

## East Meets West : The Introduction of Cotton Fibres in Ancient Greece

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### Abstract

*Archaeological evidence shows that cotton fibres of the genus *Gossypium* were first used for textile production at Mehrgarh, Pakistan in the Neolithic period (6<sup>th</sup> millenium BC). Eventually the cotton plant and textiles found their way to Egypt and through there, to Greece. However, the chronological origins of the cultivation and/or use of cotton fibres in textile production in ancient Greece are ambiguous. The main sources of information are ancient written texts and excavated textile finds. Both indicate that the introduction of cotton in Greece can be placed in the mid-first millenium BC. However, it is not clear whether the cultivation of the plant and consequently the production of cotton textiles was established in that period or whether another cotton species was produced and used locally in Greece or whether isolated examples of cotton textiles had been imported in Greece before the cotton plant. A more comprehensive analytical study of surviving textile finds coupled with archaeological research for plant production and cultivation would provide the answer to these questions.*

*Key words : cotton fibres, ancient Greece, textile.*

### I . Introduction

Textile artefacts and fibres have travelled along trade routes connecting diverse cultures. Cotton is a textile fibre that has travelled from the East to the West. The earliest known example of cotton used as a textile plant comes from the East. More specifically, from a Neolithic burial (first half of the 6<sup>th</sup> millenium BC) at Mehrgarh in central Balochistan, Pakistan (Moutherat et al., 2002). Moving towards the West, a later example comes from the Early Bronze Age (4450-3000 BC approximately) from Dhuweila in Eastern Jordan (Betts et al., 1994). The earliest known example of cotton

in Africa comes from the 3<sup>rd</sup> millenium BC, from Nubia (Moutherat et al., 2002). There is now clear archaeological evidence of cotton cultivation from Qal'at al-Bahrain, Bahrain, dating to the Achaemenid period (Haerinck 2002). According to Barber (1992), cotton seems to have passed to the northern Mediterranean in the mid-first millenium BC, from Africa (through Egypt) and Arabia. However, according to Adams (2007), the cultivation of the cotton fibre was introduced to Egypt around 100 AD, by the Kingdom of Meroe, located farther south along the Nile in the Sudan. Meroe had an extensive cotton industry. Nowadays, Greece along with Spain, are the main producers of cotton in the European union (European Commission, 2010). How-

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ever, the chronological origins of cotton cultivation and textile production within Greece are ambiguous. This ambiguity can be attributed mainly to two reasons. First because, to the author's knowledge, there is no account of cotton cultivation, fibre processing and textile production in ancient written sources. Second because there are very few textile finds excavated in Greece positively identified to have been made of cotton fibres.

## II. Summary of the Research

### 1. Ancient Written Sources

There is no specific word for cotton or the cotton plant in Classical Greek. Herodotus (III, 47; III, 106; VII, 65, 1) calls it 'wool from trees' (*eria apo xylou*), when referring to the light material of the garments of the Indian people. He also describes a corselet made of cotton and gold embroidery sent to Greece as an offer of the pharaoh Amasis in the 6<sup>th</sup> century BC (Tzahili, 1997; Barber, 1992). Theophrastus (around 320 BC) mentions that the wool-bearing trees plantations look like vineyards from a distance (*HP* IV, 4, 8; IV, 7, 7-8). Contemporary and later authors use the term *byssos* and *karpasos*. Eventually, in *koine* Greek the noun *erioxylon*, 'tree wool', emerges (Wild et al., 2008).

### 2. Excavated Textile Finds

Zissis (1955), identified cotton fibres in a textile find found in Trachones, Attica dated from the 5<sup>th</sup> century BC. He checked the possibility that the textile might be made of a kind of native cotton growing in Samos and other Aegean islands. However, he found that the fibres from this wild plant are so fine that the thread made would be too weak to be used for weaving and could possibly only be used for embroidery. He also considered the possibility that the embroidery on the Amasis corselet was similarly made with a thread locally produced in Egypt. Therefore, he concluded that the Trachones textile must indeed have been imported. However, there are no cotton excavated textile finds before the 3<sup>rd</sup> century BC in Egypt (Tzahili, 1997). Does that mean the

textiles had been imported from the East?

Two more examples of textile finds from the 5<sup>th</sup> century BC, Attica, have been identified as cotton (Margariti, ongoing research). They are both very finely woven burial textiles (similarly to the Trachones find), and show evidence of dyeing with the purple Murex dye. The city of Athens indeed reached its peak in the 5<sup>th</sup> century BC, and had well-established trade-routes with the East. The three known surviving examples of cotton textiles excavated in Greece come from the same region and the same chronological period. This could indicate that the textiles had been imported, rather than locally produced.

## III. Conclusions

The results of the analysis of textile finds excavated in Greece indicate, and ancient written sources further confirm, that cotton textiles had found their way into Greece from the mid-first millennium BC. However, there is no written reference of cotton cultivation in Greece in that period and the finds identified as cotton are very few to suggest it. Further textile finds need to be analysed and palaeobotanical research to be conducted in order to gain a better knowledge on the establishment of cotton cultivation in ancient Greece.

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