

The theory of ‘Limesfall’ and the material culture of the late 3rd century

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Introduction

In many historical and archaeological studies concerning the decline of Roman power in the 3rd century, the ‘Limesfall’ is addressed, either explicitly or implicitly. With the term ‘Limesfall’ the destruction of *limes* forts by barbarian raiders between AD 259/260 and 275 and the subsequent abandonment of settlements in the hinterland of the *limes* is meant. The traditional opinion is that most of the forts and cities were never inhabited again. This idea has shaped the basic chronology of provincial-Roman archaeology: the transition of the Middle to the Late Roman period is set at ca. 260 and many items of material culture in the so-called Niederbieber horizon are dated to the period 190–260.

New archaeological analysis shows that this presentation of past events is an oversimplification: for several stretches of the *limes* there is no proof for destruction and subsequent abandonment at all, and evidence to the contrary, a continued occupation of several *castella*, is available. This has far-reaching consequences for the chronology of the material culture of the late 3rd century and our dating of the Middle to Late Roman transition. In this article it will be argued that a ‘Limesfall’ never took place along the Lower Rhine and only partially at the Obergermanisch-Raetische *limes*. Furthermore, the dating of objects in the Niederbieber horizon stretches into the 4th century in some cases. A date of AD 290/300 is a far better proxy of the Middle to Late Roman transition than 260.

The section below will start by studying the formulation of the theory of ‘Limesfall’ by scholars in the 19th and early 20th century. The following sections are attributed to changes in the meaning of ‘Limesfall’ in the later 20th century: on the one hand the ‘Limesfall’ for the Obergermanisch-Raetische *limes* was doubted by some authors, while on the other hand the concept was applied to the Lower Rhine in an oversimplified way. In the next paragraph, alternative explanations for the evidence behind the theory of ‘Limesfall’ are presented, in which numismatics play an important part. Finally, the dating of 3rd century material culture is discussed in the last section, which shows that many forts were still or again occupied in the late 3rd century.

The early meaning of ‘Limesfall’¹

Between 1894 and 1900 large-scale excavations of many defence works of the Obergermanisch-Raetische *limes*, coordinated by the newly formed Reichs-Limeskommission, were

¹ This section is inspired by, but differs considerably from UNRUH 1992.

undertaken. The results obtained for the individual *castella* were published between 1901 and 1937. When looking for the origin of the thesis of the ‘Limesfall’ in these reports, it is surprising to find that possible destruction and abandonment of the *castella* is not an issue that is discussed, it is a mere assumption. One would expect that the results of the excavation and the chronological clues and eventual destruction layers were described first, and that the report would end with a conclusion on the last phase of the fort, be it violent or not. However, in all the reports, even the earliest of 1901, the end by barbarian violence around the year 259/260 is an assumption from the start. In the report of the pottery of Niederbieber (Stadt Neuwied, Rhineland-Palatinate), published in 1914 (the report on the *castellum* itself did not appear until 1937), the chronology was already established:

“Als Zeit der Erbauung des Kastells ist von Ritterling die Regierung des Commodus, rund das Jahr 190, als Datum der Zerstörung und definitiven Aufgabe das Jahr 259/260 ermittelt worden”².

Reference is made to an article of Ritterling, in which he treated the coin finds of Niederbieber, including two coin hoards and many single finds. The youngest of the coins were struck in either 259 or 260 and therefore this date is accepted as the ending date of the *castellum*³. It is clear that, when looking for the formation of the theory of ‘Limesfall’, we have to look for earlier sources.

In the 5th volume of his grand historical work “Römische Geschichte”, Th. Mommsen described the provinces. Concerning the Obergermanisch-Raetische *limes*, he wrote about the fall of the *limes* and the abandonment of the *agri decumates*, the area east of the Upper Rhine and north of the Upper Danube:

“Aber während dieser Wirren brachen die Franken über den Rhein und überschwammen nicht bloß ganz Gallien, sondern drangen auch in Spanien ein, ja plünderten selbst die africanische Küste. Bald nachher, [...] ging in der oberrheinischen Provinz alles römische Land auf dem linken [sic!] Rheinufer verloren, ohne Zweifel an die Alamannen, [...] Eine Reihe blühender römischer Städte wurde damals von den einfallenden Barbaren öde gelegt, und das rechte Rheinufer ging den Römern auf immer verloren”⁴.

“Nach [...] (275) überschritten die Germanen abermals den Rhein und verheerten weit und breit das Land. Sein [= Aurelians] Nachfolger Probus (seit 276), auch ein tüchtiger Soldat, warf sie nicht bloß wieder hinaus – siebenzig Städte soll er ihnen abgenommen haben –, sondern ging auch wieder angreifend vor, überschritt den Rhein und trieb die Deutschen über den Neckar zurück; aber die Linien der früheren Zeit erneuerte er nicht, [...]”⁵.

Although Mommsen is seen as the founder of the ‘Germanische Altertumskunde’, these ideas on the barbarian attacks causing the destruction of the Obergermanisch-Raetische *limes* and the lasting abandonment of the *agri decumates* were not new. He drew on an earlier source, the same that Ritterling used when treating the coin finds. As early as 1823, C. F. Hoffmann wrote an essay named “Ueber die Zerstörung der Römerstädte an dem Rheine zwischen Lahn und Wied” (*fig. 1*):

“Es ist nicht dem mindesten Zweifel unterworfen, daß die beiden großen Römerstädte bei Niederbieber und Heddesdorf durch Krieg zerstört wurden, welches schon die ersten Nachgrabungen vom Februar bis August 1791 zeig-

² OELMANN 1914 (1968), 2; also FABRICIUS 1937, 4 MOMMSEN 1894, V, 150–151.
66–68.

⁵ Ibid. 151–152.

³ RITTERLING 1901.

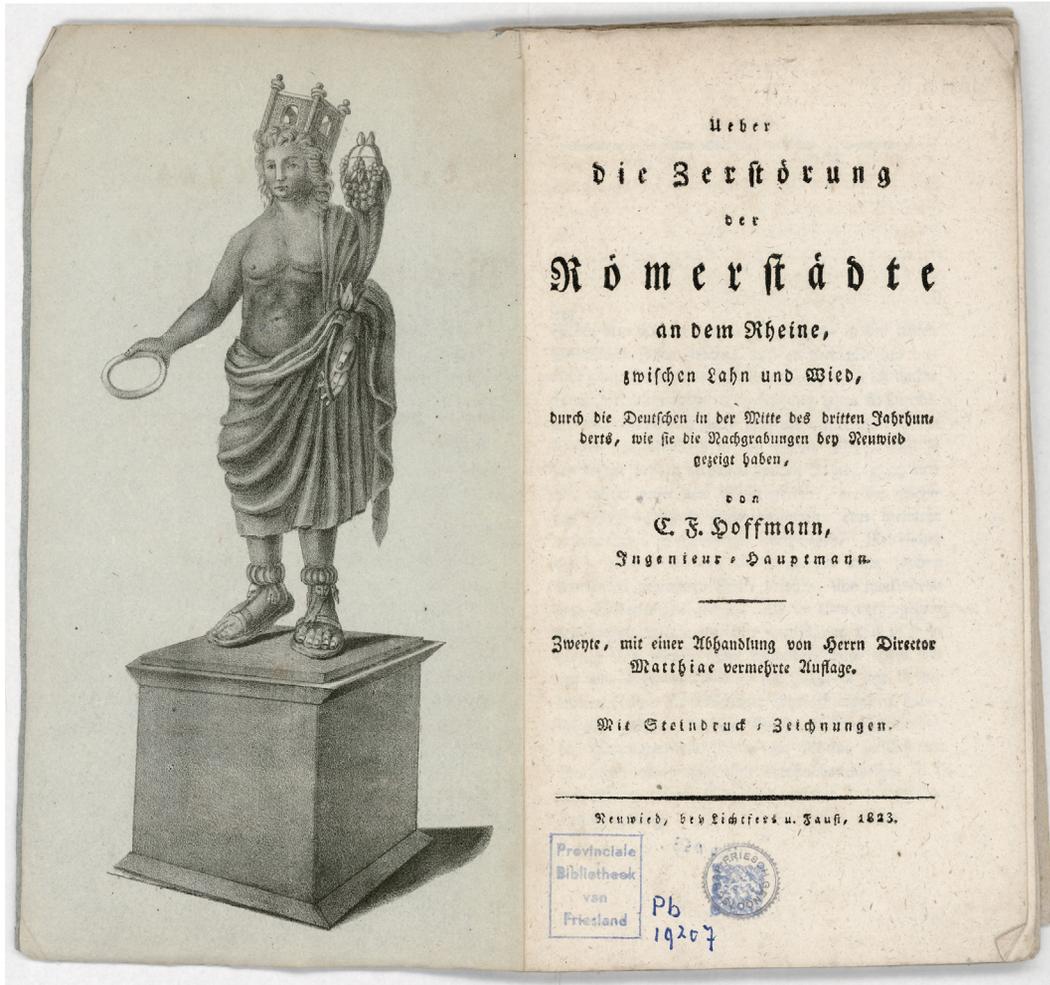


Fig. 1. Title page of Hoffmann's book from 1823, in which the theory of 'Limesfall' was written down for the first time. Courtesy TRESOAR, Frisian historic and literary centre, Leeuwarden, The Netherlands.

ten und die bis jetzt fortgesetzten Untersuchungen bewiesen haben. Eben so wenig ist etwas gegen die oben angegebene Zeit, wann dieses geschahe, einzuwenden. Unter mehr als dreihundert in den Ruinen nach und nach gefundenen römischen Münzen fand sich auch nicht eine Einzige, die über den Gallienus hinaus reicht”⁶.

We can conclude that the idea of 'Limesfall' took form after the first excavations at Niederbieber and Heddesdorf of 1791 and were written down in 1823. The excavations under the Reichs-Limeskommission starting in 1894 provided more details, but the basic ideas remained the same. This idea of 'Limesfall' had three key components:

1. The Obergermanisch-Raetische *limes* was overrun by barbarians (“Ansturm der Germanen”) and as a result, cities in the hinterland (*agri decumates*) were abandoned as

⁶ HOFFMANN 1823, 12–13.

well. In the *castellum* Pfünz the destructions were the most obvious, encompassing both human remains and destruction layers of rubble mixed with charcoal⁷. At Niederbieber, human remains were found between collapsed buildings, and a curious hole in the corner of a tower was seen as an effort of attackers to undermine the tower during a siege⁸.

2. Since coins of Gallienus dated to 259/260 were the youngest found in many of the *castella*, this is the date that is mentioned for the Germanic attacks.
3. The forts and cities were abandoned for good, no later garrisons manned the *castella*.

Different interpretations⁹

The chronology of the ‘Limesfall’ and the assumption that the *limes* was never restored, came under discussion already a century ago. As early as 1897, coins from the late 3rd century were known from the Saalburg fort, leading W. Jacobi to postulate an end of the activities there between c. 280–300¹⁰. A few decades later, Ernst Fabricius knew some late 3rd and 4th century coins from other sites as well, which either challenged the date 259/260 or the lasting abandonment. Fabricius stated:

“Einzelne Teile des rechtrheinischen Besitzes sind von den Römern auch nach dem Verlust des Limes noch länger, bis zur Mitte des 4. Jhdts. festgehalten oder zeitweilig wieder besetzt worden [...]”¹¹.

After World War II, Schleiermacher did not follow Fabricius on the subject of these later finds. On the one hand he presented a table of coins from various forts, which showed several specimens younger than 260. In most cases the few later coins were seen as isolated exceptions, but for Miltenberg-Altstadt (Lkr. Miltenberg, Bavaria), Jagsthausen (Lkr. Heilbronn, Baden-Württemberg) and Oehringen (Lkr. Hohenlohekreis, Baden-Württemberg) almost unbroken coin series into the 4th century are presented¹². On the other hand, however, Schleiermacher did not challenge the idea of ‘Limesfall’. He merely limited himself to observe that an exact date for the ‘Limesfall’ could not be given. On the subject of the 4th-century coins, he cast doubt over the reliability of their provenance: were they maybe collected in other areas and erroneously ascribed to the Obergermanisch-Raetische *limes*¹³? On an explanatory level Schleiermacher stated concisely that these coins were not connected to Roman garrisons¹⁴. Stribrny¹⁵ notes that this point was made for many Late Roman coins found east of the Rhine. According to the traditional view of ‘Limesfall’, the forts had no Late Roman phase, and therefore all Late Roman coins found there were suspect. By casting doubt over the true provenance of the late coins found at the sites (‘Bodenechtheit?’), the very assumption of a ‘Limesfall’ shaped the published results and therefore the outcome of the research: a classic circular argument.

The subject was also treated by Schoppa, along the same line as Schleiermacher. Schoppa concluded that the date of 259/260 was secure and that short-lived campaigns by both Roman armies and invading Germans occurred and may have left younger finds¹⁶.

⁷ VON SARWEY / FABRICIUS / HETTNER 1901, 5–9.

⁸ FABRICIUS 1937, 16.

⁹ This section is inspired by UNRUH 1992 and REUTER 2007, 78–86.

¹⁰ JACOBI 1897.

¹¹ FABRICIUS 1927, 597.

¹² SCHLEIERMACHER 1951, 152–153 and Table (Beilage).

¹³ Ibid. 152–153.

¹⁴ Ibid. 153.

¹⁵ STRIBRNY 1989, 365–369.

¹⁶ SCHOPPA 1956, 1.

It was not before the late 20th century that the orthodoxy of 'Limesfall' was approached more critically. D. Planck observed that other causes than barbarian warfare must be taken into account, since burnt layers are only found in one or two occasions.

"[...] aber auch das Fehlen von durchgehenden Brandhorizonten eine etwas spätere Aufgabe dieser Reichsgrenze in den Bereich des Möglichen rücken [...]"¹⁷.

Planck also treated the subject of Late Roman finds:

"Zeugnisse einer spätantiken Tradition konnten bisher in unserem Arbeitsgebiet nicht festgestellt werden. Alle bislang gemachten Versuche, das Weiterleben römischer Kultur am Ende des 3. Jahrhunderts und im frühen 4. Jahrhundert nachzuweisen, lassen m. E. andere Zusammenhänge erkennen, die wohl mit Einflüssen durch den Handel, aber auch durch verschiedene militärische Unternehmungen im 4. Jahrhundert in Verbindung gebracht werden können"¹⁸.

A new direction was taken by H.-P. Kuhnen, who propagated a holistic view of the problems of the 3rd century, in which economic decline, climate change, religious change and other related problems occurred. He indicated that the 'Limesfall' was part of larger developments and that barbarian violence was not the only problem of the 3rd century and not the only possible cause of the 'Limesfall'¹⁹.

In 1993, the Victory Altar of Augsburg (D) was published. This altar attests the victory over Semnones or Iouthoungi, achieved by the army from the province of Raetia together with Germanic fighters and a civilian militia. Apart from the victory, thousands of Italian captives were freed, assumedly taken hostage in an earlier confrontation. The name of emperor Postumus of the Gallic Empire was mentioned in the inscription but chiselled away later, which can be explained by the location: Augsburg was in the hands of Postumus at the time of the victory, but was conquered by Rome's emperor Gallienus later²⁰. This shed new light on the 'Limesfall', since it became apparent that Roman armies fought each other in these years. First Okamura and later Nuber took the civil war between Gallienus and Postumus into account as a possible alternative explanation. Instead of barbarian attackers in a scenario of 'Limesfall', the destruction layers could also be the result of a civil war in combination with earlier upheaval:

"Im Norden (Germanien) residiert Postumus [...] Gallienus hält den Südabschnitt (Raetien) [...] Durch das Limesgebiet, seit drei Jahrzehnten bereits Ziel germanischer Überfälle, gefolgt von wirtschaftlicher Rezession, Flucht und Bevölkerungsrückgang, verläuft jetzt die umstrittene Demarkationslinie zweier Machtbereiche rivalisierender Herrscher, die beide [...] nicht in der Lage sind, militärisch den anderen auszuschalten"²¹.

Okamura pointed out that the start of a tunnel under a tower of Niederbieber more likely corresponded to attempts from Roman army engineers to undermine the tower than it was feasible for Germanic attackers to accomplish this²².

Although the Victory Altar clearly prompted the reconsideration of the theory of 'Limesfall' and made researchers look at the available evidence from various perspectives²³, this did not lead to consensus about the new interpretations. M. Reuter noted three different attitudes concerning the 'Limesfall' in the more recent research: firstly, a group of researchers still holding to the traditional view, meaning an end of the *limes* around AD

¹⁷ PLANCK 1988, 278.

¹⁸ Ibid. 279.

¹⁹ KUHNEN 1992.

²⁰ BAKKER 1993.

²¹ NUBER 1990, 66–67.

²² OKAMURA 1990, 45.

²³ See the various contributions in SCHALLMAYER 1996.

260 by barbarian violence²⁴; secondly, researchers questioning the ‘Limesfall’ altogether²⁵; and thirdly, a middle position of scholars believing in a transition period with some degree of continuity of Roman army presence coupled with settlement of Germanic people in the former province²⁶. Reuter himself came to the solution that it is important to make a distinction between various stretches of *limes*: the Raetische *limes* fell to barbarian attacks in 254, while the Obergermanische *limes* remained, at least in part, under Roman control²⁷.

Extrapolation to the Lower Rhine limes

Although the defences of the Lower Rhine *limes* were not so intensively researched as those of the Obergermanisch-Raetische *limes*, a ‘Limesfall’ was assumed for this frontier as well. A textbook of the Roman period in the Netherlands sketches a most violent picture: “A real catastrophic year was 258/9 when the Franks penetrated into Spain and all the northern border zone from Asia Minor until the Low Countries was troubled. Around 270 another catastrophic incursion took place. In the course of this period our whole region was seized by the intruders. The border was erased and the Roman pattern of civilisation, developed over the past ages, was annihilated. The provincial-Roman population will have been partly destroyed and partly merged with the newcomers; most likely a considerable part got away to the cities in the south beforehand. However, they were not safe there either: Tongres and Trier burned”²⁸.

The assumption of a ‘Limesfall’ was also employed at the level of individual sites. In the handbook “Die Römer in Nordrhein-Westfalen”²⁹, the destruction of *limes* forts and cities of the Lower Rhine by the Franks around 275 or 276 was presented for many sites. The same was done shortly after by an updated overview of the Lower Rhine *limes* by Dutch and German archaeologists, called “De limes van Moezel tot Noordzeekust”³⁰. However, the evidence for the assumed destruction is hardly ever presented in these publications, and importantly, the precursor of the mentioned overview works, “Der Niedergermanische Limes” by C. Rüger and J. Bogaers, did not mention the destruction of *castella*³¹. Where did the assumption of a ‘Limesfall’ along the Lower Rhine come from?

Below, four case studies and / or quotes from the mentioned works of 1974, 1987 and 1995 are provided to show, firstly, that, contrary to the Obergermanisch-Raetische *limes*, there are no clear examples of destruction layers in the case of the Lower Rhine *limes*, and secondly, that the idea of a ‘Limesfall’ in this area was not established before the 1980s.

Xanten: *Vetera* II and *Colonia Ulpia Traiana*

Close to the city *Colonia Ulpia Traiana* (D) the legionary fort *Vetera* II was situated. It is not investigated by excavation, since a meander of the Rhine eroded large parts of the site in past ages, and now the remains of the camp are submerged in a dredge pit at a depth of

²⁴ ID. 1994, 54; ID. 2001, 133; BECHERT 2003, 175 (cf. REUTER 2007, 85–86). See also FISCHER 1999, 22–23.

²⁵ RASBACH / HÜSSEN 2002, 273 (cf. REUTER 2007, 85–86).

²⁶ WITSCHHEL 1999, 348 (cf. REUTER 2007, 85–86); see also STRIBRNY 1989; SOMMER 2014.

²⁷ REUTER 2007, 142–145; ID. 2012.

²⁸ VAN ES 1981, 47–48; translation by the present author.

²⁹ HORN 1987.

³⁰ BECHERT / WILLEMS 1995.

³¹ BOGAERS / RÜGER 1974.

several metres under water. In diving campaigns many finds were salvaged. On their basis, some chronological clues and indications for the units stationed here could be gained. In 1974, the chronology of the finds was presented in a more or less neutral way. Although the historically attested Frankish attack was mentioned, the violence that could have been connected to the barbarian attacks was not applied to the archaeological findings:

“Funde, hauptsächlich Keramik, datieren in die Zeit zwischen Ende der ersten und zweiten Hälfte des 3. Jahrhunderts; [...]”

“... die Legio XXX Ulpia Victrix, die bis zum Frankeneinfall des Jahres 276 hier nachweisbar ist”³².

Notwithstanding the fact that only isolated finds have been gathered, this fort, too, is claimed to be destroyed in the 1987 handbook:

“Mit Vetera II wurde das eine der beiden niedergermanischen Legionslager so vollständig zerstört, daß man sich später nicht nur für eine neue Befestigung, sondern auch für einen neuen Standort entscheiden mußte”³³.

In the late 3rd or early 4th century, a smaller fortification was built within the walls of the city of *Colonia Ulpia Traiana* encompassing just nine *insulae*. The new name of the reduced fortification was most likely *Tricensimae*, mentioned by Ammianus Marcellinus. Based on the lack of coins of the period after 270, a chronological gap between *Colonia Ulpia Traiana* and *Tricensimae* is assumed:

“Während die Stadt 259 noch nicht gelitten zu haben scheint, wird sie 15 Jahre später eingenommen und von Franken und deren ostgermanischen Verbündeten überrannt. Die Kölner Stadtmauer hält stand, während die der N Kolonie fällt. Leider sind bislang keine Brandschichten dieser Zeit entdeckt worden. Sie lagen zu weit oben, als daß sie heute noch im Ackerland erhalten wären”³⁴.

Clearly, an attack on every city, even the capital Cologne, is assumed, and according to this sketch, the defences of Cologne held, while those of Xanten fell. The attackers are identified as well (Franks and their eastern Germanic allies), which can only be understood in the light of far-reaching historicising interpretation. The fact that this destruction layer is not found is not seen as problematical, this is explained away. In other works concerning Xanten, one demolished building with a layer of charcoal and coins of 274 is mentioned³⁵. However, this archaeological context has been studied in detail recently. It turned out to contain 4th century finds as well, and can therefore not be interpreted as a destruction layer of the later 3rd century³⁶.

In a recent numismatic work, a few coins of Probus, Carus, Numerianus and the early Tetrarchy, found at Xanten, are presented. Although coins from this period are very scarce in the whole of the Roman west (see below), these finds indicate that the coin circulation in Xanten did not cease completely³⁷.

Schnepfenbaum-Qualburg

The small village of Qualburg (Kr. Kleve, North Rhine-Westphalia) is situated on top of the remains of a Roman *castellum*. Three small trenches were dug here in 1937 and

³² GECHTER 1974, 107–108.

³³ KUNOW 1987, 86–87.

³⁴ HORN 1987, 636.

³⁵ OTTEN / RISTOW 2008, 558.

³⁶ LIESEN / REUTER 2009.

³⁷ KOMNICK 2015, 239 (catalogue); 586 (discussion).

von Petrikovits described the stratigraphy of three layers. The lowest dated to the period 270–300 on the basis of pottery, the second layer was dated to the 4th century by coins and the third was probably Early Medieval. The presence of a tile of a Numerus Ursariensium, dated to approximately the middle of the 3rd century, led to the identification of the site as a military fort. Before turning to a detailed discussion of the finds, von Petrikovits referred to an earlier discussion and argued that the identification of Qualburg with *Quadriburgium*, a city mentioned by Ammianus Marcellinus as burnt down by barbarian violence and rebuilt as a fort with grain storage, is by no means certain. Some charcoal was found in the second (4th-century) layer, but the word ‘Limesfall’ is not mentioned at all in this report³⁸.

In the work of 1974, this information was taken over without many changes. Again, the Frankish attack is mentioned as a chronological marker, but without bearing on the fort itself. The possible end of the site is indicated in a neutral way, using the phrase ‘giving up’:

“Wurtenkastell in der Zeit der Frankeneinfälle. [...] Möglicherweise ca. 30. Jahre später Aufgabe”³⁹.

How different is the interpretation of these results in 1987:

“Die unterste Verfüllung dieser Gräben datiert in die Zeit um 275. Wir können wohl davon ausgehen, daß bei den großen Germaneneinfällen von 275/76 auch diese Anlage zerstört wurde. Sie scheint dann unter Probus sofort wieder aufgebaut, dann aber der konstantinischen Neuordnung des Limes zum Opfer gefallen und aufgegeben worden zu sein. Der Platz existierte aber als Zivilsiedlung weiter, worauf Funde aus der 1. Hälfte des 4. Jh. hinweisen. Erst nach den zweiten großen Germaneneinfällen der Jahre 352/356 wurde er nach der Wiedereroberung unter Julian militärisch ausgebaut und vielleicht bis ins 5. Jh. besetzt”⁴⁰.

The fact that the destruction of 275/276 is an assumption disconnected from results in the field is obvious here. With a tile stamp of the mid-3rd century and pottery from the late 3rd century among the finds, the arguments for continued activities are quite strong, and there is no archaeological basis at all to assume a destruction in-between these chronological clues. Equally unconvincing is the assumed civilian nature of this site in the early 4th century: the *castellum* of the late 3rd century would have been given up, civilian activities would have carried on, until the point that the site was destroyed and rebuilt as a military fort by Emperor Julian II. This can only be understood in the light of a very literate interpretation of the passage of Ammianus Marcellinus mentioning *Quadriburgium* to be turned into a fortress by Julian II⁴¹. Not only is the equation Qualburg – *Quadriburgium* insecure, there is also direct evidence for the military nature of the site in the early 4th century in the form of an early crossbow brooch published by von Petrikovits⁴².

Krefeld-Gellep and other forts

For Krefeld-Gellep (North Rhine-Westphalia) two (partial) destructions are mentioned:

“[...] kam es 260 zur Zerstörung des Kastells und zum Untergang zumindest eines großen Teiles der Besatzung. Die Datierung ergibt sich aus Münzen, die

³⁸ VON PETRIKOVITS 1937, 325–329.

³⁹ HORN 1974, 96.

⁴⁰ ID. 1987, 347–348.

⁴¹ AMM. MARC. 18.2.4.

⁴² VON PETRIKOVITS 1937, 325–329.

bei den Gefallenen gefunden wurden und einer Bauinschrift des Postumus aus dem Jahre 261/62. [...] Nach einer weiteren Zerstörung während des großen Frankeneinfalls von 275/276 wurden die Befestigungsanlagen notdürftig instand gesetzt, der Schutt im Lagerinnern kaum planiert."⁴³

The mass grave with untidy burials, dated by a coin to 260, followed by a building inscription of 261/262 are good grounds for assuming a battle and partial destruction. However, the following destruction in 275 is then vague again: nowhere is stated what it is based on. The same is true for the fort of Remagen and the reduced *castellum* at Neuss, both assumed to be destroyed around 275, without details on the basis of this conclusion⁴⁴. In the publication of 1974, no destructions of these three locations had been concluded⁴⁵.

The final example given here is the ending date for the fleet base of Köln-Alteburg. No destruction layer has been reported for this site, but in the three survey works treated here, three different dates were given. In 1974: "Es hat sicher bis am Ende des 3. Jahrhunderts bestanden"⁴⁶. In 1987: "Die Münzreihe des Lagers reicht [...] bis in das 4. Jh. [...]"⁴⁷. In 1995: "Bestand tot 275." (Existed until 275)⁴⁸.

A 'Limesfall' along the Lower Rhine?

Originally, the theory of 'Limesfall' concerned the Obergermanisch-Raetische *limes* and was dated to 259/260. The underlying arguments were clear: destruction layers in some forts and ending coin series in (almost) all sites, combined with statements from the written sources. Destruction by barbarian violence is assumed for the Lower Rhine *limes* as well, and one argument (although often not mentioned explicitly) was the same, the end of coin series of the *limes* sites. There are, however, several important differences. The first is the date: most of the coin series did not break off in 259/260, but in 273–275, with coins of the Tetrici or Aurelian. The second difference is the absence of burnt deposits: these are assumed to have been present but in none of the cases excavated and published. The third difference is the history of research: It was not before the 1980s that a 'Limesfall' along the Lower Rhine was postulated. In the overview work of 1974, the Frankish invasions are mentioned as an historical event with chronological significance, but not connected to the archaeological chronology of the sites. In the works of the 1980s, destruction by barbarian violence is claimed for many forts. The main problem is that these claims are presented as results from archaeological investigation, while in reality they prove to be interpretations based on a strict and uncritical application of information from the written sources⁴⁹.

Numismatic arguments underlying the theory of 'Limesfall'

Why was a violent destruction by barbarian raiders postulated, when not a single burnt layer of a 3rd-century date was excavated along the Lower Rhine? On the one hand, we have seen that written sources, reporting barbarian raids in the 250s and Probus taking back sixty cities in the late 270s, which then must have been seized by the intruders sev-

⁴³ HORN 1987, 530–532.

⁴⁴ BECHERT 1995, 30; 44.

⁴⁵ BOGAERS / RÜGER 1974, 136; 140; 211.

⁴⁶ LA BAUME 1974, 166.

⁴⁷ HORN 1987, 519.

⁴⁸ BECHERT 1995, 34.

⁴⁹ See also VAN OSSEL 2011 and HEISING 2015 for similar examples in other areas.

eral years earlier, were taken very seriously and sometimes even literally. The second most important factor behind the assumption of the end of a site is the results from numismatics: ending coin series were equated with abandonment of a site and the presence of hoards was equated with a violent end of the site⁵⁰. However, new research shows that ending coin lists cannot be necessarily explained by the end of the occupation of a site, but may rather be connected to an insecure supply of coinage.

Single coin finds

An ever returning aspect of the theory of 'Limesfall' is the observation that coin series of *castella* and civilian settlements came to an end in the third quarter of the 3rd century. Even the more critical evaluations of the idea of the 'Limesfall' keep returning to this archaeological result. But how valid is the assumption that the coin supply was stable throughout the 3rd century and that the end of a coin list of a site also means the end of habitation there?

From the late 1980s onwards, several studies questioned the equation of (dis)continuous coin lists with (dis)continuous habitation. Stribrny noted a very low number of coins struck between ca. 260 and 305 for many sites on the right bank of the Rhine. Although the concept of 'Limesfall' played a central role in his research, he did not assume discontinuous habitation of forts and central places right away. He explicitly stressed that regional comparisons must be made before a lack of coins could be explained in terms of discontinuity of the location under discussion⁵¹.

Brem et al. established that the lack of coins between c. 275 and 305 was true for almost every archaeological site from *Conimbriga* (Portugal) to Venice (Italy) and from Namur (Belgium) to *Vindonissa* (Switzerland). The authors proposed that copies of coins of the Gallic Empire and copies of Claudius II-issues from Rome circulated in the period after 275 when hardly any new coins reached the West. Not before the era of Constantine I in the early 4th century, money supply was restored in sufficient numbers⁵². Stribrny already considered this explanation, but with much more reservation⁵³.

Kropff and van der Vin extended the lessons of interrupted coin supply to the earlier period of the Soldier Emperors (AD 235–259) and, moreover, sketched the consequences of these findings for the military history of *limes* fortifications in particular. As a first step, they analysed the coin lists of *castella* where a lasting garrison throughout the 3rd century is clear, like *Segontium*, Housesteads and Corbridge in Britain and *Carnuntum* on the Danube. In the histograms representing hundreds (or in some cases thousands) of coins, issues of the period 235–260 were very scarce indeed. It is argued that this is not so surprising, since the Soldier Emperors of these days usually only reigned for a few years and hardly saw Rome, because they were in the field fighting both invading barbarians and rival emperors and generals. They were not in the situation to mint large series of coins and, consequently, only small numbers circulated. In line with the studies mentioned above, Kropff and van der Vin also treated the high peak of coins from the Gallic Empire, the scarcity of coins struck by Aurelian until the Tetrarchy, and the renewed stability of coin supply from the period of Constantine I onwards. As a second step, they argued that the discontinuous coin lists along the Lower Rhine can be considered 'normal' and that these

⁵⁰ HEISING 2015.

⁵² BREM ET AL. 1996.

⁵¹ STRIBRNY 1989, 359–365.

⁵³ STRIBRNY 1989, 436.

forts may well have been in use into the 4th century without interruption. It is the coin supply that was unstable, not necessarily the military presence⁵⁴.

This analysis has huge implications for the supposed 'Limesfall'. Along the Lower Rhine where sites show ending coin series around 273–275, there appears no good reason to assume discontinuity at these sites any more, even the more so because destruction layers are not actually excavated, as was argued above. The 'Limesfall' can be seen as an unsubstantiated theory for the Lower Rhine.

For the Obergermanisch-Raetische *limes*, the lack of coinage from 259/260 onwards is still a factor to explain, since the usual peak in coins of the Gallic Empire is largely absent in this area. For the two *castella* with burnt layers and human remains, Niederbieber and Pfünz (Kr. Eichstätt, Bavaria), a violent end must still be assumed. Maybe this should be attributed to attacking German groups, but also a confrontation between Gallienus and Postumus is a possible explanation⁵⁵. For all the other *castella*, a more peaceful abandonment is far more likely, and there are clues to this in the sources.

After successful campaigns against barbarian incursions along the Rhine, severe threats were posed by Quadi, Sarmatians and other groups along the Danube around 258. Gallienus formed a vexillation of troops from the Rhine provinces and took these to secure the Pannonian *limes*⁵⁶. He was successful there, and this expeditionary army, dominated by cavalry and therefore more mobile than traditional armies, is seen as the origin of the later *comitatensis* developed by Diocletian and reformed by Constantine⁵⁷. However, the withdrawal of many troops of the Rhine provinces resulted in barbarian invasions there, and this in turn caused the rebellion of Postumus. As a result of the war between Gallienus and the Gallic Emperors, the newly mobile cavalry and a substantial reserve of Gallienus' army were now stationed at Milan to prevent Postumus to advance via the Alpine passages⁵⁸. The withdrawal of troops from the *limes* for Danubian campaigns at first and the subsequent stationing of these troops away from the *limes* to guard the Alpine routes may have been the reason why hardly any Gallic coins ended up in these *castella*: they were abandoned for a decade or so. Despite the claims by Hoffmann and Mommsen that the forts remained empty for ever after, some forts were actually re-occupied after the restoration by Aurelian and / or Probus, as will be explained in the paragraph about material culture at the Obergermanisch-Raetische *limes* below. Another indication that the withdrawal was only temporary and possibly partial is that coins of the Gallic Empire, and official coins from the mint of Rome of the same period, did end up in the settlements in the hinterland of the *limes*. Sommer explains these coins by payments to barbarians⁵⁹, but regardless of the cultural background of the receivers of the coins, it is clear that the settlements in the hinterland were still connected to the monetary economy.

Hoard

The presence of coin hoards at archaeological sites was traditionally equated with violent destruction or at least the abandonment of the site.

⁵⁴ KROPFF / VAN DER VIN 2003.

⁵⁵ See above, notes 20 and 21.

⁵⁶ DE BLOIS 1976, 6.

⁵⁷ DE BLOIS 1976, 29; SOUTHERN / DIXON 1996, 11–14.

⁵⁸ DE BLOIS 1976, 28–29.

⁵⁹ SOMMER 2014.

“[...] ist] eine Vielzahl derartiger Münzhorte, die von germanischen Überfällen Zeugnis geben, bekannt”⁶⁰.

“Ein solcher Horizont von im Boden verbliebenen Horten belegt nicht nur allgemeine Gefahrensituationen, die irgendwann wieder verschwinden, sondern einen tiefen Bruch und eine tiefgreifende Störung der Siedlungskontinuität”⁶¹.

A very telling example of these interpretations is a book on the Donau-Iller-Rhein *limes* by J. Garbsch. In his figures 1 and 2 coin hoards were mapped, while the captions below the figures are ‘Der Fall des Obergermanisch-Raetischen Limes’ and ‘Alamanneneinfälle’⁶². It seems that the archaeological material (hoards) and its interpretation (destruction, ‘Limesfall’) were used interchangeably. In short, there is a firm tradition to see hoards as the result of warfare or approaching armies. E. Künzl introduced a German word for these hoards: ‘Angsthorte’ or ‘fear hoards’⁶³.

In an article of 1999, the hoards in the hinterland of the Obergermanisch-Raetische *limes* were catalogued and interpreted one-dimensionally as fear hoards by Fischer⁶⁴. In later studies, the different backgrounds of various hoards are taken into account. Since the 3rd century was not only a period of warfare but also of religious change (the introduction of eastern deities) and, most importantly, of coin debasement and price instability (inflation), other reasons for the deposition of coin hoards must form part of a discussion as well⁶⁵.

Another problem with the hoards in the hinterland of the Obergermanisch-Raetische *limes* is that a date within the 3rd century is hard to establish. At Neupotz (Kr. Germersheim, Rhineland-Palatinate), for instance, a large collection of weapons, temple inventories, bronze vessels, tools and coins was found in an old branch of the Rhine. Objects from temple inventories of Aquitaine Gaul were the main argument to see the Neupotz hoard as plunder from Germanic raids, thrown into the Rhine when the raiding party was attacked by Roman forces⁶⁶. In the original publication, the finds were dated to 259/260, but more recent studies had to admit that also later coins were present. Worn coins from the reign of Probus could point to a date as late as the 290s⁶⁷. Either a formation of the deposition over a longer period of time or a late date of the complete hoard must be concluded. The connection to a single event in 259/260 is no longer tenable. Comparable to the uncertain date of Neupotz, the catalogue of hoards in the area of the Obergermanisch-Raetische *limes* also contains many hoards without a fixed date⁶⁸. Bronze vessels are notoriously hard to date, and many depositions could have taken place a long time after their manufacture. It is possible that a set of bronzes was deposited because an army approached in 259/260, but it is equally possible that these vessels were deposited in a ritual act in the Severan period. Therefore, hoard finds of the 3rd century without coins cannot be related to the ‘Limesfall’ with any certainty. Warfare may have led to the deposition of some hoards, but religious dedications or monetary reasons could also have been the background for various depositions. In the case of the later 3rd century with its already discussed unstable coin supply, even coin-dated depositions cannot be assigned to one or a few years exactly⁶⁹.

⁶⁰ KUNOW 1987, 86.

⁶¹ FISCHER 1999, 19.

⁶² GARBSCH 1970, figs 1–2.

⁶³ KÜNZL 1993, 469; cf. FISCHER 1999, 20.

⁶⁴ FISCHER 1999.

⁶⁵ HAUPT 2001.

⁶⁶ KÜNZL 1993.

⁶⁷ BERNHARD 2006.

⁶⁸ FISCHER 1999, 20.

⁶⁹ HEISING 2015.

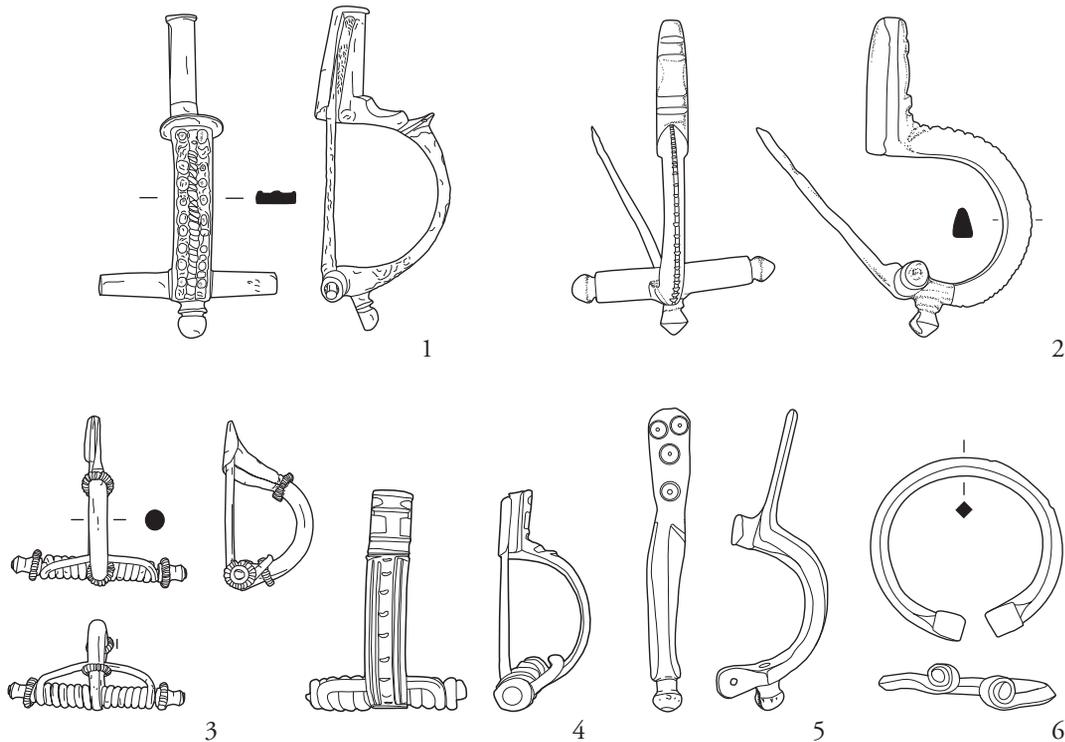


Fig. 2. Various Late Roman brooch types present at forts of the Obergermanisch-Raetische *limes*. Scale 2 : 3.

Late Roman material culture at the Obergermanisch-Raetische *limes*

As outlined above in the first sections, one of the key components of the early understanding of the 'Limesfall' was the conviction that once the Obergermanisch-Raetische *limes* fell, it was never re-established afterwards. This view is understandable for the state of research in the 19th and early 20th century, but untenable nowadays. It is not only the coin lists of Schleiermacher that strongly suggest late 3rd and 4th century activity for several *castella*⁷⁰, but also brooches, terra sigillata and coarse ware pottery published in various works are indicative for Late Roman military supply.

Three reference works provided insight into Late Roman material culture: the 4th century terra sigillata from the Argonne published by Chenet⁷¹, the cemetery of Krefeld-Gellep published by Pirling from 1966 onwards⁷², and the brooches of the *castella* Saalburg (Bad Homburg, Hesse) and Zugmantel (Rheingau-Taunus-Kreis, Hesse) by Böhme⁷³, placed into context by typochronological works of Late Roman crossbow brooches of van Buchem, Keller and most recently Swift⁷⁴. Brooches and pottery are

⁷⁰ Notes 12 to 16.

⁷¹ CHENET 1941.

⁷² Cf. PIRLING 1966; 1974; 1979; 1997; PIRLING / SIEPEN 2000; EAD. 2003.

⁷³ BÖHME 1972.

⁷⁴ VAN BUCHEM 1966 was the first to establish the

chronology of crossbow brooches along the main lines that are still followed today, albeit with modifications. However, the work is relatively little known and KELLER 1971 is read more widely. SWIFT 2000 provided the most recent work of crossbow brooches and their decoration.

treated separately here. One other find category treated below is horse gear, for which archaeological contexts dating to the late 3rd century were presented by Gschwind⁷⁵.

Brooches

A. Böhme presented the brooches of the *castella* Saalburg and Zugmantel and there is a fair number of Late Roman brooches present in these collections. The Late Roman date of each of these groups will be outlined below to catch up with the latest state of research.

The crossbow brooch is the well-known soldiers' brooch of the 4th and early 5th century. Its 3rd century predecessor is known as the brooch with long hinge-arms ('Scharnierfibel mit langen Scharnierarmen') and characterised by two arms, a central flat knob at the head and a rounded bow (*fig. 2.1*)⁷⁶. Böhme dates its emergence to the period around 200 and assumes an end around 260. In recent years, some contexts have come to light that cover the period from AD 240 until the end of the 3rd century⁷⁷. Based on the numismatic section above, in which the circulation of coins of the Gallic Empire until the very late 3rd century is outlined, this means that the brooch that is omnipresent at all *limites* from England along the Rhine and Danube could have been circulating until the late 3rd century, too. For the moment, however, this is no proof of a late date for all specimens of this type. Most importantly, later variants are present at Saalburg and Zugmantel as well. The variant which shows deep grooves at the long hinge arms and a fully round central knob, Böhme's brooches 808–822, is considered the earliest version of the crossbow brooch (van Buchem II; Swift 1) and is dated to the final decades of the 3rd century by coin dates from closed contexts. *Fig. 2.2* shows a similar brooch⁷⁸.

The footless 'Armbrust' brooches (type Almgren 199) described by Böhme as 37e (nrs 900–914; *fig. 2.3* is similar) were dated to the late 2nd or early 3rd century by Böhme, referring to relative chronologies of the free Germanic areas, where these brooches originate⁷⁹. However, in the Late Roman cemeteries of Krefeld-Gellep, Nijmegen and Köln-Jakobsstraße these brooches are present in 4th-century graves⁸⁰. At sites of the Dutch river area, they are associated with the late 3rd-century phases of the settlements⁸¹. In the Elbe-Weser area, two contexts dated by dendrochronology are available, one in the decades around 300 and another in the second half of the 4th century⁸².

The date of the 'Armbrust' brooches with fixed foot, Böhme type 38 (nrs 915–920; *fig. 2.4* is similar), were heavily discussed in the 1960s. A bit hesitant, A. Böhme followed H. W. Böhme with his date of the 4th century in the end⁸³ and the later monograph of M. Schulze concerning all variants of the 'Armbrust' brooches further supported this date⁸⁴.

⁷⁵ GSCHWIND 1998.

⁷⁶ BÖHME 1972 (type 28) 26–28; VAN BUCHEM 1966 (type I).

⁷⁷ In Augst with coins of Maximinus I and Salonina (post 240): RIHA 1979, 167. In Krefeld-Gellep grave 1316 with a coin from Trebonianus Gallus (post 251): PIRLING 1974. In Köln-St. Severin with coins of the Gallic Empire (post 260): PÄFFGEN 1992, I 21; I 49. In Köln-Jakobsstraße also with coins of the Gallic Empire (post 260): FRIEDHOFF 1991, grave 179.

⁷⁸ VAN BUCHEM 1966, 63–68; SWIFT 2000, 13–17.

⁷⁹ BÖHME 1972, 34–35; TEEGEN 1999, 167–168.

⁸⁰ Krefeld-Gellep: PIRLING 1979, grave 2674 (late 4th century). Nijmegen: STEURES 2012, grave OO 207. Köln-Jakobsstraße: FRIEDHOFF 1991, grave 59 (post 313).

⁸¹ VAN RENSWOUDE 2009, 280–281; ERDRICH 2003, 6–10.

⁸² SCHULTE 2011, 164 (the same type is defined here as Almgren Gruppe VII, Serie 3).

⁸³ BÖHME 1972, 34–35.

⁸⁴ SCHULZE 1977, groups 35/36, with a date of AD 270–370, correspond to several of the Saalburg and Zugmantel brooches.

The knobbed brooches Böhme type 39 (nrs. 921–924; *fig. 2.5* is similar) were recognised as stylistically belonging to the 4th or 5th century, but were nevertheless doubted because the 'Limesfall' and lasting abandonment were dated to 259/260⁸⁵. This again is a classic circular reasoning: the possibility of a Late Roman date is excluded since it has been established that there was no activity in that period.

Finally, the ring brooch, a late variant of the omega-brooch, is present at the forts Saalburg and Zugmantel. The terminals of round coils turned sideways (*fig. 2.6*) and those with a closed end (Böhme 1226–1227 and 1232–1233) are dated by Jobst to the second half of the 3rd and the 4th century; less secure is the date of the specimens with knobbed terminals (Böhme 1223–1224 and 1228–1231)⁸⁶. Recently Höck treated the ring brooches with coils turned sideways again and he dates the type in the 4th and early-5th century⁸⁷.

To summarise, from the total collection of 1 233 brooches of Saalburg and Zugmantel, 44 brooches are definitely Late Roman and a further 111 are of types that could be of an earlier date but which at least kept circulating until the late 3rd century. Within the Late Roman brooches, types attributed to the late 3rd or early 4th century predominate (34 specimens) and 10 brooches are younger (later 4th or 5th century).

The fact that only two coins (or copies) of the Gallic Empire are known from the Saalburg and none from Zugmantel⁸⁸ explains the assumption of an end around 259/260, but in the numismatic section above the lack of coin supply is explained in other ways. The relatively high number of at least 34 brooches circulating in the late 3rd and / or early 4th century found at Saalburg and Zugmantel is an argument for a continued or renewed garrison there, in a period in which coins were scarcely available.

Horse gear

While studying horse gear from various military stations in the region of the Obergermanisch-Raetische *limes*, M. Gschwind noted that specimens of types commonly found in Niederbieber horizon contexts, also occurred in military stations erected in period of the Gallic Empire. After studying the material from sites with a securely established chronology, he concluded that the horse gear that was introduced in the early 3rd century kept circulating until the late 3rd or even the early 4th century. In this case, the supposed 'Limesfall' did not separate styles of material culture from before and after the events of 259/260. Gschwind stated explicitly that the Niederbieber find horizon was, at least in the case of horse gear, not restricted to the period before AD 260⁸⁹.

Pottery

Late Roman terra sigillata from the Argonne is present in several *castella* of the Obergermanisch-Raetische *limes*. At the destroyed *castellum* of Pfünz for instance, a dish Chenet 313–314 and bowls Chenet 324 and 325 are attested⁹⁰.

The combination of Chenet-types of pottery at Pfünz, the single coin of Aurelian that is found there and the knowledge of the numismatic section that coins of the years 275–305

⁸⁵ BÖHME 1972, 35–36.

⁸⁶ JOBST 1975, 125 (type 36a).

⁸⁷ HÖCK 2013, 352.

⁸⁸ JACOBI 1897; SCHLEIERMACHER 1951, Table (Beilage).

⁸⁹ GSCHWIND 1998.

⁹⁰ VON SARWEY / FABRICIUS / HETTNER 1901, pl. VI.

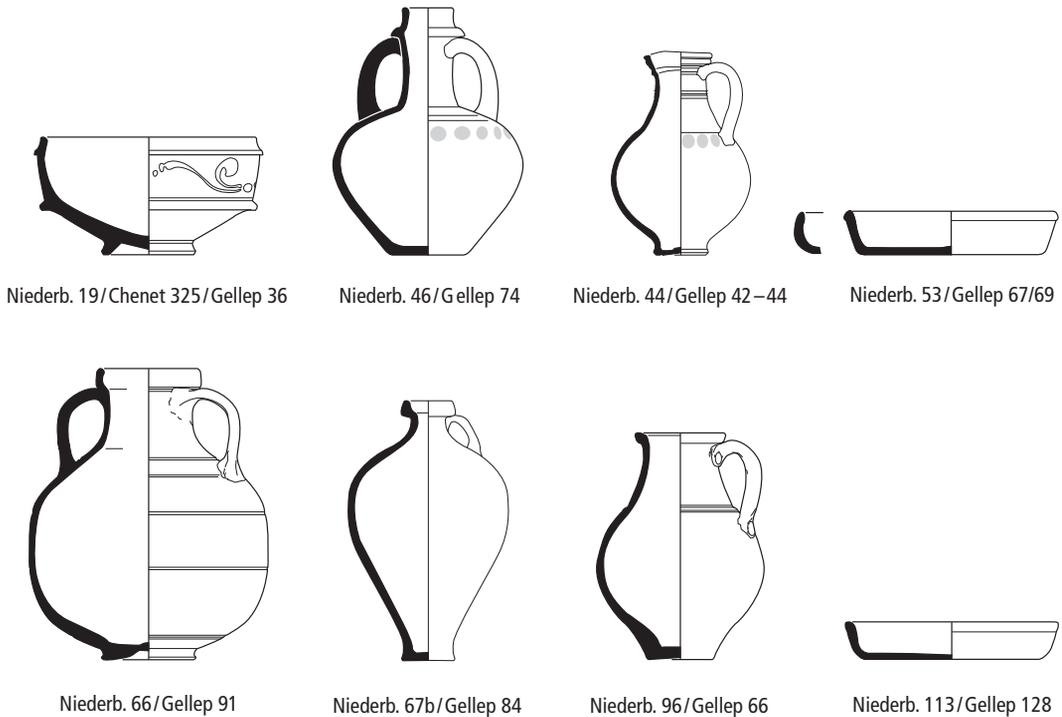


Fig. 3. Various late 3rd / early 4th-century pottery types present at Niederbieber. Not to scale.

hardly reached the northwestern provinces, all amount to the conclusion that it is very well possible that Pfünz was garrisoned again in the late 3rd century after the abandonment and possible destruction. Or did the destruction that is attested there maybe not occur in 259/260 but in the period 275–300?

The same question could be asked for Niederbieber. When the pottery published by Oelmann in 1914, is compared to the various publications of Krefeld-Gellep⁹¹ and supplementary to dated contexts from the Late Roman cemeteries at Nijmegen⁹², it becomes clear that some of the Niederbieber forms kept circulating and ended up in 4th century graves. Some examples (*fig. 3*) are elaborated upon here.

The brown marbled flat-based amphora type Niederbieber 46 is very similar to Gellep 74. Dated contexts with these amphorae include Krefeld-Gellep grave 1854 and 5903, which both hold a coin struck in 270, and the Krefeld-Gellep graves 1272 and 2209 with a coin of 316.

The brown marbled jug type Niederbieber 44 is identical to Gellep 43–44. This form is available in Nijmegen grave OO 242 holding a coin of 352.

The red painted plate Niederbieber 53a is identical to Gellep 69 and the Niederbieber 53b to Gellep 67. Dated contexts with these plates include Krefeld-Gellep grave 5910 with a coin struck in 294 and grave 2209 with a coin of 316.

⁹¹ PIRLING 1966; 1974; 1979; 1989; 1997; PIRLING / SIEPEN 2000; EAD. 2003. ⁹² STEURES 2012.

The smooth ware jug Niederbieber 67b is identical to Gellep 84b. Two dated contexts holding a jug of this type are Nijmegen grave B59 with a coin of 270 and Krefeld-Gellep grave 2214 with a coin of 305–307.

The smooth ware flat-based amphora type Niederbieber 66 is identical to Gellep 91. Krefeld-Gellep grave 533 with a coin struck in 298 and grave 5914 with a coin struck after 350 attest the use of this form in the early part and middle of the 4th century.

The coarse ware jug type Niederbieber 96 is identical to Gellep 66. Several dated contexts holding a jug of this type are available: Nijmegen grave B59 with a coin of 270; Krefeld-Gellep grave 1291 (*fig. 4*) with a coin of 315–316; Nijmegen OO 382 with a coin struck in 318; Krefeld-Gellep 5914 with a coin struck after 350.

The coarse ware plate type Niederbieber 113 is identical to Gellep 128. Nijmegen OO grave 26 and Krefeld-Gellep grave 5548 and 3638 both hold a coin struck in 270; Nijmegen OO 176 has a coin of 301 and Krefeld-Gellep 2214 a coin of 305. Many more examples could be provided; the youngest coin in a grave with a plate of this type is struck in 330 (Krefeld-Gellep grave 1609).

Concerning the coarse ware, it is important that most of this pottery group at Niederbieber comes from Urmitz-Weißenthurm (Lkr. Mayen-Koblenz, Rhineland-Palatinate)⁹³. Out of habit, it was assumed that Urmitz discontinued production around 260 or 275, too, but modern studies have shown that the production at Urmitz continued in the 4th and possibly the early 5th century⁹⁴. One form that is found in 'Urmitzer Ware' almost exclusively is the plate Niederbieber 113 discussed above, another is the jug Niederbieber 96 / Gellep 66. The already mentioned grave 1291 of Krefeld-Gellep (*fig. 4*), coin-dated after 315–316, contains such a jug.

The terra sigillata bowl type Niederbieber 19 / Ludowici Sm is almost the same as Chenet 325 / Gellep 36. The only difference between the Late Roman type Chenet 325 and the bowl Niederbieber 19 / Ludowici Sm of Middle Roman date is the decoration: applique-leaves in the case of Niederbieber 19 / Ludowici Sm and thin barbotine painting on the type Chenet 325. The form of the bowl itself is identical. In the past, an ending date for Rheinzabern (Lkr. Gernsheim, Rhineland-Palatinate), where Ludowici Sm was produced, of around 275 was assumed. However, modern studies acknowledge the continuation of the production at Rheinzabern until at least the middle of the 4th century⁹⁵. Most likely, the bowl Ludowici Sm and Chenet 325 circulated (partly) contemporaneously. A late 3rd-century date for the Middle Roman specimens should be considered an option.

The above survey is not exhaustive. From these well-dated examples, it becomes clear that it is a distinct option that Niederbieber was garrisoned again in the latest decades of the 3rd or the early 4th century, as was argued for Saalburg and Zugmantel on the basis of brooches above. The other option is that Niederbieber was actually abandoned in 259/260 and left forever, but that the pottery that was common around the middle of the 3rd century kept circulating for half a century more and therefore ended up in Nijmegen and Krefeld-Gellep in such late contexts. In both cases, it is clear that the supposed chronological unity of the Niederbieber horizon is a fiction. This was already suspected for the horse gear and Urmitz

⁹³ OELMANN 1968 (1914), 70.

⁹⁴ KIESSEL 2008; FRIEDRICH 2012. Already in 1989, STRIBRNY discussed Urmitzer Ware from coin-dated 4th-century contexts (STRIBRNY 1989, 403) but this important point was not adopted in chronological discussions. See also HEISING 2015 for the

wider relevance of the re-dating of the Urmitz production.

⁹⁵ BERNHARD 1987; DELAGE 2010; see also HEISING 2015 for the wider relevance of the re-dating of Rheinzabern.

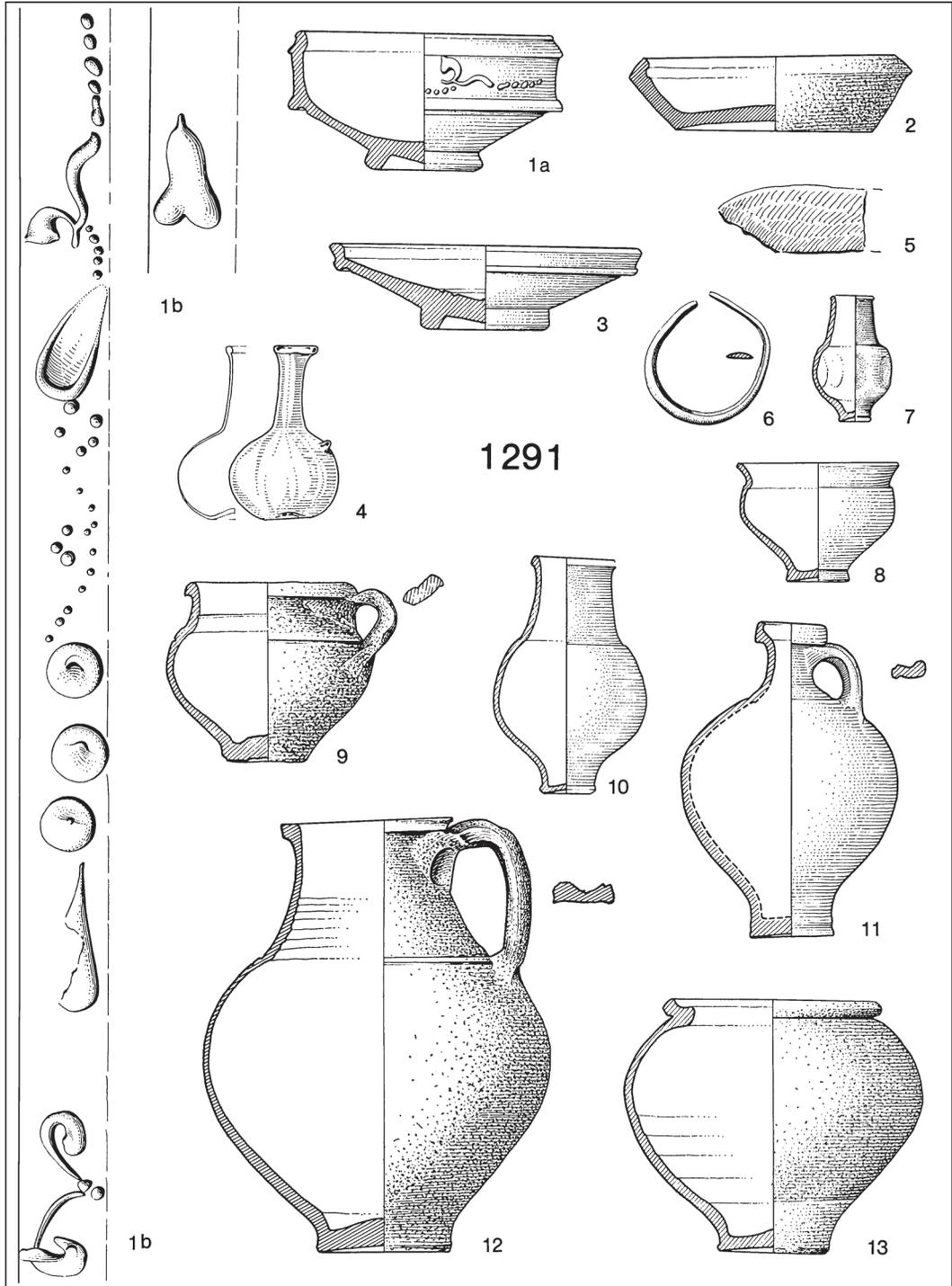


Fig. 4. Krefeld-Gellep grave 1291, in which Niederbieber-type pottery is dated by a coin to the period after AD 315 (PIRLING 1974, pl. 15; for the coin date, see PAAR 1974, 178). – 1a,2–5.7–13 scale 1 : 4; 1b,6 scale 1 : 2.

pottery production⁹⁶, and is now shown to apply to many brooch forms and pottery types. Leaving aside the question of the actual date of abandonment of the *castellum* Niederbieber, the date of the Niederbieber find horizon must be expanded to 290 at least, while some of the Niederbieber types remained in circulation until the second quarter of the 4th century.

Consequences and conclusion

The idea of 'Limesfall' was formulated between 1791 and 1823 and meant that the Obergermanisch-Raetische *limes* was run over by barbarians in 259/260 and as a result, the hinterland was abandoned as well; neither forts nor cities were re-established later. Discontinuous coin lists from *limes* sites and hoards containing coins and / or bronze vessels from the hinterland were cited as evidence. Burnt deposits in *castella* are often mentioned but proved to be quite rare. Doubts were expressed about the lasting abandonment (was there maybe later activity as well?) and about the Germanic violence as the only cause behind the 'Limesfall' from ca. 1900 onwards, but these were often argued away in favour of the existing theories. Not before the early 21st century other options were explored more seriously. Starting in the 1980s, a similar 'Limesfall' was supposed to have taken place at the Lower Rhine *limes* around 275/276.

New numismatic studies have shown that the supply of coins varied over time and was very limited in the period of the Soldier Emperors (235–260) and the restoration period (275–305). This scarcity of coins explains the discontinuous coin lists of sites along the Lower Rhine after 275. In the light of this perspective and the absence of well documented destruction layers, there is no basis to assume a discontinuity of use, let alone a violent end by barbarian attackers, for the Lower Rhine *limes*.

Along the Obergermanisch-Raetische *limes*, the lack of coins from the Gallic Empire must be explained as a real discontinuity, but contrary to the early beliefs, this was no lasting abandonment. Three classes of finds all attest to late 3rd-century activity: brooches of the sites Saalburg and Zugmantel published by Böhme, coins from the 260s to the Tetrarchy, which are small in number but present at several *castella* nonetheless, as well as the late Roman pottery from Niederbieber that was shown to circulate longer than c. 260, because it appears in contexts of Krefeld-Gellep and Nijmegen dated from 270 into the 4th century. The numbers are substantial and form a clear indication for a Late Roman phase of occupation at some forts of the Obergermanisch-Raetische *limes*. Most likely the garrisons from this stretch of *limes* were taken by Gallienus for his Danubian campaigns and later for his defence of the Alps against Postumus, and this is why coins from the Gallic Empire are almost absent. It is significant that coins of this period do appear in the hinterland of the *limes*. After Aurelian conquered the Gallic Empire and the unity of the empire was restored in 274, he or one of his successors (Probus?) re-instated some of the garrisons at the Obergermanisch-Raetische *limes*. It seems that the opinions of Fabricius, Schoppa, Stribrny, Planck and Reuter⁹⁷, who deemed military campaigns and / or garrisons at some forts in the Late Roman period possible, come closest to the observed patterns in the finds.

The assumption that there was no activity along the Obergermanisch-Raetische *limes* after 260 has shaped the basic chronology of provincial-Roman archaeology in the northern provinces. All kinds of pottery- and brooch-types were dated between the late 2nd to the middle of the 3rd century and it was thought that they did not circulate afterwards; younger finds were ignored or argued away. However, it has now been shown that the supposed discontinuity was

⁹⁶ Footnotes 87 and 92 above.

⁹⁷ See above, notes 15, 16, 25 and 26.

the result of a halted supply of coins and a probable interrupted military presence. Brooches and pottery of the late 3rd and early 4th century are certainly present at the Obergermanisch-Raetische *limes*. The position that the Niederbieber horizon of finds is chronologically limited to the years AD 190–260 is no longer tenable. The date range of the Niederbieber horizon must be expanded until at least 290 and for some types (like the Niederbieber 113 / Gellep 128) into the 4th century. As a result of this re-dating, a huge problem arises: many sites as well as other types of material culture have been dated on the basis of Niederbieber types. Dates for material culture must be revised and many sites have possibly been misdated.

Much more research is needed to refine the picture sketched here. Instead of the treatment of finds of a whole frontier region, as was done here, the number of Late Roman finds has to be assessed for individual sites in the future, to ascertain whether or not a Late Roman habitation phase is present there. It is hoped that future finds that seem to be in conflict with the standard theory of ‘Limesfall’ are treated in their own right and not argued away. Hopefully, a date in the late 3rd or even the early 4th century for finds of the Niederbieber horizon will at least be considered an option. Moreover, the assumed destruction of many sites must be studied again. Was an extensive burnt deposit actually documented, or was a violent end thought likely on the basis of ending coin series or the presence of a coin hoard?

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Abstract: The theory of ‘Limesfall’ and the material culture of the late 3rd century

The word ‘Limesfall’ indicates devastation of the Obergermanisch-Raetische *limes* by invading barbarians around 260 or 275. Many object-types were dated to the period either before or after the ‘Limesfall’ and this shaped the basic chronology of provincial-Roman archaeology. However, numismatic studies show that coin supply was small-scale and irregular in this period. Therefore, ending coin lists do not necessarily mean that sites were abandoned. Destruction layers are lacking at the Lower Rhine *limes* and ‘Limesfall’ is an unsubstantiated theory here. The ‘Limesfall’ along the Obergermanisch-Raetische *limes* may have been a reality, but contrary to earlier beliefs, forts were re-occupied, since Late Roman finds are present. This means that the date range of the Niederbieber find-horizon must be expanded. Many sites have possibly been misdated.

Zusammenfassung: Die Theorie des „Limesfalls“ und die materielle Kultur des späten 3. Jahrhunderts

Der Begriff „Limesfall“ bezeichnet die Zerstörung des Obergermanisch-Raetischen Limes durch einfallende Barbaren um 260 oder 275. Viele Objekttypen wurden entweder in die Periode vor oder nach diesem „Limesfall“ datiert, was die grundlegende Chronologie der

provinzialrömischen Archäologie mitbestimmte. Jedoch zeigen numismatische Studien, dass die Versorgung mit Münzen in dieser Zeit allgemein gering und unregelmäßig war. Deshalb bedeuten endende Münzlisten nicht zwangsläufig die Aufgabe von Orten. Zerstörungsschichten fehlen am Niederrheinischen Limes und die Theorie des „Limesfalls“ kann hier nicht angewandt werden. Entlang des Obergermanisch-Raetischen Limes mag der „Limesfall“ eine Tatsache gewesen sein, aber im Gegensatz zu früheren Annahmen wurden Kastelle wiederbelegt, da spätrömische Funde überliefert sind. Dies bedeutet, dass die Zeitspanne des Niederbieber-Horizonts ausgeweitet werden muss. Viele Fundorte wurden möglicherweise falsch datiert.

Résumé: La théorie de la « chute du limes » et la culture matérielle de la fin du 3^e siècle

Le terme de « chute du limes » désigne la destruction du limes de Germanie supérieure et de Rhétie par des groupes de barbares vers 260 ou 275. Beaucoup de types d'artefacts furent datés de la période précédant ou succédant à cette « chute du limes », ce qui influença la chronologie fondamentale de l'archéologie des provinces romaines. Mais les études numismatiques montrent que l'approvisionnement monétaire de cette époque était faible et irrégulier. C'est pourquoi la fin de listes monétaires ne signifie pas obligatoirement l'abandon de localités. Les couches de destruction font défaut le long du limes du Rhin inférieur et on ne peut donc pas recourir à la théorie de la « chute du limes ». Par contre, la « chute du limes » s'applique peut-être vraiment au limes de Germanie supérieure et de Rhétie, quoique l'on constate au vu des objets du Bas-Empire que les castra furent réoccupés, contrairement aux thèses plus anciennes. Ceci signifie qu'il faudrait prolonger la durée de l'horizon de Niederbieber. Beaucoup de sites ne seraient alors pas correctement datés.

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Fig. 1: courtesy TRESOAR, Frisian historic and literary centre, Leeuwarden, The Netherlands. – *Fig. 2:* Stijn Heeren (VU Amsterdam) and Mikko Kriek (VU-Hbs). – *Fig. 3:* Stijn Heeren (VU Amsterdam) after examples from Krefeld-Gellep (PIRLING 1966). – *Fig. 4:* PIRLING 1974, pl. 15.