

APPENDIX: TOBACCO PIPES FROM 'AKKO, THE AUDITORIUM

ANASTASIA SHAPIRO

Nine fragments of Ottoman-period clay tobacco-smoking pipes were unearthed during the excavation prior to the building of the new Auditorium in 'Akko (Table 1). The typology of these pipes was correlated with that of some 2000 previously studied specimens retrieved from the excavations at the Hospitaller Compound in the Old City of 'Akko (Shapiro, forthcoming).

The pipes are poorly preserved, apparently due to post-depositional conditions, possibly flooding of the area by sewer water or some other corrosive liquid. Therefore, the sherds are unusually soft, the decorations are indecipherable, and the traces of slip can be recognized only under $\times 20$ magnification. Their surfaces vary in shade from light gray to orange, and all of them have a gray or light gray core as a result of firing in slightly oxidized conditions. The nine specimens comprise two clearly distinguished chronological groups, with four items in each, and one fragment which could not be dated with precision.

Four specimens (Table 1:1–4; Fig. 1:1)¹ with shank openings measuring 1.35 cm in diameter may be dated to the second half of the eighteenth to the first half of the nineteenth centuries. They

Table 1. Pipe Inventoryⁱ

No.	Fragment	Locus	Basket	Shank opening diam. (cm)
1*	Nearly complete pipe, bowl rim missing	105	1027	1.35
2	Shank	102	1024	1.35
3	Shank termination fragment	107	1039	1.35
4	Shank termination fragment	100	1035/2	~1.35
5*	Shank	101	1019	1.55
6	Shank termination	104	1030	1.55
7*	Shank	101	1018	1.6
8*	Shank	100	1035/1	1.55
9*	Bowl rim fragment	105	1040	-

ⁱ Pipes marked by an asterisk are illustrated in Fig. 1.

¹ Photographs of the tobacco pipes were taken by the author.



Fig. 1.

comprise one nearly complete pipe, missing only the bowl rim (Fig. 1:1), and three fragmentary shanks. They share the same form and decoration. These pipes have a plain shank with a thick spherical termination at the opening. The lower part of the bowl has a flattened circular and slightly convex base. A thick triangular tongue of clay protruding from the shank connection can be seen inside the bowl. This feature, rarely mentioned in studied of pipes, points to the technological order of carving/pressing out the clay to free the interior of the pipe: the bowl was prepared first, and only then was the shank pinched through. The pipe is decorated with notch-rouletting: five rows at the shank termination, two horizontal rows on the lower body of the bowl, and a notch-rouletted 'V' open towards the shank outlines the base of the bowl. Pipes of this type were unearthed at the Hospitaller Compound (Shapiro forthcoming: Fig. 11.11:3, 9 [parallel shank]) and in Yaffo (Sharvit 2017: Fig. 13:4 [parallel shank], 6, 7, 9 [parallel bowls]).

Four shanks (Table 1:5–8; Fig. 1:5–8) with openings measuring 1.55–1.60 cm in diameter may be dated to the second half of the nineteenth century. Shanks 5 and 6 are similar in form to the type described above, although their opening is larger in diameter, and they are decorated with two rows of wide notch-rouletting. The elongated clay tongue at the shank–bowl joint is preserved. Pipes of the same type were unearthed at the Hospitaller Compound (Shapiro, forthcoming: Fig. 11.13:4). Shanks 7 and 8 are conical and slightly swollen at the opening. No. 7 is decorated with inclined notch-rouletted lines on the upper half of the shank. No. 8 has two carved lines outlining the swelling. This specimen has a small part of the bowl, which has a disc-like form with a convex base outlined with a thick carved line. Pipes similar in form were unearthed at 'Akko (Shapiro, forthcoming: Fig. 11.11.13:6).

One bowl rim (Table 1:9; Fig. 1:9) with stamped and a notch-rouletted decoration cannot be dated more precisely than the nineteenth century. No exact parallels for its decoration were found, but what seem to be similar forms were unearthed at 'Akko (Shapiro, forthcoming: Fig. 11.11:6).

PETROLOGY

A microscopic examination of the fresh breaks on these nine specimens revealed that all the pipes share the same lithology (physical characteristics of the earth elements), with a slight difference between the two chronological groups. Their fabric is calcareous foraminiferous marl containing very few inclusions of quartz sand and silt, chalk and limestone, and fragments of apparent ferruginous shale. In addition, the pipes in the first group, dated to the second half of the eighteenth–first half of the nineteenth century, contain numerous fragments of charred organic material. While the pipes in the second group, dated to the second half of the nineteenth century, do not contain such organics, they do contain sand-size fossil remains and pebble-like gray limestone. This lithology was also found in a group of pipes of similar forms recovered at Tur'an (Shapiro 2018).

The observed lithology suggests a possible provenance either where Paleocene Taqiye marl crops out along side the Lower Cretaceous Hatira Formation or in a drainage basin where its erosion

products can be found. Both these formations are commonly found within the region, and they are exposed in proximity to each other in numerous locations, such as in the northern part of the Hula Valley (Sneh and Weinberger 2014) and along the Lebanese coast, north of Beirut (Dubertret et al. 1955). It is therefore impossible to determine the exact provenance of the pipes based on the analysis of their fabric.

REFERENCES

- Dubertret L., Keller A., Vautrin H., Birembault C., Heybroek H.F., Canaple G., Combaz A., Mandersheid G. and Renouard G. 1955. *Cartes géologiques du Liban 1/200000e: Avec notice explicative*. Beirut.
- Shapiro A. 2018. Tobacco Pipes. In A. Kleiner. Ṭur‘an (West). *HA-ESI* 130 (31 Dec.). http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=25492&mag_id=126 (accessed February 2020).
- Shapiro A. Forthcoming. The Hospitaller Compound: Tobacco Smoking Pipes and Nargile Heads. In E. Stern, D. Syon and A. Tatcher. *‘Akko III: The Excavations of 1991–1998 II: The Late Periods* (IAA Reports). Jerusalem.
- Sharvit Y. 2017. Clay Pipes and Narghiles. In O. Sion and Y. Rapuano. Yafo, Razi’el and Ratosh Streets. *HA-ESI* 129. http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=25311&mag_id=125 (accessed February 2020).
- Sneh A. and Weinberger R. 2014. *Geological Map of Israel 1:50000*. Sheet 2-II (Metulla). GSI. Jerusalem. <https://www.gov.il/he/departments/general/metula-map> (accessed April 2021).