

## The Benaki Collection of Fustat Textiles - Analysis and Provenance

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(Received 07 December 2015)

### Abstract

Starting from the year 1912 there have been several excavations at Fustat. For textile historians working on the history of printed cotton textiles these excavations have brought a significant number of printed cottons, preserved in the desert sand, to the notice of collectors and textile historians. The present paper will be devoted to an analysis of the printed cottons found in the collection of the Benaki Museum, Athens. There are clearly three points of origin - Egypt, Armenian settlements in Turkey and Western India. An added feature of this collection is that it is also possible to identify circa eighteenth century European printed cottons clearly manufactured for an oriental clientele. There are grounds for inferring that the Armenian trade network played an important role in this trade.

**Key words:** Benaki, Cotton, Fustat, Fustian, Mordant, Resist, *Roghan*, Sassanid, *Tiraz*

### 1. INTRODUCTION

Since the cotton textiles in the Benaki Museum, Athens reveal a mixed origin, it would be necessary to start by tracing the evolution of the cotton plant and early trade in textiles. Such a historical context would place these within an identifiable framework. This collection was brought together by Antonis Benakis, 1873 – 1929<sup>1</sup> who later donated it to the Greek government. The museum is known as the Benaki Museum of Islamic Art, Athens. The question may be raised as to what is meant by the term “Fustat Textiles”. The Benaki Collection was put together at about the same time as that of the Egyptologist Percy E. Newberry. Newberry was in Egypt between 1900 and 1930 and like Benaki he donated his collection to the Department of Eastern Art in the Ashmolean Museum, Oxford, in 1946. This is known as the Newberry Collection and comprises 2,240

textiles<sup>2</sup>. Ruth Barnes has since published the Catalogue of this collection (*Indian Block – Printed Cotton Textiles in Egypt, The Newberry Collection in the Ashmolean Museum*, Oxford, 1997). Since the Benaki Collection has not been documented the evidence concerning the Newberry collection is relevant to any study of the textiles found in the museum here (Barnes 1990).

These textiles first came to light early in this century; most of them seem to have appeared in the markets of Cairo in the 1920s. Their Indian identity was already considered at the time, but the first serious, full-scale discussion was undertaken by the textile scholar R. Pfister (*Les toiles Imprimées de Fostat en Hindoustan*, Les Editions d'art et d'histoire, Paris, 1938). On stylistic grounds he related the fragments he studied to north-western India, in particular to

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<sup>1</sup> Benaki Museum: THE MUSEUM/ITS HISTORY/ THE /FOUNDERww.benaki.gr/index.asp?id=40102&lang=ený Accessed 30 December, 2013.

<sup>2</sup> jameelcentre.ashmolean.org/collection/7/10236/10316ý Accessed 1 January 2013.

Gujarat, and he established a chronological sequence by linking the textiles to architectural designs. The dates he suggested span four hundred years, from 1200 CE to 1600 CE.

Although similar material is found in many museums, the textile fragments are usually few in number. The Victoria and Albert Museum, London, has only 19 fragments. Dumbarton Oaks in Washington has a similar number, as does the Brooklyn Museum, New York. Small collections exist in Gothenburg, Copenhagen, and Berlin. In India, the Calico Museum, Ahmedabad, has a few fragments, published by John Irwin and Margaret Hall (*Indian Painted and Printed Fabrics*, Calico Museum of Textiles, Ahmedabad, 1971). The Islamic Museum in Cairo, has about two dozen fragments. Pfister's own collection, now in the Vatican, has been published by Georgette Cornu (*Tissus islamiques de la collection Pfister, avec la collaboration de Odile Valansot, Hélène Meyer, Città Bibliothèque apostolique vaticane, Cité de Vaticane*, 1992). She included 26 printed textiles, of which only fourteen are possibly Indian. Representative of a medium-sized collection is the one in the Kelsey Museum at the University of Michigan, which has 56 textiles (Barnes, 1993). The Textile Museum, Washington, holds just over 100 items, and a similar group seems to be in the textile study collection at the Royal Ontario Museum in Toronto. Another collection in this range, partly published by Pfister (*Les toiles Imprimées de Fostat en Hindoustan*, Les Editions d'art et d'histoire, Paris 1938), is in the Musée Cluny in Paris.

Further information has been added resulting from excavations in Nubia at Gebel Adda and at Qasr Ibrim and Quseir al-Qadim off the Red Sea coast. The fragments found are similar to the ones at Fostat. Those of Quseir al-Qadim have been firmly dated to the period extending between the mid-thirteenth to the end of the fourteenth century (Vogelsang-Eastwood, 1990).

## 2. COTTON IN ANTIQUITY

Prior to discussing the collection found at the Benaki Museum in Athens it would be as well to discuss what was known about cotton and its trade prior to the period of the Portuguese Discoveries when the emergence of the of north and south America in the west and the extent of the Pacific Ocean in the east was to dramatically change the contours of the world.

Some scientists are of the view that the cotton genus has a history that extends back to at least 21.5 million years. The genus *Gossypium* has had a long history of evolution. In this article the importance is only on the domesticated species of the old world. There are two main species of cotton, *Gossypium arboreum* and *Gossypium herbaceum*. It is possible that the cotton genus has a history that extends back at least 12.5 million years. In the earlier phases it would have been used as a feed for domesticated animals rather than for weaving. Once weaving was developed there would have been a tendency to favour increased lint bearing capacities of the plant.

Cotton agriculture had already reached the Persian Gulf by the first millennium BCE and parts of North Africa by the early centuries CE, possibly via pathways from southern Africa. It was also introduced into Southeast Asia from India in the early centuries CE. The plant did well in irrigated areas with high summer temperatures. Both *G. arboreum* and *G. herbaceum* are highly drought and salt tolerant crops that today grow well in marginal, arid environments of Asia.

The earliest archaeological evidence for cotton comes from Neolithic Mehrgarh (sixth millennium BCE) in the Kachi Plain of Baluchistan in modern-day Pakistan. From the period of the Mature Harappan onwards (ca. 2600 BCE) there are repeated encounters with cotton fibers and seeds in South Asian sites. Cotton agriculture also appears in the Persian Gulf in the first millennium BCE at the site of Qal'at al-Bahrain, ca. 600–400

BCE. It was also cultivated in North Africa by the early centuries CE, as evidenced by seed remains reported from the sites of Qasr Ibrim, ca. 350 CE and al-Zerqa, first to third centuries CE.

A textual account from the Assyrian records of Sennacherib, 705–681 BCE, describes the introduction of the cotton plant in the royal botanical gardens at Nineveh. However, the absence of further mention in Assyrian records regarding the location of a local cotton industry leads to the assumption that its cultivation could not be sustained in the context of cool, rainy winters of northern Mesopotamia.

Such sources also suggest that cotton cultivation was found only in the tropical and subtropical latitudes of the Old World up to the early centuries CE. Ctesias, for example, writing in the fifth century BCE, describes the trade of Indian cotton garments with peoples of the north. Both Herodotus and Theophrastus cite Egypt, Bahrain, and India as locations where cotton was grown. As far as Syria is concerned it appears to have grown an inferior type of cotton.

The Jewish *Mishnah* and *Talmud* suggest that cotton was grown in the Jordan Valley perhaps by the fourth or fifth century CE, and an Axumite inscription of King Aizana indicates its appearance in the Sudan and Ethiopia by the fourth century CE. In 2009, excavations were conducted at the site of Kara-tepe, relevant for the Khorezm area. These have come up with evidence revealing a variety of seeds including those of the genus *Gossypium* which could be either *G. herbaceum* or *G. arboreum*. These have been dated to circa 260-300-500 CE.

Based on Islamic biographical dictionaries and tax schedules it appears that there was a cotton boom in the early Islamic cultural centres of Nishapur, Qom, Hamadan, Rayy, Isfahan, and Merv beginning in the ninth century CE. From these locales, cotton raw materials and finished products were transported to huge markets in

Baghdad and Basra. This was quickly followed by the diffusion of cotton agriculture throughout the Islamic Empire. By the 10<sup>th</sup> century CE, cotton was found growing in nearly every region of the Muslim world, from Mesopotamia and Syria to Asia Minor, and from Egypt and the Maghreb to Spain. The Arab conquests united an enormous territory stretching from Central Asia to Spain, facilitating communication and trade and spreading agricultural technologies throughout the Old World. Muslim proscriptions against ostentatious fabrics such as silk helped spur global demand for cotton goods, and Muslim policies of land tenure and advances in irrigation technology brought previously marginal lands under cultivation, creating new locales where cotton could grow. In the early modern period Prosper Alpinus, in his book on Egyptian plants, published in 1592, describes the cotton tree, *Gossypium arboreum*, as being distinguished by its height and the whiteness of its fibres from the shrub-like plant, *planta herbacea*, associated with Syria (Wendel et al 2010).

### 3. EARLY TRADE IN COTTON

We now turn to early trade in this fibre. On the whole the land routes from the Far East ran to Asia Minor or to the shores of the Mediterranean and Black Seas through Seleucia or Ecbatana both constituting Iranian points of junction. Iran, therefore, always served as a bridge in the overland trade with India and China and this was in particular evidence under the Sassanians. To Alexandria, across the Red Sea were brought goods from Arabia and Ceylon. The cities of Syria, Antioch, Damascus, Tyre, Berytus and others, carried on a brisk trade with both India and Central Asia. The Sassanids kept their profitable position as middlemen in the overland trade and gradually also came to control the trade to India by sea (Manandian 1965).

During the medieval period the crusades and pilgrimages to the Holy Land were not only

religious expressions which had stirred medieval Europe, but also served the ends of business enterprise which was particularly strong in the merchant cities of Italy. They signified the beginning of a period of commercial relations between Europe and the Levant, in which cotton constituted an important article of trade. Indeed on a pilgrimage undertaken in 1211 Wilbrand of Oldenburg saw the cotton plant growing in the country north of ancient Tripolis (Syria); both cotton and silk were shipped from the port of Beirut. From early times the excise lists of the kingdom of Jerusalem included both raw cotton as well as cotton cloth. The Christian merchants did not attempt to trade with areas proficient in cotton but found all they required in the markets of the Christian states. Ships were loaded at Acre, Laodicea, and Jaffa with *bombacium de ultra mare*, as cotton was called. At a later period trade agreements with the Sultans of Egypt, who were also the rulers of Syria, gave the Venetians access to the most important cities under Muslim rule. Already in the first half of the thirteenth century Venetian merchants visited Damascus; in 1207. P. Marignoni was the ambassador of the Doge Ciani to the Prince of Haleb (Aleppo) a son of Saladin, with whom he negotiated a commercial treaty.

After the fall of Acre in 1291, the transit trade between Syria and Europe was centred in Armenia and Cyprus. In the fourteenth century the great Florentine trading house of Bardi sent its agent Pegolotti to Cyprus to negotiate a reduction of Armenian export duties. Pegolotti maintained journals which provided a detailed list of all the kinds of cotton known at that time. According to Pegolotti the best cotton was that which came from Epiphania and Aleppo (Hanna and Haleb). All visitors to these two places remarked on the extremely rich cotton crop in agriculture. The second place was accorded to the cotton of Lesser Armenia (Cilicia on northeast coast of Anatolia), concentrated round the towns

of Korykos (Burcho) and Adana, also by the cotton of Damascus. The third in rank was given to the cotton grown on the Syrian coast and on the island of Cyprus.

We now turn to another fabric which was to play an important role. With the entry of Islam a new fabric made an ingress into the world of sophisticated garments of the Orient. These were the *tiraz* fabrics which appear in medieval Egypt. Wescher quoting C.J. Lamm, *Cotton in Medieval Textiles in the Near East*, Paris, 1937, states that that the Islamic and Persian East used cotton as a textile material throughout the Middle Ages, either alone or in combination with wool, silk, or linen. As a material characteristic of the Abbasid period in particular the author mentions a mixed fabric of cotton in which wool played a role in the woven design. During the ninth and tenth centuries such inscribed *tiraz* fabrics are found in Egyptian tombs. The latest, dated a.h.429 /1051 CE, belonging to the Caliph Al Kanim, shows that such imports were continued even after the Fatimid conquest (Wescher, 1948).

In Europe also such mixed fabrics, called fustian, make an appearance although they cannot be compared with the richness of the Asian *tiraz*. Fustian comprised mixed fabrics of wool, linen and cotton. The rise of the fustian industry in South Germany and Switzerland increased the demand for cotton. In Basle between 1367 and 1377 the city council suddenly began to take measures which reveal the intention of introducing the cotton trade into Basle. The fabrics woven in Basle were very similar to the fustians of South Germany, having a linen warp and a weft of cotton threads. They were known as *schürnitz*, derived from the Latin term *scorlicium*, signifying an outer garment worn by clerics and women (Wescher 1948). Little Armenia, or Cilicia, produced the cotton for the manufacture of Lombard and south German fustians. Alum, used as a mordant in dyeing red in cotton was procured from Anatolia, northern Syria, and Upper Egypt (Day 2002).



#### 4. THE 'FUSTAT' TEXTILES

The stage is now set for a discussion of the "Fustat" textiles found in the Benaki Museum, Athens. These textiles have been divided into five categories by this author – Yemeni *tiraz*, Western India, Egypt, Turkey–Armenia, Europe. Further research is required to establish whether the last category should remain or if it needs to be merged with Turkey-Armenia.

##### 4.1 Yemeni *Tiraz*

Gujarat has a very rich *ikat* tradition which continues to be practiced into modern times. Gujarat *patola* made by the Salvi family in Patan is much prized all over India and constituted an important export item to medieval Indonesia. There is the single *ikat* which is practiced in Uzbekistan and Tajikistan which is quite distinctive. The Fustat samples would appear to establish that this tradition, rooted in western India, migrated to Yemen and from there spread to other centres assuming a distinct style of its own in later times (figs. 1-3)<sup>3</sup>.

##### 4.2 Western India

Whereas the cotton fibre has a wide distribution and its conversion into yarn was known, painted and printed textiles was best practiced in India. Whereas the south Coromandel coast, with its finer weave cotton, was associated with painted cotton, Gujarat had a tradition of coarser cotton and was associated with a printing tradition. Literary references exist. Authors such as Merutunga, who recorded conditions in Gujarat circa A.D. 884-1194, and Hemachandra, also of Gujarat, born A.D.1089, suggest that block printing was well established in the area by these dates (fig.4).

In this context it would be useful to bring to mind the printed tradition of Russia and

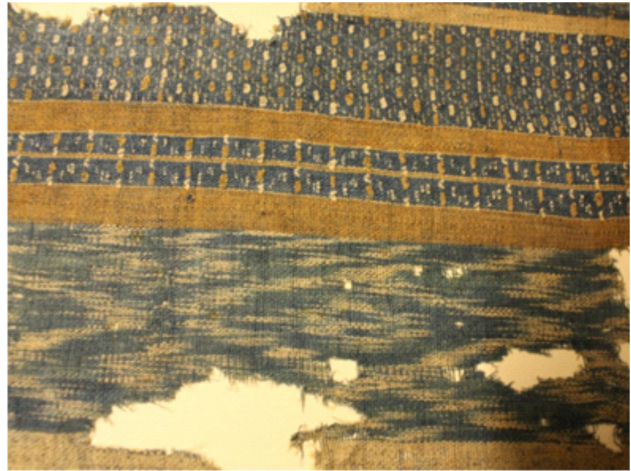


Fig. 1. Acc. no.15062 - Yemeni *tiraz*



Fig. 2. Acc. no. 15581 - Yemeni *tiraz*. Double *ikat*. Lightly embroidered inscriptional panel

Armenia. Turkey and Russia have a tradition of pigment printed textiles. This could have developed from the Islamic tradition of *roghan* or *kadi* printing. The base fabric may be dyed selectively or wholly prior to this process. Russian samples appear to have been resist dyed in indigo prior to being patterned by pigment paste. Samples of printed cloth for which the Russian terms was *podkleivat*, have been found in bound manuscripts at the Matanedaran Library, Armenia (Dournove

<sup>3</sup>See figures 1,2. Cf. L.V. Wilckens, L. Von Wilckens, The Stole at Quedlinburg, *Textile History*, 20, 2, 1989, p. 167.



**Fig. 3.** Acc. no. 15569 - Yemeni *tiraz*. Double *ikat*. Elaborately embroidered inscriptional panel



**Fig. 4.** Acc. no.16390 - Indian block reserve print on mordant dyed cotton base. Appears to show a hunting scene. The depiction of a further eye in a face in profile is a part of the Jain tradition.

1953). The Armenian term is *naboiki*. The Matadaneran samples have been published and the plates bear a close stylistic affinity with Fustat.

With regard to the printing or *naboiki*, tradition in Armenia, John Irwin has written that there was indirect evidence of the existence of this tradition in Armenia since the 10<sup>th</sup> century. This activity was initially an income generation activity carried out in the monasteries but was also undertaken by village printers. By the beginning of the 12<sup>th</sup> century *naboiki* was practiced by artisanal unions. By the 19<sup>th</sup> century it had entered into a state of decline. *Naboiki* was executed on local cloth with local dyes.

The Fustat collection at the Benaki Museum contains three categories of printed items; those dyed in red, those done in blue and dotted items. The red coloured items involved mordant dyeing (fig. 5)<sup>4</sup> and those in blue resist dyeing. There are also samples in which both resist and mordant have been used. Gujarat has a rich tradition of *plangi* in which pattern is achieved by picking up minute areas of cloth and resisting these points by tying with thread.



**Fig. 5.** Acc. no.16389 - This appears to be a crude block printed version of the clamp resist technique

The Indian samples in the Fustat collection do not show any evidence of this. Dotted patterns are achieved by block (fig. 6)

<sup>4</sup>See figure 5. Alfred Buhler, Eberhard Fischer, *Clamp Resist Dyeing of Fabrics*, Ahmedabad, 1977.





**Fig. 6.** Acc. no.16403– Indian indigo reserve print to simulate *plangi*

#### 4.3 Egypt

Until the late 5<sup>th</sup> and early 6<sup>th</sup> century clothing was mainly monochrome as dyes were very expensive. Mordanting for madder with alum, present in Mohenjodaro, does not appear to have been practiced in Egypt until the Christian era. By the Mamluk period, cotton weaving and dyeing had earned a niche within the Egyptian tradition. With regard to patterning Carol Bier states that during the Mamluk period, the characteristic style in textiles, which was also in evidence in other media, was a combination of figural (fig. 7-8)<sup>5</sup>, floral (fig. 9), geometric and calligraphic elements. Animals, which were represented in the earlier period, were substituted in the 14<sup>th</sup> century by repeated inscriptional bands (fig. 10). Where pseudo-inscriptions are to be found, these are not to be ascribed to ignorance on the part of the artisan but rather to the exercise of conscious choice.



**Fig. 7.** Acc. no. 16388. Benaki Museum - Indigo reserve ornamentation on undyed cotton fragment. Provenance Mamluk Egypt



**Fig. 8.** Acc. no. 16074 - Fragment of blazon. The base cloth is mordant dyed red cloth with reverse decoration in appliqué constructed in white fabric. Cotton. Mamluk period

#### 4.4 Turkey-Armenia

It is important to remember that a segment of Armenia had been absorbed into Turkey. It is the Armenian community which contributed to the

<sup>5</sup>See figure 7. Maria Sardi, *Mamluk Textiles*, pp. 7-14, in M.S. Graves, ed., *Islamic Art, Architecture and Material Culture, New Perspectives*, Bar International Series 2436, Oxford, 2012.





**Fig. 9.** Acc. no. 16498 – Duplication of *mihrab* in reverse printed cotton. Provenance: Mamluk Egypt

printed tradition in Turkey. Armenian traders in India were mainly from New Julpha and they played a considerable role both as carriers of trade in *kalamkari* as well as absorbing Indian methods of dyeing which they added to their own repertoire. When in Europe attempts were made particularly in Marseilles to duplicate Indian dye patterned textiles it was to the Armenian-Turks that the French turned (fig. 11). This community also carried the South Indian method of dyeing cotton yarn with red natural dye to the West which bequeathed the name Turkey Red dye to the Indian method. When Napoleon Bonaparte discovered the beauty of the Kashmir shawl in Egypt it was again to the Turkish merchants that he owed his knowledge. The Armenian Church in New Julpha (Isphahan), the St. James Armenian cathedral in Jerusalem and the Matanedaran Cathedral are all rich in Indian *kalamkari* imported by Armenian traders operating in Madras, modern Chennai.

#### 4.5 Europe

The last group encountered in is those enigmatic samples which have been classified as European. These could have been manufactured in about the eighteenth century in European terrain belonging to the Ottoman Turks or by Armenians in Turkey (fig. 12).



**Fig. 10.** Acc. no. 16617 – *Tiraz* fabric. Egypt or Yemen





**Fig. 11.** Acc. no. 16303 – Printed fabric. Probably fabricated by Armenian Turks

### 5. CONCLUSION

As we can see considerable work has been done on the so-called Fustat textiles. The items at the Benaki Museum of Islamic Art, Athens now urgently need attention. Much advance has taken place in modern times in subjects such as identification of natural dyes and in the dating of textiles. Perhaps this presentation may encourage an effort in this direction. The strength of the Benaki Fustat Textile lies in the fact that although imports from India constituted a sizable collection, India was not the only source.

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**Fig. 12.** Acc. no. 16500 East European printed fabric. Probably conceived by the Ottomans or the Armenian Turks

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