## COINS FROM THE 1971 EXCAVATIONS AT HESHBON

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The present study abounds in contrasts when compared with the previous study of the coins from the 1968 excavations. ${ }^{1}$ Most of the previous coins were identified through the inconvenience of photographs; the present identifications were made by handling the actual coins. ${ }^{2}$ Whereas no two coins were alike in the 1968 finds, the present finds abound in duplicates and are more than four times as many in number. This is partly due to a hoard of 66 silver pieces found in Area C.

The present proportion of quantity to quality, however, is not better than that of 1968 . Aside from the hoard, the 121 coins yielded only 49 specimens worth considering in this report. Though mostly obliterated, 54 of the remaining 72 are somehow recognizable by type and workmanship, but fall short of being attributed to specific rulers. ${ }^{3}$ The rest are worn beyond recognition and look like flans.
${ }^{1}$ AUSS, 9 (1971), 147-160 (hereinafter called previous report). That report contains 46 coins, numbered 1-46. The present list contains 187 coins, numbered 47-233.
${ }^{2}$ Thanks are due to the Department of Antiquities of the H. K. of Jordan for lending its share of the coins for study and publication.
${ }^{3}$ In the following list, the first numeral is the publication number while the excavator's registry number and findspot are presented in parentheses.

No. 162 (387, D.6:5) is Nabataean; Nos. 163 (637, F.T.-6:7), 164 (1103. C.1:35), and 165 (1115, A.1:55/57) are Imperial Roman; Nos. 166 (397, A.2:18), 167 (398, A.2:18), 168 (405, D.1:41), 169 (407, D.6:15), 170 (518, A.2:18), 171 (616, F.T.-6:2), 172 (849, A.1:58), 173 (851, A.1:58), 174 (854, B.2:1), 175 (855, B.3:13, 176 (856, B.4:1), 177 (914, D.6:37), 178 (1019, C.4:41), and 179 (1079, D.6:33g) are Roman aes IV type (smaller module) and seem to belong to the 4th-5th cent.; No. 180 (850, A.1:58) is a Byzantine nummus; No. 181 (947, D.6:33c) is Umayyad; Nos. 182 (381, C.4:30), 183 (414, A.5:1), 184 (515, D.5:3), 185 (546, A.2:23), 186 (1011, C. 1 general clean-up), 187 (1031, D.6:31), 188 (1078, D.6:33g), 189 (1080, D.6:33g), 190 (1097, D.6:36), and 191 (1141, D.6:39e) are probably Ayyūbid; Nos. 192 (512, B.2:1), 193 (513, C.4:11), 194 (516, D.6:5), 195 (562, D.5:6), 196 (603, C.5:3), 197 (913, D.5:5a), 198 (940, D.5:5e), 199 (944, D.6:33c), 200 (948, D.6:33c), 201 (949, D.6:33c), 202 (951, D.6:33c), 203 (1021, C.5:3), 204 (1023, D.5:5d), 205 (1024, D.5:5f), 206 (1030, D.5:5f), 207 (1082, D.6:33b), 208 (1083, D.6:33b), 209 (1084, D.6:33h), 210 (1085, D.6:33h), 211 (1089, D.6:33e), 212 (1098, D.5:5f), 213 (1099, D.5:5f), and 214 (1140,

Some of the pre-Islamic coins are rather rare, e.g., a Nabataean leptos (No. 51) of the long-haired Rabbel II (A.D. 71-106), two procuratorial lepta of Judaea (Nos. 52, 53), an Aelia Capitolina sestertius (No. 54) from the joint principate of Marcus Aurelius and Lucius Verus (a.d. 161-169), the reverse showing Astarte in her temple which stood at the site in Jerusalem later occupied by the Church of the Holy Sepulcher, and a sestertius (No. 56) of Herennius Etruscus (ca. A.d. 250). No. 55 is an odd specimen of Philip I (243-249). It bears no marks of circulation. Moreover, the wide and raised margin, coupled with unusual thickness, gives it the appearance of a medallion (if not an ancient imitation).

The Islamic coins are all of the conventional type fulus-with the exception of two silver dirhamayn (Nos. 81, 82) and the hoard of 66 silver pieces found in Area C. Two pictorial-type Umayyad filsayn were found (Nos. 65, 66); one such fils was found in 1968 (No. 21 in the previous report). Nonetheless, the overall condition of the Islamic coins is mediocre. Many are badly damaged and the ones in better condition are as problematic in most cases where part of a horizontal legend falls outside the flan. Marginal legends fall mostly outside the flan in many specimens that bear them. This suffices for the general description.

## Maccabean

47. (1015-C.1:45, a hard-packed huwwar-layer, interpreted as an EarlyRoman fill containing pottery that extended from the late Iron Age to the Early Roman period.) Alexander Jannaeus, 103-76 b.c.
D.6:33e) are certainly Mamlūk; No. 215 (1142, D.6:33h) is possibly early Ottoman (see below); and Nos. 216 (389, A. 2 surface clean-up), 217 (413, A.5:1), 218 (548, B.1:17), 219 (661, C.5:3), 220 (938, D.5:5e), 221 (946, D.6:33c), 222 (1012, C. 1 general clean-up), 223 (1013, C. 1 general clean-up), 224 (1016, C. 3 surface clean-up), 225 (1017, C. 4 surface clean-up), 226 (1022, D. 2 E. balk clean-up), 227 (1025, D.5:5f), 228 (1026, D.5:5f), 229 (1027, D.5:5f), 230 (1028, D.5.5f), 231 (1029, D.5:5f), 232 (1088, D.6:33e), and 233 (1092, D.6:33f) are worn beyond recognition.

Editor's note: Coin No. 215 identified as possibly early Ottoman by A. Terian, was examined also by George C. Miles, Curator of Islamic Coins of the American Numismatic Society, New York, N.Y. In a letter to Siegfried H. Horn of May 25, 1972, he says that the type seems to be unknown, but that it must be either late Seljuk of Rum or early Ottoman.

Obv. Obliterated.
Rev. Traces of a circle, anchor within.
48. ( $\mathbf{1 0 9 0}-\mathrm{D} .6: 33 \mathrm{e}$, the 5 th layer of a soil pile in a cistern. $)^{3 n}$

Similar to the preceding, but of poorer condition.
Nabataean
49. (1014-C.I:41, an Early Roman earth layer.) Aretas IV, 9 b.c.-A.D. 40.

Similar to No. 2 in the previous report.
50. (1018-C.4, surface clean-up.)

Similar to the preceding.
51. (1102-B.4:43, a thick, striated plaster layer.) Rabbel II, A.D. 71-106.

Obv. Head of Rabbel r., laureate, with long hair.
Rev. Similar to No. 3 in the previous report.

## Provincial Roman (Judea)

52. (1118-B.3:28, a soil layer.) M. Ambibulus, A.d. 9-12.

Obv. Ear of barley; traces of border.
Rev. Palm tree with two bunches of fruit; traces of border.
53. ( $1100-\mathrm{D} .5: 5 \mathrm{f}$, the 5th layer in the silt of a cistern. $)^{\text {sb }}$ Pontius Pilate, a.d. 29/30.
Obv. Three ears of barley, around: [IOY]AIAKaiCapo[c].
Rev. Obliterated. ${ }^{4}$
54. ( $636-\mathrm{F}$, Tomb 6, Locus 7, i.e., the 3 d Loculus on the south side.) Aelia Capitolina; Marcus Aurelius and Lucius Verus, a.d. 161-169.
Obv. Busts of Aurelius (161-180) r. and Verus (161-169) 1., both bearded and laureate; around: IMP CAES ANTONINO . . .
Rev. Temple of Astarte showing four columns, pediment, central arch, and the goddess standing 1 . within, wearing turreted crown and chiton, resting 1 . hand on spear, r. hand holding uncertain object, and r. bare leg raised on something; COL AEL CAP in exergue. ${ }^{5}$
3a Editor's note: Sixteen coins came from Cistern D.6:33, in which the debris appeared to consist of nine layers, labeled a-i, with an apparent break between layers $e$ and $f$. However, the coin evidence does not support the assumption that the layers had been accumulated in a chronological sequence. Mamlūk coins came from the 3d and 6th layers (c and f ), Ayyūbid coins from the 2 d and the 6th-9th layers ( b and $\mathrm{f}-\mathrm{i}$ ), an Umayyad coin from the 3 d layer (c), and a Roman and a Maccabean coin from the 5th layer (e).
${ }^{35}$ Editor's note: The remarks made in connection with coins from Cistern D.6:33 (see note 3a) apply appropriately also to the coins found in Cistern D.5:5, where the silt consisted of five distinguishable layers (b-f). Only the last two of them produced identifiable coins: in layer e one Ayyübid and eight Maml $\bar{u} k$ coins were found, and in layer f one coin of the Procurator Pontius Pilate and two Mamlūk coins. Evidently the silt built up in Mamlük times, although two earlier coins found their way into the cistern during that period.
${ }^{4}$ Dated year 16 of Tiberius; cf. A. Reifenberg, Ancient Jewish Coins (4th ed.; Jerusalem, 1965), p. 56, No. 131.
${ }^{5}$ See George F. Hill, Catalogue of the Greek Coins of Palestine: Galilee, Samaria, and Judaea (London, 1914), p. 89, No. 40.

## Late Roman

55. (1224-F, Tomb 5, Locus 3, the modernly disturbed grave Trough 6 of the northern arcosolium of the Swinging Door Tomb.) Philip I, A.d. 243-249 (medallion?).

Obv. Bust of Philippus Arabus r., bearded, laureate, and draped; around: IMP M IVL PHILIPPVS AVG.
Rev. Laetitia standing l., holding wreath in l. and rudder in $r$. hand; around: LAET FVNDATA; SC in the field.
56. (429-D.6:15, a fill layer of mixed debris.) Herennius Etruscus, ca. a.d. $250 .{ }^{6}$
Obv. Bust of Herennius Etruscus r., bareheaded and draped; around: EPENN ETPOV MEKV $\triangle E K I O C$ KECAP.
Rev. Eagle perched on palm branch, head l.; around: $\triangle$ HMAPX EsOVCIAC; SC in exergue.
57. (391-B.2:1, surface soil.) Valerian I, A.d. 253-260.

Obv. Bust of Valerian I r., radiate and draped; around: IMP C P LIC VALERIANVS P F AVG.
Rev. Helmeted Mars standing $r$. with spear, emperor standing 1 . with scepter; obliterated inscr. around.
58. (1091-D.6:33e, the 5th layer of a soil pile in a cistern.) Maximian, A.D. 296-305.

Obv. Bust of Maximian r., radiate and draped; around: MAXIMIANVS NOB CAES.
Rev. Similar to No. 9 in the previous report, but around: CONCORDIA M[IL]I-TVM; in the field: HA (Heraclea).
59. (1225-F, Tomb 5, Locus 3, the modernly disturbed grave Trough 6 of the northern arcosolium of the Swinging Door Tomb.) Constantine II, A.D. 337-340.
Obv. Bust of Constantine II r., with pearl-diadem and cuirass; around: CONSTANTINVS IVN NOB $C$; pierced.
Rev. Plan of Roman camp, Sol standing in the middle above; l.: VIRT; r.: EXERC; beneath: T.S.A. (Thessalonica); pierced.
60. (1076-A.5:23, firepit). Constans I, A.D. 343-350.

Obv. Head of Constans I r., around: CONSTA
Rev. Within wreath: VOT/XX/MVLT/XXX; beneath: SMAN (Antioch).
61. (655-B.4:6, surface soil.)

Similar to the preceding.
62. (537-D.5:6, a layer of destruction tumble.) Valentinian II, A.D. 375-392.

Similar to No. 12 in the previous report.
63. (570-C.1:33, a Byzantine soil fill.) Honorius, A.d. 395-423.

Similar to No. 15 in the previous report.

## Byzantine

64. (1188-C.4:2, a late-Islamic wall near the surface.) Nummus of Justinian I, A.D. 527-565.
${ }^{6}$ Son of Decius, 249-251; cf. Warwick Wroth, Catalogue of the Greek Coins of Galatia, Cappadocia, and Syria (London, 1899), pp. 225, 226.

Obv. Bust of Justinian I facing, with cuirass.
Rev. A (mark of value-1 nummus).
Umayyad (661-750)
65. (514-C.4:23, a late-Islamic soil layer.)

Obv. Jerboa facing l.; border.
Rev. Muhammad; border.
66. (945-D.6:33c, the 3 d layer of a soil pile in a cistern.)

Obv. Similar to the preceding, but traces of inscr. around.
Rev. Obliterated.
67. (606-D.6:26, an occupation surface.)

Similar to No. 23 in the previous report.

> Ayyūbid (1171-1342)
68. (1148-D.6:33g, the 7th layer of a soil pile in a cistern.) Az-Zāhir Ghāzī (Halab Branch), 1186-1216.
Obv. Within double octagram (the inner dotted): Al-Imām / anNāsīr; between octagram and outer dotted circle: . . . / ilah../ ìllā / 'llah / . . .
Rev. Similar, within: Al-Malik / az-Z̄āhir; obliterated inscr. around.
69. ( $1150-\mathrm{D} .6: 33 \mathrm{i}$, the 9 th layer of a soil pile in a cistern.)

Obv. Al-Imām a/n-Nāṣir Amīr / al-Mu'minīn.
Rev. Ghāzī / ...; arabesque beneath.
70. (1094-D.6:33g, the 7th layer of a soil pile in a cistern.) Al-Adil, 11961218.

Similar to No. 28 in the previous report.
71. (1087-1.6:39f, the 6th layer of a soil pile in a cistern.) Al-Manṣūr Muhammad I or II (Hamāh Branch), 1191-1220 or 1244-1284.
Obv. Within triple hexagram (the middle dotted): Al-Malik / aṣ-Sālih.
Rev. Similar, within: Al-Malik / al-Mansūr.
72. ( $1095-\mathrm{D} .6: 33 \mathrm{~h}$, the 8 th layer of a soil pile in a cistern.)

Similar to the preceding.
73. (942-D.5:5e, the 4th layer in the silt of a cistern.)

Similar to No. 29 in the previous report.
74. (1020-C.5:3, a late-Islamic fill.) Al-'Azīz Muhammad (Halab Branch), 1216-1236.
Obv. Al-Imām / an-Nāsir / al-Malik al- Adil / [Abū] Bakr.
Rev. Within double octagram (the inner dotted): . . / al-'Aziz.
75. (1096-D.6:33h, the 8th layer of a soil pile in a cistern.) Al-Kāmil Muhammad (Egyptian Branch), 1218-1238.
Obv. Obliterated.
Rev. Within double square (the outer dotted): Al-Malik al-Ka/mil bi-Amr Allah.
76. (1086-D.6:33h, the 8th layer of a soil pile in a cistern.) An-Nāṣir Ṣalāh ad-Dīn Yūsuf (Halab Branch), 1236-1260.
Obv. Within triple hexagram (the middle dotted): Al-Imäm / alMustásim; traces of border.
Rev. Similar, within: Al-Malik / an-Nāsir.
${ }^{\text {® }}$ End of the Hamāh Branch.
77. (1081-D.6:33b, the 2d layer of a soil pile in a cistern.) Aṣ-Ṣāliḥ Isma‘ī (Damascus Branch), 1237-1245.
Obv. Al-Malik aṣ-Ṣälih / Ismáīl; illegible inscr. between two dotted circles around.
Rev. Ibn al-Malik / al-'Adil Muhammad; illegible inscr. between two dotted circles around.
78. (1077-D.6:33g, the 7th layer of a soil pile in a cistern.) Aṣ-Ṣāliḥ Ayyūb (Egyptian Branch), 1240-1249.
Obv. . . ./al-Musta'sim/[bi]-'llah $A b[\bar{u} ' l-. ~ . ~ . ~] . ~$
Rev. . . ./[Nidi] $m$ ad-Din $A y y \bar{u} b ;$ traces of dotted square.

## Mamlūk (1250-1517) ${ }^{\text {s }}$

79. (943-D.5:5e, the 4th layer in the silt of a cistern.) Az-Zāhir Bibars, 1260-1277.
Obv. Obliterated.
Rev. Lion facing l.;above: Al-Malik; beneath: Bibars.
80. (1101-D.5:5f, the 5th layer in the silt of a cistern.) An-Nāṣir Muhammad, 1293-1294, 1299-1309, 1310-1341.
Similar to No. 39 in the previous report.
81. (950-D.6:33c, the 3d layer of a soil pile in a cistern.) Dirham ( 2.12 gm .) of aṣ-Ṣāliḥ Isma'īl, 1342-1545.
Obv. [Lā] ìlah ìllä 'llah / [Muhammad] Rasūl Allah / [ārsa]lahu bi-'l-huda / [wa dīn] al-hhak.
Rev. . . . / as-Sulṭān al-Ma[lik] / aṣ-Ṣālih 'Imād ad-[Dunyā] /wa 'dDīn Isma'il . . / an-Nāsir Muḥammad.
82. (952-D.6:33c, the 3d layer of a soil pile in a cistern.)

Similar to the preceding ( 2.59 gm .).
83. (366-C.4:24, a late-Islamic soil layer.) Al-Ashraf Sha'bān, 1363-1377.

Obv. [As-Sul]ṭãn al-Malik / [al-Ashra]f Sha'bān / . . . ; double border (the outer dotted).
Rev. Within hexagram of two triangles: TTarablu/s.
84. (436-B.4:5, surface soil.)

Obv. Within oval: Bin Hasan; around: As-Sulṭān al-Malik al-Ashraf.
Rev. Within arabesque: Duriba / bi-Dimashk / . . . ; double border (the outer dotted).
85. (912-D.5:5f, the 5th layer in the silt of a cistern.)

Similar to the preceding.
86. (953-D.6:33c, the 3d layer of a soil pile in a cistern.)

Similar to the preceding.
87-89. (911, 939, 1139-D.5:5e, the 4th layer in the silt of a cistern.) Al-Manṣur 'Ală' ad-Dīn 'Alī, 1377-1381.
Similar to No. 42 in the previous report.
90. (1093-D.6:33f, the 6 th layer of a soil pile in a cistern.)

Similar to the preceding.
91-93. (935, 936, 941-D.5:5e, the 4th layer in the silt of a cistern.) Az-Zāhir

[^0]


Barkūḳ, 1382-1399.
Obv. . . . / as-Sultān al-Malik / Barkūk; two straight lines across the field.
Rev. Within hexagram of two triangles: Duriba / bi-Dimashk.
94. (581-C.5:1, surface soil. The coin lay in a Byzantine lamp.)

Similar to the preceding.
95. (937-D.5:5e, the 4th layer in the silt of a cistern.)

Similar to No. 44 in the previous report.

## The Hoard

It could be said that a number of coins accumulated in a locus may be treated as a hoard. In this case, Nos. 53, 73, 79, 80, 85, 87-89, 91-93, and 95 above, all found in D.5:5 and Nos. 58, $66,68-72,75-78,81$, and 82 , found in D.6:33, could be counted as additional hoards. But such a consideration has its limitations. Accumulated hoards cover a wide chronological range and are of little value for interpretation of stratigraphy. Such hoards are built up haphazardly, i.e., coins dropped in cisterns or carried off by drains, sunk through soft soil from higher strata on account of their own weight, etc.
The hoard under consideration is a savings hoard found in a sealed locus (C.4:37, a late-Islamic layer). It is reminiscent of the remarks made by the satirical playwright Aristophanes in са. 400 в.с.:

> The public has often given us the appearance of treating our wisest and best citizens in the same way as it treats old and new coins. We do not use the latter . . . though they are of purer metal . . . we prefer to use bad copper pieces, struck and embossed in the very worst way. ${ }^{\text {? }}$

These remarks are true heri et hodie et in saecula-and so they were in the 1270s when an occupant of the "north building" of Square 4 in Area C died, leaving behind his savings. The coins, consisting of bronze cores with silver coatings, were kept in an earthen lamp and hid in a little niche under the west end of a column drum used as a horizontal bench along the south wall. Apparently, no other member of the household knew about the scant savings which consisted of 66 pieces-32 dirhams and 34 half-dirhams identified as follows:

[^1]
## Ayyūbid

96. (460) Dirham ( 2.79 gm .) of as-ṣāliḥ Ayyūb (Egyptian Branch), 1240-1249.

Obv. Within double square (the outer dotted): Al-Imām / al-Mustásim / bi-'llah abū Ahmad 'Abd / Allah Amir al-Mu'minin; in segments between square and double border (the outer dotted): AlKāhira / sanat ārba'a wa / . . ([64]4 A.н.).
Rev. Similar, within: Al-Malik as-Sālih / Nidjm ad-Din Ayyūb / . . .; in segments: Muhammad Rasū/l Allah ārsalahu / bi-l-hudā / ....

## Mamlūk

97. (494) Dirham ( 2.86 gm .) of al-Manṣūr Nūr ad-Dīn 'Alī, 1257-1259.

Obv. Within a pattern similar to the preceding: Al-Im $[\bar{a} m] / a l-M u s t a^{4}$ [sim] / bi-llah Amir . . . ; in segments: Bi-sm Allah / . . . .
Rev. Similar, within: $\dot{A} l$-Malik al-Mansūr / Nūr ad-Dīn ‘Alī / Ibn Aybak; obliterated inscr. in segments.
98. (447) Half-dirham ( 1.47 gm .).

Similar to No. 36 in the previous report.
99-128. Dirhams ${ }^{10}$ of az-ZZāhir Bibars, 1260-1277.
Obv. 108. Amïr al-Mu'minīn / al-Imām al-Mustanṣir bi-'llah / Abū 'lKasm Ahmad Bin /al-Imām az-Ẓāhir.
116, 119, 122, 123 (pierced), 126, 127. Similar to the preceding, but the beginning Amir al-Mu'minin is at the end.
106, 124. Similar to the preceding, but add to 1. and r. margin: Duriba bi-'/l-Kähira; double border (the outer dotted.) ${ }^{11}$
121. Duriba bi-Dimashk / al-Imām al-Hākim / bi-Amr Allah Abū 'l-'Abbās / Aḥmad Amir al-Mu'mininn; similar border.
99, 103, 114, 118. Al-Imām al-Hākim bi-Amr Allah / Abū 'l'Abbās Ahmad / Amír al-Mu'mininn; similar border. 100-102, 104, 105, 107, 109-113, 115, 117, 120, 125, 128. Lā ìlah îlla 'llah / Muhammad Rasūl Allah / ārsalahu bi-l-l-hudā; the mint and date as a marginal inscr. surround the obv. legend in four lines as follows:
${ }^{10}$ In the following list (also in that given in note 16) the first numeral presents the publication number, while the excavator's registry number and the weight in grams for each of the 30 dirhams are given in parentheses.
99 (446, 3.39 gm.$), 100(448,2.71), 101(449,2.42), 102(451,2.58), 103$ (452, $2.93), 104(454,2.76), 105(456,2.98), 106(457,2.84), 107(458,3.07), 108$ (462, 2.95), 109 (463, 3.38), $110(464,2.10), 111(465,2.68), 112(446,2.92), 113$ (467, 2.74), 114 (468, 2.84), 115 (470, 2.72), 116 (471, 2.91), 117 (472, 2.79), 118 (474, $2.90), 119(476,3.11), 120(479,2.83)$, $121(480,2.90), 122(481,2.52), 123$ (483, $2.72), 124(486,2.75), 125(488,2.82), 126(489,2.81), 127(492,2.73), 128$ (496, 2.95).
${ }^{11}$ The undated coins, according to S. L. Poole, are "conterminous with the short duration of El-Mustansir's Khalifate, or 659-661 [1260-1262]" (Catalogue of Oriental Coins in the British Museum [London, 1879], IV, 142, n.). It should be noted that coins bearing these dates have been found; see infra. nn .12 and 13.

Beginning from 1.: Duriba bi-'l-K̄ā/hira sanat sittīn / . . . ([6]60 A.H.). ${ }^{12}$

Duriba bi'l-l-Kā/hira sanat āhad wa sittīn / wa sit-mi'äa / wa dīn al-hak (661 A.H.). ${ }^{13}$
Beginning from top: Duriba bi-'l-Kāhira / sanat khamsa / wa sittīn / . . . ([6]65 A.н.). ${ }^{14}$
Duriba bi-l-Kāhira / sanat sab‘a / wa sittīn / . . ([6]67 A.н.). ${ }^{15}$
Rev. Aṣ-Ṣālihī / as-Sulț̄̄n al-Malik / aze-Zahir Rukn ad-Dunyā wa 'dDīn / Bibars Kasī̀m Amīr al-Mu'minīn; beneath, lion facing l.; similar border (the rev. of the dirhams is identical; however, the heads of some lions are larger and the tails of others are raised higher).
129-161. Half-dirhams ${ }^{18}$ of aze-Zāhir Bibars.
Obv. 133, 144, 152. Lā īlah îllä '/llah Muhammad / Rasūl Allah; around: . . . duriba . . . .
149, 155, 160. Al-Imäm / al-Hâkim; around: Bi-sm Allah . . . .
129, 138, 140, 143, 145, 153. Al-Imām / al-Mustanṣir bi-'llah; around: Lā īlah īllā 'llah Muhammad Rasūl Allah.
Rev. Type A: Al-Malik / az-Zāhir; beneath, lion facing 1.
Obv. 136, 147, 148, 150, 151, 154, 156, 157, 159, 161. Al-Imām / alMustanṣir bi-'llah / Amir al-Mu'minīn.
Rev. Type B: As-Sultūn / al-Malik az-Zảhir; beneath, lion facing 1.
Obv. 130-132, 137, 141, 158. Al-Imäm al-Mustanṣir bi-'llah / Abū 'lKasm Aḥmad Bin / al-Imäm az-Zāhir; 137 begins with an additional Amīr al-Mu'minin.
134, 135, 139, 142, 146. Lā ìlah ìllā 'llah / Muhammad Rasūl Allah / ārsalahu bi-'l-hudā; around: . . . duriba . . . .
Rev. Type C: As-Sulṭän al-Malik / az-Zāhir Rukn ad-Dunyā wa 'd-Dīn / Bibars Kasim Amīr al-Mu'minin; beneath, lion facing 1.
Like S. L. Poole, "I have endeavored in vain to discover any system in the weights of the Memlook coins." ${ }^{17}$ The dirhams of
${ }^{12}$ Only the datable Nos. are given: $115,128(1261 / 2)$.
${ }^{12}$ No. $109(1262 / 3)$.
${ }^{24}$ Nos. $100,125(1266 / 7)$.
${ }^{15}$ Nos. $110,117(1268 / 9)$.
${ }^{16}$ See note 11 for explanation of numbers.
$129(450,1.40 \mathrm{gm}),. 130(453,1.98), 131(455,1.82), 132(459,1.45), 133(461$.
$0.94), 134(469,1.28), 135(473,1.60), 136(475,1.43), 137(477,1.33), 138(478$,
$0.96), 139(482,2.37), 140(484,1.55), 141(485,1.76), 142(487,1.67), 143(490$,
$1.45), 144(491,1.29), 145(493,1.21), 146(495,1.29), 147(497,1.69), 148(498$,
$1.41,149(499,1.07), 150(500,0.99), 151(501,1.25), 152(502,0.91), 153(503$,
$1.24), 154(504,1.44), 155(505,1.58), 156(506,1.49), 157(507,1.64), 158(508$,
$1.05), 159(509,1.35), 160(1009,0.84), 161(1010,1.55)$. On both sides all have
traces of double borders of which the outer is dotted.
17 'The first impression one derives from a study of the Memlook coins is
that no two examples are alike in weight . . but the worn condition of most
of the coins may account in part for this irregularity. Still, with every allow-

Bibars range from $2.10-3.39 \mathrm{gm}$. (av. 2.73 gm .) and the halfdirhams from 0.84-2.37 gm. (av. 1.54 gm .). But when the three reverse types (A-C) of the half-dirhams are considered separately, the range is not so broad. Type A ranges from 0.84-1.55 gm. (av. 1.20 gm .); type B from 0.99-1.69 gm. av. ( 1.42 gm .) ; and type C from 1.05-2.37 gm. (av. 1.60 gm .). Figs. 1 and 2 illustrate this; the symmetry in Fig. 2 is noteworthy.


Fig. 1. Graphs showing the weight of each coin in the three reverse types (A, 12 coins; $B, 10$ coins; C, 11 coins) of Bibars' half dirhams

The dirhams of Bibars present a variety of obverses and only one type of reverse. The obverse types are of little help to ascertain their chronology since all the datable ones have the same obverse. The rest are represented by a few specimens that do not warrant a comparative study. The half-dirhams also present a variety of obverses, but three types of reverses emerge (A-C). These are appropriately divided into 12,10 , and 11 coins. This satisfactory distribution enables a study of their weight system to determine which of the three types is the oldest (assuming the simple principle that coins longer in circulation lost more of
ance for friction, it is impossible to discover any standard weight for either the deenars [gold] or the dirhems [silver] . . . there are all varieties of weights . . . for dirhems between 7 and 88 grains. From such vague data . . . it is difficult to see how any system of standard, in one metal or two, can be discovered" (Poole, Catalogue of Oriental Coins, pp xxi-xxii).
their weight than those with a shorter period of circulation). In the absence of dates on the half-dirhams, an application of this metrological theory is appropriate to ascertain the chronology of the three types. It shows that at the time when the coins were hoarded, type A had lost about $25 \%$ of its weight and type B about $12 \%$ of its weight in comparison with type C. The comparison suggests that A is chronologically the earliest type. Aside from the metrological evidence, the clustering of tituli from al-Malik azZähir, in A, to as-Sulțān ${ }^{18}$ al-Malik az-Ẓāhir in B, and to as-Sulṭān


Fig. 2. Graphs showing the average weight of each of the three types of half-dirhams of Bibars
al-Malik az-Z̄āhir Rukn ad-Dunyā wa'd-Dīn Bibars Kasīm Amīr al-Mu'minīn in C (though the latter appears on the earliest dirhams) is noteworthy.

Like the rest of the Ayyūbid and Mamlūk coins from the various strata, the hoard makes it evident that the Ayyübid coins were almost driven out by the Mamlūk coins soon after the rise of the latter dynasty in the middle of the 13th cent. (notice the ratio of 1 to 65 ). The Ayyūbid coin (No. 96) dates from 1246/7 and the latest datable Mamlūk coins (Nos. 110, 117) are from 1268/9, suggesting that the hoard was last hidden sometime in the early 1270 s.
A disappointment persists: none of the coins hitherto found bears any of the ancient mint names of Transjordan. The obliterated margins of most Islamic coins have no legible traces of mint names. Of the Ayyūbid coins, No. 96 was struck at Cairo,

[^2]as were the Mamlūk dirhams-with the exception of No. 121 which was struck at Damascus. As for the Mamlūk fulūs, No. 83 was struck at Tripoli (Lebanon), and Nos. 84-86 and 91-94 at Damascus.

If the coins from the 1971 excavations were to be tabulated as were those from the 1968 excavations, a considerable increase in the number of coins would be seen; however, the pattern of distribution would remain the same as that of Table 1 (p. 157) in the previous report. There are no coins from before the lst cent. b.c. and none from after the 15 th cent. A.d. ${ }^{19}$ Likewise, there are no coins from the intervening 9th-12th cents. which comprise the Abbasid period. Consequently, the conclusions drawn in the previous report remain unchanged.
${ }^{19} \mathrm{~A}$ possible exception is the somewhat doubtful Ottoman coin 215 (see n. 3).

Postscript. Please correct the following errors in my article "Coins from the 1968 Excavations at Heshbon," AUSS, 9 (1971), 147-160: page 148, line 1 read (No. 7) instead of (No. 8); page 148, line 5 read (No. 8) instead of (No. 9); page 150, line 23 read (year 18 ...) instead of (year $17 \ldots$. .


[^0]:    ${ }^{\text {s }}$ Baḥrī Mamlūk (1250-1382), Burdjī Mamlūk (1382-1517).

[^1]:    ${ }^{2}$ Frogs, 718-26; quoted by Lloyd R. Laing, Coins and Archaeology (New York, 1970), p. 53.

[^2]:    ${ }^{18}$ Bibars was the first Mamlük ruler to use this title on coins.

