At the Third International Congress of Roman Frontier Studies at Rheinfelden/Basel, held in 1957, H. von Petrikovits read a paper entitled "Der niedergermanische Limes", and presented a map showing the military settlements along the line of this part of the frontier. It is now possible to present a supplementary map, whose principal aim is to give a more detailed picture of its Dutch section (Fig. 44).

The lower German frontier-system consisted of a chain of fortresses and forts dating anywhere from the reign of Tiberius down to c. A.D. 260 or 270, and lying along the eastern and northern boundaries of the military district that became the province of Germania Inferior in the reign of Domitian. From the southern boundary on the Vinxtbach they extended along the Rhine and further west — on the north side of the west part of the "Insula Batavorum" — they are found along the Kromme Rijn (from Wijk bij Duurstede to Utrecht) and the Oude Rijn (from Utrecht to Katwijk).

With the exception of the legionary fortress at Nijmegen (Batavodorum/Noviomagus), south of the Rhine arm known as the Waal, the map shows no military sites in the hinterland. North of the *limes* two names are shown: Ermelo, on the Veluwe in the province of Gelderland, where what may have been a marching camp or temporary camp from about A.D. 300 was excavated in 1923, and Velsen, in the province of Noord-Holland near the North Sea coast, where very important finds made in 1964 and 1966 may indicate the presence of a military settlement, probably occupied during the reigns of Caius (Caligula) and Claudius.

The site of the auxiliary forts in the village of Valkenburg, in the province of Zuid-Holland, is no longer designated by the name of *Praetorii in Agrippinae*. This name should rather be attached to the so-called *castellum* on the height called "de Woerd", some 1,200 metres south-south-east of the village. This site is not shown on the map, as it was probably a government hostel or *praetorium*, built towards the end of the Claudian period, and called after the Empress Agrippina (Fig. 45).

Nor does the *castellum* or "naval station" of Voorburg-Arentsburg, well known from J.H. Holwerda's excavations, figure on the map. This site, immediately to the west of the former Fossa Corbulonis (Figs. 44, 45), dug in A.D. 47 or a little later, is to be identified with the Forum Hadriani shown on the *Tabula Peutingeriana*. As the capital of the civitas Cananefatum this town was raised to the status of a municipium, perhaps in the lifetime of Hadrian, but more probably under Antoninus Pius or Marcus Aurelius, and certainly not later than A.D. 162. Its new official name was *Municipium Aelium* or *Aurelium Cananefatum*.

A new legionary fortress is shown on the map, namely that situated in Cologne, *apud Aram Ubiorum*, in the first half of the 1st century.

No attempt has been made to show the boundary between the provinces of Germania Inferior and Gallia Belgica. Von Petrikovits' map followed Mommsen's view on this point.

In 1958 an honorary inscription, dating from the reign of Marcus Aurelius, was found at Bulla Regia, a town in the province of Africa Proconsularis (Tunisia). In this mention is made of the *regiones Tungrorum et Fris(i)avonum*, which seem to be ascribed to the province.
Fig. 44. The Limes of Germania Inferior. Scale 1:1,000,000.
1. Legionary fortresses.
2. Auxiliary forts.
3. Late Roman forts.
4. Fortlets.
5. Probable forts.
of Gallia Belgica, so that the question arises where the regio or civitas Frisiavonum and its caput are to be placed. Fig. 46 represents an attempt to show the (probable) territories of the various tribes and peoples known to have inhabited the Netherlands and the adjoining parts of Belgium and Germany in imperial Roman times. The chartered towns (coloniae and municipia) and civitas capitals are also shown, further a few settlements important enough to claim candidature for the position of caput of the civitas Frisiavonum.

In his Naturalis Historia, IV, 101, Pliny mentions the Frisiavones. According to him they lived on one or more of the islands between Helinium and Flevum, i.e. in the area between the broad mouth of the Meuse to the west of Rotterdam (Fig. 45), into which the Waal (the western arm of the Rhine) and the Striene (an important arm of the Scheldt) also discharged, and the northern mouth of the Rhine, through which the water of the Gelderse IJssel flowed into the sea (most probably the Vlie or the Vliestroom between the islands of Vlieland and Terschelling; it is possible, however, that Pliny meant the mouth of a Rhine arm consisting of the Utrechtse Vecht and the IJ, situated near Castricum, north of Velsen (Fig. 47).

Taking the words of Pliny into account, it is difficult not to regard the civitas of the Frisiavones as part of Germania Inferior. Among the islands between Helinium and Flevum, Pliny includes the nobilissima Batavorum insula et Cannenefatium, situated between the Waal with the lower Meuse on the one side, and the Rhine, Kromme Rijn, and Oude Rijn on the other. This island certainly belonged to Germania Inferior.

In Pliny's Naturalis Historia, IV, 106, the Frisiavones are mentioned a second time, together with the Tungri, the Sunuci, and the Baetasii, tribes of Gallia Belgica that lived introrsus, i.e. neither on the sea-coast nor on the Rhine. In the same in many respects perplexing passage,
Fig. 46. The probable territories of the various tribes and peoples that are known to have inhabited the Netherlands and the adjoining parts of Belgium and Germany in Roman imperial times; chartered towns and civitas capitals, and a few settlements important enough to be candidates for the position of caput of the civitas Frisivonum (6–11), are also shown.

1. Voorburg-Arentsburg, Forum Hadriani / Municipium Aelium or Aureium Cananefatum.
2. Nijmegen, Ulpia Noviomagus / Municipium Batavorum.
3. Xanten, Colonia Ulpia Traiana.
4. Cologne, Colonia Claudia Ara Agrippinensium.
5. Tongres, Atua(tu)ca Tungrorum.
6. Cuijk, Ceuclum.
7. Rossum – Alem, Grinnes.
8. Rockanje.
9. Goedereede.
10. Domburg.
11. Aardenburg.
while enumerating the various peoples along the Rhine, Pliny also refers to *Nat. Hist.*, IV, 101: *Batavi et quos in insulis diximus Rheni*. It seems all but impossible to reconcile Pliny’s statements about the Frisiavones in *Nat. Hist.*, IV, 101 and in 106. Possibly the name Helinium refers not only to the broad mouth of the Meuse but also to the whole delta of the Scheldt (Fig. 47). On this assumption the Frisiavones may have lived on the islands of Zuid-Holland, and perhaps also those of Zeeland (*inter Helinium ac Flevum*), and further inland (*introrsus*)
If, as the inscription from Bulla Regia seems to indicate, the civitas of the Frisiavones was really part of Gallia Belgica, at least in the second half of the 2nd century, then the northern boundary of this province most likely coincided with the mouth of the River Meuse (the Helinium) in the west. There are three possibilities for the course of the boundary-line further east. It seems natural to suppose that the River Meuse served as a provincial boundary also in that direction; it is even more likely, however, that it ran along the “Peel”, a formerly very marshy area to the west of the Meuse, on the border of what are now the provinces of Noord-Brabant and Limburg, which has been a natural barrier for centuries. A third but less likely possibility, is that the boundary is to be sought somewhere in the basin of the rivers Aa, Domme, Beerze, and Run in central Noord-Brabant (Fig. 44).

In this connection it should be noticed that military inscriptions have been found immediately to the west of the River Meuse, in Limburg and the eastern part of Noord-Brabant, but are quite unknown in the rest of the latter province. Furthermore no Roman site of sufficient importance to rank as caput of the civitas Frisiavonum is known in the interior of Noord-Brabant. Possible candidates for this distinction are found elsewhere: at Cuijk (Fig. 46; Noord-Brabant), Rossum or Alein (Fig. 46; Gelderland or Noord-Brabant respectively), Rockanje (Fig. 46; Zuid-Holland, Island of 'Voorne'), and Goedereede (Fig. 46; Zuid-Holland, Island of Goeree-Overflakkee). Less likely are the sites at Domburg (Fig. 46; Zeeland, Island of Walcheren), and Aardenburg (Fig. 46; Zeeland, Zeeuws-Vlaanderen).

In about A.D. 260-270 the fortresses and forts of the lower German frontier were abandoned, and most of them seem to have been destroyed in the course of the Frankish invasions. After the reorganization of the Empire in about A.D. 300, Germania Inferior

![Fig. 48. The situation of Cuijk-Ceuclum in relation to the Limes of Germania Inferior (1st-3rd centuries) and the probable late Roman limes of Germania Secunda.](image)
Fig. 49. Cuijk. General plan of the excavation results (1937—1966). Scale 1:1,500.

A. Early Roman* fort (c. 50—100):
1. (Building) trenches.
2. Post-holes.
3. Ditches (two phases).

B. Middle Roman civil settlement (2nd—3rd centuries):
4. Building trenches and post-holes.
5. Walls.
6. Drains.
7. Gravel road.

C. Late Roman fort (4th century):
8. Post-holes of rampart.
10. Drains.
11. Walls.
12. Ditches.

D. Post-Roman features:
13. Tuff wall on the inner of the ditch (before 1132).
14. Ditch surrounding the site of the "castle" of the Lords of Cuijk, destroyed in 1132.
16. Gothic church, demolished in 1913 (except the tower).
17. Mediaeval and later walls.
Fig. 50. Cuijk. Plan of the early Roman features (c. 50–100). Scale 1:1,200.
1. (Building) trenches of phase 1.
2. (Building) trenches of phase 2.
3. (Building) trenches of phase 3.
4. Ditches (two phases).
5. Trenches and pits.
6. Post-holes.
was henceforth called Germania Secunda. Although at the Fourth International Congress of Roman Frontier Studies at Durham in 1959, H. von Petrikovits demonstrated that under Constantine I a new limes was built in Germania Secunda, on the left bank of the Rhine, the number of 4th-century objects found in the area of the earlier limes-forts in the Netherlands is in fact very small. It is impossible to tell whether or not any of these forts had a military occupation in late Roman times. Very probably, however, there was a late Roman fort at Nijmegen, on the Valkhof, immediately to the south of the Waal, in the north-eastern part of the present city.

There are reasons to assume that the line of a late Roman limes in the Netherlands, if there was one, did not follow the course of the Rhine, the Kromme Rijn and the Oude Rijn, but kept to the south bank of the Waal, and reached the North Sea by way of the Helinium, the mouth of the Meuse (Figs. 46 and 53). Besides Nijmegen important places on this limes may have been Rossum (Grinnes) and Castra Herculis, though the exact location of the latter is still unknown, and though the Tabula Peutingeriana suggests that this site lay on the northern road through the land of the Batavians, i.e. on the Rhine itself.

Finally I would like to devote some space to a settlement which, in spite of its position in the hinterland, must have been of great military importance in two clearly separate periods. It is the settlement of Cuijk (Figs. 46, 47 and Figs. 48-53), about 13 kilometres south of Nijmegen, on the west bank of the Meuse. On the Tabula Peutingeriana it is shown as Ceuelum, on the road from Atuat(u)ca (Tongres) to Noviomagi (Nijmegen), near the point where it crosses the Meuse. As a sequel to the investigations on the site by A.E. van Giffen in 1937, 1938 and 1948, the State Service for Archaeological Investigations at Amersfoort carried out extensive excavations there in the years 1964 — 1966.

In many respects Ceuelum resembles Grinnes (Rossum), which was situated at a point where only a very narrow strip of land separated Meuse and Waal. It lay on an inland water-way connecting the Rhineland with the North Sea by way of the Rhine and Waal, and was of further importance not only as a place where both Meuse and Waal could be crossed, but also, it may be assumed, as a road-junction (Fig. 46, 47). The finds indicate that there was a military settlement, most probably an auxiliary fort, at Rossum, on the south bank of the Waal, from at least A.D. 70.

The finds from Rossum and the results of the excavations at Cuijk show that the hinterland of the lower German limes — generally regarded as a single, rigid defence-line — may have had its forts as well, for the protection of important points: the stationes beneficiariorum consularis and the numerous late Roman burgi and larger fortifications along the main roads in the hinterland fall into this class.

So far the excavations at Cuijk (Fig. 49) have not yielded any evidence that the site was inhabited immediately before the beginning of the Roman occupation in about the middle of the 1st century A.D. At the other end of the Roman period the latest coins go down to A.D. 388-402. The oldest post-Roman finds are Merovingian, and date from the 7th century.
Fig. 51. Cuijk. Plan of the middle Roman features (2nd–3rd centuries). Scale 1:1,200.
1. (Building) trenches and post-holes.
2. Walls.
3. Drains.
4. Gravel road.
Fig. 52. Cuijk. Plan of the late Roman features (4th century). Scale 1:1,200.
1. Post-holes of rampart.
2. Post-trench parallel with rampart on its inner side.
3. Walls.
4. Drains.
5. Ditches.
6. 7th century Merovingian weaving-hut.
remains of two rectangular, more or less square, stone buildings, lying on each side of the road. These buildings seem to have been Romano-Celtic temples, consisting of a cella surrounded by a portico with a colonnade and a lean-to roof resting against the cella-walls (Fig. 51). They are likely to have belonged to a vicus that developed on the territory of the early Roman fort, and which later, after the departure of the military, expanded over the castellum area. There are reasons to assume that in this period there was a statio with a beneficiarius consularis in charge, in or near the vicus.

In late Roman times there was again a castellum at Cuijk, also surrounded by two ditches (Fig. 52). The distance between the centres of the most northerly and the most southerly

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Fig. 53. General map of the probable late Roman fortifications in the Lower Rhine area. After von Petrikovits, R.R., 78, Fig. 25, with additions. Scale 1:1,000,000.
The Limes of Germania Inferior

The ditch was in this case about 161 metres. On the north, south, and west sides the outer ditch was dug into the filling of one of the 1st-century ditches. As in the case of the early Roman fort, it was impossible to find any trace of the eastern boundary. Again three phases can be distinguished. The initial date of the first probably falls in the reign of Constantine I. The oldest late-Roman structure was a big rampart, 4 to 5 metres thick, which ran parallel with the ditches on their inner side. It was built of timber, turves and earth; its main constructional feature consisted of three parallel rows of large posts, placed at intervals of 2.5 metres. In the second phase repairs seem to have been made to the inner side of the rampart, especially to the timber work, for on the south and west sides of the fort traces of a trench were discovered, which ran parallel with the rampart on its inner side, and which had contained a number of posts.

In the third phase a stone wall was built on the outer side of the rampart. This wall had a thickness of 1.5 – 1.9 metres, and semi-circular projecting towers were placed at intervals along its length. At two points on the south side of the fort, the mortar on the inner side of the foundation of the stone wall showed the impression of a big, round post, evidently belonging to the rampart. From north to south the stone fort had a length of about 110 metres, not including the projecting towers.

Either concurrently with the building of the stone wall, or at a somewhat later date, the south rampart was partially removed, and in its stead a large, three-aisled building was erected. Its longitudinal axis ran north-south, and its outside measurements were 14.5 by 26 metres. Its south wall was part of the south wall of the fort. The aisles were separated by two rows of five piers each, placed at intervals of about 4 metres, but only five did any traces actually survive. They indicate that at least part of the building may have had an upper storey. Perhaps it was a granary or storehouse, but it is also possible that it served a more directly military purpose.

It is most likely, especially in view of the available coin-finds, that the stone fort dates from the reign of Valentinian I and Valens. The building of this fort is best regarded as a result of the many activities of Valentinian I in the Rhine area; he is even said to have fortified this river with a chain of large forts, extending from Switzerland to the North Sea, in about A.D. 369. Another fort probably dating from the reign of this Emperor is the stone burgus at Asperden in the “Reichswald”, about 14.5 kilometres east of Cuijk, close to the north bank of the River Niers (Fig. 53), which was excavated by H. Hinz and Mrs. Ilse Hömberg-Stade in 1964 and 1965. So far other examples of forts that can be assigned to Valentinian’s reign with any degree of certainty are unknown in Germania Secunda.

NOTES

1 H. von Petrikovits, Der Niedergermanische Limes, in Limes-Studien—Vorträge des 3. Internationalen Limes-Kongresses in Rheinfelden/Basel; 1957, 88-95 with Fig. 9; see also id., Das römische Rheinland (R.R.I, Köln-Opladen, 1960, Pl. 2.
2 Von Petrikovits, R.R., 35ff.
3 E. Stein, Die kaiserlichen Beamten und Truppenkörper im römischen Deutschland unter dem Prinzipat, Wien, 1932, 10f.
4 Tacitus, Hist., IV, 12, 2; see also Pliny, Nat. Hist., IV, 191.
5 J.E. Bogaers in BROB, 10–11, 1960–1961, 275; id., Die Besatzungstruppen des Legionslagers von

6 J.J. Holwerda, Romeinsche lagerplaats bij Ermelo, in: OMRL, N.R. 4, (1923), 40–44. W.J. de Boone (De Franken van hun eerste optreden tot de dood van Childeric, Amsterdam, 1954, 60f.) suggests a connection between this camp and a campaign of Constantius Chlorus against the Franks; see: Panegyrici Latini, VI (VII). 6. 2.


8 Tabula Peutingeriana. Segment II, 2 according to K. Miller’s division; see: Die Peutingerische Tafel, Stuttgart 1962.


13 See the maps made by M. Kiepert in 1884, nos. III (Gallia) and V (Germania mit dem Rhein- und Donau-Limes), in Th. Mommsen, Römische Geschichte, V, Berlin, 1885 (1921).


16 Even before the discovery of the inscription from Bulla Regia the existence of a (peregrine) civitas Frisianum could be deduced, with a high degree of certainty, from the fact that at least one of the regiments of the Roman auxilia was called after this people: cf. I, von Petrikovits in BJ, 152, (1952), 51; id. in Mainzer Zeitschrift, 58, 1963, 33, and H. Klumbach (after H.-G. Pflaum) in Limes-Studien, 74, - Certainly from the year 105 and down to the 4th century the Cohors I Frisiavonum was part of the army of Britain. See the military diplomata CIL, XVI, 51, 69 and 70, of AD. 105, 122 and 124 respectively; see further RIB, 1, 279 (co(oh)or(tis) Farrisavonum) from Melandria Castle, Castelford, Derbyshire; 577 (coho(ris) I Frisivonum) from Manchester; 578 (co(oh)or(tis) I Frisavigonum) from the fort in the Castle Field in Manchester; 579 (co(oh)or(tis) I [F]risavigonum) from Manchester; Notitia Dignitatum Occidentalis, XL, 36: tribunus cohortis primae Frigavorum Vindobala, Vindovula or Rudchester, Northumberland, on Hadrian’s Wall (see also RIB, 1, 1395 and 1396; E. Birley, Research on Hadrian’s Wall, Kendal 1961, 165); RIB, 1, 1523 (coho(ris) frivmiae) Frisivonum from Carrawburgh (Brocolitia), Northumberland, on Hadrian’s Wall. - The tile stamps C(IV) F(V), CIL, VII, 1243 a = A.W. Byvanck, Excerpta Romanae—de bronnen der Romeinse geschiedenis van Nederland, 1931–47, (ER), II, no. 1273 found at Caersws in Montgomeryshire, Wales, may have some connection with the Cohors I Frisianum as well; but see RE s.v. Cohors (Cichorius), 286 and V.E. Nash-Williams, The Roman Frontier in Wales, Cardiff 1954, 54 and 107f. (7 and 7a) and Pl. XL, 4. The coh(ors) III I (FR) frisavigonum from Manchester; Notitia Dignitatum Occidentalis, XL, 36: tribunus cohortis primae Frigavorum Vindobala, Vindovula or Rudchester, Northumberland, on Hadrian’s Wall (see also RIB, 1, 1395 and 1396; E. Birley, Research on Hadrian’s Wall, Kendal 1961, 165); RIB, I, 1523 (coho(ris) frivmiae) Frisivonum from Carrawburgh (Brocolitia), Northumberland, on Hadrian’s Wall. - The tile stamps C(IV) F(V), CIL, VII, 1243 a = A.W. Byvanck, Excerpta Romanae—de bronnen der Romeinse geschiedenis van Nederland, 1931–47, (ER), II, no. 1283, from Bowes, Yorkshire, may have been the cohors IIII [rerovicum], as suggested by E. Birley (RIB, I, 739).


18 Cf. Caesar, Bell. Gall., VI, 33. The Striene is to be identified with the Taboula mentioned by Ptolemy (Geogr., II, 9, 1 and 5): see I.H. Stolte in RIB, 9, 1959, 63f., Mededelingen, van de Vereniging voor Naamkunde te Leuven en de Commissie voor Naamkunde te Amsterdam, 40, (1964), 60f., Proceedings of

21 Cf. Tacitus, Hist., IV, 12, 2.


24 See H. Hardenberg in Limburgs verleden - Geschiedenis van Nederlands Limburg tot 1815, I, Maastricht 1960, 125 (map of Limburg in Roman times, showing two natural boundaries on the west: the Peel and in the bottom left-hand corner - the edge of the high terrace west of the Meuse).


27 An exception is, in a way, a tile fragment with a stamp of Legio I Minervia Antoniniana (A.D. 212-222), which was re-used in the foundations of a Carolingian church at Aalburg (municipality of Wijk en Aalburg), in the Land van Heusden en Altena. See: Opgravingen nieuws van de Rijksdienst voor het Oudheidkundig Bodemonderzoek, Jan._March, 1954, 2.


29 J.F. Bogaers, Twee Romeinse wijzmonumenten uit Alem, Noord-Brabant, in BROB, 12-13, (1962-1963), 39-56. The literature on finds from the area around Rossum and Alem listed in this publication can be supplemented with: VRGK (Jaarverslagen van het Rijksmuseum van Oudheden, Leiden), 75, (1953), 150; ibid., 77, (1955), 150 and 153, and ibid., 79, (1957), 147; J. Werner in BJ, 158, (1958), 379f. with Fig. 6, 3: a bronze "Stützarmfibel mit gleichbreitem Fuss", dating from the first half of the 5th century; J.S. Boersma in: Jaarboek voor Munten en Penningkunde (JMP), 50, (1963), 51, no. 398: coins from the 1st-4th centuries and from the 7th century; W.C. Brault in Bulletin van de Vereeniging tot bevrdering der kennis van de antieke beschaving te 's-Gravenhage, 39, (1964), 187f. (with Figs. 4 and 5): late Roman/Merovingian buckles and pins; W.A. van Es, Wijster — A Native Village beyond the Imperial Frontier, Groningen, 1967, 143, 145 (Fig. 70, 2 and 3) and 552 (Fig. 289, 12 and 13): bronze hairpins dating from about A.D. 400; ibid., 159 (Fig. 78, 1) and 162: a terra nigra-like cup dating from the 1st or 2nd centuries A.D.


Von Petrikovits, XX, 10, 1 (*limitem Germaniae Secundae*. N.B.: the term *limites Germaniae Inferiores* does not occur until the year 313, in *Pansyrici Latini*, XII (IX), 21, 5; cf. von Petrikovits, R.R., 36, note 43, and De Boone, *Franken*, 76); *Nomina provinciarum omnium*, 8; *Polemius Silvius, Laterculus*, II; *Notitia Dignitatum Occidentis*, III; *Notitia Galliarum*, VIII. See also H. Nesselhauf, *Die spätärmische Verwaltung der gallisch-germanischen Länder*, Berlin, 1938, 8ff.


The writer does not know of any late Roman (4th-century) finds from Katwijk Z.-H. (on the Brittenburg).


37 See inter alia Ammiannus Marcellinus, XX, 10, 1 (*limitem Germaniae Secundae*. N.B.: the term *limites Germaniae Inferiores* does not occur until the year 313, in *Pansyrici Latini*, XII (IX), 21, 5; cf. von Petrikovits, R.R., 36, note 43, and De Boone, *Franken*, 76); *Nomina provinciarum omnium*, 8; *Polemius Silvius, Laterculus*, II; *Notitia Dignitatum Occidentis*, III; *Notitia Galliarum*, VIII. See also H. Nesselhauf, *Die spätärmische Verwaltung der gallisch-germanischen Länder*, Berlin, 1938, 8ff.


On a piece of land called "Het Klooster". *See* C. Leemans, *Romeinsche oudheden te Rossem, in den Zalt-Boemelerwaard*, Leyden, 1842; J.E. Bogaers, *op. cit.* (note 29), 39–41. At Rossum there may have been a military settlement down to the 4th century; among other things bronze coins of Maximinus II Daia (1), Constantine I (4) and Constantius II (1) have been found at this place.


According to Ammianus Marcellinus, XXVIII, 2, 1.


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