

Textile tools from two chamber tombs in Dendra

A total number of 16 objects, all spindle whorls, were recorded in the database. 15 whorls are from Chamber tomb 13 and 1 from Chamber tomb 14. Both tombs are dated to LH.

The majority of the spindle whorls are made of stone (figure 1) and half of them have a concave conical shape.

	Clay	Stone
Biconical	1	3
Concave conical		8
Conical		4

Figure 1. Distribution of type and material.

11 whorls are intact and 3 whorls have small fragments missing; only two are fragmentary. The weight has been estimated for the whorls with small fragments missing and a comparison between the whorls with intact weights and the whorls with estimated weights (figure 2) demonstrates that they fall within the same weight range. Therefore we estimate that the margin of error in the calculation of the weight of the whorls with small fragments missing is less than 10% (1g for a spindle whorl weighing ≤ 10 g, 2g for a spindle whorl weighing ≤ 20 g, and so on). This variation of 10% would not have affected the finished product of the spindle whorls and we have therefore decided to include the spindle whorls with small fragments missing in this study.

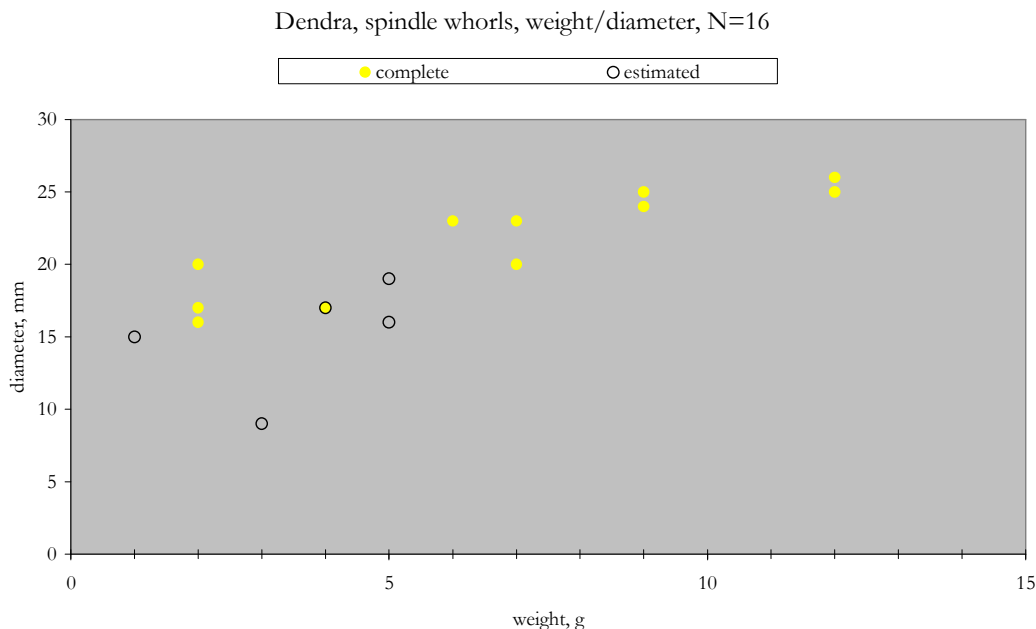


Figure 2. The relationship between the weight/diameter of the complete spindle whorls and spindle whorls with an estimated weight.

As can be seen in figure 2, the recordings demonstrate relatively small variations in weight, 1g - 12g, and diameter, 9 mm - 26 mm, indicating a production of only ‘very thin’ and ‘thin’ yarn.

The 15 spindle whorls from Chamber tomb 13 were found in different contexts mostly pits (figure 3). It is not clear whether the pits represent individual burials or not.

Chamber tomb no 13	Number
pit I	7
pit III	1
pit IV	3
pit VI	1
dump	2
dromos	1
Chamber tomb no 14	1
In all	16

Figure 3. Find context and number of spindle whorls.

It is, however, interesting to observe that the spindle whorls from the different pits indicate a production of slightly different types of finely spun yarn (figure 4). As our experiment has demonstrated there is a small but significant difference between a thread spun with a 4g spindle whorl and a thread spun with an 8g spindle whorl. With the spindle whorls from pit I our TTTC spinners could have produced 3 different qualities of fine spun yarn, with the spindle whorls from pit IV our spinners could have spun two different types of fine yarn.

Dendra, Chamber tomb 13, spindle whorls, context and weight/diameter, N=10

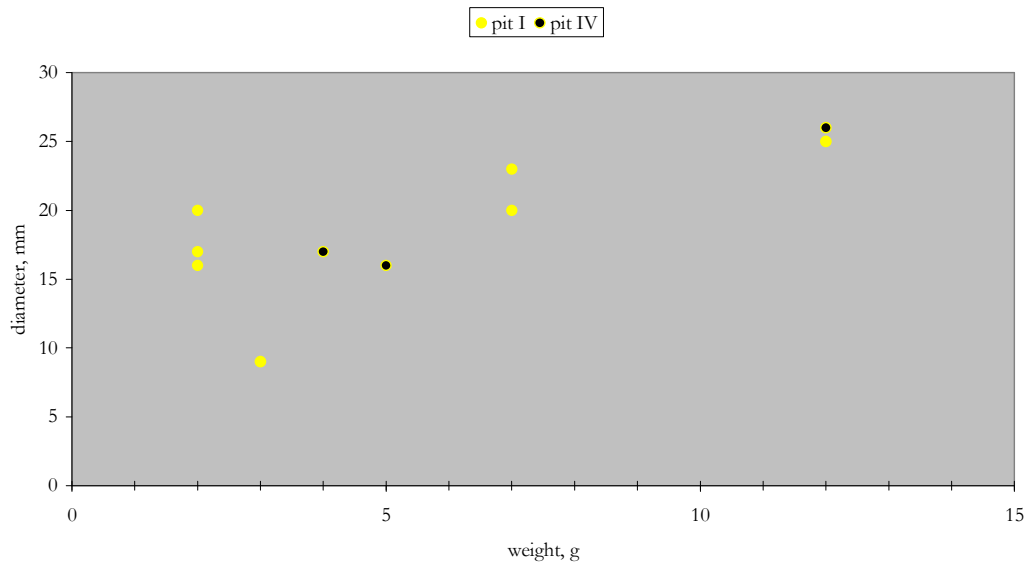


Figure 4. The relationship between context and weight/diameter.

Discussion

The interpretation of tools from burials is always complex. It is difficult - at times impossible - to ascertain the purpose of placing a tool in a burial, and meanings on social, religious, and artisanal levels are all influential to varying degrees. In this analysis, however, we only interpret the functionality of the tools. All the spindle whorls weigh less than 15g demonstrating a production of 'very thin' and 'thin' yarn, which indicates a production of high quality textiles. Such a production would have been very time consuming and demand well prepared raw materials, even-spun threads and a developed knowledge about weaving techniques. As these tools all derive from burial contexts they might not be representative of the textile production of Dendra in general.