

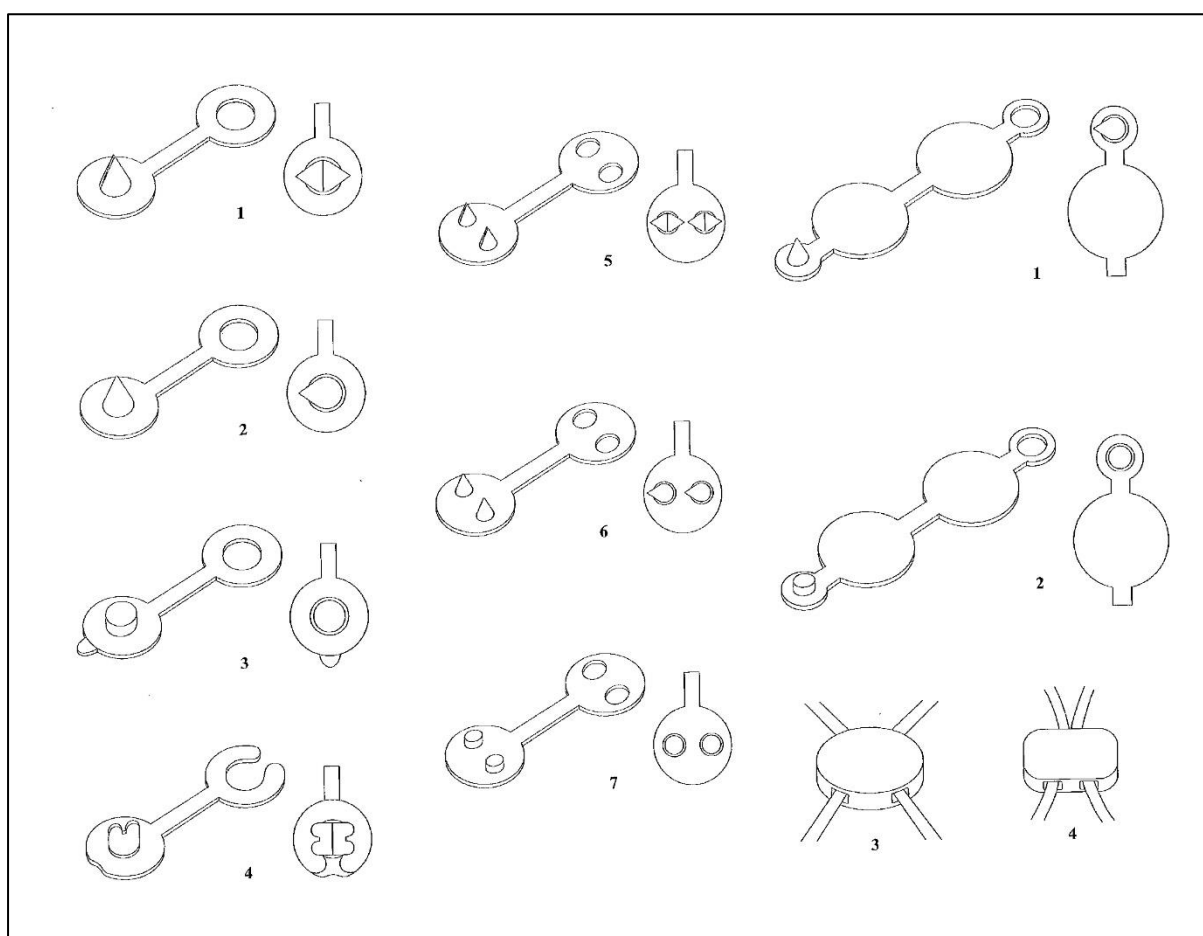
**Archaeological evidence for international textile trade in the medieval and early modern Hungary**

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**Closing Report**

The project 'Archaeological evidence for international textile trade in the medieval and early modern Hungary' lasted one year longer than I originally planned. The main reason for the additional year is the resultative and intensive work sustained for all four years. The number of publications and the amount of the evaluated material exceeded the original projections. The work integrates three main components: domestic research (cloth seals finds and acquisitions in Hungary), analysis of the collections from the neighbouring countries (former parts of the Kingdom of Hungary), and studies abroad (helping in the identification of the Hungarian finds).



*Fig. 1. Main types of the cloth seals found in the Carpathian Basin (Published in Mordovin 2018)*

**Domestic research**

One of the main goals of the project was to collect and to catalogue all known cloth seal finds in Hungary. The collection of the Hungarian National Museum - one of the largest in the country - was published yet in 2014. This paper meant a stable basis for further works. I was able to continue with the evaluation of the seals given to the museum as a part of László Korinek's collection. It included finds most of all from the southern parts of Transdanubia.

In the second place, we should mention the Museum of Gyula Nagy in Orosháza. This institution houses over 250 cloth seal-finds datable from the late 14th century until 1596. The last date is the year when a Tartar attack destroyed the whole region.

During spring 2016 the Department of Medieval Archaeology of the University of Eötvös Loránd has acquired an extensive private collection of cloth seals. The ca 100 items found in the vicinity of Szolnok include several unique and previously unknown exemplars, datable altogether from the early 15th until the end of the 16th centuries. Being a former private acquisition, it incorporates predominantly well-preserved specimens. Seals originated from Nuremberg and Aachen were identified for the first time in this assemblage.

In the last couple of years, I processed two more, larger assemblages. The first one, with 112 items, was found by a metal detectorist in Tolna County, not far from Újireg. The provenance of this assemblage is unique since it comes not from an archaeological site. It seems that illegal detectorists must have hidden this hoard in the first decade of the 21st century. Unfortunately, the better-preserved pieces seem to have been sold before, and only the very damaged and fragmented seals remained. Despite this fact, at least four or five items appeared for the first time in the Carpathian Basin in this collection.

Another investigated assemblage comes from the territory of a deserted settlement at Szeremle. The collection consists of 50-60 seals from Szeremle, datable to the 15th-16th centuries. The article about this, made in cooperation with István Pánya and Balázs Nagy is due to be published this year. It includes several previously unknown types of English and Polish seals.

As the next step, I began to check recent acquisitions of the county museums, starting with Nógrád and Pest counties. The vaster part of the seals in Nógrád was collected during field walking. Sadly, most of them are too damaged to be identified, but the rest vividly represent the end of the Hungarian Middle Ages, including a rare type from Mechelen and Luban. In Pest, I visited two institutions: In Vác and Gödöllő. The collection of the Trágor Ignác Museum (Vác) contains ca. 20 cloth seals found at the neighbouring sites around Vác. Gödöllő, at the same time, is the storage place for all the metal-detectorist finds from the county, including almost 60 cloth seals. Most of these finds arrived on cheaper fabrics from Silesia and Moravia during the late 15th and 16th centuries.

Having good connections with colleagues in Tolna and Somogy counties, I was able to get information about every cloth seal acquired by those museums. It seems that in the late Middle Ages Somogy and Tolna were among the most prosperous regions of the Hungarian Kingdom. At least the finds of Tournai, Aachen and Venice imply to it. Several exceptional seals collected during the excavations in Veszprém county are included in the catalogue likewise.

Apart from the more-or-less accessible finds in the museums, I received contacts to three private collections. The first such collection is from Transdanubia and consists of ca 50 cloth seals, including several unique exemplars from Italy and Bavaria. The second one is from Szeged (József Géza Kiss' Collection). It consists of almost 100 items, also with several notable rare pieces. The last assemblage includes finds from Környe and its surroundings.

The evaluation of the finds is composed up of three steps: description, identification and publication. One of the main goals of the project was to present the cloth seals from Hungary to a broader Hungarian and international audience. I have prepared several shorter articles during the four years of the work, including studies of Silesian and Bavarian seals, finds from the market square of Pápa and the Orosháza-region. The cloth seals with the English-like attribution received exceptional attention. According to my results, it turned out that some variations of the English-like finds were contemporary counterfeits produced, most probably, in Ottoman Hungary. One of the most widespread types of seals in Hungary arrived from

Tournai during the 14th and maybe first decades of the 15th centuries. A separate study deals with these seals and their analogies throughout the whole of Europe.

In April 2017 I submitted a habilitation thesis at the University of Eötvös Loránd and defended it in February next year. Later, this thesis served as a basis for a monograph published in the same year. This monograph was the very first such work not only in Hungary but in the whole Central and Eastern Europe. By the time when the manuscript had been finished the number of all known seals in Carpathian Basin reached 1347. The evaluation of all these finds, including identification of the 116 most widespread types is the main achievement of this monograph.

### **Collections in the Carpathian basin**

Concerning international cooperation, the first step was to install close scholarly relations with colleagues in the neighbouring countries and to draw their attention to this topic. Altogether, I could establish contacts with colleagues in four regions, namely Slovakia, Romania, Serbia and Ukraine. In Transylvania, I was able to examine only a small number of cloth seals from Târgu Mureş (Marosvásárhely), Lăzărea (Szárhegy), Şimand (Simánd), Tauţ (Feltót) and Oradea (Nagyvárad). Sadly, the use of the metal detector is not allowed at the excavations in Romania. Some of these seals are mentioned or published in the 2018-monograph.

In Vojvodina (Serbia) the cooperation with Raško Ramadanski from Senta Museum, later chief archaeologist in Bečej (Óbecse) resulted in a significant increase in the number of identified seals in the southern part of former Kingdom of Hungary. There are at least 50 cloth seals from Vojvodina representing a broader chronological interval from the late 14th until the late 16th century. Although I mention these seals in my monograph and they are part of the overall statistical evaluation, Raško Ramadanski is going to prepare their full publication in 2020, in *Communicationes Archaeologiae Hungaricae*.

The collection of the cloth seals in Slovakia is the largest one among the four countries. Cooperating with Ján Hunka and Marek Budaj I was helping in identifying several dozens of the previously unpublished cloth seals. I plan to publish them as co-author with Hunka and Budaj in the next year. At the same time, I got access to the seals found in Fil'akovo (Fülekk) and have prepared them for a publication in 2020. Some other unique seals from Čabrad' Castle (Csábrág) are available in a 2016-publication. Likewise, I was involved in the evaluation of a unique exemplar from Venice, found at Ostrá Luka-Peťuša locality (Osztróluka-Petyusa vára). In April and May of 2018, I made some special trips for collecting information about the cloth seals in Rožňava (Rozsnyó), Košice (Kassa) and Rimavská Sobota (Rimaszombat). Another extraordinary collection is of particular interest. Found in a 17th-century cellar in Košice, it contains several items well-datable to the reign of Gabriel Bethlen. The importance of this collection is that there are almost no known 17th-century cloth seals in the Carpathian Basin. It seems that the economic disaster followed the Long War resulted in a drastic decrease in the textile-import to Hungary.

The National University at Uzhgorod (Ungvár), Ukraine houses the last significant collection of cloth seals. It contains more than 500 finds, including some items found at the territory of the former Kingdom of Hungary (for example Seredne / Szerednye, Palad-Komarivci / Palágy-Komoróc, Korolevo / Királyháza-Nyalábvár etc.). I was recording and cataloguing these finds, assisting in the formation of the collection. Several seals, mostly from Transcarpathia and Bukovina regions, have already been published with the cooperation of Igor Prokhnenko.

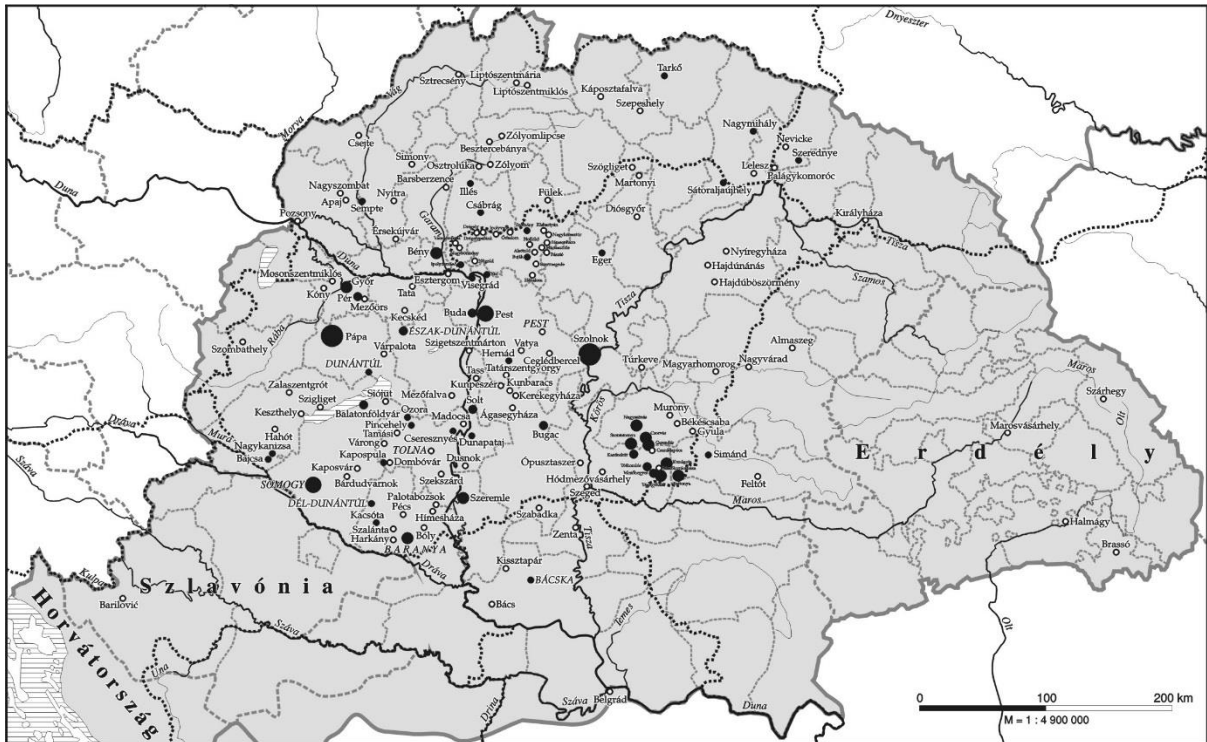


Fig. 2. Main find locations of the cloth seals (Published in Mordovin 2018)

### Studies abroad

An essential part of the project was to study this topic in Western-European museums and libraries. This study was the basis for further research and served as a principal instrument for identifying finds in the Carpathian Basin, most of which arrived from the western countries.

#### *The Netherlands*

Since the main European clothier region in the 13th-14th centuries were Flandria and the Netherlands, I focused at first to Hollandia, Belgium and Northern-France. In Hollandia, the Textile Research Centre (TRC) in Leiden provided the most outstanding basic scholarly literature on this topic and has involved me in their activities making me more familiar with the textile-producing and post-production process. The TRC also has a cloth seal collection representing the main types used and circulated in the region in the medieval and early modern period. In February 2016, I had an opportunity to cooperate with the TRC, working on their recently acquired collection of ca 50 seals. This collection enabled me to get better acquainted with the Flemish and Dutch seals from the Middle Ages until the 18th century (for example seals from Amsterdam, Amersfoort, Haarlem, Leiden, Delft, Rotterdam etc.). I visited the Textiel Museum in Tilburg (Netherlands) too, where I could collect some new literature in the specialised local library.

#### *Belgium*

Most of the time I spent in the smaller museums and collections in the Flanders where I was able to visit more than 21 historically important sites: Brugge (The Gruuthuse Museum), Diest (Stadsmuseum De Hofstadt), Gent (Museum of Industrial Archaeology and Textiles), Hasselt (Modemuseum and Het Stadsmus), Kortrijk (Museum over Leie en vlas), Leuven (M-Museum), Lier (Stedelijk Museum), Mechelen (Museum Hof van Busleyden), Oudenaarde (Provinciaal Archaeologisch Museum), Poperinge (Talbot House, and Hopmuseum), Ronse (Textielmuseum), Sint Truiden (Stedelijk Museum), Tienen (Museum Het Toreke), Tongeren (Gallo-Romeins Museum), Ypres (Stedelijk Museum), Tournai (Musee de la Tapisserie), Verviers (Musee des Beaux-Arts), Brussels (Museum of the City Brussels).

#### *Northern France*



In Northern-France I was researching in several libraries and institutes, namely: Amiens (University of Jules Verne), Valenciennes (Musée des Beaux-Arts), Lille (University Library), Arras (Musée des Beaux-Arts) and Abbéville. These studies were essential in identification Hungarian and Ukrainian finds attributed as being from Lille, Arras and Valenciennes.

#### *United Kingdom*

England is the birthplace for the studies of cloth seals. First articles and the first monograph were all published there. Two museums in London (British Museum and Museum of London) house the most considerable collection of cloth seals in the world. Geoff Egan, who has departed in 2010, could have assessed just a smaller portion of the finds. During the time of the project, I was able to visit both of the museums examining the cloth seals kept there. At the same time, I worked in the library of the Society of Antiquaries, which collects all relevant archaeological literature. The continuation of the research in London brought interesting new data concerning the forging of the cloth in the 16th-century Ottoman Hungary.



*Fig. 3. Distribution of different types of the 'Guilhelmus Almandette' seal*

Worth mentioning is the Congress for Post-Medieval Archaeology held in Kingston upon Hull. Hull was one of the most important ports in the Middle Ages and early modern time for sailing out the English wool for the Netherlands and other continental destinations (including, for example, Nuremberg).

The third notable and not planned destination in England was Liverpool. Thanks to the conference at Hull, I met colleagues who work at the Académie Internationale de la Pipe, located at the University of Liverpool. A couple of years ago they had received as a donation a private collection, which contained more than 600 seals. I was the first to examine those seals and then to discuss them with the English expert, Stuart Elton. I contacted him to evaluate those, previously unpublished finds.

Another conference and study in Durham in April 2017 enabled me to get acquainted with the seals from the River Wear, just beneath a 12th-century bridge. This yet unpublished collection kept in the Durham University is directly connectable to the cloth trade on that structure.

#### *Germany*

A very intensive research works were done in Germany, most of all in Bavaria. First of all, I visited the major museums and collections along the Rhein, namely Mainz (RGZM), Alzey (Stadtmuseum), Speyer (Historisches Museum der Pfalz) and Worms (Museum der Stadt Worms). Most of the cloth seal finds in this region (Rhein-Palatinate) are unpublished. Luckily, I gained access to these finds and were able to examine them, helping to inventory them. The studies in Germany in most of the cases were not too successful because of the too-small number of local cloth seals. However, in Speyer, I was able to identify a small group of seals found in Madenburg, Triefels, and Neukastel. As an example, I can mention seals from Castle Madenburg, which included specimens from Nuremberg, Augsburg, Mechelen and England.

In Bavaria, I focused on the towns already connectable to Hungary by the written or archaeological sources. Among them, I could visit Rothenburg ob der Tauber (Reichstadtmuseum), Schwäbisch Hall (Hallisch-Fränkisches Museum), Ulm (Ulmer Museum), Memmingen (Stadtmuseum), Passau (Veste Oberhaus Museum), Regensburg (Historisches Museum), Isny im Allgäu, Kempten etc.

### *Italy*

Italy has always been among the most prominent objectives in my project, due to its quite frequent appearance in the Hungarian archival sources. Unluckily, the colleagues in Italy are not interested in this topic too much. Therefore I could not acquire any closer information about the archaeological finds. However, during my several trips to Italy, I was able to work in some major libraries and archives, in the former textile-production centres. In Florence, Venice and Turin, I was collecting the relevant scholarly literature. In Pistoia, Bergamo, Bologna etc. I visited the museums, which collections include medieval or early modern textile fabrics. My most productive stay was in Prato, in Francesco di Marco Datini Institute and Archive and the Textile Museum. Marco Datini was a 14th-century merchant who was also involved in the international textile trade. His archive has survived in unparallel state and contains a lot of unique information concerning the medieval textile production. In Turin and Bologna, I combined my research with university lectures and a conference paper. My stay in Florence resulted in the proper identification of several florentine seal-finds in Hungary.

### *East-Central-Europe*

In the eastern part of Central-Europe, the research of the cloth seals is much less developed than in Germany or France. In most of the cases, I had no precise idea of what to look for, except the scholarly literature. Starting with Slovenia, I introduced this topic in my university lectures and then was able to contact a colleague from the Slovenian National Museum in Ljubljana. There I got acquainted with some cloth seals also known from the Hungarian collections, among others, with some English types.

Participating in a conference in Cracow (Muzeum im. Emeryka Hutten-Czapskiego), I received another excellent possibility to examine the seals from the excavations of the local market square (Rynek). At the same time, this trip enabled me to collect a lot of relevant literature about textile production and trade in Poland and Silesia.

During the same meeting with our colleagues in Cracow, we have initiated a new interdisciplinary project, which is going to incorporate material analyses of the selective seal-types. This project will be the first international attempt to examine particular groups of cloth seals. In this case, this concerns the finds from Tournai.

In Bohemia, the research of the discussed finds has not even started yet. Therefore every piece of information is highly valuable. I could work in the central library of the Institute of History and as a result, identified a unique cloth seal from Rychnov nad Kněžnou (Reichenbach).

Formerly, I also planned to visit several Moravian (Jihlava and Nový Jičín) and Silesian towns (Lwówek Śląski, Wschowa, Wrocław and Chojnów); but, according to the information from the local colleagues, there were no known cloth seals in those collections. Therefore, I

decided to spend the efforts in other, more promising places. Most of the finds from the excavation in Gdańsk are quite well published. Getting contacts of those colleagues, I was able to communicate with them without travelling on the site. The importance of the Gdańsk-collection is that it includes many seals from the same towns than in Hungary.

In the end, I have to mention some more places I could not visit during this project. Among the reasons, in the first place is the lack of time. Besides the duties at the university, the available time for travelling was quite limited. Therefore I often tried to contact the foreign colleagues via e-mail, to check if they would indeed have anything relevant for my research. I followed these principles in the case of Danish, Norwegian and Swedish collections. Most of the needed information I could receive via e-mails; some books were sent to me directly. I was able to discuss the situation in the Northern-German museums, namely Cologne, Göttingen, Trier and Hamburg with the colleagues during the conferences held in other towns. The relevant literature was accessible in the most comprehensive archaeological libraries in Mainz and Frankfurt.

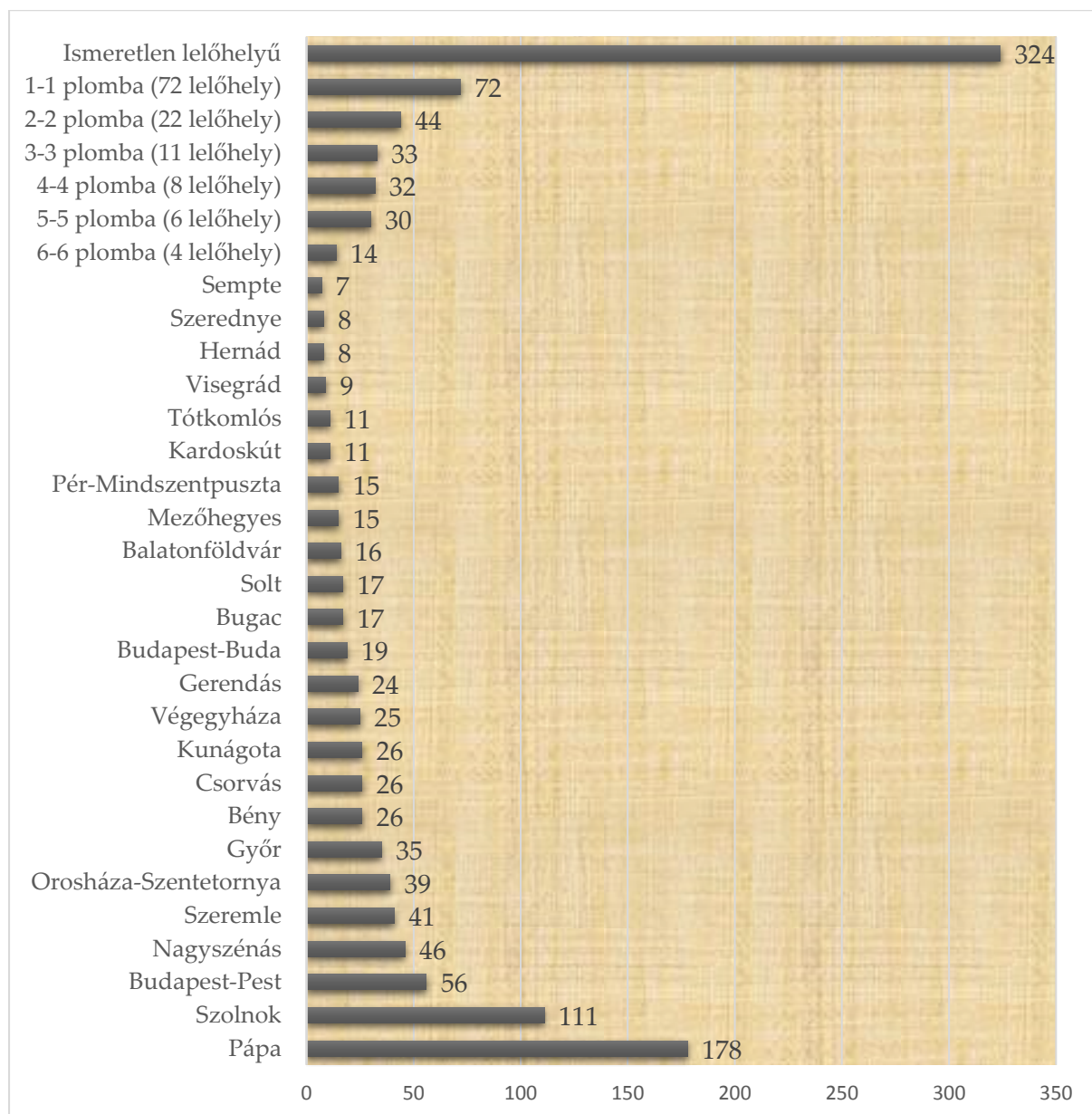


Fig. 4. Distribution of the cloth seal-finds according to the major assemblages



## Education

The preliminary results and the available literature of the research is already part of the educational material. The cloth seals are presented not only on the main courses but also on the lectures on the material culture of the Hungarian Middle Ages. This topic also makes an organic part of my ERASMUS-lectures already held in Ljubljana and Turin.

## Exhibition

The most exceptional result of the first year is the unplanned exhibition on the textile trade and cloth seals at the Market Square of Pápa. The exposition *Cloth at the Market of Pápa* (Posztó Pápa piacán) had three stops, first of which was in the State Archive of Veszprém (from 1st March 2016) and the second was in Town Library of Pápa (from 7th April). This display ended in November 2016, taking place at the main building of the Hungarian Academy of Sciences. A somewhat reduced version of the exhibition was on display at the Babeş-Bolyai University in Cluj Napoca, in 2018.

This exhibition presented all notable cloth seals found during the 2011-excavations at Pápa and also several more representative exemplars from the collections of the Hungarian National Museum and Department of Medieval and Early Modern Archaeology of Eötvös Loránd University. Thimbles, pins and needles also found during the archaeological works present the tailor-craft of medieval Pápa. Cup weights and coins from the excavations refer to the intensive trade took place at the market. Altogether more than two hundred items were exhibited. A specific volume was dedicated to this exposition, containing not only all the presented items but also several studies on this topic.

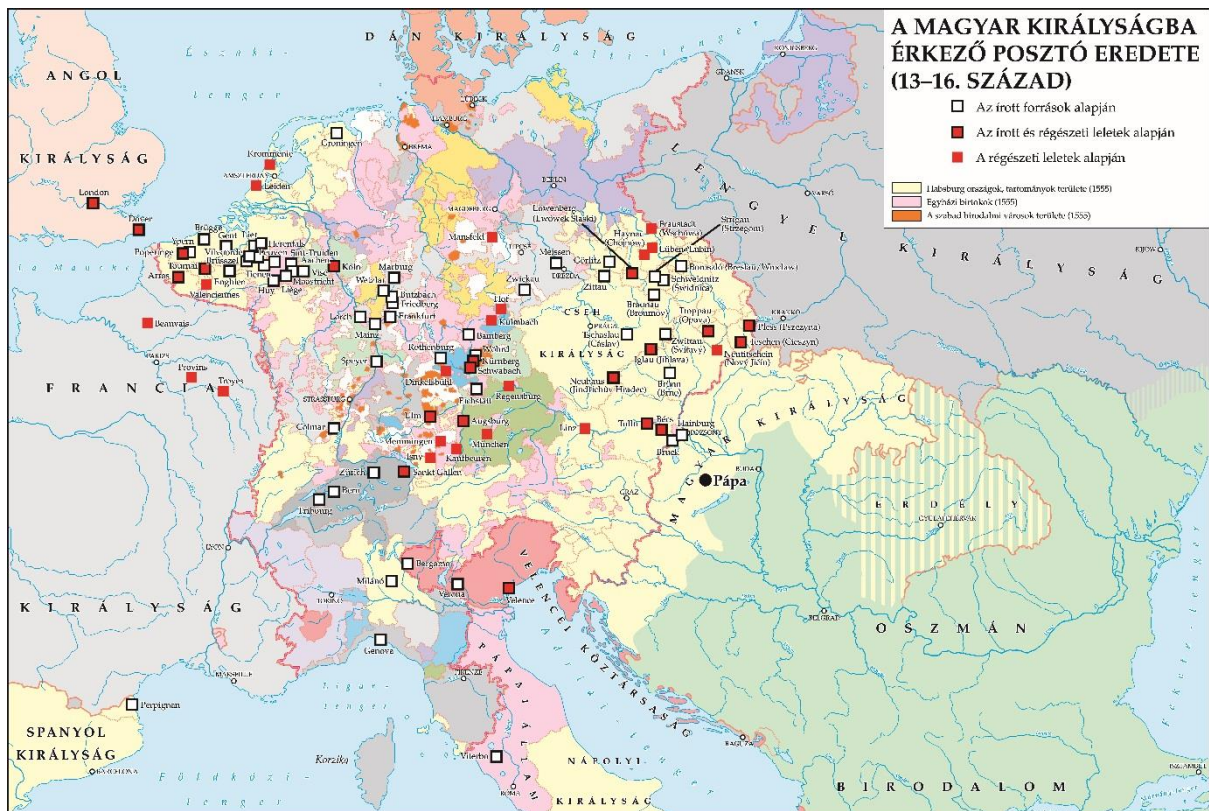


Fig. 5. Origin of the textile fabrics traded in medieval Hungary (Published in Mordovin 2016)

## Conferences



The subject of the project, namely the function, dating and the identification of the close seals was presented in fourteen papers at different events, including scientific conferences and popularising meetings.

1. Bačka Topola (Topolya), 9.11.2015. The Archaeology of the Early Modern Period in Hungary.
2. Senta (Zenta), 10.11.2015. Post-Medieval Archaeology in Hungary.
3. Pápa, 10.03.2016. Textile import and trade in Pápa.09.09.2016.
4. Senta (Zenta), Serbia: Élet az észak-magyarországi várakban a kora újkorban
5. Bologna, Italy, 09.15.2016. The Economy of Dress and Textiles: Avenues of Trade, Production and Consumption in the Early Modern Period: Cloth and Wealth in a Post-Medieval City: Sixteenth-Century Cloth Seals from Pápa, Hungary
6. Graz, Austria, 09.19.2016. Internationale Tagung der Österreichischen Gesellschaft für Mittelalterarchäologie: Dating the Cloth Production in the Late Middle Ages
7. Budapest, MTA BTK Történettudományi Intézet, 16.12.2016. A pápai Fő tér topográfiai változásai a 10. századtól a 16. század végéig
8. Ljubljana, University of Ljubljana, Faculty of Arts, Department of Archaeology, 04.03.2017. Material Culture in Medieval and Post-Medieval Hungary
9. Budapest, MTA BTK Történettudományi Intézet, 18.04.2017. Mixtura Texturalis - Ember és textil a Kárpát-medencében: Textilről textil nélkül
10. Székesfehérvár, Gyapjúfesztivál, 13.05.2017. Regélnek a plombák A reklám és minőségjelzés szerepe a középkori textilgyártásban és kereskedelemben
11. Liberec, Czech Republic, NESAT Conference, 22.05.2017. Mixtura Texturalis: recent research of archaeological textiles and textile production in Hungary
12. Poland, Cracow, 07.05.2018. The Sphinx of Slav Sigillography. Seals of Drogichin type in the light of interdisciplinary research. Paper: Cloth Seals from Tournai in Medieval Hungary. A Comparative Approach.
13. Hungary, Visegrád, Castrum Bene Conference, 28.10.2017. Ásatások Csábrág (Čabrad') várában.
14. Romania, Cluj-Napoca 24.05.2018. Urban archaeology in Hungary.

## Evaluation

The following points summarise the main results of this four-year project.

1) During the period of the project, I have prepared 18 publications on this topic altogether, including popularising articles. The most significant of them is the 355-pages long monograph built upon 1347 cloth seal finds from the territory of medieval Hungary. The number of inventoried seals has reached 2000 items after the publication of the book.

2) Some groups of seals, namely the Silesian, Bavarian and the finds from Tournai were evaluated in separate articles.

3) I paid exceptional attention to some regional assemblages, including those in the museums abroad, e.g. Orosháza, Uzhgorod (Ungvár), Szolnok-collection etc.

4) I was able to trace the practice of forgery of the English cloth in the Ottoman Empire, not documented by the contemporary written sources.

5) The archaeological finds from Pápa and the preliminary results served as a basis for an exhibition reached even the Hungarian Academy of Sciences.

6) My papers and publications have embedded the Hungarian results in the broader scientific background.

7) The state of the research in Hungary has reached the European level, exceeding all neighbouring and most of the Western-European countries.

8) The project has helped to make a thematic book collection on the archaeological textiles, textile-production and cloth seals in the library of the University of Eötvös Loránd.

9) The project has enabled to prepare graphic documentation of more than 700 seals in various Hungarian institutions.