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A Name of a Private Factory (or Workshop) on a Piece of Textile: The Case of the Document A.L.18 (Vienna)

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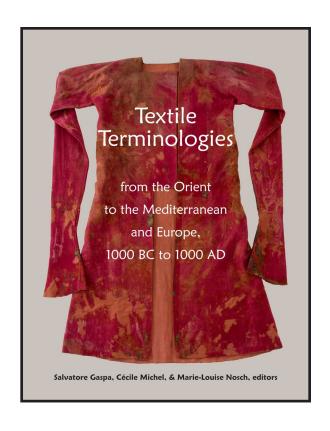
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A Name of a Private Factory (or Workshop) on a Piece of Textile: the Case of the Document A.L.18 (Vienna)

Anne Regourd and Fiona J. L. Handley

The collection

he Arabic Leinwand (A.L.) collection is held by the Department of Papyrus (Papyrussammlung) in the Austrian National Library of Vienna. The collection was acquired in Egypt in the late 19th century by an antiquity trader in Cairo commissioned by Joseph von Karabacek, the famous papyrologist, and contains 68 items. Almost all of these have an association with writing, hence the reason why they were collected for the Library, and only eight objects have no association at all. The language for the most part is Arabic with a few texts in Greek, or with Greek with Arabic.

The collection of pieces related to writing can be broadly divided into the following two categories:

1. Writing on textiles

There are 38 examples of writing on textiles. These are items with epigraphy, with texts written by hand, stamped on, embroidered or woven into the textile. The texts themselves are non-literary and include legal deeds, accounts, letters,

talismans, and some may be purses used by merchants to carry money. Embroidered or woven examples, known as *ţirāz*, are by far the least numerous, with only three examples in the collection.

2. Writing on paper

There are 22 items that make use of reused paper documents. These are fragments of paper that are employed as structural inserts in clothing items including hats. They thus provide information on the work of tailors and hatters in the medieval period.

The papyrologist Adolph Grohmann attempted to organise the collection during the 1920s and 30s and undertook some cataloguing including translating some of the texts.³ However, only a few of the items, mainly the talismans, were published separately via illustration or a summary of their text. So in other words, this collection is unique and largely understudied. The authors, along with a colleague, are currently completing a *catalogue raisonné* of this collection,⁴ using a multidisciplinary approach to understand as much as possible about the provenance of the items,

^{1.} Many thanks to the Austrian National Library of Vienna and to Prof. Bernhard Palme for allowing us to publish the data on this fragment and the images that they have copyright for.

^{2.} One item of the 68 is accessible only through its picture.

^{3.} CPR III, 59-60.

^{4.} Regourd et al. forthcoming.

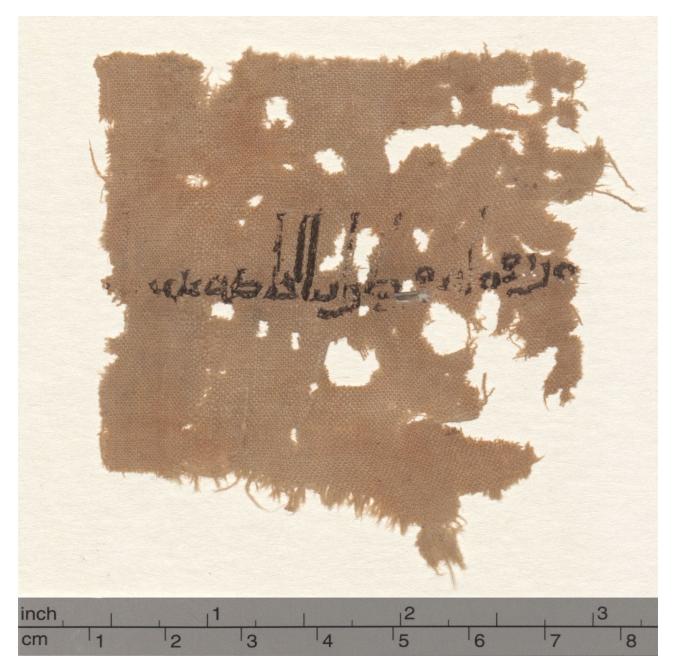


Figure 1. Fragment A.L. 18 recto

the date of their production, their use, disposal and entry into the collections. This article presents one example from this collection, A.L. 18, that challenges our understanding of the terminology around textiles identified as *tirāz*, in particularly their use as historical documents, and their status within the communities where they were made and used.

Fragment A.L. 18

Description

In the collection, there are only three textiles decorated with *tirāz*, and A.L.18 is one of them. It is a fragment 6.8 by 7.6 cm, with edges that were frayed

in antiquity, and which have possibly been trimmed in the recent past. The textile is in 's'-spun linen, in a tabby weave of medium quality of 30 threads per cm. The embroidery is in brown silk in rough stitches, many of which are unidentifiable, but include a majority of double rows of chain stitch. The remains of the tops of the uprights suggest that they may have been slightly ornamented. The embroidery has been heavily worn.

A.L.18's text can be reconstructed through reference to the relevant formulas as follows:

Translation:

"... or]dered to be made in the private factory (tirāz al-khāṣṣa) at Sha[tā..."

This replaces the previous readings made by Karabacek and Grohmann. According to the text, A.L. 18 is an Egyptian textile from the city of Shaṭā, شطان, which is one of the production centers for *tirāz* in Abbasid and Fatimid Egypt. The town is located in the Nile Delta close to Tinnīs and Damietta, both of which were famous places of *tirāz* production that slightly overshadowed Shaṭā. The town was producing textiles in the 2nd/8th century, before that of the public factory at Miṣr.

As the inscription suggests, the word *tirāz* refers both to the type of textile but also to the factory or workshop where those pieces were made, which were under the control of the caliphs and rulers.

Unfortunately, the part where the name of the caliph and the date usually appears is missing. Sometimes a missing date does not pose an obstacle to dating the $tir\bar{a}z$, because if the name of an intendant or $am\bar{\imath}r$ (a member of the caliph's family entrusted with the authority over the $tir\bar{a}z$) appears, these can be cross referenced to other documents and the date worked out. However, with neither a date nor the name of an official, this piece cannot be dated from its inscription.

The textile industry at Shatā

Shaṭā's textile production was recorded by different Arab historians and geographers as early as al-Ya'qūbī (d. 284/8978), Kitāb asmā' al-buldān,9 composed in 276/889, Ibn Hawgal (d. after 362/973), Kitāb Sūrat al-ard, and al-Muqaddasī (d. c., but after 400/1000), Aḥsan al-taqāsīm fī ma 'rifat alaqālīm, a book mainly composed in 375/985.10 They refer to the presence of Copts who may have been involved in the textile industry at Shatā. Various fine textiles are named after the town ("al-bazz alshatawi'). Yāqūt (d. 626/1229), in his Mu'jam albuldān, is aware of "cloths from Shaṭā", i.e., "altiyāb al-shaṭawiyya", then gives more details through al-Hasan b. Muhammad al-Muhallabī (d. 380/990), 11 who said that Shata and Damietta were famous for their production of very fine and delicate textiles, the price of some of them being one thousand dirhams, although no gold was used in their fabric.12

- 5. Karabacek 1909, 38; CPR III, 60 and n. 3, where Grohmann gives a short description of the object, which mainly relates it to his typology ("stammt nach der mit schwarzer Seide eingestickten Inschrift", *i.e.*, belongs to the inscriptions embroidered with silk), followed by his reading of the text of the *ţirāz*, giving the provenance of the fabric erroneously as "Banšâ" (Banshā). In his footnote 3 he refers to Karabacek's reading and revises it, suggesting "bi-'amalihi" as the right reading rather than "bi-'amal", which is Karabacek's reading, but leaves the provenance of the fabric as "Banšâ". On the original envelope in which the textile was stored is a note written by Karabacek with his reading of the text.
- 6. See for instance, Ibn Hawqal 1938-39, 152 [20]; Maqrīzī 1422/2002, vol. 1, 476-493, the long entry on Tinnīs.
- 7. Kuhnel & Bellinger 1952, 84.
- 8. The first date is given in the Hegira calendar and the second is in AD, here and elsewhere.
- 9. Aḥmad al-Yaʻqūbī, cf. Kaḥḥāla c. 1376/1957, vol. 1, 161, and the bibliography. Al-Yaʻqūbī 1892, 338; translation into French, Wiet 1937, 195.
- 10. Al-Muqaddasī 1906, 202; partially translated into French by Miquel 1972, 122.
- 11. Author of K. al-masalik wa-al-mamalik, cf. Kahhāla c. 1376/1957, vol. 3, 313; Hājjī Khalīfa c. 1360/1941, vol. 2, 1665.
- 12. Yāqūt (d. 626/1229) 1410/1990, entry 7110, vol. 3, 388. See also Wüstenfeld 1867, vol. III.1, 288. All these authors, out of al-Fākihī (see below) and al-Muhallabī, are quoted, although sometime only partially by Ramzī 1375/1955, vol. 1/2, 243. Ibn Ḥawqal 1938-39, 152-153 [20], said that the price of *al-šaṭāwī* was even more during his time, from 20,000 to 30,000 dinars, but the passage is a little confusing.

Al-Maqrīzī, the famous Egyptian historian, who died in 845/1442, refers to the city twice: first he mentions as his predecessors did, a type of cloth (*tiyāb*) which is named after the city, *al-tiyāb al-shaṭawiyya*. While he is a little late in date for our item, he also quotes al-Fākihī (d. 272/885),¹³ who saw a *kiswa* from Shaṭā bearing the name of Hārūn al-Rashīd, the famous 'Abbasid caliph, whose reign started in 170/786, as well as the name of al-Faḍl b. al-Rabī', who took over the government under Hārūn al-Rashīd in 187/803, and moreover the date of 191H, *i.e.*, 806-807 AD, the very beginning of the reign of the Caliph Hārūn. The complete text of the *kiswa* is given by al-Fākihī according to Maqrīzī, ¹⁴ and this piece of cloth is described by al-Fākihī as a piece of "*qabāṭī Miṣr*".

So literary sources state that the city of Shaṭā was a place for textile production including some very high quality textiles from at least the end of the 2nd/8th through to the 4th/10th centuries.

The private factory

According to its inscription, the factory where A.L. 18 was made was *al-khāṣṣa* or private. In Cairo under the 'Abbasids there was a distinction made between the public *ţirāz* workshops ('āmma) and the private *ţirāz* workshops (*khāṣṣa*) whose production was reserved for the caliph.¹⁵ By the time of the Fatimid caliphs, the sale of *ţirāz* textiles to the public from the 'āmma was a significant source of revenue with the largest *ţirāz* factories providing an income of more than 200,000 dinars each day¹⁶ and this presumably increased in the later Fatimid period given the dramatic rise in *ţirāz* production at court and the penchant of the middle

and upper classes for imitation.¹⁷

There is some information known about the factory system at Shata. In 937 AD, under the Caliph Abū al-'Abbās Muhammad al-Rādī bi-llāh, the intendant at Shatā was Jābir, following on from one called Shāfī. 18 Later pieces include those produced under the Caliph al-Muțī (334-363/946-974) that mention an intendant called Fā'iz, as well various pieces that mention the public and private tirāz factories at Shatā which were under the direction of Fā'iz. He was evidently the chief intendant of all the Caliph's factories in Shaṭā,19 and his office spanned the end of the 'Abbasid period and the new era of the Fatimids, which started in 341/952 with the Caliphate of al-Mu'izz (from 341/952 to 365/975). An inscription on a textile in the Benaki Museum dated 387/997-998 AD, which states that it comes from the public factory at Shata, confirms that the city hosted a public factory in the 4th/10th century.²⁰

The other well-known places of production in the Nile Delta also had both public and private factories. According to Grohmann, production in both the private and public factories was very well regulated, with those of the private factories particularly bound to ritual as their textiles were reserved for royal use:

"At the head of the administration of these state factories there was always an official of high rank from the judicial or military service... When he arrived with the fabrics intended for the royal use (...) he was received with the highest honours (...) when the bales of the precious fabrics were brought in, the superintendent of the *ţirāz* presented himself to the caliph, showed

- 13. Muḥammad al-Fākihī, cf. *EI*1, II, 49; *GAL*, G1, p.137; Kaḥḥāla c. 1376/1957, vol. 9, 40-41.
- 14. Maqrīzī 1422/2002, vol. 1, 611-612; this text does not appear in the book *Tārīkh al-Fākihī*, *Akhbār Makka*, see the note of the ed., it seems only conserved in Maqrīzī's; Quatremère, *Mémoires géographiques et historiques sur l'Égypte et sur quelques contrées voisines*, I, Paris, 1811, 339; text reproduced in *RCEA*, I, no. 80.
- 15. Grohmann 1913-1936, 793.
- 16. Grohmann 1913-1936, 790.
- 17. Stillman & Sanders 2000, 537.
- 18. Kuhnel & Bellinger 1952, 40. no. 73.214, pl. XVIII, dated 325/936-937, RCEA, IV, no. 1271.
- 19. Kuhnel & Bellinger 1952, 48, no. 73.638, pls. XXI and XLI, dated 338/949-950; *RCEA*, IV, no. 1442. Berlin-Museum für Islamische Kunst, no. I.5569, dated 357/967-968; *RCEA*, V, no. 1644; and text by Pevzner 1960, 39 (quoted after Kalus). Private collection, *RCEA*, V, no. 1648, dated 357/967-968.
- 20. Athens, Benaki Museum, no. A. 173; Combe 1940, 264, no. 7, pl. I; RCEA, VI, no. 2056.

him all that he had brought with him, and called his attention to each piece".²¹

Another item within the Arabic Leinwand collection (A.L. 1) is a fine piece of linen bearing a stamped inscription in red color, the text of which refers, according to Grohmann, to the Caliph al-Mu'izz. The stamp demonstrates one of the mechanisms for controlling the quality of the bolts of cloths produced in royal factories, in this case probably for the purpose of taxes.²²

In contrast to the state-controlled factories, domestic production of cloth continued but in very different circumstances. Grohmann suggests that in the Delta there was "an industry conducted in private houses, probably alongside of the state factories. The lot of the workmen—women span and men wove and the work rooms were rented by them—was wretched; the half dirhem, which was the daily wage, was not sufficient for the minimum necessities of life".²³

In terms of helping date the textile, the mention of the term al- $kh\bar{a}$ \bar{s} $\bar{s}a$ can help slightly because by stating that it was private it, by default, suggests that there was also a public factory, thus dating the piece to probably at least the mid-4th/10th century, as early references to factories were simply described as factories, and these were presumably private.²⁴

Dating from comparable textiles

Grohmann's notes on the textile, which were recorded on the envelope where it was originally stored, refer to several comparator textiles.²⁵ Out of these, only two are traceable, and only one relevant, a textile published in the *Journal of the Royal Asiatic Society* in 1906 which is an embroidery on linen in red thread. The embroidery is now in the V&A collections and is in a stem or running stitch. It is dated to 895 AD with a provenance of the cemetery at Akhmīm in the Sohag Governorate (Egypt). ²⁶ The simplicity of the calligraphy was what probably made Karabacek consider this a comparator, however now that the provenance of the textile has been identified more relevant comparators from Shaṭā can be looked at.

Shaṭā was well known as a textile centre from the end of the 2nd/beginning of the 9th century, and produced fine pieces such as the veil for the Kaaba (191H). As stated above, the complete text is given by al-Fākihī according to Maqrīzī,²⁷ and this piece of cloth is described by al-Fākihī as a piece of "qabāṭī Miṣr", i.e., tapestry from Miṣr according to the Editor of the text, Ayman Fu'ad Sayyid.²⁸

Other tapestry examples from Shaṭā include pieces in the Royal Ontario Museum such as a linen with blue silk weft tapestry dated to 949 AD, blue and yellow silk weft tapestry dated to 937 AD, and a further example attributed to Shaṭā dating to 944-945 AD.²⁹ Other examples include a piece with small red lettering on a yellow band, dated 370/980-981,³⁰ and another in red silk tapestry dated to 350/962.³¹

There seem to be very few surviving examples of embroidered *tirāz* from Shaṭā, although there is one example in dark brown silk in a variety of stitches, made under al-Mu'tamid, dated 276/889-890, which is in the Kelsey Museum of Archaeology

- 21. Grohmann 1913-1936, 790.
- 22. CPR III, 59, and Fig. 2.
- 23. Grohmann 1913-1936, 789.
- 24. Kuhnel & Bellinger 1952, 121, 124.
- 25. There were four references cited by Grohmann in CPR III: Staatlichen Museen in Berlin, Papyrussammlung, "ein Linnenstück mit einem mit blauer Seide eingestickten Tirâz (P. Berol. 7616)" (which were not traceable); South Kensington Museum, Guest 1906, with 4 pl.; linen, 2-6, 8, 11-14, silk and linen, 10, 15, 16, silk 1, 7, 9 (which has been traced); Sewell 1907, 163 (traced but is not relevant); and Fraehn 1822, MASP 8, 572-574 (which was not traceable).
- 26. Guest 1906, No 2; Victoria & Albert Museum 2014, Textile Fragment 257-1889.
- 27. See our footnote 12, and the note of the ed. Ayman Fu'ad Sayyid, 611.
- 28. Maqrīzī 1422/2002, vol. 1, 489, note 5, where A.F. Sayyid retraces "*al-qabāṭī*" as a *nisba* of "Aqbāṭ Miṣr", the Copts of Egypt, and says that it means tapestry on the basis of one of his previous publications.
- 29. Kuhnel & Bellinger 1952, 73.638, 47; 73.214; 73.651, 47.
- 30. RCEA V, 1889.
- 31. Boston-Museum of Fine Arts, no. 34.118, cf. Britton 1938, 48, fig. 28.



Figure 2. Detail of front of A.L. 18 showing double row of chain stitch

at Ann Arbor.³² Embroidered examples from nearby Tinnīs are far more numerous, with examples from the Royal Ontario Museum dated to 911-912 AD,³³ the Ashmolean Museum, Oxford, dated to 901 AD (1988.47)³⁴ and Cleveland Museum of Art dated to 889-890 AD.³⁵

There are temporal changes in the techniques used to create *tirāz* within the factory system. Generally, the factory production of *tirāz* in the Delta area of Egypt began in the 2nd/8th century by emulating embroidered *tirāz* imported from areas of the Middle East such as Iran. The Egyptian factories used a different suite of embroidery stitches on a linen rather than cotton ground, then shifted in the later 4th/10th century to producing similar designs in tapestry, a technique which had a longer and more embedded tradition in Egypt.

Stylistically, all the cited examples both in embroidery and tapestry bear a resemblance to A.L. 18, with unadorned long lettering with little embellishment apart from the slight capping of the uprights reminiscent of Tinnīs tapestry and embroidery. However there is one factor that complicates this scenario, and indeed brings the whole issue of the provenance of the textile based on its inscription into doubt. From a technical perspective, all of the above examples are very high quality and fit clearly into technical categories associated with production in the Delta in the early to late 3rd/9th century. In the



Figure 3. Reverse of A.L. 18 showing the slanted stich which is the reverse of chain stitch

case of embroideries, this means that the majority of their stitches are running or couched stitches. In contrast, the decipherable stitches of A.L. 18, which is the majority of them, are executed in chain stitch. Chain stitch was used in Iran, and typified *ţirāz* from those factories, and although the stitch was occasionally used by Egyptian embroiderers, for example in turning the corners of letters,³⁶ examples where it was the sole stitch used in a *ţirāz* piece have been identified as the hand of Iranians working in Egyptian factories (e.g., Tinnīs).37 However, the examples identified by Kuhnel are the work of a professional, while it is less likely that A.L. 18 is. Its poor quality is exacerbated by having quite a loose chain, with, in some areas such as the uprights on the letters, two rows running parallel to each other (see figure 2). While the chain stitch is hard to decipher on the front side of the cloth, the typical reverse of chain stitch of a line of slightly slanting stiches, can be seen on the back of the textile, the two parallel rows representing the two rows of chain stitch on the uprights (figure 3). It is immediately obvious that the embroiderer struggled to control the stitch

^{32.} Day 1937, no.2, 423 and fig. 2. See Kuhnel & Bellinger 1952, 40.

^{33.} Kuhnel & Bellinger 1952, 978.76.18.

^{34.} Ellis 2001, 1.

^{35.} Cleveland Museum of Art 1932.17.

^{36.} Kuhnel & Bellinger 1952, 103.

size, and that there was little planning of the placing of the letters or how the stitch work would run between them. For example, on the front side, the 'tails' of the letters are worked as a curve on the left hand side, but on the right, they are 'counted', that is following the warp and weft, giving a block effect to the letter shape. It would seem that the needlework was certainly not that of a professional embroiderer in chain stitch, nor indeed even a competent one.

Discussion

During the late 2nd/8th, 3rd/9th and 4th/10th centuries Shaṭā produced a variety of textiles from state-controlled factories, initially private ones, later both private and public, which at times were under the control of just one intendant. While there are few examples of surviving embroidery this must have made up a substantial part of the early production. The surviving examples of linen with silk tapestry dating from towards the end of the 4th/10th century form a distinct assemblage of textiles, in line with other production from neighbouring towns. As is the case when comparisons with documentary sources are possible, the texts recount a much wider variety of types of textiles produced at Shaṭā than have actually survived, including some very high status fabrics.

Where does A.L. 18 fit into this picture? With the possibility of this being done by an Iranian embroiderer working in Shaṭā being ruled out, the question is raised of why a private *ţirāz* factory in Shaṭā was producing such poor quality embroidery that emulated Iranian embroidery techniques. If, as Grohmann suggests, the produce of the private factories was individually presented to royals, then A.L. 18 seems unlikely to be this caliber of textile. It may have perhaps been reserved for the humbler members of the royal entourage, or given away as a low quality gift. However its combination of strange technique and poor execution surely suggests that this was not the product of any state workshop, or if it was, it was perhaps some kind

of trial, that somehow ended up leaving the factory, although the wear on it suggests that it was used extensively before being disposed of.

Could this be that this was not a private factory production at all, but *tirāz* created outside the state system attempting to pass off both an inscription and technique? It could be a copy of an 'authentic' *țirāz* textile, which mixes an Egyptian inscription with an Iranian embroidery technique. This would certainly fit with this period's 'penchant for imitation' whereby there was a strong trade in reproductions and poorer quality imitations, 38 and where domestic embroiderers replicated in stitches tapestry work that had been produced on a loom.³⁹ So could this then be an embroidery that was not produced in the khāṣṣa factory, but 'claims' to be? Why though would the embroiderer choose a technique that they were evidently incompetent in—this surely would have revealed it as a fake to anyone who knew the production from the private factories of Shata? Perhaps it was created in one of the workshops which Grohmann described as "wretched",40 that were outside the state system, and thus beyond its quality controls. These must have sold on to a 'black' market where imitations, such as the tapestry example in the Musée des Tissus de Lyon,41 were the norm.

If there were any questions asked about provenance of the *tirāz* the evidence could easily be cut off and discarded—and indeed this would be the fragment that would contain that evidence that it was a fake. A further point which is worth bearing in mind is that A.L. 18, in line with the other textiles in the collection including the other two *tirāz* pieces (A.L. 11 and 48), did not come from a burial site, but from a rubbish dump. It was not therefore carefully disposed of as most surviving *tirāz* pieces in other collections were, but it really was worn out and thrown away. Even as a poor quality imitation of an example of *tirāz* that was either very rare or never actually existed, it still had enough value that it was used until it was worn into a rag.

^{37.} Kuhnel & Bellinger 1952, 26, 107.

^{38.} Stillman & Sanders 2000, 537.

^{39.} Fluck & Helmecke 2014, 255.

^{40.} Grohmann 1913-1936, 789.

^{41.} Day 2010, 42.

Conclusions

The analysis of this piece of textile has highlighted how complicated deciphering textile terminologies can be. Many tirāz textiles contain the written information that identifies them as a type of object and gives them a historic and production context. As a textile category they helpfully reveal what they are, even when fragmentary. This does mean that each piece's historical value has tended to be based on the information in its written text, therefore textiles that cannot be dated or are uninscribed have been neglected.⁴² However, this example has raised some interesting, albeit unanswerable, questions—what does it mean if the information on tirāz is not true? Suddenly, new ideas about the people producing the item and the life history of the object are opened up to scrutiny, questions that would probably never been raised if there was a consistency between decorative technique, quality and inscription. Instead, the analysis throws up more questions than answers, but these questions are ones that lead to a deeper consideration of how tirāz textiles were made and used, and to our understanding of the term *ţirāz*.

Abbreviations

- CPR III = Grohmann, A. (1924) *Allgemeine Einführung in die arabischen Papyri*. Vol. 1, part 1: *Einführung*. Corpus Papyrorum Raineri III. Vienna.
- EI^{1} and $EI^{2} = Encyclopaedia$ of Islam (1st and 2nd edition).
- *GAL* = Brockelmann C. (1937-1949) *Geschichte der arabischen Litteratur*, 4 vols. Leiden.
- MASP = Mémoires de l'Académie impériale des sciences de Saint-Pétersbourg.
- RCEA = Répertoire chronologique d'épigraphie arabe. Cairo 1931-.

Bibliography

- Britton, N. P. (1938) Some Early Islamic Textiles in the Boston Museum of Art, Boston. Boston.
- Cleveland Museum of Art (nd) Fragment of a Tiraz, 889-890 1932.17. *Online Catalogue*. http://www.clevelandart.org/art/collection/search (Accessed 10 December 2014).
- Combe, E. (1940) Tissus fățimides du Musée Benaki, in *Mélanges Maspero*, III. *Orient islamique*. Mémoires publiés par les membres de l'Institut Français d'Archéologie Orientale du Caire LXVIII. Cairo, 259-272.
- Day, F. E. (1937) Dated Țirāz in the Collection of the University of Michigan, *Ars Islamica* IV, 420-447.
- Day, S. (2010) Fragment de *tirâz* à l'épigraphie coufique. In M.-A. Privat-Savigny (ed.), *Guide des collections: Musée des tissus de Lyon*, Chap. II, « L'Orient », 42. Lyon.
- Ellis, M. (2001) *Embroideries and Samplers from Ancient Egypt*. Oxford.
- Fluck, C. & Helmecke, G. (2014) Egypt's Post-Pharonic Textiles. In G. Gabra (ed.), *Coptic Civilization: Two thousand years of Christianity in Egypt*, 237-260.
- Frähn, C. M. (1822) *Inscriptiones cuficae acu pictae linteolo inserto*. MASP 8. St-Petersburg.
- Grohmann, A. (1913-1936) *Țirāz*. In *EI*¹, vol. IV, 785-793.
- Guest, A. R. (1906) Notice of some Arabic Inscriptions on Textiles at the South Kensington Museum, *Journal of the Royal Asiatic Society* 38/2, 387-399.
- Hājjī Khalīfa (c. 1360/1941) *Kashf al-zunūn 'an asāmī al-kutub wa-al-funūn*. 2 vols. Beirut.
- Ibn Ḥawqal (d. after 362/973) (1938-1939) *Kitāb Ṣūrat al-arḍ. Opus geographicum ... Liber imaginis terrae*. Ed. J. H. Kramers, Leiden.
- Kaḥḥāla, 'U. R. (c. 1376/1957) Mu'jam al-mu'allifīn: Tarājim muşannifī al-kutub al-'arabiyya. 15 vols. Beirut.
- Karabacek, J. von (1909) Zur orientalischen Altertumskunde. II. Die arabischen Papyrusprotokolle. Vienna.
- Kühnel, E. (1933) Zur Tirâz-Epigraphik der Abbasiden und Fatimiden. In von Oppenheim, M. (ed.) Aus fünf Jahrtausenden morgenländischer Kultur: Festschrift Max Freiherrn von Oppenheim zum 70. Geburtstage gewidmet von Freunden und Mitarbeitern. Berlin, 59-65.

- Kühnel, E. & Bellinger, L. (1952) *Catalogue of Dated Tiraz Fabrics: Umayyad, Abbasid, Fatimid.* Washington.
- Maqrīzī (d. 845/1442) (1422/2002), *Al-mawā 'iz wa-al-i 'tibār fī dikr al-ḫiṭāṭ wa-al-aṯār*, ed. A.F. Sayyid, vol. I. London.
- Miquel, A. (1972) L'Égypte vue par un géographe arabe du IVe/Xe siècle: al-Muqaddasī. *Annales islam-ologiques* XI, 109-139.
- Muqaddasī (d. c., but after 400/1000) (1906) Aḥsan altaqāsīm fī ma 'rifat al-aqālīm, ed. M. J. de Goeje, Al-Moqaddasi, Descriptio Imperii Moslemici. Leiden, Brill.
- Pevzner, S. B. (1960) Fatimidskij tirāz iz sobranija Gosudarstvjennogo Ermitazha, *Epigrafika Vostoka* XIII, 35-40.
- Quatremère, J. (1811) Mémoires géographiques et historiques sur l'Égypte et sur quelques contrées voisines. Vol. I. Paris.
- Ramzī, M. (1375/1955) Al-qāmūs al-jughrāfī bi-al-bilād al-miṣriyya. Min ahd qudamā' al-miṣriyyīn ilā sanat 1945. Vol. 1/2. Cairo.
- Regourd, A., Handley, F.J.L. & Reinfandt, L. (Forthcoming) *Catalogue raisonné of the Arabisch Leinwand*

- collection. Papyrussammlung, Austrian National Library. Vienna.
- Sewell, R. (1907) Arabic Inscriptions on Textiles. *Journal of the Royal Asiatic Society of Great Britain and Ireland (New Series)*. Volume 39, 163-164.
- Soudan, F. & Kalus, L. (ongoing database) *Thésaurus d'épigraphie arabe*, Geneva, Foundation Max van Berchem, http://www.epigraphie-islamique.org/epi/search.php (Accessed in January 2015).
- Stillman, Y. & Sanders, P. (2000) *Tirāz*. In *EI*², vol. 10, 534-538.
- Victoria & Albert Museum 2014 Textile Fragment 257-1889 Search the Collections http://collections.vam.ac.uk/item/O77072/textile-fragment/ (Accessed 10 December 2014).
- Wiet, G. (1937) Ya 'kūbī. Les Pays. Cairo. (French transl.)
- Wüstenfeld, F. (ed.) (1867) *Jacut's geographisches Wörterbuch aus den Handschriften zu Berlin, St. Petersburg und Paris*. vol. III.1. Leipzig.
- Al-Ya'qūbī (d. 284/897) (1892) *K. al-Buldān*, ed. de Goeje. Leiden.
- Yāqūt (d. 626/1229) (1410/1990) *Mu'jam al-buldān*, ed. Farīd 'Abd al-'Azīz al-Jundī. Beirut.