Iron Age Cosmetic Palettes

by Dr. Henry O. Thompson

Several archaeological excavations in Palestine and East Jordan have unearthed a number of small, somewhat saucer-shaped objects from 56 - 122 mm. in diameter and 10 - 39 mm. in height. They are called cosmetic palettes-little dishes that held cosmetic pastes of different colors, used by women from 1000 — 500 B. C. as face make-up. This use is here accepted though it has never been proven. ¹

Their material varies. There is one example each of glass, fayence, basalt, flint, and limestone core that is coated with cement. ² One is called sandstone while six have been reported as alabaster and ten may be marble. ³ Most of them are of limestone. William F. Albright noted that this limestone is not found in southern Palestine, leading to the conclusion that the palettes originated in Phoenicia. However, East

our Fig. 7.

Alabaster: Francis W. James, The Iron Age at Beth-shan, fig. 117:8 (Field No. 3547, Loc. 247), 9(Loc. 222), 10 (FN 3496, Loc. 214), Level IV, c. 725 (p. 154). R. A. S. Macalister, The Excavations of Gezer III, pl. LXXVI, tomb 31, No. 19, probably 900 - 600 B. C. AUB Museum Nos. 4785, 4786, 4887 (our Fig. No. 2, photo courtesy of Dr. D. C. Baramki).

Marble: Elihu Grant and G. E. Wright, Ain Shems Excavations IV, pl. LIII:44, Str. IIa (Str. II=Iron Ic - IIc). A second, B64, No. 4, IX.2, Locus 9296, comes from Shechem [Levant, IV (1972), 52 and Fig. 3]. Seven of the eleven (including three fragments) palettes found at Nasbeh are said to be marble (C. C. McCown, Tell En-Nasbeh I, p. 266). AUB Museum No. 58.333 (our Fig. 3, photo courtesy of Dr. D. C. Baramki). The identification of the stone - alabaster vs. marble - should perhaps be taken provisionally. Beth-shan Nos. 9 and 10, cited above, are called marble by G. M. Fitzgerald, who notes (p. 43) two bowls (our palettes), pl. XL:14 (James' No. 9) and 15, in Beth-shan Excavations, 1921-1923. Similarly Taanach Nos. 553 and 554 are noted as alabaster or limestone. Cf. also n. 4, "feldspar."

⁽¹⁾ An alternative suggestion is that they were used for grinding medicine. Cf. p. 51, D. C. Baramki, The Archaeological Museum of the American University of Beirut; Beirut: AUB, 1967.

⁽²⁾ R. S. Lamon and G. M. Shipton, Megiddo I. The glass example is noted on p. 119 as M4167, Locus 1275, Stratum II, 650 - 600 B. C., similar to pl. 111:28 (plain - no decoration - see below). The fayence is pl. 108:12, M3278, Loc. 1024, Str. II. It has traces of blue glaze and a scalloped single rim handle. The basalt example comes from Tell es-Sa'idiyeh, Cat. No. S1107/St 77. It is highly polished inside and out. The flint is reported in James L. Kelso, et al., "The Excavations of Bethel," AASOR, XXXIX (1968), p. 84, No. 419 (unillustrated), Iron II. The example with artificial coating is from Meqabelein. Cf. G. L. Harding, "An Iron Age Tomb at Meqabelein," QDAP, XIV (1950), p. 47 and pl. XV:14, dated 650-600 B. C. It is Amman Museum No. TJ865, Case I. It was examined microscopically by Mr. Talal Saadi, an Amman geologist, who suggested the coating is decorative.

⁽³⁾ Sandstone: Tawilan (1968-9) fragment now in the Ashmolean Museum. Reg. No. 629. Cf.

Jordan examples have been identified as local limestone. 4

Some palettes have small ledge handles on one side (seven examples) or both (seven). ⁵ The base is either a simple flat base or a disc base. The top contains a depression like the inside of a bowl or a mortar. The depression ranges from half to over three fourths of the diameter.

The flat rim of the palette, between the inner depression and the outer circumference of the rim, is normally decorated, but over twenty out of over 120 of the examples known, are quite plain. ⁶ It is possible that they are merely unfinished products but there—seems no definite way to discern this now. One possible clue is that at least some of the undecorated samples are polished to glossy smoothness as in the Tawilan example (Fig. 1). This suggests finished form.

About half of the decorated forms have holes drilled in the flat rim. ⁷ The simplest design ⁸ is of six small, regularly-spaced holes drilled in the rim. One example ⁹ has 12

- (4) P. 81, W. F. Albright, "The Excavations of Tell Beit Mersim," AASOR, XXI-XXII (cited hereafter as TBM). Albright includes as limestone an example called "feldspar" by R. C. Thompson, "The Site of the Palace of Ashurnasirpal Nineveh," LAAA, XVIII (1931), pl. XXII:4. To the present writer's knowledge, this is the only example discovered outside the ancient Levant and East Jordan. Albright used it to buttress his suggestion that the palettes originate in Phoenicia, but to this date, no other evidence of Phoenician origin has appeared. Note that the AUB Museum examples are not limestone. The palettes in the Amman Museum were examined by Saadi (n. 2 above) who noted that with one exception (source of stone unknown), the limestone is of local origin. Gezer II, p. 272, Fig. 419, is called "hard white stone" - presumably limestone.
- (5) One Handle: Gezer III, pl. CCXIII:8 ("the long button handle, surrouding nearly half of the object, is common"), Hazor [BA, XXI (1958), 40, fig. 10, Str. V, 8th century, described as one among "a large number of cosmetic palettes"], Megiddo No. 6 (M1995, Loc. 560, Str. I, 600 350 B. C., described as having bronze, lapis lazuli, and ivory (?) inlay; single rim handle), 12 (glass-see n. 2), 23 (M4641, Loc. 1469, Str. II), Nasbeh (p. 266, possibly pl. 106: 2, though the specimen is chipped and the photo not clear) and Sa'idiyeh (Cat. No. S442/St 36).

Two Handles: Megiddo 8 (M4364, Locus = 1004, Str. II), 13 (M4980, Locus = 1540); Nasbeh 3 and one unillustrated; Shechem, Fig. 32:12 (Museum No. 1.110), 13 (1.115), 14 (1.111), pp. 102-3, Vera I. Kerkhof, "Catalogue of the Shechem Collection in the Rijksmuseum van Oudheden in Leiden," Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden te Leiden, L 1969,

pp. 28-109. The basalt example (n. 2) from Sa'idiyeh has two handles, one round and one square, but they are so small that they are more like knob handles than the ledge handles of these seven examples.

- (6) Examples are: Tawilan 372 (Amman Museum No. J12501; see our Fig. 1, published with the permission of the excavator, Mrs. Crystal Bennett, Director of the British School of Archaeology in Jerusalem), Gezer III, pl. CCXIII:1 ("It is rare to find them perfectly plain"), Hazor (Yigael Yadin, et al., Hazor III - IV, pl. CCLVI:9, FN G364/ 1, Loc. 10028, Str. IV), Megiddo (P. L. O. Guy, Megiddo Tombs, pl. 163:6, M73 - Tomb 73 - Middle to Late Iron Age) 22 (M4810, Loc. 1490, Str. II), 23 (M4641, Loc. 1469-see single rim handle, n. 5 above), 28 (M4905, Loc. = 1424, Str. III), 29 (M4833, Loc.=1561, Str. III), Meqabelein (pl. XV:14 unusually wide depression - 77 mm compared with an overall diameter of 103 mm), TBM (all Iron II) pl. 27B:4, 8 (about half the original preserved), pl. 30:2 (= pl. 57:4), pl. 64:16, Nasbeh 7 and 8 (650-550 B. C.). A number of fragments (Q875, C541a, b, T29, Q1763, S150) are noted at Samaria (p. 464). It is not clear how many whole palettes are represented in the fragments. Sir Flinders Petrie reports several saucers "with various numbers of spots, or none," found at Gerar pl. xlii: 10, but the plain examples are not illustrated. Tell es-Sa'idiyeh Cat. Nos. S703/St 51, S1107/St 77 (cf. n. 2), S184/St 18, S311/St 24 and Reg. No. 310.8.
- (7) Made with a lapidary's drill, suggests Albright (TBM, p. 80).
- (8) Grant, Ain Shems Excavations I, pl. XII: 1240, Level II (Iron Ic-IIc). Cf. also Bethel 419 (n. 2 above) with the description (p. 84), "he only decoration is six smallholes."
 - (9) TBM pl. 30:1 (S. N. 519), 8th century.

irregularly-spaced (3 sets of 3, one of 2, and one alone). A Megiddo palette has 10 regularlyspaced, plus one in the center of the depression while another has 6 plus the center and yet another has 8 plus the center. 10 A Gezer fragment appears to have had four large holes interspersed by four small holes, plus one in the center. 11 Five examples from Megiddo have an outer ring of large holes and an inner ring of small holes, arranged in six sets of two, plus the hole in the center of the depression. 12 A palette at Meggido (five sets of two) and three at Samaria (six sets) have the sets of two interspersed with a single small hole (Megiddo on the inner ring; at Samaria, on the outer ring). A Shechem fragment, perhaps one fourth of the original, shows three regularly spaced holes. In the depression, two small holes appear to be part of a ring of holes around a center "dot with groove." 13

A second class in this series is described as a drilled central dot or hole with a surrounding groove or circle. It is sometimes called a

"bullseye." The simplest form is a single row of these on the rim. One example at Gerar has six and one at Megiddo has eight. A specimen at Tell Beit Mersim may have five, but one is broken away and one is filled with a small blue disc. 14 A pattern with an outer and inner row, in eight sets of two (outer and inner pair) appears at Beth-shemesh (fragments), Gezer, Gibeon, Hazor, Megiddo, Sahab, Samaria, Tell Beit Mersim. Of these Megiddo 5, 18, 19 and the two unillustrated Samaria examples do not have a dot with a groove, in the center of the depression. Taanach and Tel en-Nasbeh examples have six sets of two, plus one in the center, while a Dothan example has five sets of two, but none in the center. 15 A further variation is sets of three dots with grooves - six sets at Gezer and Tell Beit Mersim, 16 eight sets at Hazor, Megiddo, and Tell Beit Mersim. 17 The Gezer and Megiddo examples do not have a center dot. 18

Tell Beit Mersim No. 9 was noted above for its blue disc. Color appears on palettes

⁽¹⁰⁾ Megiddo 17 (M4442, Loc. 1459 - alternating deep blue and pale green inlay), 25 (M4361, Loc. 1079, Str. III), 31 (M4645, Loc. 977, Str. IV, possibly III - p. 142 - reused floor; alternate pale green and white inlay).

⁽¹¹⁾ Gezer III, pl. CCXIII:2.

⁽¹²⁾ **Megiddo** 2 (M2285, Loc. 677, Str. I), 3 (M1987, Loc. 573, Str. I), 9 (M3242, Loc. 660, Str. II), 15 (M4109, Loc. 1257), 16 (M4999, Loc. 1565).

⁽¹³⁾ Megiddo 4 (M4086, Loc. 963, Str. I); Samaria p. 464, Q700 and B278 unillustrated, and C221 p. 463, fig. 116:3 (pl. XXVI:2). See our Fig. 8. The Shechem fragment is fig. 32:16 (Museum No. 1.117) cf. Kerkhof, op. cit.

⁽¹⁴⁾ Gerar pl. xlii:10; Megiddo 18 (M4923, Loc. 1486, Str. III); TBM pl. 27B:9 (S. N. 1081).

⁽¹⁵⁾ Our Fig. 3, AUB Museum No. 58.333, of unknown provenance. Ain Shems Studies 3, p. 29, S. 28 II 125, No. 929; Ain Shems Studies 7, pl. LIII:44, Str. IIa. Gezer II, p. 272, fig. 419, probably Iron II. J. B. Pritchard, Gibeon, p. 116 (refers to two palettes, one of which is-) fig. 80 (photograph, following p. 112). Gezer III, pl. LXXVI:19,

pl. CCXII:3. Yadin, et al., Hazor II, pl. CVII:21 (B2269/1, Loc. 3119a, Str. VA) and LXXVIII:8 (A671/1, Loc. 126, Str. VI; photograph pl. CLXIV: 14). Megiddo 5 (M3339, Loc. = 1032, Str. I), 19 (M4110, Loc. 1257, Str. III), 26 (M802, Loc. 261, Str. III), 32 (M4363, Loc. 1413, Str. II). G. L. Harding, "An Iron Age Tomb at Sahab," QDAP, XIII (1948), p. 94, pl. XXXIV:162 (p. 96-8th century). Samaria C237, fig. 116:2 (pl. XXVI:1), p. 263 (p. 264 refers to QX40 and Qf886, unillustrated), cf. our Fig. 8. TBM, pl. 27B:3. Taanach Reg. No. 554. Nasbeh, pl. 106:6. A Shechem fragment, perhaps half of the original, is badly chipped but may have had six sets of two. The author suggests eight-compare it with Hazor 8 and 21, Megiddo 5 and 32, Samaria 2 (Kerkhof fig. 32:15, Museum No. 1.118, op. cit.). Dothan Reg. No. 948 (1955).

⁽¹⁶⁾ Gezer III, pl. CCXIII:4; TBM. pl. 278.6.

⁽¹⁷⁾ Hazor II, pl. CV:24 (B299/1, Loc. 3090, Str. VA; photograph pl. CLXIV:16); Megiddo 10 (M2061, Loc. 614, Str. II) and 21 (M4387, Loc. 1435); TBM, pl. 27B:7.

⁽¹⁸⁾ The dot with groove motif also appears on bone objects, e.g., Hazor III, pl. CCCLXI-22,

from several sites. Two of the twelve holes in the Mersim palette cited above, had remains of green paste, perhaps malachite or turquoise. 19 Albright also notes traces of color (blue predominating) in the incised patterns (discussed below). The alabaster specimen from Gezer noted above with the six sets of dots with grooves, had the sets alternately colored blue and green (three of each). The center dot with groove, was blue. Macalister notes that "a few like .. 19, have the ornament filled in with color." 20 Among the Megiddo examples, several are noted as having "inlay." One has bronze, lapis lazuli (blue), and ivory (?); another, with a single row of ten holes, has alternating deep blue and pale green inlay, while the one with a single row of eight holes has alternate pale green and white inaly. 21 One Samaria palette is described: "Grooves and dots have been filled with blue and green paint, possibly alternatively," 22 but it is not clear whether there are other examples.

The color is considered by the Samaria authors to be more probably decorative ²³ while Albright notes that the green paste was soft, hence the holes held the actual cosmetic pastes. ²⁴ Considering the small size of the plain holes, and the smaller dots with grooves, and

the even finer incised lines dicussed below, plus the plain undecorated examples, it would seem that whatever color was left on the rim of the palettes was either decorative or accidently left over from the cosmetics used.

A second issue related to colors is the actual use of the palettes. The Samaria authors caution that the actual use "is uncertain, and the name is one sanctified by use only." 25 At Hazor, a palette was found near a small pestle which fit the palette depression, and was made of the same stone. The authors suggest the pestle was used to grind and pound the kohl (cosmetic material). 26 Though of a completely different style, an alabaster example shaped like a small bottle with a tight stopper (like a spice or chemical bottle), may confirm this analysis. It contained a small amount of red, rouge-like material. 27 Several authors have drawn comparisons with Jezebel (II Kings 9:30) who painted her eyes with antimony when she prepared to meet Jehu after he had murdered king Joram. Jeremiah 4:30 and Ezekiel 23:40 suggest it was the practice of prostitutes. However, Job named one of his daughters, "horn of eye-paint" (42:14), so it would not seem to be limited to their use alone. If our cosmetic palettes are implied in these Biblical references, it is of interest to

of the pendant (n. 18 above), both Middle Bronze Age.

Bethel (n. 2 above), pl. 45:6 (Club shaped bone pendant, No. 311, sub 15, Iron II, and an oval shaped bone pendant, No. 581, L 58, MB II, pl. 45:7-p. 87 calls it the lid of a perfume box and notes a light blue pigment in the incised circles), and Lachish III, pl. 37:7f.

⁽¹⁹⁾ Cf. n. 10. An earlier sentence on p. 81 implies the green is malachite or turquoise and blue is cobalt, but no analysis is presented.

⁽²⁰⁾ Cf. n. 3 and 15. Gezer III, pl. LXXVI, Tomb 31, fig. 419 and p. 273.

⁽²¹⁾ No. 6 (cf. n. 5; decoration is discussed below); 17 (n. 10); 31 (n. 10).

⁽²²⁾ Samaria fig. 116:2.

⁽²³⁾ Samaria, p. 264. The decorative suggestion may be strengthened by the black pigment in the dot with groove decoration on bone inlay (Bethel, pl. 45:11) and the light blue pigment in those

⁽²⁴⁾ TBM, p. 81.

⁽²⁵ op. cit.

⁽²⁶⁾ Hazor II, p. 61, palette 21, pl. CVII (cf. n. 15). The pestle is pl. CVII:20 (B2270/1, Loc. 3119a, Str. VA). John Gray notes that Biblical women, like some bedouin women today "touched their eyelashes with 'kuhl,' which they kept in small pots and applied with little rods, and treated their eyelids with greenish copper ore, or antimony" Archaeology and the Old Testament World, p. 176. Bethel, pl. 46:23 (LB) and 27 (Iron II) are examples of kohl sticks.

⁽²⁷⁾ Personal observation. Object No. 602, LB, found in the temple area, V. 8. 13, Shechem, 1960.

note that the references date to the Iron Age.

To return to the varieties of decoration, there are several examples with holes plus additional elements, which make these palettes intermediate to the elaborate incised type of decoration described below. A Gezer fragment has sets of two (dots with grooves) interspersed by a single dot with a groove. On top (outside) of the groove is an incised "triangle," the apex of which touches a circle incised near the outer perimeter of the palette. One or two other circles are near the inner perimeter at the top of the depression. 28 The Megiddo palette with the bronze and lapis lazuli inlay, has eight large single holes, interspersed with "triangles" with the apex toward the outer rim. The inner or bottom end of the "triangle" is rounded. Between triangle and inner perimeter is a very small hole. The middle depression has a large hole. 29 Hazor has an example with a pattern of a dot with groove, large hole (plus a small hole between it and the outer rim), dot with groove (four sets), interspersed with a deep groove similar to the "triangle" just described. 30 A Bethel specimen has a single row of eight dots with grooves (plus one on the center of the depression). Two millimeters in from the outer perimeter are two incised circles (one mm. apart). At the inner perimeter is a 2 mm. - wide rope design and 5 mm from that is another double circle. 31 A Hazor fragment has an incised

circle near the outer perimeter. In from the circle (2 mm) is a bead or rope design, and the rest of the flat rim is plain. ⁵² An Amman palette has three sets of two concentric circles. Between circles four and five (from the outer perimeter) are seven dots with grooves. The dots are interspersed with radial (vertical to the perimeter) lines, in sets of two to four. In several cases the radial lines are separated by crossed lines in the form of an "X" touching circles four and five. ³³

Several further examples bring us directly to the usual third category of decoration (plain, holes, and the following). A Dothan fragment has a dot with groove, radial lines with "X", dot with groove, and then a pattern with lattice or cross-hatched design. A Megiddo palette has eleven dots with groove in a row around' the rim, in between two incised concentric circles. Interspersed between the dots is the lattice or cross-hatched design. The latter is typical of the third category, though we will note exceptions below. 34 A Samaria example has sets with two radial lines between the two dots with groove. It is not clear whether there are five or six of these sets. In between sets is the pattern of cross-hatching. Approximately square, the cross-hatching pattern extends to the outer perimeter, expanding slightly toward the outside. This outer "band" is about 10 mm wide. The inner edge of the cross-hatching and

⁽²⁸⁾ Gezer III, pl. CCXIII:5.

⁽²⁹⁾ Cf. n. 5 and 21.

⁽³⁰⁾ BA XXI, fig. 10 (cf. n. 5)

⁽³¹⁾ Bethel, pp. 84, 124, pl. 45:18, No. 725, limestone, Iron II.

⁽³²⁾ Hazor II, pl. CV:25 (B511/1, Loc. 3116a, Level VA; photograph pl. CLXIV:17). The rope might simply be two incised circles, connected by a regular series of lines vertical to the palette perimeters. To this might be added a Samaria example with three close concentric circles with a plain surface or band extending to the outer perimeter and an inner "band" extending to the inner perimeter - G. A. Reisner, C. S. Fisher, D. G. Lyon,

The Harvard Excavations at Samariaa, p. 335, fig. 208, No. 2c (Reg. No. 3090, S. G. T. 4, 85 mm diameter). AUB Museum No. 48.87 (from Tell Biseh) has two concentric circles (our Fig. 2).

⁽³³⁾ G. L. Harding, "Two Iron Age Tombs from Amman," QDAP, XI (1945), p. 74, pl. XVIII: 69; Amman Museum No. TJ361. The outer concentric set (circle one) is 4 mm from the outer perimeter, with 1 mm between the two circles of each set and 5 mm between sets. The inner set (circle 6) is 1 mm from the inner perimeter.

⁽³⁴⁾ Dothan Reg. No. 817 (1955). **Megiddo I,** pl. 111:30 (M4949, Loc. S = 1529, Str. III).

the inner ends of the two radial lines, extend to the outer of two concentric circles (perhaps a mm apart) which in turn are separated from a third circle by a plain surface perhaps 5 mm wide. Between this third circle and the inner perimeter is a continuous line forming a series of "V's" or triangles in a band about 8 mm wide. 35

A Tawilan example 36 as shown in our Fig. 4, has a decorated rim. Starting from the outer perimeter, there is a plain band followed by a rope design (or two concentric circles with many radial lines), a plain band, two concentric circles with cross-hatched patterns between them, a plain band, a rope design, and a plain band. A Ramat Rahel fragment has two sets of two concentric circles. Between circles two and three is a band (also c. 10 mm apart) with the cross-hatched patterns. A Samaria fragment has a rope design, a circle about one mm further in, and a set of two and then a set of three concentric circles. Between circles 1 and 2, is a band (c. 5 mm) with the square crosshatched patterns. 37 An example from Hazor has two sets of two concentric circles. Between circles two and three are twelve of the cross-hatchings, in a band c. mm wide. A plain band c. 6 mm wide is followed by a rope design. A Tell es-Sa'idiyeh example has a plan band, a band with sixteen cross-hatchings, a plain band, and a rope design. 38

A Tell Beit Mersim palette is nearly identical (cross-hatchings band c. 8 mm; plain band c. 4) except that the rope design is replaced by the "V" or triangle pattern in a continuous line as in the Samaria example above. An example from Dhiban has a band of eight cross-hatchings, rope and triangle. A Shechem fragment is the same except the "V" pattern is not a continuous line and might be called a series of diagonal (to the palette's diameter) lines in the alternating directions. 39 Compare our Fig. 6 in this regard. A Samaria fragment has an incised circle near the outer perimeter and in from that is a rope design. In from the rope are two concentric circles with the cross-hatchings between them. Inside circle three is a plain band, perhaps 5 mm wide, and then a fourth circle. Between circle four and the inner perimeter is the "V" or diagonal pattern like

Loc. 148, Str. VI; photo pl. CLXIV:15). Sa'idiyeh Cat. No. S442/St 36 (cf. n. 5, one ledge handle). A TBM example (pl. 27B:5) is badly damaged but has a rope design c. 3 mm from the inner perimeter. About 1 mm out from the rope is an incised circle which forms the bottom edge of a series of cross-hatched patterns. Megiddo 13 has two concentric circles, a band (c. 4 mm) of probably cross-hatched patterns between circles 2 and 3, a rope design and another circle (cf. n. 5, two ledge handles).

(39) TBM, pl. 30:5 (SN 520), 8th century. Dhiban L-IV 17, Cat. 75 (Amman Museum No. J10722, currently in the Kerak Museum). Shechem fig. 32:14, Kerkhof op. cit. (cf. n. 5 above). Megiddo 24 (M4360, Loc. = 1394, Str. III) may be identical (but worn or damaged) example. Gezer pl. CCXIII:8 is almost identical to TBM 5, except for the ledge or button handle (cf. n. 5). A Bethzur fragment is badly damaged but at least has the inner band of triangles, a small plain band, and the cross-hatched pattern (O. R. Sellers, The Citadel of Beth-zur, p. 60, fig. 53:5, 900 - 600 B. C.).

⁽³⁵⁾ Reisner (op. cit.) calls the cross-hatching a "checker-board pattern," p. 335, fig. 208, No. 2e (RN 3918, S4-417, 80 mm diameter). The continous line of the drawing may be a series of two paralled lines (forming the sides of the "V's") as in photographs of other examples. These "V's" appear in three lines or panels on the chest of an ivory sphinx (8th century) from Arslan Tash, Syria (pl. 67, Donald Hardin, The Phoenicians). The "V" appears on bone inlay (MB IIB-C) at TBM. The "V" and the rope-design (or beads) appear in necklaces on Egyptian figures, and cross-hatchings appear on Mycenean pottery.

⁽³⁶⁾ Reg. No. 488, Tawilan 1969, Level II.15.6, of pink stone, burnt in patches. The drawing was provided by the excavator, and is published with her permission.

⁽³⁷⁾ Yohanon Aharoni, "Excavations at Ramat Rahel, 1954," **IEJ** 6, No. 3 (1956). p. 142, fig. 10.3 Feisner, No. 2b (FN 2839, N.G.T. 4, 84 mm diameter).

⁽³⁸⁾ Hazor H, pl. LXXVIII:7 (FN A824/1,

the last Shechem fragment. These diagonals do not touch circle four. They start from what appears to be a fifth circle, perhaps a mm from the inner perimeter. ⁴⁰

A Gezer fragment has an incised circle near the outer perimeter, a rope design, two concentric circles with a band (c. 9 mm) of cross-hatched patterns, a fourth concentric circle, a plain band (c. 9 mm), another rope design, and a fifth circle $c. 2\frac{1}{2}$ mm from the inner perimeter. ⁴¹

Two Megiddo palettes have two bands of cross-hatched patterns. One has two sets of two concentric circles. Between two and three are 14 or 15 cross-hatchings in a band c. 6 mm wide. A plain band (c. 5 mm) is followed by circles five and six which form a band c. 3 mm wide containing 15 cross-hatched patterns. Inside circle six there is a rope design and there may be another circle inside that. The second example has four sets of two concentric circles. The outer band of 21 cross-hatched patterns is c. 4 mm between circles two and three. The plain band is c. 5 mm between circles four and five, while the inner band of 15 crosshatchings is c. 4 mm between circles six and seven. 42

A Samaria palette has a circle, a rope,

two circles forming a band with 14 cross-hatched patterns, a rope, a circle, a plain band, and two circles forming a band of "V's" which do not form a continuous line. 43 A Shechem example has three concentric circles near the outer perimeter. These are crossed (cut) by a regular series of diagonal lines, almost forming another type of rope or lattice design. A 5 mm band between circle three and a rope design, is filled with "V's" which do not form a continuous line. Between the rope design and circle four, is a 5.5 mm band with seven patterns resembling the cross-hatched pattern but consisting of 5 — 10 radial lines. From two to four "cross lines" connect from two to six radials in a somewhat irregular fashion. This type of pattern seems to be unique. A second rope design is inside circle four. 44 Another unique panel appears on a fragment from Hazor. The over-all pattern is a circle, a rope, and two circles forming a band c. 15 mm wide. The single preserved panel consists of nine radials, number two and eight of which, are connected by two cross lines. While broken away, a second panel is partially preserved and appears to have some kind of diagonal rope design. There is an inner rope design and a fourth circle inside that. Another unique example from Shechem has a rope design, plain band (c. 1 mm), two circles forming a wide band (c. 10 -15), plain band (c. 1 mm), and another rope.

⁽⁴⁰⁾ Reisner, Vol. II, pl. 80:m (RN 3091, limestone, no scale given). The photograph suggests the rope design is not complete but continues as two concentric circles.

⁽⁴¹⁾ Pl. CCXIII:6. Shechem fig. 32:13 (Kerkhof, op. cit.) is identical in sequence, with seven cross-hatchings. Ramat Rahel has the same with 17 cross-hatchings (Aharoni, př. 10:3, Str. V). Tell en-Nasbeh No. 1 (R. 73, M 352, c. 700 - 500 B. C.), 3 (cf. n. 5), 4 (AM 20, M200), appear to be identical while No. 2 (R65, M339, c. 700 - 500 B. C.) and 5 (Si 295, M1811, 7th century) have very small plain bands and 5 has only 10 cross-hatched patterns. Megiddo 7 (M4118, Loc. 1270, Str. II) has an extra circle a mm before the inner rope design. A badly damaged fragment from Nineveh

has a circle, a rope, circle, plain band, two circles, band of cross-hatchings between the last (fourth) circle and fifth circle, plain band, circle, rope design (cf. n. 4 above). Megiddo 14 (M4640, Loc. 1469, Str. III)) has a circle, rope, circle, plain band (c. 5 mm) of 15 cross-hatchings, plain band (c. 3 mm), a circle, a rope, a circle.

⁽⁴²⁾ Megiddo No. 1 (M2048, Loc. 613, Str. I) and 8 (two ledge handles - cf. n. 5).

⁽⁴³⁾ Samaria, pl. XXVI:3 (cf. p. 463, fig. 116: 1-D170), cf. our Fig. 8. C292 is called a similar example (unillustrated) from S. Tomb 108.3, Period V.

⁽⁴⁴⁾ **Levant IV** (1972), p. 52 and fig. 3 (cf. n. 3 above, "marble").

In the wide band are four panels resembling an "H" with uprights and cross piece each consisting of two lines. ⁴⁵

Tawilan 744 (our Fig. 6) has a rope design, a band of "V's" not in a continuous line and another rope design. The "V's" are between two circles forming a band c. 5 mm wide and separate from the ropes by plain bands c. 2 mm wide. A Gezer fragment has an identical pattern. A Megiddo palette has two lines forming a band c. 5 mm. wide with the "V's" (non-continuous line), a plain band (c. 3 mm) and a rope design. A Tell Beit Mersim example has a circle, a rope, and two circles forming a band c. 8 mm wide. The band is filled with a wide pattern of interlocking "V's" which may consist of two continuous lines. A fourth circle is incised between the band and the inner perimeter. A second Tell Beit Mersim specimen has a rope, and then two circles forming a band c. 8 mm wide. The band is filled with very closely interlocking "V's". Another rope design is c. 2 mm from the inner perimeter. Tawilan 629 (our Fig. 7) has a unique form of "V" with cross lines, and no rope design. 46

Lamon and Shipton ⁴⁷ note that some palettes are decorated on both the top and the bottom, although they do not illustrate any of the decorated bases. The Shechem example

noted above may have been decorated on the sides in a band between the outer perimeter and an incised ring which is about half way between the perimeter and the disc base. 48 A similar incised ring appears on the side of a flat-based specimen from Beth-shan, while a second example from there has a ring or ridge in bas-relief c. 9-10 mm down from the outer perimeter. The rings on Tawilan 372 can be seen in the elevation in Fig. 1. A Tell es-Sa'idiyeh example has two circular bands below the rim and one at the base. 49

So far, relatively little has been suggested concerning dates. Albright notes the lack of relative chronology for the decorated types since the incised pattern decoration is more prevalent in Megiddo Stratum II (three vs. two examples), but the drilled holes variety is more prevalent in both Strata I and III. He notes a dozen examples from Iron II deposits at Tell Beit Mersim. 50 Kenyon notes that the majority of the examples found at Samaria are from indecisive find spots, with the most closely dated, those from the South Tombs, with pottery corresponding to Period V. Other sites are said to have cosmetic palettes occuring exclusively in Iron II (8th to 6th centuries B. C.) levels. In her judgment, the evidence does not suggest different dates for the different types of decoration. 51 The present study supports this conclusion on differentiating the decorations

⁽⁴⁵⁾ **Hazor III**, pl. CCLVI:10 (G435/1, Loc. 10017a, Str. IV; photo pl. CCCLXI:3). Shechem fig. 32:12 (Kerkhof, **op. cit.**, cf. n. 5). The Dothan example (n. 34 above) has a cross-hatched pattern similar to Hazor No. 10.

⁽⁴⁶⁾ Tawilan 744 (1970, Level III.8.3) is a reddish stone of unknown source (n. 4 above). A thin section was made by Saadi (cf. n. 2) who analyzed it as ferruginous (iron content) argillaceous (clay) limestone. A discolored patch on the rim (not shown in the drawing, our Fig. 6) is a calcite veinlet. The drawing is provided by the excavator and published with her permission. Gezer, pl. CCXIII, 7; Megiddo 11 (M2354, Loc. 825, Str. II); TBM pl. 30:3 and 4. Tawilan 629

^{(1969,} Level III. 14.4) is of red sandstone (n. 3 above). The drawing was provided by the excavator and is published with her permission.

⁽⁴⁷⁾ Megiddo I, pl. 108.

⁽⁴⁸⁾ Personal communication from Dr. E. F. Campbell, Jr., Archaeological Director.

⁽⁴⁹⁾ Beth-shan 10 and 9 (n. 3 above); Sa'i-diyeh S 311/St 24 (n. 6 above).

⁽⁵⁰⁾ **TBM**, p. 80, Par. 48. Kenyon notes that the twelve are all from Str. A, which she suggests is primarily 7th century (Samaria, p. 463).

⁽⁵¹⁾ Samaria, pp. 463f. Period V ends c. 721 B. C. See G. E. Wright, "Israelite Samaria and Iron Age Chronolgy," BASOR 155 (Oct. 1959).

chronologically, as well as the dates for the appearance of palettes in general, except that some might date from the 9th or even 10th century. ⁵², ⁵³

Perhaps a word should be added too, about the workmanship involved in making these palettes. The tools and methods used in lapidary (stone cutting) art or carving, are most well-known from seals. D. J. Wiseman describes

a pot full of finished and unfinished seals and ornaments and unworked pieces of metal found in a house of the Akkadian period at Eshnunna (Tell Asmar). In it were also some small instruments belonging to the stone-cutter, or engraver ("purqullu"), whose flourishing trade is reflected in texts from this time on-wards. The tools included a small copper chisel, two pointed copper gravers,

whetstone and a borer, and an abrasive. From the Old Babylonian period and onwards instruments with a circular cutting edge were used for making circles and by joining a number of circles, for graving a line. 54

While the general techniques of seal carving must have been quite similar to those used in carving the cosmetic palettes, no similarity in design or decorative motif, appears on seals or seal impressions. Motifs of dot with groove, "V's" and possibly rope design, appear on bone and ivory carvings in the Middle Bronze II and Iron I and II periods. ⁵⁵ The commonest (in appearance) of these motifs is the dot with groove, perhaps cut with a drill or a tool similar to that used for making circles on seals. The large concentric circles around the circumference might have been carved or scratched with a type of compass, though to the writer's knowledge, none has been found.

^{13 - 29.}

⁽⁵²⁾ E. g., Beth-zur, Macalester (p. 272) notes our palettes in every trench at Gezer, "especially if not exclusively, in the Fourth Semitic Period," i. e., 1000-550 B. C. (p. 131). No palettes have been found by the current American expedition to Gezer at this time of writing.

⁽⁵³⁾ Macalester (p. 272) notes that: the colors were ground on palettes of smooth stone, of which specimens were found in all strata. A small oval stone, daubed with red paint, was discovered in cave 18 I. These palettes were of various shapes, square, trapezoid, triangular, or rhomboid (examples are a Second Semitic Stratum triangle, a Fourth Semitic rhombus, a Hellenistic square) . . . There was no ornament to speak of upon them. The triangular example just mentioned had the edges on one side bevelled. The square Hellenistic example had a bronze nail in each corner, flush on one face and projecting slightly on the other; there was a small hole midway between two of the nails on one side, apparently for suspension... There was however, a more elaborate kind of palette. . . . shaped like saucers.

Fig. 449: 1 (p. 310) illustrates a deep rectangular dish of diorite, which had a dash of red color preserved in the bottom. These other shapes of palettes might very well warrant a separate study. Rectangular or semi-rectangular forms also appear at Amman (G. L. Harding, "Two Iron-Age Tombs in Amman," QDAP I (1931), p. 40, pl. XIV), Meqabelein, Shechem (B60, Object No. 272, VIII. 3. 14; No. 334, n. 3 above; possibly B66, No. 212, XIII. 1. 190, Loc. 3049; all three unpublished), and Umm el Biyara. The last is somewhat rectangular in shape with a knob at the top carved into the form of a man's head. Along the outer edge of both the obverse and the reverse is a row of dots with grooves. Tawilan No. 453 is similar and an alabaster fragment from Tawilan, No. 741, in the Amman Museum, may be from one of these palettes. It has the row (6-8 mm wide) of dots with grooves also on both obverse and reverse. Palettes have also been reported from Chalcolithic levels, such as Tell Abu Matar (cf. J. Perrat, IEJ 5 (1955), p. 78).

⁽⁵⁴⁾ Cylinder Seals of Western Asia, p. 16. M. E. L. Mallowan notes a close relationship with stone workers in his discussion of the tools and techniques of ivory carving (Nimrud and Its Remains II: 483f; London: Collins, p 166).

⁽⁵⁵⁾ E. g., Bethel, pp. 85ff (cf. 35 above)

While artistic motif comparison is nil or limited, one is struck by the care taken with those palettes—the quality of workmanship and the careful lapidary decorative technique. Why should such fine, paintaking effort be made? We noted above the use of these palettes for facial cosmetics - a judgment for which there is consensus but not definitive proof. The limited

number (compared to pottery or seals) of palettes plus the decorative effort expended on them, would suggest that they are not for the "hoi polloi" but were limited to an upper class clientelle or the nobility, as were no doubt, the ivory and bone inlays, and very likely the seals as well.

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Amman