 Blue; I&EG = Clear; C= none; ID = 19; ED = 25.

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      7
                K1:4.6
                               I
                                   Bowl: W = 2.5Y 8/2 White; Self Slip; C = 70\%; D = 9.
                  143
      8
                K1:4.6
                                   Bowl: W = 10YR 8/2 White; Self Slip; C = 99\%; D = 18.5.
                               Ι
                  70
      9
                K1:4.7
                               I
                                   Bowl: W = 10YR 8/3 V. Pale Brown; Self Slip; C = none; D
                  29
                                    = 16.
     10
                K1:4.6
                                   Bowl: W = 5YR 7/6 Reddish Yellow; Self Slip; C = none; D
                               Ι
                  264
                                    = 20.5
     11
                K1:4.6
                                   Bowl: W = 7.5YR 7/4 Pink; Self Slip; EP = 10R 6/4 Pale Red;
                  31
                                   C = none; D = 17.
     12
                K1:4.6
                                   Jug/Jar: W = 7.5YR 7/4 Pink; Self Slip; IP = 10R 6/4 Pale
                  86
                                   Red; C = none; D = 6.
     13
                K1:4.6
                                   Hole Mouth Jar: W = 10YR 8/2 White; Self Slip; C = none; D
                  199
                                   = 11.
     14
                K1:4.6
                               I
                                   Jug/Jar: W= 10YR 8/3 V. Pale Brown; Self Slip; C = none; D
                  270
                                   = 11.
     15
                K1:4.6
                               Ι
                                   Sugar Pot: W = 10YR 8/2 White; Self Slip; C = none; D = 12.
                  231
     16
                K1:4.6
                               Ι
                                   Base: W= 10YR 8/3 V. Pale Brown; Self Slip; C = none.
                  190
     17
                K1:4.6
                               Ι
                                   Base: W = 10R 6/6 L. Red; ES = 10YR 8/2 White; C = none.
                  126
     18
                K1:4.6
                                   Base: W = 7.5YR 7/2 Pinkish Gray; Self Slip; C = none.
                               I
                  24
     19
                K1:4.7
                                   Base: W = 7.5YR 7/2 Pinkish Gray; Self Slip; C=none.
                               I
                  35
     20
                K1:4.6
                               I
                                   Handle: W= 10YR 8/2 White; Self Slip; C = 99%.
                  84
     21
                K1:4.6
                                   Handle: W = 10YR 8/2 White; Self Slip; C = 99\%.
                              I
                 116
    22
                K1:4.6
                                   Handle: W = 10YR 8/2 White; Self Slip; C = 99\%.
                              I
                 85
    23
                                  Body Sherd: W=5Y 8/2 White; Self Slip; C=99\%.
                K1:4.7
                              I
                 16
    24
               K1:4.6
                                  Body Sherd: W = 5Y 8/2 White;; Self Slip; C = 99\%.
                              I
                 30
    25
                                  Lamp: W= 2.5Y 8/2 White, 5YR 6/4 L. Reddish Brown; Self
               K1:4.7
                              Ι
                 51
                                  Slip; C = 99\%.
    26
               K1:4.6
                                  Body Sherd: W = 5YR 7/4 Pink; ES = 5YR 6/4 L. Reddish
                              Ι
                 95
                                  Brown; EP = 10R 4/1 D. Reddish Gray; C = 99%; (H).
    27
               K1:4.6
                                  Body Sherd: W = 5YR 7/2 Pinkish Gray; IS = 10R 6/4 Pale
                              I
                                  Red; ES = 5YR 7/4 Pink (m); EP = 5YR 4/2 D. Reddish
                 271
                                  Gray; C = 90\%; (H).
    28
               K1:4.7
                                  Zir: W = 2.5Y 8/2 White; Self Slip; C = 99\%; D = 19; (H).
                              I
                 21
    29
                                  Zir: W = 10YR 7/2 L. Gray; Self Slip; C = none; D= 18; (H).
               K1:4.8
                              I
                 1,5
    30
               K1:4.6
                                  Bowl/Vat: W = 10YR 8/2 White; Self Slip; C= none; D = 38;
                              I
              120, 232
    31
               K1:4.6
                                  Bowl/Vat: W = 10YR 8/2 White; Self Slip; C = none; D = 40;
                              Ι
                 6
                                  (H).
```

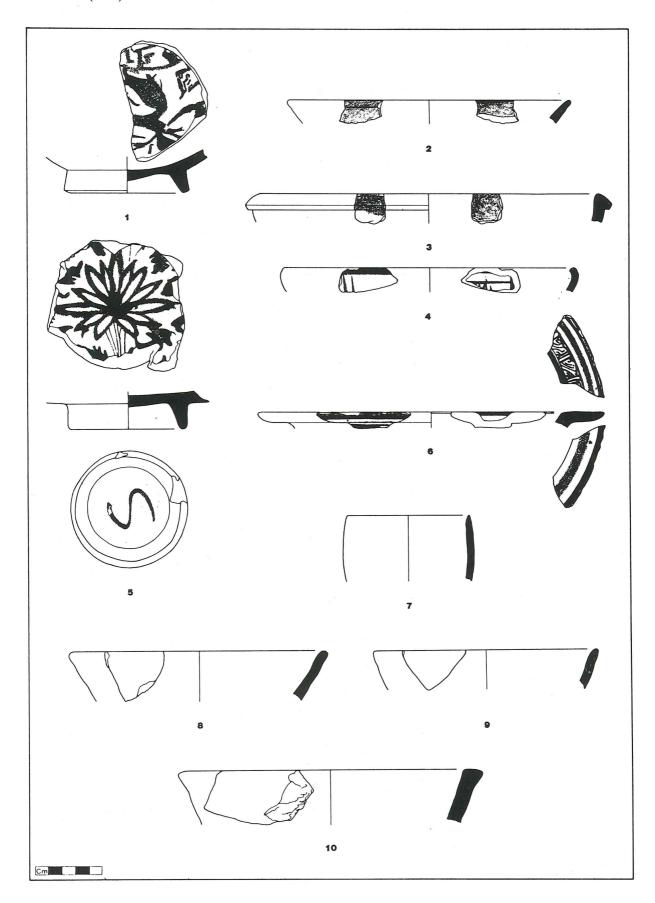


Fig. 5. Phase I ceramics.

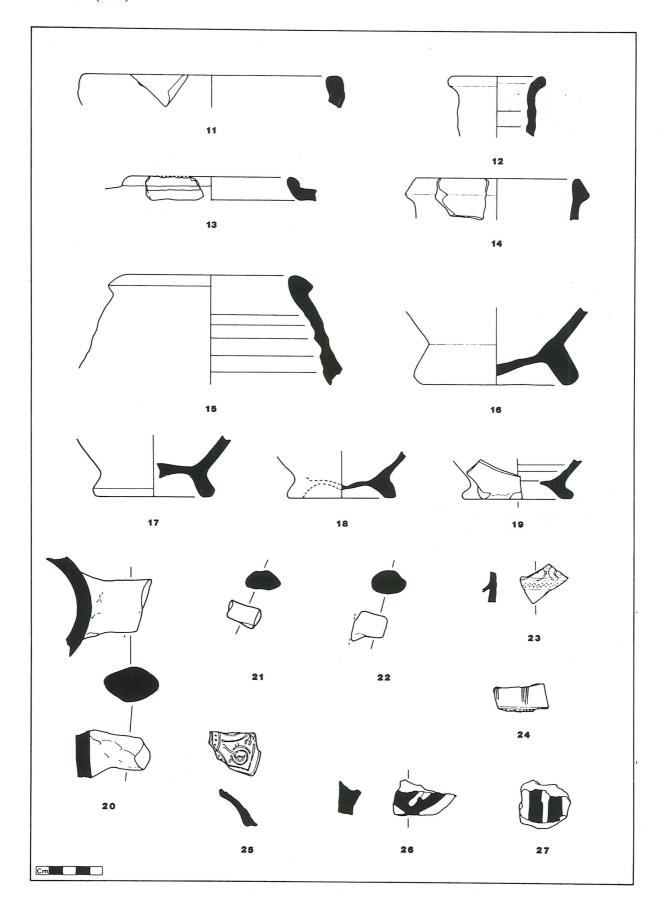


Fig. 6. Phase I ceramics.

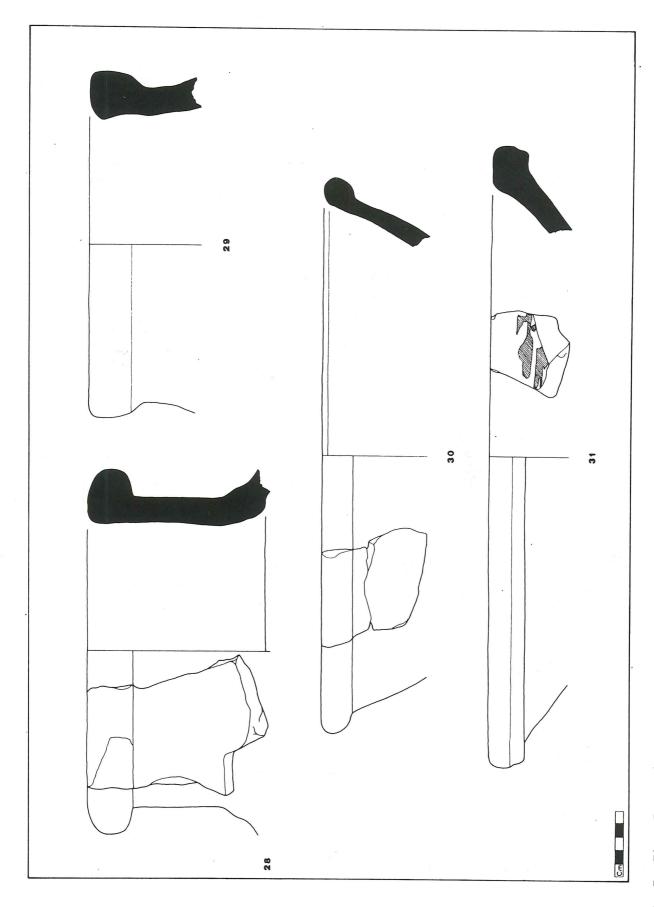


Fig. 7. Phase I ceramics.

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