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CERAMICS IMITATING GLASS? RIBBED BOWLS MADE OF POTTERY FROM *BRIGANTIUM*/BREGENZ

The present paper gives an insight into preliminary results of the analysis of ribbed bowls made of pottery based on the findings from Brigantium/Bregenz. Therefore, different aspects of research are taken into account: the paper will provide an overview of the known finding spots and the possible origins of the ribbed bowls will be discussed. The indisputable similarity with ribbed glass bowls Isings 3a/b suggests a close relation between them. Since the ribbed bowls from Bregenz are the only ones in the Roman province Raetia pXRF-analyses were carried out to determine their origin. The results show that these bowls were produced locally which is indicated by the same chemical composition as the pre-established reference group from Bregenz. The very rare occurrence of this kind of pottery could stand for the personal preference of single costumers.

Introduction

Fragments of at least six ribbed bowls made of pottery were unearthed during excavations in 1974 in the Roman settlement of *Brigantium*/Bregenz on the shores of Lake Constance. The findings and features of this excavation are presently analysed as part of the trinational project – “*Limites inter Provincias* – Rome’s inner frontiers” which is located at the Universities Zurich (CH), Freiburg (D) and Innsbruck (A)¹. The Austrian part of the project is financed by the FWF, the Austrian research found. The excavations took place in the area referred to as ‘Gmeinerwiese’, at the north eastern part of the settlement. During the excavations remains of at least five Roman buildings as well as a part of the ancient road were documented. The finding spot of these ribbed bowls can be located in the area where trench 1 meets trench 2, close to building number 76, a so-called ‘Streifenhaus’ (a stripe house), with seemingly only residential purpose, instead of the more common multifunctional type with integrated workshops. Two sherds were found at a more distant point, in trench 4, an area where a waste pit was located. Sherds from the same vessels (coarse ware and samian ware) were found as well amongst the debris layers of building 76 as inside the waste pit in trench 4. Therefore, we have a connection between them. Although large areas of the Roman settlement have been excavated during the last 200 years, the ribbed ceramic bowls from the ‘Gmeinerwiese’ seem to be the only specimen of that kind from *Brigantium*, maybe indicating a single costumer.

Description of the ribbed bowls made of pottery

The vessels (**fig. 1**) are best described as a hemispheric bowl with a straight rim, decorated with separately formed, downward pointing ribs attached to the outer surface approximately 1 to 2 cm beneath the rim. The ribs itself are triangular in cross-section with rounded edges. Furthermore they are not attached in straight lines to the body; instead they form slightly arched lines. The bowls measure 19 to 25 cm in diameter and have an estimated height of 10 to 12 cm. Since no whole vessels or base fragments were retrieved in Bregenz, it is not possible to describe the full shape. However, fragments of the lower body show common features: the ribs form a more or less pointed end which is followed by one or two lines beneath them. Those lines can be flat or pronounced and form the junction between the body and the base. Therefore I would like to suggest a foot rim or perhaps a flat base. The fabric corresponds with the so-called Terra Nigra – a grey ware, slightly tempered, wheel-thrown and with a dark grey or black slip. A very common ware, especially in the provinces *Raetia* and *Germania Superior* used for indigenous forms as well as for pottery imitating shapes of samian ware.

Pottery based on the model of Isings 3a/b?

The general shape of the bowls as well as their cross-sections can be compared to Isings 3a/b. This common glass vessel occurs in the entire Roman Empire from Augustan times until the 2nd century AD and further on. Since the ceramic bowls are an almost perfect imitation of the glass bowls, a direct relationship between these two seems quite obvious. This becomes particularly evident by looking outside the Roman Empire: Many findings of glass vessels Isings 3a/b in settlements across the Limes indicate a flourishing trade with

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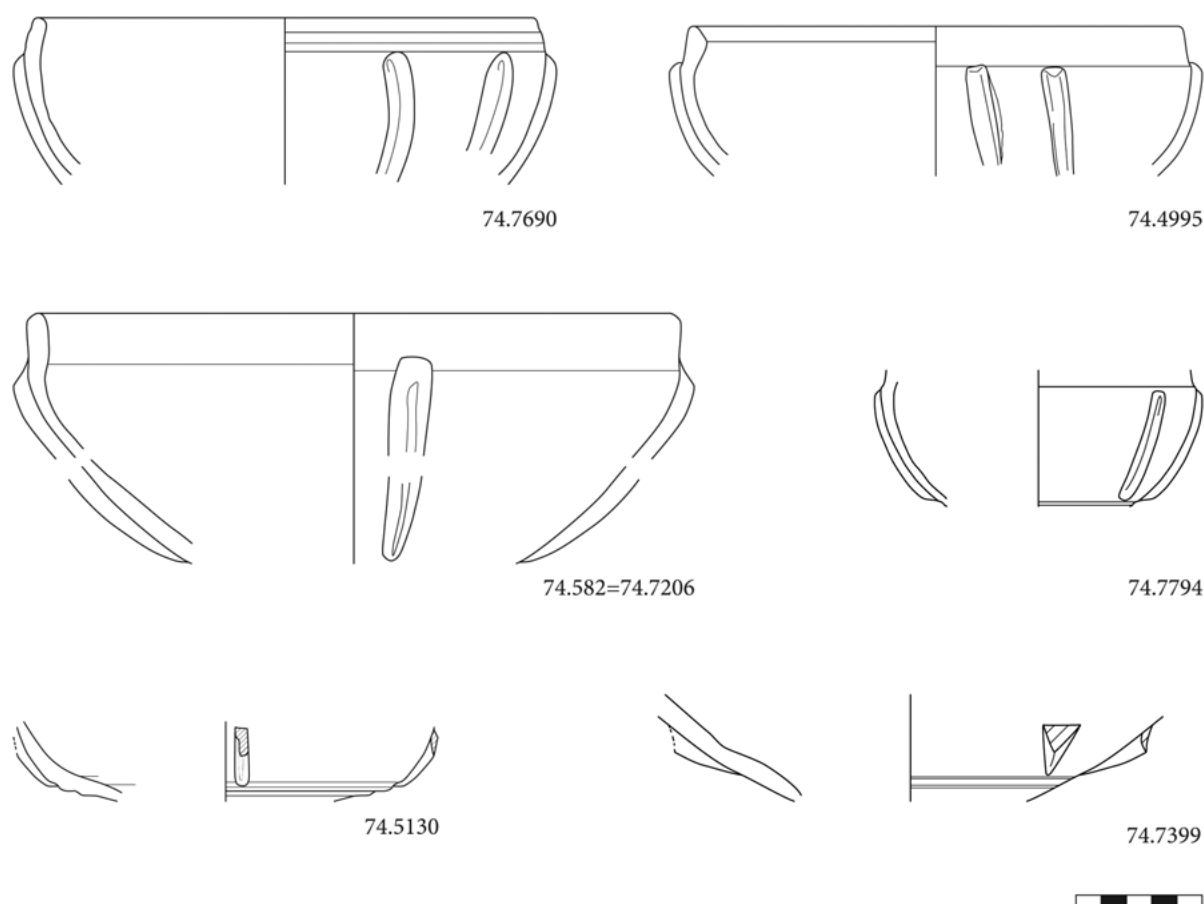


Fig. 1. Ribbed bowls made of pottery from the so-called 'Gmeinerwiese' in Bregenz (drawings: J. Rabitsch).

Germanic peoples. Most imports in the *Germania magna* date back to the periods B1c until B2a, which corresponds roughly with the time between the middle of the 1st century until the 2nd half of the 2nd century AD². This fact is relevant because a large number of ribbed bowls made of pottery was found in Germania. Both, the imports and the pottery imitations, have more or less the same dating range. This evidence suggests that, almost immediately after the first glass bowls were imported, the first imitations emerged. What is even more striking is that both distribution areas, those of the glass vessels as well as the ribbed ceramic bowls are almost identical, indicating a direct correlation between these two variants of vessels³. The local pottery imitations of the bowls were probably more affordable than the imported glass vessels, which could explain their popularity. A big difference between the ceramic ribbed bowls found in *Germania magna* and those from *Brigantium* and from other Roman finding spots as well, is the design of the base. All of the Germanic bowls show star-shaped or cross-shaped ornaments on the base, formed by the ribs which run around the whole body and join each other at the bottom of the vessel⁴. Judging by

the fragments found so far, this shape can be ruled out for the bowls in Bregenz since their ribs form a pointed end on the lower body.

Distribution of ribbed bowls in the Roman Provinces

Inside the Roman provinces the practice of imitating glass vessels in ceramics, especially the Isings 3, seems quite common as well (**fig. 2**). The main distribution area seems to follow the river Rhine. However, there are a few outliers, for example in *Vindinum*/Le Mans, where fragments of at least six bowls with pronounced ribs and a flat base were found. On contrary to the vessels from *Brigantium* all of the samples of *Vindinum* are moulded. There they occur from the 2nd half of the first century until the beginning of the 2nd century⁵.

A similar mould technique based production is assumed for the ribbed bowls made of pottery found in *Noviomagus*/Nijmegen⁶. A significant amount of fragmented bowls amongst the findings in a pottery kiln suggests a local production. In contrast to the vessels from *Brigantium* they all

² H. J. EGGERS, Der römische Import im freien Germanien. Atlas der Urgeschichte 1 (Hamburg 1951) Karte 49; T. STAWIARSKA, Naczynia szklane okresu rzymskiego z terenu Polski (Warszawa 1999) 100.

³ HEGEWISCH 2005a, 206; HEGEWISCH 2005b, 209.

⁴ HEGEWISCH 2005a Abb. 3; HEGEWISCH 2005b, 80.

⁵ G. GUILLIER, Un aspect méconnu de la céramique du Haut-Empire: La vaisselle modelée, l'exemple du mans (Sarthe). SFECAG Actes Congrès Rouen 1995 (Marseille 1995) 218–219.

⁶ R. P. J. KLOOSTERMAN/M. POLAK/M. J. ZANDSTRA, Opgravingen op het terrain van het voormalige Canisiuscollege in Nijmegen, 1987–1998. Auxiliaria 14 (Nijmegen 2014) 123.

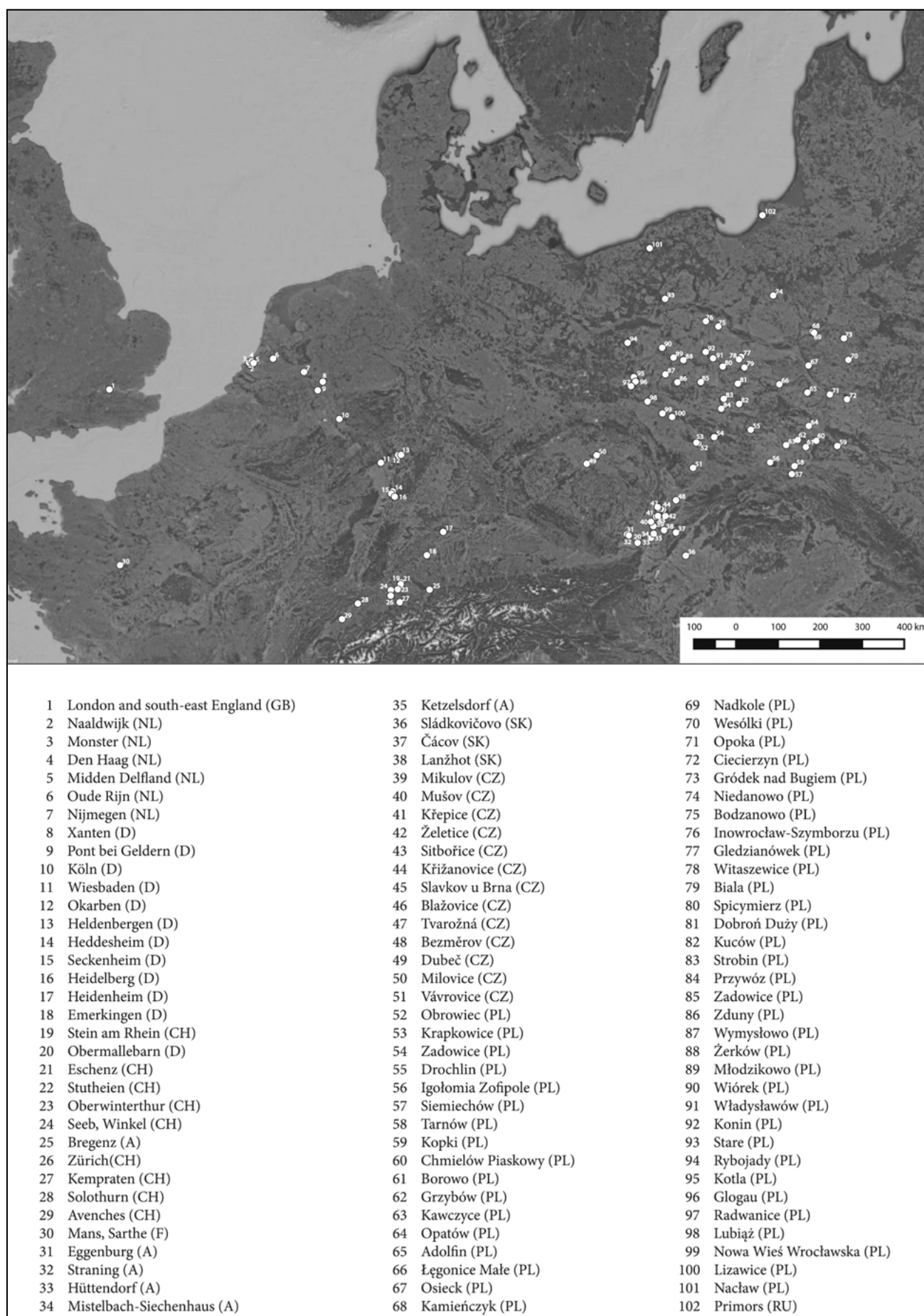


Fig. 2. Distribution of ribbed bowls made of pottery. 1–29 Roman ribbed bowls; 30–102 Germanic ribbed bowls mapped by HEGEWISCH 2005 (map data ©2016 Google, graphic: J. Rabitsch).

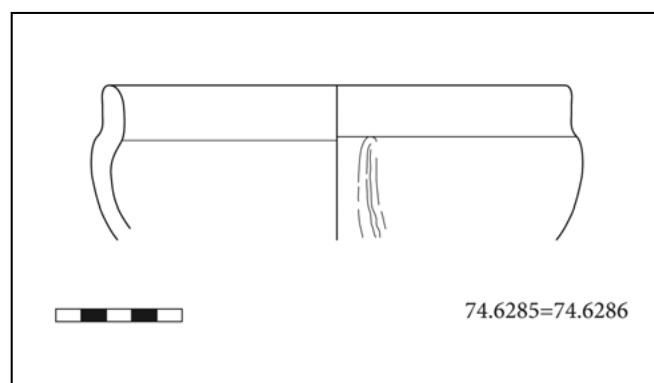


Fig. 3. Barbotine-ribbed bowl from *Brigantium*/Bregenz (drawing: J. Rabitsch).

are made of an orange fabric with a thin reddish slip and very pronounced ribs with a triangular cross-section and sharp edges⁷. The ribs are evenly spaced and form straight, downward pointing lines. The base is formed by a foot rim⁸. Fragments from another finding spot close by, Naaldwijk-‘t Zand Heultje, show a flat base and a slightly outward bended rim⁹. The bowls in the area around The Hague (including aforesaid finding spot) show a variation of production techniques: some are wheel-thrown, some are handmade, and the ribs are either separately formed and attached afterwards or impressed in the inner surface of the vessels¹⁰. The findings from the modern Netherlands all date between the late 1st century and the beginning of the 3rd century AD¹¹.

Following the River Rhine the next finding spots can be located in the *Colonia Ulpia Traiana*/Xanten¹², at a burial site in Pont by Geldern¹³ and in the *Colonia Claudia Ara Agrippinensium*/Cologne¹⁴. The bowls seem to be locally produced showing the typical light whitish fabric. No information about the manufacturing technique has been published yet; however, when looking at the pictures it is probably true to say that a mould technique based production was used¹⁵. An interesting aspect regarding ribbed bowls in the lower Rhineland is that the finding spots correlate with those of the so-called ‘lower Rhineland ware’, a fine ware of mostly light coloured fabric and dark colour coating. The key shape is a hemispherical cup with a variety of barbotine decors, including the quite popular decoration with broad barbotine-rips applied to the outer surface. These cups occurring in Claudian times, can be encountered quite frequently until Neronian times and still appear in later contexts¹⁶. Since their distribution areas are almost congruent a connection between the two types, the fine ware bowls and the local produced bowls with pronounced ribs is very likely. However, it cannot

be excluded that the ‘lower Rhineland ware’ cups themselves were an early adaption of the ribbed glass bowls in ceramics and therefore have the same origins.

The ‘lower Rhineland ware’ is not the only fine ware providing a vessel which resembles the Isings 3a/b in its shape as well as in its decoration. A hemispherical bowl with straight barbotine lines around the whole body belonging to the ‘South-east England glazed ware’ which is distributed during the 2nd century can be found quite frequently in southern England. The fabric is micaceous, usually grey and covered with a translucent dark green gloss. For the barbotine decorations, a different whitish clay was used¹⁷.

Back to the river Rhine, in detail to the Upper Rhine Valley, similar bowls were located in the area between Wiesbaden and Heidelberg¹⁸. The fabric of these vessels equals the *Terra Nigra*, which is quite similar to the fabric occurring in Bregenz. On the contrary to the earlier described ribbed bowls the ones from this area do not have pronounced ribs made of separate clay strands. Instead, thin barbotine strings are applied to the outer surface, comparable with the decoration used on fine ware. Nonetheless the general appearance of these bowls still resembles those from *Brigantium*/Bregenz. The dating range lies between the 2nd half of the 1st century and the beginning of the 2nd century AD¹⁹.

The southernmost distribution (so far) is in the area between Lake Constance and Lake Zurich. This area is particularly interesting; firstly it includes the settlement of *Brigantium* which is situated at the shores of lake Constance and secondly both forms can be found here – the barbotine-ribbed bowls as well as those with pronounced ribs. They all seem to be locally produced, wheel-thrown and mostly in grey, Terra-Nigra-like fabrics²⁰, only a few individual pieces have an orange colour²¹. Both types seem to be equally common: the barbotine-ribbed ones can be found e.g. in Seeb²², *Turicum*/Zurich²³ and *Vitudu-*

⁷ HAALBOS 1995, 62 Abb. 38,8.

⁸ HEGEWISCH 2005a, 209.

⁹ GEERTS 2014 fig.4.

¹⁰ GEERTS 2014 fig.7.

¹¹ GEERTS 2014, 772–775; HAALBOS 1995, 60.

¹² Unpublished material. Thanks to Bernd Liesen (APX) for the information.

¹³ CÜPPERS 1962, 329–330.

¹⁴ FREMERSDORF 1964, 22.

¹⁵ CÜPPERS 1962 Abb. 19; FREMERSDORF 1964 Taf. 66.

¹⁶ K. GREENE, The Pre-Flavian fines wares. Report on the Excavations at Usk 1965–1976 (Cardiff 1979) 56–60.

¹⁷ P. R. ARTHUR, The lead glazed wares of Roman Britain. In: G. D. Marsh/P. R. Arthur (eds.) *Early Fine wares in Roman Britain*. BAR Brit. Ser. 57 (Oxford 1978) 193–356.

¹⁸ HEUKEMES 1964, 57–59.

¹⁹ HEUKEMES 1964, 56.

²⁰ JAUCH 1997, 126; MEYER-FREULER 1990, 171; VOGT 1948, 197.

²¹ CASTELLA/MEYLAN KRAUSE 1994, 59.

²² MEYER-FREULER 1990 Taf. 11,30,31.

²³ VOGT 1948 Abb. 48,23.

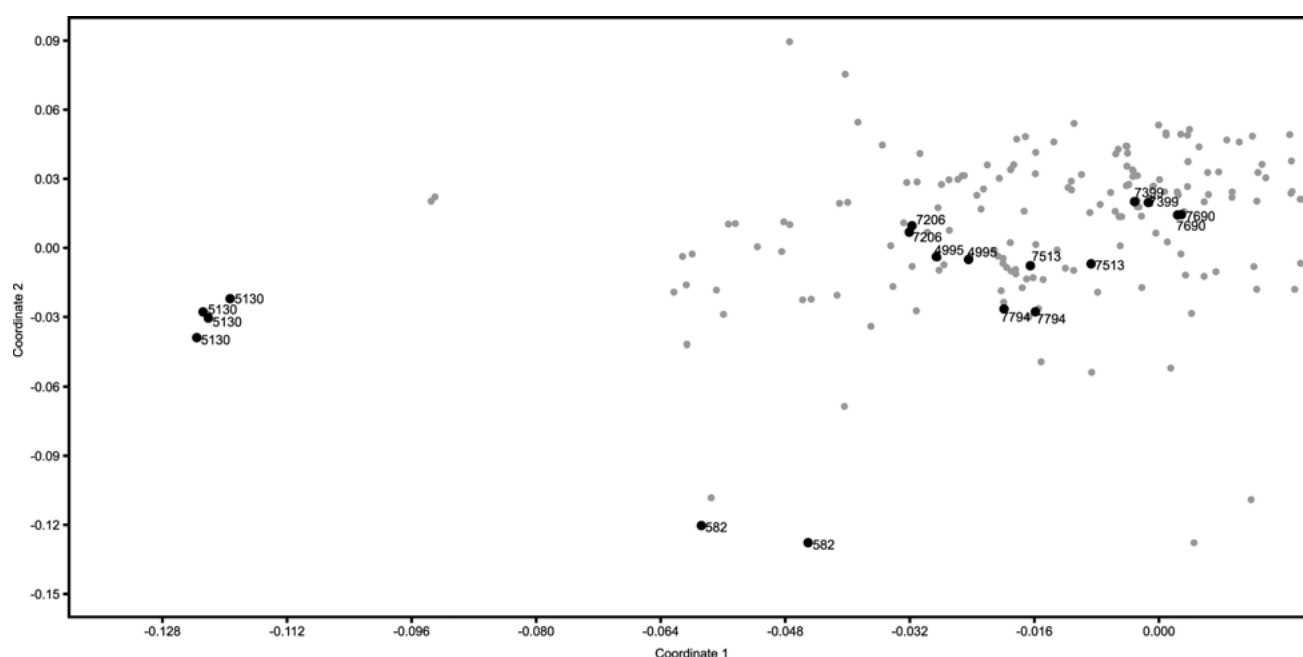


Fig. 4. This diagram visualises the results of the pXRF-analyses. The grey dots mark the reference group, the black dots the ribbed bowls made of pottery and the numbers indicate the sherds inventory numbers (graphic: D. Penz; modifications: J. Rabitsch).

rum/Oberwinterthur²⁴. Those with the applied pronounced ribs with a triangular cross-section occur for example in *Tasgetium*/Eschenz²⁵, *Aventicum*/Avenches²⁶ and of course in *Brigantium*/Bregenz. There is evidence for the bowls with flat barbotine ribs in Bregenz as well (**fig. 3**): two fragments quite similar in style, measurements and fabric to those with pronounced ribs are decorated with thin barbotine strings.

Since ribbed bowls made of pottery are very rare amongst the findings in each settlement in this area and often without a clear stratigraphic context, it is difficult to date them. In some cases a production time approximately between the 2nd half of the 1st century and the end of the 2nd century AD is suggested²⁷. The ribbed bowls from *Brigantium* cannot be dated exactly as we do not know their stratigraphic context; it seems they belonged to the inhabitants of building 76 though. The evaluation of the findings from the 'Gmeinerwiese' shows that this part of the settlement dates from the early 1st century until the middle (or maybe the end) of the 3rd century AD at which point it was abandoned to be relocated to a geographically safer site. The stone buildings date back to Flavian times and show some modifications indicating a long period of utilization. Therefore, the Flavian period serves as a terminus post quem for the ribbed bowls. Apart from that, the dating range can be narrowed down by the waste pit findings which provide an approximate time period between the late 1st century and the end of the 2nd century AD, which lies within the suggested dating range of the other finding spots.

Portable X-ray fluorescence analysis

Since the ribbed bowls from Bregenz count as a single find in the province *Raetia* the question arose if they were locally produced or imported. To determine their origin portable X-ray fluorescence (pXRF) analyses were carried out by my project partner Daniel Penz at the University of Freiburg. By analysing 100 different fragments of local coarse ware as well as a significant amount of *Terra Nigra*, a reference group for Bregenz was established. This pre-established reference group is necessary for the comparison of objects with uncertain origin such as the ribbed bowls. Contrary to the expectations the analysis shows that these bowls have the same chemical composition as the local produced ware which indicates that the same clay deposits were used (**fig. 4**). A single outlier (74.5130 in **fig.1**) can be determined with higher portions of calcium (Ca), copper (Cu) and lead (Pb). In addition to the varying chemical composition it is the only fragment with a different fabric: slightly tempered, micaceous, very dense and of orange colour. It has a smooth surface and seemingly no colour coating. Since we do not have suitable comparative probes the origin of this bowl cannot be detected. Yet it is possible, that this one was the ‘prototype’ on which the other bowls were based on.

Résumé

Looking at all the comparisons and results some conclusions can be drawn. Firstly, there seems to be a direct correlation between the ribbed glass bowls Isings 3a/b and the ribbed bowls made of pottery. Both appear around the same time and reach their peak in the 2nd century AD. As shown by the occurrences in *Germania magna* the imitations have the same distribution area as the originals, respectively no ribbed bowl made of

²⁴ J. RYCHENER/P. ALBERTIN, Ein Haus im Vicus Vitudurum – die Ausgrabungen an der Römerstrasse 186. Vitudurum 2 (Zürich 1986) Taf. 47.918; 57.919.

²⁵ JAUCH 1997 Taf. 25,408–410.

²⁶ CASTELLA/MEYLAN KRAUSE 1994, No. 183.

²⁷ CASTELLA/MEYLAN KRAUSE 1994, 59; JAUCH 1997, 56; MEYER-FREULER 1990, 143.

pottery has been found outside the glass vessels distribution area. The practice of adapting this form in ceramics not only appears in Germania, which is known for imitating Roman vessels made of none-ferrous metals or glass in pottery, but also in the Roman provinces; especially in the provinces *Germania inferior* and *Germania superior*. Even though we have much fewer ceramic ribbed bowls in the Roman provinces it is very likely that they have the same origins and therefore can be seen as adaptations of the glass vessels.

Secondly the river Rhine appears to be of significant importance as many finding spots are located in its valley. In addition to the transfer of goods along this known trading route some kind of cultural contact and transfer of ideas seems to have happened since all of the known ribbed bowls made of pottery are locally produced and were not distributed over larger distances.

However, it is uncertain if the ribbed bowls made of pottery are kind of a substitute for the glass original or a more or

less independent form. Beyond the Limes it probably was a substitute, since the reproduction of Roman vessels was less expensive than buying imported goods and that way a larger number of customers were reached. The rare occurrence, not only in the provinces itself but also amongst the findings of each settlement, indicates a small number of costumers for these vessels. This fact may refer to the personal preference of individual people.

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