Margreet Steiner Archaeological Centre University of Leiden P.O. Box 9515 2300 RA Leiden The Netherlands

# Margreet L. Steiner

# Glass Bracelets From Tall Abū Şarbūţ

Although glass bracelets are found on most excavated Islamic sites as well as in tombs from the late Roman and Byzantine periods, until recently not much attention has been given to these humble objects. At Tall Abū Ṣarbū almost 200 fragments of glass bracelets were excavated during the first three seasons, a collection large enough to permit a typological and technological study. The preliminary results of this analysis are presented here; a full report will be published later.

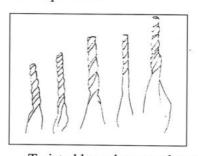
Tall Abū Ṣarbūṭ is situated in the Jordan Valley some kilometres northwest of Tall Dayr 'Allā. Since 1988 three seasons of excavations have been conducted here by a Dutch team, uncovering occupation layers of the Roman/Byzantine and later Islamic periods (de Haas *et al.* 1989; 1992 —the results of the fourth and final season in 1992 are not reported here).

The glass bracelet fragments as well as some glass finger rings and more than 850 fragments of glass vessels were found mainly in the upper levels of the *tall*, dating from the 10/12th to 15th centuries AD. Glass bracelets have also been found on the nearby site of Tall Abū Qurdān, excavated in 1964 (Franken and Kalsbeek 1975), and in the cemetery on top of Tall Dayr 'Allā, the unpublished data of which have kindly been made available to me. All bracelet fragments are being analyzed according to the standards set by Spear (1988), which includes a description of shape, decoration, colour, translucency and dimensions, as well as an analysis of the techniques used.

### **Techniques**

Technologically two basic methods were used. The first involves the bending and closing of a glass cane, which can be either plain or twisted, monochrome or multicolored. Such plain and twisted glass canes, probably used as kohl sticks, were already produced in Jerusalem in the first century BC (Avigad 1983: 186-191) (FIG. 1).

In principle this type can be easily recognised by a seam where the cane was closed. However, reheating of the bracelet sometimes resulted in concealing this seam, and from fragments it is often difficult to establish the technique used.



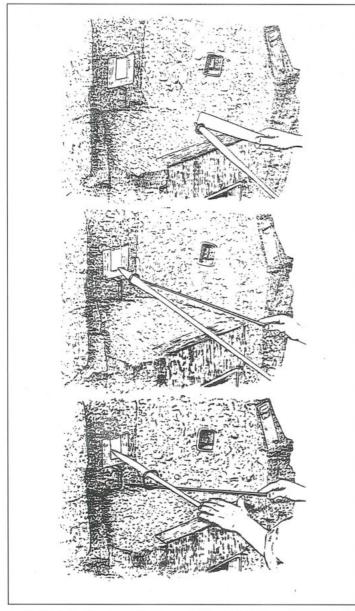
 Twisted glass canes from Jerusalem. First century BC (after Avigad 1983).

Twisted bracelets are always made from a cane. In the Abū Ṣarbūṭ collection about three fourths of the bracelets are of the twisted variety. These are mostly multicoloured, a result obtained by winding thin glass threads of different colours around the cane. The central cane is made of a dark blue or brownish colour, sometimes a very pale green, with threads of yellow, brown, grey, red, green, light blue and white in every possible combination. No two identical bracelets have been found. Nontwisted bracelets made from a cane were also produced, as is borne out by two (monochrome) fragments with a seam.

The second technique resulted in a "seamless" bracelet. A small piece of molten glass was pierced by a metal rod, after which a larger ring was formed by rotating it on the rod with the help of a second tool (Korfmann 1966: 48-61) (FIG. 2). This technique was already used to form the famous bracelets of the La Tène period in Europe (last half of the first millennium BC). This type can be recognized by its D-shaped or flat cross-section and the tool marks on its inner side (if not smoothed away after forming the bracelet). Sometimes a decoration was applied by adding drops or stripes of molten glass in different colours.

#### **Production**

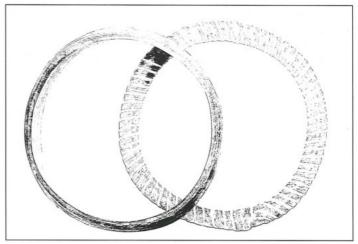
As so many bracelets have been found on Tall Abū Ṣarbūṭ, Tall Abū Qurdān (66 examples) and in the cemetery of Tall Dayr 'Allā (35 examples), the question



Production of a "seamless" glass bracelet in Hebron (after Korfmann 1966: FIGS. 6-8).

arises whether they were produced locally. In the period under consideration Tyre, Hebron, Aleppo, Acre, Sidon, Raqqa, Cairo, Alexandria and Damascus were famous glass production centres, although smaller centres existed as well (Weinberg 1987). Hebron seems to have been especially famous for its glass bracelets, and bracelets of both techniques were still made there and sold in Jerusalem until quite recently (FIG. 3).

At Tall Abū Ṣarbūṭ no remains of local glass production (oven, waste, cullet) have been discovered *in situ*, although some finds indicate that glass was produced in the neighbourhood. Worth mentioning is a piece of glass slag found in the disturbed top layers of the *tall* and a fragment of a glass cane, not yet formed into a bracelet, from the courtyard of a house.



 A "seamed" twisted bracelet, made from a light blue cane with white decoration, and a "seamless" bracelet produced of the same light blue glass, bought in Jerusalem in 1964.

#### Use

From anthropological literature it is known that bangles of bronze, silver and glass were worn on wrists, upper arms, elbows and ankles (Dalman 1937: 341). At Tall Dayr 'Allā 35 glass bangles were found in ten graves, worn on the left and right arm and on the ankle. In one grave five bangles were found "near the vertebral column"; these were possibly sewn to a head scarf or woven into the hair. Glass bracelets were worn together with metal ones. In one grave a woman wore one iron and four glass bracelets on the left arm, and a glass and iron bracelet on the right arm. In another grave six glass bracelets were found together with two bronze ones. Twisted and plain glass bracelets were worn together.

#### **Future Research**

Future research will concentrate on providing a complete repertoire of the glass bracelets of Tall Abū Ṣarbūṭ, gathering evidence for (or against) the possibility of a local production centre for glass bracelets in the neighbourhood of the *tall*, and on comparing the data from Abū Ṣarbūṭ, Abū Qurdān and Dayr 'Allā with those of other excavated villages and cemeteries from the Islamic period.

## **Bibliography**

Avigad, N. 1983. *Discovering Jerusalem*. Nashville. Dalman, G. 1937. *Arbeit und Sitte in Palästina, Band V.* Gütersloh.

Franken, H. J. and Kalsbeek, J. 1975. *Potters of a Medieval Village in the Jordan Valley*. Amsterdam.

- de Haas, H., LaGro, H. E. and Steiner, M. L. 1989. First Season of Excavations at Tell Abu Sarbut 1988, A Preliminary Report. *ADAJ* 33: 323-326.
- 1992. Second and Third Seasons of Excavations at Tell Abu Sarbut, Jordan Valley (Preliminary Report).

ADAJ 36: 333-343.

Korfmann, M. 1966. Zur Herstellung nahtloser Glasringe. *Bonner Jahrbücher* 166: 48-61.

Spear, M. 1988. The Pre-Islamic Glass Bracelets of Palestine. *Journal of Glass Studies* 30: 51-61.

Weinberg, G. D. 1987. A Glass Factory of Crusader Times in Northern Israel. Pp. 305ff in Annales du 10e Congress de l'Association Internationale pour l'Histoire du Verre. Amsterdam.