

# THE BEGINNING OF THE LATE BRONZE AGE IN THE LOWER RHINE AREA

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*Twenty years after W. Kersten's 'Die niederrheinische Grabhügelkultur', Marcel Desittere published his study on the periods Ha A and B in the region between Lower Rhine and the North Sea. According to Desittere, the archaeological data of this period, which in the Dutch chronological scheme is indicated as the Late Bronze Age, justify the use of the name Urnenfelderkultur. In this article\*) we criticize this view because of the considerable number of autochthonous traditions that in the Lower Rhine area were prolonged from the Middle to the Late Bronze Age.*

## Introduction

Before writing the prehistory of an area the prehistorian must arrange his data. He classifies the objects found, describes the plans of houses, attempts a survey of the burial customs, and collects information about the settlements in the given region and about changes introduced there by the inhabitants. A repeated combination of identical facts from this and other sectors indicates to him the existence of fixed associations. Arranged according to time and place, these associations lead the prehistorian to speak of cultures. With their repeated combinations of identical facts concerning pottery, implements, the building of dwellings, the structure of the settlement, burial practices, and the means of supporting life, these cultures reflect the habits and customs of a given group of the population, and perhaps even of a whole people.

The task of the prehistorian is the study of the weal and woe of these cultures. They must be defined as accurately as possible, after which their position in time and place in relation to each other must be assessed. This procedure leads to the marking of boundaries, which, especially in so far as they are concerned with the time factor, may easily result in the drawing of false conclusions about the relationship between consecutive cultures. It is obvious that data used to define a culture gradually change in the

course of time, through internal or external influences. As time goes on the view formed of a culture differs more and more from the picture outlined in the original definition. Sometimes only a single change in one of the facts is sufficient to convince the prehistorian that he is now concerned with a new culture. In his survey he will mark the division between the old and the new cultures, but it is clear that the suggested division will be a fairly arbitrary one. Of more importance, in this case, will be the continuity between the two cultures, which is revealed by the similarity between a number of the data from both of them. There was here a gradual development whether subjected to external influences or not.

An invasion produces a quite different archaeological picture. Here the gradual development in the culture of the conquered group is suddenly interrupted and replaced by a culture which usually differs in many ways from the previous one. Sometimes one or more of the old cultural characteristics will be absorbed into the new culture. The boundary drawn in this case in the prehistorian's survey is certainly not arbitrary. It marks an event forming the beginning of a new period (Adams 1968). If we wish therefore to appreciate accurately the significance of the divisions in chronological surveys, we must compare all the data available about consecutive cultures.

Recently statements have been made about

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one of the divisions in Dutch prehistory, namely, that between the Middle and Late Bronze Ages. I refer to the conclusions reached by M. Desittere (1968) in his book: *De urnenveldenkultuur in het gebied tussen Neder-Rijn en Noordzee* (Urnfield Culture in the Region between the Lower Rhine and the North Sea). Once we realize that *Urnenveldenkultuur* is a translation of the German *Urnfelderkultur*, Desittere's standpoint becomes clear. He views the Lower Rhine, which includes the southern Netherlands, from the beginning of the Late Bronze Age as a part of the area covered by the *Urnfelderkultur*. In other words, according to Desittere, the archaeological data on the period beginning about 1000 B.C. in the Lower Rhine region show such a similarity to the data which characterize the *Urnfelderkultur* that both complexes can be given the same name (as long as a few regional variations are noted): the Northwest Group of the *Urnfelderkultur*. Desittere recognizes that this Northwest Group shows a number of elements indicating the continuance of the local population from the Middle Bronze Age until after 1000 B.C., but these local elements are of much less significance than the changes brought about in the Lower Rhine area by the *Urnfelderkultur*. He writes (p. 59): 'If we still include this group in the *Urnfelderkultur*, it is because we can distinguish no really original contribution of the indigenous population in the process of assimilation'. And, a little further: 'The local population can only be recognized in the clumsiness with which it uses the new range of styles, and in the survival of some of its burial rites, such as the raising of low barrows surrounded by peripheral structures'.

A study of Desittere's book shows that the phrase 'new range of styles' refers almost exclusively to the pottery of this group. Pottery does indeed play a remarkably large role in the available data about the Late Bronze Age in this region. In Desittere's work it assumes a predominating importance. It is true that he also outlines burial rites in the area discussed, but he does this only incidentally and qualitatively. There is no reference to bronzes in so far

as they are not found in graves or settlements. Considering the study as a whole I cannot avoid the impression that it was primarily the pottery that led Desittere to suggest the inclusion of this region in the *Urnfelderkultur*. In this way he finds the boundary between the Middle and Late Bronze Ages very clear: the influences emanating from the *Urnfelderkultur* dominate the picture, while the local dwellers apparently retained only a few of their traditions. These conclusions of Desittere's differ from those of W. Kersten. In 1948 an article by this archeologist was published posthumously under the title: *Die nieder-rheinische Grabhügelkultur* (The Lower Rhine Tumulus Culture, Kersten 1948). This was Kersten's name for the culture complex that came into being in the Late Bronze Age in the Lower Rhine area. He said of it (p. 14): 'Ganz sicher handelt es sich . . . um eine Gruppe der Urnfelderkultur'. 'Nun führt . . . diese nieder-rheinische Gruppe ein von den übrigen Gruppen dieser weitverbreiteten Kultur sehr anders geartetes Leben'. For this author also the influence of the *Urnfelderkultur* was therefore of primary importance. The native development of the Lower Rhine complex, however, made him decide to give it a different name. Kersten found little trace of old indigenous elements; they are limited to the custom of raising tumuli over the burial places, which was unusual in the true *Urnfelderkultur*. He also expressed some doubts (p. 67): 'Die sich hier (in the Lower Rhine) entwickelnde Kulturgruppe . . . hebt sich von den übrigen Urnfeldergruppen so ab, dass man eine Beteiligung einheimischer Elemente bei der Neubildung annehmen möchte. Oder erklären sich die Sonderheiten nur aus der äussersten Randlage der Gruppe?' It may be remarked here that Kersten finished his manuscript in 1942, when knowledge of the Middle Bronze Age in the Lower Rhine area was very limited. The sudden increase in Late Bronze Age finds he explained by (p. 14): 'eine plötzliche starke Vermehrung der Bevölkerung . . .'. He spoke of (p. 67): 'Die Volksbewegung der Urnfelderkultur . . .'.

Now, twenty years later, we have more facts

about the Middle Bronze Age. They come mainly from the Dutch part of the Lower Rhine area and are mostly the result of work done by W. Glasbergen (1954). These facts will be given below, together with those concerning the Late Bronze Age, and the boundary between the Middle and Late Bronze Ages will be investigated. In the light of the ideas discussed at the beginning of this article, an attempt must be made to include as many data as possible in our survey. Burial rites, pottery, the bronzes, and geographical distribution will be considered. Details about the building of houses, the structure of the settlements, and the means of sustenance are almost entirely lacking up to the present time because there has been hardly any investigation of the settlement sites.

In this article use will be made of the chronological scheme established by the Symposium on Prehistory in the Netherlands in 1965 (Berichten R.O.B. 1965/'66, p. 7–11). It was then determined that the Hilversum culture began in the Early Bronze Age. In the Middle Bronze Age Hilversum pottery developed into Drakenstein, and still later, into Laren pottery. The Late Bronze Age began in the southern Netherlands contemporaneously with the first influences of the *Urnenfelderkultur* and the Lower Rhine *Kerbschnittkeramik*. As Desittere has made clear, this beginning can be placed in the period Hallstatt A2, according to the chronology suggested by H. Müller-Karpe (1959). From this period, Ha A2, date the earliest urnfields in the Lower Rhine area. They develop further during Ha B, a period also included in the Late Bronze Age. The urnfields of the Late Bronze Age are here indicated as 'early', and are thus distinct from the late urnfields dating from the Iron Age. The beginning of the Iron Age in the southern Netherlands may be placed at the beginning of the period Hallstatt C.

#### *Burial rites*

In the Late Bronze Age, at the end of the period Ha A, the first urnfields were laid in the Lower Rhine area. Generally cited as characteristics, in addition to pottery, are the cremation of the

dead, the placing of several urns with cremated bones on the same terrain, and the raising of a small tumulus above each urn. The tumuli were almost always surrounded by a circular ditch. In most cases the urn burial consists only of the urn with the cremation. Additional pots and lids, or other offerings, are rarely found.

Desittere (1968, p. 59) points out the existence of graves without urns in urnfields. These burials consist of the burnt bones of the dead buried in a pit, sometimes with charcoal remains from the pyre. In our view this group in particular has received too little attention hitherto.

	with- urn	with out urn	%	
Achel- Pastoorsbos	11	20	64.5	Late Bronze
Best	40	31	44	Age (Early
Goirle '65	1	7	87.5	Iron Age)
Laag Spul	—	14	100	44–100%
Witrijt	10	24	71	
Goirle '26	17	8	32	Late Bronze
Riethoven	25	3	11	Age/Early
Valkenswaard	16	3	16	Iron Age
				11–32%
De Hamert	88	6	6.5	Early Iron
Lommel- Kattenbosch S	19	—	0	Age 0–23%
Meerlo	4	1	20	
De Roosen	41	12	23	
Toterfout	4	1	20	

Fig. 1.

Cremation burials without urns appear to occur in several urnfields in the Lower Rhine region. In Achel-Pastoorsbos (Belgium) 31 burials were found, of which 20 had no urns (Beex/Roosens 1967). In Best (the Netherlands) 31 of the 71 burials were without urns (Willems 1935). In the section of the urnfield uncovered at Goirle (the Netherlands) in 1965, 7 of the 8 burials were without urns (Verwers 1966c). Round the long bed of the Goirle-type at Laag Spul (the Netherlands) all 14 burials had no urn (Modderman 1957/'58). In Witrijt (the Netherlands) 24 urnless burials were found out of a total of 34 (Van

Giffen 1937, p. 47–56)<sup>1</sup>. In these above-named burial places most of the burials date from the Ha B period. As the table of figure 1 shows, the percentage of burials without urns in relation to the total number of burials lies between 44 and 100%<sup>2</sup>.

This large number of graves without urns cannot be ascribed in the burial places named to a later period (Early Iron Age), because it is precisely in these burial places that the number of burials dated by urns as belonging to this later period is small. In the Early Iron Age the urn seems to have a clearly dominating place in the burial ritual. The urnfield at De Hamert (the Netherlands) showed 88 burials in urns and only 6 without (Holwerda 1914). In the southern (Ha C/D) part of the burial grounds in Lommel-Kattenbosch (Belgium) only urnburials occur (De Laet/Mariën 1950). In Meerlo and Toterfout (the Netherlands), 4 of the 5 burials in each place were in urns (Verwers 1966a; Glasbergen 1954, II, p. 95–97). The burial ground at De Roosen (Belgium) yielded 41 burials with urns, and 12 without (Roosens/Beex 1960, 1961, 1962). In this group of burial places therefore only between 0 and 23% of all burials were without urns.

Although these findings are based on a small number of burials, and percentage variations are therefore possible after more extensive enquiry, at the present time the conclusion is justified that in the early urnfields in the Lower Rhine area burial not only took the form of interment in an urn but also, frequently, of burial of the ashes of the dead without any permanent container. Of the 158 Late Bronze Age burials in the above-mentioned burial fields 96, or nearly 61%, were found to be without urns. Only in the subsequent Early Iron Age was urnburial generally accepted, as is apparent from the figure

of only 11% without urns out of the total of 176 burials.

Late Bronze Age burial rites on the Lower Rhine seem to have a heterogeneous character. Burials with and without urns occur in about equal numbers. The burial of offerings is rare. Many burials are covered with a tumulus, which is usually surrounded by a circular ditch.

A comparison of Late Bronze Age burial rites with those of the Early and Middle Bronze Ages reveals a number of similarities: the cremation rite, the occurrence alongside each other of burials with and without urns, the raising of tumuli, and the situation in groups of the burials. The cremation of the dead is an old tradition in the Lower Rhine area. It occurs sometimes during the Bell Beaker period. In the course of the Early and Middle Bronze Ages it was used more and more frequently, until it finally replaced entirely the practice of burying the corpse<sup>3</sup>.

The use of urns in burial rites was introduced in the Early Bronze Age in these regions by the Hilversum people. The urn remained in use, under the name Drakenstein urn and Laren urn, certainly into the period Ha A (Glasbergen 1969). The interment of cremated remains without an urn also occurs frequently in the Early and Middle Bronze Ages. Glasbergen (1954, II, p. 140) says of the tumuli at Toterfout (the Netherlands): 'The cremation burials consisted mostly of simple interments of cremated bones, with charcoal from the pyre, in shallow pits'. There, apart from 7 burials of cremated remains in post-holes and 2 in tree-coffins, 8 burials in urns and 20 cremations in pits were noted.

A tumulus at Neer (the Netherlands) revealed 8 cremation burials, of which one was in an urn, one in a tree-coffin, two in post-holes and four in a pit (Harsema 1965, p. 144). In the 3 tumuli

<sup>1</sup> My thanks are due to the Director of the Biological-Archaeological Institute, Groningen, for permission to consult notes about the excavations at Best and Witrijt.

<sup>2</sup> These percentages are perhaps too high, as they are calculated on the total number of burials, in which a small number of later burials may have been included.

<sup>3</sup> Desittere's doubts about the survival of the cremation rite until the beginning of the Late Bronze Age is strange; as far as I know there is no evidence of any change in burial ritual at the end of the Middle Bronze Age (Desittere 1968, p. 57). <sup>14</sup>C-dating of cremation burials in the cemetery at Haps lie between 1250 ± 70 B.C. (GrN-5687) and 1060 ± 45 B.C. (GrN-5689).

at Hooge Mierde (the Netherlands) cremations in pits were also found, as well as burials in urns (Willems 1935). This arbitrary reference to available data shows clearly that burials with and without urns occurred side by side in the Early and Middle Bronze Ages.

During the Late Neolithic period the raising of burial tumuli was already customary. In the Middle Bronze Age the bases of the tumuli were surrounded by post-circles or circular ditches. Sometimes there is no peripheral structure. The diameter of the tumuli is usually more than 10 metres. In the Middle Bronze Age the tumuli often lie together in groups, as is usually the case during the Late Bronze Age. Of importance is also the fact that in several places tumuli dating from the Early and Middle Bronze Ages seem to form centres around which urnfields were laid in the Late Bronze Age. Examples of this were found during excavations, among other places, at Berghem, Goirle, Haps, Knegsel, Meerlo, Toterfout, and Veldhoven <sup>4</sup>.

A comparison of the burial rites of the Middle Bronze Age with those of the Late Bronze Age also reveals some differences. The average tumuli of the first period are bigger than those of the second, those of the first being more than 10 metres in diameter and those of the second less, while the average diameter of urnfield tumuli is about 6 metres <sup>5</sup>. Moreover, multiple rings of post-circles round well-dated tumuli of the Late Bronze Age have not been found up to the present time. P. J. R. Modderman (1962/'63, p. 575), however, has shown that the placing of posts was also practised in the laying out of urnfields. Circular ditches around the tumuli are also known to have been used in the Middle Bronze Age. In the cemetery at Haps, the <sup>14</sup>C-dating of 1060 ± 45 B.C. of a burial in the centre of a circular ditch, of which the tumulus was 14 metres in diameter, shows that this type of circular structure was still in use at the end of the Middle Bronze Age.

<sup>4</sup> Berghem: Verwers 1966b. Goirle: Verwers 1966c. Haps: in preparation. Knegsel: Braat 1936. Meerlo: Verwers 1966a. Toterfout: Glasbergen 1954. Veldhoven: Modderman/Louwe Kooijmans 1966.

<sup>5</sup> Report on excavations at Haps; in preparation.

In considering these facts I was especially struck by the similarity of the burial rites of the Middle and Late Bronze Ages. The conclusion that the traditions of the first period continued into the second period appears to be sound. The proposition that in the Lower Rhine area 'the coming of the Urnfield people, finally, was to cause radical changes in the burial ritual' seems debatable (Glasbergen 1954, II, p. 140).

#### Pottery

Knowledge of Late Bronze Age pottery is entirely based on the discoveries made in the early urnfields. Large numbers of urns found in these excavations are now displayed in museums. In his previously mentioned monograph Desittere gives a very good survey, in words and pictures, of the available material. He describes very clearly the long-established conformity between the pottery shapes of the Lower Rhine area and those of the *Urnfelderkultur*. In addition to the very typical *Zylinderhals*-, *Trichterhals*-, and *Kegelhalsurnen*, he distinguishes, among others, *Henkeltöpfe*, *Deckeldosen*, beakers, and dishes, which all show a relationship with discoveries made in southern Germany and Switzerland. The resemblance in form also makes it possible to determine that the oldest urns date from the end of the period Ha A, but especially from the earliest phase of Ha B. Not only the shapes but sometimes also the decorative motifs employed on the pottery show a similarity.

Desittere particularly stresses that these similarities indicate only the influence of the *Urnfelderkultur*. Very few pots found in the Lower Rhine region can be regarded as the product of potters in southern Germany and Switzerland, except for a few shouldered beakers (Desittere 1968, p. 30, 31) and the attractive funnel-shaped urns from Deurne and Riethoven (Desittere 1964). It is noteworthy that these examples belong to the earliest phase of the Lower Rhine urnfields. If we compare this attractive pottery with other material from these urnfields, we can conclude, with Desittere, that in this region we have to do with 'local imitations' of pottery that was technically much better made further south.

This is particularly noticeable when we examine the composition of the clay used, the thickness of the potsherds, the handling of the surface, and especially the execution of the decoration.

The foregoing refers mainly to smooth-walled pottery. There is also a group of urns described by Desittere (1967) as *Grobkeramik der Urnenfelderkultur* (crude pottery of the Urnfield culture). We may also say that these thickwalled pots are partly local imitations of utensils from the pure *Urnenfelderkultur*. The striking fact is that it is especially in this group that the influences of the local Drakenstein and Laren pottery of the Middle Bronze Age are to be recognized, in the form of rows of fingertip impressions on the shoulder curve. This decorative motif does not occur on the shoulder curve in pottery of the *Urnenfelderkultur*, but it is well known in the Drakenstein/Laren group.

*Kerbschnitt* decoration plays an important part in the discussion of pottery of the Lower Rhine urnfields. Both Desittere and Kersten regard it as typical of this area. Desittere notes, correctly, that it is not confined to a particular form of pottery. It occurs frequently on cone-, cylinder-, and funnel-necked urns, but is also for example found on cylinder-shaped pots and the so-called *Deckeldosen*. Much has been written about the origin of this technique. With Desittere one may affirm that it occurs in the southern German and Swiss *Urnenfelderkultur*, and was perhaps adopted in the Lower Rhine area via the Neuwied Basin. It is noteworthy that the motifs used to decorate pottery by means of this technique are clearly different in our region from those usually found further south. It is possible, therefore, to speak of a Lower Rhine *Kerbschnitt*, by which we mean all decorative motifs, or parts of motifs, made by cutting them out of the still wet clay. To restrict the term *Kerbschnitt* (groove) to a series of triangles, as Desittere proposes, seems to be unjustified. Numerous pots show that this triangular decoration, often with the triangles alternating in position so that a zig-zag band results, is nearly always combined with excised grooves. Round holes which have been cut out are also found.

Motifs consisting of figures scratched in the clay are not classified under the *Kerbschnitt* technique.

This explanation indicates the importance of an accurate description of the technique used for decoration on each piece of pottery. It provides us with chronological points of contact. The true *Kerbschnitt* technique is almost exclusively used on the earliest pottery of the Lower Rhine urnfields. The period Ha B may be given as a general dating. The scratched decoration, in its earliest stage, is a clear development from the *Kerbschnitt* technique and is sometimes combined with it. This scratched decoration therefore begins in the same period, but continues into the Iron Age.

As has already been said, pottery of the Early and Middle Bronze Ages is referred to by the type-names Hilversum-Drakenstein-Laren (Glasbergen 1969). To this group belongs pottery with thick walls; the clay was tempered with fragments of quartz grit. Hilversum pottery is usually decorated, but Drakenstein and Laren pottery either often has no decoration or the decoration is limited to horizontal rows of fingertip impressions on the neck. From the Early Bronze Age this pottery is found as urns under or in tumuli. They were still used at the end of the Middle Bronze Age, as the <sup>14</sup>C-dating at Haps of 1060 ± 45 B.C. shows<sup>6</sup>. This pottery has also been found in settlements. Short excavations brought relics of occupation to light near Vogelenzang and The Hague (Groenman-van Waateringe 1961). More extensive information was obtained from investigations at Zijderveld (Hulst 1966), Hien (Hulst 1967), and Nijnsel (Beex/Hulst 1968). Among the finds gathered by amateurs at the settlement at Laren is a bronze pin dating from the Ha A I period (about 1100 B.C.) (Butler 1969, p. 48). As both burial and settlement finds are available, it is evident that the whole range of pottery shapes of the Early and Middle Bronze Ages is known to us. It makes a uniform and chiefly a crude impression.

The material of the Late Bronze Age provides

<sup>6</sup> See note 3.

a remarkable contrast. Before reaching conclusions, however, we should realize that no full inventory of early urnfield pottery has yet been carried out. The overall picture is thus chiefly arrived at on the basis of the 'beautiful' finds, with their clear influences from the *Urnenfelderkultur*. I have already mentioned, however, the thick-walled pottery on which the decorations with, among other types, horizontal rows of fingertip impressions continued the traditions of the Drakenstein/Laren group. Moreover, it must be remembered that there have been no finds of Late Bronze Age settlements in the southern Netherlands, so that it is possible we do not yet know the full range of the pottery of this period. It is conceivable that the pots used as urns were chosen for this purpose from the whole range of shapes. Pottery used in the settlements therefore consisted perhaps of other material. Possibly this conclusion is indicated by the finds from the western Ruhr, described by Rudolf Stampfuss (1959). These settlement complexes contained, in addition to a small amount of material influenced by the *Urnenfelderkultur*, a great deal of rough-surfaced pottery, tempered mainly with stone grit and sometimes with pieces of pottery, and decorated with finger and nail impressions on and under the rim. This combination of coarse and fine pottery was also found in a refuse-pit in Siersdorf (Bonner Jahrb. 150, 1950, p. 146-147).

Caution therefore leads us to declare that a comparison of the complete range of pottery from the Early and Middle Bronze Ages with that of the Late Bronze Age is really not yet possible. It is however clear that, besides an occasional continuous tradition, *e.g.* in the coarse pottery, there was an entirely new range in the Late Bronze Age. In this innovation the influence of the *Urnenfelderkultur* is unmistakable. Nevertheless, the examples here remain local imitations, and the Lower Rhine *Kerbschnitt* stresses what is specific to this area.

#### *Bronzes*<sup>7</sup>

The bronzes may be left out of discussion in the comparisons made of the above-named com-

plexes, for nearly all bronzes found in the Lower Rhine area were exports from the pure *Urnenfelderkultur*. According to Desittere (1968, p. 10), 'the region between the Lower Rhine and the North Sea was linked by trade relations, at least since the Middle Bronze Age, with southern Germany, especially along the Rhine'. He established here an important idea, in our opinion: 'It is therefore highly questionable whether the occurrence of isolated urnfield bronzes does not, quite simply, indicate a continuance of the trade relations which already existed in the Middle Bronze Age, that is before the penetration of the *Urnenfelderkultur* to our regions'. Could this idea apply to the pottery as well?

#### *Geographic distribution*

The region inhabited during the Late Bronze Age can only be defined, in the absence of information about settlements, from the evidence of burial finds. The recent maps by Desittere (1968, maps 7 and 8) show that early urns were found almost everywhere in the Lower Rhine area. The situation in the Early and Middle Bronze Ages is provided by a map by G. Beex (1960) indicating the position of tumuli of this period. This map can be supplemented with a few recently examined tumuli at, for example, Berghem, Haps, Meerlo, and Neer<sup>8</sup>. If, moreover, we add the places where pottery of the Hilversum-Drakenstein-Laren group was discovered, it seems that at least the whole Dutch part of the Lower Rhine area was inhabited during this period.

A clear boundary between the Early and Middle Bronze Ages on the one hand and the Late Bronze Age on the other cannot therefore be inferred from the distribution maps. An

<sup>7</sup> This article had been completed before publication of *Nederland in de Bronstijd* by J. J. Butler. Among other things the writer suggests (p. 49) that the southern Netherlands had its own bronze industry in the Late Bronze Age. This very important conclusion provides unexpected confirmation of the arguments I put forward here in postulating the independence of Late Bronze Age culture in the Lower Rhine area.

<sup>8</sup> Berghem: Verwers 1966b. Haps: unpublished. Meerlo: Verwers 1964. Neer: Harsema 1965.

eventual difference in the density of the population may be indicated in view of the large number of finds in the early urnfields. It must equally be considered that the smooth-walled urns of the Late Bronze Age because of their better quality have remained in a better state of preservation, while much of the older pottery has been entirely lost. Moreover, up to the present time not even the roughest of estimates has been made of the numbers of burials in both periods.

A comparison of the distribution maps of finds from the Early and Middle Bronze Ages with map 7 by Desittere, in which the Late Bronze Age in the Lower Rhine area is shown, reveals a remarkable similarity in one aspect<sup>9</sup>. In both maps a large number of finds are concentrated in the Kempen. Desittere reports that this region yielded a quantity of pottery of the type still belonging to the end of the period Ha A and consequently must be included among the earliest of the Lower Rhine urnfield discoveries. The first local imitations of *Urnenfelder* pottery were thus made in a region which, to judge by the number of tumuli and urns which have been found, also supported a considerable population in the previous period.

#### Summary

This conclusion brings me back to the points made at the beginning of this article. The purpose of the comparison of the archeological complex of the Early and Middle Bronze Ages with that of the Late Bronze Age was to try to sketch the significance of the boundary which archeologists mark between both periods. This significance rests primarily on the extent to which both complexes differ from or agree with each other.

A similarity is present mainly in the burial rites, with cremations, tumuli, and circular ditches, burials with and without urns presenting clear data. As, moreover, the same terrains in a number of cases remained in use as burial places during both periods, it seems evident that there was some continuity in traditions. This indicates

the possibility that the finds from both periods originated from one and the same people. This conclusion is strengthened by the probability that the area occupied remained the same, as appears from the distribution maps.

A comparison of the pottery finds shows that there are considerable differences. A contrast to the thick-walled crude material of the Hilversum-Drakenstein-Laren group is provided by a series of attractively shaped and frequently decorated urns, technically of much better quality, dating from the Late Bronze Age. Here the influence of the *Urnenfelderkultur* is clearly to be seen. It inspired the local potters to imitation. That these craftsmen were the same as those who also made the crude pottery of the Early and Middle Bronze Ages may be concluded from a quantity of pottery which occurs in the urnfields alongside the attractive *Urnenfelderkultur* imitations. I refer here to the already mentioned group of rough-walled pots in which – in their decorations, among other characteristics – the traditions of the Early and Middle Bronze Ages are still evident. Moreover, I repeat, no pottery from settlements of the Late Bronze Age has been found in the southern Netherlands. The above-named German examples make it possible that it is precisely in this group of finds that echoes of the previous period may survive.

Although it is separate from the Lower Rhine in its autochthonous traditions, the northern Netherlands calls here for a comparison of its development. There, on the one hand, the rough *Kümmerkeramik* from the Early and Middle Bronze Ages still occurs in settlements in the Late Bronze Age. The settlement at Elp, excavated by H. T. Waterbolk, was even continuously inhabited in both periods (Waterbolk 1964). On the other hand, *Kümmerkeramik* is found in limited quantities in the northern urnfields of the Late Bronze Age (Clason 1959).

Although only a brief discussion of available data is presented here, and it is possible that some points have been overlooked, I venture to draw a conclusion from the foregoing. The transition from the Middle to the Late Bronze

<sup>9</sup> I am indebted to J. F. van Regteren Altena, R.O.B., Amersfoort, for pointing out this similarity to me.



Age cannot be described as a historically important event in the Lower Rhine area. The people living in both periods were the same, as is borne out by the number of identical traditions. There is no question of an immigration of any significance. The division made at this point in the chronological scheme of Netherlands prehistory is therefore correctly fixed by the appearance of influences, namely, those of the *Urnenfelderkultur*. The evidence of these influences lies almost entirely in some of the pottery — very clearly so in the short period at the beginning of the urnfields<sup>10</sup>. It is striking that it was particularly the potters in the more thickly populated centres, such as the Kempen, who first adopted the new technique. This change in technique may be viewed as the result of the contacts which the Lower Rhine area had maintained for many centuries with southern Germany along the Rhine. These contacts are illustrated by the import of bronzes from those regions<sup>11</sup>. When the people here, via these existing contacts, gained experience of the much superior pottery techniques of the south, their potters readily abandoned at least some of their old traditions. The adoption of the new technique, viewed in this way, seems a good example of the diffusion of a tradition, such as must have taken place on a large scale throughout the whole period of prehistory.

Finally, I would like to consider the problem of the naming of the archeological complexes under discussion. Data from the Early and Middle Bronze Ages are indeed classified under the name of Hilversum culture. In this culture pottery of the type called Hilversum developed via Drakenstein to Laren. The first influences of the *Urnenfelderkultur* — that is to say, innovations in (a part of) the pottery — are regarded as a distinguishing mark for the beginning of the Late Bronze Age. It seems therefore justifiable to give another name to the

Lower Rhine culture dating from this moment. As the influences of the *Urnenfelderkultur* are limited to the traditions of the potters, while the other traditions indicate a prolongation of those of the previous period, Desittere's proposal to include the Lower Rhine area in the sphere of the *Urnenfelderkultur* appears to be mistaken. The great difference in numerous other traditions certainly weighs more in the balance than the similarity of the pottery in both complexes; examples are found in burial practice, which in southern Germany and Switzerland was to make flat graves without tumuli and to deposit pottery, often in considerable quantities, and in the development of a local bronze industry on which depended the closely linked social and economic structure of the community.

Consequently, there seems to me to be no reason for changing Kersten's name for this culture. The term *Niederrheinische Grabhügelkultur* indicates one of its typical traditions and its geographical extent. Its area is at the same time defined by the distribution of urns with *Kerbschnitt* decoration. Its eastern boundary lies on the right bank of the Rhine between Düsseldorf and Arnhem, and its western limit is the Scheldt. Finds have been made in the intermediate area in the Belgian provinces of Limburg and Antwerp, and in the northern part of Brabant, and in the Dutch provinces of Limburg, North Brabant, and a part of Gelderland. It seems likely that the right bank of the Rhine west of Arnhem also forms the boundary of the area. However, no finds have yet been made of, among other things, *Kerbschnitt* decorated pottery in the southern Veluwe and the Utrecht range of hills. Neither have such finds been made in the river regions. Finally, the incidence of *Kerbschnitt* decoration in Westphalia and the northern Netherlands is too scattered to classify the finds from these places as belonging to the *Niederrheinische Grabhügelkultur*, especially as they clearly differ from material from the Lower Rhine area.

The beginning of the *Niederrheinische Grabhügelkultur* lies at the end of the period Ha A, that is, in the 11th century B.C. Its full develop-

<sup>10</sup> A vague influence is also seen in the rich graves described by Desittere (1966) and the dolium graves of Goirle and Pfalzdorf-Keppeln, which he does not mention in his dissertation.

<sup>11</sup> See e.g. Butler 1964.

ment occurred in the Ha B period. Although our knowledge of the subsequent Iron Age in the Lower Rhine area is still incomplete, so many traditions apparently lapsed in the 5th century B.C. that this date may also mark the end of the *Niederrheinische Grabhügelkultur*.

In the above article I have criticized some of the conclusions reached by Desittere in his recently published dissertation, but I take this opportunity of expressing my admiration for this work. It represents the end and crown of years of study, carried out mainly in the storehouses of numerous museums. The result is an amply documented survey of the material available from the periods Ha A and B in the area between the Lower Rhine and the North Sea. Desittere's typological and chronological views show that this examination of the finds was made in the light of an extensive familiarity with everything published about the southern German and Swiss

groups of the *Urnenfelderkultur*. This means that his book will be widely used by anybody occupied with the problems of prehistory in the Lower Rhine area<sup>12</sup>.

<sup>12</sup> Recently W. Kimmig published an excellent review on Desittere's study under the title: *Zur Frage der Urnenfelderkultur am Niederrhein (Helinium 10, 1970, p. 39-51)*. Unfortunately there is no possibility to include Kimmig's conclusions in detail in the present article. I would like to quote, though, a part of Kimmig's remarks on Desittere's Northwest Group:

'Prüft der mitteleuropäische Beobachter unbefangen den von Desittere so wohl aufbereiteten Fundstoff (Fig. 28-103, dazu die Typentafeln III-X), dann ist der beherrschende Eindruck der, dass zwar an der Basis der von D. beschriebenen niederrheinischen Gruppen fraglos die Urnenfelderkultur des nordwestlichen Voralpenraumes steht, dass aber diese Gruppen doch sehr schnell eigene Wege gegangen sein müssen. Es muss sich bei ihnen um ganz periferer Ausläufer gewissermassen in einem Kolonialgebiet handeln, die - mit der Grundkultur im Kern wohl schon nicht mehr unmittelbar verwandt - lediglich einen äusseren urnenfelderischen Anstrich bewahrt haben'.

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