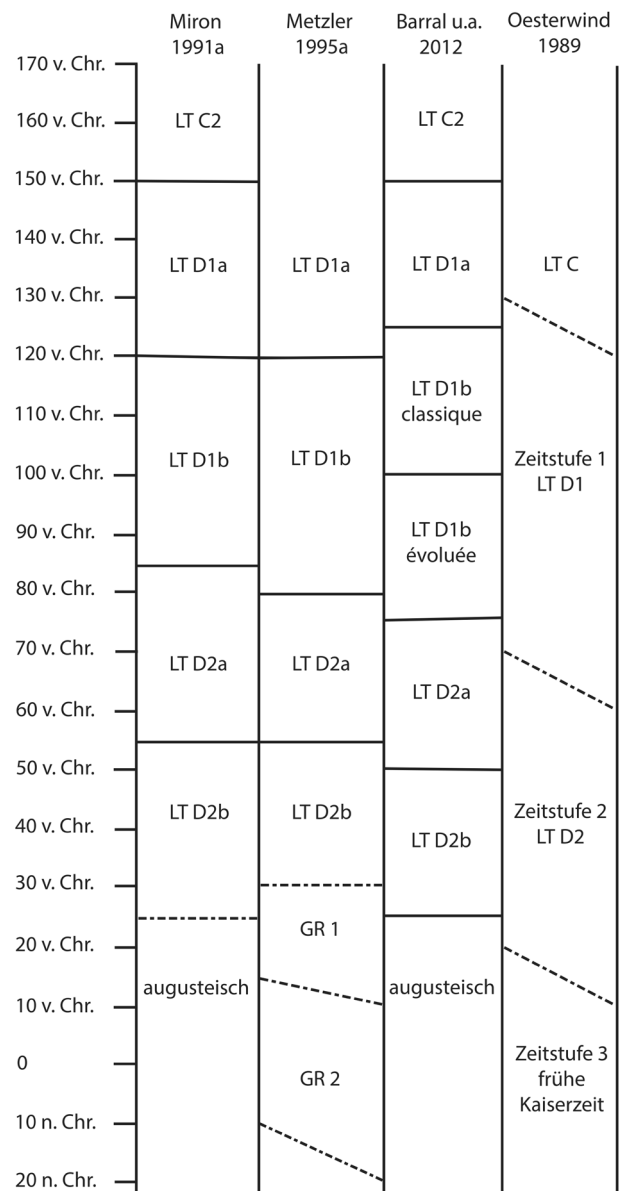


# Centralization, marginalization and mobility – Late La Tène settlement and population dynamics in the Middle Rhine region

Sabine Hornung

The Rhine River has long been an important axis of communication and trade and has thus played a key role in the transmission of cultural influences through the millennia. Whereas the Rhine and its eastern tributaries functioned as routes of exchange with southern Germany and Bohemia, the highlands to the left of the river formed a barrier that separated the Middle and Upper Rhine from the interior of Gaul. Interactions with the west were therefore limited mainly to natural axes of communication such as the Burgundian Gate or the Moselle valley. These aspects of topography and exchange are reflected in major cultural developments during the Late La Tène-period. They can help us to understand the emergence of the Late La Tène culture on both sides of the Middle Rhine, as well as regional variations in this process and in characteristic traits of material culture. Whereas the entire river valley and the areas immediately east of it marked the north-westernmost periphery of the eastern Late La Tène culture, which saw its heyday during the 2<sup>nd</sup> century B. C., the Upper and Middle Moselle and the western Hunsrück-Eifel regions were linked with Gaul and thus connected to the western part of the oppida civilization, which, in contrast, experienced an economic boom under Roman influence in the 1<sup>st</sup> century B. C.<sup>1</sup> When considering these fundamental socio-economic differences in both cultural spheres, it therefore comes as little surprise that developments in major settlements in the territories to the west and east of the Middle Rhine, where Caesar locates the *Treveri* and *Ubii*,<sup>2</sup> took quite individual turns. This is also indirectly reflected in the use of different regional chronologies (fig. 1). As a result, relative dating always refers to the typo-chronological systems used in the areas under consideration and relies on the appearance of characteristic types of material culture, mostly metal finds.<sup>3</sup> There is as yet no strong basis for a new discussion of absolute-chronological issues in the study region, which would necessarily have to incorporate substantial radiocarbon or dendrochronological dating programs in order to resolve existing contradictions between the chronological frameworks in the areas to the east and west of the Rhine.



**Fig. 1.** Regional LT D chronologies from the western part of the Treveran territory (after MIRON 1991 and METZLER 1995) compared with the chronological framework established for Gaul (after BARRAL 2012) and the regional chronology of the Neuwied Basin (OESTERWIND 1989). A recent attempt to synchronize the development of this eastern part of the Treveran territory to the areas further to the west (OESTERWIND 2012) is not discussed further, since the chronology of the eastern Rhenish Massif presented in this paper seems to confirm the one initially proposed by OESTERWIND 1989, particularly with respect to the dating of the LT D1/D2 transition (graphic: S. Hornung).

<sup>1</sup> HORNUNG 2019a, 12–13.

<sup>2</sup> Caes. Gall. III, 11, 1; IV, 3, 3; 10, 3; V, 3, 4.

<sup>3</sup> See e.g. RIECKHOFF 2018; STÖCKLI 2018 for a recent summary.

## Centralization processes east of the Middle Rhine – continuity in LT C/D1

In the eastern Late La Tène culture and its periphery – just like in the west – processes of centralization led to the emergence of large unfortified settlements functioning as specialized centres of production and trade from the 4<sup>th</sup>/3<sup>rd</sup> centuries onwards. They eventually culminated in the rise of the oppida during the 2<sup>nd</sup> century B. C.<sup>4</sup> It is not yet entirely clear how these social and economic changes are reflected in the Middle Rhine area with respect to the existence of large unfortified settlements, though this might simply be due to a lack of systematic research. Bad Nauheim (Wetteraukreis, DE), situated in the fertile regions north of modern Frankfurt, is therefore still the only known production and distribution centre in the areas east of the Middle Rhine. It specialized in salt production and existed throughout the entire La Tène and into the

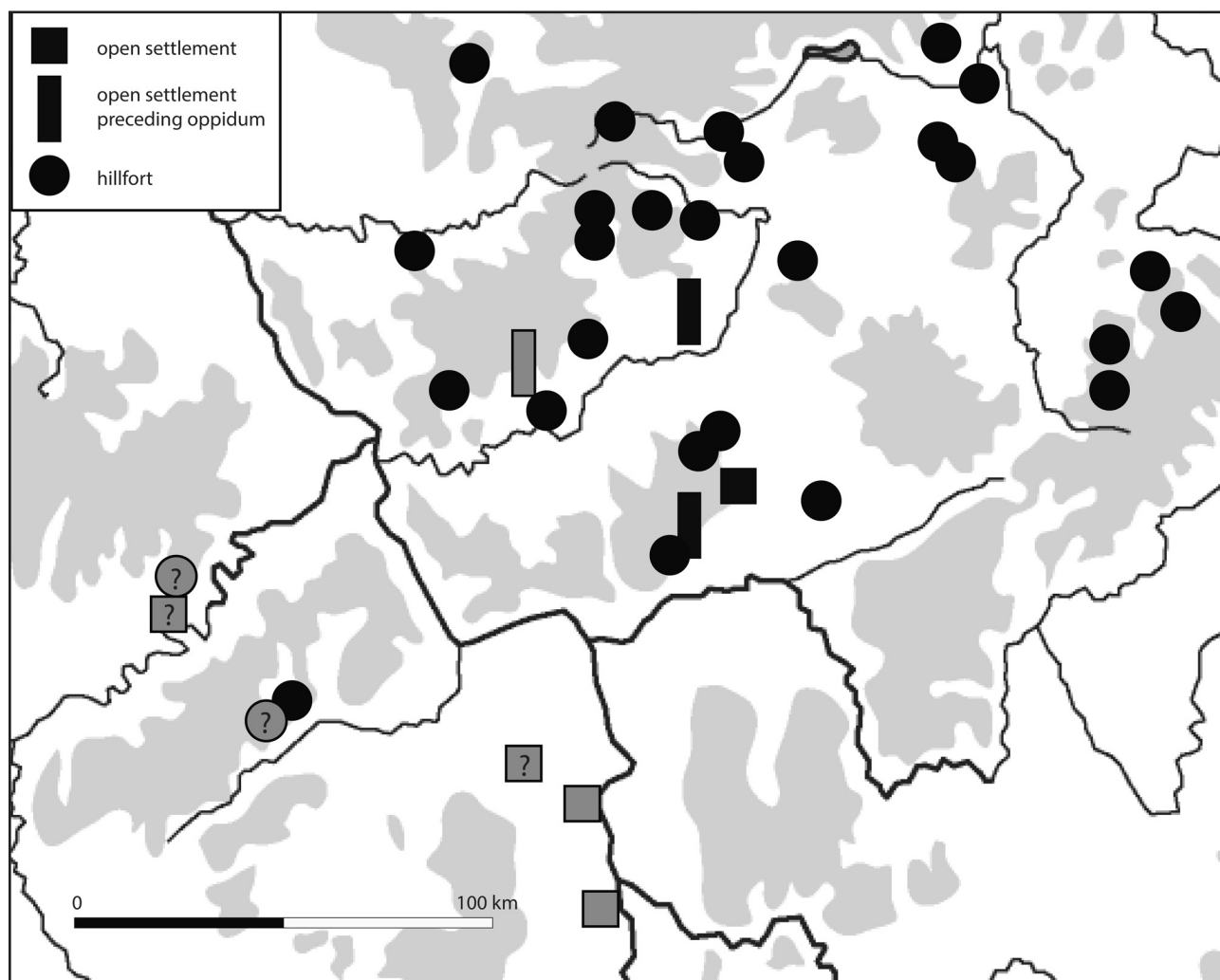
Roman period, even though a marked decline from LT D2 onwards can be observed.<sup>5</sup> The Bad Nauheim settlement shows strong cultural connections with Lovosice (okr. Litoměřice, CZ), a central settlement of the same type situated further east, on the northern periphery of the Bohemian Late La Tène culture.<sup>6</sup>

Large agglomerated settlements of a similar type can also be identified as predecessors of some oppida in the Taunus-Westerwald region (fig. 2). This development is now understood in some detail for the Heidetränke near Oberursel (Hochtaunuskreis, DE), which thus serves to bridge the gap between the very beginnings of these centralization processes and their evolved stage by illustrating continuities in development. The site started as a small open settlement on the “Goldgrube” sometime during the

4 FICHTL et al. 2019; FICHTL 2005.

5 KULL 2003; HÜSER 2012, 161–162.

6 SALAČ / VON CARNAP-BORNHEIM 1994, 122.



**Fig. 2.** LT C centralization processes east and west of the Middle Rhine. Precise dating for the fortification of previously open settlements is usually missing. Grey symbols: possible sites (graphic: S. Hornung, after SCHULZE-FORSTER 2007, 112–113, and KOCH / SCHINDLER 1994, with additions and alterations).

3<sup>rd</sup> century B. C.<sup>7</sup> But by the beginning of the 2<sup>nd</sup> century the adjacent “Hohe Mark” must have been densely settled too, covering an area of another 250 hectares and thus enlarging the maximum settlement area to 380 hectares in LT C2/D1.<sup>8</sup> The fortifications of the Heidetränke, as well as an adjacent rampart called “Heidengraben”, seem to have been later additions to the open settlement and some parts were built as late as LT D1. They employed the Pfofenschlitzmauer-type fortification common in the eastern part of the Late La Tène culture.<sup>9</sup> Influences from southern Germany are reflected in material culture from the settlement too, visible, for example, in finds of graphite tempered pots.<sup>10</sup>

Archaeological data from other oppida in the highlands east of the Rhine is usually less clear, mainly due to a lack of systematic research. At the Dünsberg (Lkr. Gießen, DE), for example, a significant number of metal finds seems to

indicate settlement activity from LT B2/C onwards but also a possible decline in LT C2 before the Late La Tène oppidum emerged, seeing its heyday in LT D1 (fig. 3).<sup>11</sup> Its three encircling fortifications delimited an area of 90 hectares. Whether the middle rampart is indeed of LT C date, as has been assumed on the basis of find distribution, remains uncertain.<sup>12</sup> Only the outer fortification was investigated in some detail and can thus be identified as a Pfofenschlitzmauer-type rampart, probably of LT D1 date.<sup>13</sup> The Dornburg near Wilsenroth (Lkr. Limburg-Weilburg, DE) also belongs to the small group of oppida in the highlands east of the Rhine. Overlooking the Elbbach, a northern tributary of the River Lahn, it is protected by two lines of fortifications enclosing an area of about 34 hectares. Since it is poorly researched, the development of the settlement is currently derived mainly from stray

7 MAIER 1985, 96–97.

8 STÄHLER 2020.

9 FICHTL 2005, 49.

10 SCHLOTT et al. 1982, 76–77.

11 SCHULZE-FORSTER 2015, 158–167; SCHLOTT 1999.

12 SCHULZE-FORSTER 2007, 117 fig. 10.

13 RITTERSHOFER 2004, 23–25.

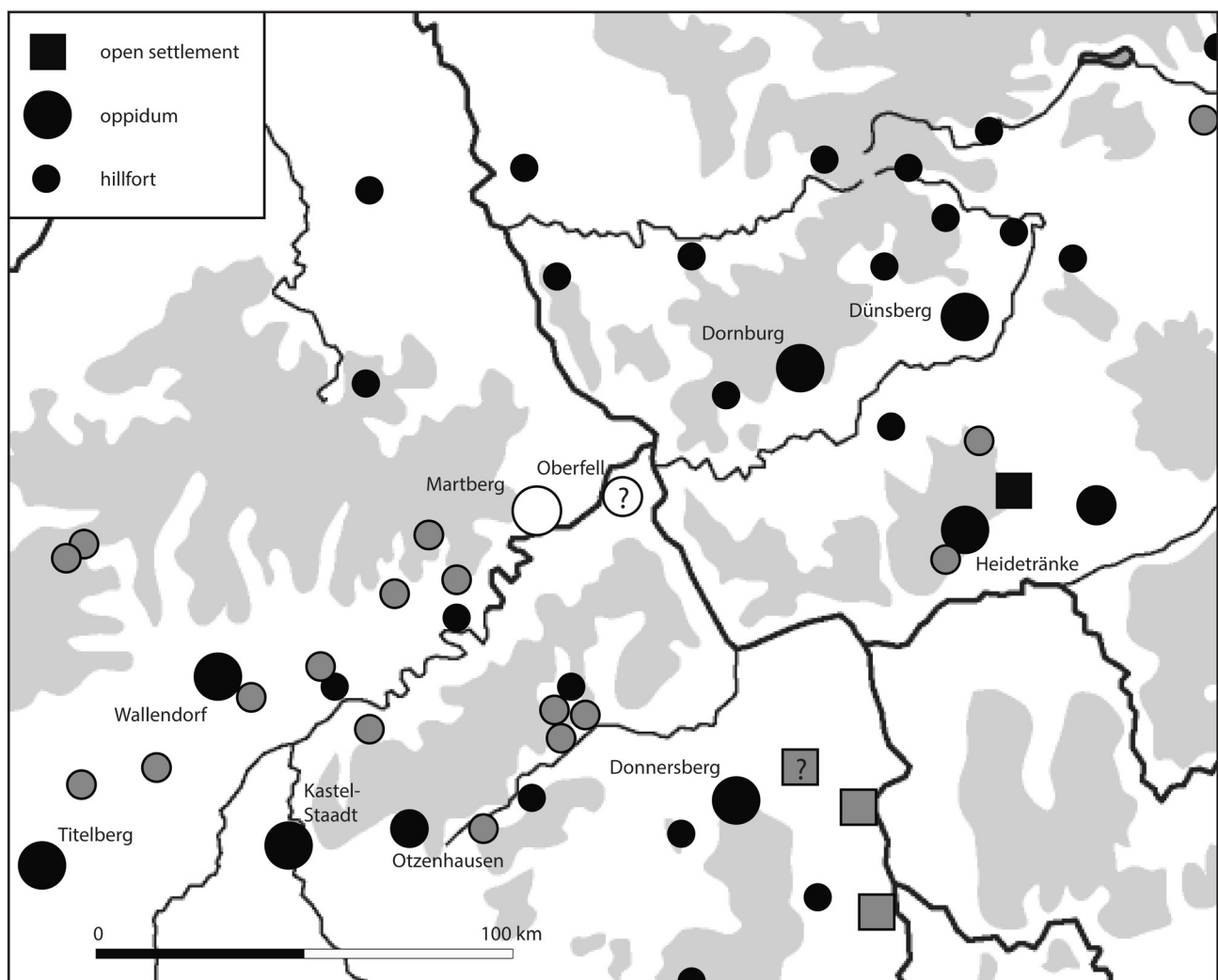


Fig. 3. Central settlements during the LT D1b period. Grey symbols: probable sites; open symbols: foundation in late LT D1b (graphic: S. Hornung, after SCHULZE-FORSTER 2007, 112–113, and HORNUNG 2016a, 190 fig. 160, with alterations).

finds, which nevertheless indicate that the origins of the oppidum lie in the 3<sup>rd</sup> century B. C.<sup>14</sup>

These oppida in the Taunus and Westerwald highlands were complemented by a somewhat larger number of smaller hillforts with surface areas of no more than 13 hectares. Only the Amöneburg (Lkr. Marburg-Biedenkopf) has recently been investigated in detail, revealing once more a chronological focus in LT C/D1<sup>15</sup> but without, as yet, indications of specialized production and complex central functions. Even though the state of research is incomplete to say the least, many of the hillforts in the highlands east of the Middle Rhine have also produced finds from LT C and D, suggesting similar lines of continuity as for the oppida.<sup>16</sup> There were only few new foundations in the LT D1 period, mostly situated on the periphery of the main distribution and illustrating a further progression

<sup>14</sup> MANDERA 1982; HERRMANN 1987; HANSEN 2007; SCHULZE-FORSTER 2015, 166 tab. 10.

<sup>15</sup> EISENACH 2017, 115–116; 171–173; 178–181.

<sup>16</sup> SCHULZE-FORSTER 2007, 112–113 tab. 1; MÖLLERS 2009, map 11.

of centralization processes. The emergence of fortified oppida in the areas east of the Rhine is therefore a result of settlement continuities from the 4<sup>th</sup>/3<sup>rd</sup> centuries B. C. onwards (figs. 2–3). What is more, the latter were embedded into an entire network of contemporary subordinate centres. This general development seems strongly linked to the centralization processes in the entire eastern Late La Tène sphere. Peripheral as they were to this cultural stimulus, the regions east of the Middle Rhine nevertheless played a key role in the transmission of southern influences into the adjacent “contact zone” further to the north. Here too, small fortifications of the LT C/D period were founded along traditional axes of communication, although their central functions stayed very limited and some of the typical La Tène traits, for example the production of coinage, wheel-thrown and painted pottery or glass jewellery, and most importantly large oppida, are completely absent.<sup>17</sup>

<sup>17</sup> MEYER / HORNING 2021.

## LT C/D1 centralization processes west of the Middle Rhine – discontinuity and change

As opposed to a seemingly continuous development in the highlands east of the Rhine, processes of centralization on its western bank seem to have been of a more discontinuous nature. There are as yet only few contenders for large unfortified settlements along the river itself, and not a single one of them has been systematically investigated. It is, however, worth mentioning the site Limburgerhof (Rhein-Pfalz-Kreis, DE) about 10 km north of modern Speyer (fig. 2). It is situated on the left bank of the river, immediately adjacent to an old branch of the Rhine and almost directly opposite the Neckar estuary. Limburgerhof might, therefore, have functioned as a harbour and potentially also overlooked a river crossing. The neighbouring early Roman camps at Rheingönheim (Stadt Ludwigshafen, DE) clearly illustrate the potential strategic importance of this site, which controlled trade along the Rhine and might have served as a bridgehead for the Neckar route,<sup>18</sup> the importance of which for contacts between Bohemia and Gaul has been emphasized on several occasions.<sup>19</sup> A large assembly of metal finds has been collected at Limburgerhof in recent years, suggesting a site of some importance and economic wealth.<sup>20</sup>

<sup>18</sup> WIELAND 1999, 69–70.

<sup>19</sup> PIERREVELCIN 2012, 220 fig. 85.

<sup>20</sup> U. Himmelmann pers. comm.

In his study on the coin finds Michael Nick proposed an interpretation as a centre of trade, reflected in the large number of LT D1 coins, mainly potins “au sanglier” (Scheers 186).<sup>21</sup> In contrast to a complete lack of LT D2 emissions, which are generally rare along the Rhine,<sup>22</sup> there are also a few coins from the Augustan period, suggesting potential continuity into the early Imperial period. Another central settlement of the same type might be expected to have been situated some 30 kilometres north, at Worms-Herrnsheim (Stadt Worms, DE), the favourable location of which on major axes of communication seems to be comparable to that of Limburgerhof. So far, only an extensive cemetery is known, which comprised a large number of Early La Tène inhumations and LT C/D to Augustan period cremation burials, including several rich graves.<sup>23</sup> There are as yet no traces of an accompanying settlement but this might simply be due to a lack of systematic research. Alzey (Lkr. Alzey-Worms, DE) too has sometimes been considered a contender for a large unfortified settlement, but some LT D remains from the

<sup>21</sup> NICK 1999, 157.

<sup>22</sup> WIGG 1996; HORNING 2016a, 263–269.

<sup>23</sup> ZYLMANN 2006; BRÜCKEN 2018.

area of the later Roman *vicus* are insufficient evidence on which to reach a final conclusion.<sup>24</sup>

Further to the north, in the Hunsrück highlands west of the Middle Rhine, processes of centralization from the 4<sup>th</sup>/3<sup>rd</sup> centuries onwards took a different form. Here, a group of small hillforts up to 5 hectares in size seems to be aligned along an Iron Age road crossing the hills from southeast to northwest (fig. 2). Founded during the latest phase of the Hunsrück-Eifel-culture (HEK IIB/LT B2), settlement activity regularly culminated in LT C before a gradual decline began in LT D1, which finally led to their abandonment sometime in LT D1b/D2a.<sup>25</sup> The Altburg near Bundenbach (Lkr. Birkenfeld, DE) was systematically excavated during the 1970s.<sup>26</sup> Its massive rampart and palisades are secondary additions to a pre-existing open settlement and seem to have been rebuilt twice. Several dendrochronological dates from these fortifications (172 B. C., 122 B. C. and 78 B. C.) are difficult to interpret due to their short sequence or a lack of stratigraphical information.<sup>27</sup> At any rate, the later phase enclosed an area of 2.3 hectares, which was divided into two sections with different functions. A trapezoidal palisaded enclosure situated prominently at the highest point of the interior of the hillfort might have delimited its functional core.<sup>28</sup> Besides several large residential buildings, a circular and a sunken structure were found in its interior, both unparalleled in other sites from the same period. Six sherds of amphorae from the Altburg's latest phase illustrate the very limited access of the local population to Mediterranean goods.<sup>29</sup> This evidence within the palisaded enclosure contrasted with the large number of four-post and six-post-buildings outside it. This suggests that the hamlet-like settlement might have controlled storage facilities and thus have served to protect the goods of a larger community.<sup>30</sup> Other than that, there is at best little evidence of specialized production and exchange, or of other central functions.<sup>31</sup> Pottery finds from the Altburg, as well as only a few sherds of amphorae and a complete lack of coinage, seem to suggest very limited economic

power and a settlement decline around the LT D1b/D2a transition.<sup>32</sup> It is remarkable, though, that several sherds of graphite tempered ware indicate cultural relations with the Late La Tène culture of southern Germany. The Wildenburg near Kempfeld (Lkr. Birkenfeld, DE), 4.8 hectares in size, seems to be roughly contemporary with the Altburg and also started as an open settlement before being fortified at a later stage of development.<sup>33</sup> The Iron Age settlement remains were disturbed by the building of a Roman sanctuary (late 1<sup>st</sup>–3<sup>rd</sup> century A. D.), a fortress in Late Antiquity (4<sup>th</sup> century) and a 14<sup>th</sup> century castle.<sup>34</sup> Nevertheless, the Wildenburg – just like the “Burgberg” near Erden (Lkr. Bernkastel-Wittlich, DE)<sup>35</sup> – probably belongs to the same group of LT C/D1 hillforts in the Middle Hunsrück which all had only limited central functions and where an exact dating for the fortification of the earlier open settlements is hard to establish.

Archaeological evidence for early processes of centralization during the Middle La Tène period is thus restricted to the northern part of the Upper Rhine valley as well as the Middle Hunsrück highlands, and therefore to areas influenced peripherally by the Late La Tène culture of southern Germany (fig. 2). Depending on the individual state of research, all known sites illustrate – with varying degrees of clarity – a decline in activity during LT D and sometimes even marked discontinuities in local settlement structures. This process seems in some way or other to be connected to the emergence of oppida west of the Rhine,<sup>36</sup> which were characterized by an increasing functional complexity and growing communities and gradually replaced the existing settlement system with its limited level of centrality. The emergence of these oppida should not be perceived as one single event but rather as an ongoing process, a wave of centralization progressing from south to north and thus illustrating the cultural influences that led to this development (fig. 4).

The Donnersberg (Donnersbergkreis, DE), which occupies a commanding position on a hilltop overlooking the plains of the Upper Rhine and important axes of communication, is clearly among the earliest oppida in the territory of the *Treveri*. From a structural perspective, it compares well with the very large oppida of southern Germany, its fortifications enclosing a surface area of 240 hectares. Andrea Zeeb-Lanz suggested that the Donnersberg's perimeter walls of the Pfostenschlitzmauer-type were built as early as 130 B. C., though the archaeological basis of this dating is as yet unpublished.<sup>37</sup> It is also

<sup>24</sup> HUNOLD 1997, 208–209.

<sup>25</sup> HORNUNG 2008, 224–225; LANG 2021, 119–120; NORTMANN 2020/21.

<sup>26</sup> SCHINDLER 1977.

<sup>27</sup> NEYSES 1991, 306–307.

<sup>28</sup> NORTMANN 2020/21, 122–123. – Find distributions, for example of pottery and animal bones, speak in favour of an interpretation of this palisaded enclosure as a residential area. The distribution of LT B2 pottery is also limited to this part of the hillfort, which therefore represents the actual settlement core.

<sup>29</sup> NORTMANN 2008/09, 20; NORTMANN 2020/21.

<sup>30</sup> HORNUNG 2016a, 66–67. – The area outside the palisaded enclosure is markedly poorer in archaeological finds, particularly in animal bones and charcoal as markers for domestic activity. On the other hand, a limited number of pottery sherds and few imported amphorae, as well as graphite-tempered ware were sometimes found even in this part of the Altburg hillfort. NORTMANN 2020/21.

<sup>31</sup> NORTMANN 2007, 179.

<sup>32</sup> NORTMANN 2020/21, 104; 107; 118; 123.

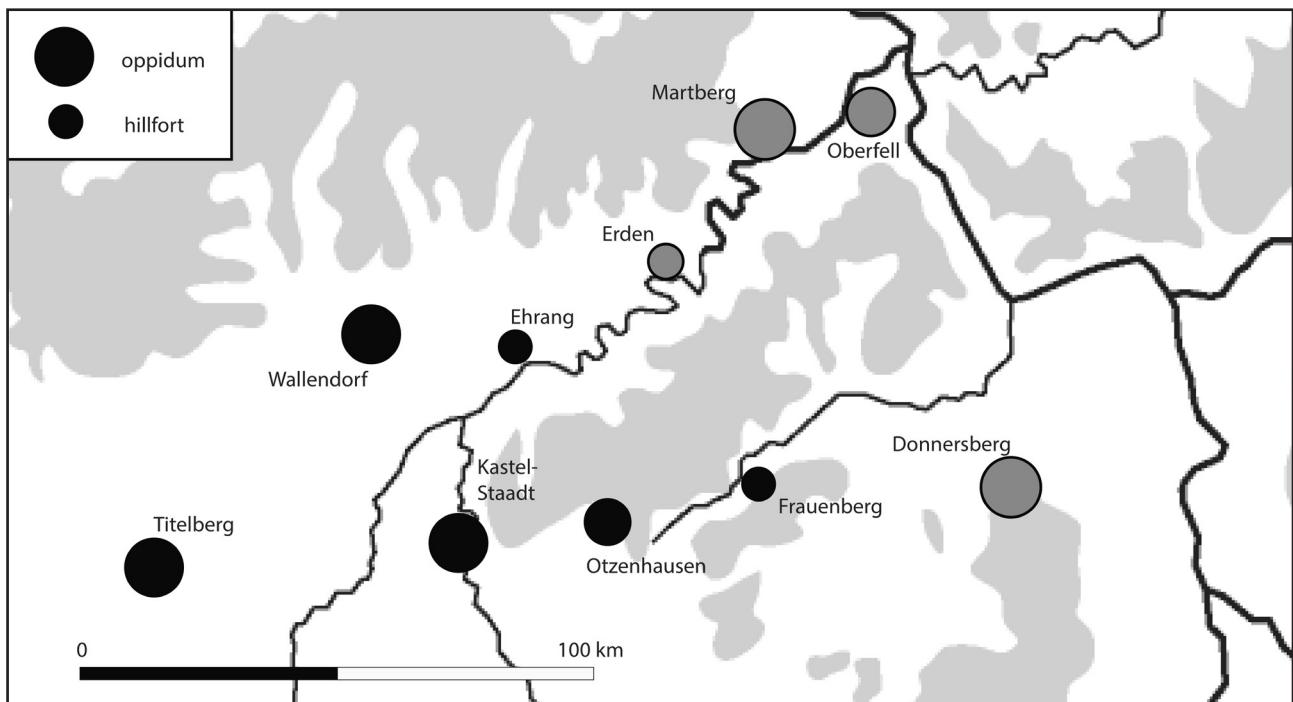
<sup>33</sup> NORTMANN 1987, 76–81.

<sup>34</sup> NORTMANN 1987, 35 fig. 1; 37; 82–93.

<sup>35</sup> KOCH / SCHINDLER 1994, 104–105.

<sup>36</sup> HORNUNG 2016a, 191–198.

<sup>37</sup> ZEEB-LANZ 2008, 25. – ZEEB-LANZ 2016, 22, mentions pottery finds from excavations undertaken by H.-J. Engels, which speak in favour of an early dating. While ENGELS 1985, 23, originally dated the earliest settlement remains from his ex-



**Fig. 4.** Distribution of ramparts of the types Pfastenschlitzmauer (grey symbols) and *murus gallicus* (black symbols) in Treveran territory. Hybrid types of construction are not plotted (graphic: S. Hornung).

uncertain if the oppidum represents a foundation *ex nihilo*, or if there was some small-scale settlement activity before the ramparts were built. At any rate, the Donnersberg's roots probably lie in LT D1a, just as Bertrand Bonaventure has suggested for the neighbouring oppidum of the *Mediomatrici*, Fossé des Pandours (comm. Saverne, dép. Bas-Rhin, FR).<sup>38</sup> Kastel-Stadt (Lkr. Trier-Saarburg, DE) and the Hunnenring near Otzenhausen (Gem. Nonnweiler, Lkr. St. Wendel, DE) are other contenders for early foundations in LT D1a, with possible activities at the time focusing on the area around later sanctuaries at the core of these oppida.<sup>39</sup> In both cases an early dating is underlined by locally produced pottery, which sometimes still resembles LT C finds from Bundenbach, as well as stray finds of glass and metal of Middle La Tène date,<sup>40</sup> though clear traces of settlement from that period are always missing.<sup>41</sup> The same holds true for the Castellberg

near Wallendorf (Eifelkreis Bitburg-Prüm, DE), where isolated LT C finds have been related to episodic activities of unknown character. This settlement itself seems to have evolved slightly later, sometime around the LT D1a/D1b

cavations to the middle of the 2<sup>nd</sup> century B. C. he later published a revised dating of about 130 B. C. See ENGELS 2001, 41. – A publication of all finds from these 1970s/80s excavations by A. Sehnert-Seibel is currently in preparation.

<sup>38</sup> BONAVENTURE 2011, 264. – FICHTL 2010, 85–86 considered a foundation *ex nihilo* for Fossé des Pandours but also proposed a much later date in the late 2<sup>nd</sup> / early 1<sup>st</sup> century B. C. Compare FICHTL / PIERREVELCIN 2005.

<sup>39</sup> HORNUNG 2016a, 170.

<sup>40</sup> WIEGERT 2002, 258–259; BUCHHORN 2016, 66; 70 fig. 13; 72.

<sup>41</sup> HORNUNG 2016a, 59. – NORTMANN 2020/21, 105–106; 125, mentions the Hunnenring among his group of small LT B2/C/D1 fortifications represented, for example, by the Altburg near Bundenbach. This early dating is not consistent with the settlement finds discovered during recent excavations (HORNUNG 2010; HORNUNG 2016b), which clearly illustrate a peak in settlement during LT D1b and continuity into LT D2a. These traces

of early 1<sup>st</sup> century settlement even covered an area of up to 9 ha. What is more, Nortmann also disputes the Hunnenring's inclusion among the Treveran oppida on the grounds of its comparatively small size. But since the use of the term oppidum by Caesar, from whose *Commentarii de bello Gallico* the archaeological concept was derived, is by no means limited to settlements of a certain size, it still seems reasonable to maintain the attribution in order to stress chronological and functional differences between the Hunnenring and some smaller hillforts, even though Nortmann is correct in noting that its surface area is in fact much smaller than that of all the other Treveran oppida. On the other hand, the maximum size of the settlement at the Hunnenring is still about two or three times larger than the area of any of the known LT C hillforts. Any rigid classification therefore masks the observation that processes of centralization in the Hunsrück-Eifel area were subject to constant shifts and changes, which is why each site has to be considered individually. What is more, the size of Iron Age central places seems very much dependent on their landscape setting and does not necessarily correlate with their supposed functional complexity. This is visible in the network of structurally diverse oppida in Gaul, which include many sites with a surface comparable to that of the Hunnenring – even sites like Geneva (about 5–10 hectares in size; see DESCHLER-ERB 2011, 235), explicitly mentioned by Caesar as *extremum oppidum Allobrogum* (Caes. Gall. I, 6, 3). A peripheral settlement landscape like the western Hunsrück would never have been able to sustain a large oppidum in the first place. Even in modern times the degree of centralization in this area is – for much the same reasons – restricted to only one medium-sized town (Hermeskeil, Lkr. Trier-Saarburg, D, situated at a distance of only 5 km from the Hunnenring), but whose central functions nevertheless equal those of much larger cities elsewhere.

transition, as is suggested by a well with wooden casing that was dendrochronologically dated to 130–125 B. C.<sup>42</sup>

LT D1b then clearly marks a phase of settlement intensification and a continuous increase in population. The classical LT D1b phase also saw a gradual emergence of proto-urban structures at the Titelberg oppidum (Pétange, Kt. Esch-sur-Alzette, LU). On the Martberg near Pommern (Lkr. Cochem-Zell, DE) – 70 hectares in size and overlooking the Lower Moselle valley – hardly any major settlement activity can be detected before the LT D1b/D2a transition. It is therefore considered to be the latest of all the Treveran oppida.<sup>43</sup> The settlement core comprised a large sanctuary dating back to LT D2, which was preceded by an open area for assemblies in late LT D1b. Only this important religious centre survived throughout the following Roman period,<sup>44</sup> whereas the settlement seems to have been abandoned in favour of a neighbouring Roman *vicus*. The Martberg's material culture illustrates relations with the Upper Rhine area with some of its pottery closely resembling vessels from the Mediomatrican oppidum Fossé des Pandours. At the same time, cultural connections with the regions further to the west were also of some importance.<sup>45</sup> These varying influences are of course the result of the oppidum's location on the Moselle River. In the case of the Bleidenberg (Oberfell, Lkr. Mayen-Koblenz, DE), situated on the opposite bank, a comparatively late dating and similar exchange relations are also probable. However, it is not yet clear whether this fortification can indeed be counted among the group of complex LT D central settlements in the Hunsrück-Eifel region.<sup>46</sup>

Despite the often incomplete state of research, the emergence of oppida in the Hunsrück-Eifel-region therefore seems to have progressed from south to north and can be dated mainly to the classical and late phases of LT D1b.<sup>47</sup> What is more, parallel to a similar development in the areas east of the Rhine, a number of smaller hillforts also evolved in the western Hunsrück-Eifel region. These have maximum surfaces of 3.3 hectares and might once more have functioned as central places of a subordinate type, thus supplementing the larger oppida.<sup>48</sup> They developed more or less parallel to the rise of the oppida, which themselves were markedly smaller the further north they lay.

Wherever there is clear dating evidence, fortifications seem to have been secondary additions to the open prede-

cessors of oppida and hillforts. Their mode of construction directly reflects the cultural division induced by varying influences from the eastern and western spheres of the Late La Tène culture. Pfostenschlitzmauer-type ramparts are distributed in the eastern part of the Treveran territory, the *murus gallicus* on the other hand, is found solely in the west (fig. 4). At all excavated ramparts two to three different building phases have been distinguished. Furthermore, parallel to the chronological differences in settlement development noted above, all of the fortifications along the Moselle River seem to have been built somewhat later than those further to the south. This development thus reflects a longer process over time, rather than one brief wave of fortification. The Donnersberg, Hunnenring, Titelberg and Wallendorf oppida were most likely fortified during the last three decades of the 2<sup>nd</sup> century, by 100 B. C. at the latest, while the Kastel-Stadt rampart is as yet undated.<sup>49</sup> The fortifications of the Bleidenberg and Martberg on opposite banks of the Moselle might even date to LT D2a or, at any rate, no earlier than the late phase of LT D1b.<sup>50</sup> In 67 B. C. Trier-Ehrang (Stadt Trier, DE) was fortified for the first time, while in the case of Erden (Lkr. Bernkastel-Wittlich, DE) this took place slightly earlier, in 70 B. C.<sup>51</sup> But these two smaller hillforts are the only examples which have actually produced dendrochronological evidence. The youngest phase of the Hunnenring's fortifications also dates to about 80/60 B. C. and comprises a massive rampart of the Fécamp type defending the settlement towards the north, as well as a *murus gallicus* of Ehrang type on the other sides.<sup>52</sup> Establishing a precise chronology for any of these fortifications is naturally a challenge since their dating usually relies on only few sherds of pottery from the underlying stratigraphic horizon. Therefore, the archaeologically established dates often correlate with transitions between phases so that the chronological resolution of individual sites and ramparts is regularly restricted to only 20 to 30 years, unless there is dendrochronological evidence as at Ehrang and Erden.

Processes of centralization and fortification did not end geographically in the highlands east and west of the Middle Rhine. They also affected settlement landscapes further to the north. On the northern slopes of the Eifel small hillforts like Euskirchen-Kreuzweingarten (Kr. Euskirchen, DE) can be considered as counterparts of the hillforts in the “contact zone” east of the Rhine. Its surface area of 5 hectares was enclosed by a rampart supposedly of hybrid type.<sup>53</sup> Kreuzweingarten was recently <sup>14</sup>C-dated to the first or second quarter of the 1<sup>st</sup> century B. C. and

42 KRAUSSE 2006, 165–167 fig. 90; 179–180; 187.

43 HORNING 2016a, 171–174; NICKEL et al. 2008, 556; 628.

44 NICKEL et al. 2008.

45 NICKEL 2013, 360.

46 BRÜCKEN 2008. – NORTMANN 2020/21, 125 recently disputed the Bleidenberg's supposed rank among the Treveran oppida.

47 See BARRAL 2012 with regard to this chronological distinction.

48 LANG 2021, 119–120.

49 HORNING 2016a, 69; 170–172.

50 BRÜCKEN 2008, 255–256; NICKEL 2013, 674.

51 KOCH / SCHINDLER 1994, 104–105; 113–114; HORNING 2016a, 196–197.

52 HORNING 2016a, 69–70.

53 JOACHIM 1974.

has produced settlement remains from the period.<sup>54</sup> In the adjacent plains of the Lower Rhine contemporary fortifications took an even more modest form.<sup>55</sup> Fortified hamlets like Niederzier-Hambach (Kr. Düren, DE), 2.7 hectares in size, mark the very top level of settlement hierarchy, but there are also fortified farmsteads like Jülich-Bourheim (Kr. Düren, DE), which is only 0.6 hectares in size. Niederzier seems to have possessed at least some limited central functions; a number of iron ingots illustrates specialized metalworking.<sup>56</sup> Cultural relations with the Late La Tène culture of southern Germany are visible in a

hoard containing gold torques and 46 gold coins.<sup>57</sup> A total of 26 coins from that hoard are rainbow cup staters of the *Vindelici*, which indicate that the Rhine functioned as an important axis of communication in the transmission of material culture. Whether the possible central functions of several farmsteads that is indicated by their fortifications can be connected to the presence of a local elite has yet to be discussed on a broader archaeological basis. Finds of amphorae from the site at Rees-Bergswick (Kr. Kleve, DE), which are otherwise extremely rare in the entire Lower Rhine region, may actually point in this direction.<sup>58</sup>

<sup>54</sup> P. Tutlies pers. comm.

<sup>55</sup> TUTLIES / BRÜGGLE 2019, 71–73.

<sup>56</sup> JOACHIM 2007; GECHTER-JONES 2007; JOACHIM 1982.

<sup>57</sup> GÖBEL et al. 1991; NICK 2005, no. 28.

<sup>58</sup> SCHLETTNER 2019, 250–252 fig. 7.

## LT D2 – economic polarization in favour of Gaul

Changes in these patterns of centralized settlement west of the Rhine become visible during the first half of the 1<sup>st</sup> century B. C. (fig. 5) and started with a seemingly rapid decline of settlement activity at the Donnersberg. It is not yet known whether the building of an internal rampart that partitioned off 100 hectares in the west of the oppidum might relate to this development<sup>59</sup> or rather it indicates a specific use of this area, as to date no settlement traces have been discovered in it. The abandonment of the Donnersberg can be dated no later than the middle of the 1<sup>st</sup> century B. C. What is more, the decline of all the smaller LT C/D1 hillforts in the Middle Hunsrück region mentioned above seems to run more or less parallel to this development and also dates to the first half of the 1<sup>st</sup> century.<sup>60</sup> Rather more abruptly, the Hunnenring oppidum came to an end at about the time of the Roman conquest, equivalent to the LT D2a/b transition. This might be explained by the presence of Roman troops in nearby Hermeskeil (Lkr. Trier-Saarburg, DE) during the campaigns of Titus Labienus in 53 and 51 B. C.<sup>61</sup> An economic decline and reduction in settlement density in LT D2b can be observed for the Kastel-Staadt, Wallendorf and Martberg oppida. The Martberg seems to have suffered this loss of economic power after a short military event which interrupted the evolution of the sanctuary as the ritual centre of the oppidum.<sup>62</sup> These changes become

visible in a decline of specialized pottery production – a process also evident in contemporary burial finds from the wider region – and a lack of LT D2b coinage in what was now a reduced area of settlement.<sup>63</sup> A similar fate can be assumed for Wallendorf, although because of poor preservation conditions the evidence here is rather sparse.<sup>64</sup> Of all Treveran oppida, only the Titelberg in the far west saw a period of further economic growth and prosperity after the Gallic Wars, as well as an increase in population.<sup>65</sup> The existence of a Roman *emporium* throughout almost the entire LT D2 period illustrates trade-relations with the Mediterranean, the importance of which increased significantly from the time of the conquest.<sup>66</sup>

All Treveran oppida therefore reflect a process of economic polarization in favour of the Titelberg in the far west (fig. 5), intertwined with increasing population dynamics and possibly political change as well. Similar developments can be observed in the areas north and south of the *Treveri*, and were most probably related to supra-regional shifts in socio-economic patterns. Parallel to an increasing prosperity of Gaul under Roman influence, peripheral regions like the Middle Rhine, formerly connected to the eastern part of the Late La Tène culture, suffered a marked decline.<sup>67</sup> The Rhine axis, which had traditionally provided

and levelled, and later rebuilt after the abandonment of the enclosure. NICKEL et al. 2008 originally disputed the military character of this fortification.

<sup>63</sup> HELPFERT 2013; WIGG-WOLF 2000; HORNING 2016a, 183–187.

<sup>64</sup> KRAUSSE 2006; HORNING 2016a, 181–183.

<sup>65</sup> METZLER et al. 1999, 436–439; METZLER et al. 2016.

<sup>66</sup> METZLER et al. 2019. – See KRIEBER 2017/18 on archaeological evidence for the presence of Roman *negotiatores* on the Titelberg.

<sup>67</sup> HORNING 2019a. – In the case of the *Treveri* this might also explain the political division of the tribe mentioned by Caesar.

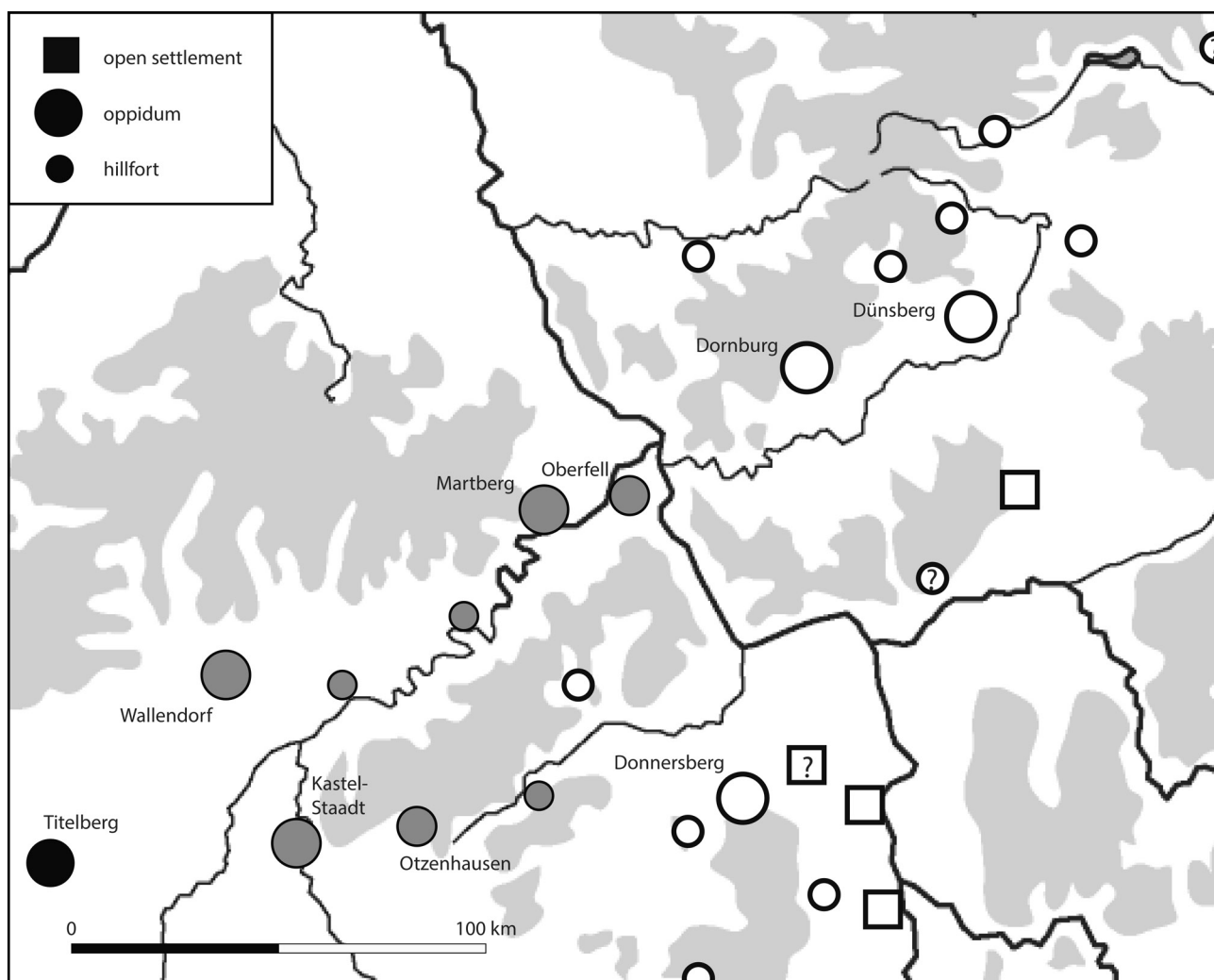
<sup>59</sup> ZEEB-LANZ 2012, 218–219; ZEEB-LANZ 2008, 15–17 fig. 12.

<sup>60</sup> HORNING 2016a, 176–177; 197–198; NORTMANN 2020/21, 124–125.

<sup>61</sup> HORNING, in prep.; HORNING 2019b.

<sup>62</sup> HORNING in prep.; HORNING 2016a, 183–185. – When an enclosure consisting of a V-shaped ditch with rounded corners was built sometime around the middle of the 1<sup>st</sup> century B. C., large parts of the sanctuary on the Martberg were demolished





**Fig. 5.** Economic polarization during the LT D2 phase as reflected in settlement developments. Open symbols: decline during LT D2a; grey symbols: decline during LT D2b; black symbols: economic prosperity in LT D2; phases LT D2a/D2b corresponding to Treveran Late La Tène chronology (graphic: S. Hornung, after SCHULZE-FORSTER 2015, 169 fig. 106; HORNUNG 2016a, 190 fig. 160).

a direct link with the oppida of southern Germany during the 2<sup>nd</sup> century B. C., therefore lost its formerly prominent role during the first half of the 1<sup>st</sup> century. It thus comes as little surprise that the Taunus and Westerwald regions east of the river were affected even more deeply by these changes, which led to the loss of the cultural core of this northwestern periphery of the eastern La Tène sphere. These processes resulted in the abandonment of the Heidetränke oppidum and many smaller hillforts in the area. There are – as usual – a few exceptions to the rule, which help to illustrate general methodological problems related to such processes of socio-economic change.

The Dünsberg oppidum, for example, seems to have survived into LT D2, but probably suffered a regionalization and decline in specialized production, while at the same time new networks were established with the areas

on the Lower Rhine further to the north. These are visible mainly in the numismatic record, with bronze rainbow cups of the Bochum type (dIT 9442) and silver *quinarii* type Scheers 57.<sup>68</sup> A limited distribution of LT D2 metal finds from the Dünsberg cannot yet be linked with regular settlement activity, and its loss of importance at the time,

<sup>68</sup> SCHULZE-FORSTER 2015, 122–123; 128–131; 164–169. The three series of Scheers 57 type coins differentiated by Schulze-Forster and supposedly minted from 60 B. C. onwards illustrate a gradual shift in distribution from the eastern Rhenish Massif to the western bank of the Lower Rhine. Production at least of series II seems to have started somewhat earlier than previously thought, since these coins already circulated during the Caesarian period according to a recent find from the LT D2a settlement at Limburg-Eschhofen discussed below. SCHÄFER 2020, 119–120. – The Bochum type rainbow cups on the other hand are one of several series in silver and bronze derived from the gold *triquetrum* staters of the Mardorf group, which are often thought to have been minted on the Dünsberg. But the recent discovery of a die at Selters-Haintchen (Lkr. Limburg-Weilburg, DE), in the vicinity of a hillfort some 10 hectares in size, now indicates the possibility of production by itinerant craftsmen. SCHADE-LINDIG / WIGG-WOLF 2020.

An anti-Roman faction led by Indutiomarus would be expected in the eastern part of the Treveran territory, whereas Cingetorix – an ally of Rome – might be located in the west, probably even on the Titelberg itself. See Caes. Gall. V, 58; VI, 5. 7.

parallel to the abandonment of smaller neighbouring hillforts, is probable.<sup>69</sup> On the other hand, any precise interpretation of settlement finds from LT D2 is hindered by the fact that a decline in specialized pottery production inevitably leads to cultural persistence, which in turn makes it difficult to establish precise chronologies.<sup>70</sup> Wherever LT D2 metal finds and well-dated wheel-thrown pottery are lacking, it becomes almost impossible to distinguish local LT D1 from LT D2 handmade pottery. The existence of a LT D2 period with few metal finds may therefore even be masked by this. The very same problem has recently been discussed for the Amöneburg. Whereas continuities into LT D2a were proposed mainly on the basis of characteristic types of metal objects, the LT D2b period has generally been identified through changes in pottery tradition. As a result, while there might indeed have been continuous settlement activity at the Amöneburg during LT D2, and even into the early Roman period<sup>71</sup>, definite proof is still lacking. But even if these continuities existed, they do not change the overall picture. By the second quarter of the 1<sup>st</sup> century the Taunus and Westerwald areas must have been largely decentralized and sparse settlement activity would then have been based on a mere subsistence economy. It seems worth noting that the only real contenders for continuities in LT D2 in the highlands east of the Rhine are in fact situated along the Lahn River and in the Westerwald highlands directly north of it – in exactly the same region that will once more become important in the following section when considering this LT D2 conundrum from a different perspective.

A general reduction of settlement density during the first half of the 1<sup>st</sup> century B. C. can also be assumed in the areas west of the Lower Rhine and is sometimes even mirrored in the pollen record. It has traditionally been related to Caesar's campaigns against the Eburones,<sup>72</sup> but in fact seems to date somewhat earlier.<sup>73</sup> At Linnich-Tetz (Kr. Düren, DE), for example, a phase of re-forestation can be distinguished during the first half of the 1<sup>st</sup> century B. C., which was later succeeded by renewed clearances from LT D2b onwards. The pollen record illustrates that there was then first a revival of Iron Age subsistence strategies and only sometime later the introduction of new plants and agricultural practices under Roman influence.<sup>74</sup> What is more, discontinuities in numerous rural settlements also reflect a gradual reduction of settlement density from the early 1<sup>st</sup> century B. C. onwards. The emergence of new structures then becomes visible in the foundation of new settlements during LT D2 and in the early Roman period,

which structurally continued Iron Age traditions, for example the fortified site of Kerpen-Manheim (Rhein-Erft-Kreis, DE), situated only 3 km from Niederzier-Hambach.<sup>75</sup> Settlement relocations on a much smaller scale have also been identified for some rural settlements such as Pulheim-Brauweiler (Rhein-Erft-Kreis, DE) or Jüchen-Neuholz (Kr. Neuss, DE).<sup>76</sup> Despite discontinuities at single sites, general settlement structures therefore seem to have survived into the early Roman period.

Socio-economic changes reflected in these processes of decentralization undoubtedly had political consequences too, and therefore affected the distribution of material culture in many different ways. Their impact on coin circulation, for example, is visible in distribution patterns of Treveran emissions from different periods. The LT D1b *quinarius* type Scheers 54 was minted at the Donnersberg and Wallendorf oppida and is characterized by an even distribution throughout the entire Treveran territory (fig. 6). In contrast, *quinarii* of Scheers type 55, which date mainly to LT D2a, already show a more westerly distribution.<sup>77</sup> Not a single one of these coins is known from the Donnersberg. Much the same is true of Treveran potins (Scheers 199–201) from the LT D2a period. Even though they are found occasionally in areas along the Rhine, there are no finds from the oppidum itself<sup>78</sup> and they are also missing at the presumed open central settlement at Limburgerhof.<sup>79</sup> This lack of LT D2 metal finds along the Rhine does not necessarily indicate the abandonment of all settlements, and the cemetery at Worms-Herrnsheim did indeed contain some LT D2 burials.<sup>80</sup> It reflects, rather, a decentralized settlement system in a region that became truly marginal from LT D2a (80/70 B. C.) onwards. The distribution of silver and bronze coinage of the LT D2b ARDA-series is then closely limited to the western part of the Treveran territory with only a few examples scattered along the Moselle River.<sup>81</sup> Some of these coins reached the Martberg, where they are regularly known from ritual, but only sporadically from settlement contexts (fig. 6). The idea that the areas along the Rhine generally played little or no part in LT D2 coin circulation<sup>82</sup> is further supported by the distribution of the so-called Eburonian staters (Scheers 31). These show a concentration in the Maas area but are missing in the supposed heart of the Eburonian territory west of the Lower Rhine.<sup>83</sup> Even if these staters were not used in economic transactions, the availability of gold, and thus a certain prosperity, are important preconditions for the minting of these coins.

<sup>75</sup> GRÜNEWALD 2019.

<sup>76</sup> ANDRIKOPOULOU-STRACK et al. 1999; ANDRIKOPOULOU-STRACK et al. 2000.

<sup>77</sup> LOSCHEIDER 1998, 80–83; 103–107; HORNUNG 2016a, 88; 175; 263–269.

<sup>78</sup> WIGG 1996, 381–382.

<sup>79</sup> NICK 1999, 157.

<sup>80</sup> BRÜCKEN 2018, 112.

<sup>81</sup> LOSCHEIDER 1998, 159–169.

<sup>82</sup> DERU / AUVERTIN 2021, 200–203 fig. 10,7.

<sup>83</sup> ROYMANS / SCHEERS 2012, 12–14 fig. 9.

<sup>69</sup> SCHULZE-FORSTER 2015, 134–136; 165; 169–171; SCHLOTT 1999, 59; SIEVERS 2006, 77.

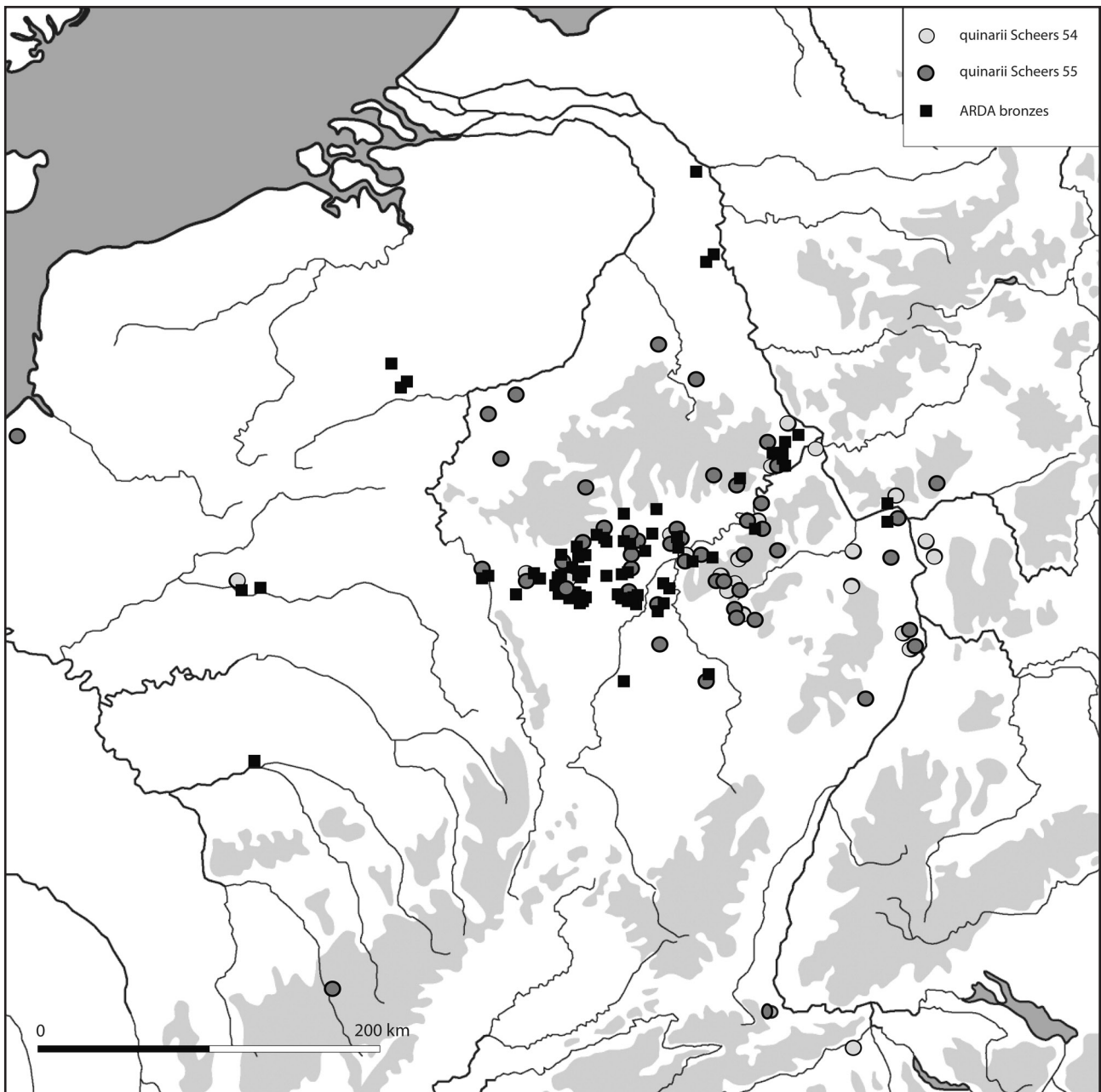
<sup>70</sup> HORNUNG 2022, 58–59.

<sup>71</sup> EISENACH 2017, 58–59; 115–116.

<sup>72</sup> KALIS / MEURERS-BALKE 2007, 147–148.

<sup>73</sup> HEINRICHS 2008, 207–208.

<sup>74</sup> KALIS / MEURERS-BALKE 2007, 147–148; MEURERS-BALKE / KALIS 2006.



**Fig. 6.** Distribution of Treveran *quinarii* types Scheers 54 and 55 (circles) and ARDA bronzes (squares) illustrating changes in coin circulation between LT D1b and LT D2b (graphic: S. Hornung, after LOSCHIEDER 1998, 80–83; 160–169, with additions).

The regions along the Rhine – after the collapse of their supra-regional economic networks and a loss of population

through processes of decentralization – were surely not prospering to any significant degree in LT D2.

## Mobility in LT D2?

Since the areas along the Rhine are in some parts favoured with fertile soils, this reduction in settlement activity was only temporary. An important key to understanding the regional population dynamics in the Taunus and Westerwald highlands east of the river is the newly discovered LT D2 site in the area of the two Roman camps on the Greifenberg near Limburg-Eschhofen (Lkr. Limburg-Weilburg, DE), overlooking the Lahn River (fig. 7).<sup>84</sup> They probably date to the time of Caesar's campaigns into Germanic territory in 55 and 53 B. C.<sup>85</sup> Some finds of militaria – three hobnails of the late Republican type D4–4 and an iron arrowhead of the Numantia type – seem to confirm the dating (fig. 8).<sup>86</sup> Camp II is the stratigraphically later one and overlies a settlement from the LT D2a period which was burnt down and levelled when the Roman army arrived. This provides us with a possible *terminus ante quem* of 53 B. C. for the settlement which, based on a remarkable homogeneity in material culture, must have been short-lived and existed for no more than one or two decades during LT D2a, from about 70/60 B. C. onwards. It was up to 12 hectares in size and represents a type of settlement formerly unknown in the area. The buildings were widely dispersed so that the settlement can be considered a small hamlet, despite its remarkably large surface area. Besides several post-built structures – a large house, measuring at least 8 × 20 m, as well as a number of smaller storage facilities – and settlement pits with differing functions, the remains of 12 sunken-feature buildings were uncovered, usually with a post to support the roof on each of the short sides (fig. 9). All the sunken-featured buildings excavated at Limburg-Eschhofen were small and more or less rectangular, with an average area of about 2.6 × 2.1 metres.<sup>87</sup> They represent a building-tradition alien to the areas east and west of the Middle Rhine in LT D1 and seem to appear only in LT D2 contexts, for example at the Treveran Martberg oppidum,<sup>88</sup> where a dating to LT D2b also suggests that their distribution to the areas west of the Rhine came slightly later.

Material culture from the Limburg-Eschhofen settlement is extremely rich and, in many respects, marks a clear break with native LT D1 traditions. A total of 18 fibulae, most of them highly fragmented and often badly preserved, comprise 16 iron examples and only two bronze ones. The majority of them cannot be typologically differentiated in detail. Some of the iron fibulae correspond to Kostrzewski type J<sup>89</sup> and can be attributed to variant J–2 with a rounded

“spoon bow” head. They are part of a rather heterogeneous group of fibulae with spherical or bowl-shaped widened heads defined by Schulze-Forster.<sup>90</sup> Only one find from Limburg-Eschhofen might represent Kostrzewski variant J–1, but because of its poor state of preservation the head is now reduced to an almost triangular shape. Iron fibulae of the Kostrzewski J type are frequently found in the zone of Boian coinage and are known in larger numbers from the central settlements of Stradonice (okr. Beroun, CZ), Staré Hradisko (okr. Prostějov, CZ) and Oberleiserberg (Bez. Korneuburg, AT), where they are associated with the final horizon of these oppida – LT D1b in the local chronology (fig. 10).<sup>91</sup> In addition to a second concentration in the Przeworsk- and Oksywie cultures, smaller concentrations are recorded in the northwestern Alpine region and on both banks of the Middle Rhine, for example from the cemeteries of Bad Nauheim, Trier-Biewer, Wederath (Gem. Morbach, Lkr. Bernkastel-Wittlich, DE) and Lamadelaine (Pétange, Kt. Esch-sur-Alzette, LU), as well as the Dünsberg, Martberg and Titelberg oppida, where they closely resemble type SpF–3.1.2a<sup>92</sup> or type 9b<sup>93</sup>. Their dating in this secondary area of distribution might be slightly later, no earlier than the LT D1b/D2a transition (Treveran chronology), while here the youngest examples can even be dated to the Augustan period. Limburg-Eschhofen clearly is a LT D2a site, while the date of the Martberg spoon bow fibulae was recently narrowed down to LT D2b.<sup>94</sup> A single find of the “Tanzen des Männlein” type *quinarius* from Limburg-Eschhofen represents the kneeling variant defined as type IIA(1) by Schulze-Forster.<sup>95</sup> This coin is most probably a local emission, dating to about the middle of the 1<sup>st</sup> century B. C.<sup>96</sup>

The pottery from Limburg-Eschhofen also seems quite remarkable. High-quality wheel-thrown ware with a polished black surface is very frequent and comprises almost one quarter of the pottery assemblage. This is extremely unusual in the Taunus and Westerwald regions, where even in local oppida like the Dünsberg wheel-thrown pottery hardly makes up more than 10% of all finds. In open settlements its proportion is usually significantly lower.<sup>97</sup> Furthermore, a constant decrease in frequency from LT D2 onwards is noticeable elsewhere along the Middle Rhine.<sup>98</sup> The Limburg wheel-thrown pottery is frequently decorated with impressed horizontal waves

<sup>84</sup> SCHADE-LINDIG 2020a, 68–105.

<sup>85</sup> SCHALLMAYER 2020.

<sup>86</sup> SCHÄFER 2020, 117–118 fig. 10; pl. 14,4; DEYBER 2008, 174–178.

<sup>87</sup> SCHADE-LINDIG 2020a, 54–68.

<sup>88</sup> NICKEL 2012, 330–331 fig. 25.

<sup>89</sup> KOSTRZEWSKI 1919, 31–32 fig. 16; DEMETZ 1999, 239.

<sup>90</sup> SCHULZE-FORSTER 1997, 100; 108 fig. 12; 109 fig. 13.

<sup>91</sup> KARWOWSKI 2020.

<sup>92</sup> LEIFELD 2007, 59–61 fig. 6.

<sup>93</sup> METZLER et al. 1999, 293–294 fig. 323.

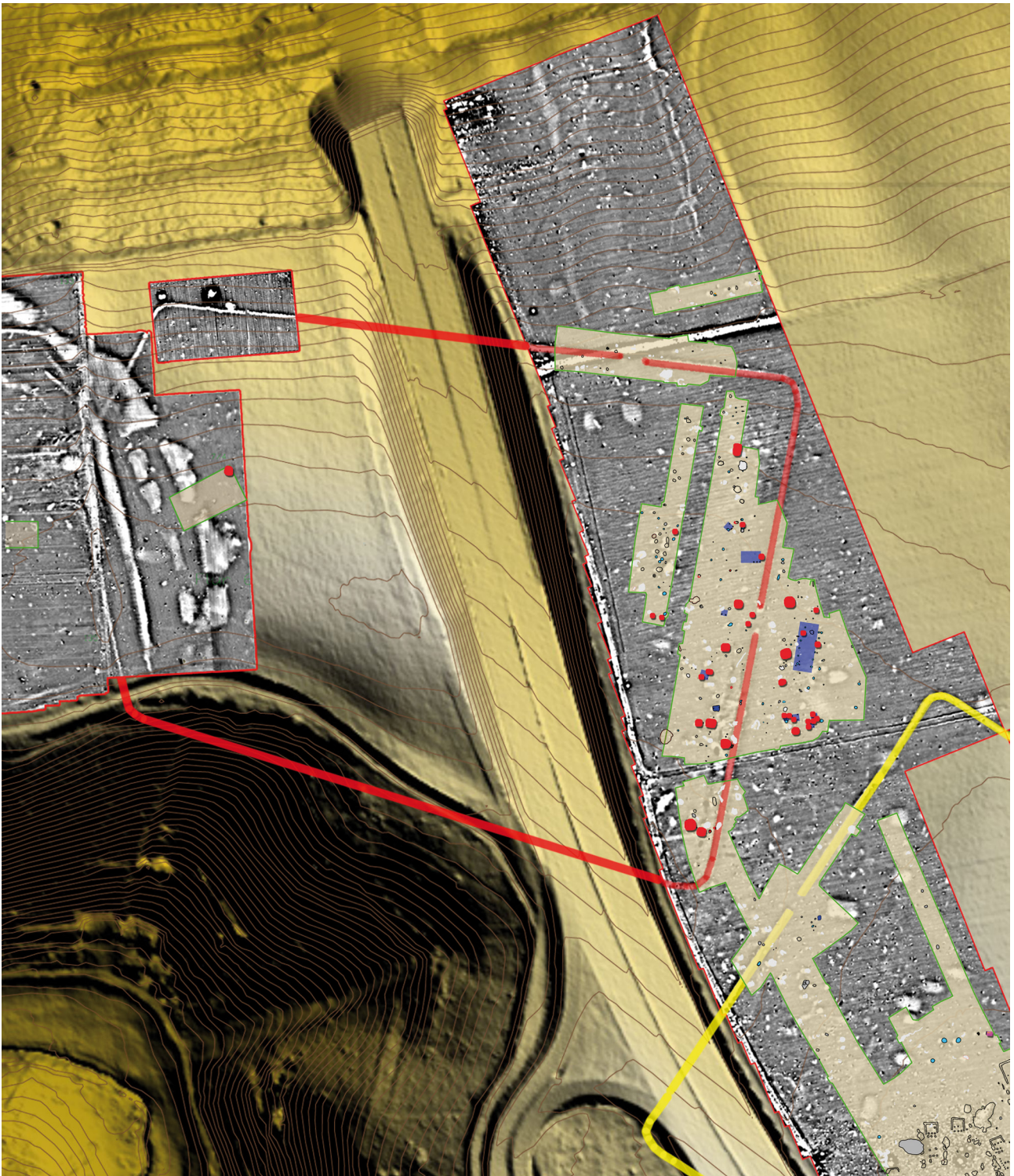
<sup>94</sup> NICKEL 2011, 165.

<sup>95</sup> SCHULZE-FORSTER 2015, 128–131.

<sup>96</sup> SCHÄFER 2020, 119–121.

<sup>97</sup> KÁNTOR 2022, 187–188.

<sup>98</sup> HORNING 2016a, 260.

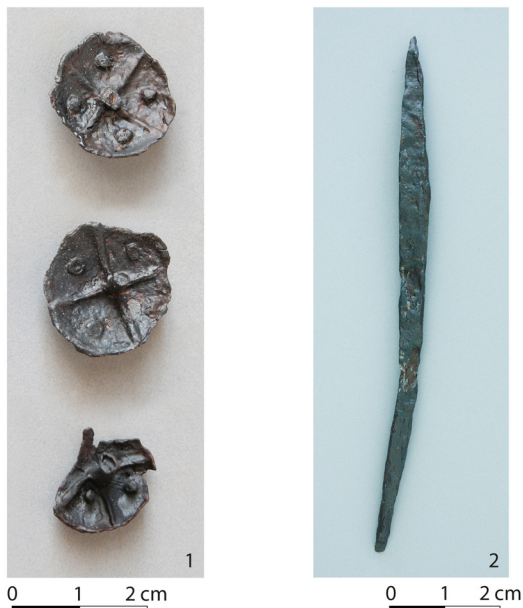


**Fig. 7.** The two Roman camps at Limburg-Eschhofen (yellow and red) and LT D2 settlement remains (blue). Burnt structures are marked in red (graphic: S. Schade-Lindig, hA, Kartengrundlage DGM 1, Hessische Verwaltung für Bodenmanagement und Geoinformation; Geomagnetik Fa. Posselt & Zickgraf Prospektionen GbR, Marburg, und Fa. Orpheus, Kriftel).

regularly accompanied by shallow horizontal grooves.<sup>99</sup> Similar decoration appears only sporadically on local vessels of LT C/D1 date and can be traced back to Early La Tène predecessors. Its distribution is limited to the highlands west of the Rhine as well as the Middle Rhine

basin; no examples east of the river are yet known, even though this decorative scheme may nonetheless derive from local traditions. Nevertheless, in the case of Limburg the sheer number of decorated vessels is remarkable and as yet without parallel in the entire region. Impressed wave decoration is similarly common only in horizon

<sup>99</sup> HORNUNG et al. 2020, 127–134.



**Fig. 8.** 1. Hobnails of type D4-4 – 2. iron arrowhead of the Numantia type from camp II at Limburg-Eschhofen, DE (photos: B. Steinbring / J. Amberg, LfDH).

III of the northwest Bohemian Late La Tène culture,<sup>100</sup> where it seems to have been adapted under western influences from the Rhine area and was widely distributed in LT C2/D1.<sup>101</sup> Some examples of wheel-thrown pottery with wave-decoration from Saxony-Anhalt and Thuringia

<sup>100</sup> SALAČ / KUBÁLEK 2015, 189.

<sup>101</sup> SALAČ / VON CARNAP-BORNHEIM 1994, 99–106.

may therefore reflect southern influences and cultural exchange with Bohemia.<sup>102</sup>

In Limburg-Eschhofen four types of locally-produced handmade pottery are known, three of them tempered with slate or sand and mostly of brown to dark-brown colour. Only some thin-walled sherds with a smooth, ochre surface are decorated with crescent-shaped imprints (fig. 11), a decorative tradition alien to the local Late La Tène culture but common in the areas further to the north.<sup>103</sup> One category of handmade vessels of greyish-brown colour, sometimes showing traces of re-working on the potters' wheel, stands out especially. On the basis of the limestone-tempering – a material available in the vicinity of the Limburg settlement – these pots, storage vessels and bowls, must have been produced locally, but on the other hand they mark a clear break with local LT D1 pottery traditions. From a typological perspective, they can be derived from LT C2/D1 traditions native to northwestern Bohemia and Moravia (fig. 12),<sup>104</sup> although similar vessels are also found in the mountain ranges of eastern Germany.<sup>105</sup> They all feature broad rib-decoration on the rim and/or shoulder, frequently combined with a black pitch coating (Pichung), which is linked to the specific function of these vessels. Similar finds are known in large numbers

<sup>102</sup> HORNING et al. 2020, 133–134.

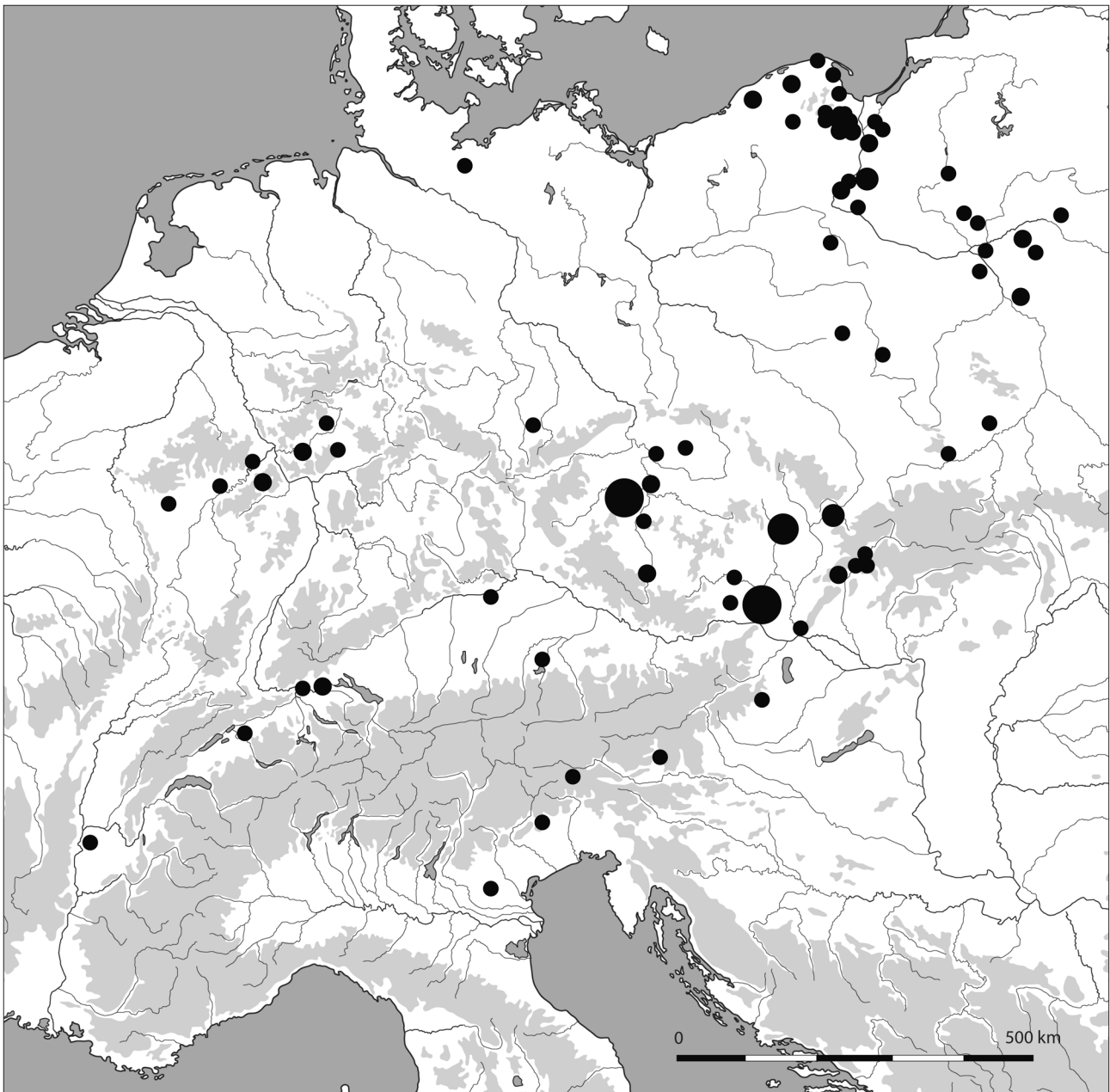
<sup>103</sup> HORNING et al. 2020, 136–138; 145–152; STÖCKLI 1993, 130; KÁNTOR 2022, 192.

<sup>104</sup> HORNING et al. 2020, 138–145.

<sup>105</sup> SALAČ 1998, 578 fig. 4,2; fig. 4,4. – See for example a bowl with pitched rim from Haina (Römhild, Lkr. Hildburghausen, DE). DONAT 1969, 168 Abb. 11,1.



**Fig. 9.** Burnt remains of a sunken-featured building with a roof-bearing post on each short side (photo: LfDH).



**Fig. 10.** Distribution of Kostrzewski type J iron fibulae (graphic: S. Hornung, after KARWOWSKI 2020, 332 fig. 5, with additions).

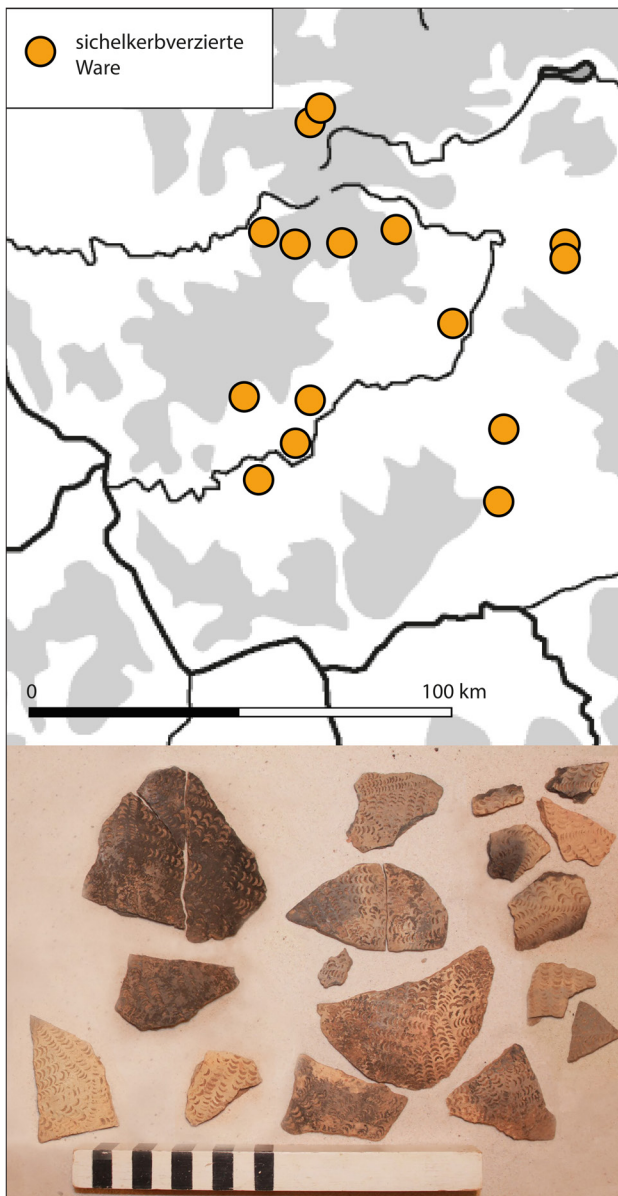
from Lovosice in northwestern Bohemia and other sites on the northern periphery of the Bohemian Late La Tène culture, especially in the Bílina region,<sup>106</sup> but also from the ‘contact zone’ somewhat further to the north. They can probably be considered handmade imitations of graphite-tempered pottery. Local production of this ware, which is typologically alien to the Taunus-Westerwald regions, is therefore a first indication of the mobility of the potters who made it.

Similar pottery is also known from several other LT D2 sites in the Taunus and Westerwald regions, although not always from stratified contexts, and so it is often hard to date. Its tempering varies and therefore probably demon-

strates local production. A number of finds are known from the Dünsberg and Dornburg oppida and several smaller hillforts such as Stein-Wingert (Hachenburg, Westerwaldkreis, DE) and Almerskopf (Merenberg, Lkr. Limburg-Weilburg, DE).<sup>107</sup> In all these cases, this type of pottery might indicate settlement activities in LT D2 that have not yet always been clearly distinguished as such. In contrast to these fortifications, all open settlements with pottery of this type were new foundations in LT D2 (fig. 13). They belong to the same type of hamlet-like, dispersed settlement and were discovered only recently during systematic prospections and rescue-excavations. At Waldbrunn-Lahr (Lkr. Limburg-Weilburg, DE), for example,

<sup>106</sup> SALAČ / KUBÁLEK 2015, 191.

<sup>107</sup> SCHULZE-FORSTER 2015, 142; 358 Taf. K40,2–3.5; KÁNTOR 2022, 190–191.



**Fig. 11.** Distribution of pottery with crescent-shaped imprints and selection of finds from Limburg-Eschhofen, DE (photo: LfdH; graphic: S. Hornung, after SCHADE-LINDIG 2020a, 137 fig. 125; 144 fig. 130).

a number of sunken-featured buildings were found up to 300 m from each other, the settlement itself extending across an area estimated at 10 hectares.<sup>108</sup> Three of these buildings were excavated in successive campaigns and contained large amounts of rib-decorated pottery, sometimes with the black pitch. Metal finds are generally rare in Waldbrunn-Lahr, but a bronze fibula with curved bow and three mouldings on the bow, as well as a four-looped spring with external upper cord is remarkable.<sup>109</sup> The construction of the spiral as well as the fluid transition from spiral to bow, the semi-plastic design of the mouldings on the bow, and an only slightly-curved bow resemble type

Kostrzewski M, variant M-a,<sup>110</sup> although the latter are usually made of iron rather than bronze. Some of these characteristics are also found in Almgren 18 type fibulae (fig. 14), characterized by a supporting plate – which is, however, missing in this particular case – and usually made from bronze.<sup>111</sup> This fuzzy definition of types has led to an inconsistent use of both designations, so that a typological revision that takes different materials into consideration seems necessary. The find from Waldbrunn-Lahr best compares with the Dünsberg variant of the Almgren 18a type as defined by Glüsing.<sup>112</sup> The high position of the mouldings on the bow distinguishes it from Almgren 18a type fibulae (Wederath variant) found in Treveran territory west of the Rhine.<sup>113</sup> The distribution of the Dünsberg variant is limited to the eastern fringes of Taunus and Westerwald, with only a few known finds from the Lower Rhine and the Elb-Saale-region.<sup>114</sup> An early dating to LT D2a has been proposed by Rieckhoff.<sup>115</sup> At any rate, the contemporaneous Almgren 18a and Kostrzewski M-a fibulae seem to characterize a latest phase of the pre-Roman Iron Age but are also known from the subsequent transitional period.<sup>116</sup> In addition to a bronze Nauheim brooch of type Striewe 6.1, the distribution of which is centred on the Rhine-Main-Moselle area and which dates mainly to the first half of the 1<sup>st</sup> century B. C., two triquetrum staters of type A, a *quinarius* of the Nauheim type, as well as a *quinarius* of the “Tanzendes Männlein” type (series IA) are also significant and support a dating of Waldbrunn-Lahr to LT D2a.<sup>117</sup> Even more remarkable is a Republican semuncial as that is not halved. Such coins are usually considered as indicators for a late Republican Roman military horizon or trade relations.<sup>118</sup>

Just like Limburg-Eschhofen, Waldbrunn-Lahr was also a short-lived settlement which could have been occupied for no more than one or two decades. No chronological depth whatsoever is visible in either of these sites. Exactly the same is the case at Wetzlar-Blasbach (Lahn-Dill-Kreis, DE), where several settlement platforms were found in rescue-excavations. Disturbed by medieval iron-smelting, only few structures were preserved well enough to have Late La Tène pottery associated with them, but this featured, amongst others forms, a bowl with ribbed decoration on its shoulder (fig. 15).<sup>119</sup> From the same site comes a silver rainbow cup of the *Vindelici*,<sup>120</sup> illustrating once more the regular association of this pottery with

<sup>108</sup> SCHADE-LINDIG 2015; LEIBAUER 2017; KÁNTOR 2022.

<sup>109</sup> LEIBAUER 2017, 22–23.

<sup>110</sup> KOSTRZEWSKI 1919, 37–40 fig. 23–24; VÖLLING 1994, 193–198; VÖLLING 2005, 120–124.

<sup>111</sup> VÖLLING 2005, 114–118.

<sup>112</sup> GLÜSING 1972, 6–7; 10; 23; VÖLLING 1994, 178–192.

<sup>113</sup> LEIFELD 2007, 96–109.

<sup>114</sup> VÖLLING 1994, 184 fig. 17.

<sup>115</sup> RIECKHOFF 1995, 56–59; 121–123.

<sup>116</sup> VÖLLING 1994, 186–187.

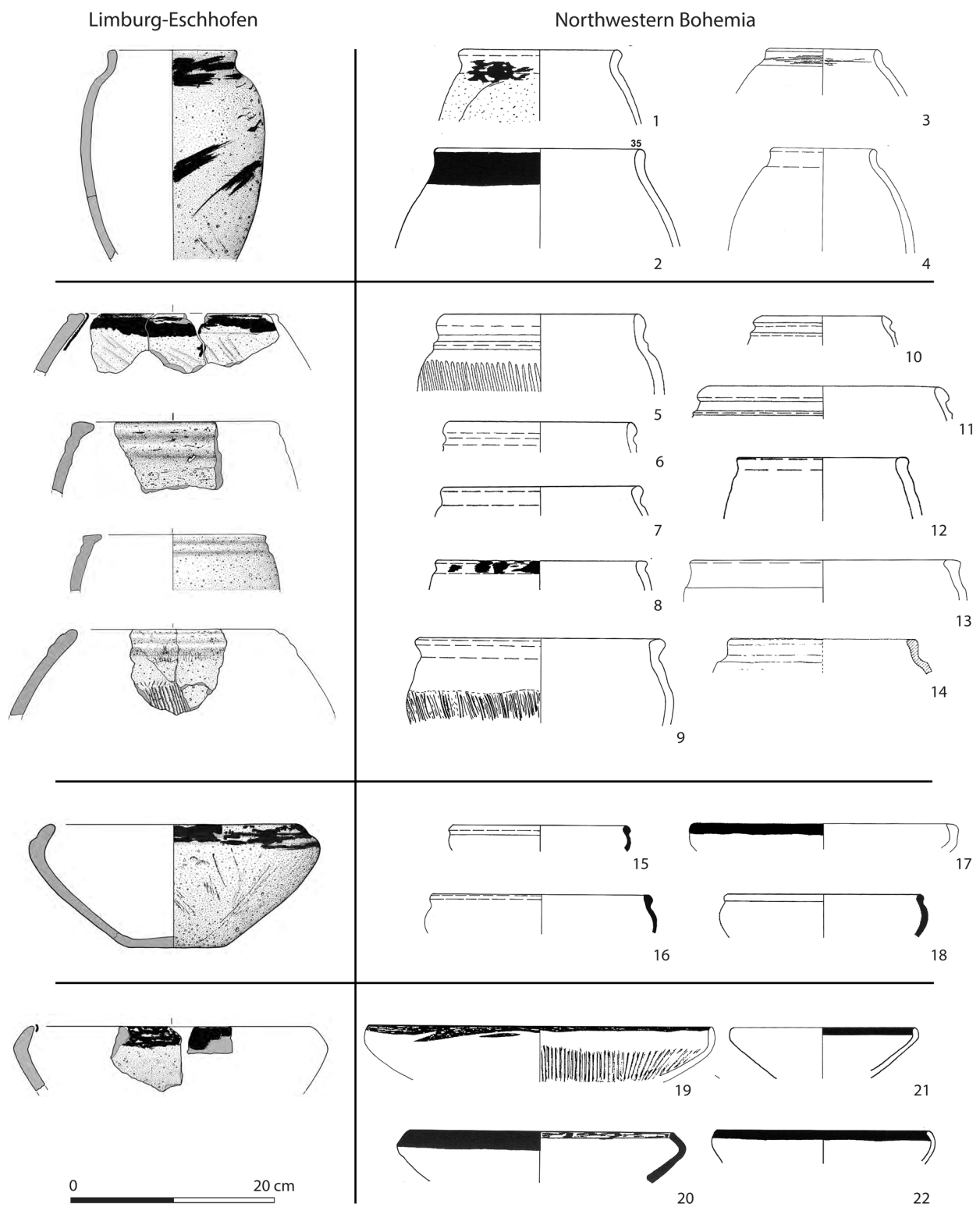
<sup>117</sup> KÁNTOR 2022, 194–197.

<sup>118</sup> MARTIN 2017; KÁNTOR 2022, 197 (type RRC 339/1a).

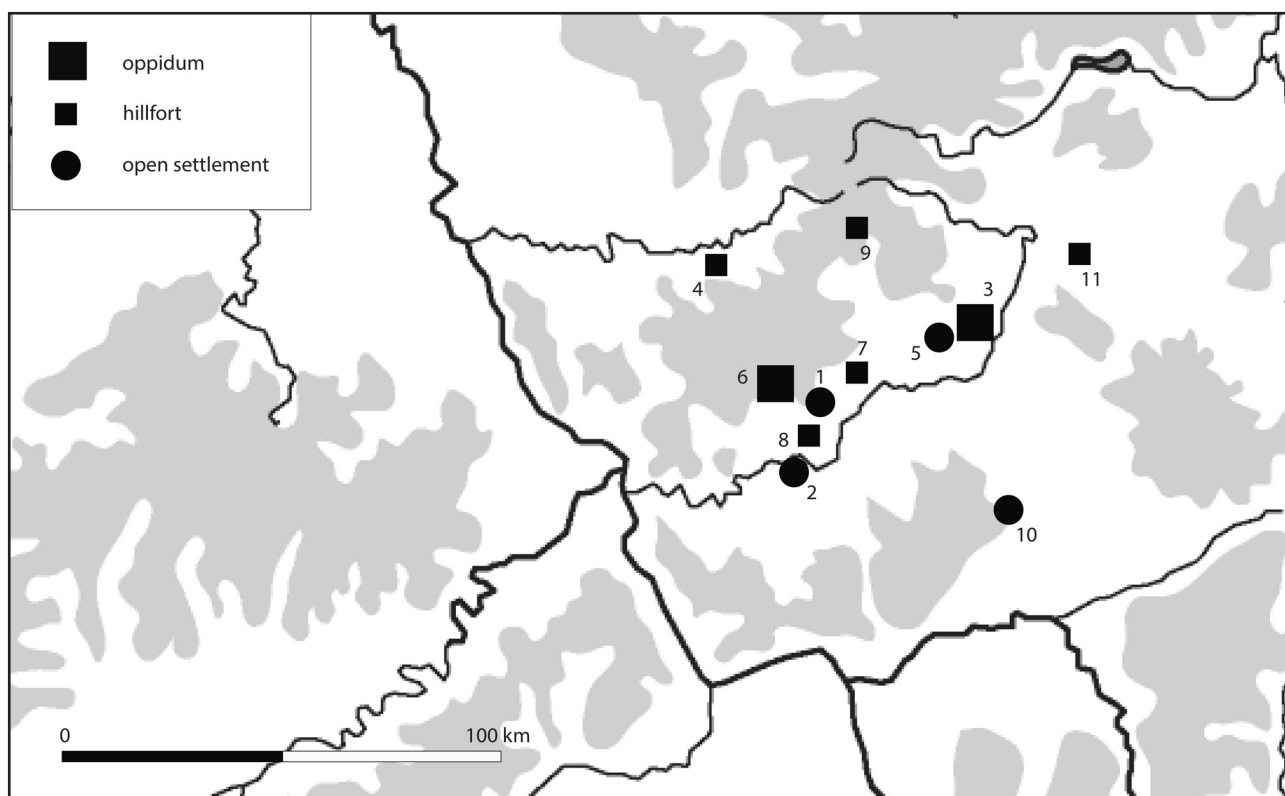
<sup>119</sup> HORNUNG 2018.

<sup>120</sup> KELLNER 1990, type I–IV; dIT 9421ff.





**Fig. 12.** Characteristic types of locally-produced handmade pottery with limestone-tempering from Limburg-Eschhofen and selected parallel finds from northwestern Bohemia. – 1: Prackovice (okr. Litoměřice, CZ); 2, 9, 15–16, 20: Radovesice (okr. Teplice, CZ); 3–4, 17, 21–22: Lovosice (okr. Litoměřice, CZ); 5–7, 18: Soběsuky (okr. Chomutov, CZ); 8: Libochovany (okr. Litoměřice, CZ); 10–11: Lužice (okr. Chomutov, CZ); 12: Střekov (okr. Ústí nad Labem, CZ); 13: Březno (okr. Chomutov, CZ); 14: Vikletice (okr. Chomutov, CZ); 19: Jenišův Újezd (okr. Teplice, CZ) (graphic: S. Hornung, after SCHADE-LINDIG 2020a and SALAČ / KUBÁLEK 2015).



**Fig. 13.** Distribution of handmade pottery with plastic decoration. – 1: Waldbrunn-Lahr (Kr. Limburg-Weilburg, D); 2: Limburg-Eschhofen (Kr. Limburg-Weilburg, DE); 3: Dünsberg, Fellingshausen (Kr. Gießen, DE); 4: Altburg, Stein-Wingert (Westerwaldkreis, DE); 5: Wetzlar-Blasbach (Lahn-Dill-Kreis, DE); 6: Dornburg, Wilsenroth (Kr. Limburg-Weilburg, DE); 7: Almerskopf, Merenberg (Kr. Limburg-Weilburg, DE); 8: Runkel-Steeden (Kr. Limburg-Weilburg, DE); 9: Heunstein, Dillenburg (Lahn-Dill-Kreis, DE); 10: Bad Nauheim (Wetteraukreis, DE); 11: Amöneburg (Kr. Marburg-Biedenkopf, DE) (graphic: S. Hornung, after SCHADE-LINDIG 2020a, 144 fig. 130, with additions).

metal finds reflecting cultural contacts with the eastern Late La Tène sphere, its northern periphery and the ‘contact zone’ to the north. The arrival of this cultural influx in the Taunus-Westerwald region can be dated to LT D2a. It becomes visible in a regional group first described by Behaghel<sup>121</sup> as the “Nordostgruppe” of the Rhenish Massif. Cultural connections with the east were traditionally quite strong in this region – as can be seen for example in close links between the production and distribution centres Bad Nauheim and Lovosice<sup>122</sup> – but the settlements at Limburg-Eschhofen and Waldbrunn-Lahr now provide the first evidence for a production of handmade pottery in a foreign, archaic LT D1 style that, thanks to the associated metal finds, helps to define an intrusive LT D2 culture. These foreigners seem to have arrived during LT D2a and did so in small groups, founding new settlements in what must have been a region that was only sparsely settled at the time. How the finds from oppida and hillforts are to be interpreted remains open to discussion. They could indicate relations and interactions, co-existence with groups native to the region or even the re-use of deserted sites. Corresponding ‘Germanic’ influences in the Treveran territory west of the Rhine have been noted on several

occasions.<sup>123</sup> If their appearance does indeed indicate the same movement of people, the latter would appear to have been integrated regularly into existing communities west of the Rhine.

We are therefore left to ask about the possible historical implications of this archaeological evidence. Caesar’s campaigns east of the Rhine were conducted partly in Ubian territory,<sup>124</sup> which is usually located in the Lahn area and the adjacent highlands. As can be gathered from the two Roman camps at Limburg-Eschhofen, the Roman army probably encountered the inhabitants of the Greifenberg. The discovery of a Republican as at Waldbrunn-Lahr also seems to support this idea. Could these foreigners therefore have been Caesar’s Ubians? The proconsul calls them Germans but does not give any further ethnographic details. He leaves no doubt, however, that the Ubians themselves were under pressure from the *Suebi*.<sup>125</sup> Could the foreign LT D2 groups in the Taunus and Westerwald therefore even relate to the Ubians later mentioned in the area around modern Cologne? Relations in material culture between both regions indicate that this could at least in part be true,<sup>126</sup> even though it is still hard to decide

<sup>121</sup> BEHAGHEL 1949, 113–114; 118.

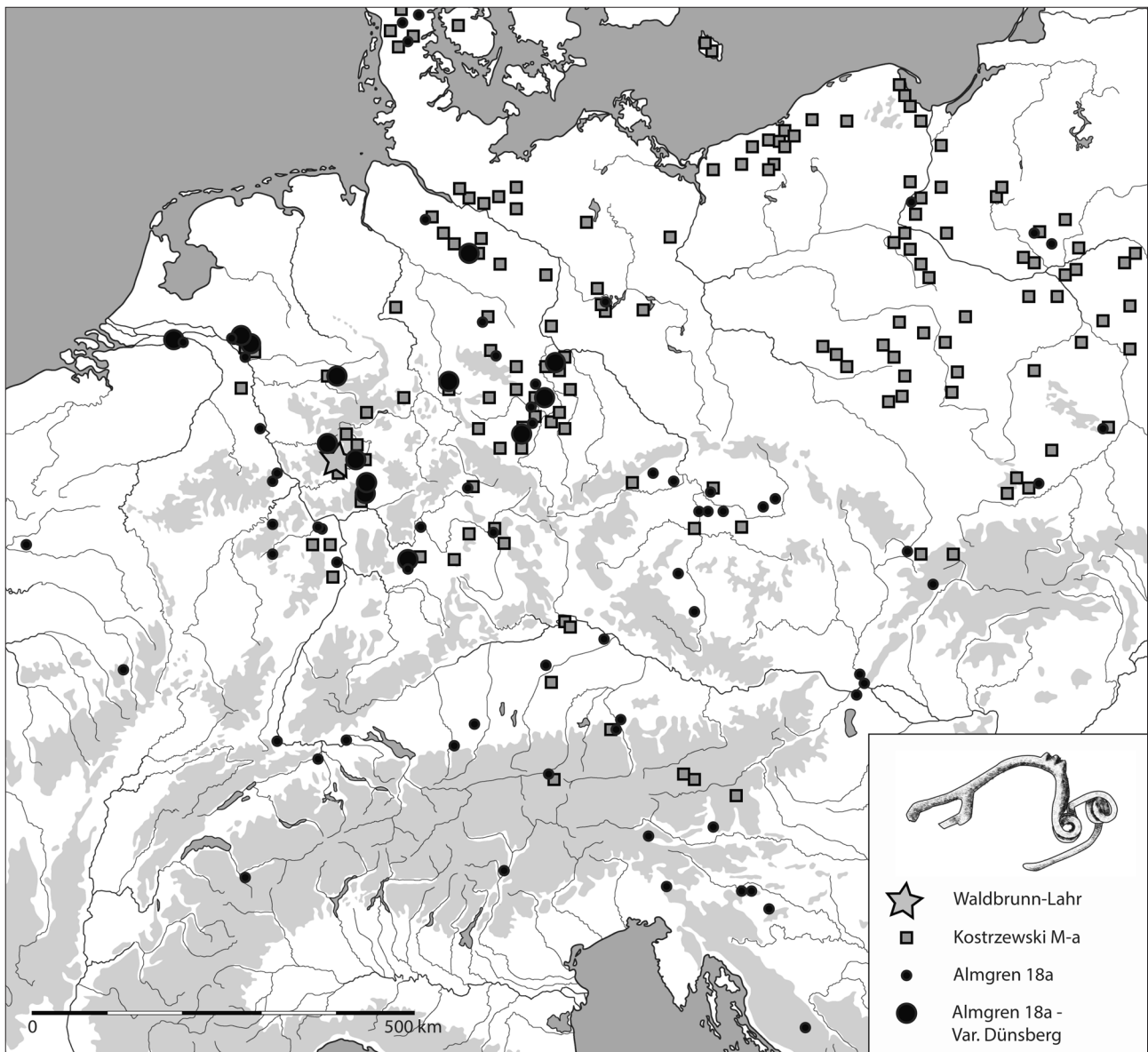
<sup>122</sup> SALAČ / VON CARNAP-BORNHEIM 1994, 122; PIERREVELCIN 2014, 19.

<sup>123</sup> e.g. STÖCKLI 1993, 130–133.

<sup>124</sup> Caes. Gall. IV, 3, 3; 19, 1; VI, 9, 6–8; 10, 1–2.

<sup>125</sup> Caes. Gall. IV, 3, 4; 8, 3; 16, 5.

<sup>126</sup> HEINRICHS 2005.



**Fig. 14.** Bronze fibula from Waldbrunn-Lahr and distribution of brooches of types Kostrzewski M-a and Almgren 18a (graphic: S. Hornung, after VÖLLING 2005, maps 8; 10; 12, with additions).

on the role of the remaining native population in these processes. At any rate, the relocation of the *Ubii* seems only a small part of a much larger scenario of mobility that obviously started well before the conquest. In Caesar's *Commentarii de bello Gallico*, mobility is mentioned, for example, in connection with Ariovistus, the *Helvetii* and the *Boii*, as well as the *Tencteri* and *Usipetes*,<sup>127</sup> obviously reflecting processes far beyond the scope of individual tribes. The same mobility was also connected with the emergence of new identities and groups in the areas west of the Rhine – from Batavians, *Cugerni* and *Ubians*, all the way to *Vangiones*, *Nemetes* or *Triboci* on the Upper Rhine, whose 'Germanic' origin is stressed by historical sources.<sup>128</sup> Is the genesis of these *civitates* under Roman rule really the result of a concerted resettlement, as is

often assumed, or does it reflect gradual relocations in what might have been a widespread wave of mobility towards the west and an increasingly prosperous Gaul over a longer period in time?<sup>129</sup>

New evidence from Eisenberg (Donnersbergkreis, D), a Roman *vicus* in the *civitas Vangionum* near the Donnersberg oppidum, seems to speak in favour of the latter. A first phase of settlement at this important iron-smelting site started in LT D2b and is characterized by sunken-featured buildings and workshops foreign to the areas west of the Rhine.<sup>130</sup> Shaft-furnaces were built into some of these pits. They differ markedly from the domed furnaces common along the Rhine from Ha D2/3 and into the Late

<sup>127</sup> Caes. Gall. I, 5; 28; 31; IV, 1, 1.

<sup>128</sup> Plin., nat. 31; Tac., Germ. 28, 4.

<sup>129</sup> HORNUNG 2016a, 300–305; 318; 399–404; 516–517.

<sup>130</sup> BRAUN 2019; BRAUN 2023.



**Fig. 15.** Selected finds from the LT D2 settlement at Wetzlar-Blasbach, DE. 1–3: pottery; 4: silver coin. 1–3: scale 1:3; 4: scale 1:1 (photos and graphic: A. Braun / S. Hornung).

La Tène period.<sup>131</sup> Similar furnaces in sunken workshops are known in some numbers from the Roman Iron Age in Bohemia, where their appearance is possibly connected to the arrival of Germanic influences in the native Late La Tène sphere.<sup>132</sup> It is therefore hardly a coincidence that associated pottery finds from Eisenberg also reflect influences from the eastern Late La Tène culture and its northern periphery. They are accompanied by some early Germanic elements and thus comprise a milieu of hybrid

culture. What is more, other sites from the vicinity of Eisenberg have produced LT D2b pottery of the same type, sometimes appearing in early Roman military contexts along the Upper Rhine.<sup>133</sup> The people behind this cultural phenomenon therefore had contacts with the Augustan army<sup>134</sup> in much the same way that has to be assumed for the Caesarian horizon in the areas east of the Rhine.

<sup>131</sup> Types Neuenbürg and Siegerland: SCHÄFER / GASSMANN 2014.

<sup>132</sup> LEHNHARDT 2019, 301–307; 333–336.

<sup>133</sup> BERNHARD / LENZ-BERNHARD 2015.

<sup>134</sup> MEYER 2008, 204–206 fig. 157; LENZ-BERNHARD / BERNHARD 1991.

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## Abstract: Centralization, marginalization and mobility – Late La Tène settlement and population dynamics in the Middle Rhine region

Late La Tène settlement development in the Middle Rhine region is a reflection of supra-regional socio-economic changes. The eastern Rhenish Massif and the areas along the Rhine were linked to the oppida culture of southern Germany and Bohemia, where centralization processes in LT C/D1 were followed by a rapid decentralization and population decline during the first half of the 1<sup>st</sup> century B. C. In the western Hunsrück-Eifel region the emergence of oppida only started in LT D1, but is characterized by continuities into the Roman period typical for Gaul. This economic polarization under Roman influence resulted in widespread mobility and attracted eastern groups, arriving along the Rhine from LT D2a onwards.

## Zusammenfassung: Zentralisierung, Marginalisierung und Mobilität – Spätlatènezeitliche Siedlungs- und Bevölkerungsdynamiken im Mittelrheingebiet

Die spätlatènezeitliche Siedlungsentwicklung im Mittelrheingebiet spiegelt überregionale sozioökonomische Veränderungen wider. Das Rechtsrheinische Schiefergebirge und die Gebiete entlang des Rheins waren mit der Oppidakultur Süddeutschlands und Böhmens verbunden, wo auf

die Zentralisierungsprozesse der Stufe Lt C/D1 eine rasche Dezentralisierung und ein Bevölkerungsrückgang in der ersten Hälfte des 1. Jahrhunderts v. Chr. folgten. In der westlichen Hunsrück-Eifel-Region setzte die Entwicklung der Oppida erst in Lt D1 ein, war aber durch die für Gallien typischen Kontinuitäten bis in die Kaiserzeit gekennzeichnet. Diese wirtschaftliche Polarisierung unter römischem Einfluss führte zu einer weitreichenden Mobilität und zog östliche Gruppen an, die sich seit der Stufe Lt D2a entlang des Rheins ansiedelten.

## Keywords / Schlagwörter

Late La Tène / oppida / hillforts / settlement / economic change / Middle Rhine / Ubii / Treveri / Caesar / mobility

Spätlatènezeit / Oppida / Höhensiedlungen / Siedlungen / wirtschaftlicher Wandel / Mittelrhein / Ubier / Treverer / Caesar / Mobilität

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