

The Watermarks from the Refaiya-Library

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1. INTRODUCTION

1.1. *The Refaiya*

In the year 1853, the Prussian consul to Damascus, Johann Gottfried Wetzstein (died 1905), succeeded in purchasing the Rifāī family library incorporating some 458 manuscripts. The purchase had been commissioned by the government of Saxony with a budget of 70,000 piastre. Wetzstein was supported in his negotiations by his former teacher, Heinrich Leberecht Fleischer (died 1888). The library's owner, 'Umar Efendi al-Rifāī al-Ḥamawī, had decided to exchange the book collection, which had been protected since 1774 as a family endowment for a plantation worth 32,000 piastre. The collection arrived safe and sound in Leipzig on December 21, 1853, and has remained there ever since under the name Refaiya.¹ The manuscripts date from the 10th to the 19th centuries and present a cross-section of the richness and diversity of Islamic writing, with a relatively high proportion of books on poetry and mysticism. The Refaiya thus distinguishes itself from the mosque and madrasa libraries, which were as a matter of course primarily devoted to religious writing. After an initial inventory was made by Fleischer², a further description was supplied in Karl Voller's (died

¹ Fleischer, Heinrich Leberecht, "Die Refaiya," in *ZDMG* 8, 1854, pp. 573-584; Döring, Detlef: Der Erwerb der Refaiya-Handschriften durch die sächsische Regierung im Jahre 1853, in: *Orientalistische Philologie und Arabische Linguistik*. Hrsg. von Wolfgang Reuschel. In: *Asien-Afrika-Lateinamerika*, Sonderheft 2 (1990), pp. 19-23.; <http://www.refaiya.uni-leipzig.de/research>: The circumstances surrounding the sale and acquisition of the library to Dresden/Leipzig.

² Fleischer, Die Refaiya, pp. 575-584.

1909)³ manuscript catalogue from 1906, which treated the collection not as a closed unit but ordered it according to thematic categories in combination with further manuscripts.

1.2. Research project: Cataloguing, research and digital presentation of the Refaiya

Since October 2008, the Refaiya has once again become a focus of scholarly interest. In a project supported by the DFG [German Research Foundation], set to run over four years, the collection will be subject to scientific scholarly analysis, databank-assisted indexing and digital presentation at Leipzig University and Leipzig University Library.⁴ In addition, the historical and cultural environment will be documented and researched.

1.3. Watermarks

The watermarks on the paper of the c 262 codices represent one aspect of the economical and cultural relationships in which the Refaiya was embedded. The watermarks are produced by figures made of metal wire attached to the paper mould and are a telltale feature of European handmade paper. The birthplace of European paper manufacturing is Italy. The new technology spread rapidly through other European countries, where countless paper mills sprang up in imitation of the Italian model. By the 14th century, watermark paper had become a widespread phenomenon throughout Europe.⁵

1.4. Trade between West and East

European paper manufacturing eventually seeped into the Islamic world. Whereas the art of making paper had originally travelled from China through Iran, the Middle East and Spain to

³ Vollers, Karl: Katalog der islamischen, christlich-orientalischen, jüdischen und samaritanischen Handschriften der Universitätsbibliothek zu Leipzig. Leipzig 1906, reprint Osnabrück 1975.

⁴ <http://www.refaiya.uni-leipzig.de>.

⁵ Tschudin, Peter F.: Grundzüge der Papiergeschichte. Stuttgart 2002, pp. 100-108.

Europe the direction was now reversed. The mills in the Islamic countries were unable to satisfy the steadily growing demand for paper among the cultural and literary elite. In the long run, they had nothing to compare with the quality of European paper manufactured cheaply on a grand scale.⁶ The use of European watermark paper for manuscripts in North Africa can be traced back as far as the mid 14th century. In the 15th century, the importation of paper by the Ottoman Empire began to increase. While the use of European papers was roughly comparable with that of their Oriental equivalent in the 16th century, the majority of manuscripts in Turkey, Syria, Egypt and North Africa began to be copied onto European paper from the 17th century on.⁷ The main point of transfer for paper export to the Levant was Venice, which drew its paper from Upper Italian mills. France entered the stage as a paper exporter for the Near East in the 17th century. The paper mills in the region around Marseille, Pertuis and Entraigues produced paper primarily for trade with the Levant. In the second half of the 18th century, the paper manufacturers in Lombardy and Veneto dominated the trade with the Orient. In the early 19th century, after Venice lost its trade hegemony, Trieste took over as transshipment port. Well into the 19th century, the Levant drew a large part of its paper from Austria-Hungary.⁸

1.5. The importance of watermark research

Watermarks provide an important source of knowledge in the study of the national and international production, trade and distribution of paper. They are also a useful instrument for

⁶ Loveday, Helen: Islamic paper. A study of the ancient craft. London 2001, pp. 25-26.

⁷ Déroche, François: Islamic Codicology. An Introduction to the Study of Manuscripts in Arabic Script. London 2005, pp. 57-58.

⁸ Babinger, Franz: Papierhandel und Papierbereitung in der Levante. Sonderdruck aus dem: Wochenblatt für Papierfabrikation LXII. Jahrgang, no. 52, 1931, pp. 8-12; Walz, Terence: The Paper Trade of Egypt and the Sudan in the Eighteenth and Nineteenth Centuries. In: Modernization in the Sudan. Essays in Honor of Richard Hill. Ed. by M. W. Daly. New York 1985, pp. 30-36.

establishing the chronological attribution of undated manuscripts and for the correction of false dating.⁹ In the study of occidental manuscripts watermarks are successfully deployed as dating instruments.¹⁰ This requires the use of sample repertories with which to compare and identify the watermarks of particular manuscripts. It is regrettable that the subject of watermark paper in Islamic manuscript collections has received so little scholarly attention in Islamic codicology as well as in the study of European watermarks.

1.6. *Aim of the paper*

By systematically collating and evaluating the watermarks contained in the manuscripts, the Refaiya project aims, among other things, to make a long-term contribution to the provision and documentation of new sample material in the field, which would also be useful for interdisciplinary research. So far, a list of motifs has been compiled from the watermarks from the Refaiya and the motifs of a small group of 39 manuscripts have been traced and evaluated. The results are presented in this paper.

Beforehand however, the current state of research on watermarks in occidental and Islamic codicology will be sketched out in order to give the reader an idea of the problems and difficulties involved in studying watermarks in oriental collections and of the foundational research that still needs to be done.

⁹ Weiss, Karl Theodor: *Handbuch der Wasserzeichenkunde*. Bearbeitet und herausgegeben von Wisso Weiss. Leipzig 1962, pp. 9-19.

¹⁰ Bull's Head and Mermaid. The History of Paper and Watermarks from the Middle Ages to the Modern Period. Booklet and catalogue of the exhibition presented by the Landesarchiv Baden-Württemberg, Hauptstaatsarchiv Stuttgart and the Austrian Academy of Sciences, Kommission für Schrift- und Buchwesen des Mittelalters, Vienna. Stuttgart and Vienna 2009, pp. 33-65.

2. THE STUDY OF WATERMARKS IN OCCIDENTAL CODICOLOGY

2.1. *Repertories*

The analysis of watermarks is a firmly established historical ancillary science for the study of European manuscripts from the Middle Ages and the Modern Era, as well as of artists' drawings, musical notation and incunabula. It is also an essential component of the historical study of paper. The two major repertories by Charles-Moïse Briquet (died 1918)¹¹ and Gerhard Piccard (died 1989)¹² were the cornerstone for the study of watermarks and for their use in dating. Other printed catalogues of watermarks from smaller collections supplement the work done by Briquet and Piccard.¹³ With few exceptions all of the repertories are confined to the period from the 14th century to 1600, i.e. from the late Middle Ages to the early modern period. There is a preference for watermarks on medieval paper as the quantity of material is relatively manageable. The prospect of cataloguing the veritable flood of watermark paper that soon followed presents itself as an impossible task.¹⁴ Dating problems also play an important part, particularly in early written documents. Since the majority of the extant Islamic manuscripts are from the 16th – 19th centuries, watermark repertories from the modern period would be an important aid when studying their watermarks. The comparative material needs to be constantly expanded in order to attain new insights and fill in gaps in this area of research.¹⁵

¹¹ Briquet, Charles-Moïse: *Les Filigranes. Dictionnaire historique des marques du papier dès leurs apparition vers jusqu'en 1600*, 4 vols. Paris etc. 1907, 2nd ed. Leipzig 1923.

¹² Piccard, Gerhard: *Die Wasserzeichenkartei Piccard im Hauptstaatsarchiv Stuttgart*, 17 vols. Stuttgart 1961-1997.

¹³ For a list see *Bull's Head and Mermaid*, pp. 74-75.

¹⁴ Weiss, *Handbuch der Wasserzeichenkunde*, p. 18; *Bull's Head and Mermaid*, p. 77.

¹⁵ The Deutsche Buch- und Schriftmuseum der Deutschen Nationalbibliothek Leipzig contains a comprehensive collection of previously unpublished 19th century watermarks, see http://www.d-nb.de/sammlungen/dbsm/mus_bestaende/bestaende/wasserzeichen.htm.

2.2. The digital presentation of watermarks

In the last few years, the study of occidental watermarks has made use of the internet as a second medium both for the online presentation of printed compendia¹⁶ and for the databank-assisted digital presentation of previously unknown collections. In addition, four online watermark databanks¹⁷ have been brought together as part of the project *Bernstein – the memory of paper*¹⁸, generating a multilingual watermark portal based on terminological co-ordination and standardization that allows a quicker overview of collections as well as providing meta-search options.

3. WATERMARK ANALYSIS IN ISLAMIC CODICOLOGY

3.1. Repertories

Compared with the efforts of European codicology, work on watermarks in Islamic codicology has born modest results. To date, only Bulgarian scholars have made a contribution worthy of note in terms of creating watermark repertories of Islamic collections, concentrating on Ottoman documents. This selection is partly explained by the fact that Bulgaria, a former province of the Ottoman Empire, boasts a wealth of material. There is also a practical reason: documents, in contrast to smaller book formats, do not have the disadvantage of the watermarks being divided into two halves by the binding of the quires in the fold.

The first volume of the pioneer work by Vsevolod Nikolaev went into print in 1954 in Sofia.¹⁹ It included watermarks and their countermarks collected by Nikolaev from Ottoman

¹⁶ Briquet: http://www.ksbm.oeaw.ac.at/_scripts/php/BR.php; Piccard: http://www.ksbm.oeaw.ac.at/_scripts/php/PPO.php.

¹⁷ Piccard Online: <http://www.piccard-online.de>; WZMA (Wasserzeichen des Mittelalters): <http://www.ksbm.oeaw.ac.at/wz/wzma.php>; WILC (Watermarks in Incunabula in the Low Countries): <http://watermark.kb.nl/>; WIES (Watermarks in Incunabula in España): <http://www.ksbm.oeaw.ac.at/wies/>.

¹⁸ <http://www.bernstein.oeaw.ac.at>; <http://www.memoryofpaper.eu>.

¹⁹ Nikolaev, Vsevolod: *Watermarks in the Ottoman Empire*. Sofia 1954.

documents from the Oriental Department of the State Library of St. Kyrill and Metodi in Sofia and the Rila Monastery Library. A second volume was planned but never executed in which the watermarks were to be identified and evaluated and details of the writing material included. The volume was also to provide a summary of the contents of each document.

Nikolaev's work on the watermarks in Ottoman documents from the State Library of St. Kyrill and Metodi in Sofia was continued by Asparouh Velkov and Stefan Andreev. Three thematically distinct sections appeared under the main title *Les Filigranes dans les documents ottomans* (*Vodni znaci v osmano-turskite dokumenti*); an inventory of the tre lune watermarks (1983);²⁰ an inventory of various watermark motifs (2005);²¹ and an inventory of crown watermarks (2007).²² For ease of use, there is a detailed index at the head of each of the illustrated volumes.

4. WATERMARKS FROM THE REFAIYA LIBRARY

4.1. Documenting the Material

The Refaiya watermarks were recorded by tracing them with graphite pencil. The initial plan was to make an additional rubbing of the marks. In contrast to tracing, this method allows an exact copy of the mark and its surrounds without deviation or distortion and is no more effort than a tracing. Unfortunately, this procedure proved to be impracticable for Islamic manuscripts as the impregnated and polished surface of the paper obstructs the rendering of the surface texture with pencil. European paper imported to the Near East would often be smoothed and polished again on arrival²³.

²⁰ Velkov, Asparouh & Stephane Andreev: *Filigranes dans les documents ottomans. Trois croissants*. Sofia 1983.

²¹ Velkov, Asparouh: *Les filigranes dans les documents ottomans. Divers types d'images*. Sofia 2005.

²² Andreev, Stefan: *Les filigranes dans les documents ottomans. Couronne*. Sofia 2007.

²³ Babinger, *Papierhandel*, p. 6; Loveday, *Islamic paper*, p. 26.

4.2. *The Relation between dated and undated manuscripts*

The number of dated Refaiya manuscripts on watermark paper is only marginally higher than that of the undated items: 97 manuscripts are dated and 84 undated. This count excludes a further 36 composite manuscripts and 45 manuscripts of which only the endpaper is of European paper and which include later additions written on European paper. The numbers of dated manuscripts for each century are as follows: 15th c.: 1 Ms, 16th c.: 14 Mss, 17th c.: 39 Mss, 18th c.: 36 Mss, 19th c.: 7 Mss. The manuscripts from the 16th and 17th centuries are numerically dominant, with almost equal quantities in each.

The oldest complete manuscript on watermark paper (Vollers 352) was transcribed on Rabī I 25th, 877 / August 30th, 1472 by Muḥammad ibn Sālim ibn Muḥammad ibn Sālim ibn Saʿīd ibn ʿUmar al-ʿUdhri. The work concerns the differences of opinion between Abū Ḥanīfah al-Nuʿmān ibn Thābit (died 150 / 767) and Abū ʿAbd Allāh Muḥammad ibn Idrīs al-Shāfiʿī (died 204 / 820), bears the title *Bayān al-ikhtilāf bayna qawlay al-imāmayn al-jalīlayn Abī Ḥanīfah wa-al-Shāfiʿī*, and was written by Abū Ḥāmid Muḥammad ibn Ibrāhīm al-Suhaylī al-Jājarmī al-Shāfiʿī (died 613 / 1216). The most recent manuscript (Vollers 758) with watermarks bears the date of inscription Jumādā I 1st, 1262 / April 27th, 1846. The manuscript is from the copyist Muḥammad ʿAlī Abū Saʿīd ibn Saʿīd al-Qaṣṣār and contains a copy of the medical compendium *Kitāb al-Raḥmah fī ʿilm al-ṭibb wa-al-ḥikmah*, attributed to various authors; our copy is ascribed to Abū Ḥāmid Muḥammad ibn Muḥammad al-Ghazālī (died 505 / 1111).

A specimen on watermark paper that is older again than Vollers 352 is the 8th part (Bl. 45r-57r) of the 12-part composite manuscript Vollers 881, containing on a few leaves the *Kitāb Taʿlīs Iblīs* of ʿIzz al-Dīn ʿAbd al-Salām ibn Aḥmad ibn Ghānim al-Maqrīsī (died 678 / 1279-1280). The text is concerned with the existence of evil in the world and was copied on Shaʿbān 2nd, 807 / February 3rd, 1405 in Aleppo.

4.3. Watermark motifs²⁴

4.3.1. Watermark motifs in the Refaiya manuscripts from the 15th and 16th centuries

The above-mentioned manuscripts, Vollers 352 from 1472 and Vollers 881/8 from 1405, are the only two dated examples of watermarks from the 15th century among the Refaiya books. In addition to a barely recognisable floral motif, Vollers 352 features a mark of a pair of scissors, an exclusively Italian motif.²⁵ Scissor motifs are considered to have originated from the region around Fabriano and Genua until 1433 (fig. 1).

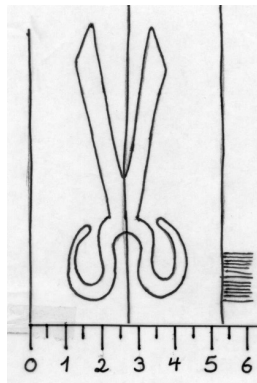


Figure 1: Pair of scissors, Vollers 352, f. 2, Rabī I 25th, 877 / August 30th, 1472. Related motifs in: Briquet vol. II among others 3655-3658; Piccard Schere type V 1312-1315.

The watermarks of the eighth part of the composite work depict a reclining horn, furnished at the top with a baldric and two crossed swords. Reclining horn motifs are numerous.²⁶ A comparison with the marks in the catalogues suggests they are of Italian origins (fig. 2).²⁷

²⁴ This presentation of the motif marks does not claim to be complete, but simply indicates some of the more striking and frequent examples. Unfortunately, not all of the motifs referred to here could be illustrated.

²⁵ Briquet, *Les filigranes*, vol. II, p. 30.

²⁶ *ibid.*, p. 418.

²⁷ *ibid.*, p. 419.

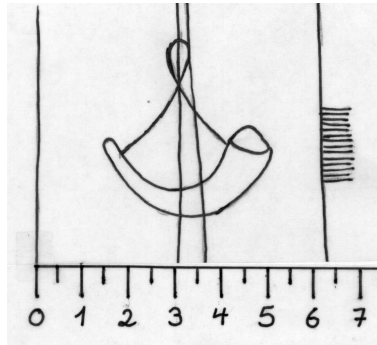


Figure 2: Horn, Vollers 881/8, ff. 46/55, Sha'bān 2nd, 807 / February 3rd, 1405. Related motifs in Briquet vol. II 7786-7800.

The sword marks on the other hand are unequivocally Italian.²⁸ The oldest types are finely formed, as the Refaiya mark clearly demonstrates (fig. 3).

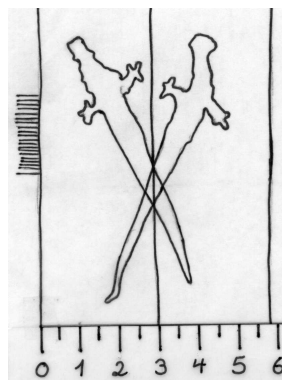


Figure 3: Sword, Vollers 881/8, ff. 49/52, Sha'bān 2nd, 807 / February 3rd, 1405. Related motifs, in Briquet vol. II 146-147, 157; Piccard Schwert type VII 538-540.

The dominant symbol in the 16th century is the anchor in a circle. The earliest example in the Refaiya collection is from 1533 and exhibits no ornamentation or additional motifs (fig. 4).

²⁸ *ibid.*, p. 306.

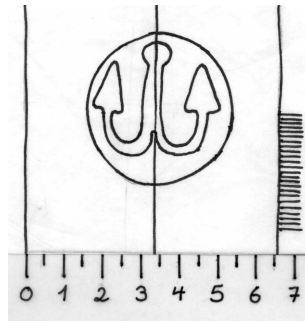


Figure 4: Anchor, Vollers 756, ff. 13/18, Sha'bān 15th, 939 / March 12th, 1533. Similar motifs in Mošin, Anchor Watermarks 427.

In manuscripts after 1566 the anchor is embellished with a six-pointed star above the circle²⁹ and in dated manuscripts after 1590 the anchor is decorated with a trefoil and framed within a circle.³⁰ The anchor symbols are either single or double contoured and are occasionally accompanied by a countermark. According to the classifications by Briquet and Mošin the circle is evidence of the Italian anchor paper and the countermark indicates Venetian origins.³¹

The second most frequent motif is the bull's head, the most popular mark in medieval European manuscripts.³² The interpretation of this motif is controversial. It is understood alternately as a symbol for the evangelist Luke, as the trademark of the first paper mill to produce this motif or as the patron saint of painters.³³ The variant in the Refaiya is furnished with ears and eyes. A five petaled flower or a cross on a double contoured bar extends above it and over it a snake coils itself around a double contoured bar or cross (fig. 5, 6, 7).

²⁹ Vollers 477, dated Rajab 973 / January-February 1566.

³⁰ Vollers 596, dated Monday, Dhū al-Hijjah 16th, 998 / Oktober 16th, 1590.

³¹ Briquet, *Les filigranes*, Bd. I, S. 40; Mošin, Vladimir: *Anchor watermarks*. Amsterdam 1973, pp. 17, 25.

³² *Bull's Head and Mermaid*, p. 29.

³³ *ibid.*, p. 29; Briquet, *Les filigranes*, vol. IV, pp. 715-716.

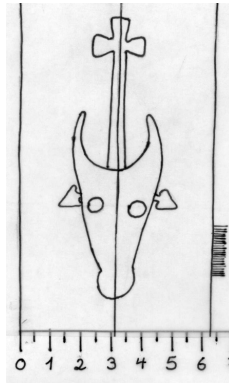


Figure 5: Bull's head, Vollers 756, ff. 131/138, Sha'bān 15th, 939 / March 12th, 1533. Similar motifs in Briquet vol. IV 14524-14527; Piccard Ochsenkopf type XI 64.

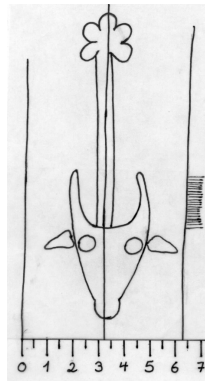


Figure 6: Bull's head, Vollers 756, ff. 155/162, Sha'bān 15th, 939 / March 12th, 1533. Similar motifs in Briquet Bd. IV 14734, 14736; Piccard Ochsenkopf Typ XIII 135, 154.

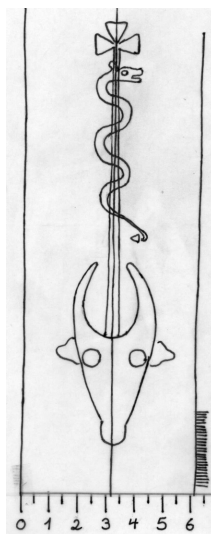


Figure 7: Bull's head, Vollers 756, ff. 58/67, Sha'bān 15th, 939 / March 12th, 1533. Similar motifs in Briquet vol. IV 15370-15371, 15374, 15380; Piccard Ochsenkopf type XVI 165, 171.

A comparison with the individual marks listed in Piccard's *Findbuch Ochsenkopf* suggests they were manufactured in Upper Italian paper mills.³⁴

Other early watermarks in the Refaiya include the glove, the lily in a circle and the cardinal's hat. The motif of the glove, with or without cuffs, appears in large format with five fingers opened or closed. The inside of the glove is either empty or filled in with ornamentation or a letter. A five or six petaled flower rises from the middle finger (fig. 8, 9).

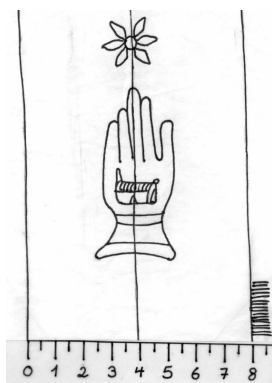


Figure 8: Glove, Vollers 691, ff. 40/45, Jumādā I 19th, 908 / November 20th, 1502. Related motif in Briquet vol. III 11186.

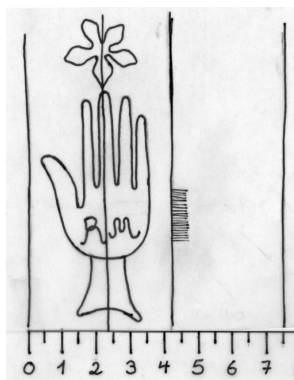


Figure 9: Glove, Vollers 876/1, ff. 26a/27, Muḥarrām 9th, 923 / February 1st, 1517. Related motifs in Briquet vol. III 10728-10772; Piccard Hand & Handschuh Type V among others 1576-1578, 1597-1602.

³⁴ Piccard, *Die Wasserzeichenkartei*, vol. II, 1, S. 33-35, Abt. XI, 58, 64, Abt. XIII, 134, 135, 154, Abt. XVI, 165, 171, 191, 196.

These variants of the glove motif come from Genua, from the paper manufacturing centres in Voltri and Varazze.³⁵ No comparisons could be found for a single-contoured bar with a ribbon and an additional ornament standing on a glove with closed fingers (fig.10).

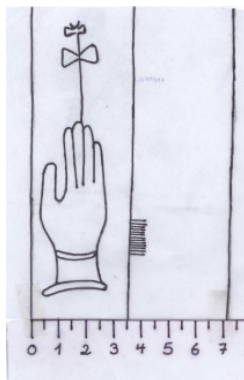


Figure 10: Glove, Vollers 876, ff. 39a/41, Muḥarram 9th, 923 / February 1st, 1517. Related motif in Briquet vol. III 11180.

The lily, the heraldic symbol of the Bourbons, was used abundantly in Italian and French paper mills.³⁶ Our specimen is enclosed by a circle decorated with a trefoil; the initials IG, joined by single contoured bar with a trefoil at the tip, serves as countermark (fig. 11a, 11b).

³⁵ Briquet, *Les filigranes*, vol. III, p. 545; Piccard, *Die Wasserzeichenkartei*, vol. XVII, p. 9, Abt. IV, 1269, 1271, 1273-1274, 1277, 1279, 1289-1291, 1300, 1358, 1362, 1366, 1368-1373, 1376-1377, 1381, Abt. V, 1505-1506, 1576-1578, 1582-1583, 1586, 1591, 1597-1602, 1625-1626.

³⁶ Briquet, *Les filigranes*, vol. III, pp. 379, 393.

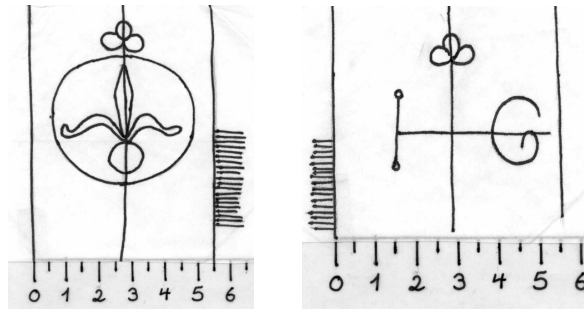


Figure 11: Lily, Vollers 542, Dhū al-Ḥijjah 959 / November-December 1552, ff. 15/18, countermark f. 7.

Related motifs in Briquet vol. II 7128-7129.

The mark thus appears to originate from the Republic of Venice. The two examples of the scales motif, which also originated in Venice, cannot be assigned with certitude to a specific region, since scale symbols are well represented in both Italy and France.³⁷ The scales motifs in a manuscript from the early 16th century are enclosed within a circle and one of them is embellished with a six-pointed star (fig. 12).

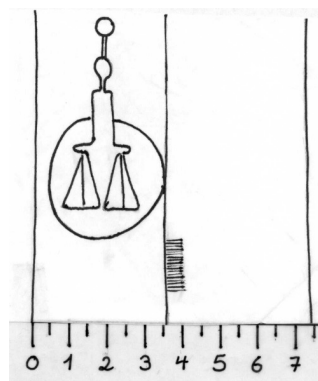


Figure 12: Scale, Vollers 691, ff. 31/34, Jumādā I 19th, 908 / November 20th, 1502. Similar motif in Sosower, Mark L.: *Signa officinarum chartariarum in codicibus graecis saeculo sexto decimo fabricatis in bibliothecis hispaniae*. Amsterdam 2004, Balance 4.

The cardinal's hat is confined to Italy. It assumed its final form in the 16th century, at that time still an exclusively Venetian mark, crowned with a trefoil, cross or star, as our sample from

³⁷ *ibid.*, vol. I, pp. 178-179.

the Refaiya shows. Two single-contoured cords with curved ends hang down from a circle placed below the hat (fig. 13).³⁸

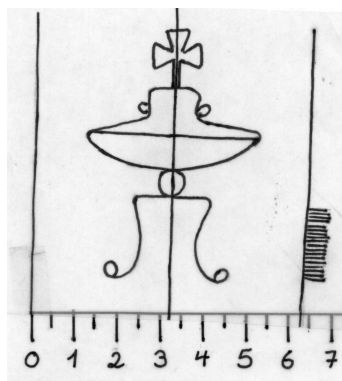


Figure 13: Cardinal's hat; Vollers 756, ff. 227/234, Sha'bān 15th, 939 / March 12th, 1533. Related motifs in Briquet vol. I 3410-3418.

French watermark paper first entered the Refaiya with a manuscript dated 1570. Among others, its paper includes a grape symbol above which is a cartouche containing the initials SBG with a crown.³⁹

4.3.2. *Watermark motifs in the Refaiya manuscripts from the 17th century*

Well-known marks reoccur in the dated manuscripts from the 17th century, such as the anchor, the glove and the grape. A manuscript dated 1675 shows a letter as additional mark below the circle of the anchor motif.⁴⁰ Although marks with additional motifs and countermarks can be assigned to Venice, the anchor in the circle with trefoil above and the letter M as additional motif below cannot be identified with the north east of Italy according to

³⁸ *ibid.*, pp. 222-223; Vollers 477, dated Rajab 973 / January-February 1566.

³⁹ *ibid.*, vol. IV, p. 645; Vollers 603, dated Rabī II 6th, 977 / September 18th, 1569.

⁴⁰ Vollers 357; dated Saturday, Jumādā I 10th, 1086 / August 2nd, 1675.

Briquet.⁴¹ The glove motifs are devoid of embellishments. No examples of the motifs could be found in the published watermark collections (fig.14).

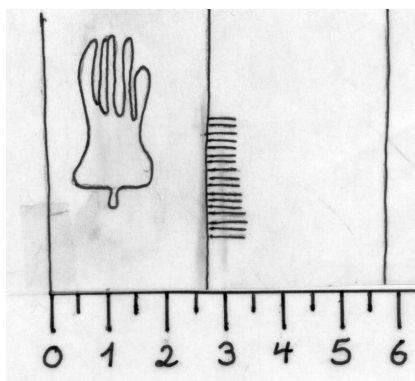


Figure 14: Glove, Vollers 747, ff. 51/54, Jumādā I 1054 / Juli-August 1644.

In the case of the grape marks we encounter the initials of the papermaker, placed either above or below the grape. The use of names begins to establish itself in the 17th century;⁴² in the example from the Refaiya A. Goubere has immortalised his name.⁴³ The grape is usually represented naturalistically, though stylised versions are observable towards the end of the century. The grape in our sample is presented in the form of a rhombus (fig. 15).



Figure 15: Grape, Vollers 828, ff. 24/27, end of Sha'bān 1108 / March 1697. Similar motif in Velkov,

Divers Types d'images, Raisin 6.

⁴¹ Briquet, *Les filigranes*, vol. I, p. 40.

⁴² Gaudriault, Raymond: *Filigranes et autres caractéristiques de papiers fabriqués en France aux XVII^e et XVIII^e siècles*. Paris 1995, p. 151.

⁴³ Vollers 754, dated Šafar 12th, 1091 / March 14th, 1680.

A motif similar to that of our specimen is illustrated in Velkov.⁴⁴ The Refaiya manuscript is dated 1697, the Ottoman document just 13 years later, 1710. New to the watermark repertoire of the Refaiya are the crossbow in a circle, three hats (tre cappelli) and the name written in full. The crossbow in a circle, here situated below a trefoil, is a motif mainly native to the north Italian province of Ferrara, though Veneto could also have been the place of origin.⁴⁵ The mark of the tre cappelli is also an Italian product (fig. 16).

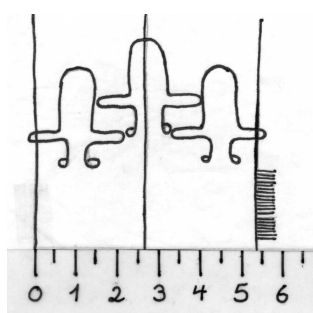


Figure 16: Tre cappelli, Vollers 770, ff. 6/7, 1074 / 1663-1664. Similar motifs in Likhachev's Watermarks 3539; Velkov, Divers Types d'images, Chapeau 10-11.

The form of the hat differs significantly according to the region of origin.⁴⁶ Marks similar to our example can be found in *Likhachev's Watermarks* and in Velkov.⁴⁷ The manuscripts were completed more or less contemporaneously. The Refaiya manuscript bears the date 1663-1664, the other manuscripts are from 1630, 1641 and 1654. An example of a name watermark from the Refaiya is "al Carmine" (fig. 17).

⁴⁴ Velkov, Divers types d'images, p. 381, 6/1710.

⁴⁵ Vollers 717, dated Thursday, Sha'bān 18th, 1022 / October 3th, 1613; Briquet, Les filigranes, vol. I, p. 50.

⁴⁶ Eineder, Georg: The ancient paper-mills of the former Austro-Hungarian empire and their watermarks. Hilversum 1960, p. 175.

⁴⁷ Likhachev's watermarks. Ed. J.S.G. Simmons, Bé van Ginneken-van de Kastele. Amsterdam 1994, pl. 185, no. 3539/1641; Velkov, Divers types d'images, p. 333, 10/1630, 11/1654.

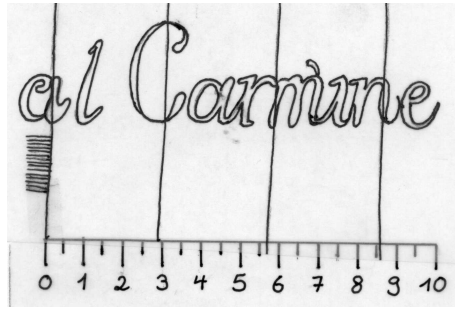


Figure 17: al Carmine, Vollers 237, ff. 3/8, Sha'bān 6th, 1075 / February 22nd, 1665.

Towards the end of the 17th century it became common practice for papermakers to mark their paper with their names or the place names of their paper mills written out in full, and in cursive type.⁴⁸

One remarkable feature of the Refaiya manuscripts from the 17th century is the occurrence of watermarks with openly Christian symbolism. Although the early marks had already included crosses on their tips to indicate that they came from a Christian country, the religious content had not been overly prominent. The Christian message now emerged more explicitly with marks depicting the Agnus Dei, the cross in the shield and three circles one on top of the other. In the Levant however, watermark paper with Christian motifs was not rejected out of hand as emblems challenging the Islamic religion and its claim to sovereignty. The use of such paper was avoided in Islamic religious contexts. The traders and consumers were familiarized with the watermark motifs of European paper. The scribes consciously made copies using paper with obviously Christian watermarks. In the Refaiya manuscripts, Christian marks are mostly to be found in works of literature and in secular scholarship. In the domain of religious scholarship they occur only once in a codex on Islamic law and in a composite work containing two mystical treatises.⁴⁹

⁴⁸ Heawood, Edward: Watermarks, mainly of the 17th and 18th centuries. Hilversum 1950, pp. 33-36.

⁴⁹ Vollers 365, Vollers 231. Additionally, watermarks with Christian motifs occur in the following composite manuscripts, which include both religious and secular scholarly texts: Vollers 856, 857, 871, 873, 883, 880.

The Agnus Dei symbol was in circulation from the 14th to the 18th centuries and was produced by numerous paper mills in France and Italy. It is the emblem of John the Baptist, patron saint of many churches and is depicted on the coats of arms and coins of many cities and dominions.⁵⁰ In the Refaiya manuscripts dating from 1644 and 1663-1664, the lamb always carries a flag. The lamb is surrounded by a circle, above which stand the initials IP with a papal cross (fig.18).

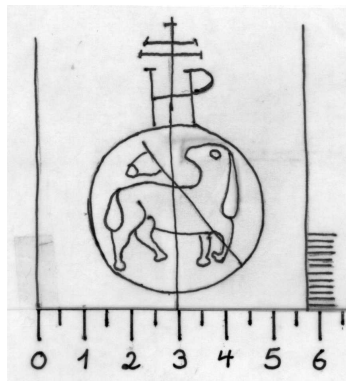


Figure 18: Agnus Dei, Vollers 747, ff. 43/47, Jumādā I 1054 / Juli-August 1644. Related motifs in Velkov, *Divers types d'images, Agneau pascal* 3-8, 25.

The Agnus Dei in a circle is primarily of Italian origin.⁵¹ The lamb is otherwise encircled by a quatrefoil cartouche, characteristic of Venetian paper from the 17th century (fig.19).

⁵⁰ Briquet, *Les filigranes*, vol. I, p. 18.

⁵¹ *ibid.*, p. 19.

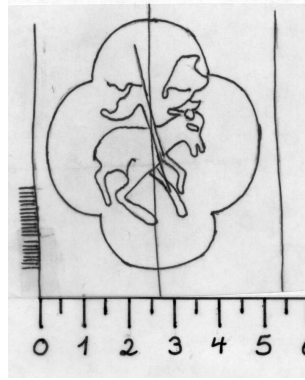


Figure 19: Agnus Dei, Vollers 770, ff. 25/28, 1074 / 1663-1664. Related motifs in Velkov, Divers types d'images, Agneau pascal 1, 9, 12-16, 18-21.

The mark with the three circles is derived from the Genuese coat of arms and seems to have originated in this region, as its additional name “Trois O de Gênes” indicates.⁵² Other Italian production sites for this mark may have been Lombardy or Venice.⁵³ According to Gaudriault, France began copying the mark in order to compete with Italy in its traditional customer countries, among others in the Levant.⁵⁴ An example from the Refaiya contains a moon in the upper circle and two letters in the middle, while the lower circle is empty. A crosslet cross is placed above the three circles (fig. 20).

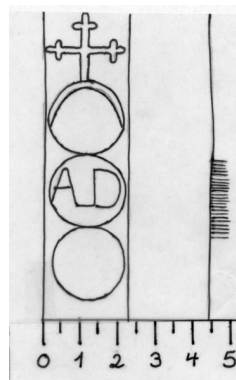


Figure 20: Three circles, Vollers 770, ff. 16/17, 1074 / 1663-1664. Related motif in Briquet vol. I 3246.

⁵² *ibid.*

⁵³ Gaudriault, *Les filigranes*, p. 159.

⁵⁴ *ebd.*

According to Briquet, a Latin cross enclosed in a shield above the initials of the paper mill AD from a treatise from the year 1688 is also Genoese (fig. 21).⁵⁵

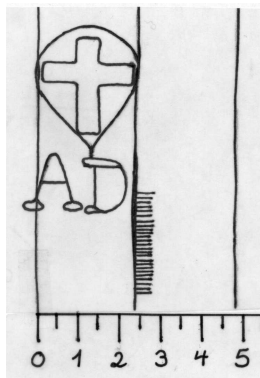


Figure 21: Cross, Vollers 871/1, ff. 4/7, Shawwāl 15th, 1078 / March 29th, 1668. Related motifs in Velkov, *Divers types d'images*, Croix 4-5.

The last of the series of watermarks with Christian connotations is a circle containing a leg. Above the circle is a crosslet cross, below which is a heart (fig. 22).

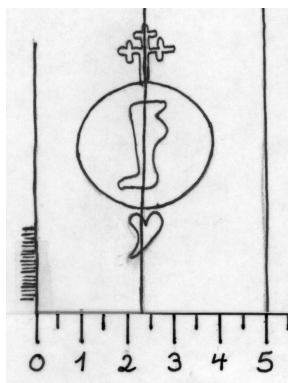


Figure 22: Circles, Vollers 828, ff. 3/8, end of Sha'bān 1108 / March 1697. Related motif in Churchill, *Watermarks in Paper*, CDXV.

Churchill cites a related example of a mark from a manuscript completed in 1695 in Genoa.⁵⁶ The production date is almost contemporary to that of the Refaiya codex, dated 1697.

⁵⁵ Briquet, *Les filigranes*, vol. II, p. 332.

The Refaiya watermark paper from the 17th century is dominated by the motif of the three half moons and crown marks. Whereas the watermarks mentioned previously were so-called native marks from the production areas, it is generally held that the papers with half moons and crown underneath a star and half moon were expressly developed for export to the Ottoman Empire. In Islamic documents and manuscripts they are the most frequent motifs, occurring in endless variations. The tre lune symbol is identifiable in a paper from a Genoese paper mill from as early as 1520.⁵⁷ Whereas the crescent moon functions for the Ottomans as one of many decorative figures without an explicitly religious symbolic meaning, from the middle of the 15th century onwards it was regarded in Europe as the symbol par excellence for Islam.⁵⁸ The Republic of Venice was a particularly prominent manufacturer of such papers that also included countermarks. The Venetian paper was called “tre lune paper” and was widespread in the Levant during the 17th and 18th centuries.⁵⁹ France imitated this Venetian paper with papers known as “Trois croissants façon de Venise”, “Trois croissants” or “Trois Lunes”.⁶⁰ Italy and France, however, continued to deliver paper with Christian watermarks to the Levant at the same time, though not on a large scale. The earliest manuscript from the Refaiya with the tre lune symbol dates from 1644-45.⁶¹ The moons in Refaiya codices present a broad, mostly well-crafted form; however, one also comes across crescents with angular contours. They occur alone or accompanied by countermarks consisting of two letters joined with a single contoured bar under a trefoil; clear evidence of the Venetian style (fig. 23).

⁵⁶ Churchill, William A.: Watermarks in paper in Holland, England, France etc. in the XVIIth and XVIIIth centuries and their interconnection. Amsterdam 1935, p. 90, CDXV.

⁵⁷ Eineder, The ancient paper-mills, p. 180.

⁵⁸ Encyclopaedia of Islam. New edition. Ed. by B. Lewis et al. vol. III. Leiden, London 1986, pp. 383-384.

⁵⁹ Gaudriault, Les filigranes, p. 116.

⁶⁰ *ibid.*

⁶¹ Vollers 438, dated Jumādā I 10th, 1054 / July 15th, 1644.

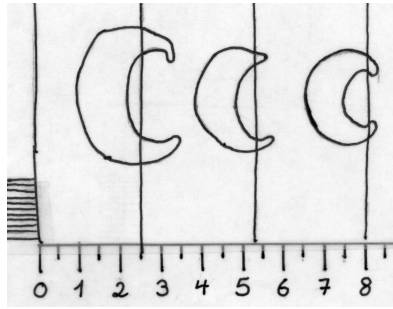


Figure 23: Tre lune, Vollers 237, ff. 11/16, Sha'bān 6th, 1075 / February 22nd, 1665. Related motifs in Nikolaev, Watermarks 187; Velkov & Andreev, Trois croissants 132, 230.

The related motifs identified on the basis of Velkov's inventory are roughly contemporary to the Refaiya marks. For two of the symbols, very similar examples could be found in Velkov (fig. 24, 25a, 25b).⁶²

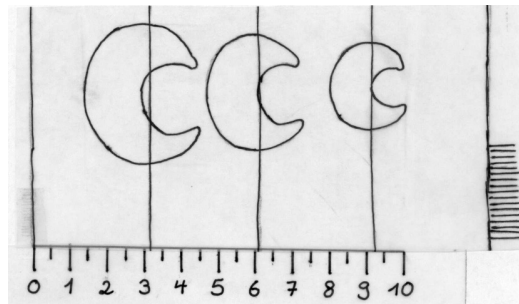


Figure 24: Tre lune, Vollers 747, ff. 70/75, Jumādā I 1054 / July-August 1644. Similar motif in Velkov & Andreev, Trois croissants 71.

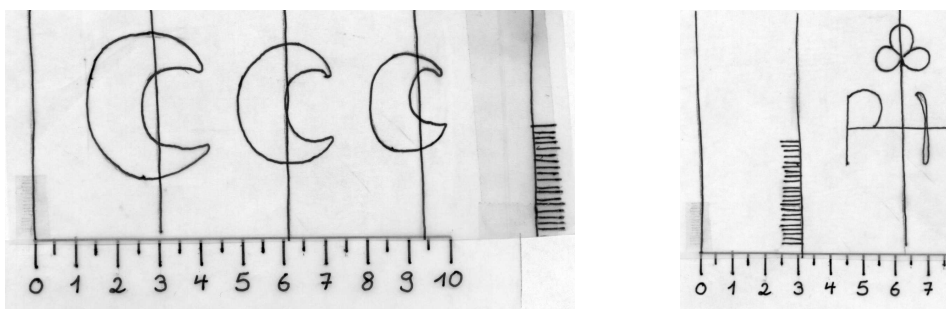


Figure 25: Tre lune, Vollers 747, Bl. 279/282, Gegenmarke Bl. 68/77, Ğumādā I 1054 / Juli-August 1644. Ähnliche Motive in Velkov & Andreev, Trois croissants 33-34.

⁶² Velkov & Andreev, Trois croissants, 71/1644, 33/1639, 34/1638.

The fact that the crown mark was embellished with a star and later with a half moon in Venetian workshops is regarded as a concession to the tastes of the Ottoman Empire and as an expression of respect for its rise as great political power.⁶³ Into the 1830s the production of the crown mark with star and half moon was confined to Venice.⁶⁴ On the basis of their collected evidence, Mošin and Grozdanovic-Pajié developed a useful overview of crown types divided into 11 groups, with the main types ordered according to design and period. A flat crown with five variously designed tines under a star is the first instance of a crown symbol in a Refaiya manuscript from 1564. In 1598 the mark appears in the Refaiya, ornamented with an additional half moon above the star.⁶⁵

The crown symbols in the Refaiya from the 17th century can be subsumed under the groups VI, VIII and IX as defined by Mošin and Grozdanovic-Pajié. Evidence of similar motifs is also to be found in the crown watermark volume by Andreev. The marks from the individual types presented in Andreev concur accurately to within a few years with the date of copy of the Refaiya manuscripts. The crowns in the Refaiya manuscripts from 1652 onwards are rounded, seven pointed forms with strongly arched end and middle tines joined by thin rods (fig. 26a, 26b).⁶⁶

⁶³ Mošin, Vladimir & M. Grozdanovic-Pajié: Das Wasserzeichen Krone mit Stern und Halbmond. In: *Papiergeschichte* 13 (1963) 4, p. 45.

⁶⁴ *ibid.*

⁶⁵ Vollers 532, dated Friday, June 28th, 1006 / February 5th, 1598.

⁶⁶ Vollers 27, dated Dhū al-Hijjah 1062 / November-December 1652.

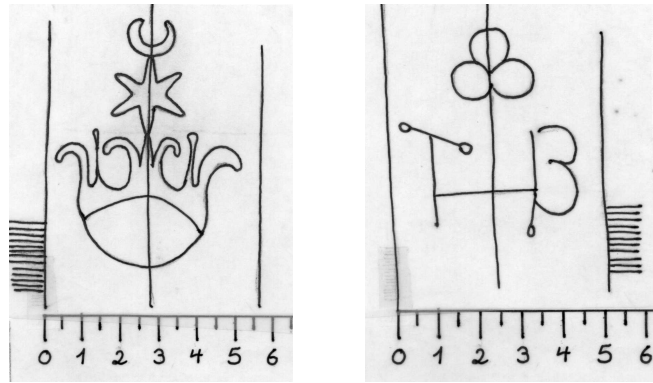


Figure 26: Crown, Vollers 237, ff. 22/25, countermark f. 25, Sha'bān 6th, 1075 / February 22nd, 1665.

Mošin & Grozdanovic-Pajié group VI.A. Similar and related motifs in Andreev, Couronne 52.

This type is enhanced by a round crown with nine tines, a single contoured rim and a circle between the crown and the star in a codex from 1663-1664 (fig. 27).

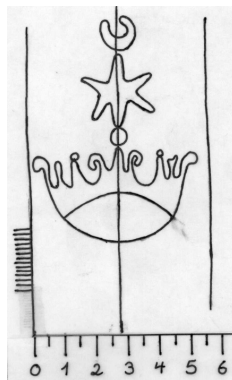


Figure 27: Crown, Vollers 770, ff. 63/70, 1074 / 1663-1664. Mošin & Grozdanovic-Pajié group VI.D.

Similar and related motifs in Andreev, Couronne 40.

A variant of this type, which is archived neither in Mošin and Grozdanovic-Pajié nor in Andreev, is a crown symbol in a manuscript from 1697, whose rim is double contoured and on each of whose thin rods a small half moon is placed instead of small circles (fig. 28a, 28b).

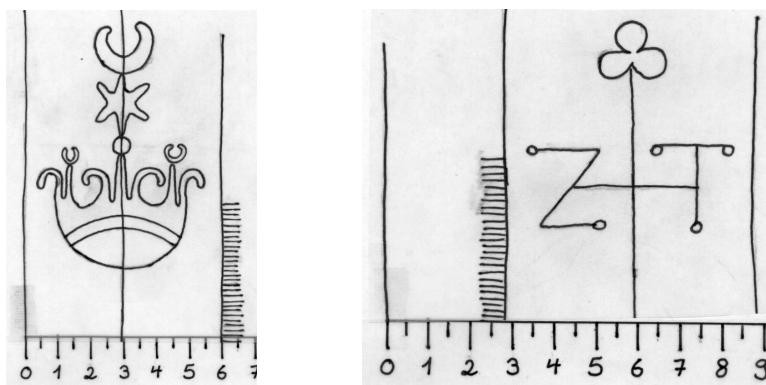


Figure 28: Crown, Voller 828, ff. 72/79, countermark f. 78, end of Sha'bān 1108 / March 1697. Mošin & Grozdanovic-Pajié group VI.A.

In 1674, a second type appeared in the form of a flatter crown with double contoured rim and opposing arched tines (fig. 29).

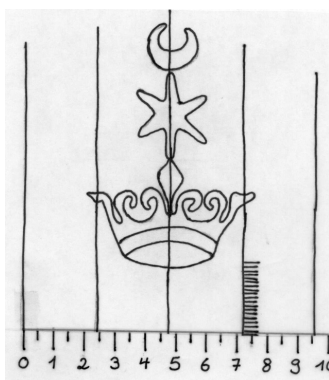


Figure 29: Crown, Voller 828, ff. 143/148, end of Sha'bān 1108 / March 1697. Mošin & Grozdanovic-Pajié group VIII. Similar and related motifs in Andreev, Couronne 53.

The representation of crowns with half moons on the outer tines begins in the Refaiya manuscripts in 1671. The half moons lie on the second outmost tines (fig. 30) and the outmost tines (fig. 31). Andreev documented a similar mark of this last variety from 1675, i.e. a year after our symbol.⁶⁷

⁶⁷ Andreev, Couronne, p 210, 67.1/1675, 67.2/1677-1678.

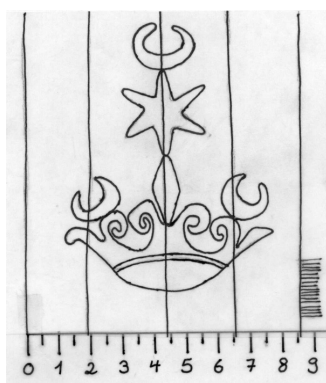


Figure 30: Crown, Vollers 390, ff. 13/18, last day in Dhū al-Qa'dah 1081 / April 10th, 1671. Mošin & Grozdanovic-Pajié group IX.A.

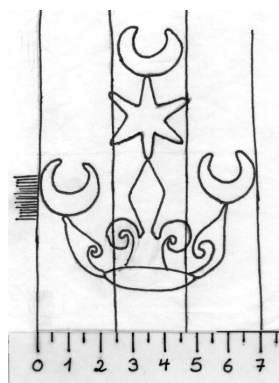


Figure 31: Crown, Vollers 253, ff. 4/7, Shawwāl 25th, 1084 / February 2nd, 1674. Mošin & Grozdanovic-Pajié group IX. Similar motifs in Andreev, Couronne 67.

4.3.3. Watermarks in the Refaiya manuscripts from the 18th century

The watermark repertoire is characterized by the return of familiar motifs from previous centuries, among which the tre lune and the grape marks dominate. Neither the glove, the cardinal's hat and the Christian Agnus Dei symbol, the cross in the shield nor the three variously filled in circles are retained in the repertoire. The Christian symbolism is, however, continued in the watermarks with a mount of six coupeaux and a crosslet cross above the initials SS (fig. 32).

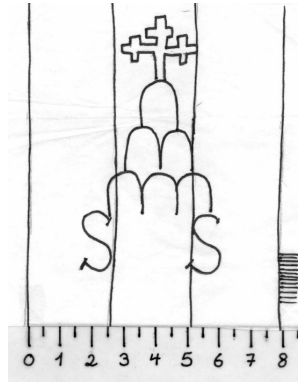


Figure 32: Mount of six coupeaux, Vollers 556, ff. 16/17, Muḥarram 8th, 1148 / May 31th, 1735.

Related motifs in Velkov, *Divers types d'images*, *Monts - Six monts imbriqués* 6-9.

Related motifs can be found in the catalogue volume by Velkov⁶⁸. The documents are dated five to ten years earlier (1725-1730) than the Refaiya manuscript from the year 1735. The tre lune marks have a series of countermarks. The familiar Venetian countermark consisting of either two or three letters joined together by a bar under a trefoil is especially frequent.⁶⁹ From 1757, the trefoil is replaced by a lily.⁷⁰ Single letters in printed and cursive form also occur as countermarks.⁷¹ In 1722, letters in groups of two or three roofed over by a diadem are assimilated to the repertoire of countermarks in the Refaiya.⁷² The expression TRE LUNE below the three crescent moons is a frequent additional motif.⁷³

The motifs of the anchor, the grape, the crown with star under a half moon and the three hats return in their familiar forms. Two grape marks in a tractate copied in the year 1751 attractively demonstrate some typical design variations. The grape occasionally bears two initials as well as a cartouche with crown (fig. 33, 34).

⁶⁸ Velkov, *Divers types d'images*, pp. 374-375, 6-9/1725-1730.

⁶⁹ Vollers 545, dated Wednesday, Jumādā II 29th, 1120 / September 15th, 1708.

⁷⁰ Vollers 33 and 34, dated Rajab 1170 / March-April 1757.

⁷¹ Vollers 32, dated Rajab 1170 / March-April 1757; Vollers 633, dated Dhū al-Ḥijjah 1185 / March-April 1772.

⁷² Vollers 385, dated Thursday, Ṣafar 16th, 1135 / November 26th, 1722.

⁷³ Vollers 498, dated Thursday, Sha'bān 19th, 1195 / August 10th, 1781; Vollers 630, dated Rabī' II 15th, 1198 / March 8th, 1784.

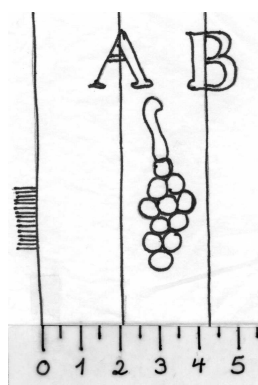


Figure 33: Grape, Vollers 546/1, f. 2, 1164 / 1750-1751.

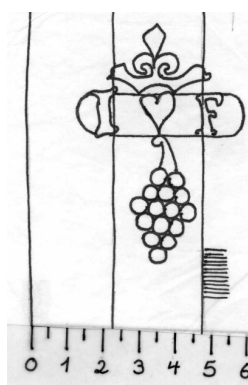


Figure 34: Grape, Vollers 546/1, f. 32, 1164 / 1750-1751. Related motifs in Velkov, *Divers types d'images*, Raisin 5, 22, 27.

Specimens related to the grape motif with crown occur on Ottoman documents from 1707 to 1732 in the volume *Divers types d'images*⁷⁴. The countermark of the tre-cappelli mark from a 1769 manuscript presented here features a flowering twig instead of a trefoil above the three letters (fig. 35a, b).

⁷⁴ Velkov, *Divers types d'images*, p 381, 5/1707, p. 385, 22/1727, p. 386, 27/1732.

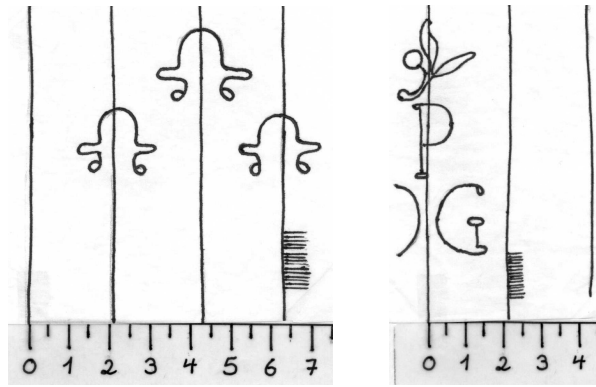


Figure 35: Tre cappelli, Vollers 470, f. 2, countermark f. 68, Muḥarram 21st, 1182 / June 7th, 1768.

Related motifs in Eineder, *The ancient paper-mills* 697-698, 704.

In the 18th century there was an increase in marks with names written out in full, extending to up to three lines. The papermaker T. Pollera⁷⁵ and Bergamo (both the city and its province),⁷⁶ an important site for paper production in the Upper Italian region of Lombardy,⁷⁷ were immortalised in this fashion in the Refaiya collection.

The mark of the eagle gains in importance in the 18th century. It emerges for the first time in the Refaiya in a manuscript from the mid 17th century, embedded in a circle under a crown.⁷⁸ In the 18th century it occurs alone or as a double-headed animal in motifs from coats of arms.⁷⁹ The double-headed eagle as a symbol of imperial power has a long tradition in European heraldry. In 1806 it appeared in the coat of arms of the Austrian Empire.⁸⁰ The appearance of the eagle marks attests to the emergence of paper import from the Austrian territories to the Ottoman Empire.⁸¹ Various designed coats of arms occur with increasing

⁷⁵ Vollers 258, dated Thursday, Dhū al-Qa'dah 23th, 1146 / April 27th, 1734.

⁷⁶ Vollers 726, dated Wednesday, Ramaḍān 15th, 1112 / February 23th, 1701.

⁷⁷ Eineder, *The ancient paper-mills*, p. 165.

⁷⁸ Vollers 540, dated Rajab 1055 / August-September 1645.

⁷⁹ Vollers 258; Vollers 458, dated 1143 / 1730-1731; Vollers 546/1, dated 1164 / 1750-1751.

⁸⁰ See http://en.wikipedia.org/wiki/Double-headed_eagle.

⁸¹ Briquet, *Les filigranes*, vol. I, p. 23; Nikolaev, *Watermarks*, p. 124.

regularity in papers in the Refaiya from the 17th century on.⁸² In addition to deliberate references to occidental coats of arms, there are conscious efforts to insert oriental-Islamic accents; e.g. in a coat of arms with a three-pointed star underneath a crown inside a circle.⁸³

4.3.4. *Watermark motifs in the Refaiya manuscripts from the 19th century*

Half moons, eagles and coats of arms compete in the repertoire of watermarks in the Refaiya books from the 19th century. The eagle appears in the double-headed heraldic form with a sword in each claw (fig. 36) and as a single eagle with spread wings and claws (fig. 37).



Figure 36: Eagle, Vollers 622, Bl. 112/119, Shawwāl 21st, 1251 / February 9th, 1836. Similar motifs in:

Nikolaev, Watermarks 1054a, 1058, 1098a, 1112a.

⁸² e.g. Vollers 282, dated beginning of Dhū al-Qa'dah 1065 / beginning of September 1655; Vollers 353, dated Monday, Muḥarram 1st, 1098 / November 17th, 1686; Vollers 525, dated Dhū al-Ḥijjah 2nd, 1070 / August 9th, 1660.

⁸³ Vollers 258.

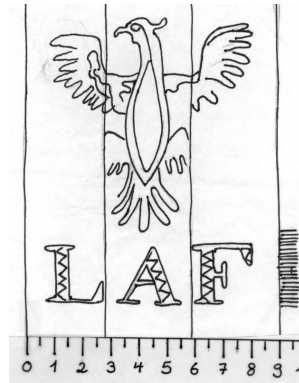


Figure 37: Eagle, Vollers 622, ff. 293/294, Shawwāl 21st, 1251 / February 9th, 1836. Similar motifs in Nikolaev, Watermarks 1082, 1124.

Under all of the motifs are the initials LAF, both with and without hatching. According to Nikolaev, these marks originally come from a region of Italy belonging to the Austrian monarchy.⁸⁴ In his album, he records similar samples dated between 1834 and 1847.⁸⁵ The Refaiya manuscript was copied in 1836.

A tre lune mark is accompanied by the countermark with the initials GFA (fig. 38a, 38b), above which floats a diadem.

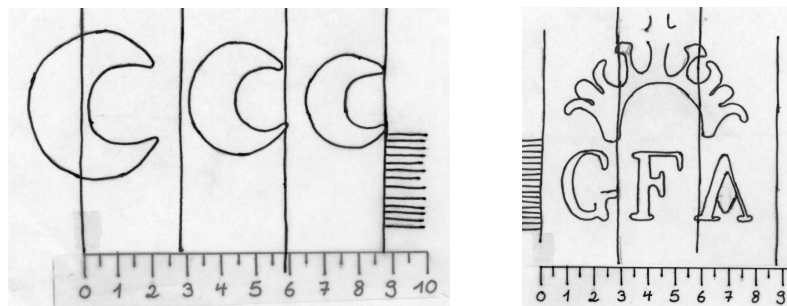


Figure 38: Tre lune, Vollers 39, ff. 22/31, countermark ff. 23/30, Jumādā I 17th, 1220 / August 13th, 1805. Related motifs in Nikolaev, Watermarks 602, 664, 700, 721, 733, 753, 756, 818.

⁸⁴ Nikolaev, Watermarks, p. 470.

⁸⁵ *ibid.*, 1054^a/1834, 1058/1836, 1082/1840, 1098^a/1843, 1112^a/1845, 1124/1847

The initials GFA, GF and GAF were used by the Fratelli Gava (Gava brothers) from Venice to label their papers.⁸⁶ The three crescent moons now appear with human faces. One of these symbols bears the countermark VG for the papermaker Valentino Galvani (fig. 39a, 39b).

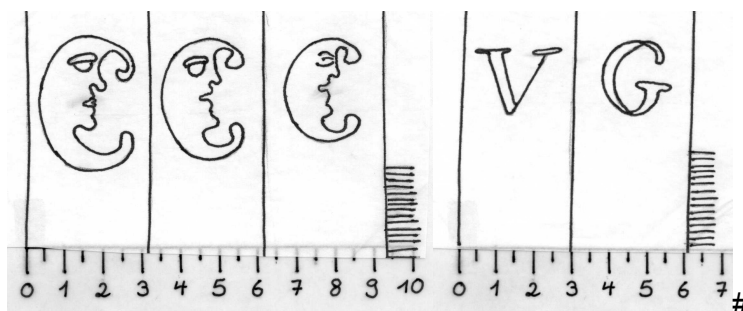


Figure 39: Tre lune, Vollers 622, ff. 3/8, countermark ff. 2/9, Shawwāl 21st, 1251 / February 9th, 1836.

Valentino Galvani built four paper mills in the province Friuli between Venice and Trieste. The mills were located in Pordenone, Cordenons, Codroipo and Rorai-Porcia. He sold his paper via Venice and Trieste. After his death in 1810, his sons Antonio (died 1824), Carlo and his grandson Andrea (died 1854) took over the operation⁸⁷. The three half moon faces eventually gave way to the single half moon face, often enclosed in a shield. The Refaiya mark also includes the letter A next to the half moon face (fig. 40). A similar specimen is to be found on a document from 1841, i.e. five years after the Refaiya manuscript.⁸⁸

⁸⁶ Walz, *The Paper Trade*, p. 33.

⁸⁷ Eineder, *The ancient paper-mills*, pp. 168-169.

⁸⁸ Nikolaev, *Watermarks*, 1092/1841.

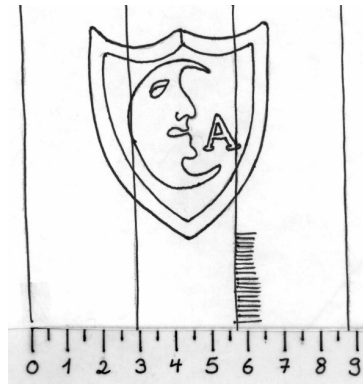


Figure 40: Half moon face, Vollers 622, ff. 280/287, Shawwāl 21st, 1251 / February 9th, 1836. Similar motif in Nikolaev, Watermarks 1092.

Among all the Refaiya watermarks previously mentioned, one mark stands out on account of its motifs, complexity and fineness of representation. It shows two airborne putti holding a banderole between with the name of the Italian papermaker Nicolo Bruzzo (fig. 41a, 41b). The watermark is from a manuscript bearing the date Rabī I 1st, 1228 / March 4th, 1813.

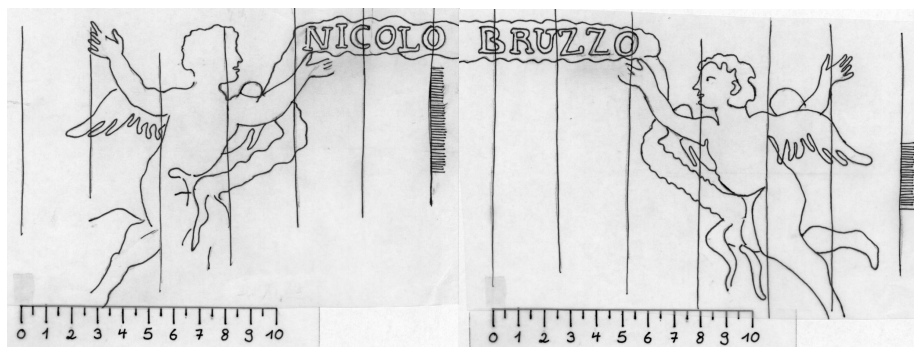


Figure 41: Putti, Vollers 799, ff. 15/18, 36/37, Rabī I 1st, 1228 / March 4th, 1813.

The previous evaluation of the motifs from 39 manuscripts indicates that the watermark paper from the Refaiya manuscripts originates predominantly from Upper Italy and Veneto. The watermark motifs reflect the repertoire of the inventories of Islamic collections. However, no identical specimens could be identified. For the most part, only related and similar samples could be found. For some marks there were no examples at all.

4.4. *Watermarks as dating aids for bindings and manuscripts*

The European bound volume in black imitation leather from the manuscript Vollers 49 contains a fragment of a Mamluk Koran on oriental paper. The text on the first and the last page is on European paper, completed at a later date by two different hands. The last page bears a tre lune mark (fig. 42).

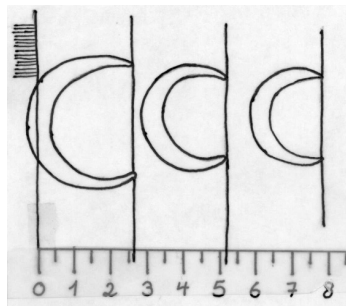


Figure 42: Tre lune, Vollers 49, f. 46, undated. Velkov & Andreev, *Trois croissants* 707.

A related mark from a document from 1743 is by Velkov and Andreev,⁸⁹ indicating that the text of the last page was probably completed in the 18th century. The two endpapers and the two pages glued to each of the doublures of the cover also have watermarks with the name of the papermaker, Ferd.[inand] Fl[insch] (fig. 43) and a leaf branch (fig. 44).

⁸⁹ Velkov & Andreev, *Trois croissants*, 707/1743.

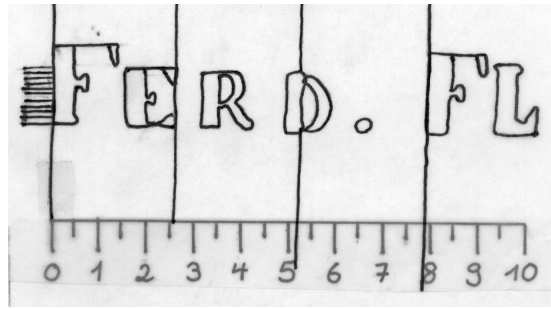


Figure 43: Ferdinand Flinsch, Vollers 49, f. I, undated.

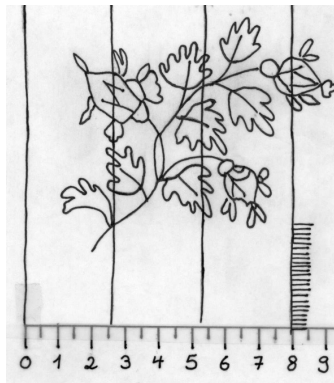


Figure 44: Leaf branch, Vollers 49, f. II, undated.

The manufacturer and purveyor of paper, Ferdinand Traugott Flinsch, was born on August 19th, 1792 in Blankenberg, Thuringia and died on November 11th, 1849 in Leipzig. He founded a paper shop together with his brother Heinrich on April 20th, 1819 in Leipzig. In 1842, he converted his father's paper mill into a paper factory in Blankenberg together with his brother Christian. He had been co-owner of a paper factory in Penig, Saxony since 1834, becoming outright owner two years later. Ferdinand Flinsch was already deceased as the Refaiya library came to Leipzig in 1853. His brother Karl took over the Leipzig shop and the two paper factories after his death. The endpapers originating from one of the two Flinsch family paper factories is evidence that the manuscript Vollers 49 was given a new binding in Leipzig in 1853. The paper was probably purchased in the Flinsch paper shop in Leipzig.⁹⁰

⁹⁰ Deutsches Buch- und Schriftmuseum der Deutschen Nationalbibliothek Leipzig, Papierhistorische Sammlungen; http://de.wikipedia.org/wiki/Ferdinand_Traugott_Flinsch.

The classmark Vollers 755 is the mineralogy handbook *Qaṭf al-azhār fī khaṣā'iṣ al-ma'ādin wa-al-aḥjār wa-natā'ij al-ma'ārif al-asrār*, written by Aḥmad ibn 'Iwaḍ ibn Muḥammad al-Maghribī al-Imām (lived c. 1005 / 1596). The manuscript has a landscape format. The two thin, slightly translucent white papers both show the lion of St. Mark, one with the countermark FF (fig. 45) and the other with the countermark FC (fig. 46).

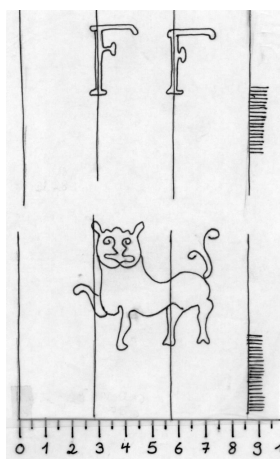


Figure 45: Lion, FF, Vollers 755, ff. 18/28, 27/29, undated. Related and similar motifs in Nikolaev, Watermarks 924; Eineder, The ancient paper-mills 980-1038.

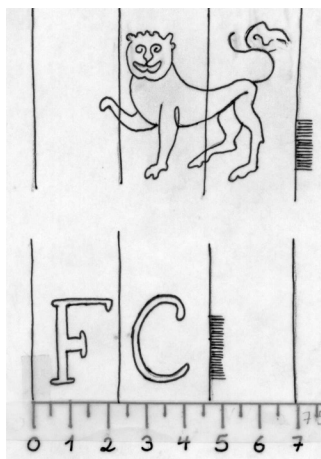


Figure 46: Lion, FC, Vollers 755, ff. 45, 50, undated. Related and similar motifs in Nikolaev, Watermarks 924; Eineder, The ancient paper-mills 980-1038.

As the name suggests, the lion is the symbol for the evangelist Mark, whose bones are preserved in Venice.⁹¹ Since the lion of St. Mark is usually shown without holy attributes,⁹² it is not immediately recognisable as a Christian symbol. The laid lines of the lion paper with the initials FF are separated by distinct intervals, while the laid lines of the paper variety are closely spaced. The paper is also more strongly smoothed and of a finer quality than the other type of paper. Even the lion with the countermark FC is finer and more delicate in design. The depiction of the two lions suggests Venetian origins. The Venetian lion is shown full face, while the Lombard lion is in profile.⁹³ Related and similar examples extending over a period from 1771 to 1807 are listed in Nikolaev and Eineder.⁹⁴ Eineder's sample motifs come from Gorizio, Veneto, Lombard and South Tyrol. The Refaiya manuscript can thus be dated between the late 18th and the first half of the 19th century.

Vollers 364 contains a copy of the *Kanz al-daqa'iq fi al-furū'*, an abridged version by Abū al-Barakāt 'Abd Allāh ibn Aḥmad ibn Maḥmūd al-Nasafī (died 710 / 1310) from his Hanafi work on jurisprudence *al-Wāfi fi al-furū'*. Ṣāliḥ ibn Khiḍr ibn 'Īsā completed his copy on oriental paper at the end of Muḥarram 840 / August 1436. Ff. 1-13, 16-19 and 139, the last page, are European paper. The watermark is a crown symbol with a star and a half moon (fig. 47) and on the last page a tre lune mark (fig. 48).

⁹¹ Eineder, The ancient paper-mills, p. 174.

⁹² *ibid.*

⁹³ *ibid.*

⁹⁴ *ibid.*, 980-1098/1771-1805; Nikolaev, Watermarks, 924/1807.

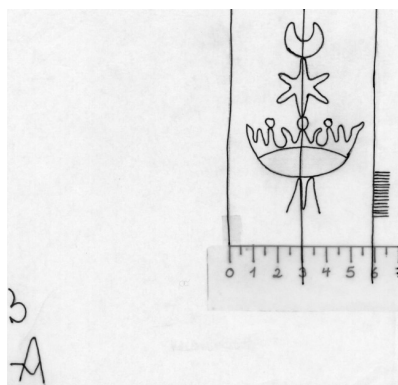


Figure 47: Crown, Vollers 364, f. 7, end of Muḥarram 840 / August 1436. Mošin & Grozdanovic-Pajié group V.C. Similar motifs in Velkov, Couronne 40.

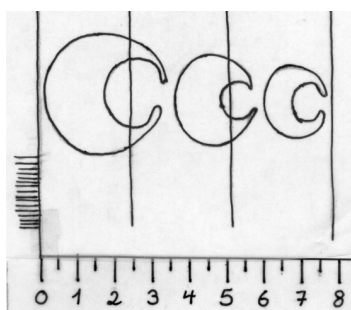


Figure 48: Tre lune, Vollers 364, f. 139, end of Muḥarram 840 / August 1436. Similar motifs in Velkov & Andreev, Trois croissants 93, 111.

The crown is in the form of a half circle with nine irregular tines and bears the letter M as additional motif under the rim. The mark is accompanied by the typical Venetian countermark two letters joined by a single contoured bar and crowned by a trefoil. A comparison with similar crown watermarks in Andreev as well as the systematisation from Mošin and Grozdanovic-Pajié places this mark in the time frame from 1638 to 1647.⁹⁵ Two motifs from the album from Velkov and Andreev with similarities to our three bulbous, inwardly pointed crescent moons are found in documents dated from 1645 and 1646.⁹⁶ They accord

⁹⁵ Andreev, Couronne, 40.36/1638-1639, 40.47/1640-1641, 40.48/1640-1641, 40.54/1640, 40.57/1641, 40.70/1642, 40.72/1642, 40.48/1644, 40.88/1644, 40.101-102/1646-1647, 40.107/1647; Mošin & Grozdanovic-Pajié, Das Wasserzeichen, p. 49.

⁹⁶ Velkov & Andreev, Trois croissants, 93/1645, 111/1646.

accurately with the period of the documents containing examples similar to our crown mark.

The later addition of pages to Vollers 364 can be narrowed down with the help of the marks occurring in them to a time frame of nine years, between 1638 and 1647.

The three examples show clearly that, depending on the availability of material for comparison, manuscripts can be dated to within centuries, decades and even a few years with the help of watermarks.

5. PROSPECT

How should the work that has been begun on the watermarks within the Refaiya project be continued and what chances are there for linking the project internationally?

There are plans to use the tracing method to document all the watermarks within in the Refaiya manuscripts. This documentation would then be presented in its own databank on the project's official website. At the same time, contact has been made to the watermark project *Aufbau eines Informationssystems für Wasserzeichen in den DFG-Handschriftenzentren*⁹⁷, which has the support of the German Research Foundation [DFG] and the participation of the manuscript centre of Leipzig University Library. The primary aim of the project is to establish a common information system for watermarks and their description for all German manuscript centres sponsored by the DFG. This project has the advantage that, on the one hand, the databank is centrally hosted, while, on the other hand, the individual cooperating partners can add their watermark collections themselves in a decentralised manner. Further, research and viewing is enabled by the *Bernstein* portal.⁹⁸

⁹⁷ Application submitted by: Dr. Hannsjörg Kowark, Director of the Württembergischen Landesbibliothek Stuttgart, Prof. Dr. Robert Kretzschmar, President of the Landesarchiv Baden-Württemberg; executive branch: Württembergische Landesbibliothek Stuttgart, Landesarchiv Baden-Württemberg, Bayerische Staatsbibliothek München, Universitätsbibliothek Leipzig, Österreichische Akademie der Wissenschaften; anticipated total duration: 48 months.

⁹⁸ Information from the application made to the DFG.

For this reason, the long-term plan is to integrate the Refaiya library into the databank, making it accessible for interdisciplinary research.

Islamic codicologists should be able to make use of the experience and technical know-how of their occidental colleagues in indexing and presenting watermark collections with the help of a databank and making them available for viewing and research within a common portal. It is to be hoped that we will see databanks of watermarks in Islamic collections established and integrated into a portal in the near future. The importance of such an inventory is demonstrated by the Refaiya watermark repertory. By mirroring the history of European papermaking from the 15th to 19th centuries, the library also presents a vivid image of the history of economic and cultural exchange between West and East.