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# THE ROMAN FRONTIER IN GERMANY: AN ARCHAEOLOGICAL SURVEY

By H. SCHÖNBERGER \*

My intention is to base the present summary on the discoveries which have been made in the field during the past twenty years,<sup>1</sup> but obviously within the limits of the space at my disposal I can only indicate the main outlines. My main concern is with the provinces of Germania Superior and Raetia, but I shall also refer from time to time to the results of recent research in Germania Inferior. The main Map B (opposite p. 176) is supplemented by Map A (fig. 16), which shows the military sites of the Augustan-Tiberian period, and by Map C (fig. 23), which indicates the sites of the late-Roman period.<sup>2</sup> Each map is supported by its own bibliographical list; these should be consulted when specific footnote-references are lacking in the text. These lists and footnotes, wherever possible, give references only to the most recent literature and have been reduced to a minimum. For the General Works to be consulted, and for the Abbreviations used, see lists below (pp. 196 ff.).<sup>3</sup>

## I. FROM 19 B.C. TO A.D. 16

The area of the Rhine was brought under Roman control together with the rest of Gaul by Julius Caesar. In 55 and 53 B.C. he crossed the river, as did Agrippa in 38 B.C. However, the activities of these decades have left behind not the slightest trace in the archaeological record, so far as we know. It is clearly reasonable to conclude from this that the *hiberna* were still in the interior of Gaul at that time, and that in the neighbourhood of the Rhine only temporary works were built such as are very difficult to locate.<sup>4</sup>

Up to this point Roman strategy had been principally defensive. But the year 16 B.C. saw a decisive change. The Sugambri, who were pressing forward, threatening the left bank of the Lower Rhine, annihilated a legion under the command of the legate M. Lollius. Augustus at once hastened to Gaul and until 13 B.C. was personally engaged in a reorganization of this province. Even without this external pressure he would probably have begun operations against the Germans on a larger scale. Probably by 15 B.C. at the latest the plan was conceived of thrusting forward into German territory with two large armies of shock-troops from the north and middle Rhine on the one hand and from the middle Danube on the other. A prerequisite of this plan was the subjection of the tribes of the Alpine massif, for safe routes were needed through the heart of the Alps. The same considerations made it vital to bring the northern approaches of the Alps under Roman control.<sup>5</sup>

It was probably between 16 and 13 B.C. that the legions were first stationed permanently on the Rhine; but it is possible that one or two positions were established earlier during Agrippa's second governorship in 19 B.C.<sup>6</sup> At present it is hard to assign a precise date to individual sites on the evidence of coins and pottery alone.<sup>7</sup> Among the sites occupied in the second decade B.C. can be placed with reasonable certainty the legionary fortress at Xanten,<sup>8</sup> that is, Vetera I (A 3) (of which, however, only parts of the defensive circuit are known), and probably also that at Mainz (A 20), where D. Baatz located by excavation in 1957 and 1958 the southern and western limits of the earliest fortress. The first fortification at Neuss (A 9) should be equally early; but this cannot yet be definitely asserted of Moers-

\* This paper was already partly drafted at the invitation of the Editorial Committee when I was asked to deliver the Rhind Lectures (1969) in Edinburgh on the same subject. Thereafter both projects developed hand in hand.

<sup>1</sup> For the literary sources there is still considerable value in the collection edited by W. Capelle with German translations: *Das alte Germanien. Die Nachrichten der griechischen und römischen Schriftsteller* (1st ed. 1929; 2nd ed. 1937).

<sup>2</sup> The references (A 1), (B 1), (C 1), etc., after place-names in the text refer to these maps.

<sup>3</sup> Particular gratitude is due to Dr. J. P. Wild for translating the German text and to Prof. S. S. Frere for his assistance with its presentation. For kind help and information I am grateful to the following: D. Baatz, T. Bechert, H. Beck, B. Beckmann, J. E.

Bogaers, H. Brunsting, B. Cichy, G. Fingerlin, J. Garbsch, I. Huld, G. Illert, H.-J. Kellner, R. Koch, W. R. Lange, Ch. Léva, J. Mertens, H. v. Petrikovits, D. Planck, M. Radnóti-Alföldi, O. Roller, Chr. B. Rüger, H.-G. Simon, K. A. Steer, M. Vanderhoeven, H. R. Wiedemer.

<sup>4</sup> H. v. Petrikovits *RR* 15 ff.

<sup>5</sup> K. Kraft, *JbRGZM* 4 (1957), 90 ff.

<sup>6</sup> Ritterling—Stein, 87 ff.; H. v. Petrikovits, l.c.

<sup>7</sup> See E. Ettlinger, *Militärgrenzen* 77 ff.

<sup>8</sup> The place-name Xanten, regularly found in the literature, is in fact incorrect, for Vetera lies near the village of Birten. But I have kept the name nevertheless on maps A and B. In the text the place is only cited by its Latin name, viz. Vetera I (the fortresses on the Fürstenberg, dated to before A.D. 69–70) and Vetera II (the later fortress, to the east of Vetera I).

Asberg (A 8) or Bonn (A 14). The establishment of Nijmegen (A 2), on the other hand, a fortress perhaps of legionary size but according to H. Brunsting never fully occupied, is likely to have occurred shortly before A.D. 9. All these last four Augustan sites have come to light since the Second World War.<sup>9</sup> Since 1954, the excavations at Neuss by the Rheinisches Landesmuseum, Bonn, directed by H. von Petrikovits and G. Müller, have revealed parts of the defensive circuits of seven successive fortifications of Augustan and Tiberian date, together with traces of numerous internal buildings. For none of them, however, is it yet possible to establish the complete circuit (fig. 14). By the strictest criteria this is, unfortunately, also the case in all the other military sites on the left bank of the Rhine, with the exception of the two slightly later ones at Urmitz (A 16).

On the Upper Rhine no military site is known at the present moment whose foundation-date can certainly be placed within the second decade B.C. Even the numerous finds recovered at Speyer (A 29) during the excavations of H.-J. Engels, O. Roller and G. Stein between 1966 and 1968 give no hint of a date as early as this. In general their geographical position placed the lands on the Upper Rhine somewhat apart from the main military events of Roman times.

As for the quarters of the five or six legions which made up the army of the Rhine in the period before A.D. 9, the following fortresses must be considered:<sup>10</sup> Vetera I (Camp A/C), Neuss (Camp B) and Mainz, all three suitable for two legions each. A further fortress of this period which could hold at least one and probably two legions was discovered in 1967 north of the upper reaches of the Rhine at Dangstetten (A 37). The site has also produced a small bronze plate of the Nineteenth legion.<sup>11</sup> It is certain that by no means all of the military sites of legionary size held in the years before A.D. 9 have yet been found. We should not, however, forget that the troops were highly mobile, and so the legionary fortresses so far located on the ground were not necessarily occupied contemporaneously. Particularly in the earlier period they accommodated not only legions, but also auxiliaries and probably baggage and camp-followers as well. One or two legions, moreover, lay somewhere in the approaches to the Alps, in Vindelicia;<sup>12</sup> but Augsburg-Oberhausen (A 46) was certainly not occupied as early as 15 B.C.—if indeed a legionary fortress ever stood there at all.<sup>13</sup>

In A.D. 9 the Seventeenth, Eighteenth and Nineteenth legions were annihilated in Germany, together with three alae and six cohorts. Tacitus makes it clear (*Ann.* I, 31, 36 f.) that two armies, each of four legions, lay on the Rhine.<sup>14</sup> In the *exercitus inferior* legions V Alaudae and XXI Rapax were stationed at Vetera I (A 3) and legions I and XX Valeria (Victrix) in the fortress *apud aram Ubiorum* at Cologne (A 13), where traces were found of the defences in 1948–9. Neuss (A 9), accordingly, can have held no legionary garrison at this time. However, it is possible, though not certain, that Camp C is where all four legions of the army of the Lower Rhine were temporarily concentrated when mutiny broke out in A.D. 14.<sup>15</sup> Two legions of the *exercitus superior* lay at Mainz (A 20), probably the Fourteenth and Sixteenth. II Augusta was perhaps stationed for a time at Mainz-Weisenau (A 21), while the site of the *hiberna* of XIII Gemina can be placed conjecturally in Vindelicia.<sup>16</sup>

The legionary fortresses of the early empire were the strong-points of the military control-system and alongside them, or at least not far from them, the auxilia were stationed.<sup>17</sup> From sites so far discovered one gains the impression that there were also military posts of subordinate importance in the intervals between them. These may have been assigned certain security duties, and served at the same time to maintain communications between

<sup>9</sup> On Drusus' *castella* mentioned by Florus II, 30, see H. Nesselhauf, *JbRGZM* 7 (1960), 151 ff. More pertinent: H. v. Petrikovits, *RR* 33 ff. and W. Schleiermacher, *Analecta Archaeologica, Festschrift Fremersdorf* (1960), 231 ff.

<sup>10</sup> Ritterling—Stein, 87 ff.; H. v. Petrikovits, *Bj* 161 (1961), 468 ff.

<sup>11</sup> Unpublished. I owe this information to the kindness of the excavator, G. Fingerlin.

<sup>12</sup> XIII Gemina and XXI Rapax are involved: Ritterling—Stein, 90 f.; K. Kraft, *JbN* 2 (1950–1), 12 f. Instead of XIII R. Syme and A. Radnóti pro-

pose XVI: *JRS* 23 (1933), 28 ff. and *Aus Bayerns Frühzeit. Schriftenreihe zur bayer. Landesgeschichte* 62 (1962), 139 ff.

<sup>13</sup> C. M. Wells, *American Journal of Archaeology* 71 (1967), 196; W. Hübener, *Militär-geschichtliche Mitteilungen* 2, 14 ff., with fig. 3 (Verlag Rombach & Co., Freiburg i. Br., 1968).

<sup>14</sup> Ritterling—Stein, 91 ff.

<sup>15</sup> H. v. Petrikovits, *Bj* 161 (1961), 468 with note 16. See also *Bj* 164 (1964), 40 ff.

<sup>16</sup> cf. note 12.

<sup>17</sup> H. Nesselhauf, *JbRGZM* 7 (1960), 156 ff.

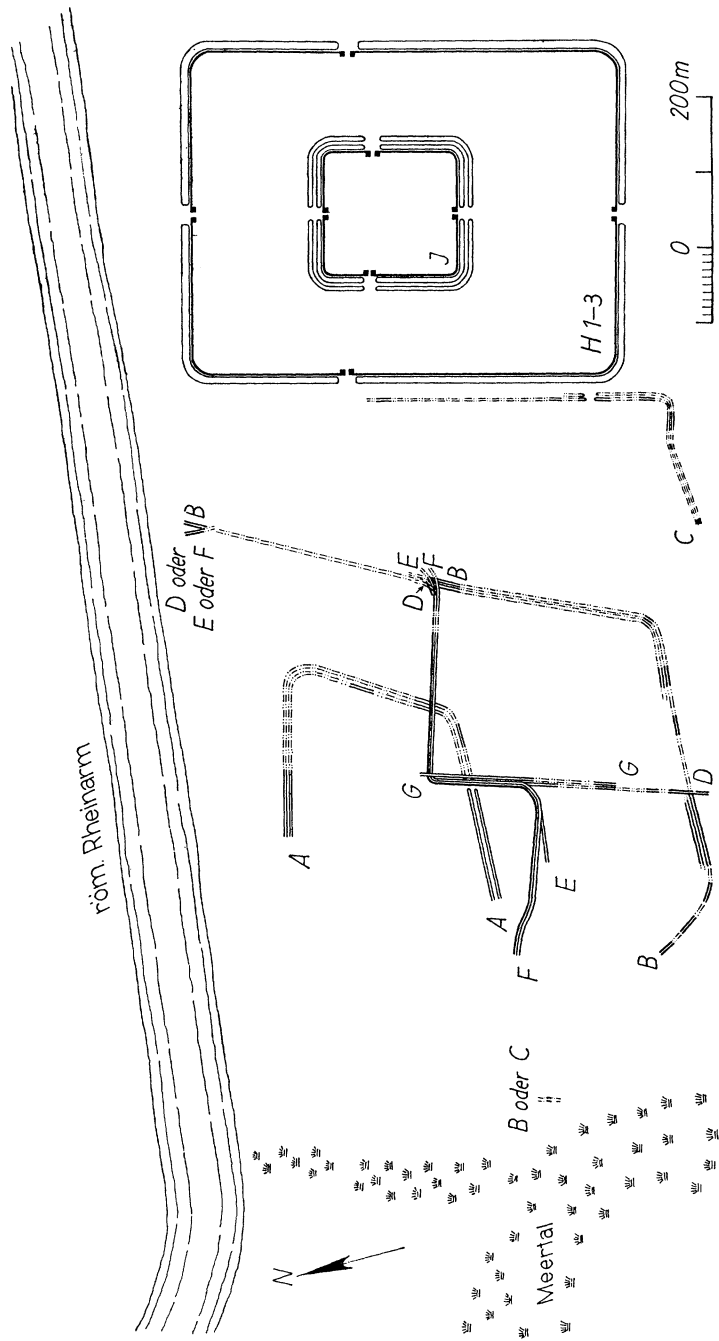


FIG. 14. NEUSS (A 9) : TRACES OF ROMAN FORTIFICATIONS : THE AUGUSTAN-TIBERIAN SITES LIE WEST OF THE LATER FORTRESS  
Taken from 'Bomer Jahrbücher' CLXI, p. 456, fig. 1



the large fortresses. There must also have been road-stations or supply bases on the routes leading forwards from the interior. But the mere presence of Arretine pottery, as for example at Liberchies (A 11) or Bavai (A 10) is, of course, naturally not sufficient to prove their existence.<sup>18</sup> Even at Tongres (A 12) it is still by no means certain that the early sites were in fact enclosed with rampart and ditch. It is moreover questionable whether the two military tombstones found in Trier (A 18) are in fact so early, and whether even so they are necessarily evidence for military occupation.

In the further campaigns against the Germans the fortress of Vetera I (A 3) constituted the base for the strategic route along the Lippe; that of Mainz (A 20), for the penetration of the open hill-country of the Wetterau. When the Sugambri attempted once more in 12 B.C. to cross the Rhine, they were defeated by Augustus' stepson Drusus. Drusus crossed the Rhine again in 11 B.C. and built a camp in the Lippe region and another somewhere on the Rhine.<sup>19</sup> It was in 10 and 9 B.C. that he first thrust north, setting out with his main force no doubt from Mainz, and eventually reached the Elbe. When Drusus died in 9 B.C., the command was taken over by his brother Tiberius, to the discussion of whose campaigns, chiefly in 8–7 B.C. and in A.D. 4–5, I cannot here give space.<sup>20</sup> The destruction of the three legions of Varus in A.D. 9, which I mentioned above, was a decisive reverse. Despite repeated attempts, the site of the disaster still eludes identification.<sup>21</sup> Thereafter campaigns assumed more of the character of punitive expeditions. In A.D. 12, when Tiberius was recalled to Rome to the side of the ageing Augustus, the command of the eight Rhine legions passed to Germanicus, the son of Drusus. His campaigns by land and water were costly and wasteful, and in 16 he was recalled by Tiberius, who had become emperor two years before on the death of Augustus.

Camps must exist to mark the routes of all these campaigns; so far, however, they have been found only near the starting-points of the great invasion-routes in the valley of the Lippe and in the Wetterau. So far as exploration has gone, their characteristics are those of strongly fortified sites, which were not erected merely in connection with specific operations and then evacuated completely in the winter. They may have developed from marching-camps, but they served also, as I interpret it, as bases for troops, placed as far across the Rhine in the direction of the enemy as possible. Further north and north-east in free Germany, on the other hand, we must expect temporarily occupied marching-camps or semi-permanent works.

Among the earliest of these sites is the fortress at Oberaden on the Lippe (A 6) (133 acres, 54 ha.) and the small 4-acre (1.6 ha.) fort at Beckinghausen, two kilometres west of it. The supply-base at Rödgen in the Wetterau (fig. 15), enclosing 8.15 acres (3.3 ha.), which I excavated in 1961–6, is also of this date.<sup>22</sup> The literary sources show that Oberaden cannot have been founded before 12 B.C., and Rödgen is certainly no earlier. Both are probably connected with the campaigns of Drusus and were given up after his death—perhaps two or three years later, as the evidence of the coins in particular suggests. At Haltern (A 5) the earliest enclosures were probably built a little later than Oberaden. We can identify: (i) the so-called 'Feldlager', (ii) the 'Grosses Lager' (49.4 acres, 20 ha.), (iii) the fortlet St. Annaberg, (iv) the fortified harbour-installations ('Uferkastelle'). They cannot have been held, however, after A.D. 9.<sup>23</sup> The great fortress at Holsterhausen (A4)

<sup>18</sup> M. Vanderhoeven, *Helinium* 7 (1967), 193 ff. with map, fig. 12 = *Publikaties van het Provinciaal Gallo-Romeins Museum te Tongeren* 12 (1968); J. Mertens, *Archéologie* 1967, 93 f.

<sup>19</sup> Cassius Dio 54, 33. In connection with Rödgen, mentioned below, see also R. Nierhaus, *Das svebische Gräberfeld von Diersheim, Römisch-Germanische Forschungen* 28 (1966), 226. On the literary sources for the German wars: F. A. Marx, *Klio* 29 (1936), 202 ff.; K. Christ, *Drusus und Germanicus, Der Eintritt der Römer in Germanien* (1956); D. Timpe, *Saeculum* 18 (1967), 278 ff.; idem, *Der Triumph des Germanicus. Untersuchungen zu den Feldzügen der Jahre 14–16 n. Chr.*, *Antiquitas*, Reihe 1, 16 (1968).

<sup>20</sup> The possible course of the most important campaigns in Germania in the Augustan–Tiberian period is illustrated by K. Stade in F. W. Putzger, *Historischer Weltatlas*, 83rd ed. 1961, map 34–35.

<sup>21</sup> W. John, *RE* xxiv, col. 951 ff.; further: K. Christ, *Trierer Zeitschrift* 28 (1965), 182 ff.

<sup>22</sup> In *The Roman fort of Great Casterton, Rutland* compiled and edited by M. Todd (Nottingham, 1968), p. 27 with fig. 11, hollow towers are suggested for the east gate at Rödgen. I regard this view as wrong, since no consideration was paid to the L-shaped plan of the towers as established by the further pair of massive extra-deep post-pits on both N. and S. sides of the gate-structure.

<sup>23</sup> On the coins from Oberaden, Rödgen and Haltern see K. Regling in *Das Römerlager in Oberaden* (1938), 31; *Germania* 45 (1967), 95 ff. (H.-G. Simon); K. Kraft, *Bj* 155–6 (1955–6), 95 f. The Haltern evidence is discussed in detail in C. M. Wells, *The German Policy of Augustus* (Clarendon Press, Oxford, forthcoming).

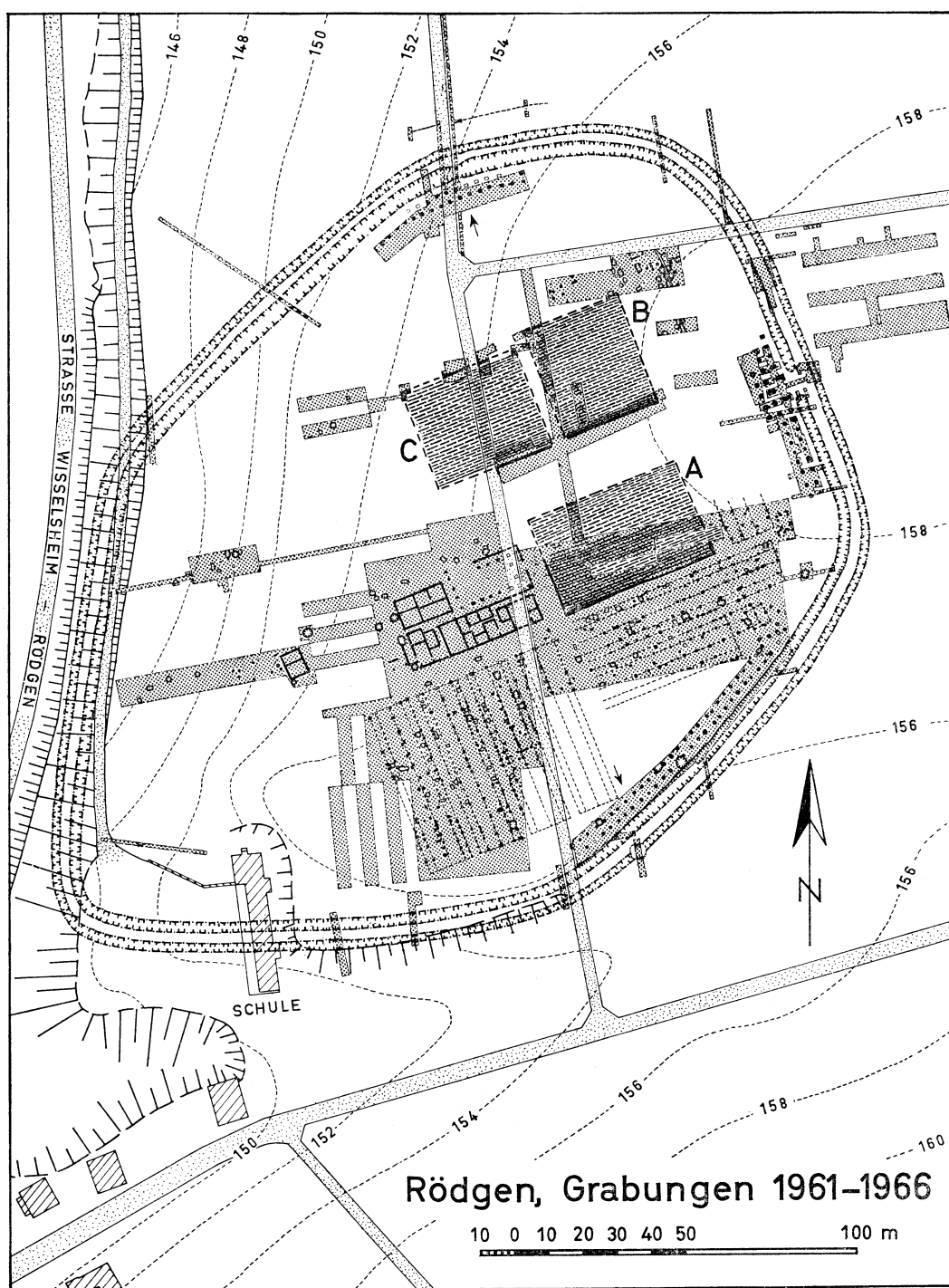


FIG. 15. RÖDGEN (A 27): AUGUSTAN SUPPLY BASE. EXCAVATED PORTIONS ARE SHADED  
 From 'Germania' XLV, p. 88, fig. 2

measuring 123.5–138.3 acres (50–56 ha.) was discovered in 1952, and that at Anreppen (A 7) in the autumn of 1968. Both can at the moment only be dated on general grounds to the Augustan–Tiberian period. Here, too, as on the Rhine itself, no fort is truly rectangular.<sup>24</sup>

Excavations since 1962 at Oberaden, directed by H. Aschemeyer, have shown that there, too—despite the earlier reports—normal timber buildings exist in the interior.<sup>25</sup> This is true also of Rödgen and the ‘Grosses Lager’ at Haltern. At Oberaden and Haltern a longer occupation is suggested, not only by the sheer mass of finds, but also by the fact that certain necessities were being manufactured on the spot. In the fort at Beckinghausen, which belongs with Oberaden, there were potters’ kilns; three kilns producing coarse pottery and lamps were found in the area of the forts at Haltern. Indeed an attempt was even made, as recent finds show, to copy on the spot imported decorated sigillata from Italy.<sup>26</sup> In recent years pits of Augustan date have come to light between Oberaden and Beckinghausen, which perhaps indicate the existence of canabae.<sup>27</sup>

It is at the moment not possible to make a definite statement about the garrisons of the fortresses on the Lippe. We may imagine that during the summer months they were occupied by the legions which had garrisoned the fortresses on the Rhine itself, or at least by legionary detachments with auxiliaries and other supplementary forces;<sup>28</sup> and that in winter they were guarded and kept in repair by a reduced garrison. This is, however, only a hypothesis. Finally, it is still uncertain whether there was already a fort in Augustan times at Kneblinghausen (B 190).<sup>29</sup>

In the Wetterau at Bad Nauheim (A 26) there was also apparently an Augustan fortress able to accommodate a force corresponding to half a legion in size. At Friedberg (A 25) only pits have been found and in Wiesbaden (A 23), too, there are still no traces of a defensive circuit. These three sites can be dated with fair confidence to the period after A.D. 9 on the basis of their finds. The partly uncovered ditches at Höchst (A 24) could be somewhat earlier.<sup>30</sup> But, as I stated above, the earliest military site known at the moment in the Wetterau is the supply-base at Rödgen (A 27).

In north and west Switzerland we encounter the same problem as in Belgium, namely whether we can infer Augustan–Tiberian fortified sites from finds of Arretine pottery or similar material, particularly in the immediate hinterland of the frontier.<sup>31</sup> Solothurn (A 33) and Olten (A 34) are doubtful sites, and Zurzach (A 36) is no more certain. Indeed, doubts are to some extent justified also in some of the sites mentioned below. Basel (A 31) and Zürich (A 38) can be linked with the campaigns of 15–14 B.C. in the Alps.<sup>32</sup> The same date is suggested for Augst (A 32), Oberwinterthur (A 39) and the three stone watch-towers on the Walensee (A 41). The character of the latter, which were investigated by R. Laur-Belart in 1959 and the years following, has caused considerable surprise.<sup>33</sup> I am personally of the opinion that posts like those on the Walensee served to maintain security on the roads shortly after the close of the campaign, and were not built while the troops were still actively engaged in the field.<sup>34</sup> It was only in 1967 that we could name for the first time a legionary fortress which was fairly certainly connected with the Alpine campaigns: Dangstetten (A 37) at the entrance to the Wutach valley. The excavator, G. Fingerlin, kindly tells me that the coin evidence suggests that like Oberaden and Rödgen this site was given up soon after the death of Drusus (9 B.C.). This in turn suggests that sizeable military movements were taking place at that time.

<sup>24</sup> H. v. Petrikovits, *RR* 23 ff. with fig. 5.

<sup>25</sup> *Prähist. Zeitschr.* 41 (1963), 210 ff.

<sup>26</sup> Not yet published.

<sup>27</sup> Not yet published. On the question of Augustan *canabae legionis* see H. v. Petrikovits, *RE* VIII A, col. 1816, 1822 ff.; *RR* 55 ff., esp. 70 f.; D. Baatz, *Germania* 42 (1964), 260 ff.

<sup>28</sup> On these see H. Callies, 45 *BerRGK* 1964 (1965), 142 ff.

<sup>29</sup> *StJ* 19 (1961), 37, note 4.

<sup>30</sup> *LF* 2 (1962), 72 f.

<sup>31</sup> The solution attempted by E. Ettlinger, *Limes-Studien* 45 ff., is certainly possible, but confirmation on the ground is naturally always desirable.

<sup>32</sup> Comparison of Arretine forms in G. Ulbert, *Die römische Keramik aus dem Legionslager Augsburg-*

*Oberhausen, Materialhefte zur bayer. Vorgeschichte* 14 (1960), Beilage 1. See also R. Fellmann, ‘Neue Funde und Forschungen zur Topographie und Geschichte des römischen Basel’, *Basler Zeitschrift für Geschichte und Altertumskunde* 60 (1960), 32 ff. with map fig. 10.

<sup>33</sup> See also H. R. Wiedemer, *JbSGU* 53 (1966–7), 63 ff., who has kindly informed me that Solothurn should not appear on his map figure 6, but should be a triangle on fig. 7.

<sup>34</sup> E. Howald—E. Meyer, *Die römische Schweiz* (1940), 365 f.; E. Meyer, *Provincialia, Festschrift Laur-Belart* (1968), 382 ff. An Arretine sherd from Uetliberg (Gem. Stallikon) near Zürich may belong to this context: E. Vogt, *Zeitschrift für Schweizerische Archäologie und Kunstgeschichte* 25 (1968), 105 ff.

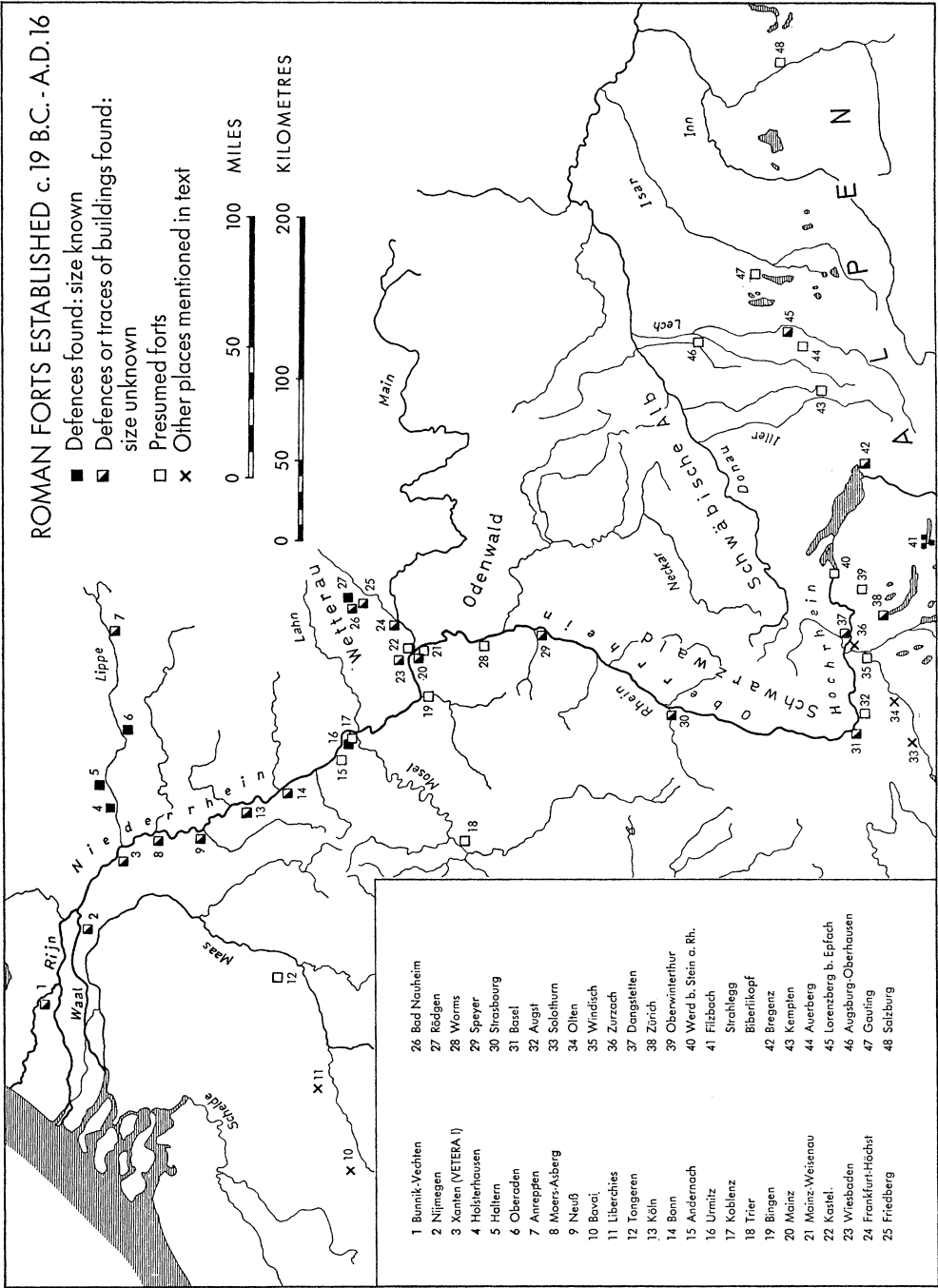


FIG. 16. MAP A (see pp. 144 ff.). FOR A BIBLIOGRAPHY OF SITES, see pp. 188 ff.  
Drawn by W. Pischner for the Römisch-Germanische Kommission



All the other forts, most of which are presumed only from small finds, were founded at a later date. This applies also to those on the approaches to the Alps. At Augsburg-Oberhausen (A 46) and at the Lorenzberg (A 45) the earliest finds are still Augustan; at Bregenz (A 42), Kempten (A 43), the Auerberg (A 44) and Gauting (A 47) they begin in the early years of Tiberius. In contrast to the situation on the Rhine, on the Danube this presumed series of forts lay at some distance from the river, as far as we can tell; but we must assume that the land between them and the river was already under Roman control during the Augustan-Tiberian period. The forts served principally to protect the roads in the interior.<sup>35</sup> The road from Bregenz (A 42) to the Lorenzberg (A 45) possibly ended at, or in the vicinity of, Salzburg (A 48), where one would like to assume a military site of the Augustan-Tiberian period.<sup>36</sup>

The 'legionary fortress' at Augsburg-Oberhausen (A 46) presents a peculiar problem. On the ground no traces either of a defensive circuit or of internal buildings have yet been found. Its size, therefore, is quite unknown. But numerous coins, potsherds and other small finds of the Augustan-early Tiberian period have been recovered. For this reason it was earlier assumed, almost without argument, that there was a fortress for one or two legions here; nowadays scholars are much more cautious.<sup>37</sup> But, be that as it may, recent work on the coins and pottery has shown that the finds have nothing to do with the Alpine campaign of 15 B.C. Not only do they begin later but they end not before A.D. 15 or 16, a discovery again at variance with the earlier view.<sup>38</sup> But, whether or not Oberhausen was a legionary fortress, no legion appears to have been stationed in Vindelicia after A.D. 14 at the earliest, A.D. 16 or 17 at the latest. At this date the office of a *praef(ectus) Raetis Vindolicis vallis Poeninae et levis armaturae* is mentioned,<sup>39</sup> which would have been incompatible with the presence of a legion and its legate in Vindelicia.<sup>40</sup> During the next hundred and fifty years there was no legion in the area.

Very soon after the recall of Germanicus in A.D. 16, it is probable that the legionary fortresses at Windisch (A 35 = B 183) and Strasbourg (A 30 = B 51) were founded for XIII Gemina and II Augusta respectively in place of earlier, smaller forts.<sup>41</sup> The situation of both demonstrates clearly that offensive plans had been given up. Of the forts on the right bank of the Rhine, Wiesbaden (A 23 = B 84), as bridgehead of the legionary fortress at Mainz (A 20 = B 38), remained occupied. Kastel (A 22 = B 85) and Höchst (A 24) may also have been occupied still, but this is difficult to prove archaeologically. The Rhine and Danube continued, however, to form the backbone of the defensive system; in Germany this remained true throughout the whole period of Roman occupation, even after the true *limes* was built in Upper Germany and Raetia.

## II. FROM A.D. 16 TO 69/70

When Tiberius recalled Germanicus from the Rhine frontier in A.D. 16, the troops remained in their original bases on the left bank of the river. The existing forts were gradually rebuilt and extended, and shortly afterwards a number of new forts were built between the existing ones. Examples include Köln-Alteburg (B 30)—the quarters of the Classis Germanica, Remagen (B 33) and further upstream Koblenz (B 36).<sup>42</sup> In many cases the dates at which the auxiliary forts were established have not yet been worked out. For this reason the forts in Germania Inferior marked on Map B are not distinguished from one another by date. The main fighting force, of course, was the legions. Between A.D. 30 and 40 the legionary fortress at Cologne (A 13) was evacuated, and one of its legions went to Neuss (B 26), the other to Bonn (B 32). From the invasion of Britain by the emperor Claudius in A.D. 43 to the Batavian revolt of 69–70 we find stationed in Vetera I

<sup>35</sup> G. Ulbert, *LF* 1 (1959), 78 ff. with map fig. 16; idem, *Der Lorenzberg* 96 ff. with map Taf. G; H. R. Wiedemer, *Helvetia Antiqua, Festschrift Vogt* (1966), 167 ff.

<sup>36</sup> There is certainly no evidence for this, but A. Radnóti has told me that he considers the tombstone of the centurion of a Cohors Asturum (*CIL* III, 5539) to belong to the pre-Claudian period.

<sup>37</sup> Cf. note 13.

<sup>38</sup> K. Kraft, *JbN* 2 (1950–1), 21 ff.; G. Ulbert, *Keramik Augsburg-Oberhausen* (1960).

<sup>39</sup> *CIL* IX, 3044.

<sup>40</sup> W. Schleiermacher, *Germania* 31 (1953), 200 ff.; K. Kraft, *Aus Bayerns Frühzeit* (1962), 153 ff.

<sup>41</sup> Ritterling—Stein, 92; J.-J. Hatt, *Limes-Studien* 51, gives an earlier foundation-date (A.D. 14) for the legionary fortress at Strasbourg.

<sup>42</sup> This may possibly be the date of the later fort at Urmitz (A 16). But since it no longer existed after c. 40–50, it does not appear on Map B.

(B 21) legions V Alaudae and XV Primigenia, in Neuss legion XVI and in Bonn legion I (Germanica). At Nijmegen (B 17) the fortress of the Augustan period had certainly been given up, and its successor was not yet in being.<sup>43</sup>

The most completely investigated legionary fortress is Neuss, where an attempt is currently being made by means of excavation in detail to distinguish the structural phases. The best explored auxiliary fort is Valkenburg (B 4), where excavations were begun after the Second World War by A. E. van Giffen. But here, too, many questions about the fort's garrisoning and purpose are still open. On the site of the fort at Gellep (B 25) a whole series of successive, superimposed defences has been revealed. Between the larger forts there sometimes lay fortlets. So far, only that on the Reckberg (B 27) and one in Werthausen (Rheinhausen, B 24) have been found. The only watch-tower so far located lies not far from the fortlet on the Reckberg.<sup>44</sup> The road which linked these military centres followed closely the winding of the river and did not even cut across the loops in its course.<sup>45</sup> As usual with any river-frontier, at no point do we find palisade, rampart and ditch, or continuous wall.

In the far north the military sites on the Lower Rhine were probably partially affected by the inroads of the Chauci in A.D. 47. A. E. van Giffen explains the earliest burnt layer in Valkenburg by reference to this event.<sup>46</sup> Later on, during the Batavian revolt of 69–70, the *limes* in the territory of the *exercitus inferior* suffered considerable material damage. Destruction in these years has been established in Valkenburg, Vetera I, Neuss and Bonn,<sup>47</sup> and still further south in the territory of the *exercitus superior* at Mainz (B 38),<sup>48</sup> Rheingönheim (B 44),<sup>49</sup> Strasbourg (B 51)<sup>50</sup> and perhaps also in Seltz (B 50).<sup>51</sup>

Even after the recall of Germanicus there must still have been for a time some Roman sites on the right bank of the Rhine. Among them is an as yet unlocated fort named *Flevum*, known to have existed in A.D. 28, and in 47 there were a number of *praesidia* on the right bank.<sup>52</sup> Perhaps Velsen (B 1) belongs to this series, but the dating and purpose of Ermelo (B 2) are in my opinion completely uncertain.<sup>53</sup> All the sources available at present suggest that at least until the end of the first century, and possibly even longer, a strip of land on the right bank of the Rhine, obviously relatively wide, remained under the surveillance of the Roman military authorities and was made use of by them. To secure the important crossings over the Maas a fort was set up at Cuijk (B 18), probably about the middle of the first century, and there was perhaps another, built later, at Rossum (B 13).<sup>54</sup> Further south on the approaches to Mainz and in the Wetterau lay, as was mentioned above, the forts at Wiesbaden (B 84) and perhaps also Kastel (B 85)<sup>55</sup> and Höchst (A 24), which were either not evacuated at the recall of Germanicus or were shortly afterwards occupied again. The earth-and-timber fort at Hofheim in the Taunus (B 86) belongs to the forties of the first century. E. Ritterling linked its foundation with the wars of Caligula in 39–40 and the fighting which they entailed.<sup>56</sup> Ritterling was convinced that he had found two superimposed forts, an earlier one of c. 4.7 acres (1.9 ha.) with a double ditch, and a later one of c. 8.9 acres (3.56 ha.) with a single ditch. But W. Barthel pointed out correctly that the outer ditch as well belonged to the earlier fort.<sup>57</sup> Since coins of Nero are absent from Hofheim, Ritterling drew the further conclusion that the fort was destroyed in the invasion of the Chatti in 50–51 and not rebuilt until 70 under Vespasian. That is

<sup>43</sup> On the troops on the Lower Rhine see H. v. Petrikovits, *RR* 35 ff.; J. C. Mann, *Bj* 162 (1962), 162 ff.; J. E. Bogaers, *Numaga* 12 (1965), 10 ff.; idem, *Militärgrenzen* 54 ff.; H. Nesselhauf and H. v. Petrikovits, *Bj* 167 (1967), 268 ff.; H. v. Petrikovits, *Streitkräfte Niederrhein* 11 ff.; G. Alföldy, *Hilfstruppen Germania Inferior* (1968).

<sup>44</sup> *Sj* 14 (1955), 9.

<sup>45</sup> H. v. Petrikovits, *RR* 54.

<sup>46</sup> 25–28 *Jaarverslag* (1940–44), 171 ff.; *Acta et Dissertationes Archaeologicae Zagreb* 3 (1963), 138 ff. J. E. Bogaers expresses doubt, 'Praetorium Agrippinae', *Bulletin van de Koninklijke Nederlandse Oudheidkundige Bond*, 6 Ser., 17 (1964), 219 f., 238 f.

<sup>47</sup> H. v. Petrikovits, *RR* 54 f.

<sup>48</sup> D. Baatz, *LF* 4 (1962), 87. Tacitus (*Hist.* IV, 61) notes that Mainz and Windisch escaped unscathed.

<sup>49</sup> G. Ulbert, *LF* 9 (1969).

<sup>50</sup> J.-J. Hatt, *Limes-Studien* 49 ff.

<sup>51</sup> J.-J. Hatt, *Germania* 37 (1959), 226 f.

<sup>52</sup> U. Kahrstedt, *Bj* 150 (1950), 78; H. v. Petrikovits, *RR* 69 f.

<sup>53</sup> J. E. Bogaers, *BerROB* 17 (1967), 99.

<sup>54</sup> Bogaers, op. cit., 110 f.

<sup>55</sup> A small fort with a stone wall is known there in a later period: *ORL* B, no. 30 (1912), Taf. 1.

<sup>56</sup> *Nassauische Annalen* 40 (1912), 81 ff.; Ritterling—Stein, 93 ff.

<sup>57</sup> 6 *BerRGK* 1910–11 (1913), 121. The situation at the Claudian fort of Rheingönheim (B 44) is similar. See also Hod Hill: I. A. Richmond, 'Roman Britain and Roman Military Antiquities', *Proc. Brit. Academy* 41 (1955), 306 ff. with fig. 3.



also highly questionable; <sup>58</sup> and there is a great deal to be said for the view that Hofheim, too, was not destroyed until the years of unrest in 69–70, to be occupied once more for a short time thereafter.

The earlier sites in the valley at Wiesbaden may also have suffered damage in 69–70. H.-G. Simon has suggested that north-west of that area there was a pre-Flavian fort on the Heidenberg. One might reasonably expect that in the future similar sites will also be found in the Wetterau, even though they may only be marching-camps or temporary works connected with the activities of the Mainz legate P. Pomponius Secundus in 50–51, or with those of his successor T. Curtilius Mancina in 58.<sup>59</sup>

The army of Upper, like that of Lower Germany, comprised four legions down to A.D. 43.<sup>60</sup> XIV Gemina and XVI were stationed at Mainz (B 38) as they had been earlier; II Augusta was at Strasbourg (B 51) and XIII Gemina at Windisch (B 183). Of these II and XIV, together with XX Valeria (Victrix) from Neuss, were taken in 43 to Britain. Legion XIII was transferred to Pannonia in 45–6 and replaced by XXI Rapax. To replace XX, legion XVI was moved to Neuss. The double legionary fortress at Mainz was now occupied by IV Macedonica and XXII Primigenia. Strasbourg, on the other hand, remained until 70 without a legion, but may have had an occupying force of some kind.<sup>61</sup> At any rate, after 43 the army of Upper Germany possessed only three legions.

It is probable that, after the withdrawal of the Second legion from Strasbourg and the resulting reduction in troops, a number of forts were erected for auxiliary units on the Upper Rhine to offset the effect of this. There may not have been many of these, and the principle of forming military strong-points was evidently not given up in favour of a linear defensive system.<sup>62</sup> The existence of forts at Bingen (B 37) and Worms (B 43) is attested mainly by epigraphic evidence. In Weisenau (B 39) a fort of the Claudian period was discovered at the end of the Second World War; ditches of this period have long been known at Speyer (B 47). Rheingönheim (B 44), where O. Roller began new investigations some years ago, was a completely new foundation. Tiles of the Twenty-first legion, which was stationed at Windisch until 70, have been found at Seltz (B 50), Kunheim-Oedenbourg (B 54) and Kembs (B 55) where they may indicate the existence of pre-Flavian posts.<sup>63</sup> As I have already mentioned, there is a certain amount of evidence in Rheingönheim, Seltz and Strasbourg for destruction in A.D. 69–70.

Remembering the situation on the Lower Rhine, we can have little real doubt that on the Upper Rhine, too, the narrow strip of land east of the river up to the edge of the Black Forest lay under Roman military control, and had probably done so since the Augustan-Tiberian period. To my mind, however, there is still no definite evidence for a single pre-Flavian fort anywhere in the area to the right of the Upper Rhine as far down as the river Main.<sup>64</sup> Moreover, by the Claudian period the bridgehead of the legionary fortress in Mainz had obviously not been extended over the Rhine as far to the south-east as Gross-Gerau (B 41), as scholars once believed.<sup>65</sup> On the other hand, in the area east of the Upper Rhine and north of its uppermost reaches, a large number of scattered finds of Roman material, dating to the pre-Flavian period, have been recorded.<sup>66</sup> It is very important to notice in this connection that groups of Germanic settlers, whom R. Nierhaus called the 'Upper Rhine Suebi', are traceable in certain areas. They have been found; (i) at Diersheim (B 52), east of the legionary fortress at Strasbourg, (ii) near the mouth of the

<sup>58</sup> K. Kraft, *JbN* 7 (1956), 43 f.; D. Baatz, *BVBI* 28 (1963), 189 f.

<sup>59</sup> Tacitus, *Ann.* XII, 27 f.; XIII, 56. At Okarben (B 80) the sherds published by M. Korfmann in *FH* 4 (1964), 168 f., still fall short of proving that the site was occupied earlier than Vespasian.

<sup>60</sup> Ritterling—Stein, 93 ff.

<sup>61</sup> E. Ritterling, *RE* XII, col. 1784.

<sup>62</sup> H. Nesselhauf, *JbRGZM* 7 (1960), 158.

<sup>63</sup> On Oedenbourg and Kembs see p. 154.

<sup>64</sup> Opposite view: Ph. Filtzinger, *Bf* 157 (1957), 191 ff. on Taf. 16; B. Heukemes, *Römische Keramik aus Heidelberg. Materialien zur Römisch-Germanischen Keramik* 8 (1964), 15 ff., and more precisely in *Die Stadt- und die Landkreise Heidelberg und Mannheim* (1966), 151. D. Baatz expressed a similar view to

mine in the case of Ladenburg: *BF Sonderheft* 1 (1962), 29 f. Cf. R. Nierhaus, *Das svebische Gräberfeld von Diersheim. Römisch-Germanische Forschungen* 28 (1966), 187, note 8. A pre-Vespasianic fort was also once conjectured at Baden-Baden. But excavations carried out there by Nierhaus in 1951 gave not the slightest hint of this: *Germania* 30 (1952), 207 ff.

<sup>65</sup> *Sf* 22 (1965), 28 ff.

<sup>66</sup> P. Revellio, *BF* 2 (1929–32), 340 ff.; F. Kuhn, *BF* 15 (1939), 79 ff.; H. Dragendorff, *Bericht über den VI. Internat. Kongress für Archäologie in Berlin* 1939 (1940), 557 ff.; R. Nierhaus, *BF* 17 (1941–47), 182 ff.; H. R. Wiedemer, *Argovia* 75 (1963), 73 ff.; R. Laur-Belart, *Helvetia Antiqua, Festschrift Vogt* (1966), 245.

Neckar, from a point east of the fort at Rheingönheim as far as the later forts at Ladenburg (B 45) and Heidelberg-Neuenheim (B 46), (iii) south-east of the legionary fortress of Mainz in the vicinity of the fort at Gross-Gerau (B 41). In the two groups at Gross-Gerau and near the mouth of the Neckar, Suebian finds begin in the second or third decade of the first century and end about A.D. 50, while the Diersheim finds begin in the mid-first century or shortly before and cease under Vespasian. Since these Germanic groups could certainly not have settled so close to the imperial frontier without the acquiescence of the Roman high command, Nierhaus regards them as a sort of militia, to whom the Romans granted land to settle on condition that they protected the frontier.<sup>67</sup>

In the decades following the foundation of the legionary fortress at Windisch (B 183) about A.D. 16, the maintenance of security in northern Switzerland was organized from it, as V. von Gozenbach has demonstrated on the basis of stamped tiles.<sup>68</sup> But for the Claudio-Neronian period I have not marked on Map B any forts at Zurzach (B 184), Zürich (B 185), Oberwinterthur (B 186), Eschenz (B 187) and Pfyn (B 188). These sites were in my opinion occupied at the most by minor detachments: similarly Konstanz (B 189)—it seems unlikely that it was occupied by a major unit, since in the forties a fort was built at Hüfingen (B 159) linked with Windisch along the Wutach valley. Schleithem (B 158) was probably an intermediate post in this system. In any case the country around the sources of the Danube belonged from the Claudian period onwards to the territory of the *exercitus Germanicus superior*. I would, therefore, offer the suggestion that Kunheim-Oedenbourg (B 54), Kembs (B 55) and Basel (B 181) were only road-posts manned by the army. It is uncertain whether there was a direct road connection from Hüfingen westwards to the Rhine, but perhaps it is not so completely impossible as R. Nierhaus thinks.<sup>69</sup> There is certainly no archaeological evidence for it, but the route was possibly never dignified with a made-up road. One must remember on the other hand that Hüfingen for a time was plainly the terminal point on a road from the south striking northwards and its role as the westernmost of the forts on the Danube may be secondary. Indeed, it is not completely certain that Tuttlingen (B 160) and Ennetach (B 161) existed at all before A.D. 50.

At that time there was as yet no province of Germania Superior. The province of Raetia, on the other hand, was formally constituted at the latest under Claudius with Augusta Vindelicum—Augsburg (B 168) as its provincial capital.<sup>70</sup> During the forties the military posts guarding the approach-roads to the Alps were given up, where they had not been evacuated earlier. Not until now—some fifty years after the Alpine campaign—was the Danube itself defended with a line of forts (B 160–167, 169–170).<sup>71</sup> In all probability this policy arose from the fact that Claudius and his advisers had no plans for large-scale military activity in western Europe after the conquest of southern Britain, but were concerned rather with maximum security. The Via Claudia Augusta, built by Claudius in 46–47 and leading along the Lech towards the Danube, was probably also connected with making the new province of Raetia secure and readily accessible.<sup>72</sup>

Immediately south of the ditches of the fort at Burghöfe (B 167) were discovered remains of the vicus. It is, so far as I am aware, the earliest in western Europe belonging to an auxiliary fort. In a cellar a large hoard of pottery was found, possibly lost during a fire in A.D. 69. I should like to add Günzburg (B 165) to the list of pre-Flavian forts, although it was not yet in existence during the reign of Claudius.<sup>73</sup>

The fort at Oberstimm (B 170) remained until the Flavian period the most easterly of the series, since the site on the Frauenberg at Weltenburg (B 172) was probably only a small military post. It is only after a gap of about 230 km. that another fort of Claudian date is found, that at Linz in Upper Austria.<sup>74</sup> But new finds at any time from the area between Oberstimm and Linz could cause us to revise our present picture of the dispositions.

<sup>67</sup> R. Nierhaus, *Diersheim*, 194 ff., 230 ff.

<sup>68</sup> *Bf* 163 (1963), 76 ff.

<sup>69</sup> *Bf* 23 (1967), 133 ff., nos. 2–3. On Augst (B 182) see note 94.

<sup>70</sup> Bibliography in G. Ulbert, *Der Lorenzberg* 102. Augsburg first appears as a *municipium* on an inscription of the Hadrianic period.

<sup>71</sup> G. Ulbert, *LF* 1 (1959), 78 ff. Aislingen (B 166) may have been built a little earlier.

<sup>72</sup> G. Ulbert, *LF* 1 (1959), 84; idem, *Der Lorenz-*

*berg*, Taf. G; *Tabula Imperii Romani* L 32, *Mediolanum* (1966).

<sup>73</sup> The presumed building-inscription of A.D. 77–8 proves in my opinion merely a later rebuild: W. Barthel, *6 BerRGK 1910–11* (1913), 159; F. Vollmer, *Inscriptiones Baiariae Romanae* (1915), no. 196; F. Wagner, *37–38 BerRGK 1956–57* (1958), 229, no. 52.

<sup>74</sup> *Sf* 15 (1956), 75 ff.; *LF* 1 (1959), 85 ff.; 2 (1962), 127 f., with map fig. 21; K. Kraft, *JbRGZM* 4 (1957), 91 f.

The conflicts between the troops of Galba, Otho, Vitellius and Vespasian in 69—a civil war broke out on the fall of Nero and embroiled the whole countryside in the disaster—marked a decisive turning-point in the history of Raetia.<sup>75</sup> Traces of burning datable to these years have been found not only in the civilian settlements of Augsburg, Kempten and Bregenz, which had grown up on the site of the earlier Augustan-Tiberian forts, but also in the forts along the Danube—Burghöfe (B 167), Aislingen (B 166), Unterkirchberg (B 164) and Risstissen (B 163). These forts were rebuilt again after A.D. 70. This was particularly easy to recognize in the recent excavations at Risstissen, where the post-trenches of the second building-phase were cut into the burnt layer. On the other hand, it must be remarked that in my excavations of 1968 in Oberstimm (in which for the first time the ditches and internal buildings of this fort were clearly revealed) not the slightest trace of destruction was observed. By and large, however, the havoc wrought in 69–70 affected most forts and civil settlements from the North Sea to the Upper Danube.

### III. FROM A.D. 69–70 TO 96

After Vespasian had become emperor and the Batavian revolt had been crushed, a thoroughgoing reorganization of the imperial frontiers began. On the Lower Rhine the garrison of Vetera (B 21) was reduced by one legion, and a new legionary fortress was created at Nijmegen (B 17) on the edge of the disaffected area.<sup>76</sup> The double legionary fortress of Vetera I on the Fürstenberg, which had been destroyed, was not rebuilt, but a new fortress for a single legion was erected about 1.5 km. east of Vetera I, nearer the Rhine. This fortress, Vetera II, was discovered in 1954 through finds made in large-scale gravel digging. The site lay clear of the flood-line in the Roman period, but in the Middle Ages it was undermined by an arm of the Rhine. The buildings of the fortress collapsed into the water, so that to-day there is no prospect of recovering the plan of the site.<sup>77</sup>

The four legions of the army of Lower Germany were now as follows: at Nijmegen (B 17) lay X Gemina, in Vetera II (B 21) XXII Primigenia, at Neuss (B 26) VI Victrix and at Bonn (B 32) XXI Rapax until A.D. 83, thereafter I Minervia. In Upper Germany the garrison was raised again to four legions under Vespasian; at Mainz (B 38) I Adiutrix and XIV Gemina in 70–71 replaced XXII Primigenia, which was sent back to the Lower Rhine, and IV Macedonica, which was disbanded. A legion returned to Strasbourg (B 51) (i.e. VIII Augusta) and in Windisch (B 183) XI Claudia took the place of XXI Rapax, which had been moved to Bonn.<sup>78</sup>

In the Wetterau the sites at Wiesbaden (B 84) and Hofheim (B 86) were rebuilt and reoccupied after 69–70. Whether Kastel (B 85)<sup>79</sup> also remained operational is still not clear. Latterly, finds have come to light in Hedderheim (B 87)<sup>80</sup> and Okarben (B 80)<sup>81</sup> which can be dated to the Vespasianic period. H.-G. Simon has kindly informed me that the same may be true of Friedberg (B 77).<sup>82</sup> These indications are only slight as yet, so one hesitates to state confidently that the important road linking these sites along a line north-eastwards from Mainz (B 38) had already been engineered by Roman troops some years before the outbreak of Domitian's Chattan war in A.D. 83. But, in view of the fact that the Wetterau formed a natural corridor from south to north and back, this possibility should now be considered more seriously.

In the angle between Rhine and Danube one measure planned by Vespasian stands out: the building of roads, which provided speedy communications between Mainz (B 38) and Augsburg (B 168). The experiences of the years 69–70 certainly played a role in this. On the Upper Rhine it was for this reason, in my opinion, that the forts were moved under

<sup>75</sup> Ph. Filtzinger states, *Bj* 157 (1957), 212, 'Since the Raetian cohorts were already fighting against the rebellious Helvetii, the latter (i.e. the Helvetian militia mentioned by Tacitus, *Hist.* I, 67) must have left their forts on the Danube in January, A.D. 69. Therefore we can date the destruction-layers of the Claudian Danube-forts to the period mid-January to February at the latest in 69.' G. Ulbert on the other hand regards destruction possible in both 69 and 70: *LF* 1 (1959), 86 ff.

<sup>76</sup> See note 43.

<sup>77</sup> On military territory see H. v. Petrikovits, *RR* 55 ff.; Chr. B. Rüger, *Germania Inferior* 51 ff.

<sup>78</sup> Ritterling—Stein, 100 ff.

<sup>79</sup> See note 55.

<sup>80</sup> U. Fischer, *FH* 3 (1963), 174; 5–6 (1965–66), 161, 162, 164.

<sup>81</sup> H. Lischewski, *FH* 4 (1964), 170 ff.; M. Korfmann, *FH* 4 (1964), 165 ff.; 5–6 (1965–66), 39 ff.; idem, *JbN* 16 (1966), 33 ff.

<sup>82</sup> E. Fabricius long ago rejected so early a date for Zugmantel (B 66): *ORL A Strecke* 3 (1936), 61.



Vespasian on to the right bank of the river for the first time.<sup>83</sup> A number of recent excavations are worth mentioning in this connection, including those of W. Jorns and H. Lischewski at Gross-Gerau (B 41), those of O. Roller in Rheingönheim (B 44), those of D. Baatz in Ladenburg (B 45), and those of B. Heukemes in Heidelberg-Neuenheim (B 46). The 12.4-acre (5 ha.) fort at Rheingönheim was evacuated under Vespasian and the units stationed there were moved, one may suppose to Ladenburg and Heidelberg-Neuenheim. While H. Nesselhauf sees the forts founded by Vespasian on the right bank primarily as isolated bridgeheads,<sup>84</sup> H.-G. Simon connects the erection of these forts with the building of the military road on the right bank from Mainz via Gross-Gerau, Gernsheim (B 42) and Ladenburg to Heidelberg-Neuenheim.<sup>85</sup> At the same time Simon is averse to the idea of a linear *limes* on the right bank under Vespasian, which W. Barthel once proposed.<sup>86</sup> It is impossible to decide whether this right-bank road was constructed immediately after 70 or a few years later. Recently a certain amount of early Flavian samian from Wimpfen (B 107) and Böckingen (B 108) has been published.<sup>87</sup> But one may well ask whether this is sufficient reason to place the foundation-date of both forts as early as the reigns of Vespasian or Titus. This road later led via Stettfeld (B 49) and Bad Cannstatt (B 111) to Faimingen (B 157) on the Danube.<sup>88</sup> The small earth-and-timber fort at Wiesental (B 48), discovered in 1953, lay on the direct route between Heidelberg-Neuenheim (B 46) and Strasbourg (B 51); but it was not necessarily built before 80–81 and was obviously simply a road-post.

As a milestone from Offenburg (B 53)<sup>89</sup> reveals, a further road was built under the legate Cn. Pinarius Cornelius Clemens about A.D. 74. It led through the Black Forest from Strasbourg to Raetia. Moreover, an inscription from Hispellum attests that Pinarius Clemens was awarded the *triumphalia ornamenta*, probably at precisely this time.<sup>90</sup> These two sources, taken in conjunction, have given rise to the belief that a large-scale campaign was undertaken in 73–74 to bring security to the Upper Neckar region<sup>91</sup> and, indeed, that it met considerable opposition from the enemy.<sup>92</sup> H. Nesselhauf, on the contrary, holds that the purpose was very limited and that the assumed military effort would have been greater than the situation required.<sup>93</sup> Nevertheless, since it is hard to imagine against what enemy, in an area so completely bare of settlement, such a campaign could have been directed, the question must be asked whether Pinarius did not receive his decoration for very much more comprehensive measures, connected with the restoration of order in Germany after 70. The driving of the road through the Black Forest was possibly simply a part of this. In this context a fort was perhaps established once more at Augst (B 182) for a short while; but the inscription of a vexillation of legions I Adiutrix and VII Gemina<sup>94</sup> does not prove this conclusively.

The Black Forest road was designed to shorten the route between the Rhine and the Danube. Perhaps at this date contingents of troops were advanced for the first time from Windisch (B 183) via Hüfingen (B 159) to Rottweil (B 116).<sup>95</sup> Possibly in connection with the road-building or shortly afterwards forts were placed at Waldmössingen (B 114), Sulz (B 113) and probably also on the Häsenbühlhof near Geislingen on the Riedbach (B 115).<sup>96</sup> Offenburg (B 53), where we know of an inscription of a centurion of Coh. I Thracum, could possibly have been a military post between Strasbourg and the Upper Neckar, perhaps designed for a unit engaged in road-construction. In Rottweil two forts

<sup>83</sup> But see note 64.

<sup>84</sup> *JbRGZM* 7 (1960), 159 ff.

<sup>85</sup> *Sf* 22 (1965), 48 f.

<sup>86</sup> 6 *BerRGK 1910–11* (1913), 125 ff. *Contra* Ph. Filtzinger (*Bf* 157 (1957), Taf. 17), I have not included Hockenheim and Knielingen as supposed forts on Map B.

<sup>87</sup> H.-H. Hartmann, *Sf* 26 (1969).

<sup>88</sup> F. Hertlein—P. Goessler, *Die Römer in Württemberg* 2 (1930), map; *Tabula Imperii Romani* M 32, *Mogontiacum* (1940); see also R. Nierhaus, *BF* 23 (1967), 152 ff.

<sup>89</sup> *CIL* XIII, 9082.

<sup>90</sup> *CIL* XI, 5271 (= *ILS* 997). The final phrase is usually supplemented [*ob res*] in *Germa[nia prospere gestas]*.

<sup>91</sup> General account: W. Schleiermacher, *ORL* A

Strecke 11 (1934), 26 ff.; see also H. Lieb, *Militär-grenzen* 94 ff., for the other epigraphic references.

<sup>92</sup> E. Ritterling, *Römisch-Germanisches Korrespondenzblatt* 4 (1911), 41.

<sup>93</sup> *JbRGZM* 7 (1960), 160 ff.

<sup>94</sup> F. Staehelin, *Die Schweiz in römischer Zeit* 3 (1948), 214 ff.; R. Laur-Belart, *Helvetia Antiqua* 242; H. Lieb, *Militärgrenzen* 96 f.; idem, *Provincialia* 129 ff.

<sup>95</sup> See also discussion by R. Rau in: *Der Süßgau, Jahresgabe des Süßgauer Altertumsvereins Rottensburg* (1967), 5 ff. I cannot agree with him in every particular.

<sup>96</sup> See also *LF* 2 (1962), 112 ff. The date of the foundation of these forts is as problematical as that of their evacuation.

have been found on the Nikolausfeld, west of the Neckar : the earlier is an earth-and-timber fort of at least 19.3 acres (7.8 ha.), of which only the east and north ditches are known ; the later earth-and-timber fort measures about 14.8 acres (6 ha.). This latter, as the excavations of D. Planck in 1967 showed, was provided at a still later date with a stone defensive wall, a fact which was not recognized by earlier archaeologists. In 1967 and 1968 Planck also excavated east of the Neckar in the fields known as Hochmauern and located there a third fort 11 acres (4.5 ha.) in area with a well-preserved turf rampart and wooden internal buildings. The dating is given by a coin of 72-73 found under the turf rampart. On this basis one might suggest that the fort was founded from Windisch in 73-74 and that the unit came via Hüfingen.

To my mind, however, the problem is still unresolved whether Rottweil could have been reached from the south some time before the year 70.<sup>97</sup> The earth-and-timber fort at Lautlingen (B 117), which measures c. 16.5 acres (6.7 ha.), may well have provided a link with the forts on the Upper Danube. Unfortunately, neither its date nor its real purpose are completely certain. W. Schleiermacher has stated the opinion that it 'could very well have been connected, as an advance-post in Raetia, with the measures of Clemens'.<sup>98</sup>

We must now consider the forts south of the Upper Danube. It was stated at the end of section II that rebuilding under Vespasian was particularly clearly recognizable in the recent excavations of G. Mildenerberger and S. Schiek at Risstissen (B 163). At Günzburg (B 165), too, in my opinion, an inscription of A.D. 77-78 indicates rebuilding of the fort there at that date.<sup>99</sup> The gap in the fort-system which since the reign of Claudius had existed between Oberstimm (B 170) and Linz in Upper Austria began now to be closed. It is clear that, starting somewhere near Neuburg (B 169), a road was constructed on the north bank of the Danube. It crossed over to the south bank again near the newly-established fort at Eining (B 171).<sup>100</sup> At any rate there is an inscription from Kösching (B 148)<sup>101</sup> which dates to the year 80. Oberstimm might have been given up at this point, but it is difficult to prove archaeologically. The basic reason for the transfer of the road to the north side of the Danube may simply have been the unsatisfactory terrain on the south side, which made it impossible to move up the forts to the river bank. On the other hand W. Barthel has already pointed out that these measures should also be understood within the framework of the overall policy of the first two members of the Flavian dynasty.<sup>102</sup> At any rate, after what has been said above, we should be prepared to credit them with greater initiative in undertakings east of the Rhine and north of the Danube than was readily conceded even a few years ago. To judge by the finds, the auxiliary forts at Regensburg-Kumpfmühl (B 174), Straubing (B 175) and probably also a military site near Moos (B 177) were founded during Vespasian's reign. But the forts at Steinkirchen (B 176), Künzing (B 178) and Passau-Innstadt (B 180), which lay just over the border in Noricum, can scarcely have been built before A.D. 90.

We do not know what plans were uncompleted when Vespasian died in A.D. 79 or what the intentions of Titus (79-81) were. W. Schleiermacher has stated the view that the Flavian policy of expansion had already received its main shape under Vespasian and that Domitian merely imparted fresh impetus to a series of undertakings begun by Vespasian, but allowed to lapse after his death.<sup>103</sup> H. Nesselhauf, on the other hand, has argued that Domitian's initiative was completely his own, and his actions were not solely determined by practical considerations.<sup>104</sup> Finally, K. Christ has contrasted the 'minor solution' under Vespasian, who aimed merely at establishing a route between Rhine and Danube, with the 'major solution' of Domitian who created a shorter direct link between Mainz (B 38) and Augsburg (B 168).<sup>105</sup> If we assume that this direct link had already been foreshadowed

<sup>97</sup> P. Goessler, *Germania* 9 (1925), 151, ventures a pre-Flavian date for the earliest structures at Rottweil. But it is doubtful if the relevant samian need be dated so early.

<sup>98</sup> *JbRGZM* 2 (1955), 251. See in this connection a later road-post near Sigmaringen : Ph. Filtzinger, *Kölner Jahrbuch* 9 (1967-68), 62 ff., with fig. 1.

<sup>99</sup> See note 73.

<sup>100</sup> Remains of a building-inscription dated to the reign of Titus (79-81) were found in the area of the

auxiliary fort south-west of the village of Eining : F. Vollmer, *Inscriptiones Baiuariae Romanae* (1915), no. 331.

<sup>101</sup> Vollmer, op. cit., no. 257 ; cf. E. Fabricius, *ORL A Strecke 15* (1932), 25 f., with note 1.

<sup>102</sup> 6 *BerRGK* 1910-11 (1913), 174 f.

<sup>103</sup> *ORL A Strecke 11* (1934), 35, note 1.

<sup>104</sup> *JbRGZM* 7 (1960), 162 ff.

<sup>105</sup> *Schweizerische Zeitschrift für Geschichte* 12 (1962), 207 ff.

under Vespasian by the building of the road to the right of the Rhine from Mainz via Gross-Gerau (B 41) as far as Heidelberg-Neuenheim (B 46) (above, p. 156), and that on the south-north axis of the Wetterau there were a number of military sites probably already in being under Vespasian (B 85, 86, 87, 80, 77) (above, p. 155), then it might seem that the occupation of the Upper Neckar region in 73-74 was not the only right-bank enterprise of the first Flavian emperor. It would also appear that Domitian was to a great extent continuing the work of his father.

But be that as it may, in 83-85 Domitian waged war from his base at Mainz against the Chatti and the outcome was of the greatest significance for the history of Germany. After the Augustan-Tiberian campaigns and the war waged with such slight success by Caligula, it was the last large-scale offensive against free Germany. Literary sources are silent as to why Domitian actually began this war. The view of Nesselhauf has a great deal in its favour. He believes that the emperor wished to make a demonstration of his *virtus imperatoria* after standing for so long in the shadow of his brother Titus. If so, perhaps Domitian wished to make at last a province of Germany.<sup>106</sup>

To the best of my knowledge H. Braunert is the last writer to have concerned himself with the length of the Chatten war. He suggests that it began in the spring of 83, and that the emperor, after reasonably quick initial successes, left their development to his legates and celebrated his triumph over the Chatti as early as the period 9 June-August, 83. That the strength of the Chatti was still by no means broken and that heavy fighting was still to occur is shown by the fact that the Chatti were able to undertake a successful invasion of the neighbouring Cherusci in 84. Furthermore, Braunert considers that the coin-issues, which begin in 85 and record the victory over the Germans, must be related to this same war. These announce the end of a war with sacrifices and conclusion of a treaty. Contrary to earlier views, Braunert sees them neither as a delayed announcement of victory, nor as evidence for a new Chatten war, nor as connected with any definitive act such as the completion of the *limes* or the creation of the two Germanic provinces.<sup>107</sup>

In the war against the Chatti the emperor employed, in addition to the four legions of the Upper German army (p. 155), legion XXI Rapax from Bonn and a detachment of legionary strength from the British army which he took away from Agricola—in all about 30,000 to 36,000 men.<sup>108</sup> Measured against this outlay, the result was really rather poor. East of the Rhine the war led merely to the occupation of the Neuwied basin<sup>109</sup> and the Wetterau without affecting the main homeland of the Chatti north of the Wetterau. In my opinion we cannot accept that Domitian, right from the beginning, intended to occupy this area and no more, as Nesselhauf thinks.<sup>110</sup> Moreover, to judge by the native finds, the Wetterau at this period was only sparsely populated and in any case, being within easy reach of Mainz, lay under Roman surveillance. Perhaps also, as I mentioned earlier, Roman troops were already stationed there in some places, if only on a temporary basis. On the contrary, the line of the later *limes* points to an offensive which came to a halt before it was fully developed, and was subsequently abandoned altogether when serious military complications on the Danube demanded a greater withdrawal of troops from the Rhine-Main region.<sup>111</sup>

On campaign the Roman troops used for the most part the old military route which led from Mainz north-eastwards through the centre of the Wetterau. At first, in my opinion, marching-camps were probably established along this line at Hofheim (B 86), Heddernheim (B 87), Okarben (B 80), Friedberg (B 77) and perhaps also in Bad Nauheim (B 76). In no case can they be actually proved at the present moment.<sup>112</sup> It is clear that only in a later

<sup>106</sup> H. Nesselhauf, *Hermes* 80 (1952), 222 ff.; idem, *JbRGZM* 7 (1960), 162 ff.; K. Christ, *Gymnasium* 64 (1957), 519 ff.

<sup>107</sup> H. Braunert, *BZ* 153 (1953), 97 ff.; R. Syme, *CAH* XI (1936), 162 ff., supposes an earlier ending to the war.

<sup>108</sup> E. Fabricius, *ORL A Strecke* 3 (1936), 43 ff.; *Strecke* 4-5 (1936), 39 ff.

<sup>109</sup> This is the area in which the Domitianic forts of Heddesdorf (B 57), Bendorf (B 58) and Niederberg (B 59) lie.

<sup>110</sup> *JbRGZM* 7 (1960), 162 ff.

<sup>111</sup> *LF* 2 (1962), 73 ff., with further literature.

<sup>112</sup> Hofheim: H. Schoppa, *Germania* 38 (1960), 184 f., with fig. 1, no. 3 (against my earlier view *LF* 2 (1960), 73 top); Heddernheim: one or other of the 'earth-and-timber forts' which preceded the al-fort; Okarben: possibly the newly discovered ditch, *FH* 4 (1964), 170 ff.; Friedberg: *Sf* 19 (1961), 40, note 16; Bad Nauheim: I have a suspicion that one of the ditches marked on *FH* 5-6 (1965-66), Beilage 1, belongs to a marching-camp of this type. But naturally they might sometimes be labour camps for the building of the later permanent forts.



phase of the Chattan war were they replaced by permanent forts for *alae* (Heddernheim, Okarben) and cohorts; their defences probably consisted at first only of earth and timber, or a turf rampart. One certain example (as I believe) of a marching-camp or temporary camp, which was perhaps meant for a large legionary detachment or, despite its size of only 25.4 acres (10.3 ha.), for a complete legion, is the long-known site at Heldenbergen (B 81) on an eastern branch of the south-north road.<sup>113</sup> Camps of this sort were probably present in the Wetterau in large numbers. At any rate, one must imagine that, during the first year at least of the Chattan war, the troops were continually on the move.

Probably as flank-protection for operations in the Wetterau, the first forts of the *limes* proper were established in the west on the heights of the Taunus and in the east on the outlying hills of the Vogelsberg. Julius Frontinus, who had been Agricola's predecessor in Britain and served on Domitian's staff during the Chattan war, reports in his *Strategemata* (I, 3, 10) that the emperor had *limites* laid out over a distance of 120 Roman miles and thereby not only changed the military situation, but also brought the enemy into subjection after he had driven them from their hiding places. These words, as E. Fabricius showed, well suit the situation in the Taunus and the Wetterau.<sup>114</sup> Where the *limes* ran through forests, it consisted at first merely of a path free of trees. As early as the final phase of the Chattan war, it seems, the first wooden watch-towers were planted along this road. They were normally set at distances of 500–600 m. from one another; but on level ground the interval could sometimes measure over 1,000 m., depending on the visibility, as my investigations in 1954 demonstrated.<sup>115</sup>

Important connecting-routes leading into the Wetterau from outside were given small earth-and-timber fortlets to guard them, obviously before the end of the war. My recent excavations in Altenstadt (B 79) brought this conclusion home to me with particular clarity. In Butzbach (B 72) the situation needs further study.<sup>115a</sup> The two enclosures in front of the east gate of the Saalburg fort (B 69) and those at Kemel (B 65) possibly belong to the closing phases of the Chattan war.<sup>116</sup> Other examples of such small enclosures may well await discovery, but most of the Wetterau *limes* forts have yet to be tested for such features by excavation. Still, there are already some grounds for holding that the forces on the flanks remained extremely weak for another twenty years or more.

In place of legion XXI Rapax, which had been commandeered to take part in the Chattan war, I Minervia was transferred in 83 to Bonn. Immediately after the end of the war one of the Mainz legions, I Adiutrix, was ordered to the Danube. But a strong concentration of troops still remained near the mouth of the Main and in the Wetterau. They probably encouraged their commander, L. Antonius Saturninus, to claim the purple in Mainz in the winter of 88–89.<sup>117</sup> The Chatti obviously turned the revolt to their advantage, and destruction of a number of watch-towers on the *limes* and in the forts has been attributed to them.<sup>118</sup> But the uprising was soon crushed, mainly with the help of the Lower German army, whose units afterwards received the honorific titles of *pia fidelis*.

Probably soon after the end of the Chattan war (A.D. 85), but at the latest immediately after the suppression of the revolt of Saturninus (A.D. 89), Domitian created the provinces of Germania Superior and Germania Inferior out of the respective zones of the Upper German and Lower German armies.<sup>119</sup> The seat of the governor of Upper Germany was

<sup>113</sup> Its plan is comparable with that of Raedykes: O. G. S. Crawford, *Topography of Roman Scotland* (1949), 109, fig. 27.

<sup>114</sup> Fabricius, *ORL* A Strecke 3 (1936), 45. Syme, l.c. (n. 107), gives a different interpretation of Frontinus: 'Over a front of a hundred and twenty miles he drove military roads deep into the broken and wooded country that hitherto had secured them immunity and thus opened access to their fortresses.' On this passage, cf. also H. Simon, *Germania* 32 (1954), 325 f.

<sup>115</sup> *SJ* 14 (1955), 30 ff.

<sup>115a</sup> *SJ* 22 (1965), 17 ff.

<sup>116</sup> *LF* 2 (1962), 76 ff.

<sup>117</sup> H. Nesselhauf, *JbRGZM* 7 (1960), 164 ff. On the revolt of Saturninus, see now G. Walser, *Provincialia* 497 ff.

<sup>118</sup> The archaeological indications are in no way so

complete or reliable. Heddernheim can still be quoted as a classic example: G. Wolff, *ORL* B, no. 27 (1915), 19 ff.; U. Fischer, *Germania* 38 (1960), 190; 39 (1961), 462. Okarben and Wiesbaden must also be cited: G. Wolff, *ORL* B, no. 25a (1902), 9, and E. Ritterling, *ORL* B, no. 31 (1909), 68. On the destruction of the watch-towers see E. Fabricius, *ORL* A Strecke 2 (1936), 24 ff.; Strecke 3 (1936), 25 f., 46 f.

<sup>119</sup> The exact date of the establishment of the two provinces is uncertain (Braunert, l.c. (n. 107), 101). K. Christ (*Gymnasium* 64, 1957, 522) suggests the period 84–87 on numismatic evidence. In any case it must lie between 82 and 90 (A. Riese, *Korrespondenzblatt der Westdeutschen Zeitschr.* 14 (1895), 151 ff.). A diploma of 20 Sept., 82 (*CIL* xvi, no. 28) refers to troops in *Germania*, whereas the diploma of 27 Oct., 90 (*CIL* xvi, no. 36), refers to *Germania superiore*. Furthermore, the consular legate

Mogontiacum-Mainz, raised in the late Roman period to the status of *municipium*; the seat of the governor of Lower Germany was Cologne, the Colonia Claudia Ara Agrippinensium, founded in A.D. 50.

It should perhaps be stressed more strongly than has hitherto been our wont that the years 89–90 mark a historical turning-point and the final abandonment of the offensive against free Germany. Domitian proceeded to reduce the garrison forces in the Main-Wetterau area as a result of his experience of the revolt of Saturninus. Moreover, he needed more troops on the middle Danube for use against the Marcomanni and Quadi. So XXI Rapax was ordered to Pannonia in 90, and two years later XIV Gemina followed. XXII Primigenia was transferred after 92–93 from Vetera II to occupy the fortress of Mainz in their stead. In addition, perhaps, an auxiliary unit was stationed there.<sup>120</sup> From then on three legions formed the garrison in each of the provinces of Germania Inferior (where they lay at Nijmegen, Neuss and Bonn) and Germania Superior (Mainz, Strasbourg and Windisch). Between A.D. 90 and 100 two *alae* from the Main-Wetterau area were moved to Raetia, a third probably went to Pannonia with the Fourteenth legion, and a fourth came to Britain. In addition several cohorts were deployed elsewhere.<sup>121</sup>

I should like to suggest, although investigations are still far from complete, that the defences of the *ala*- and cohort-forts on the inner line of the Wetterau (B 84, 86, 87, 80, 77) were not rebuilt in stone until after 90. Significantly, the fort at Bad Nauheim (B 76), which perhaps held a vexillation of the Fourteenth legion and was evacuated at the latest by 92, never reached this state. Perhaps connected, as I believe, with the new defensive arrangements, is the fact that Cohors I Flavia Damascenorum milliaria equitata sagittariorum, a fresh arrival in the province after 90, was sent to Friedberg (B 77). And at the same time another large fort in earth and timber of c. 12.8 acres (5.2 ha.) was sited in the north-east of the Wetterau at Echzell (B 75), as the recent excavations of D. Baatz have shown, but its garrison is at the moment unknown. Excavation by G. Müller at Butzbach (B 72), where the north-south road crosses the *limes*, has revealed that a cohort-fort was built here after A.D. 90. Another was probably constructed at Arnsburg (B 73) on a road branching off from the main route.

Findings made up to the present moment in the *praesidia* on the flanks suggest that most of them were only slightly enlarged. Such earth-and-timber fortlets of c. 1.5–2 acres (0.6–0.8 ha.) are known at Altenstadt (phase 3) (B 79), Kapersburg (B 70), Saalburg (B 69) and Zugmantel (B 66). It is significant that these four fortlets came to light only where large-scale excavations have taken place. This is a warning to us not to conclude from the absence so far of fortlets at other fort-sites on the *limes* that complete cohorts had already been stationed there by the end of the first century or thereabouts.<sup>122</sup> In the hinterland we are familiar with fortlets of this kind at Marienfels (B 62) and Heldenbergen (B 81), where one was built in the interior of the earlier marching-camp and was certainly designed to guard a road.<sup>123</sup> The fortlet at Hainstadt (B 92), discovered and investigated in 1968 by B. Beckmann, probably belongs to this series. At the moment unfortunately we know nothing about the internal arrangements of these fortlets and can make no suggestions, therefore, about the character of the units manning them. The size of the military posts built probably at this time on the roads in the hinterland at Bergen (B 89) and on the Salisberg in Hanau-Kesselstadt (B 90) is not at all certain. The fort at Frankfurt (B 88), not yet actually located on the ground, could be somewhat earlier, and the fortlet at Heidekringen (B 83) could be later.<sup>124</sup>

The purpose of the stone fortress at Kesselstadt (B 90), 34.6 acres (14 ha.) in size, is

mentioned in the diploma of 90 appears in *CIL* III, 9960 (= *ILS* 1015), as the earliest known holder of the office of *leg(atus) consularis provinc(iae) Germ(aniae) superioris*. An early date would be required if we follow H.-G. Pflaum's dating of a *proc. Belgicae et duar. Germaniarum* to c. A.D. 83: *Les Carrières procuratoriennes équestres sous le Haut-Empire romain* (1960), 54 ff., 960, 1056.

On the debatable western boundary of Lower Germany, see H. v. Petrikovits, *Studien zur europäischen Vor- und Frühgeschichte* (Festschrift Jankuhn

1968), 115 ff.; Chr. B. Rüger, *Germania Inferior* 32 ff.; J. E. Bogaers, *BerROB* 17 (1967), 101 ff.

<sup>120</sup> D. Baatz, *LF* 4 (1962), 87.

<sup>121</sup> H. Nesselhauf, *JbRGZM* 7 (1960), 166 ff.

<sup>122</sup> D. Baatz suggests that there may have been other cohort-forts besides Butzbach and Arnsburg on the Wetterau-*limes* by A.D. 100: *Sf* 22 (1965), 144 ff.

<sup>123</sup> *LF* 2 (1962), 79 ff. Theoretically of course the earth-and-timber fort at Altenstadt (period 3) could also be the successor to the small earth-and-timber fort at Heldenbergen.

<sup>124</sup> *LF* 2 (1962), 88 ff.

not at all clear. The earlier view maintained that it was built shortly after the Chattan war, i.e. after A.D. 85. I have a suspicion that it was planned to station either the whole or a part of one of the Mainz legions in the Wetterau at a point where they could be easily provisioned from the Main.<sup>125</sup> But then came Saturninus' uprising and the heavy withdrawal of troops; hence the fortress was left unfinished, as was Inchtuthil,<sup>126</sup> and never occupied. At any rate there are virtually no finds from the Kesselstadt fortress.<sup>127</sup>

The question now is, when was the link created between the sites in the Wetterau, occupied during the Chattan war, and those on the Upper Neckar, dating to the reign of Vespasian? In other words, when was the land between the Rhine and the Danube, the *agri decumates*, finally drawn into the orbit of the empire? It may be concluded from the words of Tacitus (*Germania* 29) that this occurred under Domitian: *mox limite acto promotisque praesidiis sinus imperii et pars provinciae habentur*.<sup>128</sup> But clearly this did not happen on a continuous line until after A.D. 90. For the forts on the Main (B 94–97),<sup>128a</sup> at least, we have no evidence of an earlier foundation-date than that.<sup>129</sup> This is also true of the so-called Odenwald *limes*, which began on the Main, originally in all probability at Obernburg (B 97) rather than Würth (B 118). This *limes* was a military road, providing a connecting route to the Middle Neckar and protected by earth-and-timber fortlets (B 98–104) of c. 1.5 acres (0.6 ha.) and watch-towers. The excavations carried out by D. Baatz in Hesselbach (B 103) between 1964 and 1966 showed that this fortlet was from the very beginning meant for a tactically independent unit; in other words, it was provided with a *principia* and commander's house<sup>130</sup> (cf. fig. 19). The same should apply, despite earlier views to the contrary,<sup>131</sup> to the other fortlets in the Odenwald. Of these, moreover, Seckmauern (B 98) was probably given up in the 120's while the others were rebuilt in stone at this time. The series of cohort-forts began again at Oberscheidental (B 105). The line then reached the Neckar at Wimpfen (B 107). In the hinterland at the same period perhaps only Gross-Gerau (B 41) and Heidelberg-Neuenheim (B 46) remained partly operational though as centres for the provisioning of the army.

The *limes* on the Neckar was not a frontier in the strict sense, but rather a strategic line, which incidentally took advantage of the river communications. Behind the river-line there was no palisade, no fortlets or similar structures and no watch-towers between the auxiliary forts. The road between these forts (B 107–112) ran partly to the west and partly to the east of the river. We normally assume that these forts were not established until A.D. 90. An earlier foundation-date is perhaps just possible for Wimpfen (B 107), Böckingen (B 108) and Bad Cannstatt (B 111).<sup>132</sup> The most southerly auxiliary fort identified on the ground is Köngen (B 112).<sup>133</sup> There follows then a gap of c. 60 km. until the fort of Sulz (B 113), founded under Vespasian, is reached.

A still unsolved problem is the relationship between the series of forts on the Neckar and those on the Swabian Alb (B 150–153). R. Syme, for example, has written: 'Indeed, as both series of forts, the Alb-*limes* and the positions on the Neckar, seem to be parts of the same process, a converging movement from the Rhine and from the Danube, they might be

<sup>125</sup> For sizes of legionary fortresses see *LF* 4 (1962), 80.

<sup>126</sup> *JRS* 51 (1961), 160; 52 (1962), 162 f.; 53 (1963), 126 f.; 54 (1964), 153; 55 (1965), 200; 56 (1966), 198 f.

<sup>127</sup> Nevertheless it should be mentioned here that T. Bechert, in an unpublished Frankfurt thesis (1969), believes on the basis of the form of the north-west gate that the fort perhaps belongs to the first half of the third century. But gates with towers projecting beyond the front of the wall are known in the Hadrianic fort at South Shields: *JRS* 57 (1967), 177 (J. P. Gillam).

<sup>128</sup> H. Nesselhauf, *JbRGZM* 7 (1960), 166 ff.

<sup>128a</sup> As on all river-frontiers, there was no palisade or rampart and ditch, not even later.

<sup>129</sup> Cohors I Ligurum et Hispanorum c.R. can now be claimed as the unit occupying the fort at Niedernberg (B 96) on the strength of a recently discovered tombstone: L. Hefner, *Germania* 44

(1966), 398 ff. It is of course not absolutely certain that they were stationed there right from the beginning.

<sup>130</sup> The earliest known forehalls over the *via principalis* of an auxiliary fort were identified at Hesselbach and the contemporary fort at Künzing (p. 163). This type of building was probably not a *basilica equestris exercitatoria*, but perhaps a roofed place where soldiers could fall in: W. Schleiermacher, *Trierer Zeitschrift* 18 (1949), 247 f.; R. Fellmann, *Jahresbericht der Gesellschaft Pro Vindonissa* (1957–8), 170 ff. But see R. W. Davies, *The Archaeological Journal* 125 (1969), 75 f. Another forehall is now known in Britain at Ribchester: G. D. B. Jones, *Northern History* 3 (1968), 18 ff.

<sup>131</sup> A. Oxé, *Bj* 146 (1941), 125 ff.

<sup>132</sup> Cf. note 87 and *LF* 2 (1962), 104 ff.

<sup>133</sup> In 1965 about 280 m. south-west of the front of the known stone fort the ditch of another fort—probably of earth and timber—was discovered.



closely connected in time as well as in design.' <sup>134</sup> He was thinking of the period immediately after the Chattan war of A.D. 83–5. But a somewhat later date is probably preferable for the Odenwald-Neckar *limes*, apart from the sites at Wimpfen, Böckingen and Cannstatt. Ph. Filtzinger, on the other hand, dates the forts on the Alb to the late Vespasianic or early Domitianic period. <sup>135</sup> In his opinion the advance from Strasbourg in 73–74 seems 'to have resulted forthwith in the occupation of the Swabian Alb'. <sup>136</sup> I myself accepted a foundation-date of about A.D. 80 as possible at least for Burladingen (B 150) <sup>137</sup>; so the fort in eastern Raetia at Kösching (B 148) may not be the only one advanced from the south to the north side of the Danube before 83–5; those in the western part of the province may have been moved too. But one must admit that the forts on the Alb could equally well have been built five years later; such precise dating is not possible with samian ware alone. (For this reason I have marked the foundation-dates of forts B 150–153 on Map B as not yet determined.) At any rate, that the advance of the Danube forts to the Alb had a connection with the Chattan war cannot be demonstrated satisfactorily by archaeological means.

The fort of ala II Flavia milliaria at Heidenheim (B 154) certainly was not built before 90, as excavation by B. Cichy has recently revealed. It was preceded, moreover, by a smaller semi-permanent work or labour-camp which had only a short lifetime. But further east, too, Flavian forts were established, sometimes at a considerable distance beyond the Danube. And it seems highly likely that the chain of forts including Pfünz (B 147), Weissenburg (B 145), Gnotzheim (B 142), Unterschwaningen (B 140), Aufkirchen (B 138) and Oberdorf (B 155), ending at Heidenheim, was connected with the Alb *limes*. W. Schleiermacher has sought to explain this by suggesting that under the Flavians the Via Claudia was extended northwards via Burghöfe (B 167) and Munningen (B 156) to the mighty pre-Roman hill-fort of the Hesselberg. <sup>138</sup> The latter lies 35 km. north of the fort at Aufkirchen, the defences of which (like those of Munningen and Unterschwaningen) were never rebuilt in stone. This suggests a relatively short period of use. Gnotzheim, Weissenburg and Pfünz, according to Schleiermacher, covered the eastern flank of the route which led to the Hesselberg, and on or near it lay Munningen, Aufkirchen and Unterschwaningen. Oberdorf, Heidenheim and the Alb forts protected not only the western flank (as the earliest sites in the Taunus did during the Chattan war), but also the Danube highway west of the Via Claudia. But the Hesselberg, to judge by present finds, was not definitely occupied at this time, so that Schleiermacher's cautiously propounded hypothesis is not completely satisfactory; nevertheless, U. Kahrstedt's suggestion that in the 80's a *limes* was planned <sup>139</sup> reaching as far as the bend of the Main at Ochsenfurt (B 191) is also not in accordance with the archaeological evidence.

After the erection of the forts on the Middle Neckar about 90, the road, built earlier under Vespasian from Mainz (B 38) via Gross-Gerau (B 41) to Heidelberg-Neuenheim (B 46), may have been extended under their protection via Stettfeld (B 49) and Bad Cannstatt (B 111) to the Danube. A northern branch of it may have run through the valley of the Fils to the fort at Heidenheim (B 154) and from there probably to Faimingen (B 157) on the Danube. A southern branch may have reached Faimingen via Köngen (B 112) and Urspring (B 153). <sup>140</sup> Aerial photography in the Fils valley in 1967 revealed between Eislingen and Salach (B 131) the ditch of a fort measuring c. 140 by 120 m. The purpose and date of this is not at the moment clear. The course of the northern road through the Fils valley need not cause any surprise, for the settlement area east of the Neckar may have been claimed at the time when the *limes* was being established there. Significantly, there was a *saltus translimitanus* east of Köngen (B 112) by the end of the first century. <sup>141</sup>

<sup>134</sup> CAH XI (1936), 167.

<sup>135</sup> Bf 157 (1957), 201 ff.

<sup>136</sup> Bf 157 (1957), 206.

<sup>137</sup> LF 2 (1962), 113 ff.

<sup>138</sup> JbRGZM 2 (1955), 245 ff.

<sup>139</sup> Bf 145 (1940), 63 ff.

<sup>140</sup> See map in F. Hertlein—P. Goessler, *Die Römer in Württemberg* 2 (1930); only partially included on the *Tabula Imperii Romani* M 32, *Mogontiacum* (1940). I agree with W. Barthel,

6 *BerRGK 1910–II* (1913), 169, in presuming a pre-Trajanic fort at Faimingen, but it has not yet been located on the ground. On the dating of the road see also E. Fabricius, *ORL* B, no. 66a (1905), 31, and F. Drexel, *ORL* B, no. 66c (1911), 29.

<sup>141</sup> E. Fabricius, *ORL* B, no. 66a (1905), 32 f.; W. Schleiermacher, *ORL* A Strecke 11 (1934), 39 ff. See also F. Kiechle, *Historia* 11 (1962), 185, where further information is given about the *regio translimitana* which I cannot deal with here.

Finally, as I suggested above, the building of the Danube forts Steinkirchen (B 176), Künzing (B 178) and (in Noricum) Passau-Innstadt (B 180) can scarcely be dated before A.D. 90. I am inclined to believe that this last gap in the chain of Danube forts was closed for reasons of security during the wars against the Marcomanni and Quadi. In Künzing (B 178), which was garrisoned in its two earliest building-phases by Cohors III Thracum c.R., my excavations of 1958–66 enabled me to recover, for the first time on the Continent, the plan of the internal buildings of a fort designed to accommodate a *cohors quingenaria equitata* (fig. 17).

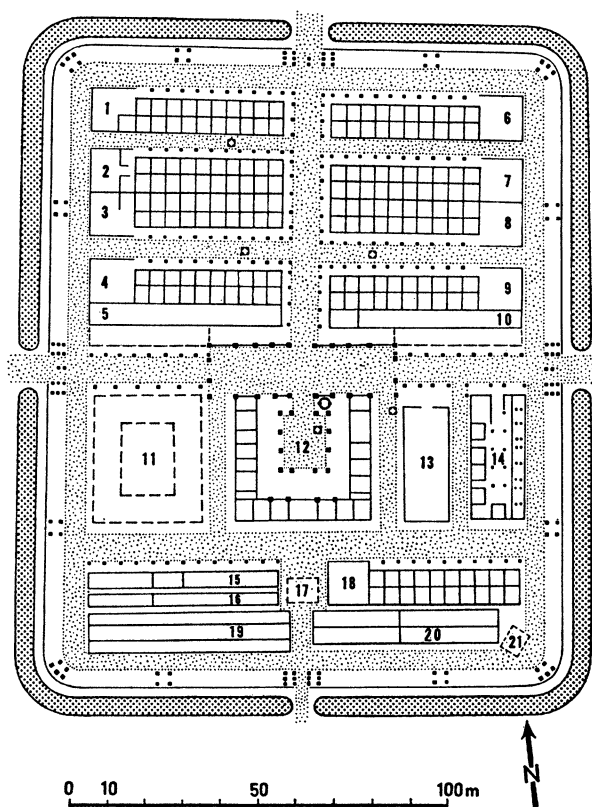


FIG. 17. KÜNZING (B 178): RESTORED PLAN OF THE FIRST PERIOD (c. A.D. 90–120) OF THE AUXILIARY FORT, SHOWING TIMBER BUILDINGS, PROBABLY OCCUPIED BY THE COH. III THRACUM C.R. (QUINGENARIA EQUITATA).

1–4, 6–9, 18 BARRACKS

11 COMMANDANT'S HOUSE (NOT EXCAVATED)

13 GRANARY

17, 21 WATER-TANKS (PRESUMED)

5, 10, 15, 16 BUILDINGS OF UNKNOWN USE

12 HEADQUARTERS BUILDING

14 HOSPITAL

19, 20 STABLES

NOTE ALSO THE FOREHALL AND COLONNADED MAIN STREETS.

It is perhaps relevant to this section to refer to an interesting observation made by G. Mildenberger during his excavations at Risstissen (B 163) in 1959. Inside the fort, after it had been evacuated, a stone building was put up which may perhaps have been a customs warehouse or arsenal. One could interpret the large stone building Z in the fort at Hüfingen in the same way.<sup>142</sup> This raises a problem which is now being discussed in Germany as a result of recent excavations: did 'hinterland' forts continue to be used for any purpose by the civil authorities after their evacuation by the military? Or were they employed as

<sup>142</sup> ORL B, no. 62a (1937), 20 ff., with Taf. 2 and 3, 4.

supply-bases for troops in forward positions, as interim quarters for units, or for other public purposes ?

In conclusion I must mention briefly the camp at Kneblinghausen (B 190), which lies about 20 km. south of the upper Lippe, a long way, that is, from the *limes*. It is highly questionable whether this site, one which is unique in Germany and of uncertain purpose, has been correctly dated. The camp is a parallelogram whose sides measure 220 by 300 m. It is the only German camp to possess *claviculae*, which are in-turned at each of the four gates. To the east what is obviously an annexe (c. 130 by 220 m.) was discovered in 1926. One or two earlier sherds are not adequate evidence for the existence here of an Augustan-Tiberian fort.<sup>143</sup> The quantity of other Roman finds is likewise so small that one would reckon only on a very short occupation. But the plan of the south gate recovered in 1904 contradicts this ; for it appears to have been rebuilt once. It may therefore be a marching-camp which was reoccupied later, after an interval. U. Kahrstedt thought that the camp at Kneblinghausen might have been connected with the expedition of C. Rutilius Gallicus in the territory of the Bructeri in 77-78, or with that of Vestricius Spurinna between 90 and 100 ; he believed that camps with *claviculae* date between the years 72 and 105.<sup>144</sup> But we must point out that there are later camps with *claviculae*—those, for example, associated with the revolt of Bar Kokhba in 132-135.<sup>145</sup> So the uncertainty about the date and historical interpretation of the site at Kneblinghausen remains.

#### IV. FROM A.D. 96 TO 161

Forts assumed to have been founded after the revolt of Saturninus (A.D. 88-89) are included on Map B under the heading 'founded 83-85 or shortly after'. Some of them may in fact have been created under Nerva or Trajan. This is difficult to decide archaeologically on the basis of present finds. But the foundation-date is not the most vital aspect of the problem which has been taken up again recently. More important is the question when the earlier, smaller, posts in forward positions on the actual *limes* in Upper Germany were enlarged to take cohorts or, where no earlier posts stood, at what date new forts for tactically independent units were erected. W. Schleiermacher has put forward one view in a readily accessible form in the *Limesführer* and illustrated it with a map. According to him, in the Trajanic period the forts of the independent auxiliary formations avoided the wooded hills and preferred the plains or river valleys, which they could keep under surveillance easily. Accordingly, in the reign of Trajan no independent auxiliary units were stationed on the actual Taunus-Wetterau-*limes*, with the exception of Butzbach (B 72), Arnsburg (B 73) and (one must now add) Echzell (B 75).<sup>146</sup> D. Baatz takes the opposite view and assumes on the evidence of tile-stamps of the Twenty-second legion that cohort-forts were built about A.D. 100, or at least before Trajan's death, at Oberflorstadt (B 78) and Marköbel (B 82), perhaps also at Rückingen (B 91) and Gross-Krotzenburg (B 93). He believes that the creation of a permanent frontier-organization was probably completed in all essentials under Trajan, and that Hadrian apparently carried out no *limes*-reform ; that is to say, he was not responsible for bringing most cohorts up to the line of the *limes*.<sup>147</sup>

Previously F. Drexel in his publication of the sites at Faimingen (B 157) came to the conclusion that the founding of some new forts went back to Trajan.<sup>148</sup> By and large it will not be disputed that certain measures introduced by Domitian after Saturninus' revolt were carried further under Trajan.<sup>149</sup> In both the Germanies and in Raetia Trajan devoted himself mainly to the internal organization of the frontier-land. A reference in Eutropius

<sup>143</sup> See note 29.

<sup>144</sup> *Bj* 138 (1933), 144 ff. C. Koenen assumed *claviculae* in the smaller later work at Urmitz (A 16) : *Bj* 104 (1899), 48 ff., Taf. 1. This was soon shown to be wrong : H. Lehner, *Bj* 105 (1900), 166.

<sup>145</sup> Where the *clavicula*, in contrast to those in the earlier siege-works at Masada, was external : Y. Yadin, *The Finds from the Bar Kokhba Period in the Cave of Letters* (1963), 11 ff., fig. 3.

<sup>146</sup> *Limesführer* 208, with fig. 39 ; *Limes-Studien* 156 ff.

<sup>147</sup> *Sj* 22 (1965), 144 ff.

<sup>148</sup> *ORL* B, no. 66c (1911), 28 ff. ; also W. Barthel,

6 *BerRGK* 1910-II (1913), 169 f. The presumed destruction of the legionary fortress at Strasbourg in 97 and its rebuilding under Trajan is another story : J.-J. Hatt, *Limes-Studien* 50 f. and *Germania* 37 (1959), 232.

<sup>149</sup> E. Fabricius calculated that a number of cohorts were brought nearer to the *limes* under Trajan to improve frontier-control : *ORL* A, Strecke 4-5 (1936), 49. In general, Trajan may be seen as completing many of Domitian's schemes : K. Christ, *Schweizerische Zeitschrift für Geschichte* 12 (1962), 212 f.



(VIII, 2) can be taken as an indication of this: *urbes trans Rhenum in Germania reparavit*.<sup>150</sup> In Trajan's reign, for example, Colonia Ulpia Traiana was founded on the Lower Rhine near Xanten and the Civitas Ulpia Sueborum Nicretum grew up on the Lower Neckar with Ladenburg as its main town. Recently the Civitas Taunensium, too, with its centre at Nida-Heddernheim has tended to be regarded as a foundation of the Trajanic period in the framework of this new organization. The excavations of U. Fischer in Heddernheim (B 87) have shown it likely that the stone fort there was given up between 100 and 110.<sup>151</sup> But we must be careful not to assume the same date for the evacuation of the other forts in the Wetterau area such as were still occupied.<sup>152</sup> In all probability Friedberg (B 77) remained occupied down to the first half of the third century by the Coh. I Flavia Damascenorum, as a new inscription from Heddernheim suggests.<sup>153</sup> It need not be considered here. The evacuation of the other forts is difficult to date on the evidence of old excavations and available finds.<sup>154</sup> True, recent accounts list as forts which continued in occupation until Hadrian Gross-Gerau (B 41),<sup>155</sup> Heidelberg-Neuenheim (B 46),<sup>156</sup> Hofheim (B 86)<sup>157</sup> and Okarben (B 80).<sup>158</sup> But these four forts are precisely the group for which D. Baatz ascribes the final phase of military building-activity to Trajan on the strength of the tile-stamps.<sup>159</sup>

Under Trajan, that is at the turn of the first and second centuries, the fortlet of Degerfeld was built forward of the fort at Butzbach and directly on the *limes*, which runs about 700 m. from the fort. Degerfeld was investigated in 1964-1966 and provided us with a clear picture of the internal buildings of this type of fortlet, which despite many differences is similar to milecastles on Hadrian's Wall in Britain (fig. 18). The fortlet was rebuilt, perhaps before the end of Hadrian's reign, and provided with a stone curtain-wall.<sup>160</sup>

It does not seem likely that the army in Upper Germany was reinforced under Trajan; <sup>161</sup> the emperor required troops for the Dacian wars (101-2, 105-6), and thereafter throughout his reign had pressing need of them on the Danube and in the East. Shortly after A.D. 101, legion XI Claudia was transferred from Windisch (B 183) to the Danube.<sup>162</sup> From now on in Upper Germany only XXII Primigenia remained at Mainz (B 38) and VIII Augusta at Strasbourg (B 51). They stayed there until the late Roman period. In Lower Germany legion X Gemina was moved about A.D. 104 from Nijmegen (B 17) to Pannonia, and probably as part of the same measure VI Victrix was transferred from Neuss (B 26) (which now became an auxiliary fort) to Vetera II (B 21), which at that time was not occupied by a legion. But since some years later Nijmegen was reoccupied briefly by IX Hispana on its arrival from Britain, it was not until Hadrian's reign that the army of Lower Germany was finally reduced to two legions. These were XXX Ulpia Victrix in Vetera II and I Minervia in Bonn (B 32). These, too, remained there until the late Roman period.<sup>163</sup>

So far as the measures of Hadrian are concerned, there is no doubt that in Upper Germany the fort at the Saalburg was enlarged between 125 and 139 to take a cohort.<sup>164</sup> It is my belief that there were changes of unit about these years at Kapersburg (B 70) and in

<sup>150</sup> A building-inscription of Domitian dating to 84-5, for example, was re-used under Trajan, who had the text changed to refer to himself: F. Drexel, *Germania* 13 (1929), 173 ff.

<sup>151</sup> U. Fischer, *Germania* 39 (1961), 164 ff.

<sup>152</sup> B 84, 86, 80, 81, and the later fort on the Salisberg near Hanau-Kesselstadt (B 90).

<sup>153</sup> U. Fischer, *FH* 5-6 (1965-6), 172.

<sup>154</sup> *LF* 2 (1962), 86 f., 91.

<sup>155</sup> H.-G. Simon, *Sf* 22 (1965), 49.

<sup>156</sup> W. Schleiermacher, *Neue Ausgrabungen in Deutschland* (1958), 304; B. Heukemes assumes an occupation of the stone fort lasting into the third century: *LF* 2 (1962), 28, and *Die Stadt- und die Landkreise Heidelberg und Mannheim* (1966), 165, 170.

<sup>157</sup> H. Schoppa, *Die Funde aus dem Vicus des Steinkastells Hofheim*. 1. *Die Keramik ausser Terra Sigillata* (1961), 6; with reservations: D. Baatz, *BVBl* 28 (1963), 188 f.

<sup>158</sup> M. Korfmann, *FH* 5-6 (1965-66), 48 f.; *Germania* 44 (1966), 390 ff.

<sup>159</sup> *Sf* 24 (1967), 53.

<sup>160</sup> W. Jorns and W. Meier-Arendt, *Sf* 24 (1967), 12 ff.; H.-G. Simon, *Sf* 25 (1968), 5 ff.

<sup>161</sup> H. Nesselhauf, *JbRGZM* 7 (1960), 170.

<sup>162</sup> E. Ettlinger, *RE* ix A, col. 91 f. The legionary fortress was maintained thereafter for some time: R. Fellmann, 'Die Principia des Legionslagers Vindonissa und das Zentralgebäude der römischen Lager und Kastelle,' *Jahresbericht der Gesellschaft Pro Vindonissa* (1956-57), 63 ff.

<sup>163</sup> See note 43.

<sup>164</sup> *LF* 2 (1962), 80 f.; H.-W. Ritter, *JbN* 13 (1963), 71 ff.; T. Bechert, *JbN* 17 (1967), 29 ff.; D. Baatz, *Marburger Beiträge zur Archäologie der Kelten (Festschrift Dehn)*, *FH* Beiheft 1 (1969), 3. The year 139 is the latest date for the arrival of Coh. II Raetorum c.R. at the Saalburg (*CIL* XIII, 7462). It is probable that it occurred only shortly before, as I now prefer to accept in contrast to my earlier view.

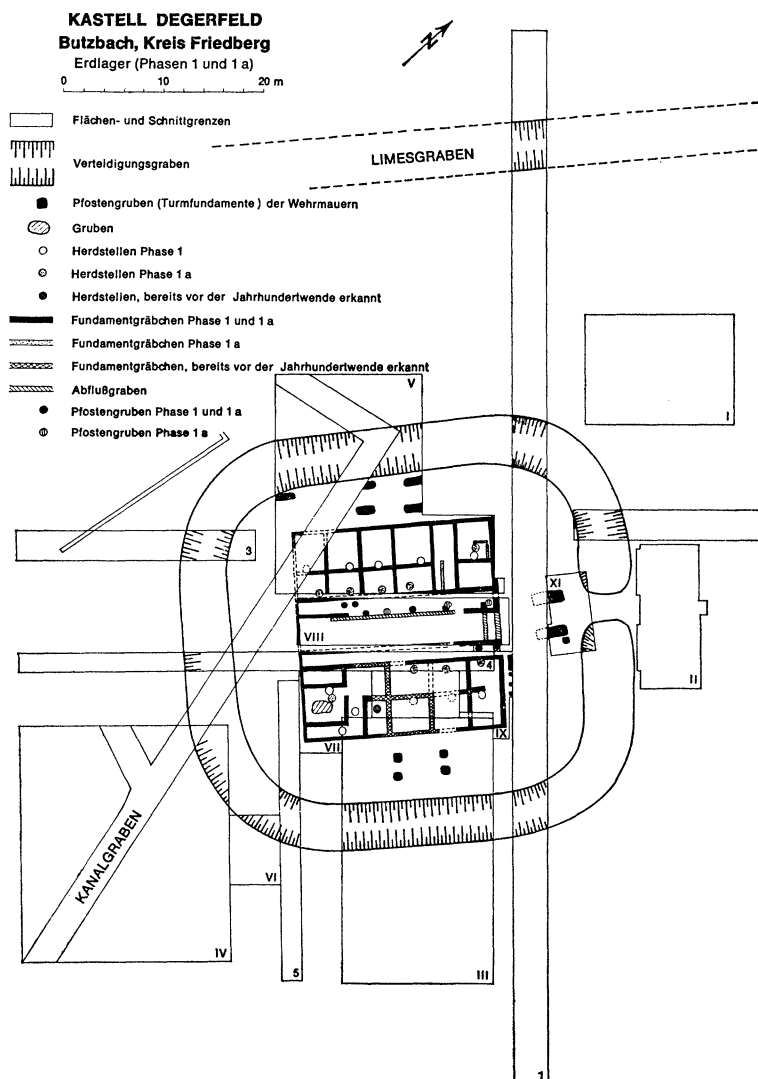


FIG. 18. DEGERFELD NEAR BUTZBACH (B 72): FORTLET ON *LIMES*, FOUNDED IN THE TIME OF TRAJAN  
From the 'Saalburg-Jahrbuch' XXIV, Beilage I

Altenstadt (B 79).<sup>165</sup> But, more important, the building of the wooden palisade everywhere along the Upper German and Raetian *limes* goes back to Hadrian, as we learn from his *Vita*.<sup>166</sup> Whether this work was undertaken when the emperor visited these provinces in A.D. 121–122 or later is uncertain. And we read the general statement in Cassius Dio (69, 9) that the emperor had forts moved to more favourable sites, gave some up and founded others. Finally, a reorganization of the *numeri* can be attributed to Hadrian—if indeed he did not create them in the first place.<sup>167</sup>

It seems to me that we should do well to picture the extension of the *limes* as a continuous development from Domitian to Hadrian, rather as E. Fabricius saw it.<sup>168</sup> The first major change is marked by the revolt of Saturninus. After his defeat the Romans gave up the idea of any further offensive action. In succeeding decades there followed a gradual

<sup>165</sup> *LF* 2 (1962), 97. At Butzbach (B 72) and Echzell (B 75) the defences of the forts, probably Hadrianic, were merely rebuilt in stone to the same plan: G. Müller, *LF* 2 (1962), 28 f., 31, and D. Baatz, *Sf* 22 (1965), 140.

<sup>166</sup> SHA, *Hadrian* XII, 6: '... Stipitibus magnis in modum muralis saepis funditus iactis atque conexis barbaros separavit.'

<sup>167</sup> See now H. Callies, 45 *BerRGK* 1964 (1965), 130 ff.

<sup>168</sup> See note 149.

extension of the frontier defences, and a number of administrative measures were introduced in the hinterland. The second decisive change is discernible in the time of Hadrian. By building the palisade, this emperor became here what he was also in Britain: the creator of a more or less static frontier. The disposition of troops in Upper Germany at this period is illustrated by W. Schleiermacher in an easily accessible map.<sup>169</sup>

Little of the existing arrangements on the *limes* in the Taunus and in the Wetterau was changed under Antoninus Pius. Perhaps stone defences were built for the first time round some forts, but recent excavation has demonstrated this probability only at the *numerus*-fort of Altenstadt (B 79).<sup>170</sup> It is normally thought that the earlier wooden watch-towers on the *limes* itself were replaced under Pius by towers in stone,<sup>171</sup> which were probably also plastered and whitewashed on their outside surfaces. The date is based primarily on building inscriptions of 145–146 from various watch-towers on the Odenwald *limes*. But we must ask ourselves whether this date is valid for the whole of the Upper German *limes* and whether in reality some stone *limes*-towers could not have been built earlier. Finally, the wall-paintings from the fort at Echzell (B 75) deserve particular attention. One wall measuring 3 m. long has so far been put together from the fragments. It shows in three fields Theseus and the Minotaur, Fortuna and Hercules, and Daedalus and Icarus. According to D. Baatz the wall-paintings were done between 135 and 155.<sup>172</sup>

Further south, on the Odenwald *limes*, the excavations of Baatz in the fort at Hesselbach (B 103), mentioned above, p. 161, have not only thrown important new light on the composition of the *numeri*, but also led to renewed discussion of the question when the *numeri Brittonum*, who are known through inscriptions on the Odenwald *limes* in 145–146, were first sent there.<sup>173</sup> The suggestion put forward by E. Fabricius, that the Brittones were transplanted from Britain together with their families and settled in Upper Germany, has long been a point of controversy.<sup>174</sup> On the evidence of his excavations Baatz is inclined to dispute that the first transplantation took place in A.D. 142, in connection with Q. Lollius Urbicus' campaign in Scotland. He points out that the unit which occupied the fort at Hesselbach between 140 and 150 during the building of the last stone defences was already there by 130. Between 120 and 130 (the beginning of Period 2 (fig. 19)) and the end of the fort's occupation there is no evidence for a change of garrison. On the other hand there could have been a change at the end of Period 1, as the internal buildings of Period 1 differ from those of Period 2 and 2a. But since these differences are not so great, one can understand Baatz when he states that, on the evidence of the building-history by itself, the Brittones could have been in Hesselbach at the beginning of Period 1 (after A.D. 90).<sup>175</sup> Certainly by no means the last word has been said on this question, which is of no small interest to students of the Roman occupation of northern England and Scotland.

In epigraphy the Brittones are encountered in 145–146. At this period the stone watch-towers were being built in the Odenwald and provided with corresponding building inscriptions.<sup>176</sup> Various inscribed slabs of this and the following period from the Main, Odenwald or Neckar show clear connections with North Britain in the form of their ornament.<sup>177</sup>

When did the Romans abandon the Odenwald and Neckar *limes*? When did they push their auxiliary units forward a distance of c. 25 km. to the line Miltenberg-Ost (B 121)—Welzheim (B 128), setting up forts that exactly corresponded to those they had left behind?<sup>178</sup> Two dedications from Böckingen (B 108) which a *praepositus* of the Coh. I

<sup>169</sup> *Germania* 35 (1967), 117 ff., with fig. 1; *Limesführer* 218 ff., with fig. 40. The Ala I Flavia Gemina was not certainly stationed at Echzell (B 75)—the Ala Moesica Felix Torquata may have been there, if only temporarily: H.-G. Simon and D. Baatz, *Sf* 25 (1968), 193 ff. The Coh. I Ligurum et Hispanorum c.R. is now attested at Niedernberg (B 96): see note 120.

<sup>170</sup> *LF* 2 (1962), 96.

<sup>171</sup> *Limesführer* 35 ff. Stone watch-towers are also found sporadically on the line of the Main between forts B 96 and 118, *ORL* A, Strecke 6 (1933), 18 f., 21 f.

<sup>172</sup> *Germania* 46 (1968), 40 ff.

<sup>173</sup> *Sf* 25 (1968), 185 ff. The final report on the

excavations is to appear in one of the next numbers of *LF*.

<sup>174</sup> K. Christ, 'Antike Münzfunde Südwestdeutschlands', *Vestigia* 3, 1 (1960), 120 ff.; H. Nesselhauf, *JbRGZM* 7 (1960), 172 ff., with note 39.

<sup>175</sup> *Sf* 25 (1968), 191.

<sup>176</sup> References: *ibid.* 190 f. For a recently discovered building-inscription with a new reconstruction of a stone tower: D. Baatz, *BVBI* 31 (1966), 85 ff.

<sup>177</sup> F. Drexel, *Germania* 6 (1922), 31 ff. See also F. H. Thompson, *Antiquaries Journal* 48 (1968), 47 ff.

<sup>178</sup> E. Fabricius, *ORL* A, Strecke 7–9 (1931), 49 ff., with map.

Helvetiorum, the local unit, set up in A.D. 148, may give a clue to the answering of this question.<sup>179</sup> Troops must still have been stationed then on the Odenwald—Neckar *limes*. On the other hand, the line Miltenberg—Welzheim must already have been in existence by the year 161, since the earliest inscription found there at the fort of Jagsthausen (B 124) names the emperor Antoninus Pius, who died in that year.<sup>180</sup> But for years controversy raged whether in spite of this the advanced *limes*-line could not have been erected in the Hadrianic period. The view of Fabricius eventually triumphed, that the forts were advanced shortly after the middle of the second century.<sup>181</sup>

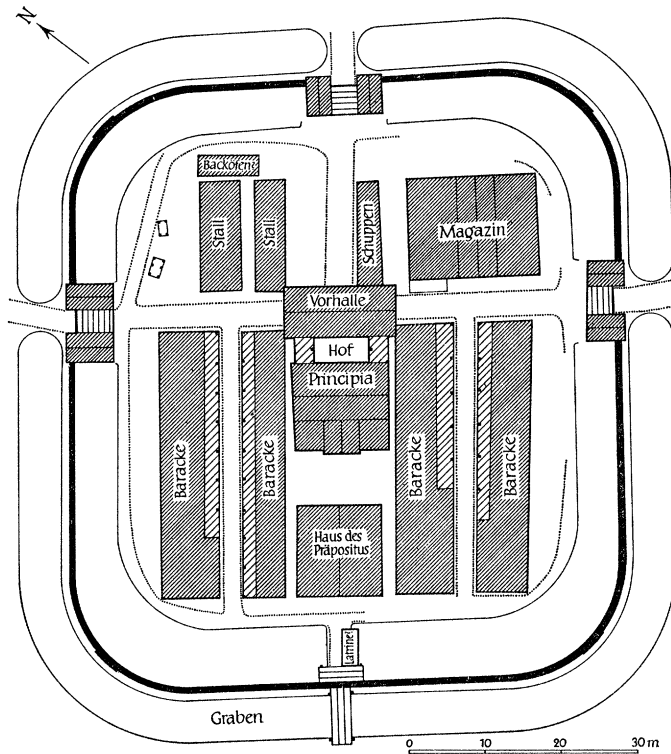


FIG. 19. HESSELBACH (B 103): FORTLET, RECONSTRUCTION OF SECOND PHASE (c. A.D. 120/30 TO 150), POSSIBLY BUILT FOR A NUMERUS BRITTONUM: STONE WALL AND TIMBER BUILDINGS

From the 'Saalburg-Jahrbuch' XXV, Beilage 4

I myself took up this old problem a few years ago, and expressed the view that there were still some things to explain.<sup>182</sup> The open country east of the Neckar had certainly been under the surveillance of the Roman military authorities since A.D. 90 or after, when they had built the forts on that river (as had been that on the east bank of the Upper Rhine since at least the time of Claudius). Now, from the forts at Miltenberg-Altstadt (B 120), Osterburken (B 123) and Öhringen-West (B 125), there is samian ware with potters' stamps of the same type as occur in the ditch and titulum of the small timber fort at the Saalburg, and this was given up about A.D. 135. Moreover, these sites produced tiles of the Twenty-second legion which were dated to Hadrian's reign by their stamps.<sup>183</sup> I should regard it as at any rate possible that there were military posts on some scale at all three places 20–30 years before the auxiliary forts themselves were moved forward. The fort at Öhringen may have been sited to guard the old road coming from the Hohenlohe plain,

<sup>179</sup> *CIL* XIII, 6469, 6472.

<sup>180</sup> *CIL* XIII, 6561.

<sup>181</sup> See note 178.

<sup>182</sup> *Germania* 35 (1957), 74 ff.; *LF* 2 (1962), 116 ff. F. Drexel, for example, sought too simple a solution to the problem: *ORL* B, no. 66c (1911), 56 f.

<sup>183</sup> More recently D. Baatz has favoured a later dating for this group of tiles: *SJ* 24 (1967), 54 ff. I wish to revise my earlier view and would now exclude Jagsthausen (B 124) since there is no earlier samian ware from there.



and that at Osterburken to guard a similar road from the Kirnau valley. In this connection we have to remember that in Britain outpost forts existed at Birrens, Netherby and Bewcastle beyond Hadrian's Wall, and later at Bertha and Ardoch beyond the Antonine Wall, even though their functions may have been different from those of the German series.

The earlier strong-points which I assume at Öhringen and Osterburken lie on a section of the forward *limes* which runs straight as a die for more than 81 km. We know of no other *limes* anywhere in the Roman empire which can provide a parallel for such a long straight stretch. Perhaps these two earlier posts literally fixed the direction of this part of the *limes* when it was subsequently laid out. Obviously the Romans began the staking-out of this straight section at its centre-point, that is not far from Öhringen, as E. Fabricius and before him K. Weller noted.<sup>184</sup> Only new excavations can bring genuine certainty about the existence of earlier military posts on the forward *limes*. Such excavations have already begun in both forts at Öhringen directed by H. Zürn and myself. For the first time on the forward *limes* we have established the existence of an earth-and-timber fort at Öhringen-West.<sup>185</sup> Further investigations in this connection are both necessary and still possible in Osterburken and Miltenberg-Altstadt.

Further south, in the angle between the Rhine and the Danube, one might expect to find that the forts at Rottweil (B 116), Waldmössingen (B 114), Sulz (B 113), Lautlingen (B 117) and Burladingen (B 150) had been evacuated before the end of the first century, since after the building of the forts on the Middle Neckar and on the Swabian Alb they now lay in the interior (pp. 161–162). But that was clearly not the case. Burladingen, for example, which originated as an earth-and-timber fort, was rebuilt with stone defences. So also were Rottweil,<sup>186</sup> Waldmössingen and Sulz. The latest coins from these forts belong to the period about A.D. 100, but they could of course attest use of the fort-sites after the troops had gone away. More impressive are some tiles of Coh. III Dalmatarum pia fidelis, which D. Planck found in 1967 during his excavations on the Niklausfeld at Rottweil.<sup>187</sup> Since the tiles can scarcely have reached Rottweil in a soldier's knapsack, one must assume that this cohort was quartered for a time at Rottweil. The unit can have earned its title at the earliest in 89 when it belonged to the army of Lower Germany, and took part in the crushing of Saturninus' revolt. After 90 it lay at Wiesbaden (B 84) and afterwards probably in Oberscheidental (B 105).<sup>188</sup> Even if we reckon a short length of stay at each site, it can still hardly have come to Rottweil much before A.D. 100—an unexpected discovery. Of course the important position of Rottweil on the road system and its usefulness as a supply-base may have played a part. But one would still suppose that all the forts just named (B 113–117, 150)—apart, perhaps, from Rottweil—were evacuated shortly after A.D. 100 when the Eleventh legion from Windisch (B 183) was removed for the Dacian wars.<sup>189</sup>

K. Kraft, A. Radnóti, H.-J. Kellner and U. Nuber have recently studied the troops in Raetia in the second century on the basis of several newly-discovered military diplomas.<sup>190</sup> Large-scale excavations took place between 1958 and 1966 in the fort at Künzing (B 178), that is, on the sector of the Raetian *limes* where, as in Lower Germany, the river formed the actual military boundary at this time, and there was no wooden palisade or watch-towers. In the last years of Trajan's reign or the first years of Hadrian's the fort at Künzing received another ditch. The actual circuit of defences was rebuilt as an earth-and-timber rampart, 4.8 m. wide, and the internal buildings, too, were re-erected, but to exactly the same size and in the same positions. Under Hadrian the unit stationed there, Coh. III Thracum c.R., evacuated the fort, for sections cut across the ditches have produced evidence which suggests that about the year 140 the fort lacked a regular garrison unit. Exceptionally interesting in this connection is A. Radnóti's suggestion, made in 1961, that Coh. III Thracum c.R. together with Coh. I Breucorum c.R. and Coh. III Bracaraugustanorum were commandeered from Raetia for Hadrian's Judaean campaign of 132–6.<sup>191</sup>

The third cohort of Thracians did not return to Künzing. In 144 it was clearly

<sup>184</sup> *ORL* A, Strecke 7–9 (1931), 40 f.

<sup>185</sup> *LF* 2 (1962), 117 ff.

<sup>186</sup> Confirmed by the recent excavations of D. Planck on the Nikolausfeld west of the Neckar.

<sup>187</sup> D. Planck, 'Das Römerbad von Rottweil', in the monthly magazine *Baden-Württemberg* (1968), 19.

<sup>188</sup> Ritterling—Stein, 185 f.

<sup>189</sup> See note 162.

<sup>190</sup> *Germania* 34 (1956), 75 ff.; 39 (1961), 93 ff.; 46 (1968), 118 ff. (a list by A. Radnóti of all the military diplomas found since the publication of the supplementary volume to *CIL* xvi); 47 (1969); *BVBl* 31 (1966), 89 ff.; 33 (1968), 92 ff.

<sup>191</sup> *LF* 2 (1962), 131.

responsible for the stone defences of the fort at Gnotzheim (B 142).<sup>192</sup> Between 140 and 150 the old fort-site at Künzing was levelled and completely new internal buildings erected. The new fort received a stone wall, but at first retained the two ditches of its predecessor. (Later three more were added.) During these years, to judge by excavation-finds, the rebuilding of the defences of the forts at Straubing (B 175), Regensburg-Kumpfmühl (B 174), and Weissenburg (B 145) was undertaken. The fort at Passau-Altstadt (B 179) is a completely new foundation under Antoninus Pius for Coh. IX Batavorum milliaria. The Raetian forts of Dambach (B 139), Ruffenhofen (B 137), Buch (B 135), Aalen (B 134), Unterböbingen (B 133) and Schirenhof (B 132) may well begin under Pius. The smaller forts at Böhming (B 146), Ellingen (B 144), Gunzenhausen (B 141) and Halheim (B 136) were possibly already occupied under Hadrian. That applies also to Theilenhofen (B 143).<sup>193</sup> Since there have been no recent excavations at any of these forts and the material recovered from them so far is much too slight, no satisfactory statement can be made about the dates of their foundation. New foundations under Pius were certainly needed, especially on the western side of the Raetian *limes*, in order to link up with the forward line in Upper Germany represented by Würth (B 118)—Milteneburg (B 120/121)—Welzheim (B 128)—Lorch (B 130). Aalen, which belongs to this new series of forts, had to accommodate the largest and most imposing unit in legionless Raetia, Ala II Flavia milliaria, which was transferred here from Heidenheim (B 154). Finally, rebuilding took place under Pius, to judge by inscriptions, in the forts of Pfünz (B 147), Kösching (B 148), Pförring (B 149) and Eining (B 171), in addition to Gnotzheim which I have already mentioned. The building inscriptions from Kösching and Pförring are dated exactly to the year 141.<sup>194</sup>

The considerable distance which separates the ala-forts of Pförring (B 149), Kösching (B 148) and Weissenburg (B 145) and the cohort-forts of Pfünz (B 147) and Gnotzheim (B 142) from the *limes* is surprising. In the case of Kösching it is about 12 km. In advance of Pfünz, Weissenburg and Gnotzheim the small forts of Böhming (B 146), Ellingen (B 144) and Gunzenhausen (B 141) were placed on the line of the *limes* itself. There is no sign of posts between Kösching and Pförring and the *limes*. We find similar wide intervals again at the beginning of the Upper German *limes*. But there only the fortlet of Arzbach (B 60) can be considered as an advance-post, while the fort of Niederbieber (B 56) is a very much later foundation.<sup>195</sup>

As in Britain, so in Upper Germany and Raetia, it was under Antoninus Pius that the military frontiers were pushed furthest forward. Everywhere in front of them there was certainly a wide strip of land which lay under the eye of the Roman army. If one looks at a map of the roughly contemporary Germanic finds in front of the military boundaries of Lower and Upper Germany,<sup>196</sup> one gains the impression that the Romans on the Lower German *limes* had given up their earlier claims to the military zone on the right bank by about A.D. 100, or at least they did not prevent the German peoples from settling close to the military frontier. (The situation on the Middle Danube is very similar.) We might expect that a sort of federate relationship existed, such as there was in the first century A.D. between the Upper-Rhine Suebi and the Romans.

F. Kiechle has given an even more precise interpretation to the Germanic graves around Giessen, almost immediately north of the Wetterau *limes*.<sup>197</sup> He thinks that the Romans had settled Germans here as *exploratores*. His theory is reasonable when one remembers that Germanic finds are otherwise extremely rare in the country in front of the Upper German *limes*. Their absence has a natural explanation, since the regions of Westerwald, Taunus, Spessart, Vogelsberg, Hoher Rhön and the Thüringer Wald do not invite settlement. Direct contact with free Germany was maintained only at very few places. Traders kept up the connection with the distant Germanic communities. So the *limes*—in this area and elsewhere—is certainly not to be regarded as a bulwark against an enemy standing close before it, but as a demarcation-line reflecting the strategic situation. It was

<sup>192</sup> F. Wagner, 37–38 *BerRGK* 1956–57 (1958), 236, no. 81.

<sup>193</sup> *Limesführer* 230 ff.

<sup>194</sup> H.-J. Kellner, *BVBl* 30 (1965), 168 f., with fig. 1.

<sup>195</sup> On the Wetterau *limes* small posts were set out along the *limes* in advance of the forts at Butzbach (p. 165), Echzell, Oberflorstadt and perhaps Arnsburg: *Sf* 22 (1965), 14 ff.

<sup>196</sup> R. v. Uslar, *Germania* 29 (1951), 44 f., with fig. 1.

<sup>197</sup> *Historia* 11 (1962), 171 ff.



probably defended relatively strongly by forts and watch-towers in order to deter any potential opponent.

Germanic finds like those in the Giessen area are also met with at many places inside the Wetterau *limes* and extend to the region south of the mouth of the Neckar.<sup>198</sup> R. von Uslar has adduced passages in the SHA (*Marcus Antoninus* 24, 3) and Cassius Dio (71, 11, 4) to explain these finds. Marcus Aurelius is stated to have settled captured and subject peoples on Roman soil.<sup>199</sup> In recent years it has become doubtful whether these literary references are relevant to the Germanic finds under consideration; for such finds appear to occur within the *limes* earlier than the mid-second century.<sup>200</sup> But, however that may be, the Germanic settlers in the Giessen area—whether they were organized by the Romans as *exploratores* or not—could scarcely have settled directly in front of the *limes* without the agreement of the Roman high command and without a friendly relationship with Rome.<sup>201</sup>

Similar pottery of the Weser-Rhine Germans occurs commonly in the vici of the auxiliary forts on the Upper German *limes*. These vici, which naturally also existed on the Raetian and Lower German *limes*, and which grew up soon after the foundation of the forts, experienced their greatest period of prosperity probably in the first half of the second century. In Germany we still have no proper idea of their administrative role.<sup>202</sup> The largest known vicus attached to an auxiliary fort anywhere in the Roman empire is at Zugmantel (B 66). Recent investigations in the vicus of Butzbach (B 72) carried out between 1953 and 1957 by W. Jorns and G. Müller and those of H. Schoppa begun in 1955 at Hofheim (B 86) still await final publication.<sup>203</sup> In 1968 H. Eiden excavated a portion of the vicus at the fort of Bendorf (B 58) with very interesting results.<sup>204</sup>

#### V. FROM A.D. 161 TO 259/60

The period from the end of the first century to the death of Antoninus Pius was the most peaceful which Upper Germany and Raetia ever enjoyed. But soon afterwards, in the reign of Marcus Aurelius, began the first large-scale enemy attacks on both provinces. Admittedly, there is very rarely much definite archaeological evidence for them; the period to be covered in this section is one of those on which archaeology sheds the least light. The reason for this is that there have been relatively few recent excavations in the forts and, in any case, the latest levels have almost always been badly disturbed by modern building activity or agriculture. There are nevertheless some points of reference.

The first incursions into the province of Germania Superior were those of the Chatti, against whom the governor Aufidius Victorinus had to take the offensive in 162 and the *legatus legionis* at Mainz, Didius Julianus, by 170.<sup>205</sup> At Heddernheim (B 87), where the fort had been evacuated by 110 at the latest, traces of destruction attributable to these years had been found in earlier investigations of the town-site; material from the destruction formed the filling of various cellars.<sup>206</sup> Possibly at this time the vicus of Nida was surrounded with a ditch and earthen rampart.<sup>207</sup> For the first time in a *limes*-fort, I believe that my excavations at Altenstadt (B 79) have revealed destruction caused by these attacks;<sup>208</sup> but it would be wise to treat this statement with caution until H.-G. Simon has worked on the relevant pottery from the fort. At any rate, D. Baatz is still reluctant to connect the destruction of the fort at Echzell (B 75) in its second phase with these events;<sup>209</sup> nor is it certainly established of the destruction-level noted in 1965 at Inheiden (B 74). But a hoard of 162 coins from Seligenstadt (B 94) in the Main area is probably to be connected with them,<sup>210</sup>

<sup>198</sup> The southern examples were not marked by W. Schleiermacher, 33 *BerRGK* 1943-50 (1951), 143 ff., fig. 3.

<sup>199</sup> *Klio* 28 (1935), 294 ff.

<sup>200</sup> Cf. *LF* 2 (1962), 74, note 40.

<sup>201</sup> Germanic settlements that in their early stages may go back to the *limes* period have been identified about 10 km. NNE and about 15 km. NE of Öhringen (B 125) at Wülfigen, Gem. Forchtenberg, and at Ingelfingen just outside the *limes*. R. Koch reports on them probably in the forthcoming volume of *Fundberichte aus Schwaben*.

<sup>202</sup> For Britain: P. Salway, *The Frontier People of Roman Britain* (1965).

<sup>203</sup> Cf. *LF* 2 (1962), 92. For the vicus of Burghöfe (B 167) see p. 154.

<sup>204</sup> Unpublished.

<sup>205</sup> SHA, *Marcus Antoninus* VIII, 7 f., and *Didius Iulianus* 1, 8. See now G. Alföldy, 'Die Legionslegaten der römischen Rheinarmeen', *Epigraphische Studien* 3, *Beihefte der BZ* 22 (1967), 38 ff.

<sup>206</sup> G. Wolff, *Die Römerstadt Nida bei Heddernheim* (1908), 27 f.

<sup>207</sup> K. Woelcke, *Germania* 15 (1931), 79.

<sup>208</sup> *LF* 2 (1962), 98 f.

<sup>209</sup> *Sf* 22 (1965), 140, 146.

<sup>210</sup> Unpublished. Kind information from H.-W. Ritter.

and in another, found at the fort of Stockstadt (B 95) in 1962 and consisting of 6 *aurei* and 1316 *denarii*, the latest coin was minted in 167–8.<sup>211</sup> In 172 Gallia Belgica, too, suffered an incursion of the Chauci,<sup>212</sup> but no archaeological traces of this have yet been found in Lower Germany.

The Chatti also broke into Raetia,<sup>213</sup> but probably only in the north-western sector. The Marcomanni were a greater danger, but they only touched the province at the far end. Their attacks were directed more to the south-east and it was the two provinces of Pannonia which mainly suffered from them. In Raetia, on the other hand, the years 160–170 were evidently fairly peaceful. At any rate, in my excavations at Künzing (B 178) I came upon no definite traces at all of destruction attributable to the Marcomannic wars, although I am inclined to think that as a security measure the fort was given three more ditches at this time. So many multiple ditches have not hitherto been established at any Roman fort outside Britain. The defences of the fort at Straubing (B 175), too, may have been strengthened now, for it was finally provided with a total of four ditches. But an extensive layer of burnt material in the small fort of Böhming (B 146) does in all probability belong to the time of the Marcomannic wars. The fort was rebuilt shortly afterwards, as is shown by a building-inscription of A.D. 181.<sup>214</sup> H.-J. Kellner posited further destructions at Dambach (B 139), Weissenburg (B 145), Pfünz (B 147), Eining (B 171) and Regensburg-Kumpfmühl (B 174).<sup>215</sup> Apart from Böhming there are also possible building-inscriptions at Pfünz and Dambach suggesting reconstructions under Marcus Aurelius's successor. But on the basis of several small coin-hoards in the hinterland, the latest coins from which extend into the reign of Commodus, Kellner has questioned whether in fact that emperor fully succeeded in restoring peace and order in Raetia.

After the lapse of more than one and a half centuries, during the first Marcomannic war (166/7–175), a legion was stationed once again in Raetia; this was the recently recruited III Italica.<sup>216</sup> Probably before the second Marcomannic war (178–180) it moved into its newly constructed fortress at Regensburg where a building-inscription is dated to 179/80.<sup>217</sup> Augsburg (Augusta Vindelicum), however, still remained the seat of the civil administration of the province. For many years scholars held that this legion, before it went to Regensburg, had been quartered temporarily in an earth-and-timber fortress lying north-east of the village of Eining (B 171). But after my excavations there in 1968 I no longer consider this very likely. The site lay on the bank of the Danube, covered an area of c. 24.7 acres (10 ha.), and was defended by three ditches. I should prefer to think it was a transit depot; perhaps it was used in the Marcomannic wars to store grain and other commodities, which could then be transported down the Danube to the badly affected provinces of Pannonia.<sup>218</sup> The same foundation-date might be attributed to the great earth-and-timber enclosure at Faimingen (B 157), built on the site of an earlier fort which has not yet been exactly located.

It is clear that under Commodus no large-scale action took place in the western provinces except in Britain, but there is a report of trouble in Germany which may possibly be connected with the revolt of Maternus in Gaul.<sup>219</sup> This is the context for the receipt by legion VIII Augusta of the honorific titles *pia fidelis constans Commoda*, perhaps after a siege in its headquarters at Strasbourg; it bore these only between 185 and the death of Commodus in 192.<sup>220</sup> Perhaps, too, the temporary absence from Mainz of XXII Primigenia

<sup>211</sup> H.-J. Kellner, *Germania* 41 (1963), 119 ff.

<sup>212</sup> References: G. Alföldy, *Legionslegaten*, 39.

<sup>213</sup> SHA, *Marcus Antoninus* VIII, 7.

<sup>214</sup> F. Vollmer, *Inscriptiones Baiariae Romanae* (1915), no. 291 = *CIL* III, 14370<sup>2</sup>. On the destruction of Böhming, see most recently J. Fitz, *BVBl* 32 (1967), 40, n. 1. New excavations are needed in Böhming, particularly to establish a better chronology for the pottery of the second half of the second century.

<sup>215</sup> *BVBl* 30 (1965), 154 ff., with fig. 3.

<sup>216</sup> For the tile-stamps of III Italica and of the other units in northern Raetia see now G. Spitzlberger, *SJ* 25 (1968), 65 ff.

<sup>217</sup> *CIL* III, 11965; Spitzlberger, *op. cit.* 123 f.

<sup>218</sup> A report is expected to appear in *Germania* 48 (1970).

<sup>219</sup> G. Alföldy confidently connects the passage in SHA, *Commodus* XIII, 5, with this revolt: *Legionslegaten* 45, note 232. More cautious: H.-G. Simon, *SJ* 25 (1968), 199.

<sup>220</sup> See H.-G. Simon, *ibid.* J.-J. Hatt (*Limes-Studien* 53) imagines that the Strasbourg legionary fortress was gradually drained of troops after 120 in favour of the newly founded forts on the *limes*, but that in 175 there were still enough soldiers available to resist the attack. This idea rests in my opinion on a false interpretation of the excavation-results. Hatt did not repeat his view in this form in *Germania* 37 (1959), 231 f.

falls in this period.<sup>221</sup> No definite signs of destruction have been noted in the *limes* forts in these years; and it is doubtful, moreover, whether five relatively small coin-hoards in the forts of the Saalburg (B 69) and Zugmantel (B 66) justify the conclusion that an earlier destruction of these sites had occurred in 185–187.<sup>222</sup>

On the other hand there is definite evidence for building-activity at Osterburken (B 123) and Niederbieber (B 56). The auxiliary fort at Osterburken was enlarged by 3.3 acres (1.35 ha.) through the addition of an annexe on the east. This took place between 185 and 192, since inscriptions name soldiers of legion VIII Augusta pia fidelis constans Commoda as its builders.<sup>223</sup> The fort at Niederbieber, 13 acres (5.24 ha.) in size, was a totally new foundation of Commodus, and was intended for the numerus exploratorum Germanicorum Divitensium<sup>224</sup> and a numerus Brittonum. The foundation-date depends on a number of tiles from the fort bath-house which were transported downstream from the tileries of the Eighth legion at Strasbourg and show it with the titles pia fidelis constans Commoda. Since baths are normally built at much the same time as their forts, it can be concluded that the fort at Niederbieber was founded between 185 and 192. The stone fort at Butzbach (B 72) was extended southwards by nearly 40 m. and G. Müller is of the opinion that this took place between 180 and 190 to make room for an additional unit, as at Osterburken. But there are a number of points which conflict with this dating.<sup>225</sup>

After the assassination of Commodus, the second 'year of the four emperors', A.D. 193, did not witness a repetition of the events of 69–70. By and large it remained peaceful in the continental western provinces. Probably in 196 the Twenty-second legion from Mainz had to defend the beleaguered city of Trier against the usurper, Clodius Albinus.<sup>226</sup> In the *limes* area itself no signs of disturbance have been noted in the archaeological record.<sup>227</sup> In the following years Septimius Severus waged wars in the Near East, Africa and Britain. On the Rhine and Danube he was able to devote himself to the internal affairs of the provinces. In Raetia the reorganization of the road system is worth mentioning in this connection,<sup>228</sup> and during this reign a new structure of some kind was put up in the fort of Öhringen-Ost (B 125), as an inscription found in the vicinity in 1955 shows.<sup>229</sup>

The reign of Caracalla, Severus's successor, marks a fresh stage in the history of Upper Germany and Raetia. In 213 the emperor took the field against the Alemanni, perhaps starting out from the northern frontier of Raetia<sup>230</sup> and from Mainz. The concentration of troops in the area between Rhine and Danube was probably the greatest since Domitian.<sup>231</sup> His campaign may have been mainly a preventive measure. At any rate Caracalla ensured protection for the Upper German and Raetian areas against large-scale enemy incursions for a further two decades, although admittedly part of the price of peace was paid in money.

There is as yet no indication of destruction in the forts of the *limes* area which can certainly be linked with the events of 213. At Butzbach, indeed, G. Müller dated a burnt layer in the later stone fort A to this year and considered that the rebuilding took over a decade, since a coin of 227 was found in the wall of the cellar under the *sacellum* of the rebuilt principia.<sup>232</sup> But it was precisely this coin which led D. Baatz to conclude that the destruction preceding the rebuilding of Butzbach was datable about twenty years later.<sup>233</sup> In Raetia, too, some coin-hoards which break off before 213 should not be connected with a hostile incursion in that year without further evidence.<sup>234</sup> Finally, the dating of various building-ventures on the *limes* which were formerly attributed to Caracalla<sup>235</sup> require critical examination. In this context belong the inscriptions with gilded bronze lettering

<sup>221</sup> *RE* XII, col. 1813 f.; Ritterling—Stein, 114.

<sup>222</sup> Cf. *LF* 2 (1962), 99.

<sup>223</sup> *CIL* XIII, 6578, and 6582.

<sup>224</sup> This numerus is not actually attested at Niederbieber before 221 (Ritterling—Stein, 263). If it really takes its name from Divitia-Deutz, then an early third-century bridgehead is to be anticipated on the site of the Constantinian fort (C 34). On this problem, see Ritterling—Stein, 260 ff., and G. Alföldy, *Hilfstruppen Germania Inferior*, 79.

<sup>225</sup> *SJ* 22 (1965), 26 f. On Butzbach see now H.-G. Simon, *SJ* 25 (1968), 198.

<sup>226</sup> Ritterling—Stein, 114.

<sup>227</sup> A hoard of over 800 denarii which was found in 1944 at Obererbach, c. 15 km. NE of the fort at Arz-

bach (B 60) outside the *limes*, must have been buried about 195. Its historical interpretation is difficult: W. Hagen, *Nassauische Annalen* 74 (1963), 1 ff.

<sup>228</sup> U. Instinsky, *Klio* 31 (1938), 33 ff.

<sup>229</sup> R. Nierhaus, *Fundberichte aus Schwaben* NF 14 (1957), 200 f.; H. Nesselhauf and H. Lieb, *40 BerRGK* 1959 (1960), 175, no. 140.

<sup>230</sup> According to the *Acta Arvalium* for 11 August, 213, the emperor moved *per litem Raetiae* against the enemy.

<sup>231</sup> E. Ritterling, *RE* XII, col. 1317 ff.

<sup>232</sup> *LF* 2 (1962), 34.

<sup>233</sup> *SJ* 22 (1965), 146 f.

<sup>234</sup> H.-J. Kellner, *BVBl* 25 (1960), 144, map B1.

<sup>235</sup> E. Fabricius, *RE* XIII, col. 595, 602 f., 611, 614 f.



datable to 213, which are found in a number of forts; these are mostly thought to-day to have been set up in honour of Caracalla, and not to be building-inscriptions proper.<sup>236</sup> A. Radnóti even wishes to regard them as inscriptions of welcome set up along the route of a particular journey made by the emperor.<sup>237</sup> Only in the case of the fort at Holzhausen (B 64) is W. Schleiermacher still inclined to see a genuine foundation of Caracalla;<sup>238</sup> at the Saalburg the date for the building of the stone fort still needs to be confirmed.

On the Upper German *limes* the erection of a rampart and ditch, the 'Pfahlgraben', behind the originally Hadrianic palisade, is also conventionally dated to the time of Caracalla. But the dating of this work rests archaeologically on a single find made at the beginning of this century at the *limes*-crossing north of the Saalburg (B 69). The burnt layer from a wooden building, which extended under the *limes* rampart, produced material that included right under the core of the rampart a denarius of Septimius Severus of A.D. 194. According to E. Fabricius this evidence fixes the earliest date for this stretch of the rampart and ditch, and so of the whole line of the *limes*.<sup>239</sup> It is, however, conceivable that there had been some repairs of the earthwork at this point. The only unarguable fact is that neither rampart nor ditch existed on the *limes* in the Odenwald when this was given up about the middle of the second century. So we have at least a *terminus post quem* for their construction.

One further observation made on the *limes* in the Taunus fails to support a late dating. East of the fort of Zugmantel (B 66) there is an earlier section of the *limes* almost 7 km. long, where in places the rampart and ditch are still very well preserved. Not a single stone tower of the later type has been found on the whole section, but only the stone-and-timber foundations of wooden towers like those, for example, on the *limes* in the Odenwald, which were built at the latest under Hadrian. Fabricius was compelled to suppose that the earlier wooden towers lasted into the third century, and that the standard stone towers were only built when this section of the *limes* was moved forward, some time after 194.<sup>240</sup> That is possible, of course, and I can offer no evidence to prove that the rampart and ditch were built earlier. On the other hand, the observed fact that the earthwork is in places completely absent (for example at Holzhausen (B 64) for a length of 6.4 km.) cannot, in my opinion, be regarded as evidence for the view that it originated in the first half of the third century and was here left unfinished.<sup>241</sup>

If we assume that rampart and ditch were not built until the beginning of the third century, this implies that for some ninety years the *limes* would have consisted only of a wooden palisade; further, there is a chronological gap of about seventy years between the Upper German *limes* and the Antonine Wall, the monument it most closely resembles in its final extended form. However, I do not wish at the moment to propose an alternative dating for the rampart and ditch, but only to warn against regarding its date as absolutely certain.

In the province of Raetia, in the area where the Danube was not the frontier, the *limes* consisted in its final form of a wall about the height of a man. Unlike in Upper Germany, the palisade was here abandoned. The date of the wall is no better established than that of the rampart and ditch in Upper Germany.<sup>242</sup>

Under Severus Alexander (A.D. 222–235) there were several hostile incursions into the hinterland of the *limes*. In Raetia and Upper Germany this can be detected in the distribution of the coin- and other hoards.<sup>243</sup> In the Baden-Württemberg area of Upper Germany it is not at present certain whether the dates attested by the latest items in the coin-hoards (A.D. 229–232) are to be taken separately as evidence for a series of invasions, or conflated in favour of the latest date.<sup>244</sup> Some forts received new defensive walls under Severus

<sup>236</sup> W. Schleiermacher, 33 *BerRGK* 1943–50 (1951), 146 ff. (*CIL* XIII, 7443, 7465a, 7494d, 7616, 11972); for a different view see E. Fabricius, *ORL* A, Strecke 3 (1936), 49.

<sup>237</sup> A. Radnóti, *Die germanischen Verbündeten der Römer, Deutsch-Italienische Vereinigung, Frankfurt a.M.* (1967), 12 ff. (privately published).

<sup>238</sup> Schleiermacher, l.c.; for a possible earlier site cf. *Germania* 35 (1957), 70, note 54.

<sup>239</sup> *ORL* A, Strecke 3 (1936), 37.

<sup>240</sup> *ORL* A, Strecke 3 (1936), 37 f., on folding map 1, below.

<sup>241</sup> E. Fabricius, *RE* XIII, col. 603. See also *ORL* A, Strecke 7–9 (1933), 29 f.

<sup>242</sup> E. Fabricius, *RE* XIII, col. 614 f.; *ORL* A, Strecke 14 (1933), 43 f.

<sup>243</sup> H.-J. Kellner, *BVBl* 25 (1960), 143 f.; R. Roeren, *JbRGZM* 7 (1960), 237 ff.; see also Ph. Filtzinger, *Kölner Jb.* 9 (1967–68), 63.

<sup>244</sup> K. Christ, 'Antike Münzfunde Südwestdeutschlands,' *Vestigia* 3, 1 (1960), 139 ff. See also P. R. Franke, *SJ* 15 (1956), 7 ff.; 17 (1958), 92 ff. For the legionary fortress at Strasbourg: R. Forrer, *L'Alsace Romaine* (1935), 72, and J.-J. Hatt, *Historia* 2 (1953–54), 237 f.



Alexander, as Zugmantel (B 66) for example did in 223.<sup>245</sup> Others, such as Holzhausen (B 64), were destroyed then and not rebuilt.<sup>246</sup> The coin-series in some forts reached a final peak under this emperor.<sup>247</sup> But even where the coin-series cease completely under Severus Alexander, it does not follow that the forts were evacuated then and never rebuilt or reoccupied. W. Schleiermacher has suggested that under Severus Alexander a form of militia was evolved in which the troops were paid less in money than in kind.<sup>248</sup> But that cannot be the full explanation, and on this point the overall circulation of currency during these years would need to be examined. Echzell (B 75) and Altenstadt (B 79) are examples where the coin-series stops under Severus Alexander, but the forts were clearly occupied at a later date.<sup>249</sup> Nevertheless, one might conclude in rough terms from the diminishing coin-lists that the *limes* gradually 'died away', and it may be wondered whether the auxiliary troops on the *limes* ever reached their full paper-strength again after the thirties of the third century. One must add that the vici at the forts do not seem to have been completely abandoned until after 233.<sup>250</sup>

Nevertheless, the Alemannic attack of 233 marks a decisive point in the history of Upper Germany and Raetia.<sup>251</sup> Recent excavations in Butzbach (B 72) and Echzell (B 75) show the probability that these forts were destroyed then. This could also be true of Altenstadt (B 79), although the relevant material has not yet been adequately studied. Even before this, the frontier had been strengthened, for example, by the transfer of Coh. I Septimia Belgarum to Öhringen (B 125) and the Dediticii Alexandriani to Walldürn (B 122).<sup>252</sup> In 234-5 Severus Alexander launched a carefully planned counter-offensive, for which he brought in large bodies of troops from the East, among them *catafractarii* and mounted archers. In 235 he was murdered, along with his mother Julia Mamaea, in a soldiers' uprising at Mainz.

In a vigorous counterstroke the Alemannic invasion was repulsed after Severus Alexander's death by his successor Maximinus Thrax.<sup>253</sup> The rebuilding which took place in Echzell (B 75), Butzbach (B 72), Kapersburg (B 70), Saalburg (B 69) and Kleiner Feldberg (B 68) is clearly attributable to Maximinus.<sup>254</sup> Inscriptions of this emperor are known at the Saalburg and Zugmantel.<sup>255</sup> In this context, too, belongs the inscription of the emperor and his son Julius Verus of A.D. 237 found at Öhringen-Ost (B 125), which most likely records the reconstruction of an important building.<sup>256</sup> In 241 Coh. I Septimia Belgarum was still stationed in the fort at Öhringen-West.<sup>257</sup> At Jagsthausen (B 124) the bath-building of Coh. I Germanorum was reconstructed in the years 244-247.<sup>258</sup> A dedication by a tribune to Fortuna, dated to 248 and found in the baths there, is the latest inscription on the advance-line of the *limes* in Baden-Württemberg,<sup>259</sup> but a votive inscription of the optiones of Coh. III Aquitanorum Philippiana from Osterburken (B 123) belongs to about the same period.<sup>260</sup>

Although the situation was restored after the great Alemannic invasion of 233, Upper Germany and Raetia still remained the scene of fighting. The Alemannic invasion thus marked the beginning of the final economic collapse. The almost ceaseless fighting over the throne that followed in the next three decades of this critical period, and led to the complete evacuation of the area, allowed no political stability. Militarily the increasing weakness of the frontier defence-system in both provinces was probably caused by the withdrawal of

<sup>245</sup> *CIL* XIII, 7612.

<sup>246</sup> The date of the end of Holzhausen certainly requires checking, since there is at least one antoninianus of Philip of 245 from the site: *Nassauische Annalen* 54 (1934), 248 f. It could of course have been lost in a short later reoccupation.

<sup>247</sup> W. Schleiermacher, 33 *BerRGK* 1943-50 (1951), 152 ff., with Beilage 1. Research directed by K. Kraft for the Corpus *Die Fundmünzen der römischen Zeit in Deutschland* will undoubtedly lead to considerable improvements in these coin lists.

<sup>248</sup> Schleiermacher, op. cit., 148 f., and *Sf* 13 (1954), 70. Opposite view, P. R. Franke, *Sf* 15 (1956), 10, and K. Christ, op. cit. 138 f.

<sup>249</sup> D. Baatz, *Sf* 22 (1965), 146.

<sup>250</sup> H. Jacobi once suggested a much earlier evacuation of the vicus in 211-12: *Die Saalburg, Führer*

*durch das Kastell und seine Sammlungen*, 13th ed. (1936), 47. But this view is quite unacceptable.

<sup>251</sup> Herodian, vi, 7, 2 ff.; Christ, op. cit. 141 ff.

<sup>252</sup> Ritterling-Stein, 170 f., 255 f.

<sup>253</sup> E. Hohl, *RE* x, col. 858 ff.; E. Ritterling, *RE* xii, col. 1343 ff.; Christ, op. cit. vol. 2, 71, note 32.

<sup>254</sup> Baatz, op. cit.; at Kapersburg the smashed and reused inscription *CIL* XIII, 7441a, cannot have been so treated until the death of Severus Alexander: E. Fabricius, *ORL* A, Strecke 4-5 (1936), 60.

<sup>255</sup> *CIL* XIII, 7467, 11971.

<sup>256</sup> *CIL* XIII, 6547.

<sup>257</sup> *CIL* XIII, 11759.

<sup>258</sup> *CIL* XIII, 6562; E. Fabricius, *ORL* A, Strecke 7-9 (1933), 120, note 1.

<sup>259</sup> *CIL* XIII, 6552.

<sup>260</sup> *CIL* XIII, 6566.

many mobile legionary troops to fight usurpers in other parts of the empire. Trebonianus Gallus (A.D. 251–253), for example, in order to advance his own cause in Italy against Aemilianus, who had been declared emperor by the army in Illyria, ordered his general Valerian to collect together and lead forward the legions stationed ‘among the Celts and Germans’—which means legionary vexillations.<sup>261</sup> The *limes* could scarcely have been permanently held with the relatively immobile auxiliary units on the frontier itself.

There are also traces of restoration after A.D. 233 in the civil settlements behind the *limes*.<sup>262</sup> In this connection a milestone should be mentioned which the Civitas Taunensium set up in 249 at Friedberg (B 77).<sup>263</sup> Two other milestones from Ladenburg (B 45) and Heidelberg (B 46) were set up by the Civitas Ulpia Sueborum Nicretum even after A.D. 253.<sup>264</sup> They suggest that an organized provincial administration still survived in the Rhine plain and on the lower Neckar, and this would not be imaginable without some military protection on the frontier. Finally, in 1961 an antoninianus of Gallienus, dated to A.D. 258, was found adhering to an altar in a filled-in Roman cellar in the vicus at Nida-Heddernheim (B 87) which also yielded a building-inscription for the *schola* of the *dendrophori* and many other objects.<sup>265</sup> This find lends support to the view that the *limes* was not given up until Gallienus. I am inclined to agree with W. Schleiermacher that the kernel of literary tradition lying behind the final sentences of the *Laterculus Veronensis* is a sound one, where it is stated that the area of the right bank of the Rhine was occupied by barbarians under Gallienus.<sup>266</sup> And Schleiermacher concludes: ‘If one refers the quoted excerpt from the Verona list to the right bank of the Rhine in Upper Germany, the coin-finds and inscriptions fit into this pattern very well. These pieces of evidence, taken together, suggest that the *limes* and its hinterland were abandoned about 259–260. If, on the other hand, we do not regard the tradition in the Verona list as sufficiently weighty, we must be content with the conclusion that the evacuation took place after the break in the coin-series and inscriptions, i.e. somewhere between A.D. 254 and 260, and that the fourth-century sources only present us with the final state of affairs.

As already mentioned, however, we cannot exclude the possibility that some forts were given up earlier, others somewhat later, depending on their siting and importance. Isolated coins and other material dated later than 260 have, indeed, been found at a few fort-sites or their immediate vicinity. These, however, are not valid evidence for the systematic reoccupation of these places by the Romans. They only suggest that the roads were mostly still intact and were still being used in the troubled times of the late third century, or that troops of one side or the other took up temporary quarters in old buildings that had been evacuated but not always totally destroyed.<sup>267</sup>

In Raetia H.-J. Kellner has in recent years studied the end of the *limes* north of the Danube, using the evidence of the coin-hoards.<sup>268</sup> The fort at Pfünz (B 147) was destroyed in the great Alemannic invasion of 233 and not reoccupied.<sup>269</sup> For this reason it used formerly to be held that the *limes* ran from there on along the Danube, and that the connection with the Upper German *limes*, which was not given up until later, was maintained by establishing an ‘emergency *limes*’ from Günzburg (B 165) to the west. The coin-hoards from Gunzenhausen (B 141) and Kösching (B 148), where the latest coins are of 241, and the hoard from Weissenburg (B 145), which contains coins of 251–3, make it clear that this view cannot be correct.<sup>270</sup> Indeed, P. Reinecke had already expressed the view that the *limes* north of the Danube survived until the catastrophe of 259–60, together with the vital military installations in the frontier region.<sup>271</sup> H.-J. Kellner, moreover, is inclined to believe that the invading Alemanni of 259–60 traversed land which had been largely laid waste in the three great enemy incursions which preceded them. The invasion of 233 spread destruction mainly in the west of the province, that of 242 in the east and in parts of Noricum, while that of 254 merely affected the north-western part of Raetia.<sup>272</sup>

<sup>261</sup> Zosimus I, 28; H. Koethe, 32 *BerRGK* 1942 (1950), 199 ff.; W. Schleiermacher, *Historia* 2 (1953), 105.

<sup>262</sup> D. Baatz, *Sf* 22 (1965), 147, note 38.

<sup>263</sup> *CIL* XIII, 9123.

<sup>264</sup> *CIL* XIII, 9103, 9111.

<sup>265</sup> U. Fischer, *Germania* 40 (1962), 76, 82.

<sup>266</sup> 33 *BerRGK* 1943–50 (1951), 154 f.

<sup>267</sup> *LF* 2 (1962), 99 f.

<sup>268</sup> *Germania* 31 (1953), 168 ff.; *BVBl* 25 (1960), 132 ff.

<sup>269</sup> See also H.-J. Kellner, *BVBl* 30 (1965), 165, and H.-G. Simon, *Sf* 25 (1968), 21 f.

<sup>270</sup> See *BVBl* 25 (1960), map B1 and B2.

<sup>271</sup> *Germania* 18 (1934), 135.

<sup>272</sup> *BVBl* 25 (1960), 144.

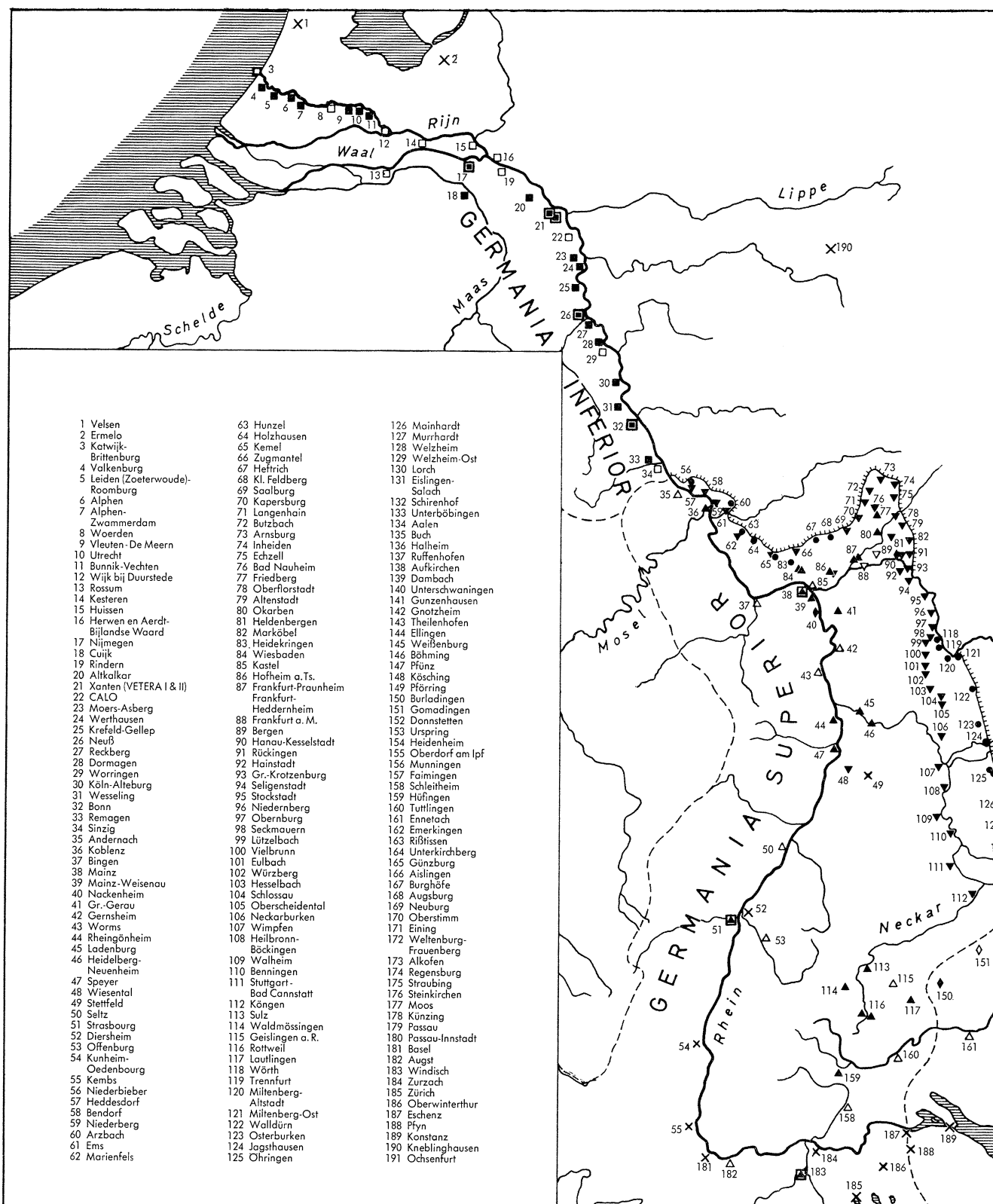


FIG. 20. MAP B (see pp. 177 ff.). FOR A BIBLIOGRAPHY OF SITI  
 Drawn by W. Pischner for the Römisch-Germanische Kom

# ROMAN FORTS c. A.D. 40-259/60

## Germania Inferior

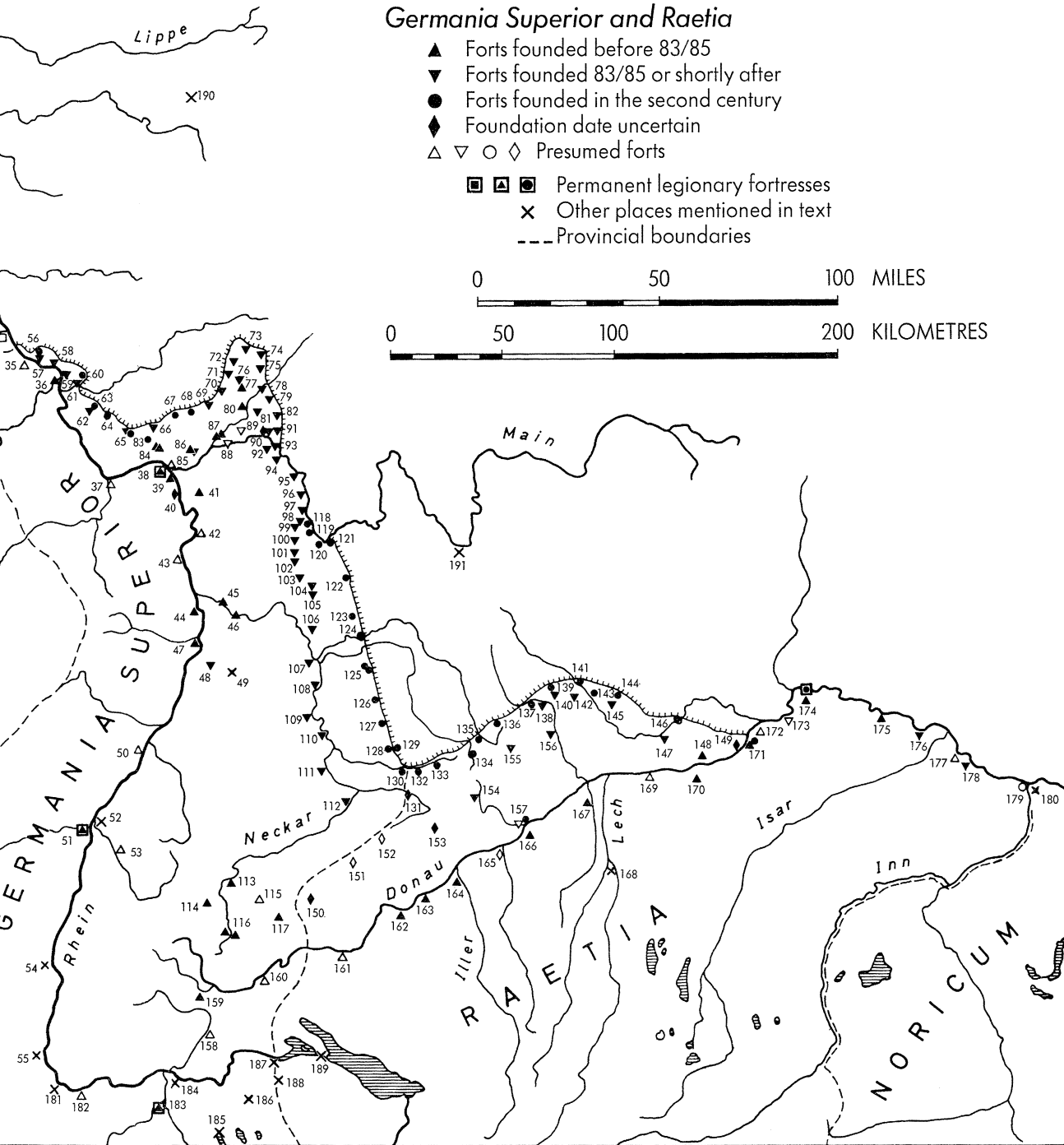
- Sites certain, foundation-date not distinguished on map
- Presumed forts

## Germania Superior and Raetia

- ▲ Forts founded before 83/85
- ▼ Forts founded 83/85 or shortly after
- Forts founded in the second century
- ◆ Foundation date uncertain
- △ ▽ ○ ◇ Presumed forts
- ▲ ● Permanent legionary fortresses
- × Other places mentioned in text
- Provincial boundaries

0 50 100 MILES

0 50 100 200 KILOMETRES



see pp. 177 ff.). FOR A BIBLIOGRAPHY OF SITES, see pp. 193 ff.  
W. Pischner for the Römisch-Germanische Kommission

[Facing p. 176



If this interpretation of the coin-hoards seems to be stretching the evidence too far, it is much more difficult to date destruction in the forts of Künzing (B 178), Straubing (B 175), Weissenburg (B 145) and Theilenhofen (B 143). The numerous weapons and implements, remains of horse-trappings, smashed bronze statues and other finds from these forts present the same picture as the coin-hoards, and imply the same destruction. But to which of Kellner's destruction-horizons do they belong? Is it to 233, like Pfünz (B 147), where likewise much equipment has been found?

In Künzing my excavations showed that the fort in the third century, following a partial restoration of the defensive wall, no longer had its five ditches but only a single one; this was, indeed, normal elsewhere in the late phase of the *limes*.<sup>273</sup> In 1962, immediately east of the principia, quantities of weapons and implements were found which had obviously been salvaged and buried after a fire at the fort but never recovered. At one point, in the western rooms of the principia, we found numerous bronze objects which had been largely melted by heat. They included parade-ground armour and equipment, such as is represented by the visored helmets and greaves from the famous hoard located in 1950 in a Roman villa some distance south-west of the fort at Straubing. The concealment of the hoard of weapons and implements from Künzing, and with it the end of the fort, have been dated by me to 242-4 on the strength of an As of the emperor Gordian III; but I am fully aware of the weakness of this dating.<sup>274</sup> The hoard from Straubing can be connected with the great Alemannic invasion of 233, but might alternatively be due to a later one.<sup>275</sup>

Definite conclusions are made more difficult by the fact that there have been no large-scale excavations in recent times on the *limes* north of the Danube in Raetia. They are vitally necessary, not only in Böhming,<sup>276</sup> but also in a number of other forts. Here, just as in Upper Germany, one fort may have been given up earlier, another later, depending on their position and importance. At any rate in the western part of the province work was still continuing in 250 or shortly after on a structure which was possibly a public building, as an inscription of Gallienus at Hausen ob Lontal shows.<sup>277</sup> I am inclined to subscribe to P. Reinecke's view that the Raetian *limes* north of the Danube was still in existence in its essentials until 259-60 and that it was then that, as in Upper Germany, the last forts began to be evacuated. In a panegyric on Constantius Chlorus, who was raised to the purple in 293, we find the statement: 'Sub principe Gallieno . . . amissa Raetia, Noricum Pan-noniaeque vastatae . . .'.<sup>278</sup>

#### VI. FROM 259/60 TO THE FIFTH CENTURY <sup>279</sup>

In Lower Germany, it was not until 257 that the first serious damage was inflicted on the military sites of the frontier system at the hands of invading Franks. Further attacks followed until about 270. There were, however, a number of attempts to rebuild individual fortifications to protect Gaul. There is evidence that the Gallic usurper Postumus (260-268) took some measures of such a kind: ' . . . nonnulla etiam castra quae Postumus per septem annos in solo barbarico aedificaverat.' <sup>280</sup> Where these forts on barbarian soil were is archaeologically far from clear. H. von Petrikovits would like to connect the building of the fort at Schneppenbaum-Qualburg (C 7) with the activity of the Gallic emperor. Recently there has been some indication that the independent Gallic Empire extended beyond the Upper Rhine; for a milestone recording *leugae* was found in 1959 at Illingen.<sup>281</sup> This stone was set up in 269 or 270 by Victorinus, Postumus' successor. It cannot of course be treated as

<sup>273</sup> *LF* 2 (1962), 130.

<sup>274</sup> *Sf* 21 (1963-4), 83 f.

<sup>275</sup> J. Keim and H. Klumbach, *Der römische Schatzfund von Straubing. Münchner Beiträge zur Vor- und Frühgeschichte* 3 (1951), 9.

<sup>276</sup> See footnote 214.

<sup>277</sup> F. Haug and G. Sixt, *Die römischen Inschriften und Bildwerke Württembergs* (1900), no. 30; F. Vollmer, *Inscriptiones Baiariae Romanae* (1915), no. 202; *CIL* XIII, 5933. The findspot lies about 12 km. S. of the fort at Heidenheim (B 154).

<sup>278</sup> *Paneg. Lat.* IV (8), 10, ed. E. Galletier (1952).

<sup>279</sup> In this closing section only a short survey can be offered, shorter even than that of the preceding sections, containing only the main outlines. For this

reason I shall not touch at all upon many still controversial questions, of which there are plenty even if we go no further than the chronology of late Roman fortifications. I am willing to admit that I am not a specialist in this period and I hope that at some future time it will be treated by someone who is.

<sup>280</sup> SHA, *Tyr. Trig.* v, 4; H. v. Petrikovits, *Festschrift Oxé* (1938), 221 ff., and *RR* 76 ff.; H.-J. Willger, *Studien zur Chronologie des Gallienus und Postumus*, Inaugural-Dissertation, Saarbrücken, 1966.

<sup>281</sup> H. Nesselhauf, *BF* 22 (1962), 79 ff. The find-spot lies on the right bank of the Rhine almost opposite the fort at Seltz (C 65). The *burgus* of Liesenich mentioned below belongs to this period.

proof of a reconquest of land on the right bank of the Rhine, since the Alemanni had certainly not yet pushed forward into this strip of land between the Rhine and the Black Forest or Odenwald. The Illingen stone indicates some activity on the right bank of the Rhine, but not that a road was being built there then; it simply represents a display of loyalty to the Gallic emperor, as was the case with many other milestones earlier. At the same time it reflects a wish to assert a claim on the old right-bank area.

In connection with the proclamation of the short-lived Tacitus as emperor (275–6) we are informed that the Germans had broken through a *limes* on the far side of the Rhine.<sup>282</sup> And Probus (276–282) is reported to have driven the Germans, who had spread far and wide across Gaul, back over the Neckar and Swabian Alb, to have founded forts on barbarian soil opposite Roman towns and, finally, given land, houses, farm buildings and corn to frontier troops on the other side of the Rhine, though only to those who were actually in garrison there.<sup>283</sup> Despite the complete absence so far of any archaeological evidence to support all these literary references we need not doubt their basic accuracy, for similar action must often have been taken before; any partial occupation of the right bank at this time, however, cannot have lasted long. It would fit the evidence well if the area between the Rhine, the Danube and the *limes* had formed a sort of no-man's land from 259–60 until about 300. It is then that the Germans first begin to leave us tangible archaeological traces in this area. But the majority of Germanic finds there are dated fifty years or more later.<sup>284</sup>

The bridgehead fort on the right bank of the Rhine north of the legionary fortress at Mainz (C 52) was clearly still held after the collapse of the Upper German *limes*. If Frau Radnóti-Alföldi is correct in her dating of the famous lead medallion from Lyons to the period of the Tetrarchy, then there was a strongly fortified post at Kastel (C 55) at least as early as the end of the third century.<sup>285</sup>

The lack of security, which was felt everywhere in the second half of the third century after the collapse of the *limes*, caused towns and even very small settlements to provide themselves with a wall-circuit, even where they lay well away from the main traffic routes. Where the site of a settlement seemed inadequately protected, it was readily moved to another more favourable and easily defended position. Measures of this kind were more probably undertaken on the initiative of the local communities and landowners than on government instructions. The site at the Horn near Wittnau in north Switzerland, excavated by G. Bersu, can stand as an example of a hilltop refuge. Here a prehistoric rampart, which had once cut off a promontory, was refortified by the local population with a wall and projecting towers.<sup>286</sup> The Wittnauer Horn lies about 20 km. west of Windisch (C 80), where the collapsed wall was restored in 260 on the orders of a *praeses* of Upper Germany.<sup>287</sup> But a local community was responsible for a *burgus* near Liesenich, built in 268 or 269, on the road which leads from the Moselle valley south-east across the Hunsrück.<sup>288</sup> The inscription from a tower at Bitburg (C 39) implies that the *collegia iuventutis*, too, were involved in guarding the roads in this period;<sup>289</sup> in the same way the importance of the road-posts of the *beneficiarii consulares* increased considerably in the third and fourth centuries.<sup>290</sup>

After a further great Frankish invasion in 275–6, and increasingly in the final years of the third century, the Romanized population began to abandon the former Batavian area (which reached as far as the mouth of the Scheldt, Maas and Rhine). As they left, the Franks took their place. The latter were then repulsed again briefly by the Caesar Constantius Chlorus.<sup>291</sup> Along the highways, traffic was almost exclusively concentrated

<sup>282</sup> SHA, *Tacitus* III, 4.

<sup>283</sup> SHA, *Probus* XIII, 7–8; XIV, 1.

<sup>284</sup> W. Schleiermacher, 33 *BerRGK* 1943–50 (1951), 156 ff.; R. Roeren, *JbRGZM* 7 (1960), 214 ff., with map fig. 2. The Germanic settlements mentioned on p. 171 belong, of course, to a completely different category.

<sup>285</sup> M. R. Alföldi, *Schweizer Münzblätter* 8 (1958), 63 ff.

<sup>286</sup> G. Bersu, *Das Wittnauer Horn* (Monographien zur Ur- und Frühgeschichte der Schweiz 4 (1945)), 86 ff. See also Schleiermacher, op. cit. (n. 284), 167 f., and E. Gersbach, *Helvetia Antiqua, Festschrift*

*Vogt* (1966), 279. On further similar sites cf. R. Fellmann, *Historia* 4 (1955), 209 f., and H.-J. Kellner, *Militärgrenzen* 111 f.

<sup>287</sup> *CIL* XIII, 5203; H. Lieb, *Jahresbericht der Gesellschaft Pro Vindonissa* (1948–9), 22 ff.; E. Ettlinger, *RE* IX A, col. 94.

<sup>288</sup> *CIL* XIII, 11975–76; J. Hagen, *Römerstrassen der Rheinprovinz* 2 (1931), 426 ff.

<sup>289</sup> *CIL* XIII, 4131.

<sup>290</sup> Schleiermacher, op. cit. 168; H. v. Petrikovits, *RR* 72 ff., 83.

<sup>291</sup> H. v. Petrikovits, *Festschrift Oxé* (193 ), 229 ff.

along the route from Cologne (C 33) via Tongres (C 26) and Bavai (C 19) to Boulogne.<sup>292</sup> As recent Belgian excavations have shown, some points on this route had already been defended before the invasion of 275–6 by small fortlets, but they were rebuilt again after the destruction and continued throughout the entire fourth century.<sup>293</sup> This road, although protected by small military forts and *burgi*, was not a frontier *limes*.<sup>294</sup> Elsewhere, roads in the late Roman period were similarly protected.<sup>295</sup>

After the Frankish invasion of 275–6 the emperor Probus seems successfully to have restored the situation in most of the area overrun by the Germans, and on the Lower Rhine probably gave land for settlement to the Franks as part of his treaty arrangements. The first systematic strengthening of the new Rhine and Danube frontiers appears to have been the work of this emperor. Apart from the statement in his *Vita* that he ‘multa opera militari manu perfecit’,<sup>296</sup> a dedication in his honour was found in 1947 that had been set up at Augsburg (C 108) in 281 on the orders of an acting *praeses*; <sup>297</sup> it suggests that under Probus a number of fortified sites were being refurbished or newly founded in Raetia. Perhaps now the first defences of the fort were built at Betmauer near Isny (C 91) on the frontier which linked Lake Constance with the Danube along the valley of the Iller.<sup>298</sup> At Kellmünz (C 94), on the other hand, one can only say that the fort already existed by about 300, to judge by a coin-hoard probably buried in 308.<sup>299</sup>

In north Switzerland the building of defensive sites can definitely be attributed to Diocletian (284–305). In him an outstanding ruler took charge of the empire, and with the aid of his colleague Maximian he succeeded in imposing a durable peace on the Germanic tribes. In the period 288–292 both Augusti undertook campaigns across the Rhine. In 294 the forts at Burg bei Stein am Rhein (C 85)<sup>300</sup> and Oberwinterthur (C 84)<sup>301</sup> were founded, as their building inscriptions inform us. It was perhaps at this time (but possibly earlier) that the military installations were erected on the Münsterhügel at Basel (C 74).<sup>302</sup> Under Diocletian the legionary fortress at Kaiseraugst (C 76), enclosing about 9 acres (3.6 ha.), may have been created for the newly raised legion I Martia.<sup>303</sup> Consequently the old defensive scheme based on Windisch (C 80) was given up.

Probably in 292 the territory of the Alemanni was laid waste from Mainz (C 52) as far as the Danube ford at Günzburg (C 96), and in 298 the Alemanni were wiped out near Windisch.<sup>304</sup> Perhaps we can date the foundation of at least one of the forts on the Aare (C 77–79), the Altenburg near Brugg, to these years.<sup>305</sup> But the individual fortified sites in the area of the Upper, Middle and Lower Rhine are very difficult to identify as new foundations of the Diocletianic period. Probably the security-precautions on the approaches

<sup>292</sup> Oudenburg (C 15) belongs to a different system: J. Mertens, ‘Oudenburg et le *Litus Saxonicum* en Belgique’, *Helinium* 2 (1962), 51 ff. (= *Archaeologia Belgica* 62).

<sup>293</sup> J. Mertens and Ch. Léva, ‘Le fortin de Braives et le *Limes Belgicus*’, *Mélanges d’Archéol. et d’Hist. offerts à A. Piganiol* (1966), 1063 ff.

<sup>294</sup> H. v. Petrikovits, *RR* 83 f., with note 148. Recently also H. Hinz, *Archäologische Funde und Denkmäler des Rheinlandes*: 2, *Kreis Bergheim* (1969), 91 ff.

<sup>295</sup> See for the Constantinian or more likely Valentinianic period the so-called Ausonius Road between Trier (C 41), Bingen (C 51) and Mainz (C 52): G. Behrens, *Germania* 4 (1920), 12 f.; J. Hagen, *Römerstrassen der Rheinprovinz* 2 (1931), 365 ff.; *Tabula Imperii Romani* M32, *Mogontiacum* (1940). Compare the road protected by *burgi* from Augsburg (C 108) to Kempten (C 92) and Bregenz (C 90): L. Ohlenroth, *29 BerRGK* 1939 (1941), 122 ff.

<sup>296</sup> SHA, *Probus* xx, 2.

<sup>297</sup> F. Wagner, 37–38 *BerRGK* 1956–57 (1958), 224, no. 30. According to H. Nesselhauf the inscription begins with the words: [*restitutori pr*]ovinciarum et operum [*publicorum providen*]tissimo . . .

<sup>298</sup> In J. Garbsch’s recent excavations a scattered coin-hoard, which was buried perhaps in 288, came to light inside the fort.

<sup>299</sup> H.-J. Kellner, *Limes-Studien* 55 ff. A further coin-hoard of this period was found recently in the fort at Betmauer, near Isny (information from J. Garbsch).

<sup>300</sup> *CIL* XIII, 5256.

<sup>301</sup> *CIL* XIII, 5249. The inscription is now at Winterthur: *Ur-Schweiz* 32 (1968), 14 ff.

<sup>302</sup> R. Fellmann, *Basler Zeitschrift für Geschichte und Altertumskunde* 60 (1960), 39 ff.

<sup>303</sup> W. Schleiermacher, 33 *BerRGK* 1943–50 (1951), 172. In a paper to the 8th Congress of Roman Frontier Studies at Cardiff (1969) on new excavations here, Frau R.-M. Swoboda stated that the fortress was founded under Constantine I. In her opinion legio I Martia first took part in a reconstruction under Valentinian I. In the current view it would also be preferable to date the forts at Irgenhausen (C 83) and Schaan (C 89) to the period of Valentinian despite the earlier view (cf. Schleiermacher, op. cit. 173).

<sup>304</sup> *Paneg. Lat.* IV (8), 2; VII (6), 4, 6, ed. E. Galletier (1952). Several coin-hoards in Switzerland are associated with the Alemannic invasion of 298: F. Staehelin, *Die Schweiz in römischer Zeit* 3 (1948), 282 f.

<sup>305</sup> Th. Pekáry, ‘Zur Geschichte von Vindonissa in spätrömischer Zeit’, *Jahresbericht der Gesellschaft Pro Vindonissa* 1966 (1967), 12 f.

to the Alps, designed as they were to protect Italy, were regarded as more important by the Romans, and rightly so.

Only to a limited extent is it possible to trace back into the Diocletianic period the distribution of units as given in the *Notitia Dignitatum*.<sup>306</sup> On the Rhine, in what used to be Germania Inferior but had now become Germania II, it is doubtful whether legion XXX Ulpia Victrix still lay at Vetera II (B 21) under Diocletian. There is epigraphic evidence to show that I Minervia remained at Bonn (B 32) until 295, probably even until 298, but the fortress there was clearly occupied still later.<sup>307</sup> In the province of Germania I, now much smaller than the original Germania Superior since its southern part had been transferred to the newly created Sequania, XXII Primigenia remained at Mainz (C 52) and VIII Augusta at Strasbourg (C 70). It is uncertain which legions formed the garrison of Belgica I. In Sequania we know of the fortress of the newly raised I Martia at Kaiseraugst (C 76), already mentioned, but the other legion stationed along with it in this province is unknown. In the reorganization of the provinces of the empire, Sequania became part of the Dioecesis Galliae, while Raetia on its eastern flank was attributed to the Dioecesis Italiae. This province was sub-divided into Raetia I in the south and Raetia II in the north. The bulk of the troops were stationed in Raetia II. In the entry for the *dux Raetiae* in the *Notitia Dignitatum* (Occ. xxxv) we find legion III Italica, which had been transferred to the province during the Marcomannic wars, probably in about 172. The legion was split into five detachments which were stationed on the frontier and in the interior. *Praefecti* are named as the commanders of the individual detachments. The first was at Castra Regina (Regensburg: C 103), later at Vallatum (C 101); the second at Summuntorium (C 98); the third at Cambodunum (Kempten: C 92); the fourth and fifth were put in charge of troops at Foetes (Füssen: C 111) and Teriola (Zirl: C 113) on important routes of the interior, where they were concerned with supplies. A sixth detachment of the Third legion was possibly assigned to the field army.

But it is more likely that this distribution of units goes back to Constantine, who introduced a further reorganization of the army.<sup>308</sup> He was also responsible for measures to strengthen the Rhine *limes*. Under him the fort at Deutz (C 34) was built as a bridgehead across the Rhine from Cologne. Fig. 21 shows a schematized plan of the fort, which was c. 154 m. square with round towers and two gates. It was a type of fort in which the barrack buildings occupied the whole area within the walls and were not built against the inside of the curtain-wall as they were on the sites of the period of Valentinian I. A building inscription from Deutz, now lost, is known from a copy made in the twelfth century: <sup>309</sup> it expressly mentions Constantine I. The fort at Haus Bürgel (C 14) belongs to the same structural type as Deutz, but lay originally on the left bank of the Rhine and is not a bridgehead.

In the Constantinian period, perhaps during the second quarter of the fourth century, a number of fortified sites were built on the roads in the hinterland. They include Jünkerath (C 38) and Bitburg (C 39) on the road from Cologne to Trier and Neumagen (C 40) in the Moselle valley. All three are road-posts, more or less round or oval in plan, with round towers spanning the walls. H. Koethe was strongly in favour of the above dating.<sup>310</sup> On the other hand the view was put forward a few years ago that the fort at Bitburg must have been built shortly after the middle of the third century; for over the foundation-offset of its curtain-wall lay a deposit which must have formed during the erection of the fort. Among the pottery it produced were types which, it is said, were current no later than 275 at the latest.<sup>311</sup> This *terminus post quem* does not seem to me necessarily to conflict with Koethe's dating. At any rate this example shows again how uncertain and difficult it is to fix the

<sup>306</sup> W. Schleiermacher, 33 *BerRGK* 1943-50 (1951), 168 ff.

<sup>307</sup> H. v. Petrikovits, *Streitkräfte Niederrhein* 12; he has kindly informed me that the words 'at latest 298' should be deleted from his comments on the funerary inscription *CIL* vi, 32943. At least under Constantine the mobile field army of Germania II comprised legio II Divitiensium and a legio Tungre-canorum (v. Petrikovits, l.c.).

<sup>308</sup> Particularly in the interior, larger mobile units

were collected together which could be sent speedily into action: D. van Berchem, *L'Armée de Dioclétien et la réforme Constantinienne* (1952), 113 ff.

<sup>309</sup> *CIL* XIII, 8502. K. Christ thinks that the building of forts on the Lower Rhine is to be dated to the years 306-310: 'Antike Münzfunde Südwest-deutschlands,' *Vestigia* 3, 1 (1960), 164 f.

<sup>310</sup> *Trierer Zeitschrift* 11 (1936) Beiheft, 50 ff.

<sup>311</sup> *Trierer Zeitschrift* 24-26 (1956-58), 536 f.



dates of many of our late Roman military sites. Probably the similar defences of Saverne (C 68) also belong to the second quarter of the fourth century.

The fort at Pachten (C 42) on the road leading south from Trier belongs to a totally different category. It is square in plan, with 16 square bastions, and measures *c.* 152 by 134 m. or about 4.7 acres (1.9 ha.). A few finds from the recent excavations of R. Schindler give the impression that the fort was not built under Diocletian, but, like the others, under Constantine the Great.<sup>312</sup> But even this dating cannot be regarded as in any way final.

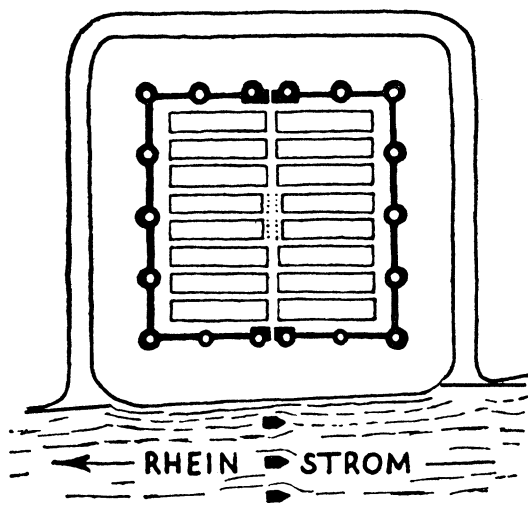


FIG. 21. KÖLN-DEUTZ (COLOGNE) (C 34): CONSTANTINIAN FORT. SCALE 1 : 5,000  
From H. v. Petrikovits, 'Das römische Rheinland' p. 79, fig. 26

In Raetia II, G. Bersu suggested that the construction of the small fortification on the Bürgele near Gundremmingen (C 97) (fig. 22) should be placed in the second quarter of the fourth century, more particularly in the years 335–40, on the basis of the coin-series. He comments: <sup>313</sup> 'Neither historical nor archaeological sources yet enable us to say in what manner the reorganization of the frontier in Raetia, first under Probus and then under Diocletian, was carried out, or how the protection of the frontier was arranged in detail. Nor do we know whether Diocletian's designs were planned and carried out on the basis of the old *limes*, or whether he confined himself at first to securing individual key points on the Danube and Iller by means of forts with permanent garrisons. Research on the Danube-Iller frontier is still not far enough advanced to infer anything certain on this subject. But we can presume that the frontier stations that had become important in the middle imperial period and, on the Danube, the posts that stood on vital roads leading from beyond the frontier into Raetia (e.g. Kellmünz, Günzburg, and Burghöfe at the end of the Via Claudia), were at some time refortified, whether by Probus when he created a frontier on the Danube or by Diocletian when he reorganized it.' The siting of the Bürgele away from the main routes led Bersu to think that it did not belong to this system.

In the late Constantinian period the Romans were working a quarry at the Felsberg in the Odenwald, on the right bank of the Rhine not far from the frontier-line.<sup>314</sup> This is proved by the four monolithic pillars of granite, over 12 m. long, which come from an earlier building-phase under the Cathedral at Trier and are of Odenwald stone.<sup>315</sup>

In the years between 350 and 355 the Franks and Alemanni repeatedly crossed the

<sup>312</sup> R. Schindler, *Germania* 41 (1963), 35 ff.; idem, *Varia Archaeologica, Festschrift Unverzagt* (1964), 189 ff.

<sup>313</sup> *Die spätrömische Befestigung 'Bürgele' bei*

*Gundremmingen, Münchner Beiträge zur Vor- und Frühgeschichte* 10 (1964), 49 f.

<sup>314</sup> The Felsberg lies *c.* 16 km. E. of the presumed earlier fort at Gernsheim (B 42).

<sup>315</sup> Th. K. Kempf, *Germania* 42 (1964), 139 f.

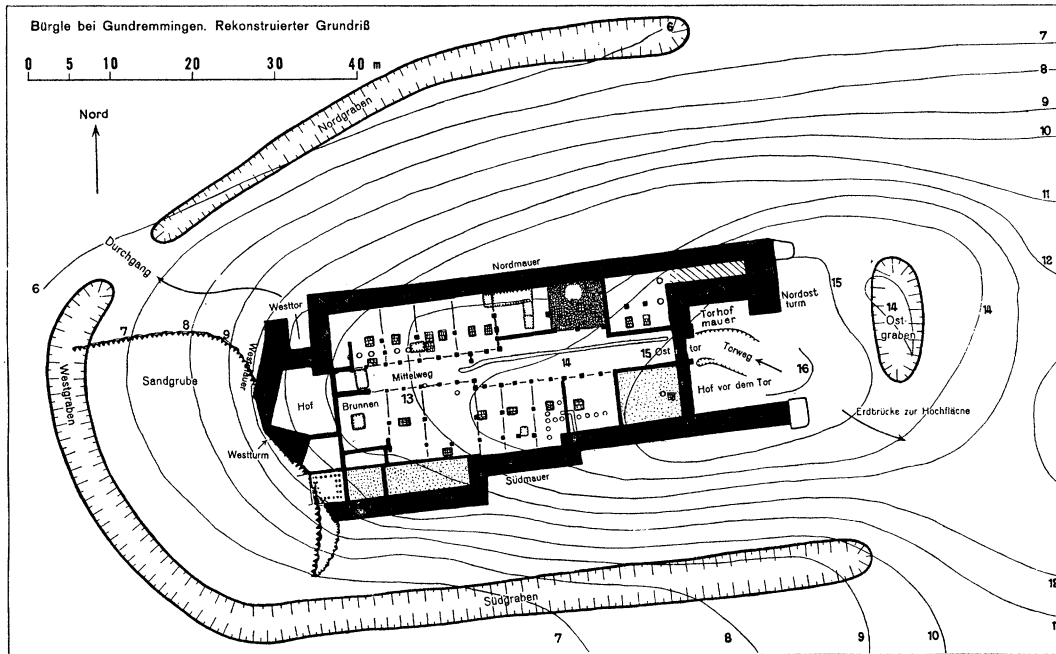


FIG. 22. BÜRGE NEAR GUNDEMMINGEN (C 97): LATE ROMAN FORTIFICATION  
After G. Bersu, 'Die spätrömische Befestigung Bürge bei Gundremmingen' Taf. 2.

Rhine. In 357 the Juthungi also broke into eastern Raetia and Noricum; perhaps the road-post Bedaium-Seebruck (C 117) was destroyed in this attack.<sup>316</sup> In the West the energetic Caesar Julian restored peace and order.<sup>317</sup> He was able to consolidate the Rhine frontier after his victory over the Alemanni in Alsace in 357. A determination to hold the frontier at all costs took shape under Valentinian I (364–375). In 368 the emperor marched over the Rhine and crushed the Alemanni at a place called Solicinum.<sup>318</sup> In the following year he began a comprehensive fortification of the Rhine line.<sup>319</sup> The existence now of the Constantinian field army and the adequate striking-force it represented once more permitted the distribution of the frontier troops in a number of smaller forts. Besides the many town defences that were already being put in repair under Julian, archaeological finds make it clear that many small fortified structures were built in this period; *burgi* and watch-towers, fortified granaries, bridgeheads and landing-places for ships are among the most notable buildings. In the hinterland there is no lack of small and medium-sized forts to protect the roads.<sup>320</sup> All in all, we believe that we have a better archaeological picture of the building-programme of Valentinian I than for that of Probus, Diocletian or Constantine the Great.

The fort at Alzey (C 57) belongs to a category of Valentinianic fort in Germania I which shows close similarities to the approximately square structures of the Diocletianic period, as represented by Burg bei Stein am Rhein (p. 179). The characteristically new feature about them is that for maximum protection the barracks were built against the inside of the fort wall (fig. 24) unlike those in the Constantinian fort of Köln-Deutz (p. 180). The building-date of Alzey can be put with fair precision in the period between the victory in Alsace in 357 and the Alzey edict of Valentinian of A.D. 370.<sup>321</sup> Horbourg (C 72) and Kreuznach (C 56) belong to the same type: so, too, do the defences of Boppard (C 50) which in effect consist of two squares of Alzey-type side by side. Under Julian or Valentinian the defences of Strasbourg (C 70), too, were restored after destruction.<sup>322</sup>

<sup>316</sup> H.-J. Kellner and G. Ulbert, *BVBl* 23 (1958), 60 f.

<sup>317</sup> H. v. Petrikovits, *Festschrift Oxé* (1938), 233 ff.

<sup>318</sup> *Amm. Marc.* XXVII, 10.

<sup>319</sup> *Amm. Marc.* XXVIII, 2, 1; xxx, 7, 6.

<sup>320</sup> W. Schleiermacher, 33 *BerRGK* 1943–50 (1951), 177 ff.

<sup>321</sup> Schleiermacher, *ibid.* 183. For the two Alzey edicts of 15 Aug., 370, and 4 Apr., 373: O. Seeck, *Regesten der Kaiser und Päpste* (1919), 107, 240, 244.

<sup>322</sup> J.-J. Hatt, *Limes-Studien* 52, and *Germania* 37 (1959), 232.

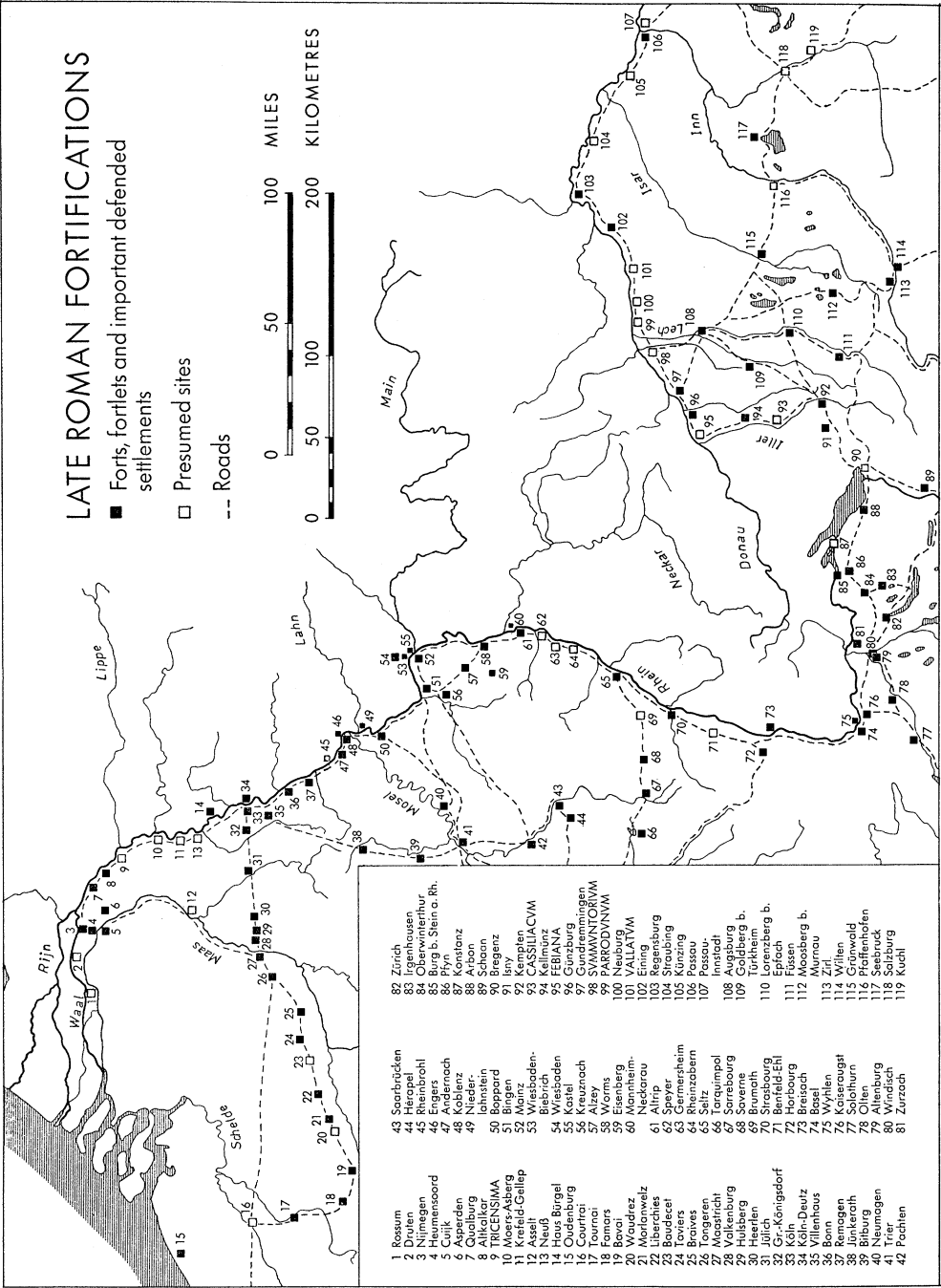


FIG. 23. MAP c (see pp. 177 ff.) FOR A BIBLIOGRAPHY OF SITES, see pp. 193 ff.  
*Drawn by W. Pischner for the Römisch-Germanische Kommission*

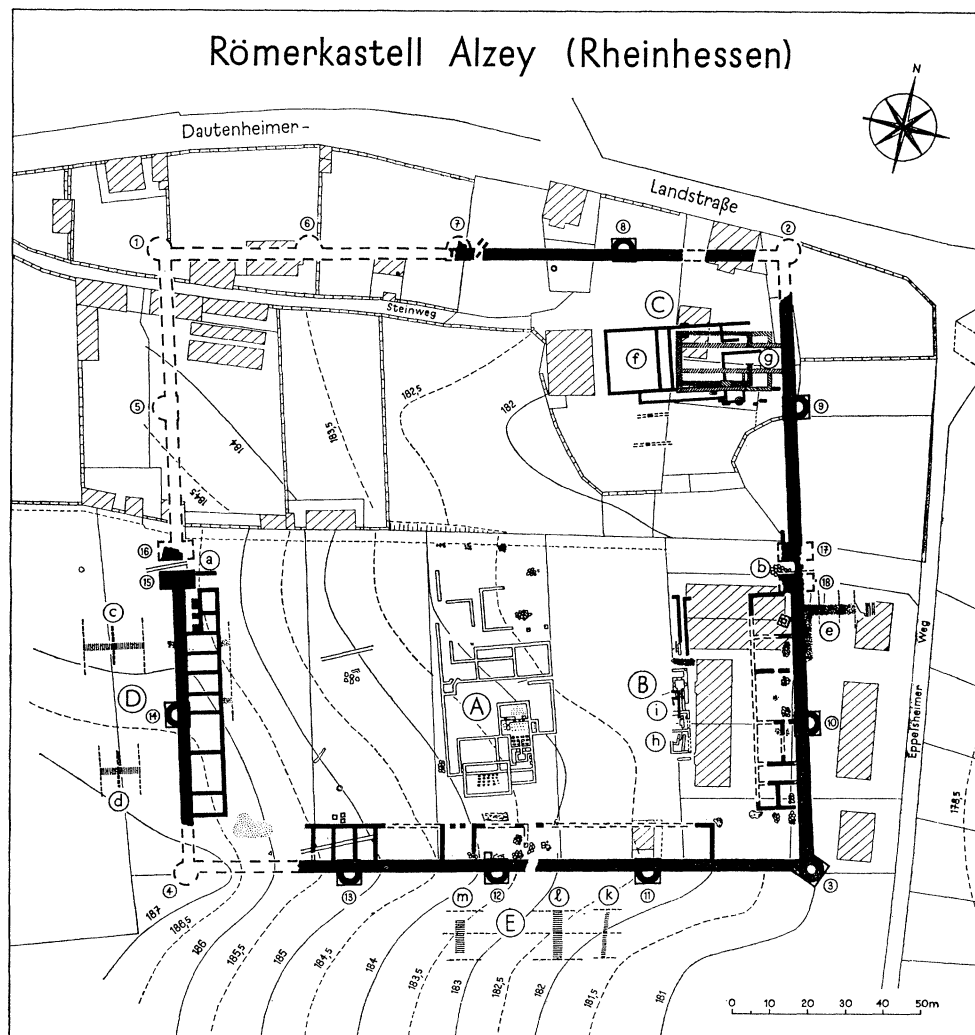


FIG. 24. ALZEY (C 57): FORT OF THE PERIOD OF VALENTINIAN I: THE BUILDINGS AT A BELONG TO A PRE-FORT AND AT g TO A POST-FORT, PERIOD

From 'Germania' XXXVIII, Beilage 1

The fort at Altrip (C 61) belongs to a totally different structural type from Alzey. Here, too, the barracks were built against the inner face of the wall. In the opinion of its excavator G. Bersu, the pottery was exactly comparable with that from Alzey. The characteristic of these forts of Valentinian is their position on a river which protected them on their longest side. The ground-plan is a half-hexagon.<sup>323</sup> The fort at Saarbrücken (C 43) corresponds to this type in its siting, if not quite so closely in plan. In 1962-3 a Roman structure was found just in front of the eastern wall of the fort—where it can never have stood during the lifetime of the fort. In its destruction layer were discovered among others two coins of Magnentius (350-353), the first Germanic usurper. This suggests that this building was destroyed in the troubles of 350-353 and that the fort proper could not have been built before Julian or Valentinian I.<sup>324</sup> This was previously regarded as unlikely. Saarbrücken is evidence for a defence in depth under Valentinian, which extended far into the hinterland. The *burgus* at Eisenberg (C 59), which lies some way from the major roads, probably also belongs to this period. In the north, the recently excavated *burgus*

<sup>323</sup> Schleiermacher, op. cit. 179, 183.

<sup>324</sup> R. Schindler, *Saarbrücker Hefte* 17 (1963), 22 ff.



at Asperden (C 6) indicates that the emperor also strengthened the defences of the military supply-routes in Germania II.<sup>325</sup>

Across the river from Altrip lay a small fortified enclosure at Mannheim-Neckarau (C 60), which W. Schleiermacher identifies as a landing-place for ships. There is a similar site at Engers (C 46) and possibly another at Rheinbrohl (C 45).<sup>326</sup> Nothing certain is known of the small fortified sites at Niederlahnstein (C 49) and Wiesbaden-Biebrich (C 53). To judge by the finds they belong to the period of Valentinian I and we may recall that it was said of him in 369: '... non numquam etiam ultra flumen aedificiis positus subradens barbaros fines.'<sup>327</sup> Probably under Valentinian the bridgehead north of Mainz was strengthened, so that it far exceeded in size and importance all the small sites on the right bank. Its actual extent, however, is not yet absolutely clear. The Heidenmauer at Wiesbaden (C 54) is related to it; it has one almost straight wall over 500 m. long, which is probably to be construed as part of a much larger, but never completed, structure.<sup>328</sup> The fort of Haus Bürgel (C 14), possibly founded by Constantine, must not be reckoned a bridgehead, for it lay originally on the left bank of the Rhine. Nor is Breisach (probably a Valentinianic foundation) a standard bridgehead-fort: before the course of the Rhine was altered in the nineteenth century it lay on an island in the flood-basin of the river.

If Ammianus is to be trusted we must reckon with fortified sites of this date far across the Rhine in barbarian territory. We are informed that Julian refurbished an earlier *munimentum* somewhere in the Alemannic area and that Valentinian had another built 'trans Rhenum in monte Piri qui barbaricus locus est'.<sup>329</sup> Neither place has yet been identified by archaeological evidence.

Further south we meet another building-type of the Valentinianic period in the small, almost square, forts at Irgenhausen (C 83), Schaan (C 89) and Wilten (C 114), which lie on important routes in the hinterland. All of them have relatively large square hollow towers at the four corners and mostly smaller similar ones along the curtain-walls. Irgenhausen measures 50 × 50 m., Schaan 50 × 47 m., and Wilten 63 × 60 m. Wilten had two great store-buildings, constructed each with a long side abutting opposite inner faces of the fort-wall, and a third which lay outside the fort. It was definitely, therefore, a supply base. Whether this is true of Schaan and Irgenhausen cannot yet be decided on the results of the excavations. An earlier date for Schaan was once generally accepted, but now the evidence of the coin-series supports the view that the fort was built under Valentinian I.<sup>330</sup> Because of structural similarities the foundation of Irgenhausen and Wilten may be assigned to the same period.

The fort on the Lindenhof at Zürich (C 82) also, in all probability, belongs to this period. It represents yet another structural type, and its task was to bar the way into the Alpine passes on the road from Windisch to Chur. The three forts on the Aare (C 77-79) which guarded the approaches to Aventicum (Avenches) may also be Valentinianic. Their bell-shaped plans recall the half-hexagonal shape of Altrip and Saarbrücken. Very probably they were not new foundations of Valentinian but replacements of earlier fortified structures. In the case of Altenburg (C 79) the coins, as I mentioned above, suggest that this is so.<sup>331</sup> The existing forts at Kaiseraugst (C 76), Zurzach (C 81) and Burg bei Stein am Rhein (C 85) continued, of course, to be occupied. So in north Switzerland there is a clear picture of the defensive planning of Valentinian I, a system which reached far into the interior.<sup>332</sup> In a zone about 20-40 km. wide behind the frontier, the roads were guarded by

<sup>325</sup> H. Hinz and I. Hömberg, 'Ausgrabung eines spätromischen Burgus in Asperden, Kr. Kleve', *Beiträge zur Archäologie des römischen Rheinlandes, Rheinische Ausgrabungen* 3 (1968), 191 ff. Most of the watch-towers on the so-called Ausonius Road in Belgica I and Germania I probably belong to this period: see note 295.

<sup>326</sup> W. Schleiermacher, *Germania* 26 (1942), 191 ff.

<sup>327</sup> Amm. Marc. xxviii, 2, 1.

<sup>328</sup> F. Kutsch, *Festschrift Oxé* (1938), 204 ff.; W. Schleiermacher, *BerRGK 1943-50* (1951), 181 f.

<sup>329</sup> Amm. Marc. xvii, 1, 11; xxviii, 2, 5. The question how far a Romanized population survived in the fourth century on the right bank of the Rhine and whether some sites there were occupied, if only tem-

porarily, by Roman military forces, has often been discussed. I feel that at the moment no definite answers are possible. See H. Nesselhauf, *Die spätromische Verwaltung der gallisch-germanischen Länder* (1938), 49 f.; K. Christ, 'Antike Münzfunde Südwestdeutschlands', *Vestigia* 3, 1 (1960), 148 ff. Cf. B. Cichy's observations at Heidenheim (B 154), *Fundberichte aus Schwaben*, NF 18, II (1967), 90 f.

<sup>330</sup> G. Malin, *Jb. des Historischen Vereins für das Fürstentum Liechtenstein* 58 (1958), 55, 58; E. Ettlinger, *ibid.* 59 (1959), 293 ff.; H.-J. Kellner, *ibid.* 64 (1965), 82 ff.

<sup>331</sup> See note 305.

<sup>332</sup> Kellner, *op. cit.* 83 f. with map, fig. 3.

regular forts or other types of strongpoint, between which communications were apparently maintained by towers.<sup>333</sup>

Immediately on the frontier-line of the upper reaches of the Rhine (the Hochrhein), numerous *burgi* were built south of the river between the forts of Basel (C 74), Zurzach (C 81) and Burg bei Stein am Rhein (C 85).<sup>334</sup> The section from Basel to Zurzach has recently been the subject of a fresh examination.<sup>335</sup> The *burgus* of the Rote Waag is exactly dated to A.D. 371 by a building inscription,<sup>336</sup> while that bearing the Roman name of *Summa Rapida* near Koblenz is dated to the same year or perhaps to 374.<sup>337</sup> After Valentinian's reorganization there were probably also watch-towers of this sort stretching north from Basel along the Upper Rhine; <sup>338</sup> others are certainly known between Bregenz (C 90) and Kempten (C 92). They follow the line of the Iller and can be traced along the south bank of the Danube as far as Straubing (C 104). There were also a number on the road from Kempten to Augsburg (C 108) in the hinterland. In addition to Augsburg, Füssen (C 111), Zirl (C 113) and Wilten (C 114), mentioned above, are likely to have been bases for troops in the period of Valentinian. Pfaffenhofen on the Inn (C 116) may be yet another. Further west Isny (C 91) was refortified at this time. J. Garbsch has recently studied Valentinian's frontier-defences in Maxima Sequanorum and Raetia I and II in connection with fresh excavations of the *burgi* at Meckatz and Untersaal.<sup>339</sup>

There were bridgeheads across the Rhine to strengthen the frontier on the Hochrhein, just as there were on the Upper and Middle Rhine; two of them can be named. Probably as early as 370 the small fortification of Wyhlen (C 75) was built as a bridgehead for Kaiseraugst. Remains of it have been found.<sup>340</sup> Another site, the 'munimentum Robur' built in 374, may possibly lie across the Rhine from Basel, but it has not yet been identified on the ground.<sup>341</sup>

After Valentinian we know of no further coherent reorganization or expansion of the Roman frontier defences. The strengthening of the frontier could probably have enabled it to withstand the pressure of the Germans for a fairly long period. But the appearance of the Huns and the pressure which they exerted on the Goths, together with the disastrous Roman defeat at Adrianople in 378 in which Valens was killed, brought about a new political situation dangerous to the whole empire, even though Gratian in the west had defeated the Alemanni in Alsace in the same year.

H.-J. Kellner has studied the evidence for the end of the *limes* on the Iller and Danube. It is clear from the coin-table which he compiled in 1957 that the coin-series breaks off at some sites in the years 383-388, perhaps as a result (in part at least) of the Alemannic invasion of the summer of 383. Other sites, such as Bregenz (C 90), Regensburg (C 103), Augsburg (C 108) and Epfach (C 110), retained their importance until after 395 when Stilicho, the Vandal *magister militum* of the young emperor Honorius, prepared for his first Balkan campaign, or 401, when the Vandals and Alans invaded Noricum and Raetia in the autumn.<sup>342</sup> They were the cause of Stilicho's crossing of the Alpine pass of Splügen in the winter of that year. He took these barbarian bands into his army, and moved with them across the Brenner against Alaric, who lay before Milan.<sup>343</sup> In 409 we hear of a *strategos* named Generidus, who was entrusted among other duties with the command of troops in Raetia.<sup>344</sup> Concern with the area on Italy's borders, therefore, was still keen. In 430

<sup>333</sup> See, for example, the watch-tower on the Mandacher Egg (not marked on Map C): H. R. Wiedemer, *Brugger Neujahrsblätter* (1963), 10 ff. For the West, see the watch-towers mentioned above, notes 295 and 325.

<sup>334</sup> F. Staehelin, *Die Schweiz in römischer Zeit* 3 (1948), 296 f. with map, fig. 63. Because of the small scale none of these *burgi* is marked on Map C. See note 339.

<sup>335</sup> K. Stehlin and V. v. Gonzenbach, *Schriften zur Ur- und Frühgeschichte der Schweiz* 10 (1957). The fortification of Ryburg is considered by E. Gersbach to be medieval: *Helvetia Antiqua, Festschrift Vogt* (1966), 271 ff.

<sup>336</sup> *CIL* XIII, 11538; Stehlin and v. Gonzenbach, op. cit. 93 ff.

<sup>337</sup> *CIL* XIII, 11537; Stehlin and v. Gonzenbach, op. cit. 114 ff.

<sup>338</sup> W. Schleiermacher, 33 *BerRGK* 1943-50 (1951), 180.

<sup>339</sup> J. Garbsch, *BVBI* 32 (1967), 51 ff. These *burgi* in Raetia I and II are not marked on Map C because of the small scale. A complete list of all *burgi* from Basel to Straubing with map can be found in Garbsch, op. cit. 79 ff.

<sup>340</sup> Schleiermacher, op. cit. 178 f.

<sup>341</sup> *Amm. Marc.* xxx, 3, 1 f.; R. Fellmann, *Basel in römischer Zeit, Monographien zur Ur- und Frühgeschichte der Schweiz* 10 (1955), 73 ff. Because of the uncertainty over its siting the place is not marked on Map C.

<sup>342</sup> H.-J. Kellner, *Limes-Studien* 57 ff.

<sup>343</sup> References in E. Stein, *Geschichte des spät-römischen Reiches* 1 (1928), 378 f.

<sup>344</sup> Zosimus v, 46, 2.

Aëtius, the *magister utriusque militiae* of Valentinian III, appeared on the scene and drove out the invading Juthungi.<sup>345</sup> When shortly after 450 St. Severinus entered this hard-pressed land from Noricum, there was still a fort at Künzing (C 105) and at Passau (C 106) a 'lost post'.<sup>346</sup> In all probability the reference is to a form of home-guard organized by the Roman inhabitants. Soon after 475 the last remnants of Roman life in the province were extinguished.<sup>347</sup>

The collapse of the late Roman defensive system in north Switzerland, like that in Bavarian Raetia, resulted probably from the withdrawal of the field army by Stilicho in 401. The great Alemannic invasion of 406 passed Switzerland by and laid waste Alsace and the Pfalz further north. Later Aëtius attempted to render the invading Germanic tribes harmless; he offered them permanent homes, made treaties with them and drew them as *foederati* into the pay of the empire. In 443 he settled the remaining Burgundians, over whom he had won a victory in 436, in Savoy south of Lake Geneva. But it is clear that the Alemanni did not establish effective control over Switzerland until some decades after the invasion in A.D. 455.<sup>348</sup>

In the west, the Gallic prefecture received special attention under Valentinian I. From the autumn of 365 until 375 the emperor resided in Gaul almost without a break. Then and in the succeeding years the Saxons and Franks were engaging in piratical raids on the coast of Gaul and plundering expeditions on the Rhine. Incursions of the Franks into the Rhineland occurred repeatedly in the last quarter of the fourth century.<sup>349</sup> In 395 Stilicho took the opportunity of travelling to the Rhine with the intention of making overtures to them. At this time, the imperial court was moved from Trier to Milan and the Gallic prefecture to Arles. When in 401 Stilicho withdrew troops from the Rhine and from Britain for the fight against Alaric, some military forces still remained in Gaul.<sup>350</sup> *Foederati* may well have been entrusted with the defence of much of the frontier-system. Even serving soldiers felt themselves part of this federate arrangement, as a funerary inscription from Aquincum (Budapest) shows: *Francus ego cives, Romanus miles in armis*.<sup>351</sup>

It is remarkable that the Germans attempted no invasion until 406, although the Roman forces by and large did not return to their posts. In that year, as mentioned above, the Alemanni stormed Alsace and the Pfalz; Vandals, Suebi and Alans overran Gaul.<sup>352</sup> But even after that individual fortified sites were still occupied by military forces. This is true of the bridgehead at Kastel (C 55), where a coin-hoard discovered in 1962 must definitely represent soldiers' earnings, and was buried in 408 or perhaps somewhat later.<sup>353</sup>

It is possible that the usurper Constantine III (407-411) succeeded in restoring a measure of peace once more. But when he required his troops in Spain, the Germans raided Gaul anew. Aëtius campaigned with success in 428 against the Franks and made a treaty with them after his victory in 431-2; indeed later, in 446, he drove part of them back once more across the Rhine.<sup>354</sup> Five years later Attila, king of the Huns, fell upon Gaul with his hordes, but was defeated by Aëtius on the Catalaunian plain. But there can be no further question of the restoration of Roman power. Clearly, the area that had belonged to Germania II on the Lower Rhine and in the north Eifel suffered a somewhat different fate from the Moselle area and Trier, which lay further south in Belgica I. The old territory of Germania II came under Frankish dominion at the latest by the middle of the fifth century. Belgica I, however, does not seem to have been finally incorporated into the Frankish empire until 475.<sup>355</sup>

<sup>345</sup> RE x, col. 1348.

<sup>346</sup> Eugippius, *Vita St. Severini* 15, 20.

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<sup>350</sup> Claudian, *De bello Gothico* 416 ff.; Zosimus,

VI, 2, 2.

<sup>351</sup> CIL III, 3576.

<sup>352</sup> For the archaeological finds of this period: J. Werner, *Bj* 158 (1958), 399 ff.

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## VIII. BIBLIOGRAPHICAL LIST: MAP B

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  99. ORL B, Nr. 46 (1904); A, Strecke 10 (1935), 42.
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  111. ORL B, Nr. 59 (1907); A, Strecke 11 (1935), 13 ff.; Schönberger, *SJ* 18 (1959-60), 40, and *LF* 2 (1962), 111 f.; *FMRD* II, 4, 259 ff.
  112. ORL B, Nr. 60 (1907); A, Strecke 11 (1935), 15 f.; Simon, *SJ* 20 (1962), 8 ff., and *Fundberichte aus Schwaben* NF 18, I (1967), 160 ff.; *FMRD* II, 4, 78 ff. On the ditch of an earth-and-timber fort found south-west of the stone fort in 1966, cf. E. Neuffer, *Blätter des Schwäbischen Albvereins* 72 (1966), 166 ff. and *Fundberichte aus Schwaben* NF 18, II (1967), 97, no. 21, 99 f., no. 55-57.
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134. ORL B, Nr. 66 (1904); A, Strecke 12 (1935), 71 f.; *FMRD* II, 4, 23 ff.
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163. Filtzinger, *Bf* 157 (1957), 192 f., and *Fundberichte aus Schwaben*, NF 18, I (1967), 110; G. Mildenerberger, *Germania* 39 (1961), 69 ff., and *Fundberichte aus Schwaben*, NF 16 (1962), 106 ff.; *FMRD* II, 3, 60 ff. Recent excavations by S. Schiek not yet published.



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165. Filtzinger, *Bf* 157 (1957), 193 f.; N. Walke, *BVBl* 24 (1959), 86 ff.; *FMRD* I, 7, 181 ff.
- 166–167. G. Ulbert, *LF* 1 (1959); *FMRD* I, 7, 114 ff., 139 ff.
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170. Ulbert, *Germania* 35 (1957), 318 ff.; *FMRD* I, 1, 123 ff. My excavations, begun in 1968, have thrown much light on the defences of the west and south sides and on the three periods of buildings within. The fort was just 5 acres (2 ha.) and contrary to earlier views was not designed for an *ala*. At the end of the excavations (? 1970) a preliminary report will be published in *Germania*.
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175. N. Walke, *LF* 3 (1965), cf. footnote 275.
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181. R. Fellmann, 'Basel in römischer Zeit', *Monographien zur Ur- und Frühgeschichte der Schweiz* 10 (1955), 30 f.; idem, *Basler Zeitschr. für Geschichte und Altertumskunde* 60 (1960), 36 f.
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183. E. Ettlinger, *RE* IX A, col. 82 ff.; R. Laur-Belart, *Kleiner Führer durch das römische Legionslager und seine Umgebung*<sup>3</sup> (1964); H. R. Wiedemer, *JbSGU* 53 (1966–67), 63 ff.
- 184–188. F. Staehelin, *Die Schweiz in römischer Zeit*<sup>3</sup> (1948), 182 ff., 595, 622 f., 633 f.; V. v. Gonzenbach, *Bf* 163 (1963), 99 ff., with map Tafel 13.
189. P. Revellio, *BF* 2 (1929–32), 340 ff.; *FMRD* II, 2, 100 ff.
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## IX. BIBLIOGRAPHICAL LIST: MAP C

This map shows by no means all late Roman fortifications. Fortified farmsteads for example are omitted and so for the most part are defended hill-settlements. *Burgi* and towers are marked only in special cases, and for this reason the recently published sites at Froitzheim and Rheinberg will not be found (*Beiträge zur Archäologie des römischen Rheinlands, Rheinische Ausgrabungen* 3 (1968), 9 ff., and 121 ff.). I have purposely omitted to differentiate date or purpose by symbol.

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4. J. H. Holwerda, *OMROL*, NR 14 (1933), 11 ff.; H. v. Petrikovits, *Festschr. Oxé* (1938), 235, with note 73; Daniëls, *Noviomagus, Romeins Nijmegen* (1955), 296 ff.
5. Bogaers, *BerROB* 17 (1967), 111.
6. H. Hinz and I. Hömberg, 'Ausgrabung eines spätrömischen Burgus in Asperden, Kr. Kleve', *Beiträge zur Archäologie des römischen Rheinlands, Rheinische Ausgrabungen* 3 (1968), 167 ff.
7. v. Petrikovits, *Bf* 142 (1937), 325 ff., and *RR* 77 and 81.
8. v. Petrikovits, *Sf* 14 (1955), 10 f., and *RR* 78, fig. 25; Hinz—Hömberg, 'Asperden' 193, with note 49. (Fresh information from H. Hinz suggests that Altkalkar ought rather to be considered a 'presumed site', since as yet no certain traces of late Roman defences have been found there.)
- 9–11. v. Petrikovits, *RR* 81 ff. Cf. also literature cited under B 21, 23 and 25. Also Hinz—Hömberg, 'Asperden' 193 f.
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## XI. ABBREVIATIONS

|  |   |
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| <i>BerRGK</i>  | <i>Bericht der Römisch-Germanischen Kommission.</i>   |
| <i>BerROB</i>  | <i>Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek.</i>  |
| <i>BF</i>  | <i>Badische Fundberichte.</i>   |
| <i>Bf</i>  | <i>Bonner Jahrbücher.</i>   |
| <i>BVBl</i>  | <i>Bayerische Vorgeschichtsblätter.</i>   |
| <i>CAH</i>   | <i>Cambridge Ancient History.</i>   |
| <i>FH</i>  | <i>Fundberichte aus Hessen.</i>   |
| <i>FMRD</i>  | <i>Die Fundmünzen der römischen Zeit in Deutschland</i> , edited since 1960 by H. Gebhart and K. Kraft for the Römisch-Germanische Kommission.  |
| <i>ILS</i>   | H. Dessau, <i>Inscriptiones Latinae Selectae</i> .  |
| <i>JbN</i>   | <i>Jahrbuch für Numismatik und Geldgeschichte.</i>  |
| <i>JbRGZM</i>  | <i>Jahrbuch des Römisch-Germanischen Zentralmuseums, Mainz.</i>   |
| <i>JbSGU</i>   | <i>Jahrbuch der Schweizerischen Gesellschaft für Ur- und Frühgeschichte.</i>  |
| <i>JRS</i>   | <i>Journal of Roman Studies.</i>  |
| <i>LF</i>  | <i>Limesforschungen. Studien zur Organisation der römischen Reichsgrenze an Rhein und Donau.</i>  |
| <i>Limesführer</i>   | see above : W. Schleiermacher, <i>Limesführer</i> .   |
| <i>Limes-Studien</i>   | <i>Limes-Studien. Schriften des Institutes für Ur- und Frühgeschichte der Schweiz</i> 14 (1959).  |
| <i>Militärgrenzen</i>  | <i>Studien zu den Militärgrenzen Roms</i> . Beihefte Bf 19 (1967).  |
| <i>OMROL</i>   | <i>Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden te Leiden.</i>  |
| <i>ORL</i>   | see above : E. Fabricius (ed.), <i>Der Obergermanisch-Raetische Limes</i> . For Abteilung A, the publication dates given are those of the Bände (volumes) ; the individual Strecken (sectors) were in many cases published earlier. |
| <i>RE</i>  | Pauly-Wissowa, <i>Realencyclopädie der classischen Altertumswissenschaft</i> .  |
| Ritterling—Stein   | see above : E. Stein, <i>Die kaiserlichen Beamten</i> .   |
| <i>RR</i>  | see above : H. v. Petrokovits, <i>Das römische Rheinland</i> .  |
| <i>SHA</i>   | <i>Scriptores Historiae Augustae</i> .  |
| <i>Sf</i>  | <i>Saalburg-Jahrbuch</i> .  |
| <i>Römisch-Germanische Kommission,</i><br><i>Frankfurt-am-Main</i> |   |