

Aerial view of Khirbet et-Tireh (looking north) in 2015, showing the impact of modern urban development on the site. Photo by Khamees Al-Masri.



A Clay Bread Stamp from Khirbet et-Tireh

Salah H. Al-Houdalieh

The stamping of bread dough before baking is an ancient practice, performed from the Neolithic period up until recent times. The stamped breads were imprinted with a wide range of symbols and used for different occasions and purposes. The clay bread stamp presented here was found at Khirbet et-Tireh, a site lying approximately 16 km northwest of Jerusalem. The design carved into the stamp face consists of a cross and other simple geometrics. This object, which we have dated to the Late Byzantine–Early Islamic period, is notable both for its workmanship and for surviving almost completely intact. Based on the monastic context of the find, plus the stamp's relatively small size, it was probably used to decorate small individual loaves, perhaps as sacramental bread.

History of the Site

Khirbet et-Tireh is located on the western outskirts of Ramallah, approximately 16 km northwest of Jerusalem. The larger ancient settlement covered a total area of about 30,000 sq m,

however nearly three-fourths of its historic fortified space has been destroyed in modern times by the construction of several commercial, residential, and educational facilities, as well as roads. Khirbet et-Tireh was inhabited during the Hellenistic, Roman, Byzantine, and Early Islamic periods. Three excavation campaigns have been conducted thus far under my direction during the summers of 2013 to 2015, with approximately 1,600 sq m being excavated. The surviving architectural remains at the site include two Byzantine-era churches, a Byzantine monastery, a rock-cut olive press (fig. 1), a system of fortifications, a rock-cut reservoir, a cistern, water channels, several burial caves, and a wide street corridor. The excavations at several different locations within the site indicate that most of the unearthed residential complexes consisted of two storeys. The settlement reached its zenith during the Byzantine–Early Islamic period and was probably damaged by the earthquake that struck the Levant in ca. 749 C.E. (fig. 2). In order to engage the local community in safeguarding the country's cultural heritage resources, and to raise public awareness about the importance and value of their cultural heritage, we have organized several free workshops and seminars at different institutions. In addition, at the end of each excavation campaign we conduct a structured and guided site presentation (fig. 3; Al-Houdalieh 2014, 2015, 2016).



Figure 1. The oil press, showing two cross-shaped press frames in the eastern wall (top) and other, larger-scale pressing installations hewn into the floor surface. Photo by Salah Al-Houdalieh.



Figure 2. A destruction layer showing that the floor surface of an upper storey was tessellated with white mosaics. Photo by Salah Al-Houdalieh.

Background

Based on archaeological evidence, stamping implements of various kinds were used throughout history to leave designs on many different materials and objects: bread dough, textiles, the human body, pottery, animals, leather (Naumov 2008: 185–87), mud brick (Kakish 2014: 20; Caseau 2012: 115; Grünbart and Lochner-Metaxas 2004: 178), human and animal figurines, basketry, walls (Prijatelj 2007: 243), wax (Stiebel 2011: 229), and precious metals (Grünbart and Lochner-Metaxas 2004: 178).

Decorating bread by the use of stamps was a common practice in the ancient world (Kakish 2014: 19). Archaeological evidence has pointed out plausibly that this practice was developed in Asia and southern Europe during the Early Neolithic period (eighth millennium B.C.E.; Skeates 2007; Naumov 2008: 191) and has continued without interruption into modern times (Prijatelj 2007: 252). Several scholars have attributed the phenomenon of stamping bread to magical or religious rituals, or simply as a mark of identification, especially for commercial purposes (Kakish 2014: 19).

The corpus of known bread stamps differs greatly according to material, shape, and size (Feig 1994). The documented stamps were also crafted from various materials, including clay (Prijatelj 2007: 240), stone (Prijatelj 2007: 240; Hübner 1990: 177), metal or wood (Stiebel 2011: 229). The bases of the stamps (the part pressed into the dough) can be modeled in any number of different shapes or forms, including circular, oval, rectangular, cross-shaped, foot-like, rhomboid (Prijatelj 2007: 240), and triangular (Kakish 2014: 28). They are of course decorated with a wide variety of motifs, in either low or high relief (Prijatelj 2007: 240). This decoration can consist of many different kinds of geometric patterns, such as triangles, circles, chevrons, dots, crosses, spirals, labyrinths, lines (straight, zigzag or curved; Prijatelj 2007: 240, Naumov 2008: 191–97), meanders, and twisted patterns (Naumov 2008: 191–97). Beyond this, there are figurative designs depicting human beings and animals

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(Prijatelj 2007: 240) as well as inscriptions of words or texts (Hübner 1990: 178). Bread stamps differ in size compared to other kinds of stamps (such as personal/sealing stamps), being significantly larger than other types (Kakish 2014). Among known bread stamps, the size varies as well, depending on the shape and intended function. From the Neolithic period, for example, the base (face) of round or oval stamps ranges between 3–4 cm on average, with some having a diameter of up to 12 cm (Naumov 2008: 191); the height (face to handle-tip) of the Neolithic stamps varies between 5 cm and 8 cm (Prijatelj 2007: 240). When we come to the Byzantine period, however, the dimensions of the base (face) of round or oval stamps range between 3 cm (Kakish 2014: 21–22) up to 20 cm (Hübner 1990: 177).

Feig states that bread stamps were very common in the Mediterranean region during the Byzantine period. However, very few have been discovered in well-stratified cultural contexts exposed in controlled excavation, with most of these dating to the fifth–sixth centuries (1994: 591–92). In Palestine, bread stamps have been discovered in Jerusalem, Beth Shean, Khirbet Gov, Kefar Bar'am in the Upper Galilee, Tiberias, Wadi Murabba'at, Kefar O'thney, Kafr Sume', Tell Wadi z-Zeit, and Caesarea Maritima.¹

The Stamp of Khirbet et-Tireh

The bread stamp was found in the lower part of the destruction layer of a room located about 15 m north of the Byzantine western church. This room, which constitutes part of a much larger Byzantine building (a monastic complex), is situated along the western side of an ancient street or pathway leading to the two apparently contemporaneous Byzantine churches discovered at the site. The destruction layer, measuring 75 cm thick, lay immediately beneath the topsoil and yielded numerous artifacts. These included two byzantine coins; a few animal bones; 23 pottery sherds (of which 13 are diagnostics) representing fragments of jars, bowls, oil lamps, and jugs; and the clay bread stamp, the subject of the present study.

The stamp itself is rectangular in shape, measuring 7.8 cm × 5 cm (base) and 2.6 cm tall (face to handle-tip); its weight is 60 grams. On the back it has a raised handle running across the longer dimension, solid except for a 4 mm diameter perforation midway along its length. The stamp is in good condition, with only minimal breakage on a small section of one edge. The clay is orange in color, of quite fine quality, and the reverse surface, together with the handle,



Figure 3. Site presentation for local civic and religious officials, 2015. Photo by Basil Nofal.

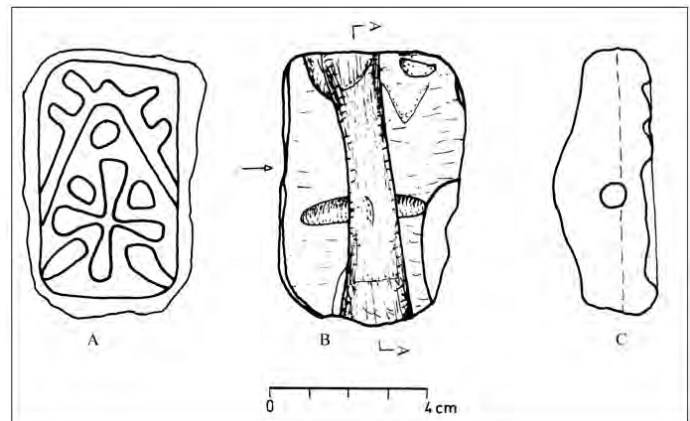


Figure 4. Drawing of the bread stamp from Khirbet et-Tireh: (A) bottom surface (face); (B) upper surface and handle; (C) longitudinal cross section A-A. Drawing by I. Iqtait.



Figure 5. The bread stamp from Khirbet et-Tireh, showing its bottom surface (face). Photo by S. Al-Houdalieh.

bears remains of a thin yellowish slip. The clay is mixed with some sand, small particles of grog and limestone. The face of the stamp is fashioned with a thin, recessed outer frame, leaving a raised area inside for the engraving. This design consists of a large Greek cross surrounded by geometric patterns of dots and radiating lines, all deeply carved (figs. 4 and 5); two of the lines form a prominent “V” shape or chevron. Since the perforated handle is relatively thick and tall, we conclude that the stamping was done with the stamp held between the thumb and forefinger, with the other fingers closed. Moreover, the stamp was likely used frequently by one or more authorized individuals and thus was hung by a string or cord and worn around the neck. Due to the relatively small size of the stamp, we assume that it was pressed upon the center of the leavened loaf, but before it started to rise. Furthermore, the presence of the stamp at Khirbet et-Tireh makes it likely that the bread was manufactured locally.

Conclusion

The bread stamp found at Khirbet et-Tireh is noteworthy for its complete form (except for minor damage) and also the rather high quality of manufacture. It would have been molded by hand, smoothed, then the face engraved, and finally fired to a high temperature. In use it was held between thumb and forefinger and pressed into the leavened but as-yet-unraised dough. This stamp—based on its engraved cross imprint, the monastic context of the find, and the object’s relatively small size—was probably used to decorate small, individual loaves baked for a special purpose, either as sacramental bread for the Eucharist or for distribution to the community afterward. Interpretation of the (inverted?) chevron design awaits further research and comparison with other known examples. Since this object was encountered in the destruction layer of a building more or less contemporaneous with the two unearthed Byzantine–Umayyad period churches on the site, we believe that the stamp can be confidently dated to the Late Byzantine–Early Islamic period.

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Note

1. Tiberias (Feig 1994); Wadi Murabba’at (de Vaux et al. 1961: 35–36); Kefar O’thnay (Stiebel 2006: 29–30); Kafr Sume’ (Hübner 1990: 178); Tell Wadi z-Zeit (Rahmani 1970); Caesarea Maritima (Di Segni 2000: 383–400).

References

- Al-Houdalieh, Salah. 2014. The Byzantine Church of Khirbet et-Tireh. *Journal of Mediterranean Archaeology and Heritage Studies* 2: 188–208.
- . 2015. The Oil Press Complex of Khirbat al-Tira. *Jerusalem Quarterly Journal* 62: 84–96.
- . 2016. The Byzantine Eastern Church of Khirbet et-Tireh. *Archaeological Discovery Journal* 4: 48–67.
- Caseau, B. 2012. Magical Protection and Stamps in Byzantium. Pp. 115–32 in *Seals and Sealing Practices in the Near East: Development in Administration and Magic from Prehistory to the Islamic Period*, ed. Ilona Regulski, Kim Duistermaat, and Peter Verkinderen. *Orientalia Lovaniensia Analecta* 219. Leuven: Peeters.
- De Vaux, R. et al. 1961. *Discoveries in the Judean Desert* II. Oxford: Oxford University Press.
- Di Segni, Leah. 2000. A Chapel of St. Paul at Caesarea Maritime? The Inscriptions. *Libaer Annuus* 50: 383–400.
- Feig, Nurit. 1994. A Byzantine Bread Stamp from Tiberias. *Liber Annus* 44: 591–94.
- Grünbart, M., and S. Lochner-Metaxas. 2004. Stempel(n) in Byzanz. Pp. 177–87 in *Wiener Byzantinistik und Neogräzistik: Beiträge zum Symposium 40 Jahre Institut für Byzantinistik und Neogräzistik der Universität Wien im Gedenken an Herbert Hunger. Wien 4.–7. Dezember 2002*, ed. Wolfram Hörandner, Johannes Koder, and Maria A. Stassinopoulou. *Byzantina et Neograeca* 24. Vienna: Österreichische Akademie der Wissenschaften.
- Hübner, Ulrich. 1990. Ein Byzantinischer Brotstempel aus Dibon. *Zeitschrift des Deutschen Palästina Vereins* 106: 177–79.
- Kakish, Randa. 2014. Ancient Bread Stamps from Jordan. *Mediterranean Archaeology and Archaeometry* 14: 19–31.
- Naumov, Goce. 2008. Imprints of the Neolithic Mind—Clay Stamps from the Republic of Macedonia. *Documenta praehistorica* 35: 185–204.
- Prijatelj, Agni. 2007. Digging the Neolithic Stamp-Seals of SE Europe from Archaeological Deposits, Texts and Mental Constructions. *Documenta praehistorica* 34: 231–56.
- Rahmani, Levi. 1970. A Eulogia Stamp from the Gaza Region. *Israel Exploration Journal* 20: 105–8.
- Skeates, Robin. 2007. Neolithic Stamps: Cultural Patterns, Processes and Potencies. *Cambridge Archaeological Journal* 17: 183–98.
- Stiebel, Guy. 2006. Roman Military Artifacts. Pp. 29–31 in *A Christian Prayer Hall of the Third Century CE at Kefar O’thnay (legio), Excavations at Megiddo Prison 2005*, ed. Yotam Tepper and Leah Di Segni. Jerusalem: Israel Antiquities Authority.
- . 2011. A Military Die from the Bakery. *Qedem* 52: 229–32.

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