

# A Focus on Textile Production in Lucania in the Hellenistic Period

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The research conducted during the last years on textiles and textile tools in southern Italy is giving meaningful results regarding the knowledge of ancient cloths and their production system.

This paper will briefly focus on textile production in a specific area of the south of Italy, Lucania, through three key contexts. The first of them is the so-called Casa dei Pithoi of Serra di Vaglio, a 4<sup>th</sup> century BC aristocratic house excavated in 1986 by Giovanna Greco of the University of Naples Federico II.<sup>1</sup> This dwelling is important because traces of a burnt loom, with several pieces of the wooden posts and about 100 loom weights, have been discovered in the main room, along an inner wall, which is about 2.5 metres long. All the loom weights were documented and new methods of investigation based on research conducted at the Centre for Textile Research in Copenhagen were applied. These methods allow us to establish the quality of the fabric produced by analysing the relationship between the weight and thickness of the loom weights.<sup>2</sup>

All the loom weights of the Casa dei Pithoi are truncated-pyramidal and have one hole. Despite the fact that one loom has been discovered, two sets of weights have nevertheless been identified. A closer examination by the CTR method, which considers the thickness-to-weight ratio of each loom weight, shows the uniformity of these two groups of weights. Fabrics with threads of very good to good quality would have been woven, needing a tension of 12.5 to 15 g with the group A weights and of 7.5 to 10 g with those of group B. However, the density would have been relatively low with both sets. The identification of more than one set can be linked to the production of several qualities of cloths, depending on the household needs.

This data provides a useful basis for comparison with other southern Italian contexts – a late-Achaic dwelling in the Greek polis of Kaulonia and a 3<sup>rd</sup> century BC farm at San Biagio alla Venella, in the Metapontine territory<sup>3</sup> – where at least one loom has been identified to date.

The second context of great importance is the Square Building of the Sanctuary of Hera near the mouth of the Sele river at Paestum, a context that has long been a source of inspiration for scholarly reflection and academic debate.<sup>4</sup> Here, 272 loom weights have been discovered and studied applying the same methods of the previous house. The presence of some looms for the production of several qualities of cloth has been hypothesized by Giovanna Greco in 1995, arguing that it was rather a cult building where the daughters of the local aristocracy spent a period of isolation in preparation for marriage, during which they wove the goddess' *peplos*.<sup>5</sup>

Although the lack of precise archaeological documentation entails an error margin regarding the number of looms, the loom weights found would have been used to

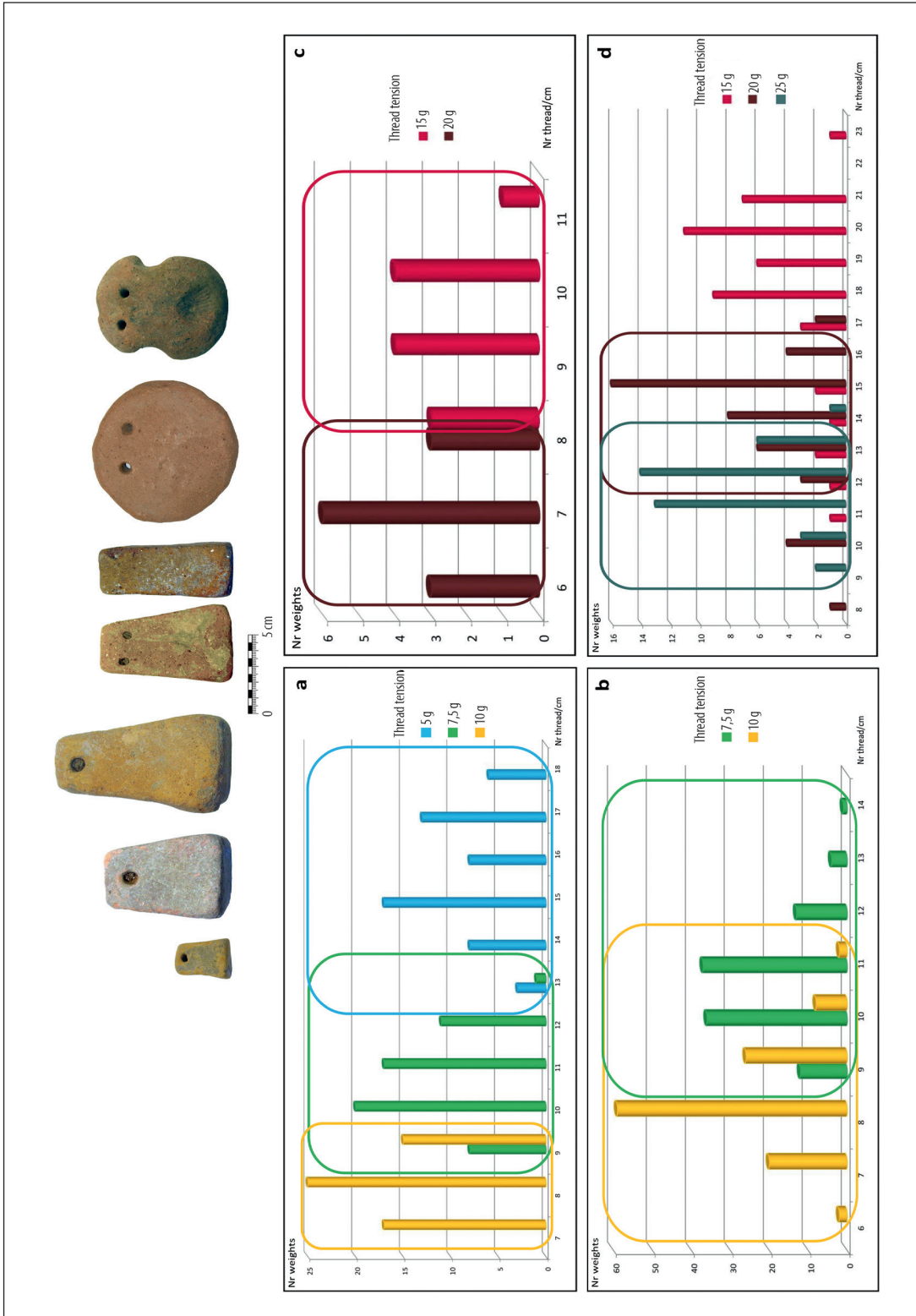


Fig. 1: Fabrics from the groups of loom weights from the Square Building.

produce various qualities of fabrics, with the thread tension included between 5–10 g and 20–25 g (fig. 1).<sup>6</sup> The difference in the quality of fabrics woven with the sets of weights identified is most probably linked to the various garments that the statue of the goddess Hera wore during the annual procession in her honor. As the girls had to weave chitons, cloaks, veils, drapes, himatia and the mitre, they needed loom weights of different thicknesses and weights to produce cloths of varying qualities in terms both of warp density and thread tension.

The data from these two contexts can be now compared with the first pieces of cloth found mineralized and calcified in a 4<sup>th</sup> century BC Lucanian burial of Paestum (Spina Gaudio 418) and recently published.<sup>7</sup> All the fragments belong to a weft-faced tabby, which means that the cloth is unbalanced, with the number of threads/cm of the warp equals to 10–14 and the density of the weft of about 50 threads/cm. The average diameter of the threads used is equals to 0.24–0.34 mm for the warp and 0.13–0.19 mm for the weft. Both the weft and the warp threads are Z twisted, but the torsion angle is strong in the warp and weak in the weft. The quality of the fabric, in terms of the density of the weft, is therefore average.

The analysis of some samples with the scanning electron microscope confirms the fabric has been woven with wool fibres, recognizable by the imprints of cuticle on the surface. The analysis of the quality of the wool fibers, aimed at determining the type of fleece of the ancient sheep and to shed light on ancient races, revealed that the fabric was produced using fine and very well processed wool, with only two fibers exceeding 40 microns.<sup>8</sup>

The combination of the results from these three contexts is the first step to begin to have a first picture of textile production in Lucania during the Hellenistic period.

## Notes

<sup>1</sup> Greco 1991.

<sup>2</sup> Mårtensson et al. 2007; 2009; Andersson Strand 2012; 2013; 2014; Andersson Strand – Nosch 2015.

<sup>3</sup> Meo 2015, 315–319; Luberto – Meo 2017.

<sup>4</sup> Zancani Montuoro – Stoop 1965–66, 23–195; Greco 1995; Greco 1996, 263–282; Greco 2003, 103–122.

<sup>5</sup> Greco 1995.

<sup>6</sup> Ferrara – Meo 2016; 2017.

<sup>7</sup> Meo – Gleba 2017.

<sup>8</sup> See details in Meo – Gleba 2017.

## Image Credits

Fig. 1: By author.

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