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**Stove Tiles with Knight Figures and their
Master**

***New Finds and Results on the Low Countries –
German – Hungarian Relations***

In Honor of the Late Imre Holl

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Introduction¹

In 1998 Imre Holl presented the to date most detailed overview on a series of high quality late medieval stove tiles. Most of them were found on the territories of the former Hungarian kingdom or other territory reigned by the king himself or his close allies.² The main iconographical motif of these stove tiles are jousting knights from the left and the right (fig. 1, 122-131). They depict a moment before the actual meeting, where the joustiers still look at each other before lowering their heads at the moment of hitting each other.³

These tiles, quite a lot of whom derive from the excavations on the royal palace in Buda had

1 The author would like to thank Harald Rosmanitz (Partenstein), Heiko Schäfer (Stralsund), Uwe Gross (Esslingen) and Sebastiaan Ostkamp (Amsterdam) for background information, discussion and the provision of photos of some of the finds. Stefanie Hoss (Lent) was so kind to improving some translations of this text from German to English. This paper and in fact a good deal of my research own a lot to Imre Holl, both his publications and the methods he employed as it to the lively discussions in Budapest, when I had the chances to meet him in person, freely giving me his advice on even such items as kitchen knives. All of the distribution maps had been made with the help of Harald Rosmanitz and Sabrina Bachmann in their spare time, who also provided the general lay out of the maps. I wouldn't even tried it without you! I would also like to thank all the private collectors, museums and archeological departments and their staff (especially in Budapest), who supported my work and gave me the permission to reproduce the works in their collection in Cologne (Patricia Brattig, Klaus Hardering, Bettina Mosler and the restaurators) Darmstadt (Wolfgang Glüber), Mainz (Marion Witteyer and Wolfgang Saal), Middelburg (Robert van Dierendonck), Rotterdam (Ingrid de Jager), 's-Hertogenbosch (Eddie Nijhof), Sibiu (Karla Bianca Rosca), Speyer (Ludger Tekampe), Trier (Peter Seewaldt), Utrecht (Hans Lägers), and Worms (Mathilde Grünwald) or who like Claudia Weissert from the Museum im Andreasstift der Stadt Worms even provided me with a photograph deliberately to be published here. This article was translated with the help of www.DeepL.com/Translator.

2 Holl 1998. For the distribution of the related stove tiles see also: Holl 1958; Holl 1980; Tamási 1995; Mück 1998, 94-95; Burrows/Gaimster 1999; Kühtreiber 2000, 95-96, 160, 164-166, Nr. 219, 221, 222: 1450-1500; Friedl/Kühtreiber 2003; Radić/Bojčić 2004; Boldizsár 2004; Skiljan 2012, Gruia 2013a, 73-87; Hlubek/Faltnýnek/Šlězár 2016; Tymonová 2018.

3 Cf. Gravett 1988, 30.



Fig. 1. Stove tile with knight figure (partly glazed and slip painted, restored, 2nd generation, phase 2).

been the focus of Imre Holl's studies since the 1950s.⁴ All early stoves in the Hungarian Empire – and some of the versions designed later – were made either for the king himself or for other high nobles.⁵

Holl was the first to realize that some figures on these stove tiles had been derived from statuettes, so-called pipe clay figures.⁶ These were quite common in the Rhenish region and the Netherlands during the 15th and 16th centuries. In the following years some further figure and also relief types had been detected as being used as *modelli* for stove tile decorations. This

4 Holl 1958, 252-273; Voit/Holl 1963; Holl 1971, 173-19; Holl 1984, 216-218; Holl/Balla 1994; Tamási 1995; Holl 1995, 265-281, 288; Holl 1998; Holl 2004; Holl 2005, 15-17, 22-23; Kiss/Spekner/Végh 2018, 70, 285-293, no. 4.20,-4.22.

5 Holl 1998, 174-184.

6 Holl 1995, 288-289; Holl 1998, 188-206.

is evident not only for the stove tiles with the knight figures but for other stove tiles, too.⁷

Shortly afterwards a very similar series of moulds for stove tiles and also some working positives had been published, that had been excavated in the former Hanseatic League city of Rostock, in northeastern Germany.⁸ And Uwe Gross – while searching for early medieval finds in the depots of the Denkmalpflege Baden-Württemberg – recently discovered some stove tiles of an extraordinary artistic quality and informed Harald Rosmanitz, who detected a further equivalent from Speyer.⁹ These new finds allow us to add some fragments from Cologne to the group of these stove tiles. So today the number of tiles that share a mutual repertoire of *modelli* for figures and ornamental decoration has increased as significantly as the range of their distribution.

And this also raises other questions: Do all these stove tiles derive from the same workshop? Had that series like often been copied widely,¹⁰ are there hints that these stove tiles had been fabricated by direct followers or pupils of a single workshop? Maybe all of these hypotheses should be born in mind. In this respect it is obviously problematic that no production site for these stove tiles has yet been excavated.

In fact Holl and Balla already have shown that of the some usual criteria for a single workshop are quite dubious.¹¹ Some stove tiles that appear to have been made from the same moulds display different clay composition features and manufacturing techniques, not only visible to the naked eye, but also measurable by Neutron Activating Analysis.¹² The cases show that the

same moulds had been weakened by long use as the production method changed. In some instances new, smaller moulds had come into use to replace the original ones. A criterion as common as the use of the same clay deposits in a single workshop may be doubtful if the researcher compares it to workshops which travel to sites in order to comply with the wishes of their elite customers. So obviously the stove tiles with the knight figures had been made for noblemen and especially the Hungarian royal palaces. At the first glance, this could be a seemingly reason for the change of clay, f. e. if the workshop wanted to be ready to accomplish special needs in the palaces of their high born customers.¹³ Precedence cases for this thesis might be found in the travels of the Nuremberg sculptor Veit Stoss to Kraków and Műnnerstadt¹⁴ and that of the roughly contemporary Niclas Gerhaert van Leiden to Vienna¹⁵ to fulfil his imperial commissions.

The change – or the changes – in the production methods seem to show something different and maybe they could lead to a more complex understanding of the concept commonly called “workshop”.

Expose: The repertoire of pipe clay figures and reliefs used in late medieval stoves tiles

Holl categorized the stove tiles in Hungary and Bohemia into several types¹⁶. Since they had been applied independently from these he listed the figure types deriving from terracottas separately.¹⁷ Some stove tile motives, like the rose with five leaves in a medallion, flanked by broad-lobed leaves in the spandrels, that can be tracked back to the 2nd quarter of the 15th

7 Regenber 2002; Grimm 2011a, 30, 79-81, footnote 135, Nr. 9 d; Grimm 2011b, 267-268; Grimm 2011c, 145-146.

8 Burrows/Gaimster 1999.

9 Gross 2017, 45-54.

10 Holl 1998, 184-186.

11 Holl/Balla 1994, 390-391.

12 Holl/Balla 1994; Holl 1995, 257-260, 265-281, 289-291; Holl 1998, 160, 186-188, 203. In fact a similar pattern of changed clay compositions can be found in the Worms workshop of the “Bilderbäcker”, a sculptor who specialized in producing pipe clay figures and other

printed sculptures like reliefs, figurative flutes and pastry moulds (Grimm 2016, 265-270).

13 Holl/Balla 1994, 393; Holl 2004, 333.

14 Schneider 1983.

15 Regarding the work and travels of Niclas Gerhaert: Roller 2011.

16 Holl 1971, 173-183; Holl 1998, 141-157.

17 Holl 1998, 188-203.

century,¹⁸ and enjoyed a wide spread popularity lasting into the 1530s.¹⁹ This was further exploited especially by Judith Tamási and Harald Rosmanitz, who also focused on the eponymous stove tiles with jousting knights (fig. 1).²⁰

Although many elements of the composition are shared, as far as we know today none of the actual types of stoves that had been defined by Holl has been discovered in any of the German or Swiss find spots.

Since the figures and reliefs used by the workshop derive from different origins, this gives us the possibility to use them as an independent manner of establishing a chronology. As the figures can only have been used after their appearance on the market, the stoves decorated with copies of them are evidently younger than the invention of the figure type. Moreover one can in some instances detect reworkings and modernizations which reveal that the figure used was already of a later mould generation than the original.

Additionally, stove tile fragments found in the residence of the bishop of Worms in Ladenburg (BW, southwestern Germany)²¹ are neither identical to the Hungarian ones nor to the moulds of the Rostock hoard or to other stove tiles from the Hanseatic Region. Even when we take into account that the latter might be connected to the relative small number of finds from both regions, the style also differs widely enough to presume that the actual northern German moulds are not directly copied from stove tiles from Hungary or southern Germany. However this shows a growing demand in highly decorated stoves. This demand could either be fulfilled by creating secondary patrices from moulds bought from the inventing

workshop or simply copying existing stoves.²² Ore, as in this case a subsidiary workshop created new moulds with copied stamps and figure moulds for the decorations.

On the other hand not only the types of the *modelli* for figurines and reliefs themselves but also those for knight figures and other motives (pelican, rose) had been in use by a couple of different workshops since the mid 15th century.²³ What connects these three series closer to each other, is firstly, that pipe clay figures and reliefs are a basis for stove tile decorations. Secondly, identical types overlap. Even closely related subtypes are common between these. Thirdly, the use of some characteristic decorative foliage motifs is found only in this special workshop circle.

On the other hand those other reliefs that had been used as *modelli* for stove tiles in southwestern Germany had been used to fill practically the whole image area of the single tile, while the figures had been singled out in the workshop circle.²⁴ So it seems unlikely that all of the sculptures reprinted as decorations of the stoves were old fashioned when the scheme of the stoves as highly representative inner architecture had been designed. The stove was one of the first locations in the building that visitors would inspect. As the social, judicial and emotional centre of the late medieval house and palace it was at least as much the centre for decorative programs and family display as the murals in the 15th and early 16th century.²⁵ So depending on the status of the client and the room it was built for one could expect the decorations not to have been old fashioned, as those which

18 There is one copy dated 1335, often interpreted as 1435 from a workshop that was active between 1425 and 1445 in Basle. Tamási 1995, 78; Schnyder 2011, Bd. 1, 103; Rosmanitz 2013a, 59 gives a general overview of the distribution of the motif.

19 Tamási 1995; Holl 1998, 171; Gaimster 2001a, 166; Holl 204, 353-354, 358-359; Foster/Procházka 2008, 410-411, 415, fig. 27.8-9; Roth Heege 2012, 264, 274; Loskotová 2012.

20 Tamási 1995; Rosmanitz 2015b; <http://furnologia.de/galerie/galerie-motive-massenhaft-1599/>.

21 Gross 2017, 45-52.

22 Rosmanitz 2012, 57-62; Rosmanitz 2013b.

23 Tamási 1995; Schnyder 2011, vol. 1, 68-73, 124, 127, 131, 142, 152-154, vol. 2, 278-294, 318-333.

24 One exception is a St. Barbara from Rostock. But she doesn't belong to a stove tile. She is an intermediary positive. The only use of this type detectable at the moment is that of the saint's head to create the head of an angel, fig. 78, 80. The other exception is a stove tile with St. George slaying the dragon which was only used by a subsidiary workshop in full, while in the 1450s only an excerpt was included in the Tata stove, fig. 63 left (see below). So both full scale reliefs are subsidiary and not products of the original master.

25 Wolter-von dem Knesebeck 2007, 22-26.

less important families could afford. These may have been happy to get a decorated stove for their *Stube* (heated living room) in this time or the reuse of old stoves in less important areas of residences or as side buildings of the nobility.²⁶

An overview of the *Bilddruck* (printed sculpture) as direct models for stove tiles outside the workshop of the knight figures and its followers

Two Rhenish stove tiles display the single figures derived from pipe clay forerunners in the centre of the niche resp. half-cylinder ore as two other ones on vertical separator-tiles (*Leistenkacheln*). In contrast to that the workshop circle of the stoves with the knight figures tends to place them either on the corners or otherwise in the architectural frame of the stove tiles. A newly discovered find from Aachen was made with the aid of a relief, but neither the stove nor the relief is connected to the workshop circle (fig. 14, 16). Just one stove tile mould from Rostock is an exception²⁷, but even here the two figures, are flanking a central larger figure which is typical for eastern central European stove tiles – but not for the terracotta-style.²⁸ All pipe clay figures that had been used were created in the late Gothic epoch.

In addition to the types verified here there might be some more corner figures on south-western German stove tiles. They also show similarities in regard to the decorative ornaments to the Budapest stove tiles²⁹. But these and some others that have come to notice thanks to Harald Rosmanitz and Wolfram Giertz which display female figures wearing a *kruseler*, and which could be variants of pipe clay figurines. However, up to now no related figurine types have been published. The *kruseler* is a form of



Fig. 2. Stove tile from Kirchheim unter Teck (BW, D, photography Harald Rosmanitz).

bonnet, very popular from the 1330s to about 1440.³⁰

So, apart from the first example all other stove tiles with *Bilddruck* (printed plastic image) motives from outside the workshop circle here under review made use of types from the 15th century, but that doesn't always mean that the stove tiles are just as old:

- Recently I was informed of a stove tile with a *kruseler*-figure (fig. 2), which definitely is a

26 See in this regard Rosmanitz 2011; Rosmanitz 2012; Rosmanitz 2013b.

27 Burrows/Gaimster 1999, fig. 14.1.

28 Ernée 2008, Pl. 19.37, 24.29, 24.36. C.f. Gruia 2013a, 444, no. 303, 478-479, no. 380-381; Benkő/Székely 2008 fig. 122-123.

29 Harald Rosmanitz kindly shared this observation with me.

30 The dates given in the groundbreaking work by Grönke/Weinlich (1998, 43) can be slightly extended. Type 1 is recognizable in a seal from 1342, but type 3 which is a *kruseler* type 1 combined with a neck clothing called *rise* appears even earlier in 1337. Type 2 is first confirmed in 1345 and the youngest examples that depict real *kruselers* are from the 1440s (Grimm 2011, 45-46). Later types named *gepent* which can be dated from 1417/1425 onwards in some examples had also several layers of textile ruffled at the edge (see Zander-Seidel 1985; Grimm 2016, 31). Some examples confirming the general dating can be found in Sturtewagen 2009, who doesn't differentiate between the different types of *kruseler* and *gepent*. A much earlier literal mention of a *kruseler* can be found in a document from Hannover where in 1312 a „*cruse sidene doke*“ (a ribbled silk cloth) is forbidden (Sturtewagen 2009, 8).



Fig. 3. Puppet with a bonnet called *Kruseler* (Germanisches Nationalmuseum Nuremberg, *Kruselerfigur* type 2d, after Grönke/Weinlich 1998).

variant from a *Kruseler* type 2 d pipe-clay figure (fig. 3). But it was altered into a type 3 *kruseler*. Type 2 is a *kruseler* made out of a single layer or several layers of cloth curled on the head and again on the shoulders. In contrast type 3 is consistent with a *kruseler* (mainly type 1) com-



Fig. 4. Stove tile with *Madonna on the Crescent Moon* (Cologne, D, Kölnisches Stadtmuseum).

bined with a kind of closed scarf or collar covering the neck and sometimes also the shoulder, the *Rise*. Many figures of women wearing this have been produced as children's toys.

The figure from Kirchheim unter Teck (BW, southern Germany, fig. 2) can be dated by context, mould genealogy and form of the *kruseler* into the late 14th to early 15th century.³¹ The original, a common type in Nuremberg, had been significantly altered for this type of stove tile. So the right arm is angled more strongly which in consequence led to the right lower arm being shorter than the left. And the right thumb is still recognizable above the left hand together with a trace of the right hand. Taking in consideration that the particular prototype had been al-

³¹ Thanks to Rainer Laskowski, former director of the Museum im Kornhaus, Kirchheim/Teck. See Grönke/Weinlich 1998, 85-86, no. 38-53, plate 7-8.



Fig. 5. *Madonnas on the Crescent Moon*. From left to right: Worms (production site, D), Partenstein (D), stove tile from Cologne (D), Cologne (production site, D).

tered into a *kruseler* type 2e-figure³² and one of the figures has a much altered bonnet.³³ It seems possible (but unlikely) the direct *modello* was a puppet, too. On the other hand, the lower part is – as far as the pipe clay figures are preserved – comparatively unaltered, so that it could be used for reconstructions. On the other hand it seems more probable that the figurine was altered to fit to the requirements of the stove tile decoration. On stylistic grounds and because of the rest of the garment of the original type it seems that it had been designed in the second half of the 14th century, most likely during the third quarter.

- The easiest task from today's state of research is that of the Madonna on the Crescent Moon (fig. 4; Kölnisches Stadtmuseum KSM 2001/864).³⁴ Her garment has evolved around

1440 to 1460³⁵ and there are 2nd generation copies, comparatively slender versions, from Mainz and Bartenstein castle, Partenstein (fig. 5, 2nd from left). Between 1449 and 1460 a younger version of the same line in the family tree that is represented on the stove was deposited in Cologne cathedral.³⁶ Later copies of roughly the same or smaller size can be dated around the 4th quarter of the 15th century (fig. 5, right).³⁷

Since the original (fig. 5, left) was created in the Worms *Bilderbäckerei* (workshop of a pipe clay sculptor) it can be fitted into a chronological development.³⁸ Stylistically, the next relative to the Madonna figurine is a figure of Jesus as child. A third generation specimen of this Baby Jesus type (Cologne version, there 2nd generation) was also deposited in Cologne cathedral

32 Cf. Grönke/Weinlich 1998, 86-87, no. 54-55, plate 10.

33 Grönke/Weinlich 1998, 86, no. 45.

34 Grimm 2011a, 91, Grimm 2016, 248.

35 Grimm 2012, 11; Grimm 2016, 24. See also fn. 257 in this paper.

36 Grimm 2016, 48; Grimm 2012, 11; Steinmann 2008, Nr. 15.

37 Neu-Kock 1988, 40; Grimm 2016, 40-42, 245-258 with further literature.

38 Grimm 2016, 33-34, 245-260.



Fig. 6-7. Stove tile with St. Mary Magdalene from Raeren Hausset (B, private possession).

but in a 1449 layer. Around 1460 a later variant of the Madonna on the crescent moon, this time inside an aureole mandorla was used as source of a Netherlandish woodcut,³⁹ where the left hand, the upper part of the woman's garment and some pleads of the lower part of her garment had been copied, but mirrored. The Jesus was depicted similar, but the position of his legs had been altered. On stylistic grounds this can be attributed to the same pupil of the Worms *Bilderbäcker* that also made another Cologne line of the Madonna on the Crescent Moon, so that his appearance in Cologne must have predated 1449.⁴⁰ Additionally the Master E. S. made use of that invention several times. The latest ver-

sion from 1467 is the closest copy. The oldest variant is usually dated around 1460.⁴¹

The other half-cylinder stove tiles went out of production during the second half of the 15th century in that particular region. Further more the figure is larger than some produced in the Cologne Goldgasse during the end of the 15th ore at latest the first decade of the 16th century.

That even the same size doesn't mean that the figures and the mould for tile decoration are contemporary is shown by the crescent moon of that Madonna type, which is getting more and more disintegrated during the production in Cologne. This one has, compared to the one from Cologne Cathedral, lost just a bit of it's chin. The loss increased during the late 15th century. The face is nearly unrecognizable in later versions. So it seems that the potter who made the

39 Grimm 2016, 46-49, 72-73 with further literature.

40 Grimm 2016, 47-48.

41 Grimm 2016, 70-72.



Fig. 8. St. Mary Magdalene from Utrecht (NL, production site, Centraal Museum Utrecht, after Klinckaert 1997) on the left and fragment of St. Mary Magdalene from Nieuwlande (after Dorpel 2013) right.

stove tile used moulds and intermediary positives made of clay, while the *Bilderbäcker* usually used moulds and positives of plaster or similar substances that didn't shrink as much from generation to generation.⁴² The technique of the stove tile and the development of the mould generation point roughly to the turn from the 3rd to the 4th quarter of the 15th century amidst the two dated figurines (1449-1460 versus c. 1475-1500).

- The Saint Mary Magdalene on a niche tile from Raeren Hauset (fig. 6-7, B) was found together with other stove tiles that display people in high Renaissance garments, typical for the second third of the 16th century, or more likely the 1530s to 1540s.⁴³

42 For several generations of several moulds see Grimm 2016, 113-258. Usually the younger generation is about 2-3 % smaller than its predecessor.

43 Cf. Strauß 1983, 131 plate 117.1 (c. 1540) and 118.3-4 with another type of baret; there is a misreading: 118.3 is dated “| 1539 |” not “1591”. Grimm/Päffgen 2013, 346-347, fig 1-2.2, 2.4, 2.9.

Pipe clay figures of this type are rare. In fact only two fragments are known: one from the Utrecht *wal* (former rampart) together with figures from around the third quarter of the 15th century (fig. 8 left),⁴⁴ a time to which the very refined workmanship and the style as well as the dress might be contemporary. The other fragment was found in Nieuwlande. This shows an equally refined ointment jar and the left arm of the saint (fig. 8 right).⁴⁵ Compared to these the execution of the stove tile figure is crude and leaves behind even the degenerations found in the Goldgasse/Breslauer Platz production of around 1500 in Cologne. So this fits well with a very late copy of the mid 16th century contemporary to the Renaissance stilt tiles from the same stove.

- Another type is a crucifixion, from which a mould⁴⁶ (fig. 9-10, most likely from Speyer, BW) and also a stove tile (fig. 11,) exist.

44 Klinckaert 1997, 374, no. 162.

45 Dorpel 2013, 84, fig. 45.

46 Strauß 1983, 131, plate 116.2-3.



Fig. 10. Plaster cast from the mould for a stove tile with crucifixion from Speyer (Historisches Museum von der Pfalz, Speyer, D) and fragment of a relief of the same subject (other subtype, Worms, D, production site).



Fig. 9. Mould for a stove tile with crucifixion from Speyer (Historisches Museum von der Pfalz, Speyer, D).

The datings supposed for the different versions of this type of crucifixion are wide ranging from c. 1430 to the early 17th century.⁴⁷ Some sub-types are evidently much younger than the original, but sometimes the datings are just based on suggestion not comparison. The ver-

⁴⁷ Philippe 1969, 25; Steyaert 1994, 310-311 Nr. 91; Ostkamp 2001, 220-224; Borken 2001, 520-537; Bischof 2008, 262; Hegner 2012, 19-21.



Fig. 11. Stove tile with crucifixion (Historisches Museum Bamberg, D, photography Harald Rosmanitz).

sion that is closest to the original and must have come from the genealogically oldest mould is the one in Schwerin (possibly from Ribnitz cloister, D), which has been dated as late 15th century⁴⁸, but clearly antedates the bulk of the material from the 2nd half of the 15th century, as shown below due to its relative size and the older variant of the inscription.

It is crucial in this case that Steyaert could show the stylistic analogies to early 15th century Netherlandish art and dated the original composition about c. 1430-1440. So on the one hand the Liege production site with an exemplar of the 2nd (known) mould generation deposited up to around 1460⁴⁹ gives a first hint on the production. This is just slightly smaller than the

48 Hegner 2012, 19.

49 Philippe 1969 dated the complex into the late 15th century. For some of the moulds produced there much younger versions (f.e. bells from 1461) had been detected which are in fact from the mid 15th century; Grimm 2015. Also Steyaert 1994, 310-314 corrected some of Philippe's datings. Some of the younger compositions from Liege Rue Entre-deux Ponts are mentioned in Giertz et al. 2015, 247-251.

Ribnitz version of identical sub-type. This is also confirmed by a mould genealogically parallel of an altered subtype found together with products from the Worms Bilderbäckerei produced up to around 1456 (fig. 10 right). But in this case the stove tile relief is not only much smaller than the earliest known examples of the type but it belongs to a late subtype with handwritten inscription instead of one for which letters had been stamped into the original mould, which characterize all early examples. Such a simple frame of the stove tile points to the decade around 1500.⁵⁰

- Another very popular relief composition with an annunciation (fig. 12-13)⁵¹ has been ascribed to the circle or a follower of Robert Campin (resp. Master of Flémalle) and connected with a painting of the 1420s.⁵² The earliest surviving reliefs are dated around 1440 or c. 1440 to 1460 (fig. 13 left). Also, there is a mould of a version without the homunculus and ray of light from the left window.⁵³ This is dated in the third quarter of the 15th century,⁵⁴ which fits very well with its newly applied frame ornaments.

Comparing all relatively early specimens, it seems that the original composition displays only the monumental broken style (*monumental gebrochener Stil*), while elements of the following wrinkled up style (*Knitterfaltenstil*) are missing.⁵⁵ Regarding this together with the artistic connection would lead to a date in the 1420s or 1430s for the original. As already mentioned by Stefan Kemperdick, the relief (and not the painting itself) was the model for a mid 15th century painting of the Master from Schöppingen and mostly in a miniature in Paris

50 Strauß 1983, 131, plate 116.2-3 dates the mould from Speyer around 1500.

51 Meier 1915, fig. 9; Borken 2001, 550-557; Ostkamp 2001, 208, 218-223; Regenber 2002; Ostkamp 2012, 124-125.

52 Kemperdick 1996, 88-89; Ostkamp 2001, 219; Regenber 2002, 214-216.

53 Ostkamp 2013, 124, fig. 9.24.

54 Ostkamp 2013, 124.

55 For the development of both styles (*monumental gebrochener Stil* and *Knitterfaltenstil*) Giertz et al. 2015, 222; Pinder 1929, 245-249; Grimm 2013b, 54-56.



Fig. 12. Stove tile with Annunciation from Helfenstein Castle (D, after Regenber 2002).

Bibliothèque Nationale lat. 3110 fol. 13, which is on the same page as a miniature from around 1430.⁵⁶ Later on, the composition was varied widely into the 16th century.⁵⁷

The main part of the composition was used to decorate a panel-tile from Helfenstein Castle, southwestern Germany (BW, Geislingen an der Steige, Museum, fig. 12). Regenber dates the stove tile itself younger than some of the pipe clay reliefs, c. 1460 to the beginning of the 16th century.⁵⁸ Although the relief type was much older, a dating of the actual stove tile in the late 15th century seems plausible.⁵⁹

The same composition has also been used for a niche-tile in Copenhagen (National Museet, Copenhagen, fig. 13, 2nd from left above).⁶⁰

56 Kemperdick 1997, 89-90.

57 Borken 2001, 552 (F.J. Kosel). Regenber 2002, 216. A very crudely printed upper left part of the composition with a recently unrecorded late Gothic letter inscription was excavated in Wolgast together with stove tiles from the later 16th century.

58 Regenber 2002, 216.

59 Harald Rosmanitz: <http://furnologia.de/galerie/galerie-motive-massenhaft-1599/> : Late 15th century. Cf. Gawronski/Kranendonk 2018, 138, 2.14.5, NZR2.00350BWM001: 1450-1525.

60 Majantie/Muhonen 2007, 210, no. 151 (late 15th to early 16th century). I thank Harald Rosmanitz for that in-

formation. But this specimen is much closer related to the most popular side branch of this annunciation (fig. 13, 2nd from left under, 3rd from left and right). Inside this group it most closely related to the mould fragment from Dordrecht (see the modern cast fig. 13, 2nd from left under). This has been dated to the 2nd half of the 15th century.⁶¹ The general lay out of the artwork is best preserved by a relief formerly in Krefeld, Linn Castle (fig. 13, 2nd from right)⁶² and an unsigned Weddern pipe clay relief from the time of Judocus Vredis (fig. 13 right).⁶³

Although both stove tiles share a common original as predecessor and are roughly contemporary, the immediate models stem from different side branches in the development of this annunciation. They also belong to different types of stove tiles. The Helfenstein panel-tile is composed of a detail of a relief that follows comparatively closely to the original, while the Copenhagen niche-tile stems from the most popular side branch, that itself originated during the third quarter of the 15th century. In fact this is the proof that the same original could be used interdependently by different stove tile workshops during the late Gothic era.

- In February 2019, an excavation took place in what according to the research of the excavators, Donata Kyritz and Patrick Düntzer (sk ArcheoConsult) might have been the then house of Aachen's major Johann Bertolf (von Hergentath also called von Eynatten). Fragments of an extraordinary stove were discovered. The colleagues immediately recognizing the quality of the stove tiles and through cooperation with city archaeologist Andreas Schaub made a direct comparison with the pipe clay relief prototype of one of the stove tiles (fig. 14). The figure of St. Barbara is ca. 20 % smaller than the version printed in Aachen Prinzenhofstraße excavated in 2011 (fig. 14-15).⁶⁴ Another fragment with

formation.

61 Ostkamp 2001, 208, fig. 24.

62 Borken 2001, 556-557, no. K 56 (1460-1480; Franz-Josef Kosel).

63 Borken 2001 552-555, no. K 44 (early 16th century; Franz-Josef Kosel; Claudia Musolff).

64 Giertz/Grimm/Kaszab-Olschewski 2014, 195-96, fig. 2; Giertz et al. 2015, 238, 253-258 fig. 84-88: 1435-



Fig. 13. Annunciation: Left: Relief Staatliche Museen Preußischer Kulturbesitz, Berlin, D (after Borken 2001); 2nd from left above: Stove tile National Museet, Copenhagen (after Majantie/Muhonen 2007); 2nd from left below: Modern cast after mould for relief from Dordrecht (NL) after Ostkamp 2001; 3rd from left: Relief, formerly in Krefeld, Burg Linn and right relief in Münster, Westfälisches Landesmuseum für Kunst und Kulturgeschichte, both after Borken 2001).

the last part of Barbara's name confirms the validity of the reconstruction proposed in 2015 (fig. 16). The stove relief is slightly modernized in the wrinkled up style (*Knitterfaltenstil*) while the original's garments are falling in the monumentally broken style (*monumental gebrochener Stil*). The specifics of the wrinkled up style in the stove tile relief point to a date not in the 1430s, but rather from the 1440s onwards. So other than in the case of the older pipe clay relief with the stove tile here is no sign that movable letters had been involved in the printing process before Gutenberg transferred the technique to book printing.⁶⁵ This is by far the oldest decora-

tion of this stove recovered as yet. Another so far unknown type of a-jour relief with Madonna and child may be compared to Niclas Gerhaert's Madonna from around 1470 and even the St. Margret in an Upper Swabian painting in Ulm (possibly originally from Memmingen), which

1449, ca 1440.

⁶⁵ See Giertz/Grimm/Kaszab-Olschewski 2014, 254-261. Brekle 2013, 61-66 tried to argue against this. With this he mainly showed that he did not understand even the basis of the techniques used for moulding sculptures in the 15th century. He assumes, that liquid clay was poured into the moulds, a method that had not been used in central Europe until the late 18th century in Tournay and didn't get popular before the 19th century (Frotscher 2003, 27). Then he principally misunderstood the printing process as a whole: The best preserved upper part of the composition has a printing fault: The impression is partly blurred to to a dubble impression during the printing process (see fig 15). Brekle 2013, 65 believes this is the result of a matrice used for inscribing the text. In this

case he didn't realize that the second specimen (which he also depicted) hasn't this printing error, as it is the case with the third one. And more importantly he didn't see, that in the better preserved specimen the same also happened to the frame and the flag of Barbara's tower. How he even mingles up the second inscription type with a Marie's title to the one from the St. Barbara (Brekle 2013, 65), is not comprehensible, since this differs in size and form of the letters, the frames and even it is evident that these are to different reliefs since the upper left corner is preserved in both cases. His assumption, that the inscription is carved is not illustrated at all for a reason since carved and printed inscriptions are easily distinguishable as can be seen by both methods in use for mineral water bottles (see Blanc 2017). In the case of an "a" in the best preserved inscription he mistook a soiling in one of the three impressions as a part of the letter (Brekle 2013, 66) although the second example does of course not show it. This and the observations made before, his obvious mistakes in taking the measurements of the spacing in the case of the reliefs and now on the stove tile as well and for the most part his total mixing up of the two distinguished processes of creating the mould and imprinting a relief from that make his speculations methodically worthless.



Fig. 14. Fragments of *St. Barbara*, all from Aachen (D). On the left and the two fragments on the right from the newly discovered stove tile. Second from left: Pipe clay relief from the Prinzenhofstraße workshop (Photography Donata Kyritz, sk ArcheoConsult).

is dated around 1480.⁶⁶ This fits very well with the attribution of the stove to Gerhard Beisel as customer by the excavators, who was mayor in 1469, 1472, 1474, 1483, 1484, 1487 and 1491 and city architect in 1466-1488. Further and more detailed research on this highly decorated stove which has no rival in northern Germany and even might reflect the Imperial alliances of the city, seems be promising.

- More complex is the situation with a Saint Barbara on a stove tile in Antwerp (fig. 17), which has been dated to the 15th century.⁶⁷ The type of the figure largely resembles those of two pipe clay figure types that had been produced in Utrecht during the mid 15th century. One of them must have been produced elsewhere around 1450-1475 and later (fig 18) – and between than and the round about 1500 also in



Fig. 15. *St. Barbara*, reconstruction of two fragments from Aachen Prinzenhofstraße (D).

⁶⁶ Treu 1981, 107, no. 66B.

⁶⁷ Strauß 1972, 119 plate 34.2.



Fig. 16. Fragment of the Aachen (D) stove tile with part of St. Barbara's inscription.

Cologne⁶⁸. But there are just some really identical draperies and the tower that might have been copied by moulding from the more popular type of Saint Barbara figures, that itself was copied and varied in other sizes and media quite often (f. e. in Worms).⁶⁹ Its origin can be dated back at least around 1430, although all remaining specimens seem to be younger. The background with ornament totally unfitted for glazed tiles and the pedestal of the stove tile figure resemble those from mid 15th century pipe clay reliefs, so we could hypothesize an up to know unpublished intermediary relief, which was possibly reworked by using the type of face of another St. Barbara which was printed in two different variants as a full figure and as a relief in different body posture (fig. 19, 78-79).

- The situation is similar with a vertical separator-tile in the Hetjens-Museum Düsseldorf (fig. 20; inv.-no. LR-1647). Here the naked Eve is shown with the apple in her right hand. No details of the face can be recognized. This is clearly a version derived from the Eve of a temptation in Paradise. A bumped, but in

68 cf. Leeuwenberg 1965; Klinckaert 1997, 361-362; Clazing 2002, 108, 110: 16th century stratum in Amersfoort; Preising/Rief 2012, 332, no. 82 (Ingmar Reesing); Grimm 2016, 67-68.

69 See for instance Grimm 2012 a, fig. 7.10, 7.14; Preising/Rief 2012, 332 (Ingmar Reesing); Grimm 2016, 68-69.



Fig. 17. Stove tile with St. Barbara from Antwerp (B, after Strauß 1972).

the main features preserved variant, which also shows noticeable signs of degeneration, was recovered in a layer from the second half of the 15th to early 16th century in Meerbusch-Ilverich near Neuss (fig. 21 right).⁷⁰

The rough reworking indicates an execution of the early 16th century after an older design. A fragment of Eva and the snake winding around the tree is preserved in the Münster Museum (fig. 21 left).⁷¹ This fragment, too, shows obvious reworkings from the time around 1500, but the leg position is still similar to that of the stove tile decoration. One also recognizes here a beauty ideal for women schooled by the images of the time of Michael Erhart, i.e. most

70 Brand/Schönfelder 2010, 154-155, fig. 184 and backcover: 1450-1500. Fund des Monats April 2009 (formerly available under: <https://bodendenkmalpflege.lvr.de//aktuelles/fund+des+monats.htm>).

71 Meier 1914, 48, no. 101: 1400-1500.



Fig. 18. Plaster cast from a mould for the more common type of St. Barbara from the Utrecht Wal (production site, NL, after Dingemans 1921) on the left and figure in private possession of the same type but another roughly contemporary mould as the less popular type also produced in Utrecht on the right.



Fig. 19. St. Barbara in Aachen (D) and head of a female Saint (Presumably Barbara, private possession).

likely of the 1470s to 1490s. Thus, all three versions can only give an approximate impression of the basic group of figures. The architectonic formal language goes back to a simplistic form to the Cologne vertical separator-tiles with pinnacles, as they were produced around 1500, in



Fig. 20. Vertical separator-tile with Eve (Hetjens-Museum Düsseldorf; D).

the Streitzeuggasse among other places.⁷² The negligently ornamented stove tile can be dated to the first half of the 16th century.

- Schilling rightly suspected that a bell ornament (around 1500) can be traced back to a devotional figure (fig. 23 lower left).⁷³ Another specimen of the same sub-type decorates a bell by Merten Jacob in Rzecko from 1504.⁷⁴ The same motif of a baby Jesus blessing with the right hand and holding a globe in the other can also be found in a vertical separator tile in the Kölnisches Stadtmuseum (fig. 22, c. 1500), likely derived from a goldsmith's model from c. 1475-

72 Cf. Unger 1988, 230-231, no. 178-181.

73 Schilling 1988, 344; Grimm 2012, 14-15, fig. 31.

74 Majewski/Tureczek 2005, nr. 5, fig. 5, 11.12.



Fig. 21. *The temptation of Eve* (left Münster, D, after Meier 1914; right from Meerbusch-Ilverich D, after Brand/Schönfelder 2010).

1500⁷⁵ which is one of the earliest of its kind⁷⁶. Added to this may be some Christ Child cradles made of pipe clay, two of which are in a private collection in Cologne (found in the city), one each in the Hetjens-Museum Düsseldorf (fig. 23 lower centre), the Speelgoedmuseum Deventer (no. 1973-0242), the Centraal-Museum Utrecht, the Westfälisches Landesmuseum Münster and in the Rheinisches Landesmuseum Trier (fig. 23 lower centre left), from Amersfoort,⁷⁷ from Amsterdam⁷⁸ as well as in a relief figure from Augsburg, in which a waving coat was added (fig. 23 lower centre right). A better preserved copy of this variant is to be found on mortars by Engel Tolhuis from 1542⁷⁹, another one by Her-

man Hatiser from 1512,⁸⁰ one by his son Frans Hatiser (1532),⁸¹ in the Victoria and Albert Museum London by Keie Richter van Hengel and Segevius (Segewin) Hatiseren (Hatiser), dated VCXL for 1540 (fig. 23 upper right)⁸² and a lot of mortars signed by Segwin Hatiser alone from 1512 to 1531 can be added.⁸³

The proximity, in terms of style and posture, to an engraving by the Master E. S. (L. 49, fig. 23 upper centre) and to other figures from Niclas Gerhaert's circle is evident.⁸⁴ These all are derived from an early composition of the Master

75 Unger 1988, 233-234, no. 184; Grimm 2012, 14-15, fig. 32.; cf. Chadour/Joppien 1985, 179, Nr. 69.

76 Roth Heege 2012, 302.

77 Clazing 2002, 109-110.

78 Gawronski/Kranendonk 2018, 425, nr. 8.18.2 NZD1.00072KSC005 (1400-1550).

79 Koning 1999, 79-80, no. 3, fig. 104.

80 Koning 1999, 91, fig. 129.

81 Koning 1999, 91, no. 1.

82 Grimm 2012, 14-15, fig. 33-35; Koning 1999, 93, no. 8, fig. 134; Arnold/Koning 1975, 34-35; Klinckaert 1997, 443, no. 231; Clazing 2002, 109-110; Majewski 2005, 81, fig. 66. Key Hengel was judge in Hengelo since 1540.

83 Koning 1999, 92-93, no. 3, 4-7, fig. 132-133.

84 Cf. Appuhn 1989 Nr. 49; Roller 2011, 294-303, Nr. 22-23, for the proportions and the style see also *ibid.*, 312-314, no. 28: Strasbourg 1470-1480.



Fig. 22. Vertical separator-tile with Jesus as a child (from Cologne, D, Kölnisches Stadtmuseum).

of the Ladenburg Adoration of the Kings (Meister der Ladenburger Dreikönige),⁸⁵ which displays a slightly different posture (fig. 23 upper left).⁸⁶ This can be best compared to the infant Jesus of one of his Madonnas of which a copy was deposited in or before 1454.⁸⁷ A copy-critical analysis shows that the bronze plaquette in Berlin (fig. 23 upper left) has the basic posture of the figures and the drapery is more closely in the bronzes (fig. 23 upper right). The engraving is more derived (fig. 23 upper center). Master E.S. also altered the posture of the head of the child from looking to the lower right, as the outline still suggests, to a direct gaze to the viewer, which affirms the order proposed before.

85 To this artist see: Grimm 2015, 353, Pl. 2.XVII.

86 Cf. Weber 1975, 52, Nr. 22 pl. 4.22 (Germany or Low Countries 15th century.).

87 Cf. for the deposition Ostkamp 2001, 233, 235, fig. 63 (1454 resp. 2nd halve 15th century); Carmiggeit /van Ginkel 1993, 31-32 (1454 resp. early 15th century). For the attribution see Grimm 2015, pl. 2.XVII.d. Other versions are reported in Besselich (Germany): Kubach et al 1944, 46 fig. 43 and a variant in Trier: Seewaldt 1990, 295, Nr. 4: 15. The type also served as a decoration of a bell cast in 1480 in Oberstadien (Germany): Thurm 1959 S. 39, Abb. 186 S. 145.

Although the basic concept for all the younger figures (fig. 23 upper right) certainly goes back to an Upper German model of the 1460s or at the latest to the early 1470s,⁸⁸ most of the cradles of the Christ Child were not produced until the early 16th century.⁸⁹ The copy-critical method leads to a similar conclusion: Of all the little figures in pipe clay cradles, an unpublished specimen in the Schnütgen Museum in Cologne, whose cradle still has the late Gothic plant ornamentation, most faithfully reproduces the proportions and posture of the body and in this respect resembles the bell decoration.⁹⁰ A Middle Rhenish specimen dated around 1500 and a find from Gelderland (NL, and possibly another one from Zwolle?) can be added to it as almost a link to the younger cradles, which still has the majority of the original characteristics (fig. 23 lower right).⁹¹ The slender forms of the child on the inguinal stove tile go well with the ideal of beauty for children prevailing in the Netherlands and Germany from the 1480s to around the first decade of the 16th century. No fully plastic figure of this type is known. Because of the excellent fine elaboration of the reconstructable original image, the original sculpture could have been a mould for pastries made by a goldsmith⁹² or the model of a goldsmith from the immediate circle of Niclas Gerhaert or even an idea of the Master of the Ladenburg Adoration of the Kings himself.

88 For the movement and body proportions see Roller 2011, 211-215, no. 3: Grave Konrad von Busnang: 1464 and 239-243, no. 7: Madonna: ca. 1460-1465.

89 Grimm 2012, 15.

90 Rose 2004, no. 35, inv-no. E 132.

91 Kühne 2013, 337-338, no. 6.9.1d: end of 15th/beginning of 16th century. The cross on the globe had been altered in a different way than later individuals, so it is from a side line. The find from an unidentified find-spot (acre for corn) in Gelderland seems very like the last one: Spoelder 2003 also names a similar figure from Zwolle and according to this find he suggests a dating about 1475.

92 There is at the time no direct link (sufficient for an attribution) to other works of the Master of the Ladenburg Adoration of the Kings, so it might be an improvement by an artist of his circle who might have been in contact with early works by Niclas Gerhaert, too.

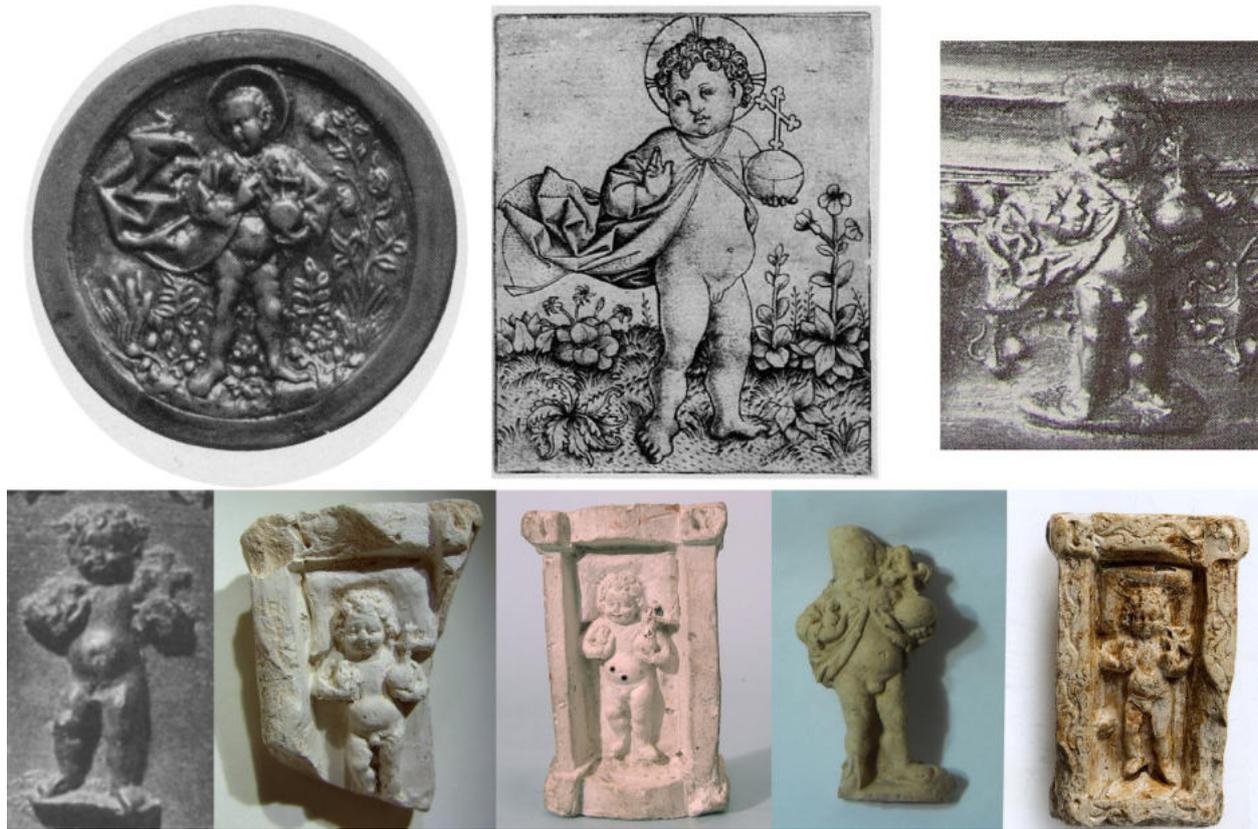


Fig. 23. Jesus as a child: Upper line: from left to right: Bronze plaquette in Berlin (after Weber 1975), copper engraving by Master E. S. (after Höfler 2007) and on the right bronze mortar by Segivinus Hatiseren from 1540 in the Victoria & Albert Museum London (after Arnold/Koning 1975). Lower line: from left to right: Bell decoration from Dolgelin (D, after Schilling 1988), Cradles in Trier and Düsseldorf, relief figure from Augsburg and on the right the relief in Berlin (after Kühne 2013).

We might include some late Gothic stove tiles into the discussion, which very likely had terracotta figurines as *modelli*, but whose originals are still unknown.⁹³ Not included in this list is a large green glazed bowl from the Begijnenhof in Nijmegen, probably a washbowl decorated with the coat of arms of Kleve-Mark (1368-1521) and small heads made from pipe clay figures and reliefs as appliquéés.⁹⁴ Den Braven connects the bowl (originally thought to be a vessel-tile but rejected as such during the basic research with the rejection being confirmed by Eva Roth Heege and Sebastiaan Ostkamp) with Catherine of Cleves, who made a donation to the Begijnenhof in 1463.⁹⁵ The head of St.

Catherine on the bowl⁹⁶ is derived from a well-known type of relief, which itself goes back to older figures,⁹⁷ which in turn are derived from reliefs of St. Ursula.⁹⁸

As far as these examples allows us to draw some conclusions, the style of the different stove tiles shows some changes similar in stylistic development to the basic versions like contemporary figure types of the same period. It is the frame of the stove tile that is often the proof for a later dating rather than the design of its central motive. Some designs had been c. 40-50 years old when they were at first used in the stoves, but others were quite modern or had

93 Marcu Istrate 2016, fig. 6-10;

94 den Braven 2014, 291-292, 294-295, fig. 14.1.3, 14.2.

95 den Braven 2014, 295.

96 den Braven 2014, 294, fig. 14.2.2.

97 Cf. Preising/Rief 2013, 336-337, no. 85: 1450-1475 (Ingmar Reesing). See also Borken 2001, figure type 7, 510-519.

98 Cf. Giertz/Grimm/Kaszab-Olschewski 2014, 227-231; Giertz et al. 2015, 215-232.



Fig. 24. Stove from Tata (HU), reconstructed inside the castle with some original fragments (stove tile with knight figures, phase 1 ore 3).

been modernized. In spite of that most of the impressions are at all as sharp as one would expect from pipe clay figures or reliefs.



Fig. 25. Stove tile with St. Hadrian and king David (partly reconstructed).

In general, the earliest figures reused as *modelli* for stove decorations might date back to the late 14th century. The only certain 14th century example that could be tracked back to its origin, shows how much the model had been altered to adapt to the new function. Following the increase in the artistic quality of the printed sculptures in the Netherlands during the first half and mid 15th century, alterations got comparatively rare and are grounded in iconographic needs or the format of the stove tile in which the sculpture should have been integrated. The artistic quality of the stove tiles with figurines is much above the contemporary average in this time. The Aachen stove belongs to the very rare highly decorated polychrome stoves of the 15th century, and was executed in exquisite refinement. After 1500 at the latest the quality of the impressions diminishes significantly just as it does with contemporary pipe clay figures in the Rhineland. This is interesting since the former generations must have made use of accomplished art works because they surpassed most



Fig. 26. Stove tile with St. Antonius and St. Peter (partly reconstructed).

stove tile decorations especially the figurative compositions.⁹⁹

So what began as a slight improvement, went on to luxury versions of decorated stoves and ended in a low quality production during the high Renaissance, when figurative stove tiles in decent execution were getting more and more common.

⁹⁹ The Esslingen workshop is insofar one of the exceptions since their designer excels even in comparison with the most carvers for altarpieces; see Rosmanitz 1995. Additional illustrations in: <http://furnologia.de/bibliothek/artikel/kunststuecke-massenhaft-esslingen-als-zentrum-spaetgotischer-kachelproduktion/>.

The figures and reliefs used on the stoves with the knight figures and their origin

For the series of stoves with the knight figures (fig. 24) and the stove tiles (fig. 1, 25-26) at the center of this study various datings had been proposed. Originally Holl dated all the series into the reign of king Ladislaus Postumus (1454-1457).¹⁰⁰ This has been widely accepted,¹⁰¹ but in 1961 Smetánka dated those from Lichnice, Bohemia into the late 15th century or around 1500.¹⁰² Gaimster and Burrows prefer a dating during the reign of king Matthias (1458-1490), but do not completely exclude an earlier date.¹⁰³ On the other hand Gaimster dates one single tile with figures of St. Antonius and St. Jacobus shortly before 1500.¹⁰⁴ Although it is often assumed in later literature that Kouba followed his Czech colleague, he states clearly that both possibilities have to be taken in account and in his view none of the two is proven.¹⁰⁵

Some variants of the stoves evidently are from the last years of king Mathias reign (1485-1490), as Tamási has shown.¹⁰⁶ She also pointed out in detail how these stove tiles are connected to Swiss and south-western German stove tiles. Without offering any new arguments, Gruia suggests dates from c. 1475 onwards or resp 3rd quarter of the 15th century for the beginning of the series while she dates copies up to the

¹⁰⁰ Holl 1958, 265-268.

¹⁰¹ Strauß 1983, 11, 106, pl. 12.2; Friedl/Kühtreiber 2003, 18; Grimm 2011a Anm. 135, 30, Nr. 9 d, 79-81; Grimm 2011b, 267-268; Grimm 2011c, 145-146; Loskotová 2012, 192, 198; Hlubek/Faltýnek/Šlězár 2016, 437, 440, 446. Schnyder 2011, vol. 1, 73 additionally points out that since Henman Offenburg was on a diplomatic mission in Budapest in 1439, one can assume that the stoves might have been erected during the reign of Ladislaus Postumus or even before. On the contrary Franz 1969, 51 accepted the dating, but later (Franz 1981, 51) proposed a later date.

¹⁰² Smetánka 1961/1961.

¹⁰³ Burrows/Gaimster 2001a, 166.

¹⁰⁴ Gaimster 2001a, 173.

¹⁰⁵ Kouba 1964.

¹⁰⁶ Tamási 1987; Tamási 1995, especially, 77-78; Kocsis/Sabján 1998, 33; Kocsis 2008; for the reconstruction see Grosz 2012.

early 16th century.¹⁰⁷ According to Holl's later research the acceptance of the earlier date (and even in some cases from 1453 to 1457) is justified at the current state of research, if one acknowledges that it is restricted to the design of the stove tiles and not necessarily on the execution of every single stove tile.¹⁰⁸

The designs got very popular and were copied in later times quite often, but mostly in a simplified manner. In fact, many variants are known, not only from Hungary and formerly aligned regions in Bohemia, Moravia, Slovakia, Silesia, Lower Styria, Slovenia¹⁰⁹ and Croatia,¹¹⁰ but also there is a later copy from Transylvania in Sibiu (Hermannstadt), from an unidentified find spot in that region.¹¹¹ This first find from what is now Romania was evidently copied by printing and is also decorated with a figure of a knight (fig. 180). The impression doesn't offer too many details, but the type has never before been found on any of the original series. The type of breastplate, a slightly reduced variant of the *kastenbrust* type,¹¹² as well as the style point to a date in the 1430s to c. 1460 for the original.¹¹³ The best comparisons date in the 1430s. Similar design pattern can be found in the castle Burg Rötteln, Lörrach (BW, southwestern Germany). Here Harald Rosmanitz detected other stove tiles with another motif previously unknown from the workshop circle: a little standing prophet with a scroll (fig. 178). He dates

them c. 1466-1500.¹¹⁴ To none of the figures parallels in pipe clay are known to date. A later reflex of this type has been found in Varaždin fortress stove tiles from the end of the 15th century which were destroyed during the Renaissance.¹¹⁵

Dating methods for the series

This leads us to the dating-methods applied already in previous research on the series and their lay-out:

- The main basis on all research about archaeological finds is the typological method as established by Montelius (1903). This has been established also in regard for separating the different type-sets in the range of the series. Evidently, there are some late specimens for instance from Viségrad (fig. 82, 133).¹¹⁶ But there is a possibility to refine the dating results by regarding the types of garment, armour etc. depicted on tiles and figures.¹¹⁷

- As important as the different types themselves are, is the discrimination between the various mould generations in combination with analysis of clay sorts.¹¹⁸ This is not only important in regard to the figures but also to the stove tiles themselves. So the pinnacle tiles from Buda are more than 1/3 larger than the later ones from Viségrad.¹¹⁹ This means that the Viségrad tiles are two to three generations later than those from Buda.¹²⁰

107 Gruia 2013a, 67-73.

108 Holl 1998, 140, 164-213. Andras Vegh in Kiss/Spekner/Végh 2018, 285-288, no. 4.20 dates the series just in general during the 2nd half of the 15th century.

109 Tamási 1995, 25-30, 34-39, 42-44; Holl 1998; Friedl/Kühtreiber 2003. Hlubek/Faltýnek/Šlězár 2016. This contains simplified variants of some stove tiles of the original series and is dated by the authors from 1450 to the early 16th century.

110 Radić/Bojčić 2004.

111 Muzeul ASTRA Sibiu: Inv. no. 5536-C. It is a dull impression, but still executed in *a-jour* (open work) as the originals of type 4, but shortened to fit in within type 3; cf. Holl 1998, 141, 144, fig. 5-6.

112 Cf. Hagedorn/Walczak 2015, 187, pl. 3 (Vienna *kastenbrust*) which is more pronounced.

113 See Gamber 1955, 41, fig. 32 (c. 1460); Hagedorn/Walczak 2015, 188, pl. 4 (1432-1435), 271 (for the date c. 1430/1440: Walczak 2015, 54).

114 Personal communication Harald Rosmanitz.

115 Šimek 2013.

116 Kocsis/Sabián 1998, 33-35; Kocsis 2008, 364, no. 9.22m.

117 Some research in this direction has been done: Holl 1998, 210-211.

118 Holl/Balla 1994; Holl 1995; Holl 1998. The typological discrimination as such is well established by Tamási 1987; Tamási 1995. A new attempt has been made via 3D-models: Crichton-Turley 2018. For other close line mould generations from the same workshop, where up to about 20 different moulds from the same figure type are listed see Grimm 2016.

119 Cf. Holl 1998, fig. 15 and Kocsis/Sabián 1998, fig. 139; Kiss/Spekner/Végh 2018, 288-291, no. 4.21 (Edit Kocsis); Kocsis 2018, 24-28.

120 Cf. Holl 1995, 275.

- Stratigraphy and archaeological historical dating: Stratigraphy can only ever allow the determination of relative chronological conclusions. This is due to the fact that one can detect what layer has been filled before the other. This means, that the stratigraphy alone can only be used to determine which of the layers is the older and which is the younger deposition.

In the special case of the stoves with the knight figures there are quite a lot of indicators which connect the line of layers with historical data: be it coins or coats of arms found in the separate strata; be it by destruction layers for which historical data are historically secured. We are thus in the fortunate position to be able to use both methods in combination. Coins can be much older than the layer they are found in and in any regard might as well as younger as other finds from the same layer. They give at best a terminus post quem for the rest of the finds. But if there are many dates in most cases the last dated object is not much older than the layer itself, if the stratigraphy doesn't tell otherwise. Coats of arms on the stove tiles themselves can point to a determined frame of dating.

Since it is basal, that no product can get into a layer before it has been produced, dating the layers with finds means to get a *terminus ante quem* for the production and the time span of its use. In the case of these stoves the most important layers from Buda castle which were dated by coins can be traced from 1465 (2 in layer 7 a) and 1471 (19 in layer 7, which contained one coin dated between 1439 and 1496 and the last coin date from 1471 to 1481) plus 2 coins up to 1471 (with other old material in the younger layer 6).¹²¹ So, for Budapest it is quite certain that the stoves existed during the 1460s. Some stove tiles must have been abandoned in or short after 1471, since no coins with a later minting date appear in layer 7. And more prominently this also means that the figurine-type of the bishop (fig. 60-62) was deposited at such an early date as well. As we shall see, it wasn't the earliest one of that type produced for the palace. Further figure-types in that layer are the saints Antonius (fig. 45-50), Catherine (fig. 30-34), Hadrian (fig. 92-94), Peter (fig. 35-39) and the

prophet and king David (fig. 84).¹²² Since both figures derive from the same source, the prototype for the prophet Isaiah must also have existed at that time (fig. 85). In layer 6 above, another Saint Antonius (fig. 45-50), Agnes (fig. 107-109) and again a king David (fig. 84) were been excavated.¹²³

Furthermore copies from Kaposszentjakab cloister show, that the series of the stove tiles must have existed around 1459.¹²⁴

In this study some emphasis on few other methods is shown, too:

- The most important of these methods is the well established copy-critical method, which led to refined discriminations in classical archeology and sometimes in art history.¹²⁵ Here, details within a type, such as elements of posture, single pleats of the dress or curls are noted and subjected to a detailed comparative examination. This leads to a refined classification into different phylogenetic trees (in the case of direct copying) and subtypes.

- The style-critical method was somehow perfected by Wilhelm Pinder who drew his attention less to the works of art most favored at his time but mostly to those sculptures that could be connected to a certain date or span of time. He recorded the stylistic differences in proportion, general lay-out but also the pleats and folds of the garments and how they had been arrayed (e.g. the rich style "*reicher Stil*" and the wrinkled up stile "*Knitterfaltenstil*").¹²⁶ Since he focused his studies on the late Gothic period, they are of immediate use here – mostly in regards of the stylistic details of a time and region but also in regards of general and personal developments.

- While Pinder was more fixated on which form was to be created, Morelli perfected the discrimination of how a form was to be created by different individuals. Sometimes he also took into consideration how this changed within the

121 Holl 1998, 183, 186; Holl 2005, 15-17.

122 Holl 1998, 206.

123 Holl 1998, 206 fn. 159, fig. 7 and 48.1. Cf. Kiss/Spekner/Végh 2018, 285-286, no. 4.20f.

124 Holl 1998, 186. See Holl 1995, fig. 9, 11.

125 Zanker 1974; Geominy 1982; Niemeier 1985; Baumer 1997; Grimm 2009a.

126 Pinder 1914; Pinder 1929.



Fig. 27. Stove tile fragment with coat of arms from Kyburg (CH), Grad Ružica (HR), dated in or around 1459.

lifespan of a single artist. The Morelli-method was published under pseudonym: While the style critical method shows what forms were preferred in different times this method clarifies how these wishes could be achieved – what in some cases, if the artist is recognizable – might also lead to datings.¹²⁷

Dating

Lastly, Gruia dated the design without further explanation around 1475,¹²⁸ that is into a period which was later than that in which the first tiles were already disposed of in Buda Castle according to the dates of the coins found during the excavations there. The archaeological findings dating in Nova Ves and Grad Ružica, on which she based her dating, already rouse suspicions in this respect: If the period in which the stove tiles were dumped includes the third quarter or the second half of the 15th century, this must mean that the time frame for the process of disposal starts earlier, at least in Nova Ves.¹²⁹ One of the stove tiles in Grad Ružica displays the coat of



Fig. 28. Coat of arms from Kyburg (CH, after St. Gall Abbot Ulrich Rösch's book of heraldry from 1462-1491, Cod. Sang. 1084: <http://www.e-codices.unifr.ch/en/csg/1084/237>).

arms of Portugal, which is based on the support of Nicola Iločki for the then Hungarian counter king Frederick III. (the Emperor) around 1459.¹³⁰ Even clearer is a hitherto unrecognized, fragmentary coat-of-arms (fig. 27)¹³¹ which shows a golden bend (*Schrägbalken*)¹³² on a red ground and a golden lion at upper left. Small remnants of another golden lion under the bend have also been preserved. One recognizes single strands of the mane and the upper claw of the stretched up right foreleg. The peculiarities of colour and posture of the lions, which are different from each other, allow a reliable identification: This

127 Lermolieff 1890, 6-78.

128 Gruia 2013a, 316-319. Schnyder 2011 vol. 1, 73 on the other hand argues for the possibility that individual Hungarian tiles of the stoves with the knight figures were not only produced during the reign Ladislaus V, but before that.

129 See Gruia 2013a, 318.

130 Radić 2004, 262.

131 Radić 2004, 262, Nr. 547c.

132 The possibility of occasionally depicting the fess in silver is referred to as follows: See the fig. in Göbl 2013, 108.



Fig. 29. Seal of emperor Frederick III (1459, after Posse 1910).

is (as in Tata)¹³³ the coat of arms of the county of Kyburg (Fig. 28). Although this was pledged to the city of Zurich by Duke Frederick IV of Tyrol as early as 1424 and finally entirely sold in 1452 by Frederick III to the people of Zurich, it remained in the Habsburg repertoire until the 18th century as a claim or titular coat of arms (*Anspruchs- bzw. Titularwappen*).¹³⁴ Specifically, Frederick III used the Kyburg coat of arms both before and after the sale of the county, for example in 1459 (Fig. 29). It is also depicted in fol. 10r of the Greiner Marktbuch (fig. 185).¹³⁵ Both coats of arms clearly date the stove they belonged to to the time span from 1458-1460.¹³⁶ This fits perfectly with copies after the stoves with knight figures in Kaposszentjakab cloister where they are combined with a portrait of Frederick III pointing to about 1459 as date of origin, too.¹³⁷

133 Holl 1998, 172.

134 Göbl 2013, 107-108.

135 The Greiner Marktbuch was written most likely from c. 1460/1470 onwards. The bulk of it was finished after 1485 with some additions in up to the early 16th century. The particular miniature is dated 1480. See: digi.landesbibliothek.at/viewer/image/GreinerMarktbuch/21/; !metadata/GreinerMarktbuch/21/-/.

136 Holl 1998, 186.

137 Holl 1998, 186. See Holl 1995, fig. 9, 11.

To summarize, the most important arguments for the dating of the fragments from Buda royal castle: The dropping of stove tiles from this series begins in layer 7/a of Buda Castle, in which two coins from 1465 were discovered; further pieces come from layer 7, the most recent of 19 found coins was minted with between 1471 and 1481 and from layer 6, the final coin (of 8) was minted between 1468 and 1471.¹³⁸ It is thus evident that first stove tiles had been deposited in the 1460s and 1470s inside the royal palace, most likely in ore shortly after 1471.

The combination of the coats of arms fits (if one as usual also takes into account claim coats of arms) only on Ladislaus Postumus, but not on his successor Matthias.¹³⁹ In these cases the latter can be excluded as the original client. In addition, early copies of these tiles were installed in the monastery Kaposszentjakab, which contains the portrait of Frederick III, elected by Hungary in 1459 as Counter King. This would hardly have been bearable at a later date than early in 1460, as mentioned above.¹⁴⁰

We can thus safely conclude that the a general design of the series must be dated between 1453 and 1459 is secured. As we will see below this can be confirmed by a closer study of the coherent series in Grad Ružica.

From Rostock comes a hoard of stove tile moulds and some intermediary positives representing a variant of the stoves with the knight figures popular in the Hanseatic region.¹⁴¹ Some of the moulds were probably reused here for the paving of a cellar around the turn of the 16th to 17th century.¹⁴² Gaimster dated the moulds, which he rightly described as belonging to a single workshop, to the period from 1470 to the

138 Holl 1998, 183, 186, 206.

139 Holl 1998, 172-174.

140 Holl 1998, 186.

141 Gaimster in Burrows/Gaimster 1999, 287, fig. 7.

142 Burrows in Burrows/Gaimster 1999, 281 writes: „Probably in the 16th century”. The most productive layer of this excavation contained a fragment of a very sharp, excellently glazed and therefore early stove tile, which is regularly associated with a portrait tile series (The Queen in Poland etc.) of the late 16th century. Since after 1602 tile potters at this location can be excluded, the finding might be connected with the transformation into a brewery.



Fig. 30. Stove tile fragments with St. Catherine. From left to right: 1st generation, phase one – 2nd generation, phase 2 – 3rd generation, phase 2 – 3rd generation, phase 3 (generations are numbered in the running order of the stove tile decorations and not after the much older pipe clay figures, the Worms specimen is representing the type, not the concrete predecessor).

early 1500s, despite the discovery of a Greifswald stove tile from a mid to late 15th century stratum.¹⁴³ On the occasion of another stove tile find from Stralsund, the dating frame of the workshop was extended from the middle of the 15th to the middle of the 16th century.¹⁴⁴ Gaimster assumed that the workshop responsible for the Rostock mould was prior.¹⁴⁵ In contrast the following shows the proportions of the decorative elements and figures prove the mould genealogical priority not only of the Hungarian stoves but also the priority of other stove tile finds in the Hanseatic Region.

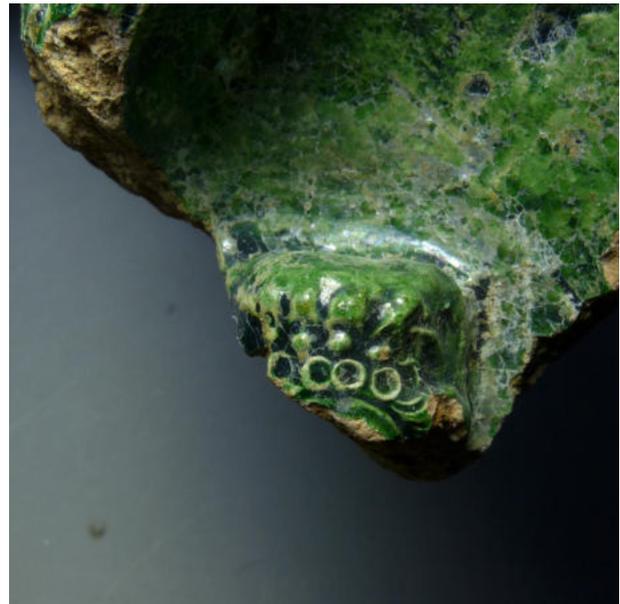


Fig. 31. Stove tile fragment with St. Catherine (and holy bishop, detail, crown of St. Catherine). 1st generation, phase one.

143 Gaimster in Burrows/Gaimster 1999, 281, 286.

144 Gaimster/Schindler/Schäfer 2001, 97.

145 Gaimster in Burrows/Gaimster 1999, 286.



Fig. 32. St. Catherine from Worms (2nd generation in the Worms workshop, D, production site, at least 3rd generation in total).

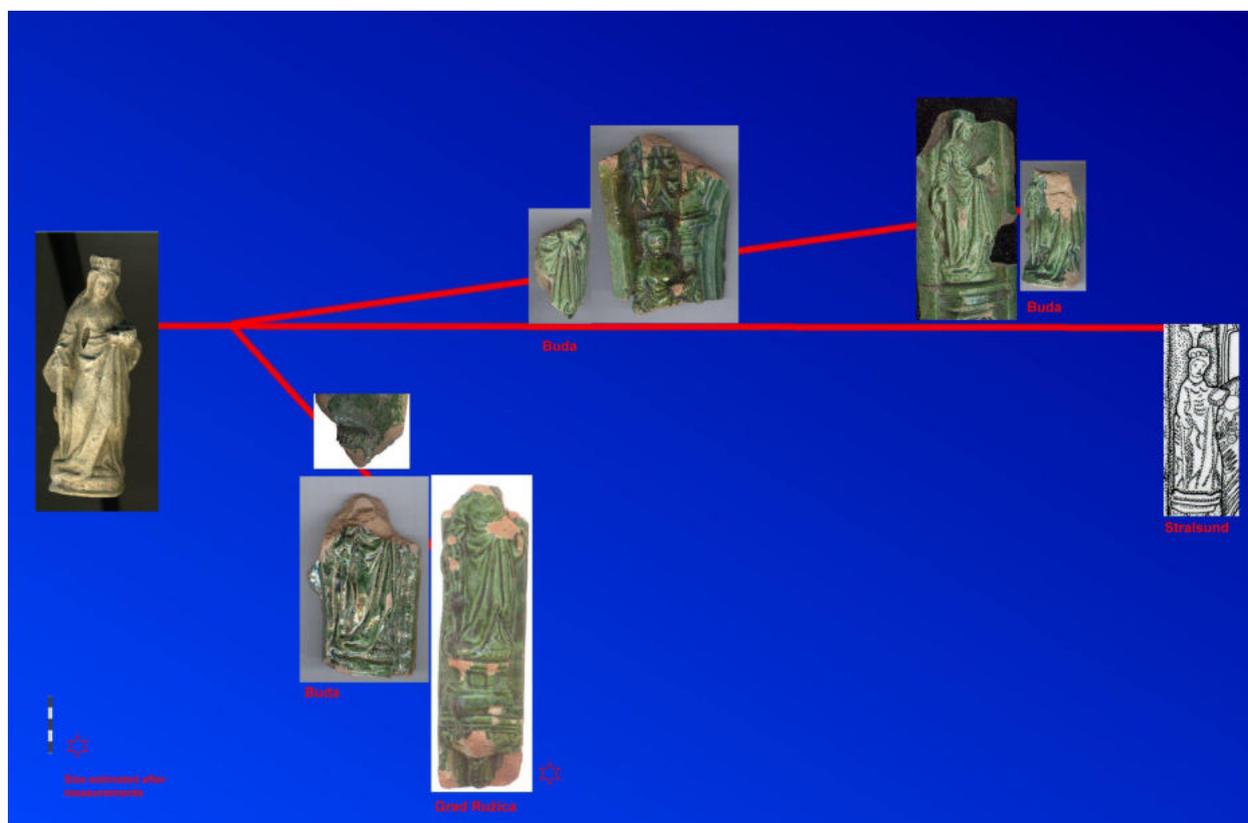


Fig. 33. Family tree of the stove tiles with St. Catherine (simplified, the Worms example is just the best preserved early one, but not the direct predecessor to the stove decorations). Examples from Grad Ružica (HR) after Radić 2004 and from Stralsund after a drawing supplied by Heiko Schäfer (original publication: Schäfer/Schindler/Gaimster 2001).

The Pipe Clay Figures

In addition to well-known stove tile shapes and tracery stove tiles typical of the period, the formative workshop also used terracotta figures

and reliefs as *modelli*. Most of the specimens preserved of these types were made from pipe clay.



Fig. 34. Stove tile fragment with St. Catherine, 1st generation, phase one – and St. Catherine from Worms (D, youngest Generation from the production site, 1993/94 excavation, c. 1420th to c. 1456).



Fig. 36 Stove tile with St. Antonius and St. Peter (detail St. Peter, partly reconstructed, 2nd generation in Buda, phase 2).



Fig. 35. Stove tile fragment with St. Peter (2nd generation in Buda, phase 2).

With regard to the production of the figures applied to the stove tiles, it should be noted that, according to the shrinkage, in the basic stove tile factory and its successors, both the intermediate positive and the mould were always made of clay. On the other hand, for small and mid sized figures, at least in the Rhineland, but

also in the Dutch workshops influenced by the Rhine, moulds and intermediate positives made of less dwindling materials were common. So plaster or other materials had been used for the intermediary stages, if one was not dependent on actual figures on sale as models for the one production. The latter was common at the time



Fig. 37. Mould fragment from Rostock mould hoard (Detail St. Pieter, 4th generation).

and just now is often referred to as “pirated copies”.¹⁴⁶

The models for the figures originate from different stylistic phases, however the bulk of it, apart from the unique Cologne piece,¹⁴⁷ also occur in all stove tile circles (the then Hungary HU, Bohemia B, Hanseatic region H and Baden-Württemberg BW), suggesting a roughly simultaneous editorial deadline for the program, whereas the Hungarian series might be slightly younger:

The oldest group was formed before the wrinkled up style became generally accepted in Central Europe around 1440-1445.

One of the figure designs recognized by Holl, which can be traced back to a Worms type, is St.

¹⁴⁶ Grimm 2011d. This is obvious in the case of the Madonna with globe and reading Child Jesus: Grimm 2016, 151-229, no. 5.

¹⁴⁷ Cologne: RBA L 9 637/15.-.

Catherine’s (Figs. 30-32, distribution map 1), which was used in Buda for three mould generations.¹⁴⁸ This type (HU, H) served in Worms itself (Fig. 32, 34) as the basis for numerous figure types of the 1430s and 1440s (see f. e. fig. 5).¹⁴⁹ The oldest Hungarian mould generation is genealogically younger than the well-known early Worms specimens and especially the fragment kept in Trier, but only slightly smaller than the youngest Worms specimen (Figs. 32-34).

Via the copy-critical method it is possible to narrow down the mould generations from Worms that may be considered: The sleeve of St. Catherine’s right arm overlaps her attribute, the wheel. This is the case in the seven older mould generations from the Worms production site, while with the 8th and 9th mould generation the sleeve is shorter.

One specimen of the 9th mould generation (no. 585) has a dent by another figure which most likely occurred during the firing process. This figure, a Madonna of the M 3 type, also derived from the St. Catherine. This belongs to a version of the 3rd sub-type most likely from the 2nd or 3rd mould generation, which can be dated c. 1450-1456.¹⁵⁰ The prototype for the St. Catherine stove tile decorations thus is most likely to be from the 1440s at the latest or perhaps even as old as roughly 1420.

The specimen from Stralsund (fig. 33 right)¹⁵¹ is smaller than the third Buda mould generation. The specimens of the oldest stove tile decorations (Buda and Grad Ružica) show post-processings which are missing in the specimens of the two younger Buda and Stralsund generations. They therefore derive from another intermediate positive. Whether the younger generations are all dependent on the 2nd generation, or whether the Hanseatic line developed indepen-

¹⁴⁸ Holl 1998, 178-189; Gaimster/Schindler/Schäfer 2001, 97, 99, fig. 1a assume in the Stralsund copy the representation of a Madonna. For the type see Grimm 2011d, 309-311; Grimm 2016, 41, 44, 48, fig. 4, 149, fig. 1; Broel 1986, 182: c. 1450

¹⁴⁹ For the type see Grimm 2011d, 309-311; Grimm 2012, 11; Grimm 2016, 258-260.

¹⁵⁰ Grimm 2016, 152, 217-222.

¹⁵¹ Gaimster 2001b, 97, 99, no. 1, fig. 1a (c. 1450-1525), misinterpreted as “presumable a Madonna”.



Fig. 38. St. Peter (Hetjens Museum, Düsseldorf, D).

dently from it, from a mould base for the Hungarian examples, cannot be clarified at present.

As for all clades (family trees; fig. 33, 39, 44, 50, 55, 77, 81, 83, 91 and 94) depicted here, it is quite uncertain that the actual figures are the direct ancestors of the following figures. Even the moulds used are not assured direct predecessors. This is clear for the St. Catherine even inside the workshop of the stoves with knight figures and depicted as such in fig. 33. But otherwise a direct line only means that no recognizable difference pointing to not being the predecessor will be mentioned in the branches. Further research and new finds may help to differentiate the clades. As the closely related type of the Worms Madonna M 3 shows, even inside of a single workshop the development of the clade can be quite complicated, although even here especially the early versions are not found back in total.¹⁵²

The group also includes the Apostles Peter (figs. 35-39, distribution map 2, HU, B, H and BW)¹⁵³ and Jacobus major (St. James, distribu-

¹⁵² See Grimm 2016, 151-228, 258-260.

¹⁵³ Smetánka 1961, 592, fig. 3.5; Kouba 1964, 186, 188, fig. 7; Holl 1998, 189, 106-197 Nr. 3; Gross 2017, 48; Kiss/Spekner/Végh 2018, 285-286, no. 4.20f. A hith-

erto unpublished specimen from s'-Hertogenbsch most accurately reproduces the prototype (fig. 39 lower left); a figure in the Hetjens Museum, Düsseldorf is larger than the specimens from Nyribator and Ladenburg; but it is out of question as a model for the stove tile figures, because on the one hand it is too small, on the other hand it is already simplified in details of the pleats: Neu-Kock 1992 Nr. 63, Holl 1998 fig. 45.1; Grimm 2010a > HM.E-98; mould genealogically younger figure: Preising/Rief 2014, 345-346, Nr. 93g (Micha Leeflang/Sebastian Ostkamp); Ostkamp 2011, 85. Neu-Kock 1990, 10-15 dated the figures to the second half of the 15th century because of the presence of an arcade pedestal, as she therefore thought of late impressions (e.g. under Renaissance influence?). In fact the round arch is a typical stylistic feature of Low Countries and German art from the early 15th century (cf. Ostkamp/van Helbergen 2014 No. 42-43). Even Jan van Eyck quoted another arcade pedestal of a Worms figurine in one of his paintings: Grimm 2013b, fig. 17-18. In the case of stove tiles, it certainly occurs as early as c. 1430; cf. Schnyder 2011 vol. 2, 184-185 no. 153. As an internal form, the round arch increasingly replaced the pointed arch in the case of stove tiles of the type *Burg Tannenberg* even before the turn of the 14th to the 15th century (Grimm 2009b, 234-235 with further details). If there had been a reciprocal influence with Italian art, in the case of the round arch it would have started from the north. The St. Paul figure in Cologne belonging to the same series was dated by Neu-Kock 1990, 10-12 in the first half of the 15th century, therefore also logically with reference to comparable pieces from the International Style. The figures from Buda, Lichnice and Lipnice are



Fig. 40. Stove tile fragments with St. James (*Jacobus maior*). Left and center: 2nd generation, 1st in Buda?, phase 2.

1435).¹⁵⁵ All members of this apostle series (including also a St. Paul, known from the museums in Cologne and Düsseldorf but also found in Utrecht and a St. Andrew from which only a fragment in Düsseldorf is known)¹⁵⁶ and even early copies like the St. Peter from 's-Hertogenbosch (fig. 39) have moulded backsides. This stove tile figure is slightly smaller than the original *modello* used in Ladenburg and Hungary was.

¹⁵⁵ Pinder 1914; Suckale 2009.

¹⁵⁶ <https://www.deutsche-digitale-bibliothek.de/item/NQJFZTJQLECX5OIKXS3JLWTESQC3QAHP?query=andreas+apostel+düsseldorf&rows=20&viewType=list&thumbnail-filter=on&isThumbnailFiltered=true&offset=0&firstHit=ZJ5QCBSDANY54MALSC7FSTUBPLEMFIIZ&lastHit=lasthit&hitNumber=3>
<https://www.deutsche-digitale-bibliothek.de/item/XJ2AFXGMXIJ5Z WUZYWCWT5BIA7COSGJJ?query=paulus+apostel+düsseldorf&rows=20&viewType=list&thumbnail-filter=on&isThumbnailFiltered=true&offset=0&firstHit=XJ2AFXGMXIJ5ZWUZYWCWT5BIA7COSGJJ&lastHit=lasthit&hitNumber=1>. The specimen was combined with a pleat of unknown origin and an early baroque base with angel's head.

During the same time St. Anthony Eremita (Antonius Abbot, figs. 45-50, distribution map 4, HU, H, BW),¹⁵⁷ St. John the Baptist (Figs. 51-

¹⁵⁷ Holl 1998, 189, 197, Nr. 4; Ansorge/Schäfer 2009, 146-147, fig. 8 (1450-1500); Gross 2017, 10, 49; Kiss/Spekner/Végh 2018, 70-71, 286, no. 4.20m. The Stralsund tile figure is in contrast to the St. Peter of the same stove tile one mould generation older than the mould from Rostock. Ansorge/Schäfer 2009, 145-147 Burrows/Gaimster 1999, 285, fig. 10. Holl 1998, 197, fig. 46.1. referred to the less sharp parallel in the Schnütgen Museum discovered in the Rhineland (Cologne?) and moulded only on the front side. For this see Neu-Kock 1993, 13-14 (1st third 15th century). According to the context, a stoneware-like hard-fired figure from Aachen, Aureliusstraße, dates from the 2nd-3rd quarter of the 15th century and is the most technologically original object there because of its back without specific design; Grimm 2011a No. 9d; Giertz/Mommsen 2011, 178-180. A little head from the Breslauer Platz in Cologne already has a moulded back; Grimm 2012 Fig. 21-22; cf. also Neu-Kock 1993 No. 105. Another fragment comes from Wassenaar, NL: Bakels/Lit 1988 No. 14 (15th century). A late impression may be found in Preising/Rief 2013 No. 93. For a summary of the type and younger subtypes Grimm 2011a 79-81. In addition, reference should be made to an intermediate Cologne subtype of the middle 15th century, which is



Fig. 41. Mould from Rostock mould hoard (detail St. James, 3rd generation?).



Fig. 42. St. James, figurative crown tile from Speyer (1st generation, Historisches Museum von der Pfalz, Speyer, D, photography Harald Rosmanitz).

52, HU),¹⁵⁸ and St. Christopher (Figs. 53-56, kept in Halle, Schloss Moritzburg (fig. 49). Older summary of the type: Thier 1991.

¹⁵⁸ Holl 1998, 190 Nr. 12; A younger version in red clay in Utrecht, the back of which is almost flat, was dat-

distribution map 5, HU and possibly B) has been

ed by Klinckaert 1997 No. 135 between 1420 and 1450.



Fig. 43. St. James, from Middelburg (NL, Depot Middelburg).

designed.¹⁵⁹ From the latter a varying copy has

159 Holl 1998, 188, because of the use of St. Christopher as decoration in the mould of stove tile type 4, it could be shown that St. Christopher belonged to the original stock of the workshop in Hungary. All stove tile figures are mould identical, the heads integrated into the architectural decoration in stove tile mould type 4 come from the same mould generation and go back to a common intermediate positive. Kouba 1964, 187 names a St. Christopher, but does not depict him. For the figures: Holl 1998, 188-189, 197-200, fig. 54.2-4. To the heads integrated into the tile mould: Holl 1998, 188. The Dormagen Zons specimen is to date the oldest and finest of all and also has the basal pleats and strands of hair that have become known for all pieces: Grimm 2013b, fig. 34. In terms of mould genealogy, the specimen from Delft is the next oldest, but both the hairstyle of the saint and the face of the Child Jesus were subjected to a fundamental revision here, which is stylistically close to the facial forms of the Worms style phase of children 2 B (1430s to 1440s) because of the „baroque” facial forms. The mould genealogically younger copy from Gouda cannot be assigned with certainty to the time before or after the fire of the monastery in 1438, whereby the archeological dating results in only 15th century. The figurine moulded on the back is dated into the second half of the century (Ostkamp 2010, 105; Ostkamp/Kottman 2010, 410). The beard curls and the broad nose of this figure also appear in the approximately 14 % smaller stove tile decorations, which means that these may have been moulded from a figure of the same mould. The more closely related front mould of the figures in the Cologne Museum of Applied Arts, Utrecht and the specimen from Klastrompuszta (National Museum Budapest) are based on a mould common to the Gouda piece with a back mould, whereby the

already been copied in other materials since the late 1430s, which probably also served as the basis for a Ladenburg figure (fig. 56-57, BW).¹⁶⁰ At least for the St. Anthony (Aachen and Cologne specimens) and the Christopher, early versions had no moulded backsides, which can still be recognized at the latter, due to totally different types of backside moulds for the Delft version in comparison to the finds from Klastrompuszta and Gouda and the specimen in Cologne which belong to the same side branch as the *modello* for the stove tiles.

For some of the underlying figures there was only one mould for the front side. Only in the course of time such moulds were added for the back sides. In the Rhineland and later also in the Netherlands, however, figures moulded on one side were replaced by those made of double-shell moulds during the first half of the 15th century. In the case of the polygonal back mould for the Aachen Antonius Eremita, which is not further elaborated, reference is made to parallels of Rhenish terracottas, which can be attributed to the early “baroque” style of the 1430s. And one of which wears a transitional form from the late Kruseler to the early Gepent, as it can only occur between the 1420s and early 1440s. A more modern figure with the Gepent of the same type as in van Eyck’s Arnolfini wedding, on the other hand, is already moulded on the back (fig. 58-59). Only the reverse side of the pendant was shaped by hand.

The same development from a single shell to a double shell mould can also be traced using an-

figures in Utrecht and Cologne derive from closely related parallel moulds. The back of the Klastrompuszta copy (c. 1440-1500) is more closely related to that in Gouda. The smaller mould from Rotterdam belongs to another side line. Rotterdam: <https://museumrotterdam.nl/collectie/item/15483-A-B>. Klastrompuszta: Kovalovskii 1992, 189-190, fig. 19; Holl 1998, 198-200, fig. 54.1; Monok 2009, 334, no. T34 (T. Wehli). Cologne: Holl 1998, 200 Note 136; Grimm 2013b, 58-59, fig. 26. Utrecht: Klinckaert 1997, 403 No. 161 (right side). I thank Sebastiaan Ostkamp for the reference to the fragment from Delft, the provision of photographs and the publication permission.

160 Gross 2017, 10-11, 50; for the type see Grimm 2013b, 58-60 with further literature. The original figure is only molded on the front. Klinckaert 1997, 403 Nr. 161 (left side).

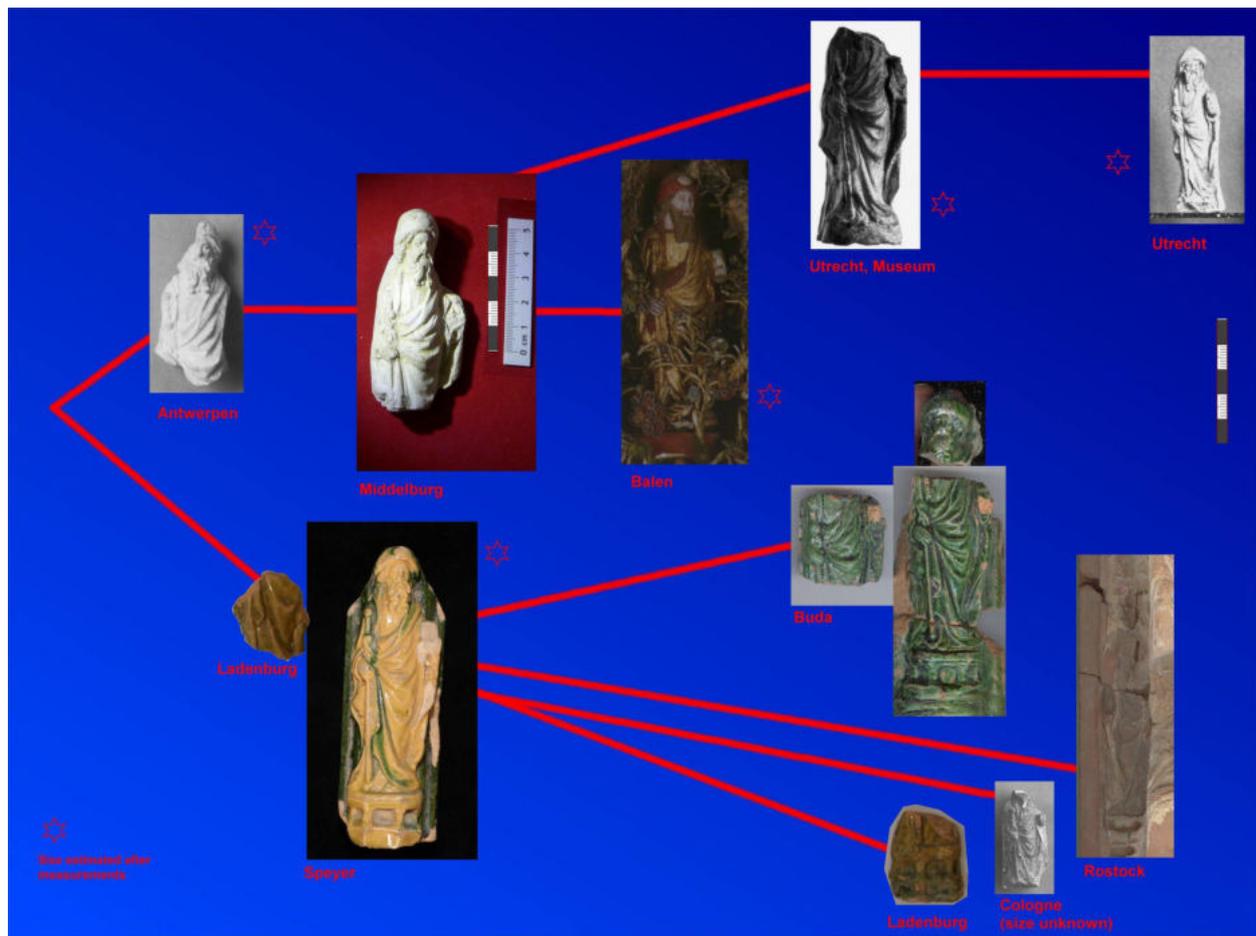


Fig. 44. Family tree of the stove tiles with St. James (figures from Antwerp after Geyskens 2002, Ladenburg by Uwe Gross, Speyer after a photograph by Harald Rosmanitz, Balen after Koldewey 2006, Utrecht Museum after Klinckaert 1997, from Utrecht after Leeuwenberg 1973).

other type: Early forms of the holy bishop (fig. 60-62, distribution map 6, HU, B)¹⁶¹ were exclusively moulded at the front side. Later, but just before 1450, the former employee of the Worms main master working now in Utrecht added a stylistically incoherent and more modern back based derived from a Worms Madonna.¹⁶² Since the figures from Cologne and Utrecht are just as large as the mould-identical stove tile decorations the stove tile *modello* was older. On the

161 Smetánka 1961, 592, fig. 2.1, 2.3; Holl 1998, 191 Nr. 13; Radić/Bojčić 2004 Nr. 561; Grimm 2012, 8-9, fig. 2. For the pipe clay figures see Grimm/Kaszab-Olschewski 2012, 45-47, no. 11 (Carola Karin Maria Schmitt / Jessica Schwartz), with additional references; Henry-Buitenhuis 1989, 74-75, no. 38. Ostkamp/van Helbergen 2014, 66, no. 41. The Leiden mould was hypothetically identified as St. Anthony Eremita by Thier 1991, 26, no. 10

162 Grimm 2012, 8-9, fig. 2.

other hand, the bishop from the Besloten Hoofie in Balen¹⁶³ is a little larger than the others.

Steyaert dates the prototype of a St. George relief from the Liège *Bilderbäckerei* around 1430-40 (fig. 64).¹⁶⁴ He also recognized that the composition of a miniature from a book of hours (MS 421) dated between 1445 and 1455 (fig. 65) is based on that type of relief.¹⁶⁵ A mould ge-

163 Koldewey 2006, 231, fig. 17.10.01.

164 Philippe 1969, 21; Steyaert 1994, 312-313, Nr. 92; Ostkamp 2001, 222.

165 Steyaert 1994, 312, <https://www.themorgan.org/manuscript/136028>: c. 1450. Gruia 2013a, 137 misdates the painting to 1430 and wants to grant the priority to it, but the simplifications the painter took with the horse and the St. George who don't react to the wounded dragon anymore and most important the anatomically incorrect left arm of the knight and the stiff folds of the knight betray the miniature as a copy by someone who didn't understand what actually was to be depicted. In the origi-



Fig. 45. Stove tile with St. Peter and St. Antonius (detail St. Antonius, partly reconstructed, 2nd generation, 1st in Buda, phase 2).

nal relief the saint is redirecting his horse with the sole of the shoe and a hard grip on the reins to drop the sword on his foe in the next moment. This results in a movement towards the dragon which in response pushes the shifted faulds on his left side. There, his cuirass restricts the faulds while they give way on the right, where St. George has raised his arm with the *messer* (sword with a knife like handle). In the miniature not only the armor

neologically older fragment of the dragon from this relief composition was found in Delft.¹⁶⁶ In the background of that reliefs is the figure of St. Agnes (about 1459),¹⁶⁷ which was taken over for corner figures of the stove in Tata (fig. 63 left, HU),¹⁶⁸ whereby the head was also transferred to a similar small figure moulded only at the front (fig. 66).¹⁶⁹

None of the preserved figures of saints reproduce the original conception unchanged. The head in Düsseldorf and that of the stove tile decoration are closest to each other, while the Liège copy was reworked in the wrinkled up style. Since the Liège find contextualized with the horizontal stratigraphy of the excavation of 1993/94 in the Worms *Bilderbäckerei* shows mould genealogical parallels, it may have been deposited at about the same time (about 1455/57) as their more recent finds.¹⁷⁰ Later in or shortly after 1487 a version of the same subtype as the Tata figurine but representing the full composition was used in the Carthusian monastery in Kláštorisko (fig. 63 right; SK).¹⁷¹ It is very likely that the whole composition was left in Hungary by the workshop together with the rest of the moulds.

is stiff but also the horse and knight ride away from their enemy so that the sword has no chance of reaching the monster.

166 Ostkamp 2001, 222, 225, fig. 48 (archeological dating 1450-1500).

167 Holl 1998, 172 has already postulated that some strongly fragmented coats of arms correspond to the repertoire of Frederick III, thus reflecting the claim of Frederick III to the Hungarian throne in 1459.

168 Holl 1998, 191, 198, fig. 53 (as St. Margaret of Antioch).

169 The figure and the pedestal were each printed from their own moulds and connected to each other. Grimm 2011a, 30; G. V. Grimm, Hl. Margaretha(?): <https://www.deutsche-digitale-bibliothek.de/item/HUJK5ZWZGH-HIFSASBJ2IHGBBP5Y5URXV>.

170 Grimm 2016, 11, 26, 34-35, 152-153.

171 Gruia 2013a, 131, 440, no. 296: mid 15th century. Gruia 2013a, 136-137, fig. 5.15 doesn't mention the relief, which she following Benkő clearly recognized as the model of an early free variant in Cluj; but later in Gruia 2013b, 235, fig. 83 mentions both stove tile compositions as closely related and correctly assumes, that the Kláštorisko version is the more original.



Fig. 46. Stove tile figurines from Ladenburg (BW), St. Antonius (Photograph Uwe Gross).

Only from Grad Ružica (at that time HU, today Croatia) a St. Bartholomew is preserved (fig. 67).¹⁷² The underlying figure must have measured approximately 18 cm from the usual drying shrinkage of about 14 % of the stove tiles and also stylistically follows the large Netherlandish pipe clay figures.

The structure of the layers of pleats in the drapery, especially in the coat, still corresponds to compositional principles that have their roots in the rich style; however, the cascades of folds are kept unusually flat. Triangular blocks of pleats are layered one inside the other on the right arm, which presuppose a knowledge of the monumentally broken style. Wrinkled up folds are rare and, like the extensive reworking of the face, hairstyle and beard, could also be traced back to the tile maker's workshop. According to the style and size of this figure, two merely fragmentary apostle figures from the same site can be assigned to this figure as part of a series (Matthew, fig. 68 and Peter, fig. 69).¹⁷³

¹⁷² Radić/Bojčić 2004, 270, Nr. 563.

¹⁷³ Radić/Bojčić 2004, 271. Nr. 564-565.

Only a copy from the Pilisszentkereszt monastery again documents the figure of a very sturdy, short-legged armoured man, probably a henchman from a relief composition (fig. 70, HU).¹⁷⁴ The closest stylistic parallel to this figure is an archer from the otherwise unknown Sebastian relief from Cologne in the Worms *Bilderbäckerei* (fig. 71).¹⁷⁵ Like that figure, he wears an armor *all'antiqua*. Close parallels, however, also represent henchmen from the Karlsruhe Passion (Hans Hirz?, c. 1440/1450).¹⁷⁶ The one in the foreground of the capture of Christ and, because of his likewise antique armour, the one in the foreground of the disguise of Christ (fig. 72-73).¹⁷⁷ Since the relief from Worms is also most likely to be dated to the decade around 1440 (and certainly before 1460), there is nothing

¹⁷⁴ Holl 1998, 191, 206 Nr. 14; Benda/Benkó/Magyar 2011, 92, no. II.2.25.

¹⁷⁵ See the other part of the relief: Grimm 2016, 272-273, no. 17; Mommsen 2016, 296, 299, Worms 17; Wilke 2016, 307.

¹⁷⁶ See Lüdke 1996.

¹⁷⁷ Lüdke 1996, 41-55, 90-100.



Fig. 47. Mould from Rostock mould hoard (H, detail St. Antonius, 4th generation).



Fig. 48. St. Antonius (Cologne, D, production site, Kölnisches Stadtmuseum).

ing to be said against dating the armed person to this period.

There are two originally differently sized comparable works from Cologne to the figure of the archangel Michael, who fends off the dragon with a flag lance and a shield of *Tartsche* type (fig. 74-77, HU).¹⁷⁸ One of the two stems from the production site Breslauer Platz (fig. 76), the second (also found in Cologne) is now in the Museum für Alltagsgeschichte in Brühl (fig. 75). The example in Brühl is the more original, the one from Breslauer Platz probably two mould generations younger. Due to the many irregularities, this is probably an old specimen in the findings from the production site. The bulk of figures from the Breslauer Platz in Cologne derive from the 4th quarter of the 15th century but the oldest specimens date back to the second quarter of the 15th century.¹⁷⁹

In the case of stove tile decorations, that from Budapest is about 20 % smaller than that from

178 Holl 1998, 190 Nr. 9; Radić/Bojčić 2004 Nr. 560.

179 See for example Grimm 2016, 48: before 1449. This is not necessarily the oldest figure from there.

Grad Ružica and about 15 % smaller than the specimen from Brühl, while that from Győr is slightly more than 20 % smaller than that from Budapest. Not only this shrinkage, but also the form joint recognizable in the stove tile decorations suggests that the mould of the stove tiles should be placed clearly before the two Rhenish figurines in terms of mould genealogy. In addition, one can still see the rear part of the archangel's mantle in the stove decorations, which is only present as a typological rudiment in the pipe clay figures.

There are no signs of the wrinkled up style in the stove tile figures. However, these can be detected to some extent in the Brühl figure and above all on the left upper arm of the mould genealogically youngest figure from Breslauer Platz. These are therefore more modern traces of reworking. On the other hand, the folds on the left arm and the left armpit, on which both mould lines can be separated most clearly in a copy-critical manner, already point to the knowledge of the monumentally broken style in Buda. The wide pleats on the back of the Brühl angel can still be attributed entirely to the late rich style. In combination with this, the Netherlandish style suggests that the *modello* originated between about 1420 and 1440, before the wrinkled up style gained common ground.

Somewhat more modern is a relief used as a model, a St. Barbara (fig. 78-81, HU, H),¹⁸⁰ whose costume refers to the origin of the type between 1430 and 1450.¹⁸¹ Her original compo-

¹⁸⁰ Burrows/Gaimster 1999, 302, fig. 15.2.

¹⁸¹ Grimm 2013a with additional references. The late dating into the second half of the 15th century of the mould genealogically more progressive specimen compared to the basis of the stove tile workshop, which was never justified by corresponding comparative examples, was already doubted by Defoer 2013, 71 with reference to the 1430s. The completely preserved gypsum relief has an irregular pleat over the original one, still recognizable quilting. Judokus Vredis and the Weddern chartreuse are known to have numerous, clearly modernized variants of different iconographies: Borken 2001, 444-457; Peine/Thier 2010, 196, 199, fig. 2a. The measurements have only been preserved for the late successor, while those of the fragment with Barbara iconography probably by Judokus Vredis himself have not been published. The type was also developed into a full-statuary figure and at least one previously unpublished variant from Haus Pesch in Erkelenz as well as a little head of unknown iconography



Fig. 49. St. Antonius from Cologne (D, Kunstmuseum Moritzburg Halle).

sition is preserved only by a more recent inter-

(fig. 19; cf. Grimm 2011a, 71-73, No. 5-6). For the garment quilted fan-shaped directly under breast see Giertz et al. 2015, 223-224.



Fig. 51. Stove tile with John the Baptist (partly restored, phase 2).

kept in monumentally broken style – only in the lower part there are the first creases of the early wrinkled up style; the one from Visegrád is not only 14% smaller, but the pleats were re-



Fig. 52. John the Baptist (red clay, Centraal Museum Utrecht, NL, after Klinckaert 1997).

worked in the mould with deep ridges, which presuppose the late, abstract flaming wrinkled up style, in which the pleats are almost like the bridges of a wooden printing block in a higher relief plane. The reworking¹⁸⁸ thus clearly corresponds to the time style of the stove erected towards the end of King Matthias' reign, shortly before 1490. The original, on the other hand, is probably from the 1430s or perhaps the 1440s. Whether the inscription is original is unclear,

¹⁸⁸ Cf. Grimm 2011c.



Fig. 53. Stove tiles with St. Christopher.

not least because no corresponding figurine has been discovered so far.

Two further types, which originally belonged together, again derive from reliefs: The prophets David and Isaiah (fig. 84-85; HU).¹⁸⁹ These derive from figure types depicting the apostles Peter and Paul and have been handed down in this combination on a Cartapesta relief in Cologne and in the Rostock tile moulds (fig. 84-85; H).¹⁹⁰ Since the prophets have banderoles with their names and other scrolls in a related but larger letter set, while the apostles hold a key repective a sword as their attributes, the first question is, what the original iconography of this type of figure was. The mould genealogi-



Fig. 54. Clay mould for a figure of St. Christopher from Rotterdam (Museum Rotterdam, NL), mirrored.

¹⁸⁹ Holl 1998, 189, Nr. 1-2. Radić/Bojčić 2004 Nr. 538-539; Kocsis/Sabián 1998, 35, fig. 144. The reading of the scroll held by David, still incomplete at Holl 1998, can be completed by the two fragments from Visegrad and Buda: „i sole posuit tabernacul“.

¹⁹⁰ Leeuwenberg 1962, 160 Fig. 18 already recognized the agreement with the fragment (Paulus) from Utrecht Wall, mould genealogically probably one or two generations younger: Klinckaert 1997 Nr. 172.

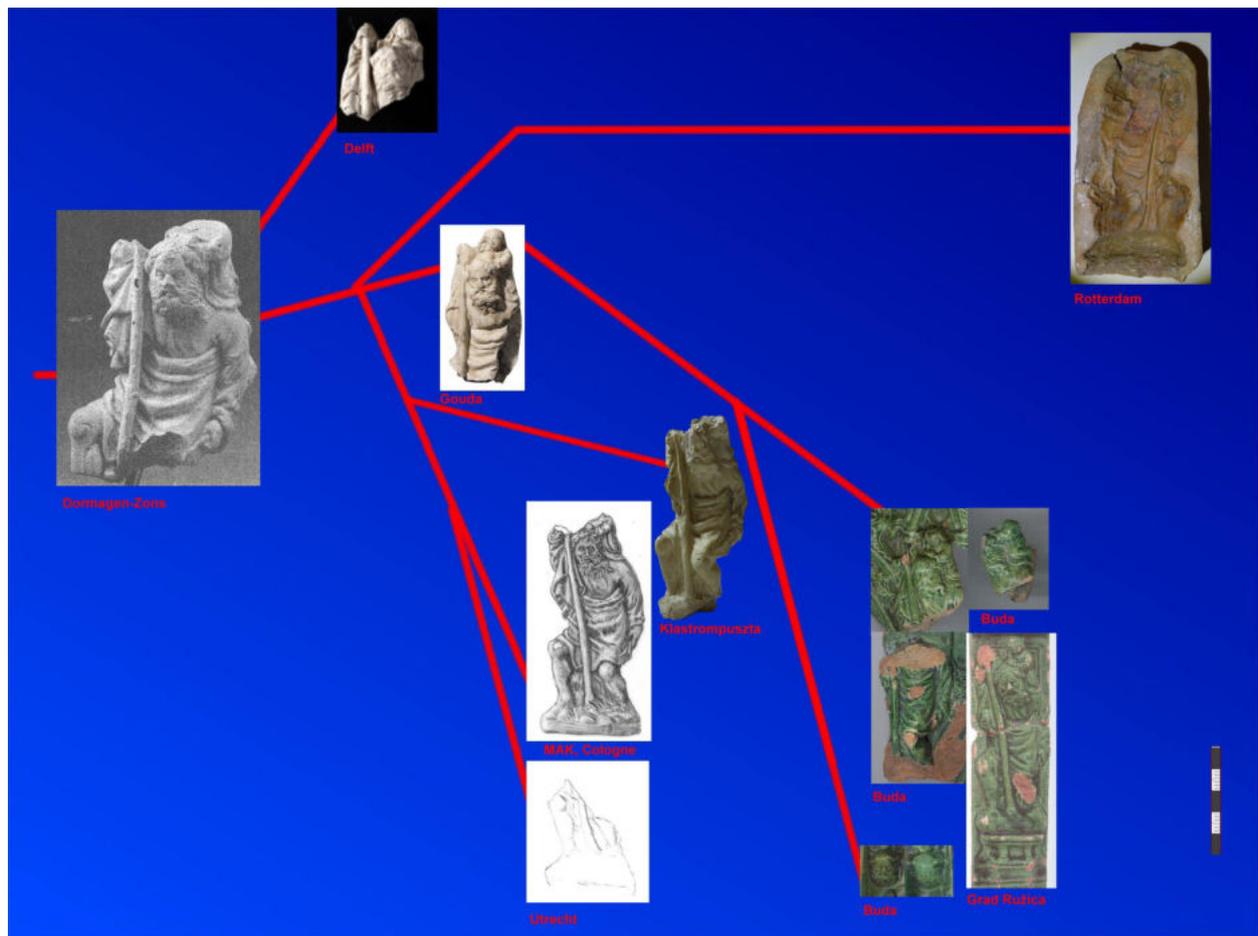


Fig. 55. Family tree of the stove tiles with St. Christopher (figure from Dormagen-Zons, D, after a photography from Rudolf Goldmann, Gouda and Delft after photographs from Sebastiaan Ostkamp).

cal position provides a first indication of the priority of the apostle iconography. In addition to the attributes, the most important difference between the two complementary types lies in the different hairstyles of St. Paul, who only has a single curl on the forehead and a wreath of hair over his ears, and prophet David, whose face is framed by the hair parted in the middle and falling down in long parallel strands (fig. 84). The corner decorations of the Rostock moulds show the characteristics of the two prophets, but not the redrawn fine strands of beard. This allows the conclusion that the original apostle figures had been subsequently adapted for the use as stove tile decorations.

Klinckaert dated the relief fragment from the Utrecht Wall to the 3rd quarter of the 15th century.¹⁹¹ The finds there were probably discarded

until about 1460.¹⁹² Especially on St. Paul's left hand the Rostock mould displays a clear and coarse post-processing and is younger in terms of mould genealogy than the Cologne relief. In this case, forms of the monumentally broken and wrinkled up styles mix – for example in the lower section of the garment of the Veronica – which suggests a design between 1433 and about 1450.¹⁹³ The face of the saint, with its sharply cut cheeks and rather angular lips with pronounced chin, corresponds to a Madonna in Aachen attributed to Utrecht, dated around 1445-1450.¹⁹⁴ The drapery of this Madonna, however, is more modern, and more marked by the wrinkled up style. The parallels between the styling of the beard and the garment of a St. Paul sculpture from Utrecht Cathedral are obvious. This is dat-

¹⁹² Grimm 2013a; Giertz et al. 2015, 228-230.

¹⁹³ Giertz et al. 2015, 222, 236-237.

¹⁹⁴ Preising/Rief 2013 Nr. 3.

¹⁹¹ Klinckaert 1997, 384.



Fig. 56. Two sub-types of St. Christopher (Centraal Museum Utrecht, NL, after Klinckaert 1997).

ed around 1450 together with four other figures, which according to Defoer and van Vlierden originate from a single workshop,¹⁹⁵ but the older drapery style and the more massive design of the figure are particularly striking compared to the other figures. Both are rather ancient characteristics, so that it is probably the oldest of the figures. Accordingly, the design should be dated around 1450 at the latest. The *modello* used for the stove tile decorations was larger than the preserved printed sculptures.

Two of the figures of saints represent knights in armor: The saints George (fig. 86-91, distribution map 7, HU, BW) and Hadrian (fig. 92-94, HU, H).¹⁹⁶ Pipe clay figures of both types have survived from the Netherlands; a terracotta fragment of St. George was found in Trier, Augustinerhof.

From Utrecht Wall comes the extremely fine figure of a St. Hadrian (fig. 94).¹⁹⁷ This specimen is one of the few small pipe clay figures to have fabric structures inside from textile used during the printing process, suggesting that such small

195 Preising/Rief 2013 Nr. 4.

196 Holl 1998, 190 Nr. 8 and 10; Radić/Bojčić 2004 Nr. 540; Gross 2017, 10, 45. Gaimster/Schindler/Schäfer 2001, 97, 99, fig. 1a suspect that Hadrian from Stralsund is a depiction of the Archangel Michael with the Dragon.

197 Cf. Klinckaert 1997 Nr. 192.



Fig. 57. Stove tile with Jesus as child, most likely derived from a St. Christopher statuette, from Ladenburg (BW, Photograph by Uwe Gross).

figures were dated around the middle of the 15th century. Another specimen was recovered in Zeeland at Tolsende (fig 93).¹⁹⁸

The George figure from the 's-Hertogenbosch Tolbrugkwartier is also very detailed and sharply printed (fig. 89),¹⁹⁹ whereas the fragment with dragon and the legs of the saint from the Trier Augustinerhof is a heavily rubbed pipe clay figure imitation with ceramic body of red clay,

198 Cf. Dospel 2013, 69-71, fig. 37.

199 Cf. Koldewej 2007 fig. 13.



Fig. 58. Female figure with Gepent (painted clay, Museum für Angewandte Kunst, Cologne, most likely from Cologne, D).



Fig. 59. Jan van Eyck, *The Arnolfini Portrait* (1434, National Gallery, London after wikimedia commons).

probably a local product (fig. 90).²⁰⁰ A heavily rubbed fragment of the pedestal with the legs of St. George and the right leg of the dragon was discovered during the Amsterdam underground excavation (fig. 91 left).²⁰¹ This is quite larger than the other figures of that type and might be a predecessor for the stove tile decorations.

Since both types of figures can be dated better by their armour that belongs to the same type than by the style of the execution, they are here examined together. The details are often easier to read from the pipe clay figures than from the stove figures, as their shape is less precise and the glaze obscures individual elements.

The cuirass of Frederick the Victorious in Vienna is the best preserved and in many points closest to both armours (fig. 95, c. 1450).²⁰²

200 Cf. Seewaldt 2003Nr. 10 (as St. Michael).

201 Gawronski / Kranendonk 2018, 427, no. 8.18.10 NZD01.00092KSC003 (1400-1550), not recognized as St. George.

202 Commonly dated between 1449 and 1451. Gamber 1955, 42-43, fig. 22; Beaufort-Spontin/Pfaffenbichler 2013, 60-61 Nr. 6; Marti/Borchert/Keck 2009 fig. 84, no. 85 (Christian Beaufort-Spontin); Zygulski 1984 Fig. 30 tends to date the armour somewhat later around 1450-55. Pfaffenbichler 2013 suggests a dating on the occasion of Frederick's assumption of government around 1449. De-

Rather from around 1440-1450 is the armour attributed to Duke Berchthold of Zähringen and, at least since the 16th century being preserved in Bern, also a work of the Missaglia workshop, where stamps of the younger Missaglia are missing (fig. 96, 99.86.8)²⁰³. Typical for the 1440s is the gently swinging, massive breastplate of the harness in the abdominal area. Later, soon after the middle of the century the tendency to emphasize the legs, correspondingly high up and tightly waisted cuirasses begins, which is widespread from 1460 and dominates the entire second half of the century.²⁰⁴

Both knights wear plate armour whose pointed plackart spans the upper part of the body and was connected to the gorget and the neck base of the breast plate at collarbone level (type 3 B, fig. 97).²⁰⁵ Preserved examples of such armour are the harnesses of Frederick the Victorious, the Bernese harness, a find from the Sanctuarium and one in private possession (figs. 95, 96,

tailed description by Thomas/Gamber 1976, 56-58, fig. 20-21.

203 Wegeli 1920, 51-55, Nr. 80. Gamber 1955, fig. 86.8 dates the specimen around 1455.

204 Pfaffenbichler 2013, 444; Gamber 1955, 45-47.

205 Grimm 2016, 50-53 with further references.



Fig. 60. Stove tiles with holy bishop (1st generation, from left to right: phase 1, phase 2 and phase 3).

99.86.8, 99.87.1). This type can only be proven as knightly armour in Central Europe from about c. 1440-50.²⁰⁶ A new find of such a plackard, which is connected to the siege of Hulst by the Gent forces in 1452 (as are other elements of armament) confirms the date (fig. 98).²⁰⁷ In Italy from where it stems the type occurs from about 1435 to about 1460.²⁰⁸

Even the faulds (*Hüftreifen*), which follow downwards, occur in this form, which gently swings up to the tips, only around the 2nd-3rd quarter of the 15th century (see fig. 99, upper row). They are prototypical with narrower arches in the tomb of Duke Ulrich von Teck in the

parish church of Mindelheim (1428-1432).²⁰⁹ The form is pronounced in the tombs of Roger Elmbygge (+ 1435) and John Peryent the Younger in Digswell.²¹⁰ This form has been preserved in the harness of Frederick the Victorious (fig. 95) and in the Avant-harness,²¹¹ a harness in Schluderns (Bolzano, CH T 20),²¹² the one in the Historical Museum of the City of Vienna²¹³ as well as in the harness of Bern (fig. 96),²¹⁴ also from the Missaglia workshop, which are all dated to the 1440s or around 1450. This form can be found in representations and other originals up to the beginning of the 1470s²¹⁵ (and was taken up again in the Renaissance, albeit with

206 The dating around 1455 of the Bernese armour by Gamber 1955, fig. 86.8, which is not supported by any marks, has already been referred to above. See also the illustration at Goldberg 1999, 89 (Gabriel Angler: Disrobing of Christ, c. 1440-1445). See also the partly original armour by an unknown armourer in Baptiste 2016, 76-77, fig. 61.

207 Grimm/Hoss 2017a, 303-304, fig. 8.20-21; Grimm/Hoss 2017b, 72 Nr. 240; Grimm 2016, 50, 52, fig. 10; Grimm 2018, 29 no. 07.

208 Grimm 2016, 51-52 with further references.

209 Cf. Gamber 1953, 76, fig. 88.

210 Cf. Gamber 1953, 77, fig. 93, 81, fig. 98.

211 Cf. Gamber 1955, fig. 22-23.

212 Cf. Scalini 1996, 77, fig. 13.

213 Cf. Ramharter 2002, 157, fig. 3.

214 Cf. Wegeli 1920, 51-55, no. 80.

215 Cf. Gamber 1955, 40-45, fig. 30, 32, 35, 41 und 42; Scalini 1996, 77, fig. 12; Willers 2001, 35, fig. 26.



Fig. 61. Holy bishop from Cologne (D, private possession).

much narrower bow positions).²¹⁶ In contrast, the faults in the typical form of the second half of the century run almost horizontally, while the small curtain-like arches (*Vorhangbögen*) only rise shortly before the tip (cf. also fig. 99, lower row 2rd-3rd from left and from right).²¹⁷ Both forms occur together on the Trajan-and-Herkinbald carpet after Rogier van der Weyden from after 1439 and before 1461.²¹⁸

The tassets (*Beintaschen*) of both knights also match a dating around the middle of the 15th century. The tassets are pentagonal, short and ribbed²¹⁹ and about as long as wide. Around 1450 there was a tendency for the tassets to become longer, and in any case they were given lateral wings when hung, which made their shape resemble an inverted curtain arch (fig.

216 See for example Thomas 1937, 144, fig. 153-154 (1500-1505), pl. 15 (1537).

217 For example those of Alessandro Sforza in the triptych of the van der Weyden workshop (c. 1450-1460): Kemperdick 2007, 120-121, fig. 119. Cf. Stone 1999, 27, fig. 37 (c. 1460). Cf. also for example: Gamber 1955, fig. 29, 46, 51, 55, 65; van der Sloot 1966.

218 Cf. Kemperdick 2007, 24-27, fig. 22 (The original painting was finished between 1439 and 1441, Dating according to the coat of arms of the commissioner point to 1440-1461).

219 See to the general but not in every case stringent developmental tendency from not ridged to ridged tassets: Holl 1991, 330.



Fig. 62. Holy bishop from Utrecht (NL, production site, stadsarcheologie Utrecht).

99).²²⁰ This development cannot be ascertained for the St. George. Apart from this more modern element, the tassets of Alessandro Sforza in the Brussels triptych of the van der Weyden workshop (around 1450-1460) are almost identical to his²²¹ alike those from the Missaglia harness in Bern (fig. 96).²²² On the other hand,

220 Cf. Gamber 1955, fig. 87-88; Scalini 1996, 260-261; Willers 2001, 35, fig. 26.

221 Cf. Kemperdick 2007, 120-121, fig. 119.

222 Cf. Gamber 1955, 86.8; Wegeli 1920, 51-55, Nr. 80 (datings around 1455 or due to the absence of younger

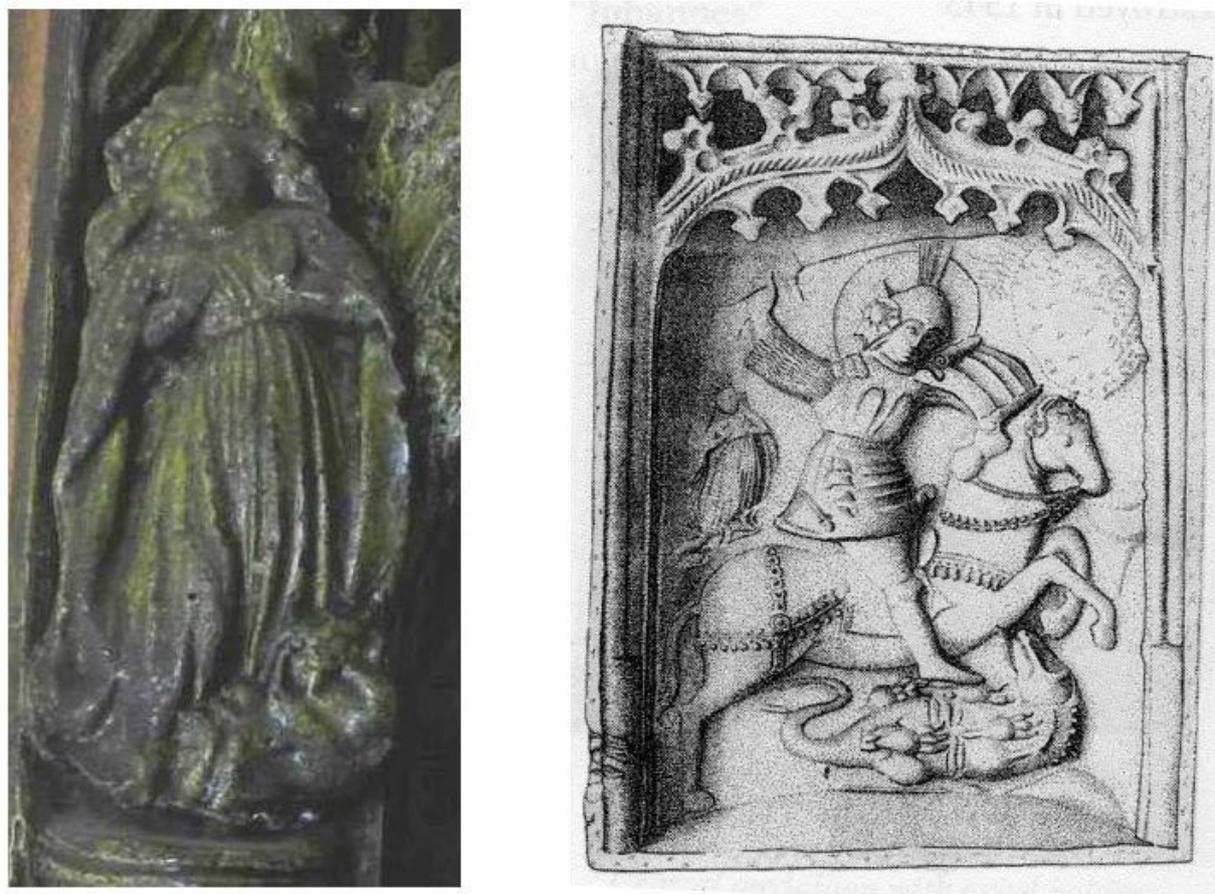


Fig. 63. Saint (Agnes?) from the stove in Tata (HU, left). Stove tile made by an impression of the same subtype of St. George slaying the dragon relief in Kláštorisko (SK, after Gruia 2013).

the ribbing is still hardly pronounced with St. Hadrian's. No wings are noticeable at the sides of the tassets. Rather these are light wrappings. For this the cuirass of Frederick the Victorious is again the best comparison (fig. 95),²²³ because here similar ribbings are on the outside.

Also the cuisses are not composed of overlapping elements (*keine geschobene Oberdiechlinge*). This fact points to a dating up to 1460. Especially the leg protection (*Beinzeug*) of Hadrian has close similarities to the one of Frederick the Victorious (c. 1450, fig. 95)²²⁴ and to those worn by Philip the Good in a miniature from c. 1454 showing the submission of the Gentians²²⁵. The rondels of the poleyns (*Beinkacheln*) of St. George also point on a development of the type until around the middle

benchmarks around 1440-1450).

223 Cf. Thomas/Gamber 1976, fig. 20.

224 Cf. Gamber 1955, fig. 97.5.

225 Cf. Kemperdick 2007, 11, fig. 8.

of the 15th century, since these were already successively replaced in the 1440s by bent and/or wing-shaped ones.²²⁶ These forms occurred occasionally as early as 1400,²²⁷ became increasingly popular in the 1430s and 1440s,²²⁸ but only became generally accepted around the middle of the century.²²⁹ Those of Hadrian are somewhat blurry moulded. Since they have a knob in the centre, they are probably of the same type.

St. Hadrian wears a helmet, the outline of which is largely concealed by a pigtail, consist-

226 Cf. next to the harness of Frederick the Victorious (already mentioned above) and that of the Missaglia workshop in the Churburg. See for instance: Wegeli 1920, 51-55, Nr. 80.

227 Cf. for example Gamber 1953, 67, fig. 66.

228 Like St. Quirinus in the Ghent altarpiece of the van Eycks (fig. 96). Cf. also AK Basel 82-85 (Konrad Witz, Heilsspiegelaltar, um 1435).

229 In the liberation of St. Peter in 1444, for example, the kneeling knight still had round discs on the inside: Cf. AK Basel 2011, 131, Nr. 18.



Fig. 64. St. George slaying the dragon with St. Agnes (from Liege, production site, Museum Grand Curtius, Liege, B, after Steyaert 1994).



Fig. 65. St. George slaying the dragon with St. Agnes, c. 1450 (MS M.0421, fol. 023v, Morgan Library & Museum, New York, after <http://corsair.themorgan.org/cgi-bin/Pwebrecon.cgi?v1=4&ti=1,4&Search%5FArg=%22ms%20m%2E421%22%20ica&Search%5FCode=GKEY%5E&CNT=50&PID=qYyGH9YpuHpLlnPBkbZcPJY5tJ2Fz&SEQ=20161005112537&SID=1>).

ing of a twisted scarf that additionally characterizes him as a martyr, because it is designed as a laurel wreath. This is protection, primarily against impact weapons, but also against sharp weapons such as axes, halberds, etc. So several warriors in the *Chroniques du Hainaut* (1468) have wrapped such scarves around different helmet types (sallets, iron hats).²³⁰ However, similar pigtails can already be found in a miniature from c. 1440-1445 (Amiens BMMS.483 Eracles fol. 61v)²³¹, one in the background of the capture of Christ and the carrying of the cross in the *Karlsruhe Passion* (Hans Hirz?, c. 1440/1450)²³² and in Gabriel Angler's (1444/1445) cross-bearing next to the mentioned helmets even on a *Grand Bacinet*.²³³ One very popular example

²³⁰ Cf. Seitz 1965, 225, fig. 147.

²³¹ <http://manuscriptminiatures.com/3932/10783/>.

²³² Cf. Lüdke 1996, pl. 2 and 4.

²³³ Cf. Weniger 2010, 348, fig. 5.

is to be recognized on the cattle hat (iron hat, *chapelle du fer*, German: *Eisenhut*) of Paris in the *Judgement of Paris* the eponymous pastry mould by the *Parisurteilmeister*, which can be dated to 1440/1450 to 1456.²³⁴ More complex is the dating of a guidon of Charles the Bold: Likely to be ordered in 1474 it was painted after a model from the circle of Jan van Eyck and thus displays a lot of features outdated at its time.²³⁵ An original linden bast pigtail is preserved with the funerary hatchment of Stefan Schuler (+

²³⁴ Grimm 2019b, 74-79, fig. 8, 10.

²³⁵ Deuchler 1963, 234-236, 373-374, pl. 5.



Fig. 66. Saint (Agnes?, Hetjens Museum, Düsseldorf, D).

1452) in the Germanisches Nationalmuseum.²³⁶ So this additional buffering for helmets was established in the 1440s to 1460s.

Hadrian's helmet hardly swings out to the back and to the sides and is probably similar to the helmet of St. George to date. The latter is still an early form of the open *barbute* and can also be considered to be an early form of the Italian *sallet*,²³⁷ which dates back to the first half of the 15th century.²³⁸

The *sallets* with visors in fol. 161 of the *fleur des histoires* (MS. 9232, Brussels) are very well comparable to this.²³⁹ This is also the case with the Italian *sallet* made between 1440 and 1450 in Burgundy or Lombardy by the Master π with the d CH S60 of the Churburg (fig. 100; The stamp might be better read as gothic „Ad“ in

ligature),²⁴⁰ a helmet in Rothenburg,²⁴¹ one in the Royal Armouries (c. 1450-1460, attributed to Giovanni Negroli of the Missaglia workshop).²⁴² A *sallet* in the Odelaschi collection is already a little further curved.²⁴³ The tails of the *sallets* of the 3rd quarter of the 15th century increasingly protrude over the *calotte*, so that a dating in the decade around 1450 may be assumed here.²⁴⁴

The hourglass-shaped gauntlets (*sanduhrförmige Hentzen*) of St. George stand at the end of a development of this type, originating in the 14th century.²⁴⁵ They are of the same type as the somewhat more old fashioned pieces in the Bavarian Army Museum Ingolstadt (c. 1440),²⁴⁶ and those of the St. George in the Ghent altar piece (c. 1433, fig. 101). The left one of the above-mentioned Missaglia harness of Frederick the

236 Taube/Roth 2019, 394, fig. 8.

237 For the sometimes contrary terms for identical helmet types see Boccia 1982, Taf. 13, 17, 18; Oakeshott 2000, 109-112, Taf. 7.

238 Cf. Oakeshott 2000, 109-110.

239 See Gamber 1953, fig. 107.19 (dating *ibid.* around 1445). See also the *barbute* (*Venezianischer Schallern*) *ibid.* fig. 107.20 (1446/1447).

240 See Scalini 1996, 270.

241 Cf. Baumann 2010, 273, below (c. 1450).

242 Richardson 2011, 116-117; Richardson/Woosnam-Savage/Rimer 2011, 303.

243 Carpegna 1969, 8, Nr. 26 (mid 15th century).

244 Cf. Pyrrh 2000, 7-8, no. 3-6.

245 See Grönwald o. J., mainly p. 15, fig. 7.22-23 (1st half 15th century or before 1460); see also Krabath 2015, 223-224, fig. 4.14.

246 Cf. Scalini 1996, 101.



Fig. 67. Saint Bartholomew the apostle from Grad Ružica (HR, after Radić 2004).

Victorious (c. 1450, fig. 95), in which, however, the cuffs are already more ogival, is stylistically somewhat more developed (see Fig. 102.5).²⁴⁷ While the gauntlets in the foreground of the liberation of Peter in Klaus Witz' Geneva altar (1444) still show the slight curvature of older



Fig. 68. Saint Matthew from Grad Ružica (HR, after Radić 2004).

²⁴⁷ Cf. Gamber 1955, fig. 91.5. However the right gauntlet is shifted likewise with this harness. The gauntlets of St. George are manufactured like the left one from a single piece for the lower arm and the back of the hand. For the development of the shape of the gauntlet see Gamber 1955, fig. 91 (here: fig. 102) see also Willemsen 2015, fig. 121 (Educational charts, Metropolitan Museum of Art, New York).



Fig. 69. Saint Peter from Grad Ružica (HR, after Radić 2004).

Fig. 70. Soldier from Pilisszentkereszt (HU, after Benda/Benkő/Magyar 2011).

pieces, those of the knight drawing his sword are almost identical.²⁴⁸ In this regard, however, the mentioned avant-harness of the same workshop and about the same time must also be named, where the gauntlets (here also without ridge) end rather rounded (fig. 102.4).²⁴⁹ Exactly this type of gauntlet (in this case partially fingered, what is chronologically not significant) with a movable wrist is worn by St. Hadrian. Also his upper and lower vambraces (*Armzeug*) could be copied directly after a model attributed to the same workshop (around 1445/1450, CHS 19).²⁵⁰ The type itself is older, as the gauntlets of an accumulated harness (CH S 18) in the same collection prove (about 1370-1410?).²⁵¹ A specimen whose cuff ends with a pointed arch



in Berlin is dated in the 1450s.²⁵² The same applies to the Missaglia gauntlet in New York (fig. 103)²⁵³ made between 1452 and 1460, however, its wrist-plate and metacarpal-plate are very well comparable.

248 Cf. AK Basel 2011, 131, Nr. 18.

249 Cf. Gamber 1955, fig. 91.4.

250 Cf. Gamber 1955, fig. 95.4; Scalini 1996, 260.

251 Grönwald o. J., 14; see also Scalini 1996, 64-65, 258-259.

252 G. Quaas. Hentze. <http://www.dhm.de/archiv/ausstellungen/eisenkleider/frueh/kat036.htm> (27.08.2016).

253 Nickel/Pyrroh/Tarassuk 1982, 24-25, no.2.

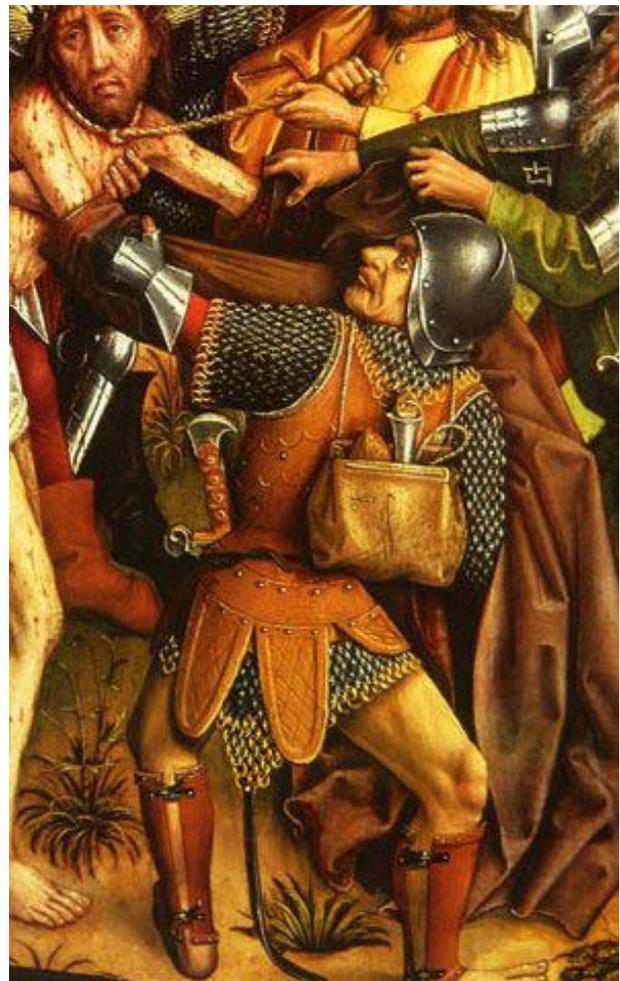


Fig. 71. Fragment of a relief with St. Sebastian and an archer (from Worms, D, production site, but import from Cologne resp. made with pipe clay from Frechen, D).



Fig. 72. Master of the Karlsruhe Passion, detail of Captivity of Christ (Landesmuseum, Karlsruhe, photo wikimedia commons).

Fig. 73. Master of the Karlsruhe Passion, detail of Disrobing of Christ (Landesmuseum, Karlsruhe, photo wikimedia commons).



The asymmetrical pauldrons (*Harnischschultern*) of Italian design can also be dated to the period around 1440-1455: They are a little smaller with St. Hadrian. I.e. they are more old-fashioned than those of the Arco harness from the Missaglia workshop (Churburg No. 21, c. 1445).²⁵⁴ However, the right pauldron is somewhat more developed than the one on a medal of Pisanello around 1445,²⁵⁵ whereas the left shoulder piece is almost identical to an original from the Sanctuarium (around 1450/1455).²⁵⁶

For the cross guard (style 2) and pommel (type J) of St. Hadrian's sword, there is a close parallel in a sword dated 1400-1440.²⁵⁷ A rough-

254 Cf. Gamber 1955, fig. 91.1 (ca. 1445).

255 Cf. Gamber 1953, fig. 104.12.

256 Cf. Gamber 1955, fig. 91.6.

257 Oakeshott 2009b, 186. Especially the faceted pommel form JI. is typical for the 1st half of the 15th century; Oakeshott 2009a, 103-104 with several examples.



Fig. 74. Stove tile fragment with St. Michael (2nd generation, phase 2).

ly similar combination is to be seen on the two handed sword is depicted by Konrad Witz in the Basle altar, where Benaja has a similar example (c. 1435).²⁵⁸

The design of both knightly saint figures can be dated as between 1440 and 1455. The St. George well appeared in Ladenburg in the same mould generation as the earliest Buda specimen and the one from Grad Ružica. A later Buda specimen is better preserved. The Hadrian is only known as stove decoration from Hungary and from the Hanse Region: An early specimen from the royal palace in Buda and a mould genealogically younger find from Stralsund. But this doesn't mean that the St. George is earlier than St. Hadrian (see below).

Another figure, also from the mid 15th century, is known from Budapest and Grad Ružica, which Holl and following him Radić want to

²⁵⁸ AK Basel 2011, 60-61, 84-85.

identify as Judith, but which probably represents St. Catherine (fig. 104-106, HU).²⁵⁹ She wears a robe with right-angled pleats quilted from girdle to breast, which suggest a dating around 1440-1460.²⁶⁰ The form of her elaborately laid bonnet can be found almost exactly identical on a sheet from around 1460-1470,²⁶¹ which depicts a praying saint in the immediate aftermath of van Eyck and the early Rogier van der Weyden. According to the way it is drawn it is a reproduction drawing after a painting. The latter is likely to have been older than the drawing.

The model can still be attributed to the second phase of the wrinkled up style and thus to the 1450s at the latest. The V-neckline with wide trimming and the horizontal undergarment above the breast as well as the girdle worn directly below the breasts point into the same period (ca. 1435-1455). A head fragment from Buda (fig. 105) and the garment fragment from Grad Ružica (fig. 106, centre) are about 14 % larger, i. e. one mould generation older than the corresponding parts of the completely preserved stove tile decoration from Buda (fig. 104).

In Lipnice, Budapest and Grad Ružica there is another type of a standing St. Agnes (fig. 107-109, HU, B).²⁶² Parallel figures are not yet known either. The long robe without quilted

²⁵⁹ Holl 1998 Nr. 16; Radić 2004 Nr. 538.

²⁶⁰ Prototype is the semicircular quilted garment in Jan van Eyck's Portrait of his wife (1439) and in the Madonna of Jan de Vos (c. 1443), while the developed type, according to the copies, occurred in the Madonna of Nicolas van Maelbeke (c. 1440-1445); see Borchert 2010, 148-150, no. 20-21, 153-155, no. 27-29 (Till-Holger Borchert). The older form also worn by the foundress (donor) in the dedication painting and by Mary in the Encounter fol. 32r. of the Book of Hours of Catherine of Cleves (c. 1440) is depicted several times by Master E.S., while the horizontal quilting from the high girdle to under the breast is confirmed only with St. Ursula L. 170. Whether the type in the Madonna by Konrad Witz of the so-called large Olsberg altar is already fully developed cannot be said with certainty; cf. AK Basel 2011, 116 f. (Bodo Brinkmann). In this regard the crescent moon Madonna of Worms type deposited between 1449 and 1460 in Cologne Cathedral should be mentioned; cf. Grimm 2016, 46-49, 245-258; Grimm 2012, 11; Steinmann 2008 No. 15.

²⁶¹ Rothes 1926, 16 fig. 14.

²⁶² Kouba 1964, 186, 188, fig. 4; Holl 1998, 190 Nr. 6; Radić/Bojčić 2004 Nr. 562.

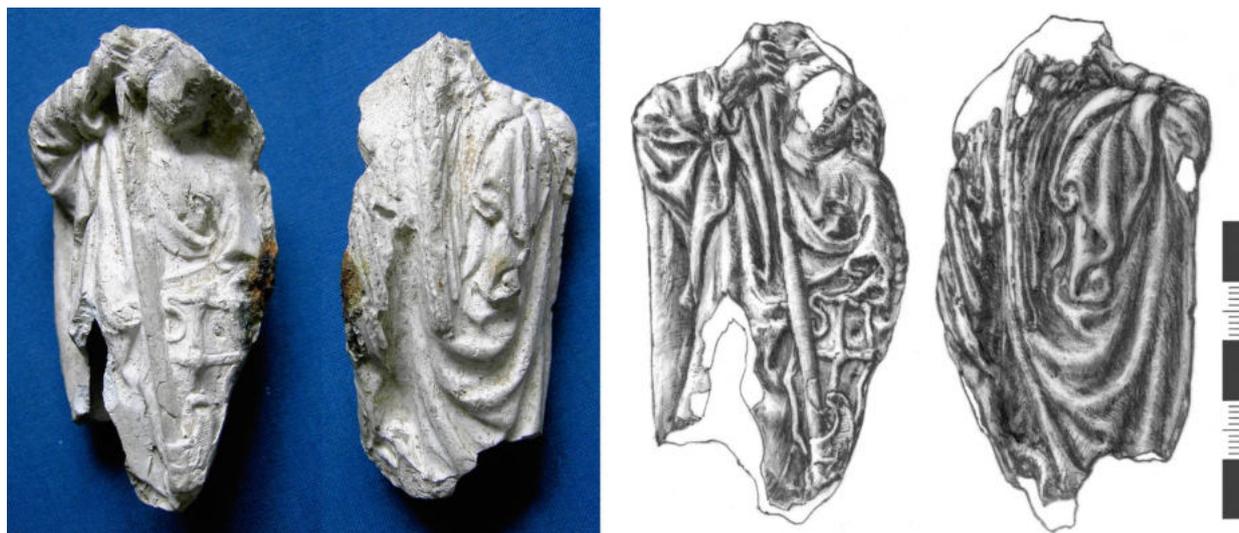


Fig. 75. Figure fragment St. Michael from Cologne (Museum für Alltagsgeschichte, Brühl, D).



Fig. 76. Figure fragment St. Michael from Cologne (production site, Kölnisches Stadtmuseum, D).

folds, which, for example, recurs in many works by van der Weyden and Hans Memling came up around 1440 and was worn until around 1480. A chronologically significant collar form is not recognizable. Only the massive pleats of the coat, in addition to the early wrinkled up style, are indications for the dating of the type into the mid 15th century. All figures are of the same size, but show differences that are prob-

ably due to the increasing wear of the mould. The impressions from Buda (fragment of the abdomen) and Grad Ružica are sharper than the almost completely preserved figure from Buda. The specimen from Lipnice seems to have had some reworkings, which were probably due to the mould.

Not in Budapest, but in Lipnice, Lichnice and Rostock fragments of a small St. Barbara

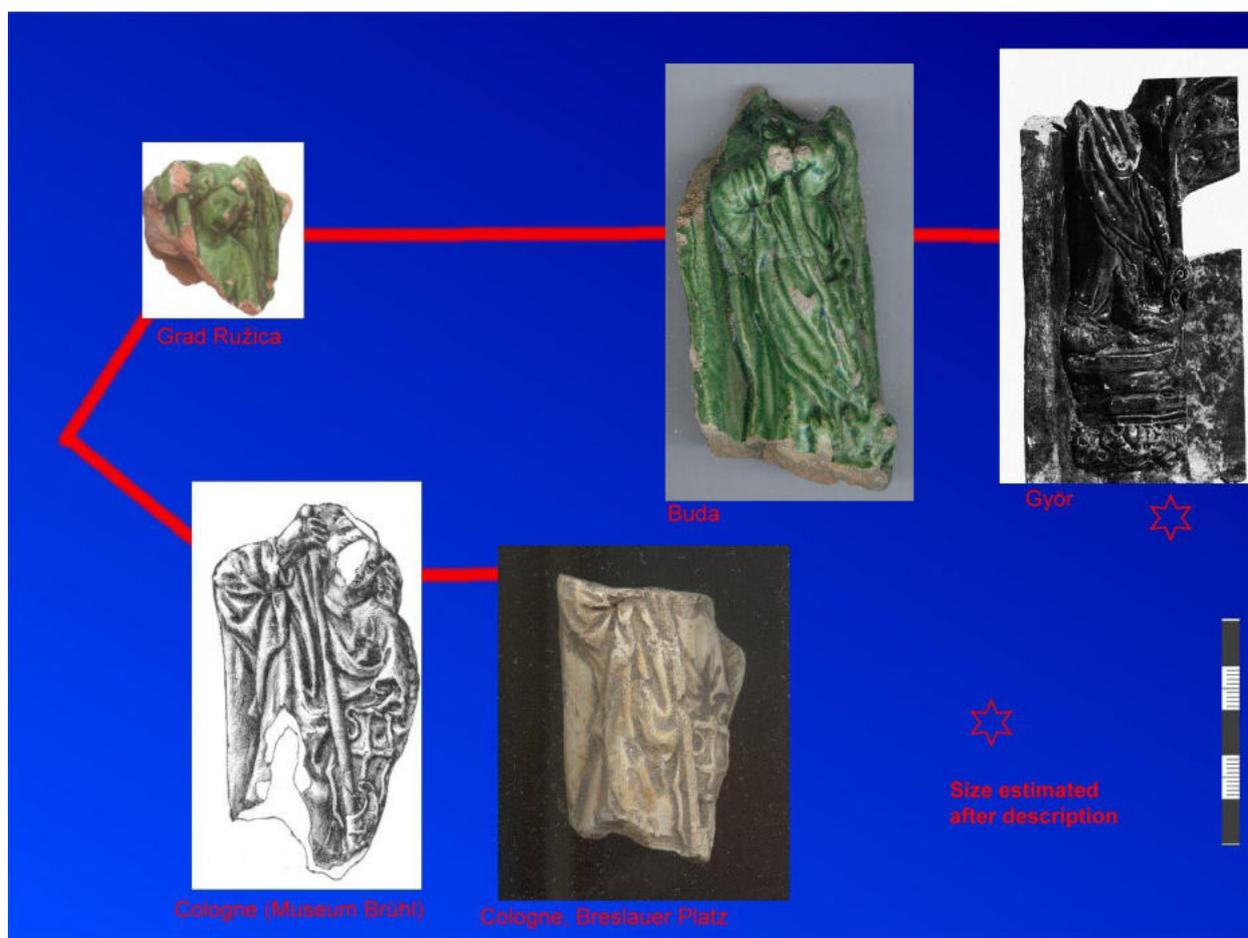


Fig. 77. Family tree of the stove tiles with St. Michael (Grad Ružica, HR, after Radić 2004, Győr, HU, after Holl 1998).

were discovered (fig. 110-112, distribution map 8, H, B).²⁶³

The early wrinkled up style and the narrow polygonal robe cutout at the neck, as well as the mould genealogical position, indicate a dating of the design around the middle of the 15th century. There are comparative specimens of this type in the Schnütgen Museum in Cologne, from Zeeland, Balen, London and Neuß.²⁶⁴ The Cologne specimen and the Neuß find from Charles the Bold's camp, left behind in 1475, are less sharply moulded and about as large as the stove tile decoration from Lichnice. This means that the *Bilderbäckerwerke* are at least two, rather

²⁶³ Holl 1998 Nr. 17; Smetánka 1961/1961, 592, fig. 3.1; Kouba 1964, 186; fig. 3; Burrows/Gaimster 1999 fig. 12.4 (unrecognized as such).

²⁶⁴ Crichton-Turley 2018, 258, Taf. 8A: 1400-1500; Grimm 2011b, 267-268; Dorpel 2013, fig. 38 upper right; Koldewey 2006, 231, fig. 17.10.01; Witte 1912, T. 87, right column, middle row left; Rose 2004, Nr. 76; Sauer 2008; Bil o. J.

five to eight mould generations younger than the *modello* used by the stove workshop. The shape in the Balen Besloten Hoofje is somewhat smaller, while the one from Lipnice is 14% smaller, i. e. one mould generation younger than the other Bohemian piece. The mould from Rostock is about 20% smaller, so it belongs to the next generation. The figures from Zeeland (with a spherical shape on the stem of the palm leaf) and the figures from the Rhineland are closer to each other than the other figures. They belong to a common side branch, in which the left hand of the saint has a conspicuously flat back. The degenerations in the specimen from Verdrongen Dorp, as well as the reworking of the hairstyle have parallels in Madonnas from Cologne created around or rather after 1500.²⁶⁵

With regard to the figures from the Besloten Hoofje, which according to the painting on the

²⁶⁵ See Grimm/Kaszab-Olschewski 2012, 32-35, no. 6 (Constantin Jodeit).



Fig. 78. Family tree of the stove tiles with St. Michael (Grad Ružica, HR, after Radić 2004, Győr, HU, after Holl 1998).



Fig. 80. Crown-tile, angel from Grad Ružica (HR, after Radić 2004).



Fig. 79. St. Barbara (private possession, after Borken 2001).

garment is dated more likely to 1520/1535 than to the beginning of the 16th century, it should be noted that the figures assembled there differ widely in age. This is already true for the two stylistically incoherent Mechelen Maria figures, whose pedestals are completely different. The one with the book could actually date to the decades around 1500 (1480-1515?), the Madonna on the other hand is probably the youngest of the large sculptures, rather from around 1520/35. The holy bishop, on the other hand, could have originated before the mid 15th century, St. James most likely in the 3rd quarter of the 15th century and Barbara is younger than the 1474/75 specimen from the siege of Neuss. The crucifix already shows the simplifications typical for the period around 1500 and the early 16th century. In contrast to the stoves with the knight figures, older figures (and of course even older relics) could easily be resorted to in an ecclesiastical context. The garment allows a

dating of the design into the same time as the St. Agnes mentioned above.

Only in Lichnice and Rostock a type of figure is represented, which was originally considered with some reservation to be a female saint, was identified by Gaimster as Jesus Christ (fig. 113, H, B).²⁶⁶ Parallel figures are not yet known. The imprint in the Rostock mould is not very deep, the parts at the back are hardly visible. Apart from the extensive pleats still standing in the tradition of the Rich Style, only the crowd of pleats on the blessing right arm of Christ can be interpreted as an indication that the image revision took place in the middle of the 15th century.

A resting deer is only known from Grad Ružica (fig. 114, HU).²⁶⁷ Despite its stylistic re-

²⁶⁶ Smetánka 1961/1961 fig. 3.7; Holl 1998 Nr. 18; Burrows/Gaimster 1999, 287, 300, fig. 13.1.

²⁶⁷ Radić/Bojčić 2004 Nr. 544a, 546b.



Fig. 81. Family tree of the stove tiles where the Barbara was used (Grad Ružica, HR, after Radić 2004, Münster, D, and private possession after Borken 2001).

semblance to the group of deer by the Workshop of the Deers (a group of mid 15th century moulds, *Hirsche-Gruppe*) and their pictorial source, a playing-card of the Master of the Playing-Cards, this relief has no equivalent.²⁶⁸

Two other figures known only from Grad Ružica elude closer definition because of their degree of fragmentation and because no corresponding terracottas are known: The first is a right hand holding a tower (fig. 115, St. Barbara?, HU), on the other hand there is a broken wheel, the attribute of St. Catherine (fig. 116, HU).²⁶⁹ Only from the Rostock mould hoard are children's faces known that serve as corner decorations (fig. 117, H).²⁷⁰ The flat, broad faces and the buckle curls, based on the common denominator of the stove tile moulds, might

268 For the Deer Group (*Hirsche-Gruppe*) see Grimm 2015, 353, 358, pl.2.XV.

269 Radić/Bojčić 2004 Nr. 566-567.

270 Burrows/Gaimster 1999, 285, fig. 11.2-3.

suggest a dating of the type into the 1420s to 1440s.²⁷¹ However, no parallel figures could yet be identified and it is obvious that there are profound reworkings here, but not by whom and when.

None of the *modelli* can be determined stylistically or by context to be younger than the 1450s. The majority of the types are from the first to second quarter of the 15th century. In tendency those types that also appear in Southwestern Germany and the Hanse Region might have been a little earlier than those, first used in the Hungarian kingdom.

271 In Worms, the hairstyle and the stylistic elements can only be found combined in new concepts of the style groups Children 2 A and 2 B. However, the hairstyle is typical for style group children 1. The design on which the heads on the stove tile moulds are based could therefore be older. Among the other figures used in the stove series, the Christ Child of the younger St. Christopher type (fig. 57) is most closely related, suggesting the same dating frame.

The mould sequences of the stoves with the knight figures in comparison to figures of the Worms Bilderbäckerei

While the holy bishop (fig. 60) is indirectly connected with the Worms *Bilderbäckerei* via the former workshop employee working in Utrecht (fig. 62), St. Catherine is of central importance for it.

In Utrecht the front side mould of the bishop was combined with a variant of the back of the youngest great Worms Madonna.²⁷² A specimen of the first mould generation of this holy bishop has not yet been discovered. The pipe clay figures from Utrecht and Cologne are also derivative versions. Since the Utrecht figure is about as large as the stove tile figures, but was produced in intermediate steps in less strongly shrinking materials, it is about 4-5 mould generations younger than the stove tile figures and about 5-6 generations younger than their model.

Holl already recognized the typological relations between the Catherines from Worms (fig. 32) and Buda (fig. 30) and also that the exemplar known at that time in Worms, although it is about 20% larger than the stove tile figures, cannot be the immediate precursor because of the less sharply pronounced details.²⁷³ As mentioned above the forerunner was from the 1st to 7th mould generation and thus before 1450.

However, stove tile figures of this type from three different mould generations can be found in Budapest alone. The oldest generation of stove tile decorations has modifications on the crown and base (Buda, Grad Ružica), which have only been found in Hungary. These are circular hallmarks on the crown (fig. 31, 119), star hallmarks and a scale pattern on the pedestal (fig. 30, 34, 118). Consequently, she cannot be the mould genealogical forerunner of the two smaller Catherine figures. On the other hand, the 3rd mould generation is directly copied from the 2nd one. In Stralsund the type was discovered on one of the Hanseatic stove tiles.²⁷⁴ For a

272 Grimm 2012, 8-9.

273 Holl 1998, 189, 197-198. Nr. 5; Radić/Bojčić 2004 Nr. 568.

274 Gaimster/Schindler/Schäfer 2001 fig. 1a.



Fig. 82. Corner-tile with St. Gabriel from Vi-segrád (Upper Castle, Visegrad, HU).

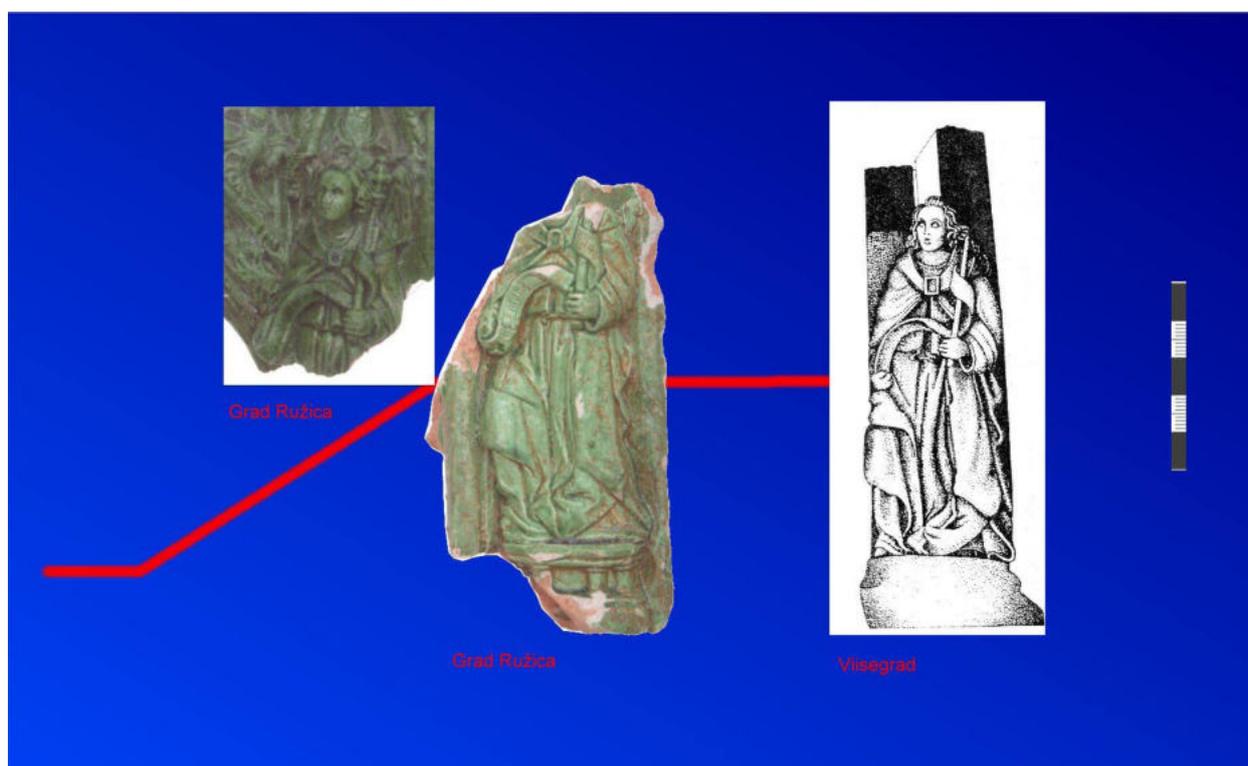


Fig. 83. Family tree of the stove tiles with St. Gabriel (Grad Ružica, HR, after Radić 2004, Višegrad after Kocsis/Sabián 1998).

more precise classification, a look at the materials used is necessary, here:

Holl and Balla noticed the different clay mixtures of the stoves with the knight figures. They were evaluated in such a way that with increasing wear of the mould a change also took place in the ceramic body. This is the case with regard to the coating, e.g. the application of a skin of fine light clay on the body of the block of clay before the printing process (*Behautung*) and the glaze used.²⁷⁵

A closer look at the stove tile fragment with the bishop and the crown of St. Catherine (fig. 60 left, 119, 120) reveals that it differs from Holl's groups in terms of body, coating and glaze, as does the earliest lower part of Catherine (fig. 30 left, 34 left, 118), which probably originated from the same stove tile. The darker colour of the glazed surface here is not due to a yellowish engobe, but to the yellowish colour of the ceramic body, translucent under a wafer-thin coating, sometimes changing to flesh colour.

²⁷⁵ Holl/Balla 1994; Holl 1995, 257-260, 265-281, 289-291; Holl 1998, 160, 186-188, 203. Coating (*Behautung*): Lesny/Heege 2012. Interestingly these authors choose stove tiles with the 5 leaves rose as examples.

The bishop is very sharply imprinted here and above all the mould itself was still sharp. Here we are dealing with the 1st phase of the workshop. Characteristic for the early shards and the ceramic body of the Hungarian stove tiles of this series are light firing inclusions that resemble the coating in colour and consistency. In the relief of the panel of the stove tile no coating is recognizable in some areas. The same body characteristics can also be seen in the fragment of St. George's upper body (fig. 87) and the sharper impression of St. Agnes (fig. 108) belonging to the first generation of stove decorations. The very different thickness of the coating indicates that the light skin was liquid when applied before the printing.

In the group with the light green glazed stove tiles, which Holl regarded as original, the colour effect is created by a white coating on a red body. The corresponding bishop (fig. 60 middle) is deeply printed, but the mould was already less sharp (Phase 2, Holl's first group).²⁷⁶ Among the specimens tested by NAA is a figure of St. Peter, which is the only Buda specimen

²⁷⁶ Holl 1995, 290.



Fig. 84. Relief figures of St. Paul and stove tiles resp. moulds for stove tiles (and casts) with King David (Schnütgen-Museum, Cologne, D after Leeuwenberg 1962, Utrecht Wal ,production site, Centraal Museum Utrecht, NL, after Klinckaert 1997, Visegrád, HU, after Kocsis/Sabián 1998, unknown find spot after Holl 1998).



Fig. 85. Relief figures of St. Peter and stove tiles resp. moulds for stove tiles with the prophet Isiah (Schnütgen-Museum, Cologne, D after Leeuwenberg 1962, Grad Ružica, HR, after Radić 2004).



Fig. 86. Stove tile with St. George (2nd generation, phase 2).

of the 1st generation of stove decorations (fig. 39, 121).²⁷⁷ The treatment of the ceramic body and the body have common characteristics with both phase 1 (very fine coating) and phase 2 (light green appearance and red body).

According to the features of the stove tile with St. Christopher (fig. 53 left and centre), this phase also includes the large Buda state stove.²⁷⁸ The figure of John the Baptist (fig. 51) (reconstructed in the central area) was one of the samples and the mould was reused later.²⁷⁹ Most of the stove tiles from the Buda royal castle and the figures from Grad Ružica originate from this 2nd phase. According to Imre Holl, the tiles from Bohemia belong to the same group. St. Catherine is one of the 2nd and one of the 3rd mould generation (fig. 30, 2nd and 3rd from the left) from Buda, but also one of the 1st mould generation from Grad Ružica (see fig. 33).

In younger specimens, the body is covered by an irregularly thick, yellowish engobe, which also produces a darker, but (depending on the substrate) spotty olive green or blue-

green colour shade (Phase 3, Holl's 2nd group). This is represented by the blurred impression of the bishop (fig. 60 right) and the fragment of Catherine of the 3rd mould generation (fig. 30 right).

The same pattern is also found in the knight figures riding to the left (fig. 122-127): In the specimen of the 1st mould generation from Budapest, Lichnice and Lipnice (fig. 122, 123)²⁸⁰ the pauldron and the rerebrace (upper vambrace, *Oberarmreifen*) are still shifted into compartments and scales. This is similar to the pauldrons of some fighters on fol. 33v and especially in the right one on fol. 18v of the New Haven Gladiatoria manuscript (fig. 157) as well as fol. 37r of MS. germ. quart. 16. In another, slightly younger Gladiatoria manuscript some similar constructions are hidden behind the mantle of the knight.²⁸¹ The best comparison for the scales

280 Cf. Smetanka 1961, 593, fig. 1; Kouba 1964, 189, fig. 7-8.

281 Cf. Hagedorn/Walczak 2015, 271, 281, 327, 331. For dating around 1430/1440: Walczak 2015, 54. https://wiktenauer.com/images/2/23/MS_Germ.Quart.16_37r.jpg. Dated 1435-1440: [https://wiktenauer.com/wiki/Gladiatoria_\(MS_Germ.Quart.16\)](https://wiktenauer.com/wiki/Gladiatoria_(MS_Germ.Quart.16)). Welle 2014, 128 dates the entire Gladiatoria group around 1430-1450.

277 Holl/Balla 1994, 399, 402-403, fig. 12.46, 17.

278 Cf. Holl 1998, 150-153, fig. 17.

279 Holl/Balla 1994, 384, 402, fig. 8.7, 13, 17.



Fig. 87. Stove tile with St. George (1st generation, phase 1).

overlapping the rerebraces are to be found on fol. 1v, where all fighters have flower shaped or other closed shaped pauldrons (MS. Germ. Quart. 16): Here the right fighter has nearly the same scaly pauldrons (fig. 158).²⁸² So it is a feature of armour from the period of fast changes in development during the second quarter of the 15th century. This characteristic also appears in a fragment from Csáktornya (Croatia, residence of the Cilli family).²⁸³

With the 2nd mould generation (fig. 122, 124) the pauldron, now largely corresponds to that of St. Quirinus of the Ghent altar (cf. fig. 101) and received a rerebrace, a system which is dated, according to its first precursors in the second half of the 14th century.²⁸⁴ This largely established itself in Central Europe during the second third of the 15th century – here in its simplest form (see fig. 95). The lower compartments, which were already somewhat blurred in the impression of the 1st generation, are not re-

worked and therefore hardly recognizable. Even the sharpest impression in the 3rd mould generation (fig. 125) corresponds to that of phase 2 with respect to ceramic body and glaze. In the case of a somewhat blurred impression from the mould worn down in parts, the glaze colour is also still identical to that of phase 2, but the light engobe is applied irregularly, which produces a spotty impression (fig. 126). The later, completely blurred impression of the 3rd mould generation is spotty olive-green to blue-green (fig. 127). The engobe is irregularly applied and missing in places (phase 3).

The tournament knights riding to the right show a comparable picture (fig. 128-131): the impression from phase 1 (fig. 128-129) is sharper than the one from phase 2 (fig. 128, 130). Here, also the scaly pauldrons and scales of the upper vambrace had been replaced by a more modern shifted solution. The latter is probably a late piece within the phase itself. The impression of the right hand is not executed neatly, so that the wear of the mould is rather recognizable at the rivets of the gorgets. The free copy from phase 3,²⁸⁵ on the other hand, has been completely overhauled in a more modern style with a set of armour typical for the 1470s and 1480s (fig. 131; see below and fig. 102.12-13, 174). Nearly every detail has been reworked. This impression is mould genealogically younger, but – naturally – sharp again.

In summary there are not only two, but three to four technological groups of stove tiles that largely follow the original concept. The group 1 is rare (phase 1).

The printing technique (coating) of group 1 was applied on the clay composition of group 2 (phase 1-2). The majority of the Buda specimens belong to phase 2. The difference between the original coated and the younger engobed stove tiles in phase 3 is fundamental.

There are also some stove tiles that were not printed until the 1480s, using majolica and copied moulds, or by mirroring and reworking the outline of original stove tiles as well as new Swiss (or Southwestern German) material (fig.

282 https://wiktenauer.com/images/f/fb/MS_Germ.Quart.16_01v.jpg.

283 Cf. Holl 1998, 169, fig. 38.1b.

284 Cf. Willemsen 2015, fig. 122.

285 For the dating see Holl 1998, 163, fig. 32 left: 1450-1500.

132, phase 4).²⁸⁶ Their frame and stove tile motifs find their counterparts on the Visegrád stove (fig. 133), where impressions of stove tiles from the series with knight figures were combined with new motifs, including a series of coats of arms of King Matthias.²⁸⁷ However, the moulds that had been still sharp when the Buda stove tile fragments were formed were completely worn out in the Visegrád lion stove tile. Here two different sets of mould genealogies had been combined and enriched with new designs by the workshop responsible for the royal palaces.²⁸⁸

Holl had already established that St. Christopher (fig. 53-56, 138) and St. Anthony Eremita (fig. 45-50) certainly belonged to the original series of stoves with knight figures, since their heads served as components of stove tile moulds (fig. 26) in addition to the figures applied individually to the pedestals.²⁸⁹

Not only on these two figures, but also on the holy bishop (fig. 60, 134-135), St. Hadrian (lion's mane, fig. 92, 94), John the Baptist (fig. 51, 137), the apostle Peter (small figure, fig. 35) and the apostle Jacobus major (St. James, fig. 40) fluent fine engravings mainly on the hair (executed with a needle) can be recognized, showing a common style. The traces of



Fig. 88. Stove tiles with St. George from Ladenburg (D, BW, 1st generation, photograph Uwe Gross.).

revision on the better-preserved figures of St. Michael (fig. 74, 77) and St. Agnes (type Buda, fig. 107, 109) as well as on the Archangel Gabriel (fig. 82, 83) are less obvious, but the specimens from Grad Ružica allow a definite attribution to the same master, especially because of the completely restructured coiffures.

The large angel from Grad Ružica (fig. 80) was also reworked by this master in contrast to its model, the head of the Barbara relief (see Fig. 78, 79). Since these revisions are also continued seamlessly in the garment, the entire conception of this angel figure probably goes back to this style-defining artist. The second St. Catherine (formerly referred to as Judith; fig. 104-106, 136), the St. George (fig. 86, 91) and the two depictions of prophets (fig. 84, 85) also show a similarly linear style.

Since the St. George has an early mould genealogical specimen in the first clay mixture (fig. 87), his affiliation to the original series is also assured. The same applies to the largest Buda mould generation of the St. Catherine of Worms type (fig. 118).

If one takes a closer look at the figures for the stove tiles in comparison to the pipe clay figures, it is noticeable that numerous stove tile decorations were reworked in a shared linear style (figs. 134-138). Here, folds and especially the hair were drawn in an elegant virtuoso manner. In the earliest fig-

²⁸⁶ Holl 1998, 186; Kocsis/Sabián 1998, 33; This could have been introduced by a new workshop from Switzerland in 1469-1473 and developed further in the 1480s: Holl 2002.

²⁸⁷ Kocsis/Sabián 1998, 33-34, fig. 124-125, 140-142, 144; Holl 1998, 153, fig. 19.

²⁸⁸ Holl 2002, 389.

²⁸⁹ Holl 1995, 289. Cf. Kiss/Spekner/Végh 2018, 70.



Fig. 89. St. George from 's-Hertogenbosch (NL, production site can't be excluded, Afdeling Erfgoed, 's-Hertogenbosch).

Fig. 90. St. George from Trier (terracotta with white slip, Rheinisches Landmuseum Trier, D).



ures the reworking is very clear (fig. 134), in phase 2 some details are already blurred (fig. 135). One finds sharp impressions with clear reworking in this style only in figures of phase 1, phase 1-2 and early impressions of phase 2. The strands, sometimes elegantly rolled at the ends, consist mainly of a bundle of lines that swells and wanes occasionally, with the central strand always dominating. This is an early form

of the swelling and diminishing strands of hair that arose in Southwest German art before the mid 15th century and which is no longer detectable in new conceptions from about 1450, while swelling and diminishing strands themselves remain fashionable until the 16th century.²⁹⁰

²⁹⁰ Grimm 2016, 205-206; see also Grimm 2011, 94-96.



Fig. 91. Family tree of the stove tiles with St. George (Amsterdam, NL, after Gawronski / Kranendonk 2018; Nyríator, HU, after Holl 1998; Grad Ružica, HR, after Radić 2004, Ladenburg, D, BW, by Uwe Gross).

The same style also characterizes the early horse manes of the tournament scenes (fig. 1, 139, 140). The preserved examples of the first mould generation all belong to ceramic phase 2 (fig. 139),²⁹¹ which makes it likely that the 2nd mould generation is later than 1459. The type as such is confirmed for the first ceramic phase (see fig. 139).

On the other hand, in the late horse manes (fig. 141), similar to the hair of the late angels (fig. 142), a much narrower hair design is discernible, in which the strands swell and subside en bloc. The plant ornaments of the original stove tiles are similar (fig. 143-145). Here, too, it can be seen that the gryphon tile belonging to phase 2, from NAA sample 23 (fig. 144),²⁹² is mould genealogically younger than another

fragment (fig. 145), which can be attributed neither to phase 1 nor to phase 2. This style is typical of the leading workshops in Western Upper Germany in the mid-15th century, with which the workshop also has many motif overlaps in common.²⁹³

As to the younger stove tiles, the original reworking is subject to the same wear and tear as the original figures. So one of the leading masters was active in Hungary, but his trace is lost at the beginning of phase 2 at the latest. The reworkings of individual motifs in phase 3 bear a completely different handwriting and have no stylistic equivalent in Upper Germany.

The two younger mould generations of St. Catherine from Buda (fig. 30 centre and right) show just as little of the reworking typical of the original stove tile series as St. Paul and the

291 See also Radić 2004, 255, no. 536: 1454-1457.

292 Holl/Balla 1994, 392, 397, 400, 402-403 fig. 10.23, 14, 17.

293 Cf. for example Schnyder 2011 Bd. 2, 295-345. Holl 1998, 165-171, fig. 39, 41; Tamási 1995.



Fig. 92. *St. Hadrian (1st generation, phase 1).*

Barbara relief from Rostock (fig. 78, 84 right). From this it can be concluded that inside the stove tile workshop, in addition to the moulds reworked by the formative master, there were also such or intermediate positives without reworking from which further figures could be moulded if required.

In terms of mould genealogy, the largest *St. Catherine* in Buda can be classified early. It is even almost as large as the youngest example from Worms (fig. 34). According to the style and the impressions, the type can best be dated around 1420.²⁹⁴ Since the sub-type with overlapping sleeve is only valid up to the 7th mould generation in Worms a specimen of the 9th mould generation (no. 585) the prototype for the stove tile *St. Catherine* must have been produced between 1420 and 1450.²⁹⁵

This type of *St. Catherine* was subsequently used as the basis for further depictions of



Fig. 93. *St. Hadrian from Tolsende, Zeeland NL (after Dorpel 2013).*

saints in the Worms workshop. For example, it was transformed into the *Madonna* type M 4, whose successor itself still stands in the style group *Children 2 / Women 2 A*.²⁹⁶ Since a very late version of the *Children 2 C* style group can

²⁹⁴ This dating results also from early variants of a *Madonna* derived from this type: Grimm 2016, 151-160, 258-259.

²⁹⁵ See above. Cf. for the related impression of a *Madonna* M 3 of the third branch on a 9th generation specimen. Grimm 2016, 152, 217-222.

²⁹⁶ Grimm 2016, 29-30, 33.

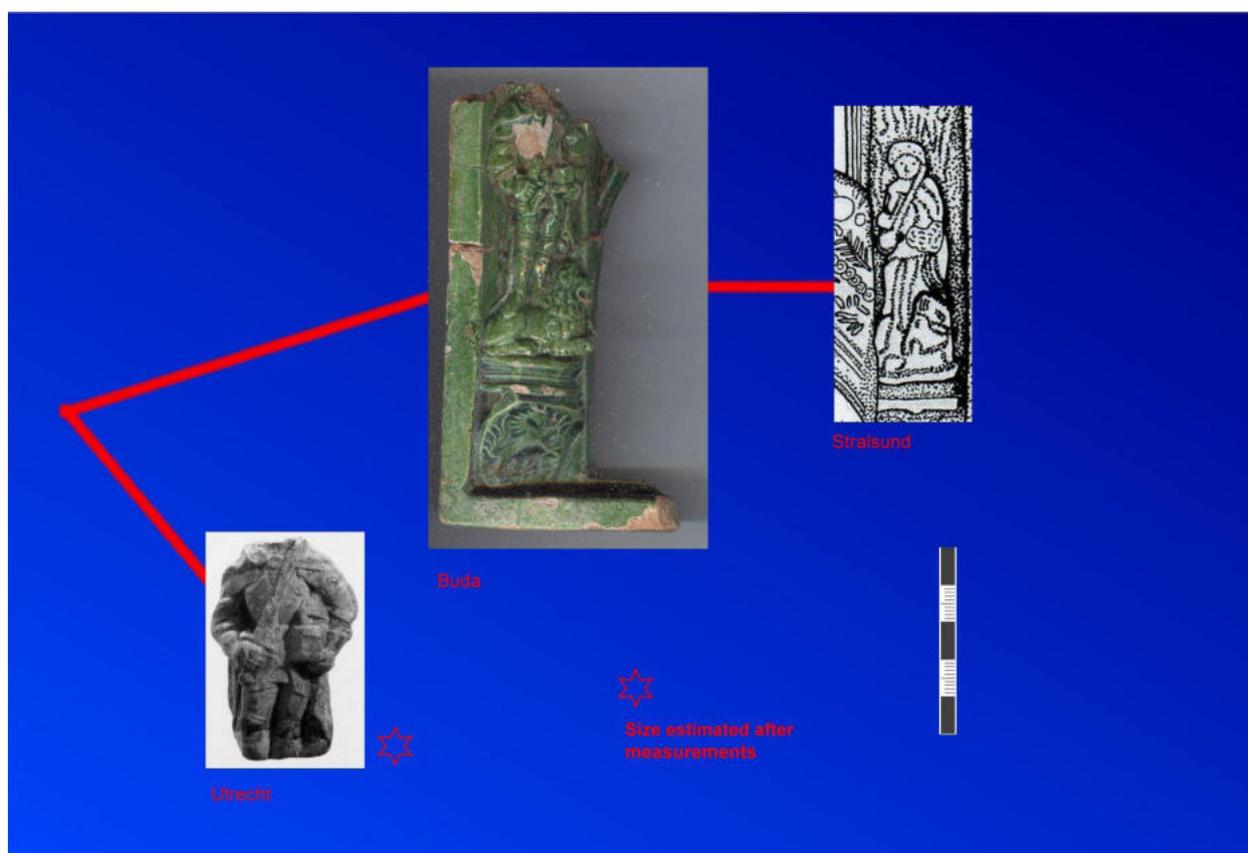


Fig. 94. Family tree of the stove tiles with St. Hadrian (Utrecht, NL, production site, after Klinckaert 1997, Stralsund, D, after a drawing supplied by Heiko Schäfer, original publication: Schäfer/Schindler/Gaimster 2001).

be dated before 1449, this development must be correspondingly older. In addition, the Madonna type M 4 was further developed into Madonna on a crescent moon type M 5 (fig. 5 left and later copies on the right). An already noticeably degenerated Cologne variant of this type was disposed of between 1449 and 1460. However, a second Cologne variant can be attributed to the same master whose child Jesus was disposed of in 1449. He must have left the Worms Workshop before that and have settled in Cologne. Accordingly, the type itself is also older.²⁹⁷ This also confirms a dating between 1420 and 1450.

The “Regensburg Stoves”

In 1980 Imre Holl presented several stove tiles with a yellowish-white body and green glaze from the Royal Castle (fig. 149) and three typologically matching stove tiles from Nyírbá-

tor (fig. 150).²⁹⁸ Because of the crossed keys on one of the coats of arms represented there and the fusils and lions on others on the one hand, and on the other hand because of a formally similar stove tile mould from the Bavarian bishop’s city (fig. 151), he could prove a connection to Regensburg, more precisely to one of the two Wittelsbach family members who represented the office of bishop in the second half of the 15th century.²⁹⁹ The other coats of arms represent Bavaria, Styria and Carinthia.³⁰⁰ The last two of them could point to Ladislaus Postumus and Frederic III as the Habsburg territory and to Matthias Corvinus, who invaded both counties. In the latter case this iconography would point to a date after 1482 and there is no proof for his

²⁹⁷ Grimm 2016, 46-48.

²⁹⁸ Holl 1980; Kiss/Spekner/Végh 2018, 291-293, no. 4.22 (Dorottya B. Nyékhelyi).

²⁹⁹ Holl 1980, fig. 3, 8-11, 17, 21.

³⁰⁰ Holl 1980, 31-34, 42; Kiss/Spekner/Végh 2018, 291-292, no. 4.22 (Dorottya B. Nyékhelyi).



Fig. 95. Missaglia-workshop, harness of Frederick the Victorious (1449-1451, Vienna Rüstkammer, after Pfaffenbichler 2013).



Fig. 96. Missaglia-workshop, harness attributed to Berchthold von Zähringen (after Wegeli 1920).

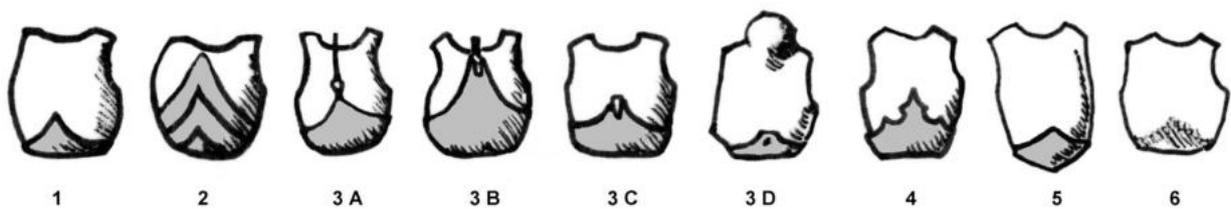


Fig. 97. Types of Gothic plackards (after Grimm 2016).

use of that coat of arms.³⁰¹ While in regular Habsburg iconography this would only be possible in 1457-1458, since the Buda castle was in the hands of Matthias.

In the mean time the connection to Regensburg diocese could be confirmed with the help of another stove tile find (fig. 152) of the same

general layout from the old town hall in Regensburg displaying the city's coat of arms.³⁰²

Specifically, the coats of arms either refer to the diocesan administrator Duke Rupprecht of the Palatinate (*Rupprecht von der Pfalz*), who from 1452 onwards was cathedral provost in Regensburg, from 1457 until 1465 bishop of

301 Cf. his funerary shield and his seals: Farbaky et al. 2008, 16, 241-245, no. 4.17-4.24.

302 Angerer 1995, 121, no. 14.50.5 (2nd half 15th century).



Fig. 98. Gothic plackard from Hulst, Zeeland (NL, to be connected to the siege of 1452, depot Middelburg).

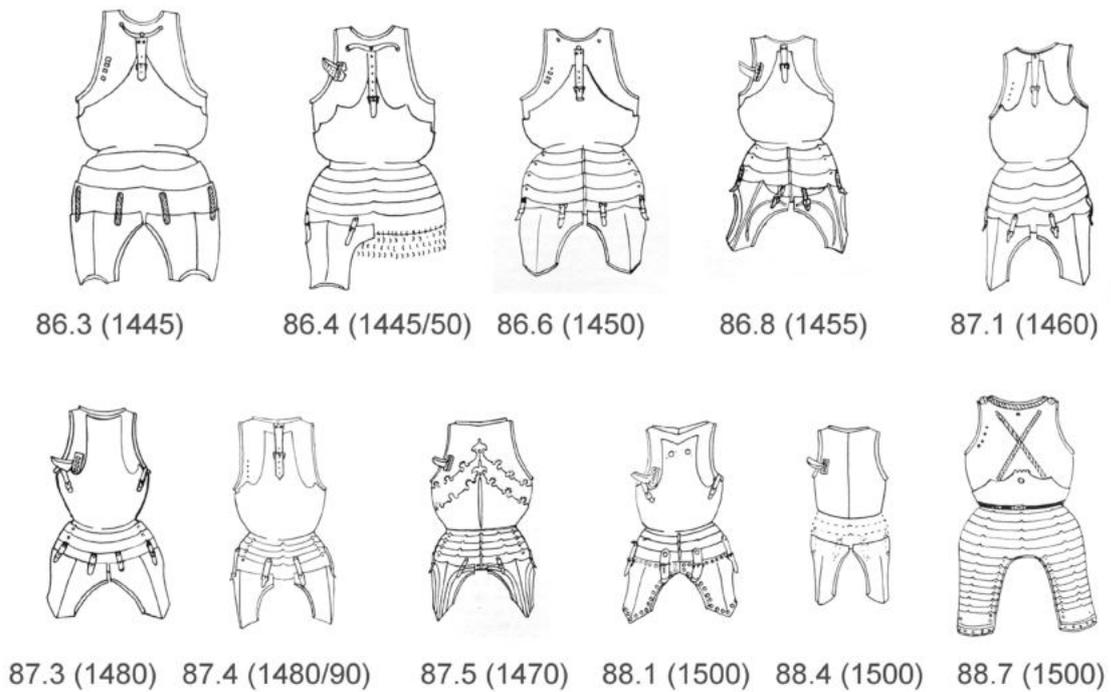


Fig. 99. Harnesses (breast plate, plackard, faults and tassets, after Gamber 1955 with his figure numbers and datings).



Fig. 100. Master π with the d , sallet (Churburg, monogram better read as "Ad", Ch, after Scallini 1996).

Regensburg (fig. 153).³⁰³ The other contestant is bishop Rupert (also Rupprecht II.) of Palatinate-Simmern (fig. 154; *1461, 1492-1507 bishop of Regensburg).³⁰⁴ Holl opted for all Hungarian stove tile sequences for the latter as a point of reference, among other things because two tile corner figures from Nyírbátor had been cast from already worn moulds and dated the series around 1488-1493.³⁰⁵ Recently Nyékhelyi dated them in 1470-1480.³⁰⁶

However, if one takes a closer look at the stove tiles in question, everything speaks in favor of the older Rupprecht:

Imre Holl had already pointed out the bishop's support for Ladislaus during the election, but due to Rupprecht's absence until 1461, he had excluded a gift from Regensburg and instead had put emphasis on the good relationship of the family to Matthias.³⁰⁷ But a shipment of stove tiles or moulds from Regensburg does

303 Schmid 2005.

304 Holl 1980, fig. 18-20, compare Mader 1933, 116-119, fig. 61-62.

305 Holl 1980; Holl 1998, 202, 207, fig. 57.1-2.

306 Kiss/Spekner/Végh 2018, 291-293, no. 4.22 (Dorottya B. Nyékhelyi).

307 Holl 1980, 43.

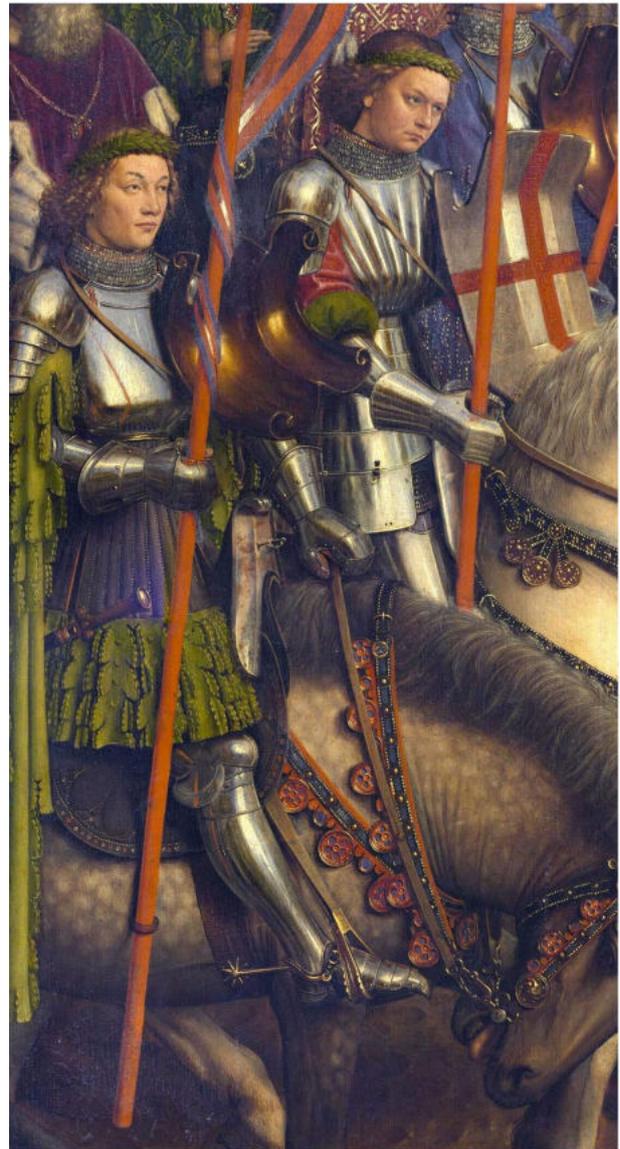


Fig. 101. Jan van Eyck (possibly in collaboration with Hubert van Eyck), *Gent Altarpiece, Detail St. George and St. Quirinus of Neuß and gauntlet of St. George (finished 1432-1435, St. Bavo Ghent, after <http://closertovaneyck.kikirpa.be>)*.

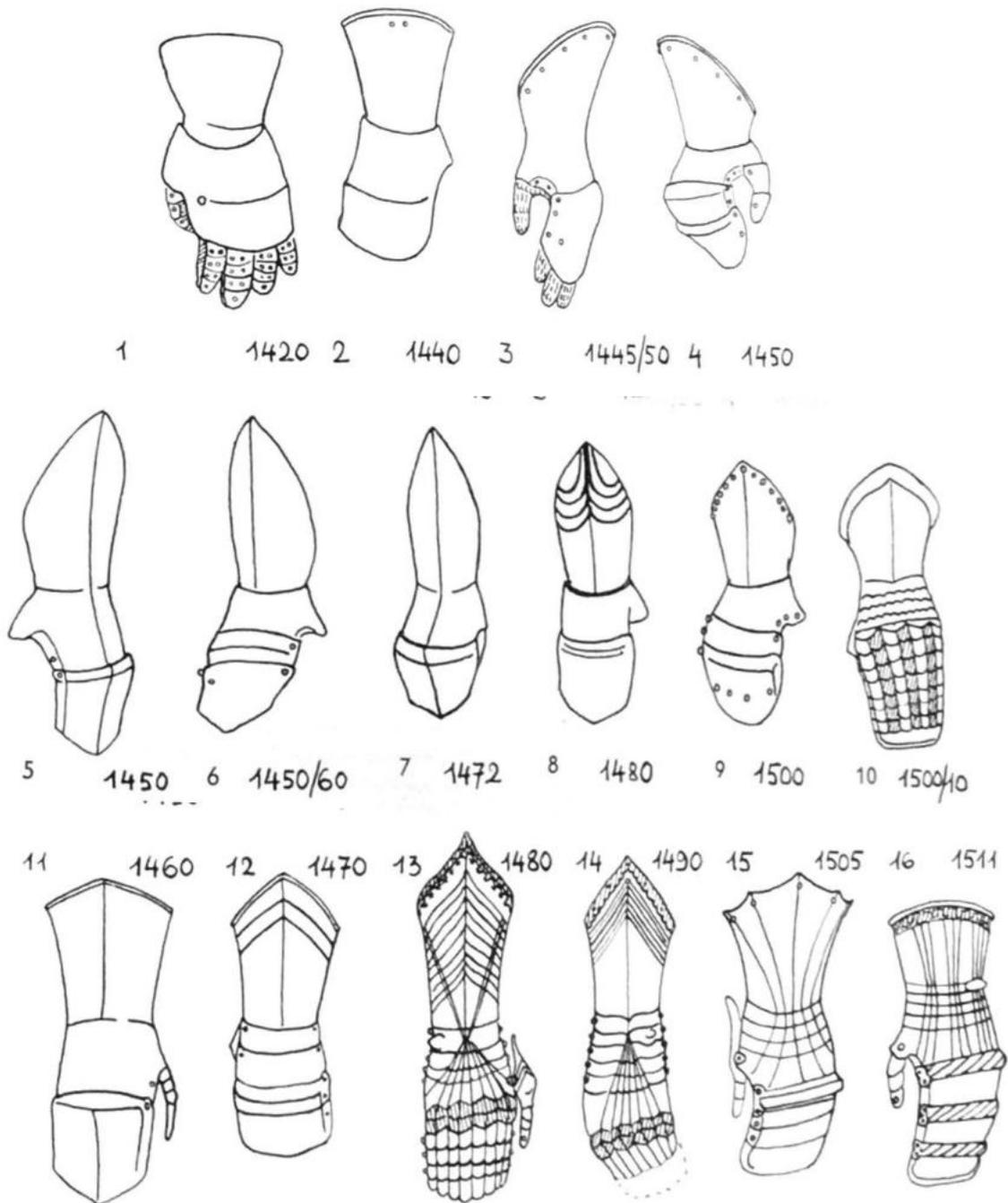


Fig. 102. Gauntlets (after Gamber 1955 with his figure numbers and datings).

not require the presence of the administrator and later bishop. The combination of the coat of arms does not even preclude a dating before the official confirmation of the appointment as bishop at the beginning of September 1457.

Concerning king Matthias the Carinthian coat of arms in Nyribator (fig. 150 centre), which at the earliest may date from the various plunder-

ings from 1482 onwards, if anyone tries to relate it to this king, would also be problematic in this respect. And Carinthia was not even claimed by Matthias Corvinus afterwards,³⁰⁸ while any Habsburg noble would have been happy to claim it. So this coat of arms can only be connected to Ladislaus Postumus (1453-1457) or Frederick

308 Cf. Farbaky et al. 2008, 222-245.

III when he was an aspirant to the Hungarian throne in 1459-1460.

On the one hand the symmetrical shield form of the coat of arms (escutcheon in traditional Iberian form) is documented for Rupprecht von der Pfalz, but not for Rupprecht II, who on the other hand already used the “German” or “Dutch” style escutcheon (*Tartsche*, fig. 154) in a keystone with his coat of arms stone donated in 1494 to the cathedral cloister of Worms (fig. 155; Museum im Andreasstift der Stadt Worms). An overview of the other gravestones in Regensburg also proves that the traditional Iberian form went out of fashion during the 3rd quarter of the 15th century. Instead, curved forms prevailed, while the simple forms almost disappeared in the course of the 4th quarter of the 15th century and completely disappeared by 1490. The abbots Ulrich Pettendorfer (+ 1423) and Wolfhard (+ 1454) use the medieval form, which ends with a pointed arch.³⁰⁹ Petrus de Remago (+ 1400), Nikolaus Weichser (+ 1409), Stephan Notangst (+ 1426) as well as Anna (+1433) and Drothea (+ 1436) Schneck used the traditional Iberian form like on the stove tile.³¹⁰ On the tombstones of canon Paulus Meck (+ 1477) and Siegmund Graner (+ 1483) the corners of the escutcheons are already slightly undulated.³¹¹ Abbess Barbara von Absberg (+ 1456) combines an escutcheon with slightly curved corners with a “German” or “Dutch” style escutcheon.³¹²

Abbot Hartung Pfersfelder (+ 1458) already uses the (left-handed) “German” or “Dutch” style escutcheon,³¹³ as does the predecessor of Rupprecht II, Heinrich von Asperg (+ 1492) with all four coats of arms on his tomb.³¹⁴ The “German” or “Dutch” style escutcheon also prevails also in the epitaph of the dean of the cathedral Nikolaus von Künsberg (+ 1473), a votive relief of the canon Geginger (1479), the epitaph of the abbess Kunigunde von Egmolfstein



Fig. 103. *Missaglia-workshop, gauntlet (Metropolitan Museum, New York, after Nickel/Pyrrh/Tarassuk 1982).*

(+ 1479), Johann von der Leiter (+ 1493) and the epitaph Pollinger (1496) and the tombstone of the canon Georg von Preysing (+ 1497).³¹⁵ The gravestones of the 16th century also no longer have high or late medieval forms.³¹⁶

The seals of citizens also confirm the conclusion that symmetrical escutcheons were already among the absolute exceptions in the 4th quarter of the 15th century.³¹⁷ While the civic coats

309 Cf. Mader 1933, 256, 261-262, 269, fig. 169-170.

310 Cf. Mader 1933, fig. 63, 101, 103, 105.

311 Cf. Mader 1933, fig. 102, 106.

312 Cf. Mader 1933, 268, 275, fig. 209.

313 Cf. Mader 1933, 253, 262, fig. 171.

314 Cf. Mader 1933, 116, Plate XIV.

315 Cf. Mader 1933, 34, 37, 114, 117, 172, 180-181, 183-184, 188, 269, 274 fig. 26, 60, 108-110, 210.

316 Cf. Mader 1933, fig. 25, 39, 63-65, 107, 211, 213, plate X.

317 Cf. Urbanek 2003, 308: 2nd *Petschaft* of Herrman Zeller (1483), while his seal from 1462-1485 ab his 1st *petschaft* (1474) display a targe. Normally the development is the same as with the episcopal epitaphs: for



Fig. 104. Stove tile with St. Catherine (formerly identified as Judith).



Fig. 105. Stove tile with St. Catherine (formerly identified as Judith, 1st generation, phase 1).

of arms, on the other hand, indicate that the trefoil was becoming increasingly popular as a framing form for the coat of arms towards the end of the 15th century (compared to the quatrefoil that could only be traced back to 1330 and 1417) while it remained in use as a framing form of gravestones until the early 16th century.³¹⁸ Since Rudolf II's tomb (fig. 154) is the most recent example, the question arises whether he consciously followed the example

example those of Hans Almpeck from 1457 to the one of Jacob Almpeck from 1484, *ibid.*, 56-57. The shield (*Tartschen*) form "German" or "Dutch" style is detectable from 1432 onwards: *ibid.*, 60 (Hans Aman). Even the design of the coat of arms in the trefoil, which had been in use since 1358 and was very popular until the 1450s, does not interfere with the lay-out of the *Tartsche*: Michel Pfläntzl (Pflentz, 1483) *ibid.*, 38, 78-79.

318 In total 37 references to seals from 1358-1483, and with the exception of the Schneck gravestone from 1433/1436, in which a quatrefoil is framed by two trefoil coats of arms: Urbanek 2003, 38, 78-79, 308; cf. Mader 1933, 175, fig. 103.

of his distant relative not only with regard to the similar overall layout of the tombs, but also with regard to the design of his coats of arms.

Even if occasionally coats of arms of this form appear elsewhere and in other media, the absence of a *inescutcheon* (*Herzschild*) on the stove tiles speaks against the younger Rupprecht, on whose coat of arms it always appears. In this respect his successor Johann III. von der Pfalz (from 1492 coadjutor, 1507-1538 diocese administrator) could be considered; but neither the style nor the mould genealogy nor any historical clues are known that could point to him.

The description of the technique and the ceramic body (without engobe) corresponds to that of the oldest stove tiles in Buda (phase 1).³¹⁹ This is confirmed by the mould genealogical position of the two stove tile decorations from Nyribator. St. George is mould parallel to the fragments from Ladenburg and to the largest figure from Buda. The apostle St. Peter is

319 Holl 1980, 42.



Fig. 106. Stove tiles with St. Catherine (formerly identified as Judith, left and center 1st generation, left phase 1, center phase 2, Grad Ružica, HR, after Radić 2004, right 2nd generation, after Holl 1998).

mould parallel to the one from Ladenburg and the largest from Buda. These are therefore very old specimens within the stove tile series, which were created about the middle of the century.

These are all clear indications that the series refers to the Regensburg bishop Rupprecht von der Pfalz, who died in 1465. They were possibly intended as a gift for the king's support in his election in 1457. Since younger stove tiles from phase 2 had already been deposited in Buda by the end of Rupprecht's reign and some even display a heraldic program of Frederick III as Hungarian king a date before the end of 1460 is secured.

The special role of the Bohemian Stoves

A chronological question often ignored despite Imre Holl's reference is that a Hungarian coat-of-arms iconography clearly perceptible in both Bohemian towns is conceivable only very late after the death of Ladislaus Postumus or during his reign. In contrast to Burian Trčka, the owner of Lipnice Castle, a supporter of Ladislaus V.,³²⁰ who is a good candidate for having made the commission, Matthias Corvinus was actual at war with the Bohemia until the Peace of Olomouc in 1479.³²¹ This means that such an iconography would only have been feasible afterwards. Because of the loyalty of the Trčkas to their king and their initial hostility towards Matthias during his rule over Bohemia

³²⁰ Holl 1998, 178, 180.

³²¹ Kalous 2008, 65-66.



Fig. 107. Stove tile with St. Agnes, partly restored, 2nd generation.

and Hungary this iconography points to a dating just from 1489³²² or 1490.

However, the repertoire, the mould genealogy, the sharpness of the Bohemian impressions as well as the clay sorts used speak against such a late date. According to Imre Holl, the stove tiles from Lipnice and Lichnice were made with a bright green glaze, which now points to phase 2. However, in addition to some stove tiles from Lichnice with an alternately thick layer of light clays, as they would indicate phases 1 or 3.³²³ Some stove tiles show a light ceramic body, which rather indicates phase 1.³²⁴ The impressions are in any case sharper than those of phase 3 in Buda. So the stoves date from an early phase, although some of the tiles may have been replaced later. Since early pieces of phase

4 (fig. 132 below) are already to be expected around 1480, a development of the two Bohemian stoves around 1489/90 or thereafter may be excluded.

In contrast, an iconography related to Ladislaus Postumus was politically unsuspecting even under his successor as Bohemian King, George of Podiebrad (reign 1458-1471). King George would have made himself suspicious if he had proceeded against former followers of his ward. So also in this case the ceramic phases, mould genealogy and heraldry point to Ladislaus Postumus as a date of the order of both stoves.

Evaluation: The stove tile decorations

The figures extend the iconography of the stoves based on the tournament scenes and angels with coats of arms and heraldic animals³²⁵

322 Lichnice was owned by the opponents of Matthias until 1489; Holl 1998, 212.

323 Cf. Smetánka 1961, fig. 3.1, 3.6-7.

324 Cf. Smetánka 1961, fig. 3.4-5; Kouba 1964, fig. 8.

325 On the iconography of griffins and lions in an international context: Schnyder 2011 vol. 1, 66-73.

in a decidedly religious way. If one considers the early subjects, i. e. those reworked by the influential master, as well as those known from the two Bohemian castles and from Grad Ružica, one sees a selection of the most important prophets, apostles and saints, as well as Jesus Christ, as the underlying program.

What is striking is the absence of the Blessed Mother during this period. The Annunciation Angel could indicate that there was also a counterpart, but not even in Rostock or one of the other traditions does such a Mary occur. The Madonna was the most popular subject of pipe clay figure after the Child Jesus.³²⁶ In fact, however, Mary could have been a genuine part of the picture program already in the allegorical form of the rose stove tiles and because of the inscriptions on the southwest German stove tiles; in addition to Jesus as an actual figure he also appears in an allegorical context in those stove tiles depicting the pelican (Types 13 and 16-18 according to Holl and the ten leaf rose from the Rostock mould group and Grad Ružica).³²⁷

The small figures of saints, which apparently go back to older models, are predominantly of widespread types from the Low Countries and the Rhineland. Most of their greatly revised successors can often be traced back to the late 15th century; however, those that were according to their style, had been conceived around the mid 15th century are either rarely or not at all documented elsewhere.

It is possible that some of the older types originated from figures already existing in Hungary at the time of the first conception of the stove scheme (see fig. 55). While it seems likely that the younger types and subjects, which were also seldom seen elsewhere, were purchased especially to decorate the royal stoves at this time. As far as the prophets are concerned, they seem to have been redesigned especially for this occasion. At least St. George, St. Peter, St. James and St. Anthony had already been used before in Ladenburg and in the case of the pilgrim saint also in the crown tile from Speyer.

³²⁶ Grimm in preparation.

³²⁷ Cf. Schnyder 2011 Bd. 1, 68; Holl 1998, 141-142, 153-154; Radić/Bojčić 2004 Nr. 512-522; Burrows/Gaimster 1999, 290, fig. 7.3, 14.4.



Fig. 108. Stove tile with St. Agnes, 1st generation, phase 1.

The use of St. George proves that even some of the younger figures were already present in the repertoire of the basic workshop before the master's departure for Hungary.

In a manner similar to the dating of coin hoards, the unequal distribution of the age states



Buda



Buda



★
Grad Ružica



Lipnice



★ Size estimated
after description



Fig. 109. Stove tiles with St. Agnes (left and right 2nd generation, center 1st generation, above phase 2, below phase 1; Grad Ružica, HR, after Radić 2004, Lipnice after Kouba 1964).



Fig. 110. Stove tile mould fragment with St. Barbara from Rostock (D, H, right mirrored).



Fig. 111. St. Barbara from Neuss (D), deposited during the siege by Charles the Bold and his troops in 1474/75 (Clemens Sels Museum Neuss, photo M. Langenberg).



Fig. 112. St. Barbara figures (Cologne Museum Schnütgen after Witte 1912; Lichnice after Smetanka 1961; Lipnice after Kouba 1964; Balen after Koldewey 2006; Verdronken Dorp (Zeeland) after <http://people.zeelandnet.nl/mida/nietmetaal.htm>, Zeeland (without further find spot) after Dorpel 2013 and London (without measurements) after Crichton-Turley 2018.

estimated on the basis of the style could lead to an accumulation of especially the most recent pieces, but the overall rather rare subjects (St. George, St. Hadrian and St. Agnes) outweigh the presumably at the popular ones like St. Barbara – only indirectly proven to be early in the

repertoire due to her appearance in the Hanse Region and in early in Hungary – and St. Catherine. Doubles could just indicate that St. Agnes, for example, was taken instead of the already moulded relief figure and that the rejected alternative was only used later in Tata.



Fig. 113. Mould for stove tile with Jesus from the Rostock mould hoard (D, H, after Burrows/Gaimster 1999) and stove tile with Jesus from Lichnice (after Smetanka 1961).



Fig. 114. Stove tile with deer (Grad Ružica, HR, after Radić 2004).

Comparison of copies

Numerous figures of St. Anthony Eremita are known from the palace in Budapest. This type is also found in the Episcopal Palace in Ladenburg and the hoard of moulds in Rostock. It is also known from two German production sites and from two find spots in the Netherlands. This makes it ideal for a comparison of copies. A first overview of pipe clay figures with this subject was already given by Thier.³²⁸ In the meantime it could be extended with further copies,³²⁹ however without considering two stove tiles from Stralsund and a mould from Rostock.³³⁰ In the meantime a second figure from the Netherlands has been published.³³¹ The new finds from Ladenburg and a specimen from Cologne since published extend the horizon of the development of this type and now also allow individual features of the original to be captured. (fig. 50, 156).

³²⁸ Thier 1991.

³²⁹ Grimm 2011, 79.

³³⁰ Burrows/Gaimster 1999, 265-266; Gaimster 2001a, 173; Ansorge/Schäfer 2009, 145-147.

³³¹ Preising/Rief 2012, 345-346 (Micha Leeflang/Sebastiaan Ostkamp); Ostkamp 2011, 85.

The example of Antonius Eremita shows that of all the preserved specimens of the type and its variants, the larger Ladenburg stove tile figure is the largest. However, this only proves that its direct model is older than every over known figure of the type in terms of mould genealogy. From the size the stove tile figure or its *modello* would theoretically come into question as common ancestor. For practical reasons and because some pleats are crushed there – which is due to an improper moulding process, this is to be rejected. However, the Ladenburg and the late Dutch figure have the beard strand 10 in common, which is missing in all of the Cologne figures (fig. 156 no. 10).

On the two smaller Ladenburg figures of the type, the folds above the right ankle and on the right sleeve of the saint were reworked. The angulation of the pig's left leg appears more accentuated. From this figure again are those from the two stove tiles from the Stralsund Johanniskloster with Hamburg or Oldenburg (?) coats of arms derived,³³² which are related by the decor. But they both differ from each other (with or without individually printed panel) and from

³³² Compare Ansorge/Schäfer 2009, 145-147.



Fig. 116. Stove tile with fragment of St. Catherine (Grad Ružica, HR, after Radić 2004).

Fig. 115. Stove tile with fragment of St. Barbara (Grad Ružica, HR, after Radić 2004).

their intermediate positive. Also the mould for a stove tile panel from Rostock, which is similar in form to the one from Stralsund may also be included here, whose positive for the Antonius figure is mould parallel to the stove tile decorations from Stralsund.

The next largest figurine is the one from Aachen, which derives from a potter's workshop, which also produced figurines besides. The potter is out of the question as an inventor of fine figurines due to his small sculptural talent.³³³ The pleats at the level of the right ankle are largely identical to those of the Ladenburg and Wassenaar examples, each with a slight variation. Here the lines are drawn in different ways, while the reworking of the other figures increasingly differs from this concept. The fold above the right knee is exactly in the middle of

the copy comparison. The leg position of the pig seems to be the original one, too.

A closer look at the figures and, following the copy-critical method, for example, a comparison of the beard strands of the saint, reveals clear differences between it and the figures found in Cologne and those which according to their ceramic body had been manufactured there. In these figures, the strands under the mouth and above all on the left are not only of a different design, but the original design can also be seen under the strands of the Ladenburg, Buda and Rostock figures and moulds. The same strand formation is also found in the much smaller heads from Buda, which, in contrast to the corner figures, were placed directly in the tile mould. The linear curved style of the reworking of these stove tile figures is identical to that of the Buda specimens, which points to the same master. Thus it is certain that the original *modello*, like the Dutch and Cologne figures, had a less curved beard.

According to the inventory entry, the figure of St. Antonius in Halle (fig. 49, 156 lower right) derives from Cologne. Typologically, it is the missing link between the original, possibly Netherlandish design,³³⁴ and a more re-

333 Giertz/Mommsen 2011, 178, 180-181, fig. 98; Grimm 2011a, 78-87.

334 Cf. the figures already belonging to a younger mould generation, in the Cologne Schnütgen-Museum: Neu-Kock 1990, Thier 1991, 26 Nr. 6; from Wassenaar

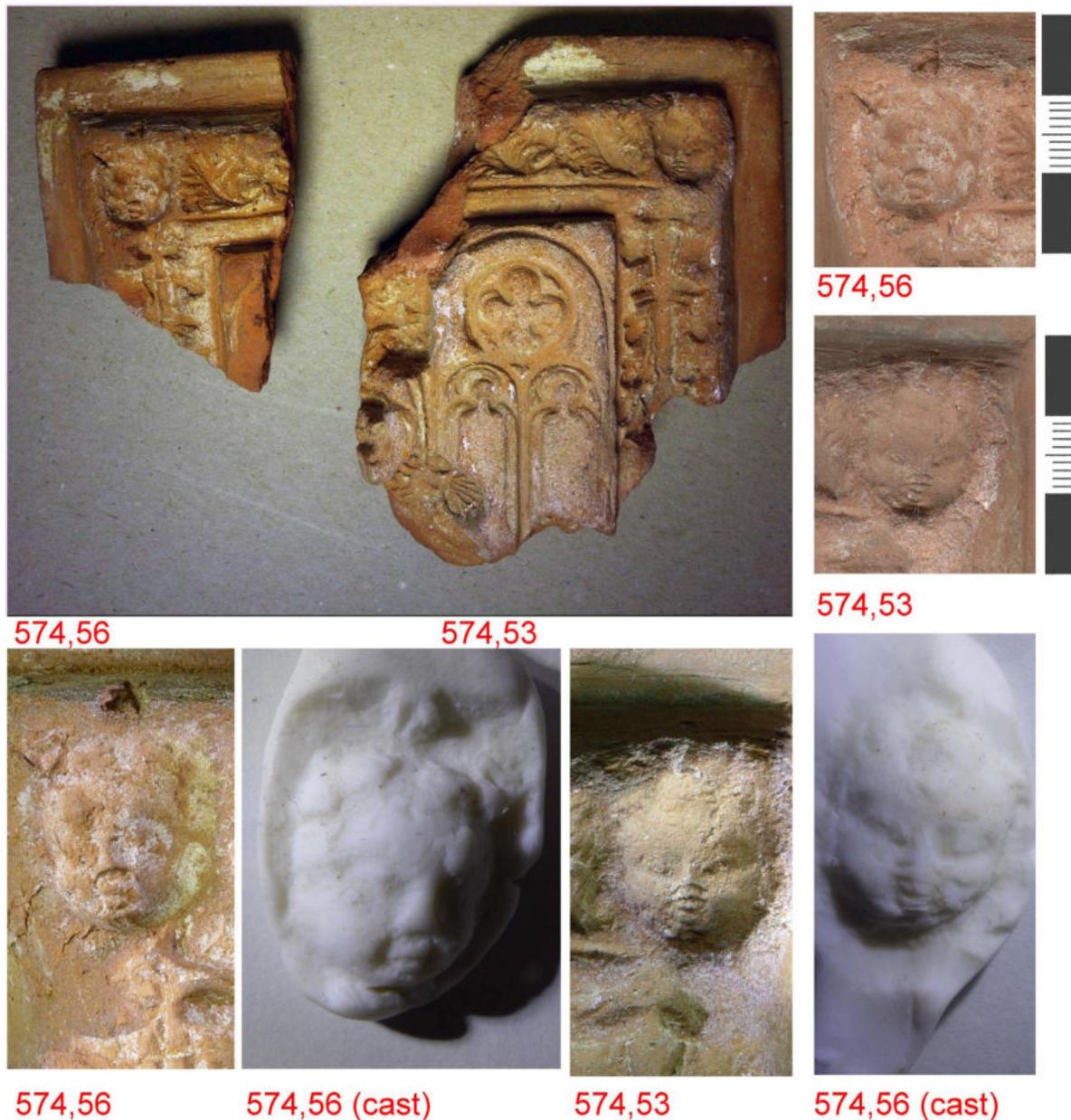


Fig. 117. Mould fragments for stove tile with children heads (Rostock mould hoard, D, H) and casts.

cent Cologne variant,³³⁵ which itself formed the basis for a popular version towards the end of the 15th century.³³⁶ There is evidence of the production in this original Netherlandish line from

Aachen³³⁷ and Cologne³³⁸ and which is also the basis for the corresponding stove tile figures from the stoves with the knight figures³³⁹ in the Hungarian Empire and their derivatives in the Rostock mould hoard.³⁴⁰

The situation is similar with St James (St. Jacobus maior; fig. 44), of whom, besides large

Bakels/Lit 1988, Thier 1991, 26 Nr. 4 and in private possession Preising/Rief Nr. 93 c.

335 Thier 1991, 26 Nr. 5; Schäfke/Trier/Mosler 2010 Nr. III.3.12 S. 191-192.

336 Cf. Neu-Kock 1988 fig. S. 24; Neu-Kock 1993 Nr. 104; Thier 1991 26, Nr. 2.

337 Grimm 2011 Nr. 9d fig. 39 S. 79-81, Giertz/Mommsen 2011 fig. 98.

338 Neu-Kock 1988, 22; Thier 1991, 26 Nr. 3; Neu-Kock 1993, 53 Nr. 105; Grimm 2012-1, 12, fig. 21-22.

339 Holl 1998 Nr. 3, fig. 6, 46 S. 189, 197.

340 Burrows/Gaimster 1999 fig. 10.



Fig. 118. Stove tile with St. Catherine (1st generation, phase 1).

pipe clay figures from the Netherlands, a large figure each from Speyer and Ladenburg, somewhat smaller specimens of equal size from Ladenburg and Buda, and a much smaller mould from Rostock have been preserved. The two stove tile figures in Cologne and in Speyer cannot be included at present because their measurements are unknown. Only here the Antwerp specimen is actually bigger than the stove tile figures.

Saint George is known from Ladenburg, Buda, Grad Ružica and Nyírbator (fig. 86, 87, 91).³⁴¹ The specimens from Ladenburg, Nyírbator and the largest fragment from Buda originate from the same mould generation. Terra-cotta figures of about the same size were found at 's-Hertogenbosch and Trier.³⁴² The mould genealogically oldest fragment from Buda was printed in the ceramic mass and thin coating typical for the 1st phase as the one from Nyírbator. According to the ceramic body colour,

341 Holl 1980, 41, 43 fig. 21; Holl 1998, 190, 194, 202, 207 Nr. 8, fig. 49.1, 57.1-2; Radić/Bojčić 2004, 258 Nr. 540.

342 Koldeweij 2007, 155 fig. 13.

the fragment of the same size from Grad Ružica (c. 1459) already dates to phase 2. On the other hand, there is a significantly smaller figure of George from the royal castle in Buda, which was also moulded in the 2nd clay mixture.

The holy bishops in Buda all derive from the same mould, which according to the manner of fabrication has become increasingly duller during the time of its use (fig. 60).³⁴³

The Ladenburg and Buda stove tile decorations have in common that they derive from several mould generations. The stove tiles with the smaller figures should therefore be similar to replacement pieces there. Genealogically, however, the southwestern German specimens are from an older or just the same mould generation as the first Hungarian versions. No figure in Ladenburg is as small as the corresponding younger Buda mould generations.

However, details, such as the pedestal of the St. James (Jacobus major), differ, while similar damages clearly indicate that both were based on the same intermediate positive (fig. 44). So

343 Cf. to the increasing wear of the moulds Holl 1998, 203.



Fig. 119. Stove tile with holy bishop and St. Catherine (1st generation, phase 1).

there is a dent in the entablature of the pedestal, which appears in all impressions from the workshop. For this reason it is clearly repeated due to the fact that it was in the mould of the first stove tile decoration's generation.

While Tamási thus searched in vain for direct relations between the Upper German and Hungarian workshops,³⁴⁴ the finds from 1973/74 slumbered in the depot without their significance having been recognized or even made public before their rediscovery.³⁴⁵ In addition, the moulds with the repertoire from southwest Germany were probably produced locally and then left behind in Hungary. Whether the replacement tiles were made before or soon after the workshop's stay in Hungary cannot be clarified at present. However, the most modern forms in Hungary are more developed than those from

Ladenburg as far as the figures are concerned. The style of the Buda and Ladenburg ornaments overlaps very closely, even where other types are used.

It could be startling that as far as recognizable the printed sculptures derive mainly from the Low Countries and the Rhenish region. And even the latter artists like the Worms main master stood in constant interaction with the centers in the Low Countries as well with his southern neighbors.³⁴⁶

Upper Rhenish figures were rather blocky and in relief-like shapes during the first half of the 15th century; the faces were flat and the backs usually only roughly modeled. However, the artistic level was quite appealing. The beauty ideal was still under the influence of the late international style, the rich style, and so at least

344 Tamási 1995, 86.

345 Gross 2017, 10.

346 The mutual influence is clear by the exchange of types and free copies: Grimm 2016, 43-46, 53-73.



Fig. 120. Stove tile with holy bishop and St. Catherine, details (1st generation, phase 1).

up to c. 1440 a very distinct style prevailed.³⁴⁷ So in contrast to the stove tiles themselves the figures used for their decoration are very distinct from the Southwestern German tradition.

With the increasing influence of the Worms workshop from the 1430s onwards at the latest, Netherlandish models and figure lay outs were increasingly taken up during the 2nd half of the 15th century and soon developed further in an own style, which then led to the post-flowering

of terracotta production until the middle of the 16th century in the southwest. This coincides with the rising influence of the leading German sculptor in his time, Hans Multscher who also shaped a Netherlandish repertoire of forms into the demands of the southwest and thus created a new highly vital style that led to the rise of Southwestern German art in the later 15th-century to the achievements of the Renaissance. The only figures that might have derived from southwestern German prototypes are the chil-

³⁴⁷ For the Konstanz workshop see: Nagel 1996.



Fig. 121. Stove tile with St. Peter (1st generation, macroscopically phase 1-2, NAA: phase 2).

dren's faces only preserved in the Hanse sub-production (fig. 117).

An essential hint for the dating of the Rostock stove tile mould is provided by the free-hand *Zaddeldecor* of the jacket of a St. Martin of Eastern Central European character (fig. 146-148) cut directly into the mould. *Zaddeln* are a large form of fringes that is often further

decorated. Around 1400 *Zaddeln* were part of the latest fashion and at the time of van Eyck they were widespread. But such complex designed *Zaddeln* on robes went out of fashion around 1460 and mostly much simpler *Zaddeln* remained only a lost cultural asset in the costumes of hunters, farmers and fools.³⁴⁸ Although Gaimster had recognized a comparable stove tile mould from the Lübeck pottery house (fig. 146),³⁴⁹ he did not attach any importance to the differences. This mould is one generation older than the Rostock find and lacks the *Zaddeln*. Because the *Zaddeln* in the Rostock mould, which is very late in the Hanseatic tradition, are a free-hand intervention into the mould which does not only contain decorations from the circle of the stoves with the knight figures,³⁵⁰ the whole group must have already existed before the end of the 2nd third of the 15th century.

348 The probably most recent evidence are the letters „b” and „m” in the figure alphabet of Master E. S. (active until 1467); Appuhn 1989 No. 309 (L. 294). Problematic with the question whether they actually still reflect a current fashion is, however, that the figure alphabet itself is based on older precursors copied quite exactly in sections (Appuhn 1989, 370). Since after 1450 long *zaddeln* hardly occur any more with saints and noblemen and also with the engraver Master E. S. otherwise only as decoration of headgear, the possibility of an old-fashioned representation due to an outdated prototype, or in order to consciously reject the mocking deeper meaning in connection with the persons depicted is not to be dismissed in this case due to an old-fashioned representation in connection with the depicted persons. Short *Zaddeln* characterize fools with him now (Appuhn 1989 No. 236 (L. 206), 239 (L. 225).

349 Gaimster in Burrows/Gaimster 1999, 285, 291. The moulds are not identical, but are derived from the same intermediate positive. Cf. Strauss 1972, 130 Plate 74.2.

350 Cf. for instance the crocket (*Krabbe, Kriechblume*) on the arch with e.g. the one on the crown tile with front tracery panel and half-cylinder-body (Holl 1998 fig. 14), of which however only the upper three leaves were moulded. Two further moulds also still show figures in *Zaddel* costume, however, this is already laid out there in the intermediate positive and, moreover, with these two moulds no certain takeovers from the repertoire of the stoves with the knight figures can be ascertained; cf. Burrows/Gaimster 1999 fig. 12.2, 13.2.



Fig. 122. Stove tile fragments of jousting knights, their horses and an angel.

The vocabulary of the stove tiles with the knights

The fact that the tournament scenes that gave the tile series its name are chronologically significant in themselves is not only due to the combination of the coat of arms. As already mentioned above the original armour of the knights and the equipment of the knights at the joust called „*Hohes Gestech*“ is as significant.³⁵¹ This subject of the jousting knights was popular throughout the Late Gothic period, especially in the aristocracy.³⁵²

351 Cf.: Breiding 2012, 62-64.

352 Keck 1993, 327, 336-338; Gruia 2009; Gruia 2013a, 67-88; Rosmanitz 2015. In particular: „Model für des Vorsatzblatt einer Nischenkachel mit Ritter beim Gestech unglasiert, erste Hälfte 15. Jahrhundert. Heilbronn, Städtische Museen“. This specimen not only contains the same vegetable ornaments but also corresponds stylistically to the Buda examples. Due to its high quality, it most likely derives from the same workshop as the stoves in Hungary and Ladenburg.

Brenker suggests in his overview of early stove tiles with jousters that riders with pointed fighting lances can be esteemed as fighters in battle and postulates that special crowns must have already been attached to the tip of the lance, if one wants to proof a tournament depiction.³⁵³ However, he overlooks the fact that the knights on mention, as Keck already noticed, stand in the saddle for the *Hohe Gestech* (a type which Brenker has dated too late by the way) and which is itself a sure identification mark of a tournament scene.³⁵⁴ The tips of the lances are not depicted and even around 1400 lance points with three tips type coronals (German: *Krönlein* or *Krönig* had not yet been generally established, see fig. 162). On the contrary, even pointed

353 Brenker 2018, 471-475. Another specimen of such a coronal from the 15th century is kept in Rothenburg ob der Tauber; Möhring 2008, 34.

354 Keck 1993, 327, 338. Clephan 1919, 93-94, pl. III; Gravett 1988, 45-46; Breiding 2012, 52; Seidl 2019, 100.



Fig. 123. Stove tile fragment of a jousting knight to the left (1st generation, phase 1).

lances were deliberately used in the “Scharfrennen” and “Welsch Rennen”, a sport that Maximilian was increasingly developing into an own discipline.³⁵⁵ One of these maybe the latter or a joust with mixed rules is depicted in stove tiles from Buda Palace and Lichnice (fig. 184). Holl dates the stove tiles to the late 15th century.³⁵⁶ Vegh connected the coats of Arms and crest of

³⁵⁵ Breiding 2012, 59.

³⁵⁶ Holl 1998, 207-210.



Fig. 124. Stove tile fragment of a jousting knight to the left (2nd generation, phase 1-2).

Fig. 125. Stove tile fragment of a jousting knight to the left (3rd generation, sharp impression, phase 2).





Fig. 126. Stove tile fragment of a jousting knight to the left (3rd generation, phase 2).

the helmet typical for the Lichtenburg-Leipa and Sternberk families to Hynek Bítovský of Lichtemburk (Lichtenburg; + 1475), a factioneer of king Matthias and dated the stove tiles between 1469-1475.³⁵⁷ This dating can be confirmed through the type of iron hat used by both knights, which are a bit more developed than those from the 1437 Johan Hartlieb Kriegsbuch written by Johannes Wiener on fol. 148r, those from the pastry mould with Judgement of Paris (c. 1440-1456)³⁵⁸ and the rider scenes in the Königsegg fencing treaty painted and written in 1455-1458.³⁵⁹ Schneider noted that the calottes of the helmets were getting higher during the mid and 2nd half of the 15th century ending in

357 Kiss/Spekner/Végh 2018, 112-113, no. 2.56 (Andras Vegh). I thank Tünde Kaszab-Olschewski for the translation of this article.

358 Grimm 2019b, 75-76, fig. 10.

359 zu Königsegg-Aulendorff/Schulze 2009, 17 (André Schulze) and page 99-119 of the manuscript.



Fig. 127. Stove tile fragment of a jousting knight to the left (3rd generation, dull impression, phase 3).

early capacetes. This development is confirmed by the one in Fribourg which is said to derive from Charles the Bold's army in 1476/1477.³⁶⁰ The best comparison is the one by St. George

360 Schneider 1986, 29, 31 fig. 14. See also the more developed specimen in Vienna: Beaufort-Spontin/Pfaffenbichler 2013, 62-63: c. 1490.



Fig. 128. Stove tile fragments of jousting knights to the right.



Fig. 129. Stove tile fragment of a jousting knight to the right (1st type, 1st state, phase 1).



Fig. 130. Stove tile fragment of a jousting knight to the right (1st type, 2nd state, phase 2).



Fig. 131. Stove tile fragment of a jousting knight to the right (2nd type, phase 3).

in Gerard Loyet's reliquary donated by Charles the Bold in 1467-1471.³⁶¹

Other recognizable parts of the armour like the faulds (*Hüftreifen*) and the gauntlets point to the 3rd quarter or 3rd third of the 15th century, too (See fig. 99.86.6, 102.8, 11). Both knights have their heads lowered since the impact is immediate.

While the stove tiles provide a better overview of the distribution of the motif than other art genres, it should also be remembered that it this subject is documented even among the extremely rare profane wall paintings of the time (fig. 161). In the stove tiles two knights are aiming at each other, i. e. the actual meeting at which the head is raised for protection is still to come (cf. fig. 1, 122-131).³⁶²

³⁶¹ Marti/Borchert/Keck 2009, 252-253, pl. 48 (Philippe George).

³⁶² Cf. Gravett 1988, 30.

The pauldrons and their parallels in the Gladiatoria group, which was probably formed in the 1430s (fig. 157-159), have already been discussed above. The fact that they are so narrow over the shoulder (even in the revision in phase 2, fig. 124, 130) is specific for German harnesses around the first half of the 15th century.³⁶³ This demonstrates the clear distinction, especially in the second quarter of the 15th century, between the massive Italian-style "*spallaccio*" and the more mobile German "*Spangröll*", which allows for more powerful actions but is less massive and protective. This root is also confirmed by the results of the research of Holl, Tamási and Rosmanitz, which had already proven the German origin of the stove tile motifs, at least in the broader sense.³⁶⁴

The striking flower-shaped couters (*Arm-kachel*) of both tournament knights (fig. 122-129) also have a parallel in the younger Gladiatoria manuscript: On fol. 11r MS. germ. quart. 16 the left fighter wears a couter that resembles the one of the knight of the stove tile riding to the right (fig. 159).³⁶⁵

Especially in the younger impressions of the tournament knights riding to the left (fig. 124-127), they have moved parallel to the picture plane. The inclination in the first mould generation probably corresponds to the practical requirements of the tournament, where deflection on the shield arm was considered more important than flexibility. The same way of wearing the shield can be seen on other tournament representations (fig. 161).³⁶⁶

Both elements of the armour for the arms thus speak for a design of the jousting knight riding to the left in the 2nd quarter of the 15th century, most likely in the 1430s or 1440s. There is hardly any phase of human history in which such a developmental impetus in the testing of

³⁶³ See Gamber 1953, 75-87; Gamber 1955, 88-93.

³⁶⁴ In addition to the German-Swiss region and the Elsass, Baden-Württemberg has always been considered as a possible form-giving region. Tamási 1995, 57-59; 64-65; Holl 1998, 171; Rosmanitz 2015.

³⁶⁵ https://wiktenauer.com/images/c/c5/MS_Germ.Quart.16_11r.jpg. [https://wiktenauer.com/wiki/Gladiatoria_\(MS_Germ.Quart.16\):_1435-1440](https://wiktenauer.com/wiki/Gladiatoria_(MS_Germ.Quart.16):_1435-1440); Welle 2014, 128; 1430-1450.

³⁶⁶ Cf. Holl 1998, 166-167, fig. 35-36.



Fig. 132. Stove tile fragment of frames from a griffon tile of phase 2 and of frames of phase 4.

new body armour forms took place as then. The tournament knights riding to the right have similar pauldrons in common with the others.

Also, the modernization of the arm-protection already carried out during phase 2 shows that this element had attracted attention as something old-fashioned and was therefore considered in need of correction. Hence they were renewed in a manner common in the 1450s. This is relevant insofar as, according to the current state of research, it was not until the beginning of the 16th century that historiographical recourse to older traditional costume forms occurred in new creations,³⁶⁷ although in fact an outdated *Zaddel* costume already appears in the Tree of Jesse in Worms Cathedral (1488, attributed to Conrad Seyfer) as a sign of times long gone by.³⁶⁸ But even this is far from the reconstructive accuracy that was achieved only after the Turks conquered Hungary. The situation was similar in Italy, where it was not Raphael but Giulio Romano who was able to re-

³⁶⁷ von Wilckens 1961.

³⁶⁸ Grimm 2019a, 227-228, fig. 1-2.



Fig. 133. Stove tile fragment of a lion tile of the Matthias stove from Visegrád (HU, younger than the Buda phase 4, impressed from a worn out mould).

invent Roman figures relatively faithfully with regard to their costumes. So not only it would have been nonsensical to modernize the figures in the late 15th century in the style of the mid



Fig. 134. Stove tile with holy bishop (detail, 1st generation, phase 1).



Fig. 135. Stove tile with holy bishop (detail, 1st generation, phase 2).

15th century, but no one would have been able to perform such a reconstruction at that time.

Based on Geßler's chronological research, Holl was already able to show that the joust-ers stood in saddles of a type that has been out of use at the beginning of the 2nd half of the 15th century.³⁶⁹ From today's point of view it can only be added, that the Tournament Book of Renée d'Anjou, which shows the hourt, the newer type of saddle with closed peytral (*Fürbug*) on fol. 37v, 39v, 41v, 43v, 45v and 46r in fully developed form, is dated to the 1460s to

day.³⁷⁰ Although, it has to be mentioned, that the early to mid 15th century style had a brief come-back under Emperor Maximilian I.³⁷¹

The development can be summarized as follows: Since the early 14th century, the saddle construction for the standing joust "*im hohen Zeug*" with the participants standing in the saddle emerged.³⁷² It was characteristic for the pe-

³⁶⁹ Holl 1998, 175; Geßler 1931.

³⁷⁰ <http://gallica.bnf.fr/ark:/12148/btv1b84522067/f1.planchecontact.r=%20Fran%C3%A7ais%202695> . Clephan 1919, 93; Gravett 1988, 21, 24-25, 45.

³⁷¹ Cf. Clephan 1919, 104, pl. III.

³⁷² Keck 1993, 327, 336, 337, fig. 20, 46 describes the early depiction on a stove tile and in a 1330s miniature from the Codex Manesse.

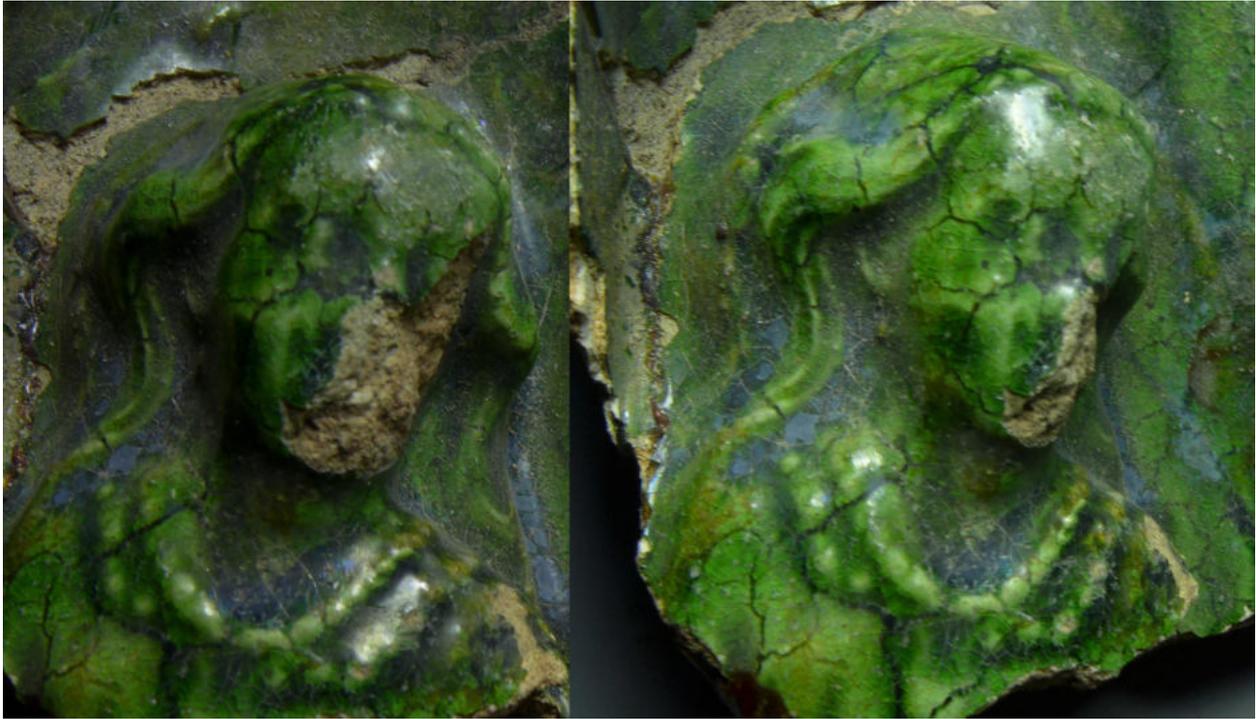


Fig. 136. Stove tile with St. Catherine (detail, formerly identified as Judith, 1st generation, phase 1).

riod around 1400³⁷³ and is still represented with the knight figures in the Hungarian stoves. A peytral is missing at the beginning.³⁷⁴

The touring knight Juan de Merlon describes a tournament that took place between 1428 and 1435, and the saddles used there were clearly doubly protected.³⁷⁵ One of the earliest specimens of a tournament saddle for the standing joust from the time around 1400 is preserved in the Royal Armouries, Leeds. It had small shields for the legs of the knight (*Vordersteg*; fig. 160).³⁷⁶ Identical elements can be seen on the tournament fresco in Burg Runkelstein (around 1400, after 1388, before 1406); there, however, the separate peytral is already in-

373 Angerer 1995, 73-74, Nr. 9.6 (Martin Angerer); see also: Morgan M.346 fol. 5 r. (um 1400): <http://manuscriptminiatures.com/4635/12996/>.

374 Gessler 1931, 27-29; vgl. auch: BNF Arsenal 3479 Legends of the Holy Grail (1407) fol. 411, 415, 496, 510: <http://manuscriptminiatures.com/4209/8889/>, <http://manuscriptminiatures.com/4209/8890/>, <http://manuscriptminiatures.com/4209/8899/>, <http://manuscriptminiatures.com/4209/8901/>.

375 Gessler 1931, 22-26 also deals with the problem of translation, which is characterized by a lack of understanding of the material culture.

376 <https://collections.royalarmouries.org/object/rac-object-17499.html>.

roduced on the horse of the Duke of Austria, while it is still missing with other participants (fig. 161).³⁷⁷ A little more developed, but still with a small peytral, are those depicted on fol. 150 in BL Harley 4431 The Book of the Queen (Paris artwork, British Library), written between 1410 and 1414 (fig. 162).³⁷⁸ In the 2nd quarter of the 15th century the peytral (*Fürbug*) is often connected with the separately worked shield (fig. 163).³⁷⁹ The count of Toggenburg also had such a saddle with peytral on the stove tile which on the basis of the historical data to the family probably originated before 1438.³⁸⁰ This covers the shield of the saddle in the lower area and thus also protects the legs of the jousting participant. The latter stretches horizontally like with the Hungarian stove tiles. The closest

377 Holl 1998, 166, fig. 33; Rasmø 1973, fig. 38, Taf. IV.

378 <http://manuscriptminiatures.com/4121/8440/>

379 GNM Hs998 History of the Trojan War (from 1441): <http://manuscriptminiatures.com/5874/23366/>, Lauber-workshop: Tristan and Isolde: <http://manuscriptminiatures.com/4936/14849/>.

380 Cf. Holl 1998, 166, fig. 34 (c. 1440); Schnyder 2011 vol. 2, 220-221, Nr. 184 (um 1436, 1430-1440). See for the construction: Gessler 1931, 30 (on the basis of a younger example).



Fig. 137. Stove tile with John the Baptist (detail, partly restored, phase 2).



Fig. 138. Stove tile with St. Christopher (detail, phase 2).



Fig. 139. Head of horse of a jousting knight (with white slip, partly glazed and painted, 1st generation, phase 2).



Fig. 140. Head of horse of a jousting knight (2nd generation, phase 2).

preserved comparison piece to the Buda knights is the saddle in the Hessisches Landesmuseum (fig. 164). Gessler dates it to or shortly before the middle 15th century.³⁸¹

The Zurich stove tiles, dated between 1450 and 1460 similar to the southwest German specimens, already have shields (*Vorderstege*)

381 Geßler 1931, 33, 38.



Fig. 141. Head of horse (most probably) of a jousting knight (Variant of fig 131/132 in the 3rd generation).

slightly extended downwards.³⁸² The shield is generally extended until 1465,³⁸³ probably to take account of the long, pointed beak-shaped sabatones that would otherwise not be covered. Coming up with Frederick the Victorious's armour (fig. 95) shortly before 1450 these pointed armouring shoes got more and more popular in the 1450s and 1460s. Comparable saddles have survived in Nuremberg and Regensburg (fig. 165).³⁸⁴ But still in the 1460s, the Tournament

382 Cf. Schnyder 2011 vol. 2, 318-329. For comparable stove tiles in Switzerland and Southwest Germany see Rosmanitz 2015a; <http://furnologia.de/galerie/galerie-motive-massenhaft-1599/>

383 Cf. Holl 1998, 166-167, fig. 34-35; Geßler 1931, 7, 13, fig. 2, 4.

384 Geßler 1931, 43-44, fig. 14a-c. <http://objektkatalog.gnm.de/objekt/W676> : 1450-1500. Gravett 2008, 46 right fig. 2 dates the Nuremberg saddle into the early 16th century, without giving a reason. In fact as the illustrations in the Marx *Turnierbuch* from 1506-1511 show the development sketched out here had gone a lot further with the saddles for the *Hohes Gestech* in the early 16th century (see f. e. fol. 5r, 9r and 9v); <http://daten.digital-sammlungen.de/0003/bsb00038795/images/index.html?fip=193.174.98.30&id=00038795&seite=1>. Angerer and Lankes date the Regensburg saddle without discussing Geßler's typonology and without convincing reasons around 1400: Angerer 1995, 73-74 (Martin Angerer) and Jahn/Hamm/Brockhoff 2008, 70 (Christian Lankes). The



Fig. 142. Head of an angel from Buda palace (Variant of the original type).

Book of Renée d'Anjou documents the innovation that would determine the following period, the closed peytral (fig. 183; partly as a unified element, partly connected with the shields now integrated into the construction).³⁸⁵

In the early 16th century the part shielding the hip and upper legs of the jousting knight is now expanded over the whole width of the upper saddle. The leg protection (*Vordersteg*) is now expanded over the peytral (*Fürbug*) of the horse and pointing forwards. This design improves the deflecting quality of the jousting saddle (fig. 166).³⁸⁶

The jousting knights of the stoves with the knight figures wear frog mouth helmets, which were especially popular in the middle of the 15th century, but were still produced into the

detail forms are fundamentally different from the early specimens. The shortening of the back part of the seat (*Hintersteg*), which Lankes observed well in principle, is not yet noticeable in the miniatures of the 1460s, but occurs only in the 1480s and has not yet become generally accepted even in the early 16th century; see Gessler 1931, fig. 3a-b, 6a-b, 7a-c. However such saddles became typical for *Rennen* (see fig. 184); cf. the tournament book *Ritterspiele* held by Emperor Frederick III and Emperor Maximilian I in the years 1489 - 1511. (Codex Icononografico 398): <http://daten.digital-sammlungen.de/0000/bsb00002178/images/index.html?fip=193.174.98.30&id=00002178&seite=1> (03.09.2016).

385 Geßler 1931, especially 31-32, fig. 3a, 3b, 6, 7.

386 [https://wiktenauer.com/wiki/Marx_Turnierbuch_\(Cgm_1930\)](https://wiktenauer.com/wiki/Marx_Turnierbuch_(Cgm_1930)) ; urn:nbn:de:bvb:12-bsb00038795-5.

16th century. They are mainly considered to be special sports articles for the tournament. However, originally and during the first half of the 15th century these helmets had been used on numerous battle scenes as war armour both on horseback and on foot,³⁸⁷ so that this assessment probably only applies to the time after the middle of the 15th century.

On SBB Ms. germ. fol. 1416 fol. 282r³⁸⁸ just the kings wear frog mouth helmets. Since the wearers are not poor knights, who could afford only a single helmet for war and tournament, they are a legit battle armour. Basically the frog mouth helmet represents a late advancement of the great helmet.³⁸⁹ As Breiding could show, some early helmets were late great helmets with an additional reinforcing plate (*Kinnplatte*).³⁹⁰ Both as reinforcement of great helmets and of bascinets these appear in Morgan M.516 *Histoire universelle depuis la Creation jusqu'a Cesar* fol. 77r (about 1390-1399).³⁹¹

We can determine a chronological relevant development in the type of the actual *frog mouth helmet*: In the specimens of the 3rd third of the 14th and the early 15th century, the ocularium

387 Cf.: BNF Français 335 *Tristan de Léonois* (1399) fol. 210v, 216: <http://manuscriptminiatures.com/4313/9144/> , <http://manuscriptminiatures.com/4313/9146/> ; cf. also: BNF Arsenal 3479 *Legends of the Holy Grail* (1407) fol. 530: <http://manuscriptminiatures.com/4209/8906/> . This is also evaluated by Breiding 2013, 31-32 (14-15); Gravett 1988, 31-32, 45.

388 <http://manuscriptminiatures.com/5736/21150/> .

389 Breiding 2013, 20, 31 (3, 14). For the prototypes see for example BNF Nouvelle acquisition française 5243 *Guiron le Courtois* (um 1370-1380), where numerous late great helmets with a shape approximated to the *frog mouth helmet* are represented: <http://manuscriptminiatures.com/search/?manuscript=4365>. The sight slit, but not the calotte, are more similar in BNF Français 2813 *Grandes Chroniques de France* (c. 1375-1380) fol 63r fol 63r.: <http://manuscriptminiatures.com/4304/22475/> . Both forms occur in the BNF Français 343 *Queste del Saint Graal / Tristan de Léonois* of 1380-1385: On fol 14r the modern frog mouth helmet and on fol. 17v far developed great helmet forms: <http://manuscriptminiatures.com/4317/7112/> , NGV Felton 411 fol. 8r, <http://manuscriptminiatures.com/4317/7113/> .

390 Breiding 2013, 28-29 (11-12), fig. 25-26. Cf. also: BNF Français 1728 (um 1375-1380) fol 174v : <http://manuscriptminiatures.com/5184/16366/> .

391 <http://manuscriptminiatures.com/4661/12550/> .



Fig. 143. Frame fragments of griffon tiles from Buda palace.

Fig. 144. Frame fragment of a griffon tile (2nd generation, phase 2, NAA: phase 2).





Fig. 145. Frame fragment of a griffon tile (1st generation, phase 1-2).

usually doesn't protrude significantly over the visor (fig. 167).³⁹² In specimens with an additional protective plate, however, the ocularium usually protrudes considerably.³⁹³ This form, and the transition to the following development, which certainly increased the safety of the joust by keeping lance splinters away from the facial field and deflecting them, shows a miniature of Trsitsan for the Duc de Berry (c. 1410).³⁹⁴ The same can be seen in the helmet dated by Breiding c. 1400-1420, which is associated with the funeral of Henry V, who died in 1422.³⁹⁵ The latter helmet also has a still substantially higher calotte than the typical pointed helmets and in

392 As it does on the fresco on the southern wall of the knight hall at Runkelstein castle. See Holl 1998, 166, fig. 33; Rasmø 1973 fig. 38 and pl. IV; Breiding 2013, fig. 5 (Epitaph of Philip von Kronberg, + 1386), fig. 13, 16 (Epitaph of Walter of Hohenklingen, + 1386), fig. 22 (tombstone slab of Diederic Brand van Campen, + 1368); BNF Français 343 *Queste del Saint Graal / Tristan de Léonois* fol. 14r (c. 1380-1385): <http://manuscriptminiatures.com/4317/7112/> ; BNF Français 335 *Tristan de Léonois* fol. 199 u.a. (1399) with high and modern flat calotte: <http://manuscriptminiatures.com/4313/9144/> ; BNF Français 12559 *Le Chevalier errant* (um 1400) fol. 44r, 90r: <http://manuscriptminiatures.com/4882/14167/> , <http://manuscriptminiatures.com/4882/14168/> .

393 Cf. Breiding 2013, fig. 25-26, 29; BNF Français 355 *Tristan de Léonois* fol. 1r (1399): <http://manuscriptminiatures.com/5153/16003/> . An exception, for example, is in the Wenceslas Bible (ONB Cod. Vindobonensis 2762) fol. 5: <http://manuscriptminiatures.com/4743/9757/>

394 Cf. Schlunk/Giersch 2003, 71.

395 Cf. Breiding 2013, 21 (4), fig. 6.



Fig. 146. Stove tile mould fragment with St. Martin (Lübeck, D, H, potters house, after Strauß 1972).

this connection the younger great helmets are closely related.

In the period from round 1380 to around 1450 the still rather round ocularium protrudes slightly beyond the visor (fig. 168).³⁹⁶

396 So especially with the stove tile with the Count of Toggenburg (because of the abandonment of all hereditary claims by relatives in the previous year, probably before 1438): Cf. Holl 1998, 166, fig. 34 (about 1440); 1389 ONB Cod. Vindobonensis 2762 *Wencelsas Bible* fol. 71: <http://manuscriptminiatures.com/4743/9714/> ; c. 1410-1415: Heinrich von München: *Weltchronik* : Ms. germ. fol. 1416, vgl. etwa: <http://manuscriptmin->



Fig. 147. Stove tile mould fragment with St. Martin from Rostock mould hoard (D, H).

atures.com/5736/21122/ , <http://manuscriptminiatures.com/5736/21156/> ; um 1410-1420: BL Additional 24189 Illustrations for Sir John Mandeville, Voyage d'outre mer: <http://manuscriptminiatures.com/5794/22159/> ; dated 1418: UBH Cod. Pal. germ. 359 Rosengarten zu Worms fol. 57v: <http://manuscriptminiatures.com/4826/10177/> ; UBH Cod.Pal.germ. 323 Willehalm von Orlens (Strassbourger workshop of 1418, c. 1420): <http://manuscriptminiatures.com/4836/13561/> - For dating on the basis of characters and watermarks: http://katalog.ub.uni-heidelberg.de/cgi-bin/titel.cgi?katkey=66552528&sess=900dc90ce07db3ddb6dc08d10ecc227e&query=si%3A283423730%20-%28fac_teil%3Aezblf%29&sort=0&format=html ; dated c. 1420 (but already because of the women's costume and the armour at fol. 161v. it originated rather around 1440) is in BNF Français 356 Guiron le Courtois: <http://manuscriptminiatures.com/5168/16171/> ; Schnyder 2011 Vol. 2, 220-221, no. 184 (c. 1436, 1430-1440). On fol. 150 in the BL Harley 4431 The Book of the Queen



Fig. 148. Stove tile mould fragment with St. Martin from Rostock mould hoard (D, H) detail with waistcoat).

After the middle of the century this tendency

(Parisian work, British Library) written between 1410 and 1414 there are on the left somewhat more antiquated, while on the right is a frog mouth helmet well comparable to the Budapest specimens: <http://manuscriptminiatures.com/4121/8440/> . Also very similar are examples from the Tristan novel illuminated around 1410-1420, in which frog mouth helmets also appear in battle scenes (next to bacinets and armets). ONB Cod. 2537 Roman de Tristan, Österreichische Nationalbibliothek: <http://manuscriptminiatures.com/4935/14795/> , <http://manuscriptminiatures.com/4935/14806/> , <http://manuscriptminiatures.com/4935/14808/> , <http://manuscriptminiatures.com/4935/14809/> <http://manuscriptminiatures.com/4935/14810/> , <http://manuscriptminiatures.com/4935/14811/> . In the Parzival created around 1443-1446 in the Diebold Lauber workshop in Hagenau, the frog mouth helmets are well comparable to the Budapest helmets: <http://manuscriptminiatures.com/4825/13741/> , <http://manuscriptminiatures.com/4825/13759/> , <http://manuscriptminiatures.com/4825/13760/> , also in a Trsistan and Isolde also created in the workshop of Diebold Lauber between 1447 and 1449/1455: http://belgica.kbr.be/fr/coll/ms/ms14697_fr.html , <http://manuscriptminiatures.com/4936/14850/> , also closely related are those on fol. 105v in the ms. germ. qu. 6 - Der Renner written by Ulrich Werner 1446: <http://sammlungen.ub.uni-frankfurt.de/msma/content/titleinfo/3656204> , <http://manuscriptminiatures.com/4982/15485/> ; See also the somewhat further developed helmet at Capwell 2011, 38-39 (c. 1410-1450) and the rounded front panel from Haus



Fig. 149. Stove tile with coat of arms of Wittelsbach from Buda (after Holl 1980).

is intensified: the snout is then generally rather pointed, which is already recognizable with two the helmets in miniatures from 1414³⁹⁷ and 1417.³⁹⁸ One recognizes the transition one last

Herbode: Peine/Breiding 2007, 5-6, no. 2: Peine/Breiding 2007, 5-6, no. 2.

397 Cf. Breiding 2013, fig. 30 ('Historia destructionis Troiae', dated 1414). The remaining helmets reflect the early repertoire.

398 Dated 1417: Buch von Troja, Gießen: <http://manuscriptminiatures.com/5828/22662/>. In addition to the slightly rounded form, UBH Cod.Pal.germ. 336 Weltchronik (c. 1420: <http://manuscriptminiatures.com/4839/13702/>) and UBH Cod.Pal.germ. 323 Willehalm von Orlens from the „Strassburg Werkstatt von 1418”, dated c. 1420, have clearly pointed projections: cf. for instance: <http://manuscriptminiatures.com/4836/13563/>, <http://manuscriptminiatures.com/4836/13564/>; in the Trojan War of the Willehalm of Orlens of 1441 in the Germanisches Nationalmuseum Nuremberg, the snouts are already extended very far: <http://manuscriptminiatures.com/5874/23278/>, <http://manuscriptminiatures.com/5874/23279/>, <http://manuscriptminiatures.com/5874/23286/>, <http://manuscriptminiatures.com/5874/23292/>, <http://manuscriptminiatures.com/5874/23355/>, <http://manuscriptminiatures.com/5874/23366/>; Examples from the 2nd half of the 15th century and from the early 16th century (all with

time in Sigmund Meisterlin's Augsburg Chronicle of 1457 (Cim 69). While the helmet of Hector Mühlich and most others already show pointed and protruding snouts, the one of the Langenmantel (fig. 169, fol. 118r upper left) is still rounded and protrudes farther than the Hungarian stove tiles, but less far than common later.³⁹⁹ Generally it can be stated that during the first quarter of the 15th century helmets similar to the Buda helmets already appeared, but the far less protruding snouts still occurred until about 1430/1440. Until the early 1440s, there are no pieces with snouts more prominent than the Buda snout.

The new form is pronounced in Thalhoffer's "Alte Armatur und Ringkunst" (Thott 290°) of 1459 (fig. 170).⁴⁰⁰ It is almost typical on the 'Browning'-helmet (about 1470-1500).⁴⁰¹ Only in the 16th century this development partly reverses itself again and with changed dome form the snouts of some helmets – similarly as with helmets between approx. 1410 and approx. 1440 – hardly protrude. Although, the snouts of the early Renaissance always remained pointed.⁴⁰²

The Zurich stove tiles with tournament knights dated by Schnyder to the 1450s bear vivid witness to that change in the form of the frog mouth helmet: The relief figures, which

protruding mouths) with explanations: Willers 2001, 35, fig. 27 left with snout clearly protruding under the visor. Müller 2002, 117-124, 129-130 fig. 114-124, 132-133; Gerhard Quaas, frog mouth helmet for the *Deutsches Stechzeug*, Nr. 57: <http://www.dhm.de/archiv/ausstellungen/eisenkleider/turniere/kat057.htm> (29.08.2016); Gerhard Quaas, frog mouth helmet, Nr. 58: <http://www.dhm.de/archiv/ausstellungen/eisenkleider/turniere/kat058.htm> (29.08.2016); Schlunk/Giersch 2003, 70, 73.

399 Cf. Emmendorffer/Zäh 2011, 160-163, no. 18 (Rainhard Riepertinger).

400 Cf. Capwell 2011, 38, fig. 34; https://upload.wikimedia.org/wikipedia/commons/a/a6/Ms.Thott.290.2%C2%BA_130v.jpg (29.08.2016).

401 Capwell 2012, 1-2, 13 fig. 4, Endnote 8.

402 Cf. Krenn/Karcheski 1998, 55, Nr. 55. The by no means universally accepted tendency to shorten the mouth is already recognizable in the tournament book of Walther Marx written between 1506 and 1511 and an illustration of 1536: Cf. [http://www.wiktenauer.com/wiki/Marx_Turnierbuch_\(Cgm_1930\)](http://www.wiktenauer.com/wiki/Marx_Turnierbuch_(Cgm_1930)) (03.09.2016); Gessler 1931, 12, fig. 3b.

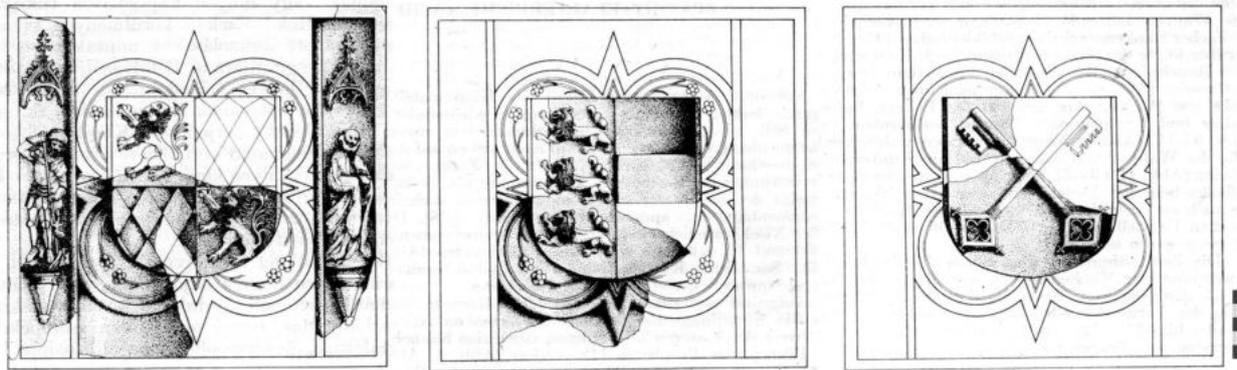


Fig. 150. Stove tile with from left to right coat of arms of Wittelsbach flanked by figures of St. George and St. Peter, coat of arms of Carinthia and the coat of arms of the city Regensburg from Nyribátor (HU, after Holl 1998).

Fig. 151. Stove tile mould with coat of arms of Wittelsbach from Regensburg (D, after Holl 1980).

apart from having Hungarian wing targes (*Ungarische Flügeltartschen*)⁴⁰³ in contrast to the Hungarian knight figures, are extraordinarily similar to the counterparts from Buda and Tata, should receive helmets with a barely protruding snout like the original ones. However, the design was then adapted to the new style, only so incomplete that the original design is still visible in a particularly sharp, early specimen, while the adaptation was completed in duller, younger pieces.⁴⁰⁴ Although the Swiss and the Hungarian tournament knights have no mould genealogical relationship to each other,⁴⁰⁵ the typological repertoire of the armour and the general style are similar, so that they appear as related products of two workshops of the same period.

In the Nagyvázsony monastery, founded in 1483, a stove with tiles from the repertoire circle of stoves with knight figures and southwest German stoves was set (fig. 171).⁴⁰⁶ The tournament knight wears a helmet with an extended snout. The horse has a peytral that is pulled far up (closed?), and the shielding is extended far



down and protrudes thus under the peytral. The type is a revised impression of the same intermediate positive, from which also a stove tile in the Eetzäler Heimatmuseum at Waldkirch originates. Only there the shield for the legs is not yet extended (fig. 172).⁴⁰⁷ This design of the saddle already emerging in Thalsofer's fencing

403 Cf. Beuing 2019, 18-19; Radway 2019.

404 Cf. Schnyder 2011 Vol. 2, 320-323, 328, Nr. 254-255, 258 especially the specimen with white coating LM 7399/186; vgl. auch ibid. S. 324-327, 329.

405 Tamási 1995, 80.

406 Tamasi 1995, fig. 158; Holl 2009, 439-440.

407 Cf. the fig. in Rosmanitz 2015.



Fig. 152. Stove tile with coat of arms of the city Regensburg (D, after Angerer 1995).

book of 1459 (fig. 170) finds parallels in miniatures of the 1460s and 1470s (fig. 173).⁴⁰⁸

On the other hand, these knights, whose armour had become a little out of fashion in the meantime, were replaced by new knights in the stoves during phase 3 (fig. 131).⁴⁰⁹ These wear a German sallet with bevor (a preform of the *Rennhut* as in the Royal Armouries, c. 1480)⁴¹⁰ and also other armour elements, such as the armour probably from the Nuremberg Zeughaus in the Germanisches Nationalmuseum Nuremberg (around 1470/1480)⁴¹¹ and the sallet from the same period in the Metropolitan Museum (fig. 174).⁴¹² The fact that this form was known in Hungary is testified by the altar built between 1474 and 1477 in Koschau (Slovak *Košice*, Hungarian *Kassa*), today Slovakia. Here the rider behind Elisabeth's husband wears an almost identical helmet.⁴¹³ The set of Maximilian

408 Cf. Gessler 1931, fig. 2, 4.

409 Holl 1998, 175, Anm. 62, fig. 32 left.

410 Richardson 2011, 148-149; Richardson/Woosnam-Savage/Rimer 2011, 305.

411 Willers 2001, 35, fig. 26.

412 Cf. Pyrrh 2000, 11, no. 12.

413 Cf. Suckale 2008, 105, fig. 5.



Fig. 153. Effigy of Rupprecht von der Pfalz and details, coat of arms of Wittelsbach (1457-1465 prince bishop/Bistumsadministrator of Regensburg, Regensburg Cathedral, D, after Mader 1933).

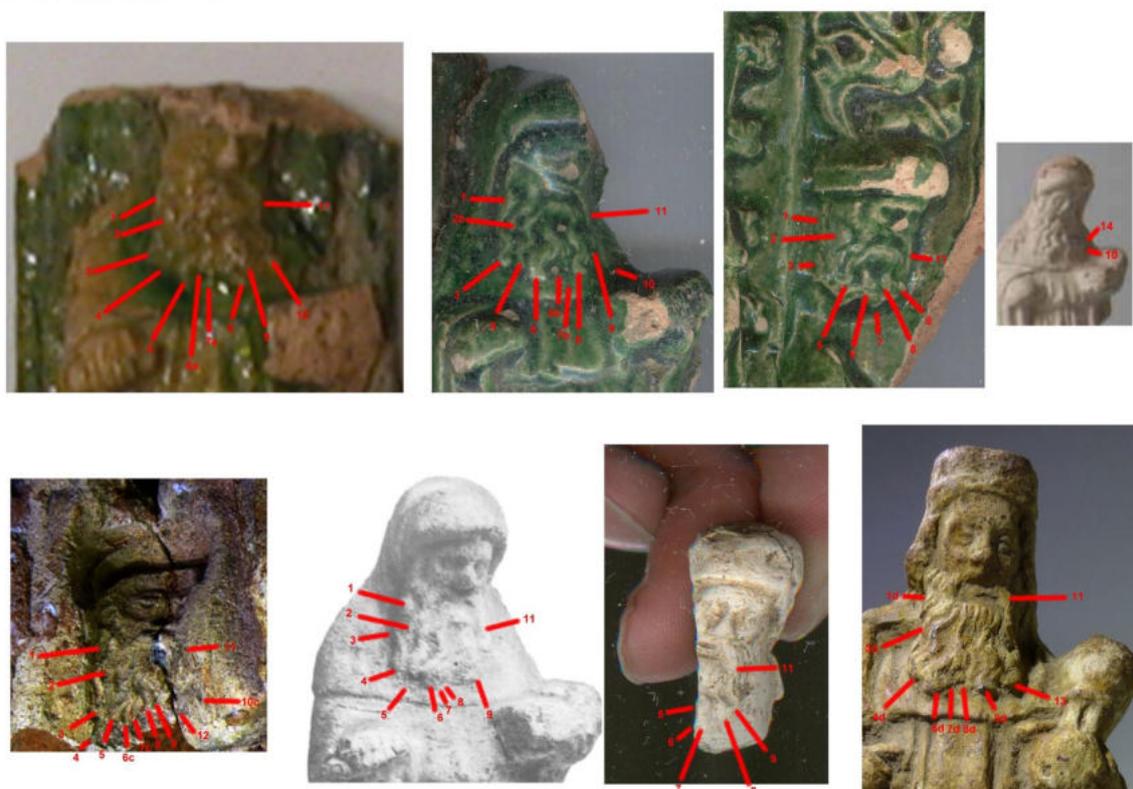


Fig. 154. Effigy of Rupert (also Rupprecht II.) von Pfalz-Simmern and details, coat of arms of Wittelsbach (1492-1507 prince bishop of Regensburg, Regensburg Cathedral, D, after Mader 1933).



Fig. 155. Boss of Worms Cathedral with coat of arms of Rupert (also Rupprecht II.) von Pfalz-Simmern (1494, Museum im Andreasstift Worms, D, photo Claudia Weissert).

Fig. 156. Copy-critical analysis of the beard curls of St. Antonius figures. From left to right: Above: Ladenburg, Buda figure, Buda head from stove tile, Netherlands (after Preisling/Rief 2013). Below: Rostock mould hoard, Cologne Schnütgen Museum (after Neu-Kock 1990), Cologne production site and Halle.



I, documented for the year 1480, is somewhat further developed.⁴¹⁴ For example the sallet on a page of the Thun sketchbook created after 1500, on which older and younger elements are shown, displays a great similarity with that of the stove tile knight.⁴¹⁵ The pauldrons of this new tournament knight can be traced back to a type documented in Sigmund Meisterlin's

414 Cf. Gamber 1957, 27, fig. 33.

415 Cf. Gamber 1957, 59, fig. 86. The tail (neck guard) of the sallet, dated around 1490, in the Metropolitan Museum is already extended further: Cf. Pyrrh 2000, 12, no. 13.

Augsburger Chronik (1457) at Hector Mühllich's, thus they are a comparatively ancient element of this depiction,⁴¹⁶ which simply no longer occurs at the end of the century. This proves that in Hungary from about 1470 or soon after, the conception of the tournament knights was reconsidered and the representation that had become out-dated was replaced by more contemporary forms.

416 Cf. Emmendorffer/Zäh 2011, 160-162, Nr. 18 (Rainhard Riepertinger).



Fig. 157. *Gladiatoria* New Haven (MS U860. F46 1450) fol. 18r. After: https://wiktenauer.com/images/e/e4/MS_U860.F46_1450_18v.jpg.



Fig. 159. *Gladiatoria* MS. germ. quart. 16 fol. 11r. The knight on the left has a flower shaped couter. After: https://wiktenauer.com/images/f/fb/MS_Germ.Quart.16_01v.jpg.



Fig. 158. *Gladiatoria* MS. germ. quart. 16 fol. 1v. Detail with similar scales over the vambrace. After: https://wiktenauer.com/images/f/fb/MS_Germ.Quart.16_01v.jpg.



Fig. 160. Jousting saddle, Germany c. 1400 (Royal Armouries Leeds, Object Number VI.94). (after: <https://collections.royalarmouries.org/object/rac-object-17499.html>).

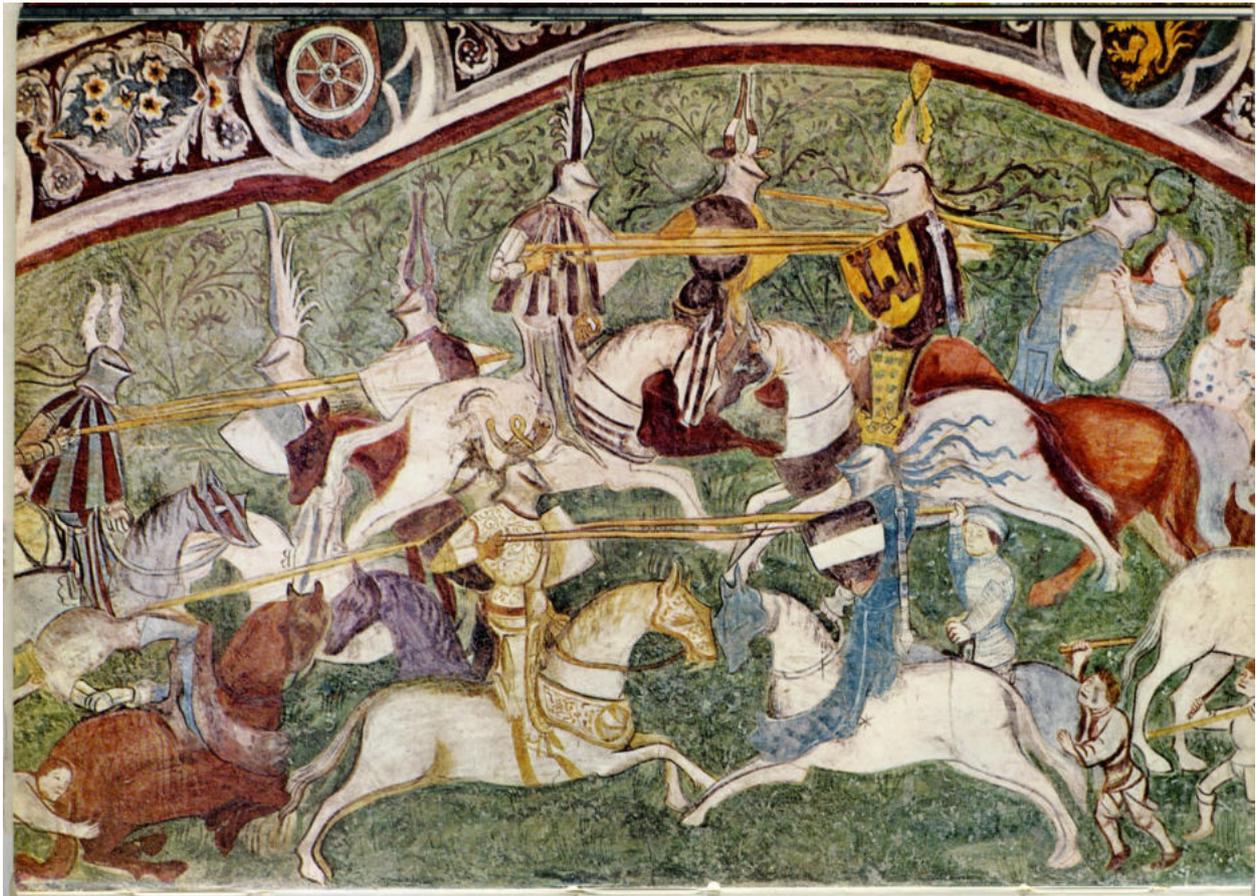


Fig. 161. *Jousting with a Duke of Austria. Runkelstein Castle, c. 1400 (after Rasmus 1973, Plate IV).*

There is also a tendency elsewhere to modernize the design as it is extant in a mould in Heilbronn Städtisches Museum with a left handed knight (fig. 175). Here the horse, the left leg up to the hip in the impression and the crockets of the frame decoration were similar to the stoves with the knight figures and its follower: A stove tile mould from the surroundings of Öhringen (fig. 176).⁴¹⁷ However, the areas known from the Buda versions areas have also been reworked, which is particularly evident from the still partially visible upper end of the shield of the saddle, which makes no sense in this way. While the saddle remained largely unchanged here, the peytral was somewhat enlarged and for the frog mouth helmet the more modern far extended variant was selected. The creator of the Bosenstein tile with tournament



Fig. 162. *Parisian Workshop, The Book of the Queen (BL Harley 4431) fol. 150, 1410-1414 (after <http://manuscriptminiatures.com/4121/8440/>).*

⁴¹⁷ Holl 1998, 181, 186-187. It is an elegantly reworked crocket of the basic form as it appears in the Buda stove tile with Peter and Anthony and in the Rostock mould with Jacobus and Anthony, on the other hand it is reworked differently than there.



Fig. 163. *History of the Trojan War (GNM Hs998) fol. 260r (1441, after <http://manuscriptminiatures.com/5874/23366/>).*

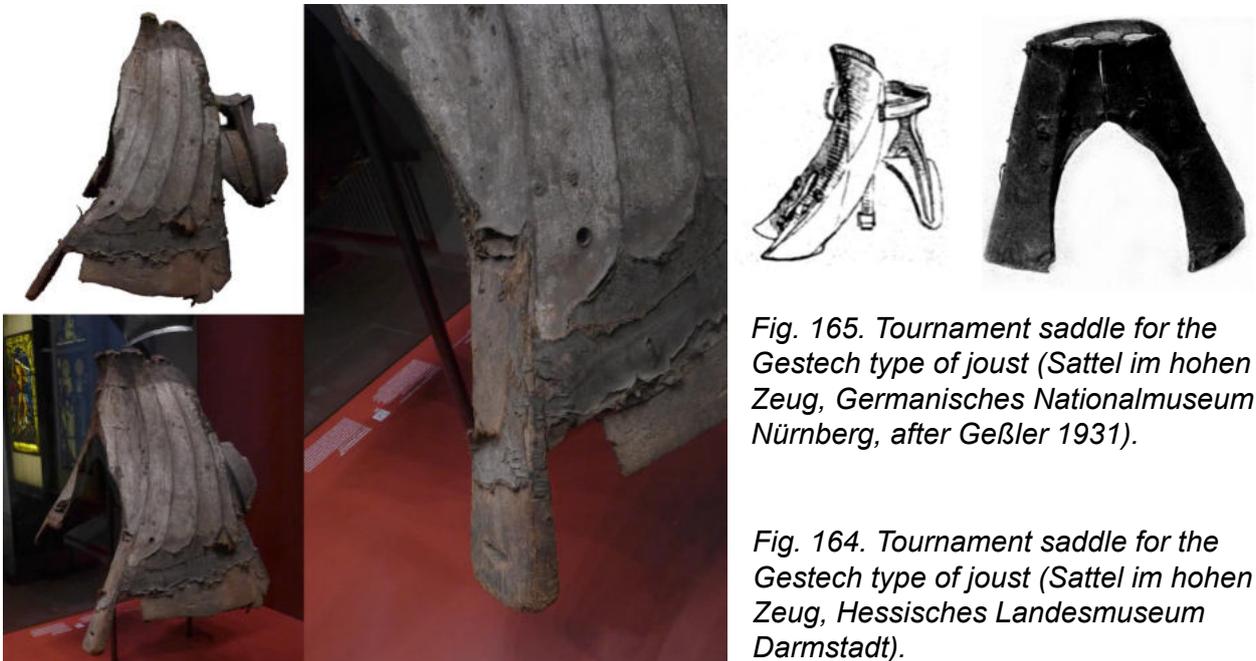


Fig. 165. *Tournament saddle for the Gestech type of joust (Sattel im hohen Zeug, Germanisches Nationalmuseum Nürnberg, after Geßler 1931).*

Fig. 164. *Tournament saddle for the Gestech type of joust (Sattel im hohen Zeug, Hessisches Landesmuseum Darmstadt).*

knight⁴¹⁸ oriented himself only vaguely on the design repertoire known from Buda or Switzerland. His knight wears a very far extended helmet and the horse is protected with a closed peytral.

Chronologically informative are also other elements of the armour in the stoves with the knight figures. Holl refers in this context to the short gauntlets and the rosette-shaped shells of the couters, whereby at least the former suggests

418 Pillin 1990, 72-73, Nr. 18.



Fig. 166. Walther Marx: *Turnierbuch und Familienchronik* – BSB Cgm 1930, Augsburg, 1506-1511 [BSB-Hss Cgm 1930] fol. 5r. After: <http://daten.digital-sammlungen.de/0003/bsb00038795/images/index.html?id=00038795&groesser=&fip=193.174.98.30&no=&seite=7> .



Fig. 168. *Wenceslas Bible* (ONB Cod. Vindobonensis 2762) fol. 71 (after: <http://manuscriptminiatures.com/4743/9714/>).



Fig. 167. Effigy of Philip von Kronberg (+ 1386, detail, Chapel of Kronberg Castle, D, after Breiding 2013).

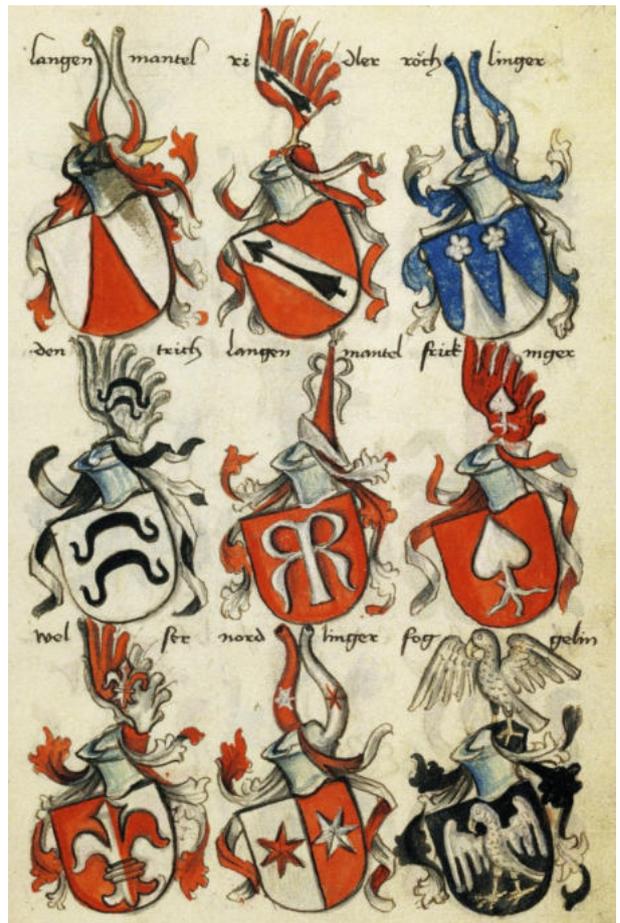


Fig. 169. Sigmund Meisterlin, *Augsburger Chronik* (Cim 69) fol. 118r (1457, after Emmendorffer/Zäh 2011).



Fig. 170. Hans Talhoffer, *Alte Armatur und Ringkunst* (Thott 290°) fol. 130v (after: [wikimedia commons](#)).



Fig. 171. Stove tile with jousting knight from Nagyvázsony cloister (after Holl 1998).



Fig. 172. Stove tile with jousting knight (Eztaler Heimatmuseum, Waldkirch, D, BW, after Rosmanitz 2015)



Fig. 173. Ulrich von Richental, *Konstanzer Konziliumschronik* (Cod. Univ.-Bibl. Prag.) fol. 35r (1464, after: http://v2.manuscriptorium.com/apps/main/en/index.php?request=show_teil_digidoc&docId=set20080808_106_98).



Fig. 175. Mould for a stove tile with a knight figure (Heilbronn Städtisches Museum, D, BW, after Rosmanitz 2015).



Fig. 174. German sallet (c. 1470-1480; Metropolitan Museum New York, after Pyrrh 2000).

a dating of the design around the 2nd quarter of the 15th century.⁴¹⁹

The straight faulds were produced between 1425-1465 and around the 4th quarter of the

15th century,⁴²⁰ while they were largely out of fashion in the 3rd quarter. A dating around the 2nd quarter of the 15th century here refers on the one hand to the absence of tassets, which are present in all examples from 1450 onwards or at least were once present, and on the other hand to the *zaddels* projecting from under the faulds, as they are depicted in a comparable manner around 1445 in the *Fleur des histoires* (Brussels MS. 9232).⁴²¹ The *zaddels* cut in the stove tiles, however, could also indicate the completion of a mail mesh as well as textile (see Fig. 157, 159, 163). Also the steep form of the faulds of St. George in the Ghent altar (fig. 101) is well comparable. Due to the somewhat more differentiated analysis (and concerning the original form of the pauldrons above) the period can

419 Holl 1998, 175, Anm. 62. This is also the case with the couters, see above.

420 Cf. Gamber 1953, fig. 83-84, 89, 95-97, 100, 102; Gamber 1955, fig. 20, 36-37, 57, 64, 72, 74-75.

421 Cf. Gamber 1953, fig. 97.

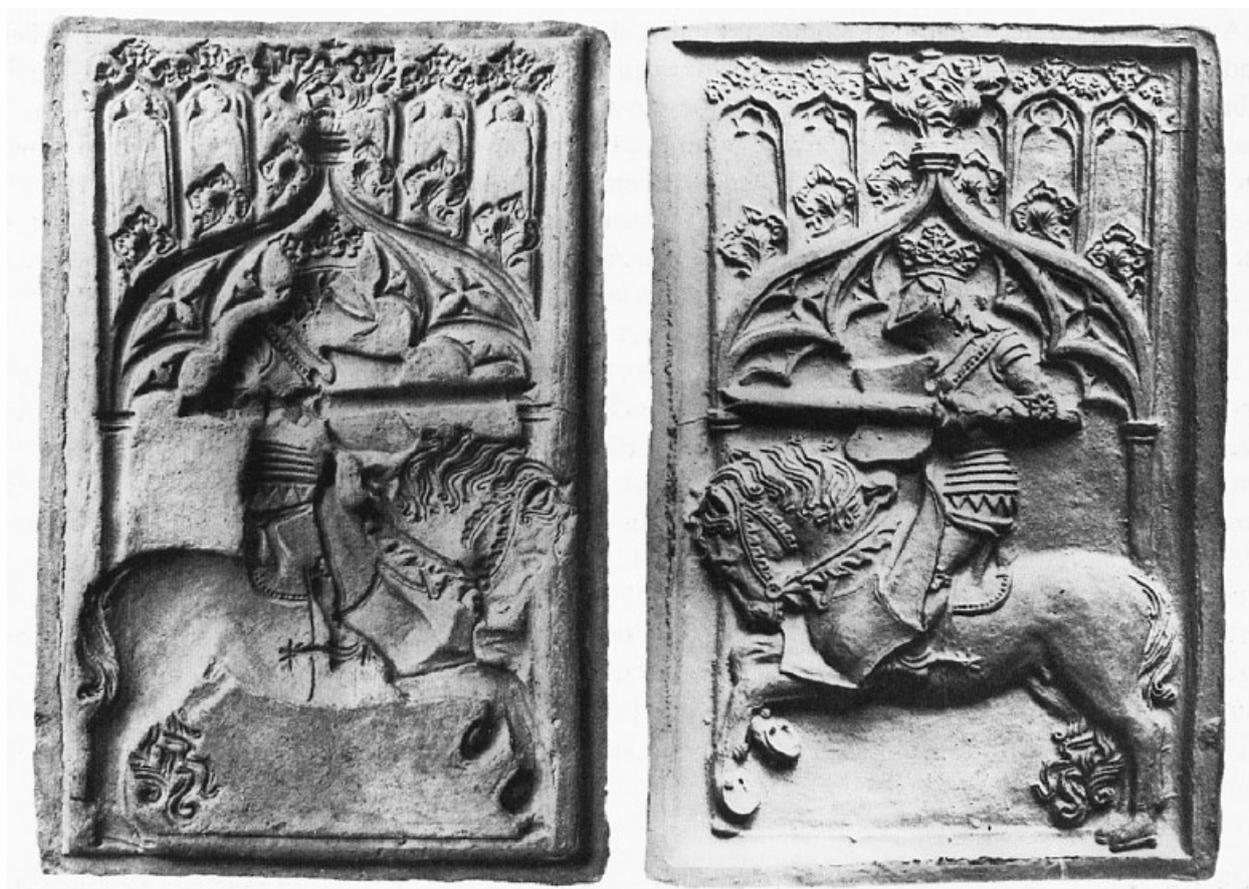


Fig. 176. Mould for a stove tile with a knight figure from the surroundings of Öhringen (D, BW) and modern cast (after Holl 1998).

be limited to 1435 to 1455. In other words, the original *modello* of the stoves with the knight figures originates from the same period as the majority of the pipe clay figures whose castings adorned the stoves.

The motifs of the leaf tiles (five-petalled rose, pelican, tree-guarding lion, griffin, often extended by Three Wise Men and a type of Annunciation, which only appear later in Hungary in a stove for king Matthias) can also be found in varying combinations in stoves set in Switzerland and southern Germany since the mid 15th century.⁴²² Tamási's mould genealogical investigations show that the stove tiles of the stoves with the knight figures are relatively early genealogically, which contradicts the late dating of the series that she originally preferred.

Summary: The phases of the Hungarian stoves

The chronology of the stoves with the knight figures thus allows a plausible classification of phases at least for the majority of the stove tiles and fragments preserved:

- Phase 1 (light ceramic body, sharp and mould genealogically early impressions, and some areas coated, D: *behautet*): At the earliest from 1454. The yellowish ceramic body variant certainly still in use until c. 1457 (Nyírbátor). Whether the yellowish and the flesh-coloured-light red clay, as for example in the stove tile with holy bishop and Catherine (fig. 119), are only differently oxidized variants of a mixture or two different types of clay, has not yet been clarified.

The pipe clay figures are mould genealogically as old or younger as those from Ladenburg. While some of the types are as old as first quarter of the 15th century, the youngest figures can be dated to the 1450s and even the older

⁴²² Tamási 1995; Holl 2009; 432-438; Schnyder 2011, vol. 1, 66-73; vol. 2, 276-333; Rosmanitz 2015.

types were quite popular in the second half of the 15th century.

The genuine stove tile reliefs of the workshop were conceived in a manner typical for the 1430s and 1440s.

Stove tiles and figure moulds were often updated in a common personal style which can be tracked back to Baden-Württemberg and thus the mostly to the former Palatinate (crown tile with St. James fig. 42). The treatment of hair strains derives from a manner typical for the up to date artists in southwestern Germany in the 1440s. So the first stoves of this workshop were all found in Baden-Württemberg in South Western Germany and also the personal style is very specific for an artist originating from there.

- Phase 2 (red body with fine white coatings): Around 1459 it was used for the stove in Grad Ružica (coat of arms of Gorizia, Carniola, rising Habsburg lion, eagle, angel with Portuguese coat of arms for Eleanore of Portugal⁴²³ and coat of arms of Kyburg, fig. 27). This clay composition is traceable in Buda around 1465, as some stove tiles had been thrown into the waste.⁴²⁴ Probably this clay mixture already stems from the reign of Ladislaus V (1454-57, coat of arms stove tiles and likely the specimens from Lipnice/Lichnice). In this case a date around 1457 is the more likely. The stove tile with an angel holding the Austrian (Habsburg) fess coat of arms (*Bindenschild*) from Buda Palace indicates that it was manufactured or at least ordered until 1457. This is because with any kind of Hungarian heraldry in general especially it belongs to Ladislaus but not to Matthias.⁴²⁵

There is no hint in the repertoire of little sculptures for a date later than the 1450s and the 1st phase of the workshop antedates even the short time span in 1459 to early 1460 when Emperor Frederick III acted as a Hungarian counter king.

Most likely the main master of the workshop was still actively working on some of the moulds as for the coat of arms of Kyburg (fig. 27) and mostly the Angel (fig. 80), which were

423 Cf. Radić 2004, 262, 280; so already postulated by Holl in 1998, 172 for Tata.

424 See Holl 1998, 183, 186, fig. 42.

425 Holl 1958, fig. 83.



177. Stove tile with alliance coat of arms of Adolf of Cleves and Anna of Burgundy (1470-1492, after Dierendonck/Kuipers/Scholten 2014, Middelburg, NL).

likely designed especially for this stove c. 1459. Since the special way of swelling and dwindling hair strains in which the southwestern sculptors excelled since the mid 15th century changed commonly in the 1450s it seems very likely that the main artist didn't provide a foreign workshop with new moulds from Germany, but was in Hungary himself and thus cut off of the direct experience in the newest stylistic developments in his home region.

Some newly introduced moulds for figures show no signs of improvement by the master. We can conclude from this that he left the workshop or even died during this phase. The reworking of the details of the armour depicted on the jousting knights are still typical for the 1450s (fig. 124, 130) not the new fashion that came up during the 1450s or 1460s.

On the other hand it is quite possible that the original iconography was still preserved in replacement stove tiles from the 2nd mould generation as it is the case with the knights riding to the left (see fig.1).



Fig. 178. Stove Tiles with prophets from Lörrach, Burg Rötteln (D, BW, Photography Harald Rosmanitz).



Fig. 179. Crown-tile, Maria Aegyptiaca from Grad Ružica (HR, after Radić 2004).

- Phase 3 (with irregular, yellowish or reddish engobe). Possibly as early as 1459, but a dating from around 1467 can certainly not be ruled out (the tiles of Tata Castle with Frederick's coat

of arms, which according to Holl belong to this body variant, are base for the classification).⁴²⁶

The figures of the Horse and Angel (fig. 141-142) point to style schooled by works of the 1460s like the late engravings of Master E. S. (see L. 81, L. 149-L.150 from 1466 and 1467).⁴²⁷ The shape of the angel's face and the bulky block of hair with the strains separated in small compartments are familiar tendencies of that period but the largely reworked jousting knight and his new armour (fig. 131) show that this phase even continued to at least the 1470s or 1480s.

- Phase 4 (including majolica) is dated around 1480-90 and the reworkings point to an artist of training different from the original artist, but also very familiar with developments in Germany and the Low Countries as the flaming wrinkled up style in the Visegrád stove from 1485-1490 shows (fig. 82).⁴²⁸

426 Holl 1998, 178-179; Tamási 1995, 61-62 describes it only as deviating from the red clay of the Buda stove tiles, but does not deal with the differences in the Buda ceramic body material itself.

427 Appuhn 1989, fig. 78, 153, 154.

428 Cf. Kiss/Spekner/Végh 2018, 288-291, no. 4.21 (Edit Kocsis): 1480-1490.



Fig. 180. Stove tile with holy knight from Transylvania (ASTRA Museum Sibiu, RO).



Fig. 181. Stove tile from Olomouc (CZ, after Hlubek/Faltýnek/Šlězár 2016).

To date not a single younger work attributable to the master that went to Hungary is known from later times in Germany than the 1450s. The Öhringen mould shows no post-processing by the hand of the master (fig. 176). Nothing of his workshops has been located so far. In fact it is very likely that the mould genealogically younger works in the Hanse region had been derived from a pupil who left the main workshop before it went on to the east. At least the repertoire of figures could point more or less to a date of separation in the 1430s to about 1445/1455.

As far as we know the originals of the reliefs and figures stem from the Netherlands and the Rhineland (distribution maps 1-8). Since – in general – the figures from western Central Europe were quite popular in the Hanse region their use in stove tiles there seems quite natural. The same goes for today's Baden-Württemberg, which under Netherlandish influence just started to become the most influential artistic centre in Germany during the mid 15th century. But even in Hungary some of these figures might have been known before the stoves were erect-

ed as the St. Christopher from Klastrompuszta shows. This not so unbelievable since inside the Hungarian Kingdom most finds from a pupil of the Worms workshop main Master have been excavated.⁴²⁹

Already younger than the earliest stove tiles of this school in the North are the workshop items found in the Rostock hoard. This might have belonged to a pupil of the main master's pupil, since none of the moulds or positives was used for the older stove tiles in the region (3rd generation workshop). The hoard of moulds stems from a c. 1600 stratum possibly being left overs of an early 16th century floor. Even in this case it is uncertain whether Rostock was the place of stove tile production in the 15th century

⁴²⁹ See Grimm 2011d, 309-310, fig. 1.17; fig. Grimm 2016, 42, 151, 239-241; Polla 1979, fig. 87.3, 6, 88.1, 4, pl. 27.5, 6, 9. The specific style of this master who left the workshop in the mid or late 1450s is to be recognized at first in a find from Worms itself, but unrelated to the workshop area: Grimm 2011d, 310-311, fig. 1.31. Both figures can be dated to the 1460s by design. I own many thanks to Viktoria Pacher for showing a figure of the Bratislava type of sitting Jesus with bird and grapes from Austria.



Fig. 182. Master of the Adoration of the Child (attributed to): Grave of Michel Poche (c. 1431; St. Omer Cathedral, F).

or whether the inventory had been transferred there in a later period, although the clay composition matches that of regional products macroscopically. And even this genealogically late reflex of the original workshop was active in the Hanseatic region before the end of the second third of the 15th century.

Conclusions

The assortment of figures for the stoves with the knight figures, the apparently somewhat older stoves in Ladenburg and the apparently a little younger moulds and intermediary positives from Rostock suggest an editorial deadline for the program of figures as stove tile decorations at least in the 1450s. The figures from Rostock do not stand directly in the Hungarian line, but come from another side branch of the line discovered in Ladenburg, from which further, partly mould genealogically older products can be traced in the Hanseatic region. Unknown as such so far, a stove tile from Kasteel Aldegonde (Zeeland, NL) would have to be added as a very late product to this workshop circle (fig. 177), which can be dated between 1470 and 1492 due to the alliance coat of arms of Adolf of Cleves and Anna of Burgund.⁴³⁰

In addition to the Ladenburg stove and the Speyer crown tile, other finds from the same workshop circle in South Western Germany in a region that is now Baden-Württemberg have been preserved. A green and brown glazed open work half-cylinder-tile with tournament knight, a variant of the knight in Hungary, has been preserved in a fragment from Rottweil.⁴³¹ An older variant of the same knight series has been handed down in a mould preserved in Heilbronn (fig. 175). It is not so much the small niche figures as the crockets and frames of the Lörrach stove tiles (from the castle Burg Rötteln) from the same hand that prove their origin in the knight figure workshop (fig. 178). These may be added to the known stove tiles with architectural elements known from the museums in Cologne and the find from Hallwyl (Switzerland), which can be dated to 1464.⁴³² Although it is unclear whether these originated in the main workshop or are later copies and those in museum possession might also have been traded from elsewhere. Even so there is a clear distribution focus in South-Western Germany especially today's Baden-Württemberg.

The older Hungarian figures as stove tile decorations, like those used to make the Hanseatic

430 Cf. Dierendonck/Kuipers/Scholten 2014, 94.

431 Mück 1998, 94-95.

432 Holl 1998, 156, 164-165, fig. 22.5-6, 22.8.

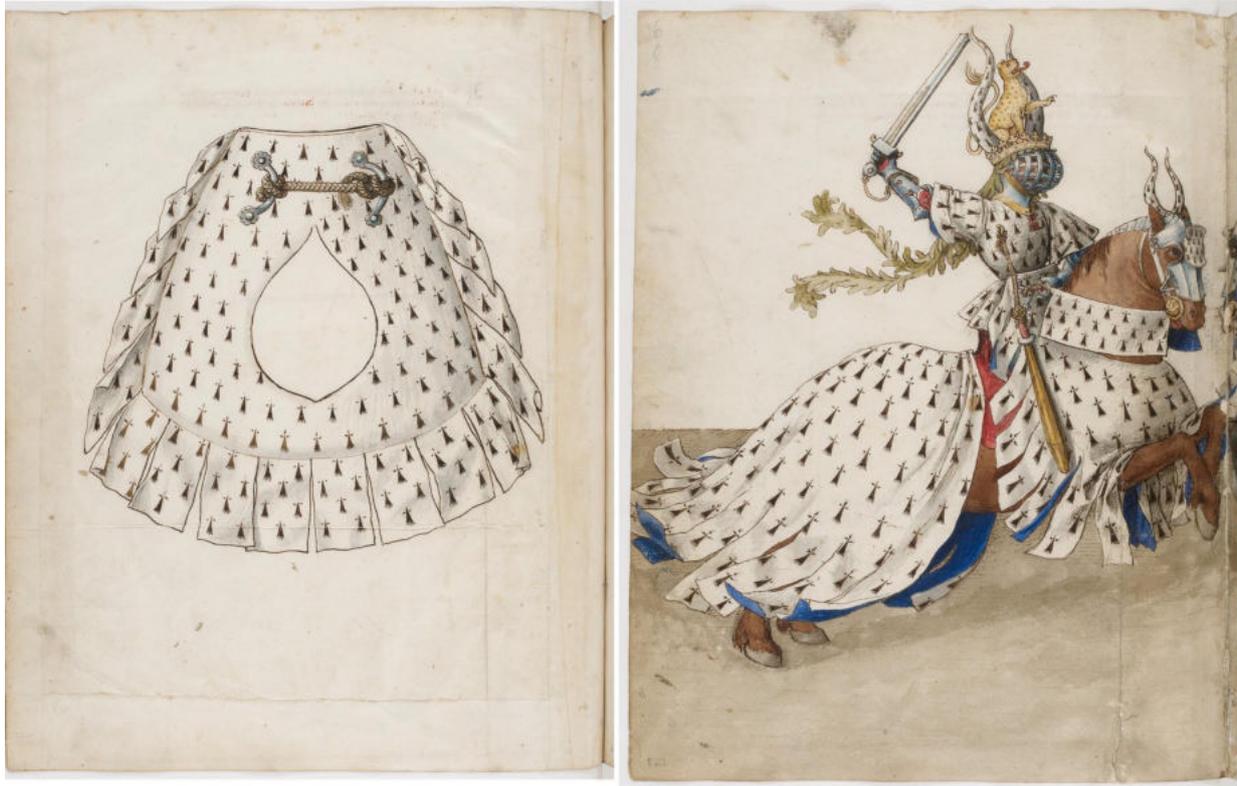


Fig. 183. *Tournament Book of Renée d'Anjou* fol. 43v, 45v. (c. 1460-1469; after: https://data.bnf.fr/en/15091297/rene_1_traite_de_la_forme_et_devis_comme_on_peut_faire_les_tournois/).

line of the genealogy, derive from the moulds of the oldest Ladenburg pieces, in which both lines join. There were therefore at least three workshops, with the south-western one forming the base and the northeastern and eastern ones being branches independent from each other. The Rostock mould hoard is to be regarded as a repertoire of the third workshop generation, while the finds from Wismar and Stralsund represent the direct succession of the Southwestern workshop in the Hanseatic region.

In the context of the stoves in which pipe clay figures were used as decoration, it is noticeable that the stoves with the knight figures subsequently enjoyed tremendous popularity. The stoves in Buda and Grad Ružica belonged to the small top class of late Gothic tiled stoves with polychrome glazes, oil paints and even gilding.

The succession of the stoves in the former Kingdom of Hungary and Austria can be divided into those stoves which are directly connected to the original series via impressions and those which freely adapt motifs from the

series.⁴³³ The first seem to belong to the upper class, but this seems even the case with some derived copies: So the copy of the stove tile with angel holding coats of arms in the Janus-Panonus-Museum Pécs has the coat of arms of Habsburg and Tyrol and a small coat of arms of the German kingdom and thus is of equal rank as the originals in this respect.⁴³⁴ Even if particularly late copies might be a common style decoration as a degraded cultural asset⁴³⁵ which is unclear in many cases.⁴³⁶ So it is even more likely that they, too, mainly belonged to at least upper middle class customers.⁴³⁷

However, there are also stoves with tiles whose repertoire of forms contains elements of stoves with knight figures, but whose exact types do not appear there. The tile type 3 from Buda (fig. 25), the completely preserved stove

433 Holl 1998; Friedl/Kühtreiber 2003; Hlubek/Fal-týnek/Šlězár 2016.

434 See Holl 1998, 162, fig 31 and 149, fig. 14.

435 Gruia 2013b, 325.

436 Cf. Holl 1998, 210.

437 Gruia 2009, 216-219, fig. 5-16.



Fig. 184. Stove tile with a knight in “Rennen” Tournament with coat of arms of the Lichtenburg family from Buda (after Kiss/Spekner/Végh 2018).

tile from Olomouc (German Olmütz; fig. 181) and the type-equivalent finds from Litovel,⁴³⁸ the closely related Moldavian stove tile with knight figure from Suceava⁴³⁹, the Transylvanian stove tile with standing knight in Sibiu (fig. 180) are more closely interrelated than with the stove tile finds from Lörrach, Rötteln Castle (fig. 178).

The central ogee (German *Kielbogen*) is practically identical. The architecture of the Transylvanian stove tile in Sibiu is more harmonious, however, because the canopies of the figure niches are placed parallel to the arch, while

438 Hlubek/Faltýnek/Šlězár 2016.

439 Gassauer 1935, fig. 18. It contains a niche figure of Eve, not identical to the type mentioned above (fig. 20-21). The same type occurs on another Moldavian stove tile from Suceava : Batariuc 2002, fig. 9.

the niches in Hungary, the Moldavian specimen with knight riding to the left and Moravia are higher. In addition, the stove tile in Sibiu has a final foliage frieze, which is missing in the Hungarian and Moravian examples as well as with those from Castle Rötteln. Here, a typological development can be assumed for small figure tiles from the Lörrach (Rötteln castle) prototype to type 3 from Buda via the intermediate stage in Moravia to the harmonized design in Sibiu.

It is also worth taking a look at the frames of the Ladenburg stove tiles decorated with foliage. As in Lörrach, the architectural subdivisions are still comparatively sparse. There is no leaf frieze. The tendril friezes found here are comparatively stiff, while vegetable decorative elements such as the vine leaves are still comparatively rigid and almost symmetrical. The acanthus leaves in the lower part of the tomb of Michel Ponche in St. Omer (fig. 182; ascribed to the Master of the Adoration of the Child, German *Meister der Anbetung des Kindes*, c. 1431) are a good comparison.⁴⁴⁰ These are already clearly waved at the stoves with the knight figures in Buda. The vine above the Ladenburg St. George occupies a midway position (fig. 88). In this respect, the leaf ornaments in the grave stele Du Sart-De Gerls in the archaeological museum of Ghent showing the birth of Christ are well comparable (before 1456),⁴⁴¹ and occupy a middle position between the two modes of design. The stamped leaf friezes introduce the development described by Holl for the turn to the 3rd quarter of the 15th century with the common momentum to the dynamised vine.⁴⁴²

A remaining desideratum for the research on these stove tiles which could not be achieved in this paper would be a complete presentation of the finds from Buda, Tata, Visegrád, Grad Ruzica and Nyírbator, and if possible also from Lipnice, Lichnice and above all Bratislava. Considering the stratigraphical position of these and correlation with accompanying finds would

440 Steyaert 1994, 56, fig. 20; Grimm 2010b, 69-70; Grimm 2016, 21-22, fig. 20. The date of the date of death is sometimes misread. It reads: “m cccc + xxxi ill xxiii decēbre”, so it is 23 December 1431.

441 Rolland 1932, fig. 15.

442 Holl 1991, 334, fig. 16-18.



Fig. 185. Ulrich W. Schreier, *Greiner Marktbuch* fol. 10r. and detail: Portrait with coats of arms of Frederick III (1480; after digi.landesbibliothek.at/viewer/image/GreinerMarktbuch/21/).

be necessary as well as comparisons with the Baden-Württemberg finds with regard to the genealogy of the individual form elements. So far, this has only been done for individual finds from Buda.⁴⁴³

It would also be tremendously helpful to investigate the stove tiles' ceramic bodies with natural scientific. Where possible this should be realized by neutron activation analysis (NAA), otherwise by a relevant selection with non-destructive X-ray fluoroscopic analysis (RFA). Recent investigations have shown that correlations between the two methods are now possible for some trace elements.⁴⁴⁴ In addition to workshop waste, local soil samples can also be used to determine the region of origin.⁴⁴⁵

The current phase divisions are partly based on the NAA of Holl and Balla and to a greater extent on macroscopic distinctions of the com-

position of the ceramic body and the manufacturing technique. Finer differences, such as recourse to different clay pits, cannot be proven in this way, but may be with discrimination analysis.

Once the dating (in the sense of groups relevant for dating) for each stove tile has been clarified and replacement stove tiles have been identified, the program of the stoves can also be examined in greater detail. The fact that the motifs are not randomly arranged can already be seen in the largely uniform stove from Ružica. We find the important saints of the time in different sizes and levels of meaning with special attention to the knightly saints. This corresponded with the tournament as a knightly spectacle.

A strongly reshaped St. Maria Aegyptiaca from Grad Ružica (fig. 179), whose face goes back to a similar but not identical model to the Madonna of Zoeterwoude⁴⁴⁶ or to the Barbara (fig. 78-80), which was used for the angel, is also a crown tile. However, in the case of the Maria Aegyptiaca the discontinuity in the design

443 Holl 2005. Individual types are also startigraphically broken down in Holl 1998.

444 Mommsen 2016; Wilke 2016; Grimm 2016, 261-281.

445 See Wilke 2016, 307-308; Giertz et al. 2015, 252-253, 268-274.

446 Cf. Preising/Rief 2013, 335 no. 85 (Ingmar Reesing); Dospel 2013, 88-89; Giertz et al. 2015, 258.

of the hairstyle is clearer than with the angel. The design of the body may vaguely resemble the virtuoso style of the master, but he coherently transformed the hairstyles and extended them without break. A far less skilful hand was at work here. The strands of hair, mostly held in the new swelling and waning manner, in which flanking strands, if they still exist at all, did not develop parallel any more, were at the height of fashion about 1459. The personal style indicates that the main master was no longer in Hungary.

Marian roses, pelicans, griffins, lions and (equal as well as different) tournament riders⁴⁴⁷ correspond to the form spectrum known from Buda. But the large figures show the desire to outdo the role model.

The lions (another variant of the same basic type)⁴⁴⁸ guarding trees that have since appeared outside Hungary may be bewildering in an iconography for Frederick III, but not in the Hungarian context. The coat of arms of Ladislaus were otherwise almost ideal for the other Habsburg, the German Emperor. The extension by the coat of arms of his wife and those of Kyburg shows how precise the selection was.

The Buda crests of two jousting knights, which can only mean a Habsburg, but not Matthias, and which also bear Habsburg coat-of-arms iconography,⁴⁴⁹ contrast with the one in Visegrád that is clearly related to Matthias. The link to the other Habsburg is thus a significant hint that the Emperor, as a Hungarian king, can achieve the same and greater things than the first Habsburg Ladislaus.

The original pictorial program can be understood as the depiction of a tournament association (in the sense of a social group of aristocrats manifested through tournaments, and perhaps even as a concrete tournament, as Holl has suggested)⁴⁵⁰ within the framework of the Habsburg rule over Hungary and Bohemia. This reign in turn is under the protection of the saints and Mary. They thus convey origin, festivity,

dominion and faith in a way that is comprehensible to contemporaries and not too specific.

A more intensive investigation of the preserved stove fragments could not only enrich the research on stove tiles, pipe clay figures and other printed sculptures with detailed results; but through this process we could also be able to refine local and regional chronology schemes, precisely because the respective accompanying finds can be dated independently via impressions, if the finds were discarded relatively soon after their formation.

The different types of printed clay sculptures used in the stoves with the knight figures already show how closely productions from the Netherlands, Germany, Switzerland and Hungary were interwoven. Further finds confirm that there was a network of types, impressions, variants and copies throughout Central Europe. Some pieces were also exported. The Hanseatic League and the Netherlands played an important role in this respect.

As to now, we can say that:

- In the 1440s to mid 1450s a repertoire of pipe clay figures is in use by a Southwestern German Workshop (St. Catherine type Worms (HU, H), St. Peter (BW, HU, H), St. James (BW, HU, H), St. Anthony (BW, HU, H), St. Hadrian (HU, H), St. George (BW, HU), St. Christopher type Utrecht/Ladenburg (BW) and unidentified Children (H). There is also a relief in the workshop (St. Barbara (HU, H), that was used later as angel's head in Grad Ružica and is known from the Rostock mould hoard as an intermediary positive, but no stove tile with full adaptation has been found to date. This workshop is known from find spots in Speyer, Ladenburg, Lörrach and Rottweil all in Baden-Württemberg. In every case there are two or more mould generations at least from some of the figures. The Rottweil find depicts a jousting knight very close to those later used in Hungary while two moulds of different generations depict a slightly more old fashioned jouster.

- A pupil of this workshop moved into the Hanse Region and set stoves in Stralsund and Wismar. The repertoire points to about 1440-1455 for the departure.

447 Radic 2004, 245-246, 248-253, 255-256.

448 Roth-Heege 2012, 283 Nr. 375.

449 Holl 1998, 172-173.

450 Holl 1998, 175.

- Between 1454 and 1457 the main master of the original workshop moves to Hungary. He sets his first stoves with a clear Habsburg iconography. These typical stoves with the knight figures from the Royal Palace in Buda are the ones determining the fashion. The sculptures are as old or younger than in Ladenburg and previously unknown figures and reliefs are incorporated.

- In ore after 1457 the same workshop executes the Regensburg stoves.

- The dates given for the first ceramic phase are 1454-1457 and 1457-1458. All figures are in the first Hungarian mould generation (first to second in total). As we can see below this can only mean 1454-1457.

- In 1454 to 1457 the orders for stoves are given in Bohemia with a program pointing to king Ladislaus. These are the earliest examples from ceramic phase 2, most likely from 1457 or ordered in that particular year.

- In 1459 up to March 1460 the Grad Ružica stove is erected. This is done still with figures of the 1st Hungarian mould generation and in ceramic phase 2. The only king recognizable here is Frederic III, the counter king and emperor. During this period the main master disappears from the find record.

- In Kaposszentjakab cloister another stove with copies of the stoves with knight figures was erected (1459 to March 1460).

- Ceramic phase 2 must have taken some years since the St. Catherine type Worms is known in three different mould generations all present in phase 2. In this phase the armour of the jousting knights was modernized in a fashion typical for the 1450s. The exact end of this phase is unclear but it might have lasted into the 1470s (1454-c. 1470/75).

- The Rostock mould hoard displays a third generation stock configured before 1466 due to modernizations with *Zaddel* costume.

- Ceramic phase 3 displays a degradation in artistic skill of the Hungarian Workshop. In this phase the jousters had been modernized again in a 1470s fashion (3rd Hungarian mould generation, widely reworked).

- Between 1469 and 1473 a new Swiss(?) workshop arrives in Buda. Some of it's moulds and new techniques had been incorporated into the repertoire of the workshop who was responsible for ceramic phase 4.

- Between 1469 and 1475 a new type of stove tiles was introduced in Buda (fig. 184). This new stove tiles are designed independently from the original moulds by means of copying but they display some influences with the general layout. The armour of the knights and the *Rennen* as a new fashion are typical for this later period.

- Ceramic phase 4 (Visegrad, Buda) can be dated to the 1480s and displays a reworked and mould genealogically younger Archangel Gabriel in a late flaming wrinkled up style, typical for this period (1485-1490).

- Other elements of decoration had been re-used for majolica stove tiles and other stove tiles in the 1480s in Buda.

However because the stoves with the knight figures, because their beginnings lie precisely in the temporally narrow reign of Ladislaus Postumus, they play an important role for the national histories of Hungary and the Czech Republic, but also for the regional history in parts of today's Croatia and Slovakia. They provide a chronological reference point in a period for which wars and the Turkish occupation have caused the loss of a large part of the archival documents.

If not mentioned all photographs, drawings and scans are by Gerald Volker Grimm.

If not mentioned otherwise all stove tiles from the series with the knight figures derive from the Buda Castle and are preserved by the Budapesti Történeti Múzeum (Budapest History Museum). The mould hoard from Rostock is preserved by the Landesarchäologie Mecklenburg-Vorpommern.

If not otherwise mentioned stove tiles are glazed. Mould generations of the stove tile figures are counted from the first generation in the stove tile workshop, not from their originals. We have to assume that no first generation of any pipe clay figure with the exception of the Madonna type M 5 from Worms and possibly a St. Catherine type M 20 in Trier, most likely from the same workshop, is preserved.

All distribution maps had been designed in collaboration with Harald Rosmanitz and Sabrina Bachmann. The localisation of the find spots is according to the modern countries and the international vehicle registration codes. Marks in normal size: 1 specimen, 2-4 specimens at minimum: 1,3 times the size; 5-10 specimens at minimum: 1,6 times the size and more than 10 specimens at minimum: double the size.

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Distribution map 1: St. Catherine

Figures: Red: London (GB), Delft (NL), Bornheim, Trier and Werth (D). – Figure production sites: Light blue: Cologne and Worms (D). – Stove tiles: Green: Budapest (HU), Grad Ružica (HR) and Stralsund (D).



Distribution map 2: St. Peter

Figure: Red: 's-Hertogenbosch (NL). – Stove tiles: Green: Budapest, Nyírbátor, Pilisszentkereszt (HU), Lichnice, Lipnice (CZ), Ladenburg, Stralsund and Wismar (D). – Stove tile production site: Dark blue: Rostock (D).



Distribution map 3: St. James (St. Jacobus maior)

Figures: Red (Antwerp, Balen (B), Utrecht, Verdronken Dorp (NL). – Figure production sites: Light blue. – Stove tiles: Green (Budapest (HU), Cologne, Ladenburg and Speyer (D)). – Stove tile production site: Dark blue: Rostock (D).



Distribution map 4: St. Anthony Eremita

Figures: Red: Delft, Wasenaar (NL) and Lüdinghausen (D). – Figure production sites: Light blue: Aachen and Cologne (D). – Stove tiles: Green: Budapest, Pilisszentkereszt (HU) and Ladenburg (D). – Stove tile production site: Dark blue: Rostock (D).

Although the original type had been produced in Cologne, too, most figures from Cologne and the specimen from Lüdinghausen are derived variants of the original type.



Distribution map 5: St. Christopher

Figures: Red: Delft, Gouda (NL), Klastrompuszta (HU) and Dormagen (D). – Figure production site: Light blue: Rottendam (NL). – Stove tiles: Green: Budapest (HU) and Grad Ružica (HR).



Distribution map 6: Holy Bishop

Figures: Red: Balen (B) and Cologne (D). – Figure production sites: Light blue: Leiden and Utrecht (NL). – Stove tiles: Green: Lichnice (CZ), Budapest (HU) and Grad Ružica (HR).



Distribution map 7: St. George

Figures: Red: Amsterdam, 's-Hertogenbosch (NL) and Trier (D). – Stove tiles: Green: Budapest, Nyírbátor (HU), Grad Ružica (HR) and Ladenburg (D). The photography of the holotype from Nyírbátor after Holl 1998.



Distribution map 8: St. Barbara

Figures: Red: Verdrongen Dorp (NL), Balen (B), London (GB) and Neuss (D). – Stove tiles: Green: Lichnice and Lipnice (CZ). – Stove tile production site: Dark blue: Rostock (D). The photography of the holotype from Neuss is by M. Langenberg.