NIEDERBIEBER AND ANDERNACH

EXAMPLES OF FINAL PALAEOLITHIC SETTLEMENT PATTERNS IN THE NEUWIED BASIN (CENTRAL RHINELAND)

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In several respects, the Neuwied Basin, situated 70km southeast of Cologne, is of supraregional importance for the study of the Final Palaeolithic.

Forests, buried and preserved under layers of Laacher-See-pumice (Bims) and ash (Trass), as well as other botenical remains and an abundant fauna permit a detailed reconstruction of the environment at the end of the last glaciation some 12,000 years ago. In connection with outstanding archaeological remains we thus can draw a precise picture of the final palaeolithic hunter within his environment. Especially two sites deliver important information about the settlement-structures and the way of living during Alleröd times: Andernach, situated on the left bank of the Rhine (fig. 1) and Niederbieber in the township of Neuwied on the right bank of the Rhine.

With an extension of some 10,000 square meters Niederbieber (fig. 2) is the most important final palaeolithic site in the Rhineland. Since its discovery in 1980, different kinds of settlement structures have been uncovered (M. BOLUS 1990).

Typical for the Alleröd interstadial are round concentrations of artifacts with a diameter of 4 - 5 m and a central fire-place (fig. 3). So far we have excavated two concentrations of this kind at Niederbieber. Both of them first of all show burnt artifacts grouped circularly all around the fire-place, followed by unburnt artifacts. Spots with a higher density of artifacts can be observed here.

Larger pebbles describe a circle around the artifacts, at last followed by the unburnt animal-bones which in one case are concentrated especially northeast and southwest of the artifact-scatter. Hence results the following sequence from the centre to the periphery: fire-place, zone of various activities, waste area.

In both concentrations of Niederbieber chalcedony was almost the only raw material used for the production of artifacts. Since both concentrations are nearly indentical, only one of them is to be described in details (fig. 4). The fire-place could be made out by countless

calcined bone-splinters, charcoals and a slightly reddened soil. This area with a diameter of about 1m was practically free of artifacts. Situated all around the fire-place are various working-places: There is evidence for all steps of stone-working from rough core preparation through blank production up to tool making. The tools have been used on the spot and at last abandoned there. The most important tool-types are backed pieces, i.e. backed points ('Federmesser') and backed bladelets, short scrapers and burins (fig. 5). Truncations, laterally retouched pieces and borers are more seldom to be found. The main tool-types show different patterns of distribution: while the scrapers accumulate more southwest of the fire-place and slightly further away (fig. 6), the backed pieces tend to concentrate closer to the fire-place and a bit more northeast of it (fig. 7). In contrast to that the distribution of the burins largely coincides with that of the already mentioned clusters of animal bones at the periphery of the main artifact-scatter (fig. 8). A basalt-cobble with numerous use marks on its surface indicates another workshop as well as nine retouchers lying at the periphery of the artifact-scatter (fig. 9). An antler of red deer and mandibles of differently aged red deer individuals make us infer that the settlement took place during winter.

Not only because of their similarity do both concentrations have to be mentioned together. Into a knapping sequence refitted to a core from one of the concentrations two blades from the other could be fitted in. The distance of the conjoined pieces amounts to about 30 m. This is perhaps a hint at the contemporaneity of both structures.

The structures mentioned can be interpreted as longer used multifunctional open-air workshops with a central fire-place. By means of ethnological comparison (see L.R. Binford 1983) one can say that each is connected with a dwelling structure (i.e. a tent) which, however, has not been excavated so far.

A special area of activities was uncovered a bit aside of the settlement area proper near a small river valley (fig. 2).

Here a depot of five retouchers has been found (fig. 10), some of them strongly affected by fire (G. Bosinski et al. 1982). To the west of the retouchers lay particularly burnt artifacts and small chips from the fabrication of tools. Tools themselves were lacking with the exception of a few useless fragments.

From this one can conclude that the tools, which had been produced here, have been put away and probably taken to the settlement area proper.

A larger, more diffuse feature in the north of the site (fig. 2) has to be interpreted in a different way. Several depressions in the Alleröd surface, fire-places and their clearing areas have been uncovered (fig. 11). There are no artifact-scatters grouped circularly around these fire-places. Between the features lay clusters of animal bones and small diffuse concentrations of stone artifacts made respectively of one distinct raw material. In most of the cases it is even material of only one single piece of raw material. We can interpret these concentrations as small restricted knapping and working places, where artifacts and tools were produced ad hoc out of one single piece of raw material. Raw materials used here are tertiary quartzite, lydite, flint, and chalcedony. Multiple repetition of this process accounts for the various small concentrations of stone artifacts. The fire-places, bone clusters and artifact concentrations are the remains of different restricted working places within a wider spread working area. It is most probable that such an area of activities is closely associated with one or several dwelling structures.

The excavations at Andernach have made clear that features of the kind described above are typical of Alleröd-settlements. In the upper layer of the Martinsberg in Andernach, that is the final palaeolithic horizon (fig. 12), we also found restricted artifact concentrations

of either tertiary quartzites (fig. 13), lydite (Fig. 14), different flint varieties (fig. 15), or - seldom - chalcedony, moreover bone clusters and the remains of fire-places. Again we have proof for an ad hoc production of artifacts (M. Bolus 1984). On the spot always just on piece of raw material was roughly prepared, blanks were knapped, tools were made and used, and those tools at last abandoned at the same spot.

Refittings show that most of the artifact concentrations and bone clusters belong to only one longer period of settlement.

Nevertheless we have both at Andernach and at Niederbieber hints for a repeated use of these wider spread areas of activities.

At the Martinsberg at Andernach we did not find a circular structure as at Niederbieber. A small sondage some 20 m from the site proper, however, delivered countless artifacts exclusively made of chalcedony, a raw material, which was nearly absent at the site. By analogy to the site of Niederbieber it might be a small part of such a round structure characterized by just one single raw material.

In this case we had at Andernach, too, the close association of a longer used multifunctional workshop with a dwelling structure and a wider spread area of various activities.

For me this, the immediate association of a longer used workshop and a dwelling structure on the one hand and a wider spread area of activities which lies beyond on the other hand, is the regular and characteristic settlement structure of Alleröd-time.

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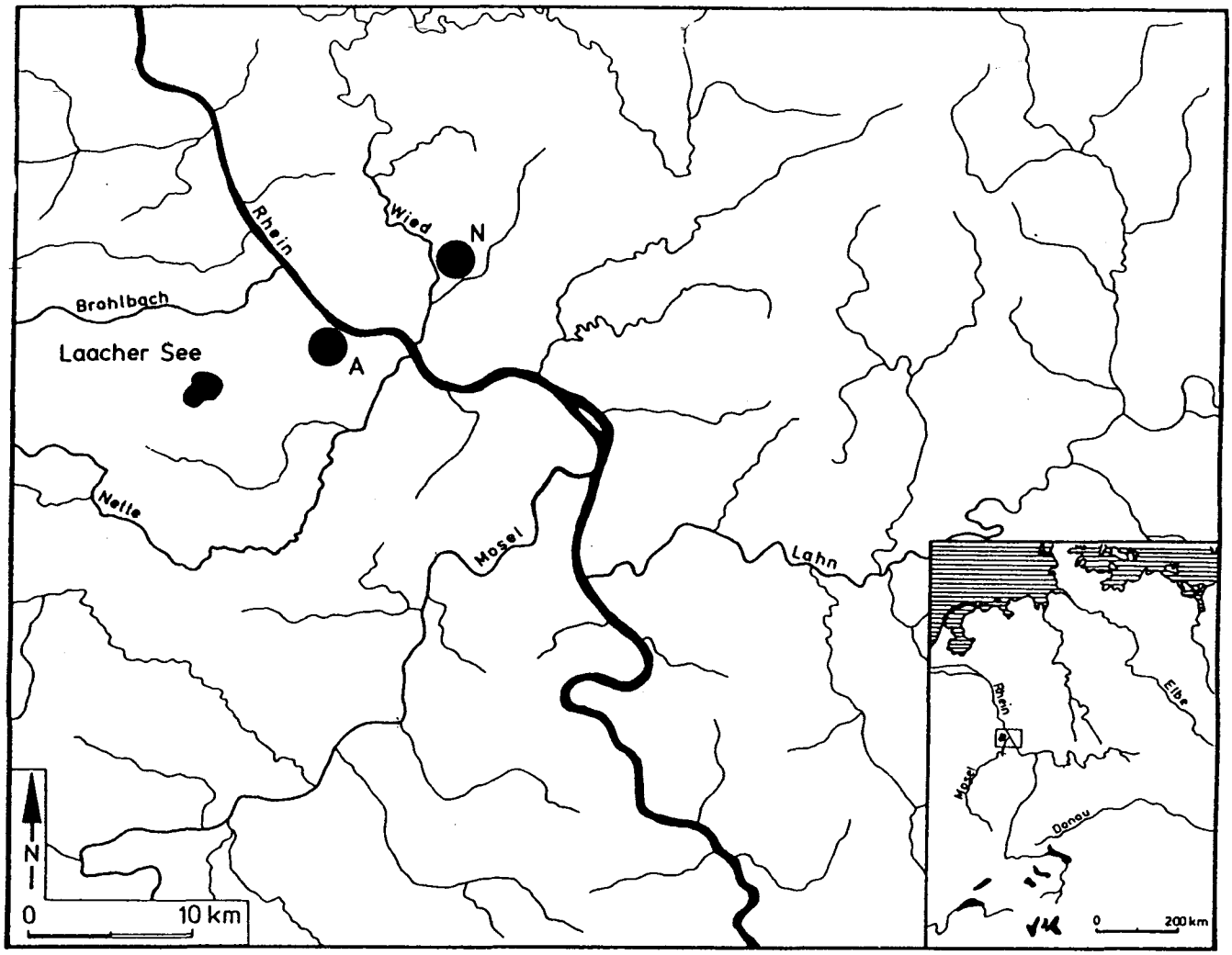

Fig. 1: Situation of the sites of Andernach (A) and Niederbieber (N).

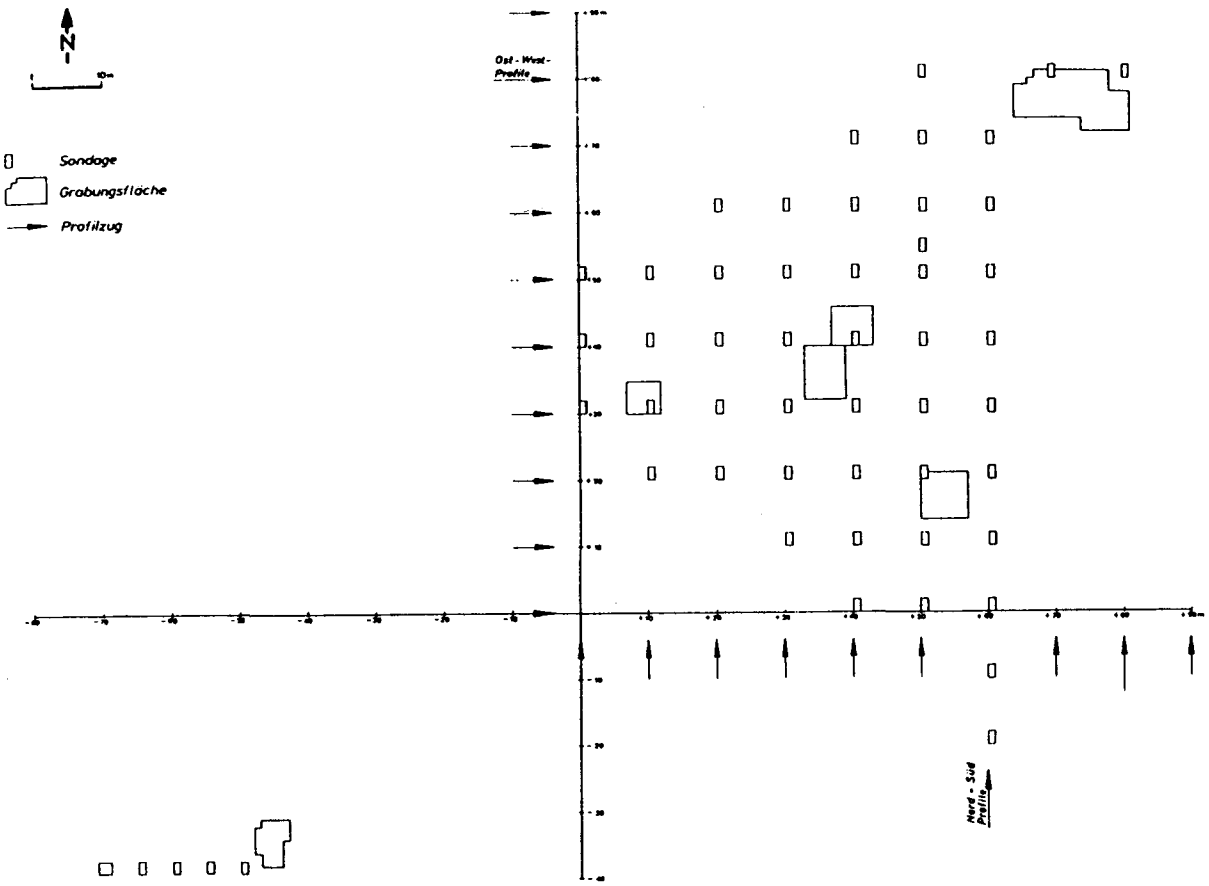

Fig. 2: Niederbieber. Map of the excavated areas and of the sondage pits (1987).

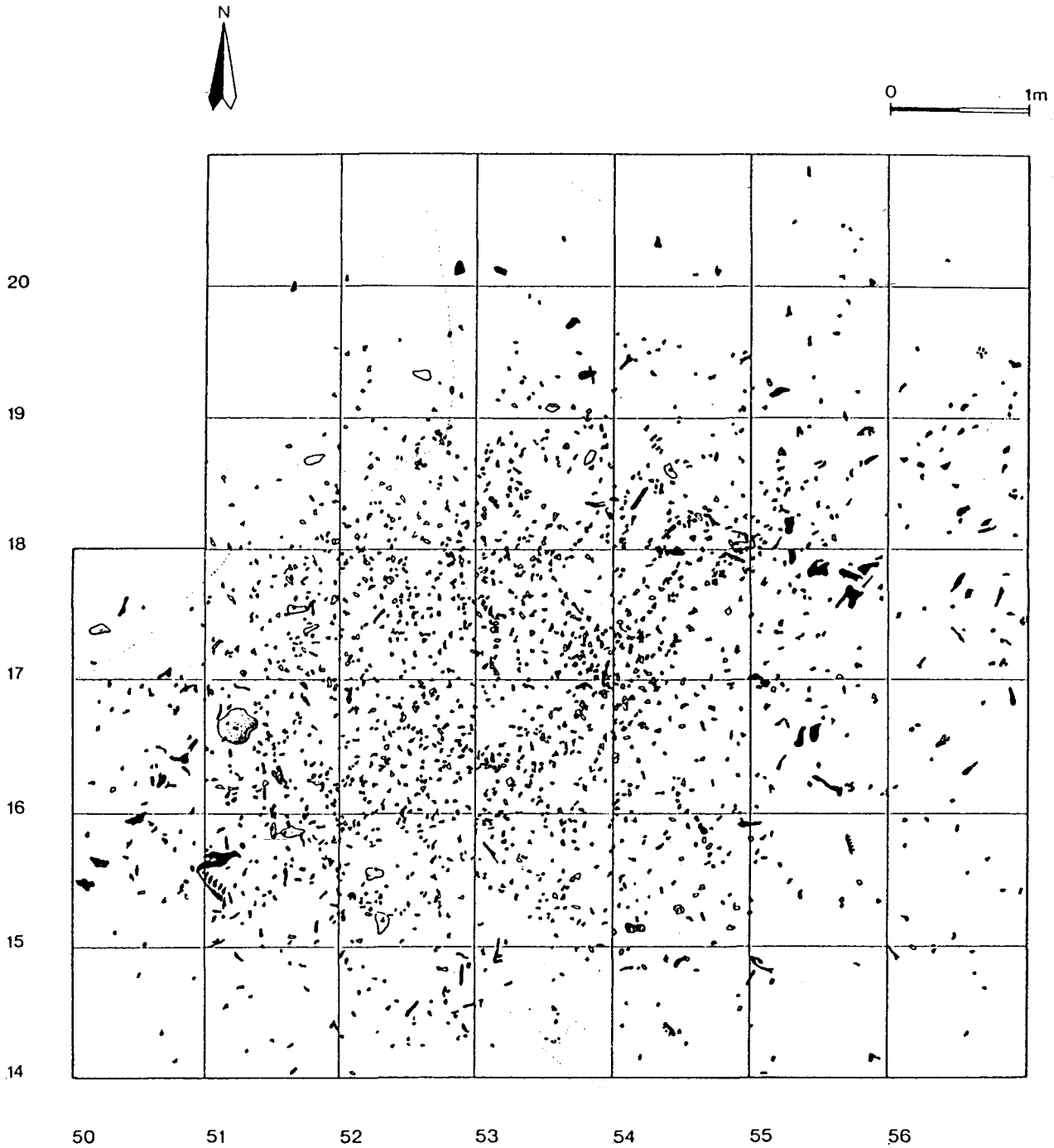

Fig. 3: Niederbieber, area 50/14 - 56/20. Round settlement structure. Open signs: stone artifacts and pebbles, dark signs: bones (after D. Winter 1986).

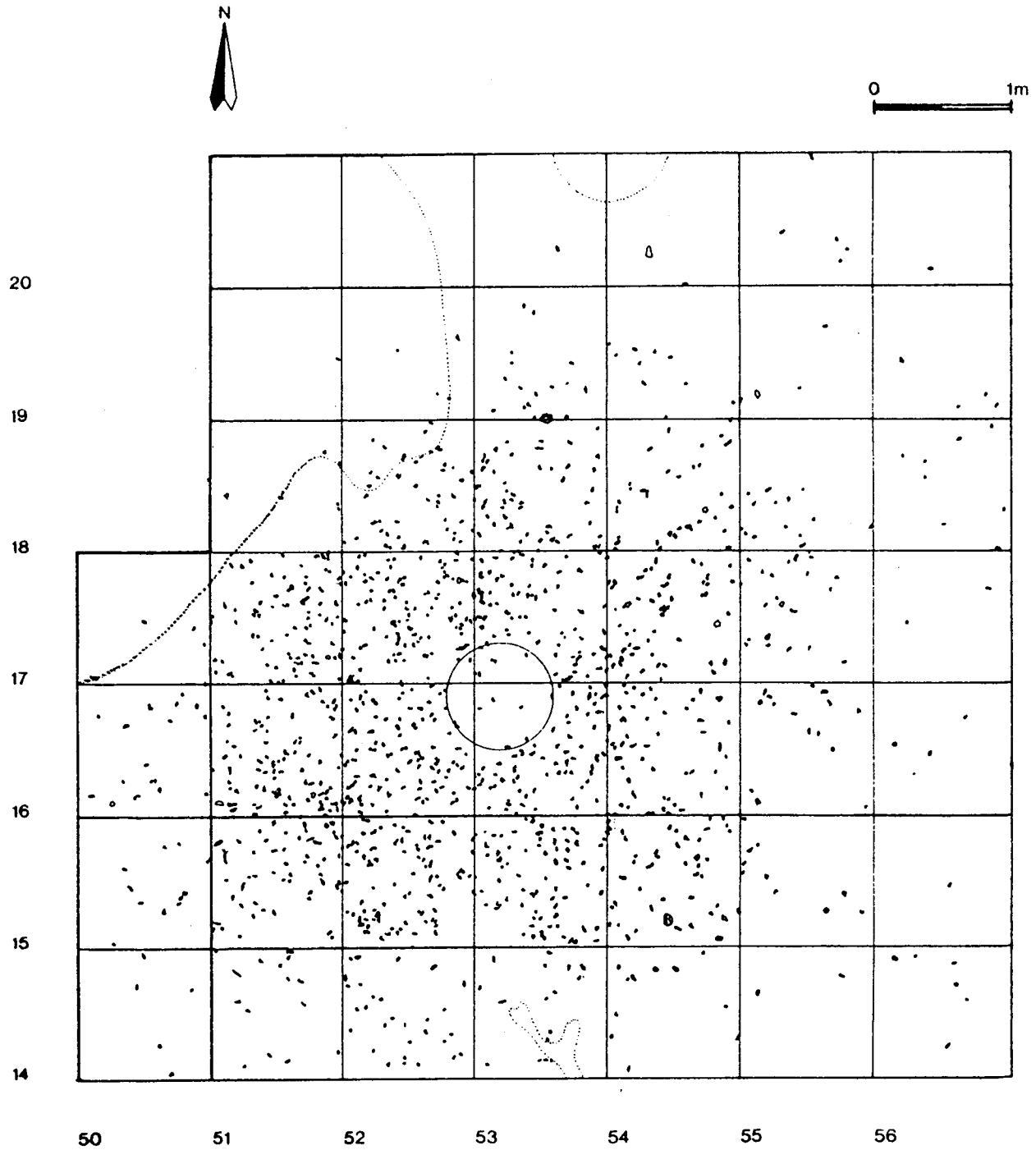

Fig. 4: Niederbieber, area 50/14 - 56/20. Distribution of stone artifacts larger than 1 cm (after D. Winter 1986). The circle represents the fire-place.

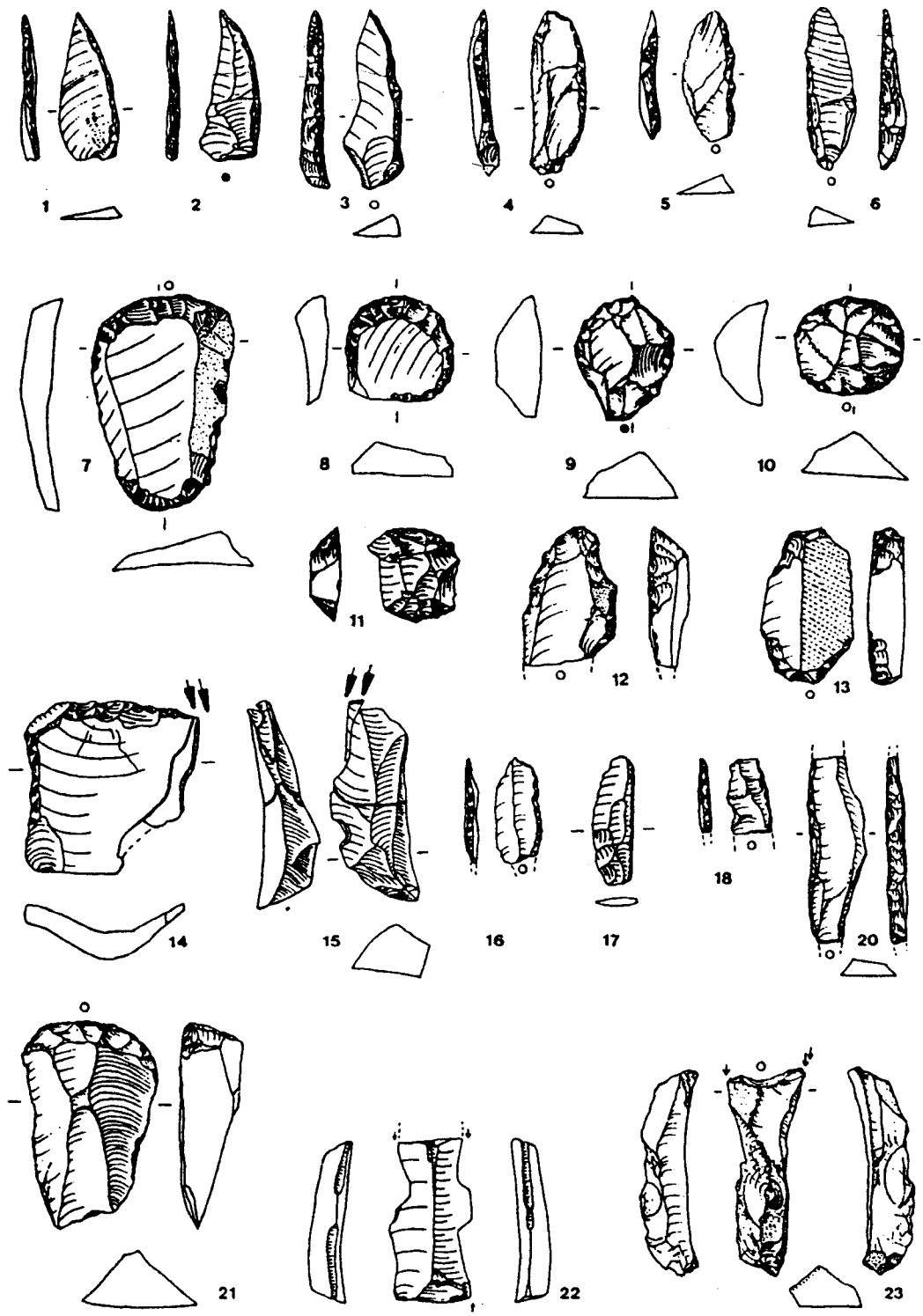

Fig. 5: Niederbieber. Typical tools from the round settlement structures. 1-6 backed points; 7-13. 21 end scrapers; 14-15. 22-23 burins; 16-20 backed bladelets. Scale 2:3.

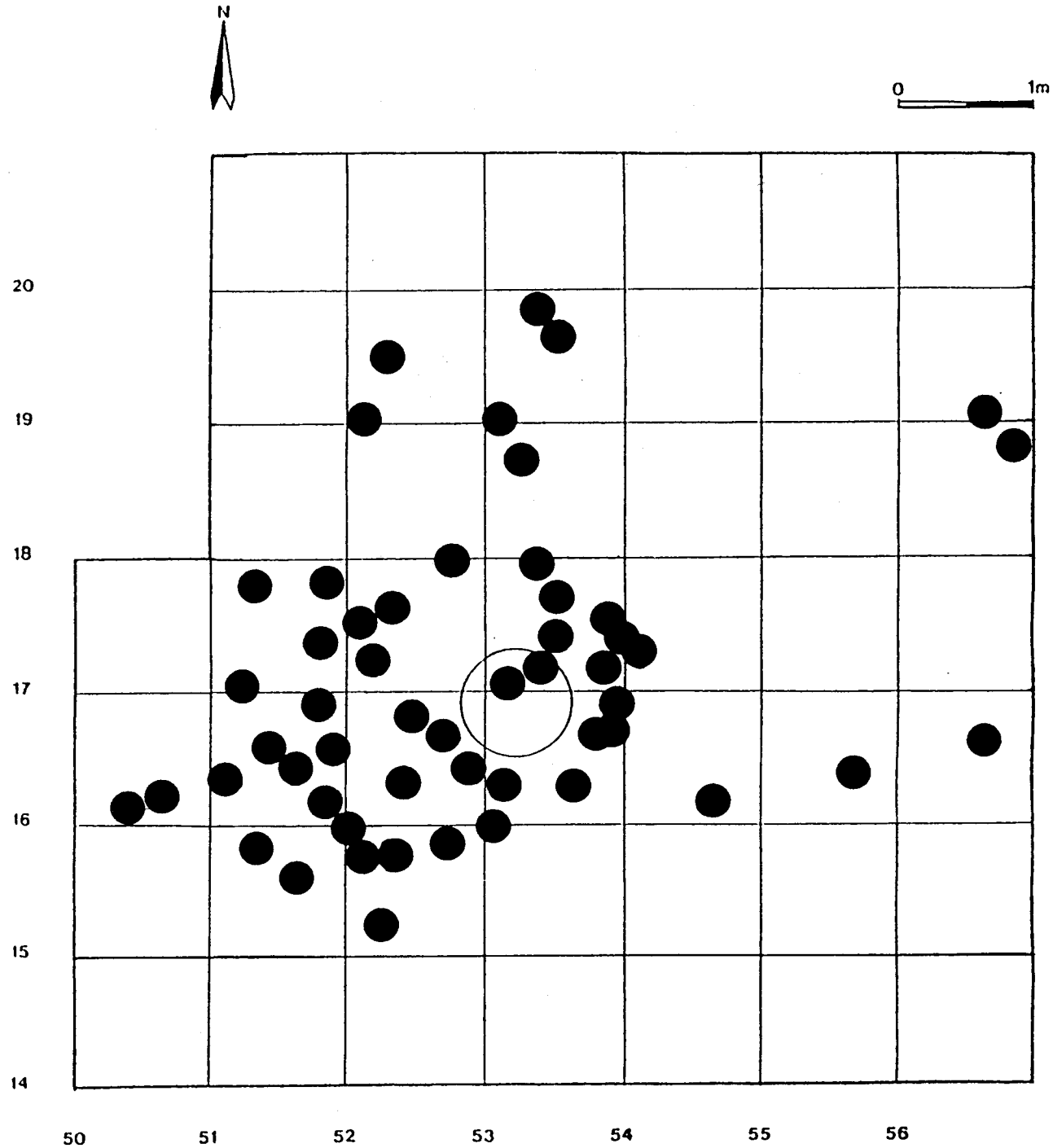

Fig. 6: Niederbieber, area 50/14 - 56/20. Distribution of end scrapers (modified after D. Winter 1986).

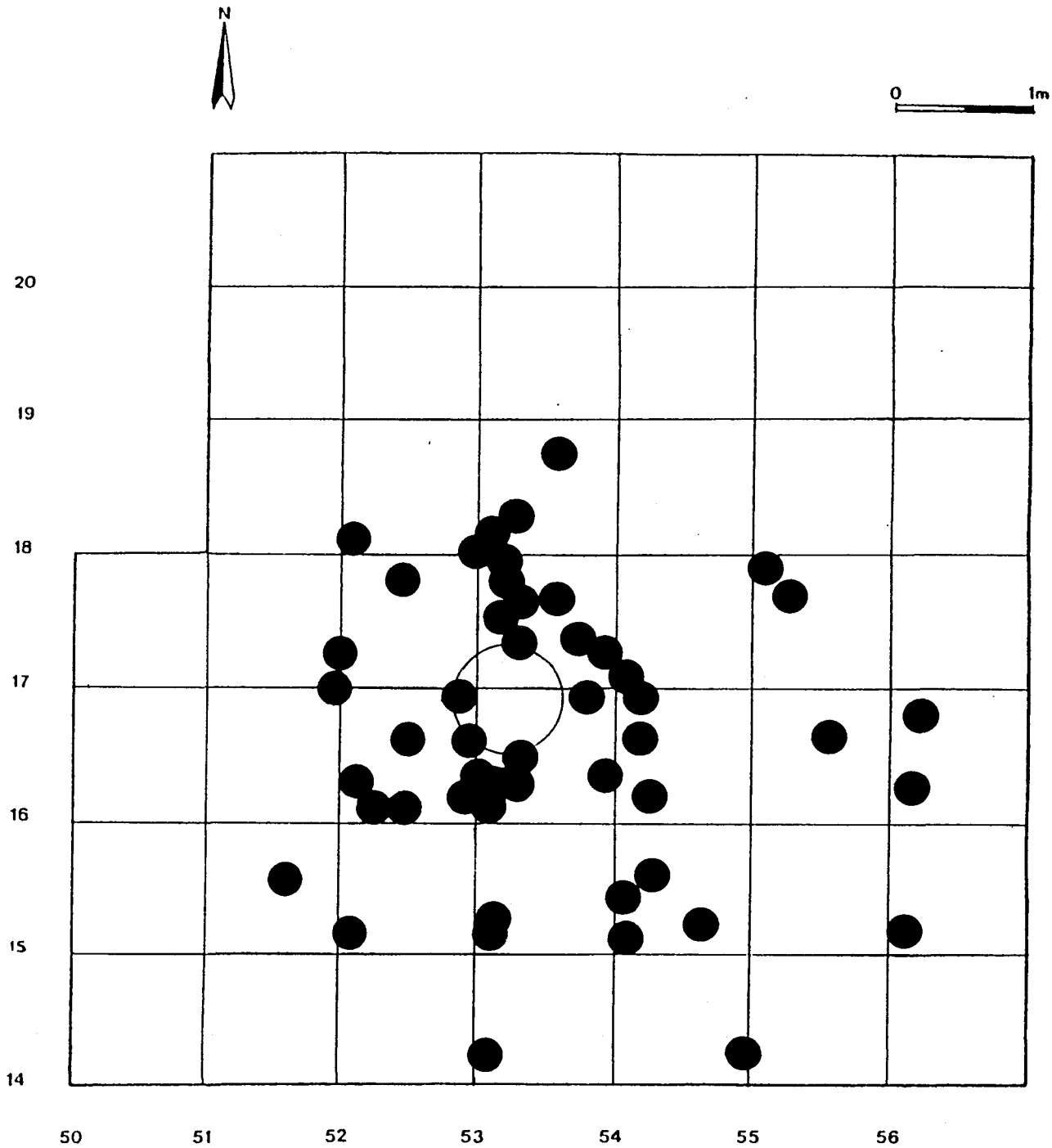

Fig. 7: Niederbieber, area 50/14 - 56/20. Distribution of backed artifacts (modified after D. Winter 1986).

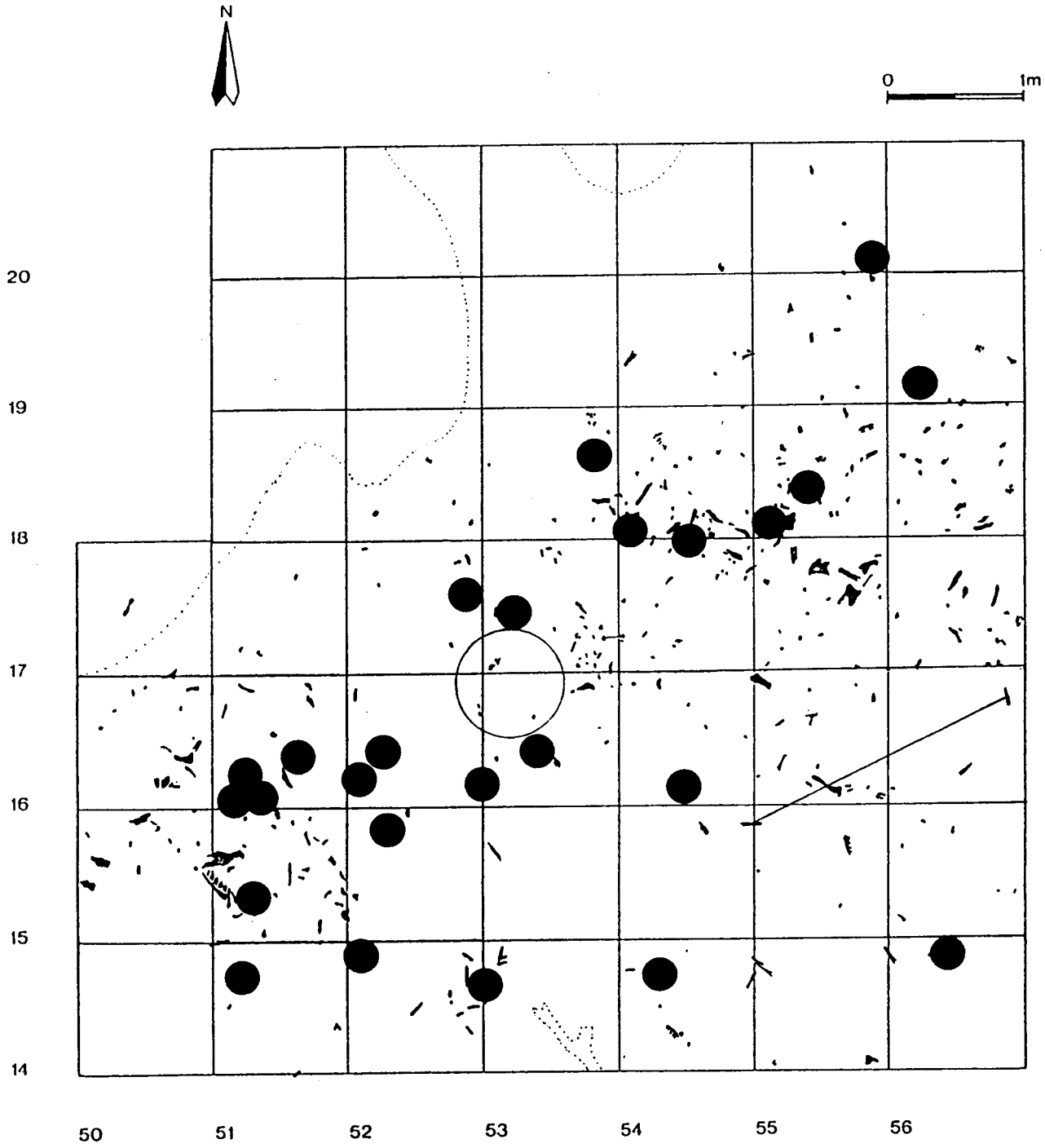

Fig. 8: Niederbieber, area 50/14 - 56/20. Distribution of burins and unburnt bones (modified after D. Winter 1986).

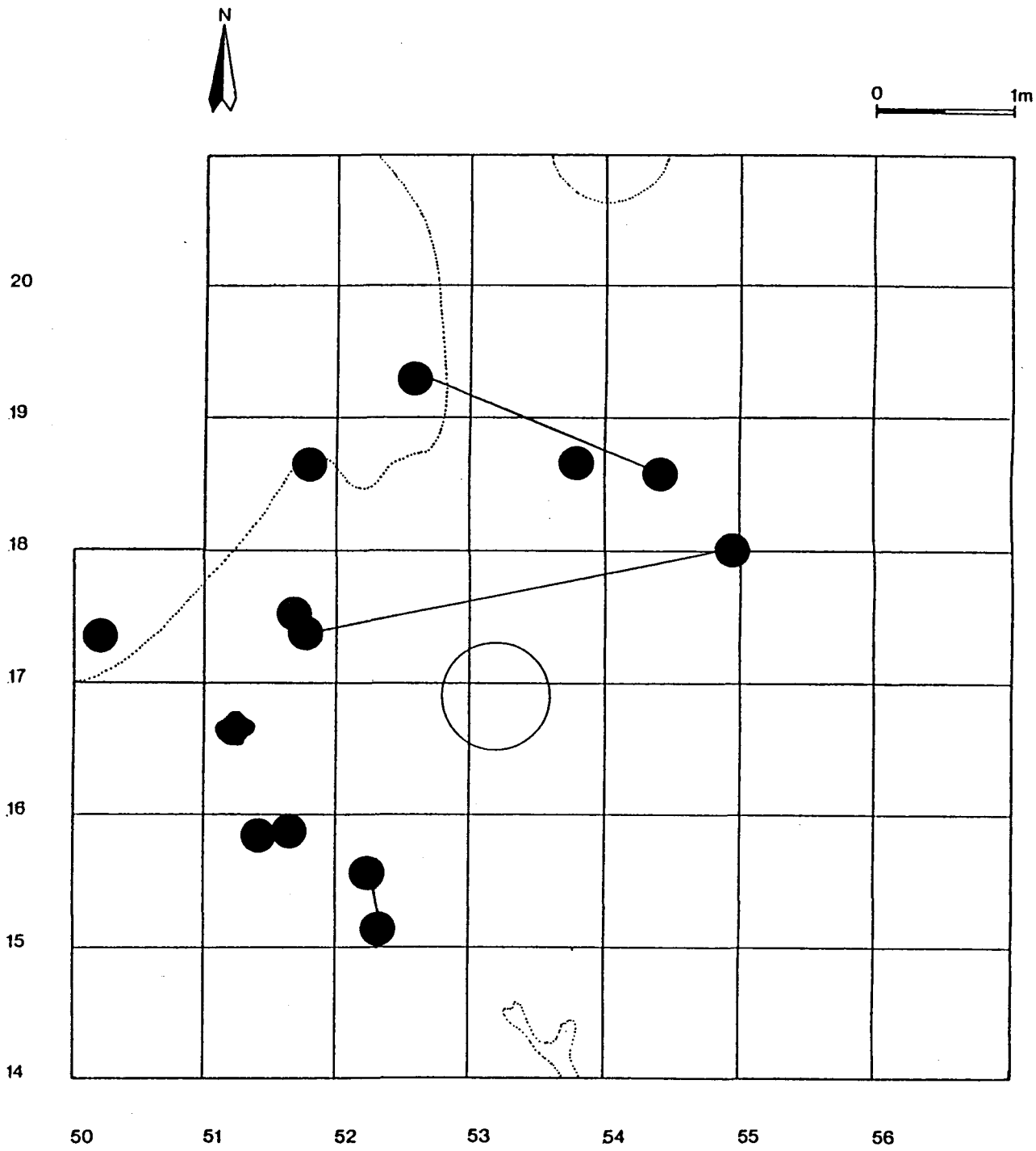

Fig. 9: Niederbieber, area 50/14 - 56/20. Distribution of retouchers (points) and the basalt cobble (modified after D. Winter 1986)

Fig. 10: Niederbieber, area -47/-37 - -43/-31. Depot of retouchers.

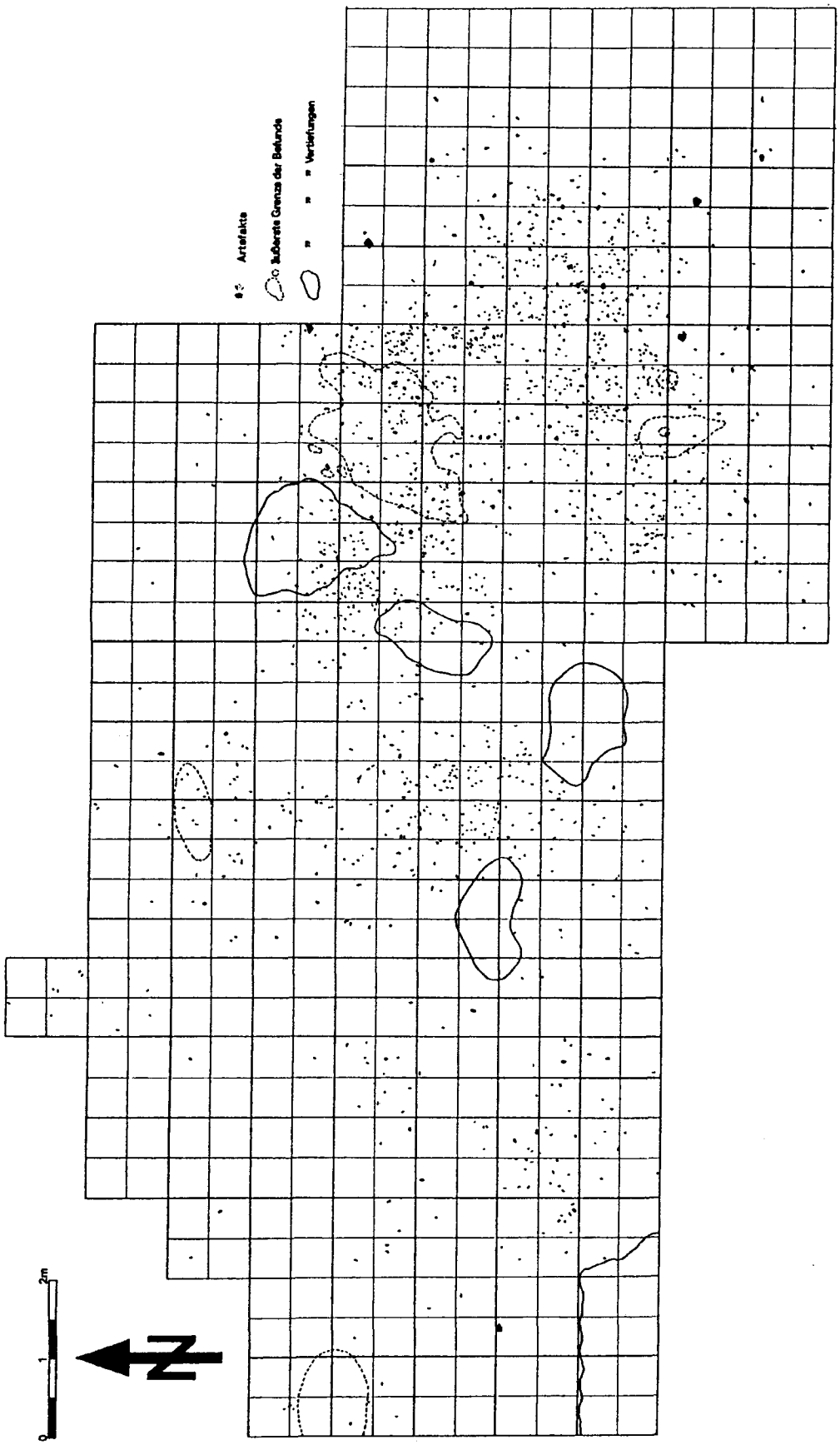

Fig. 11: Niederbieber, area 64/74 - 81/77. Various features and distribution of stone artifacts (after J. Loftus 1985).

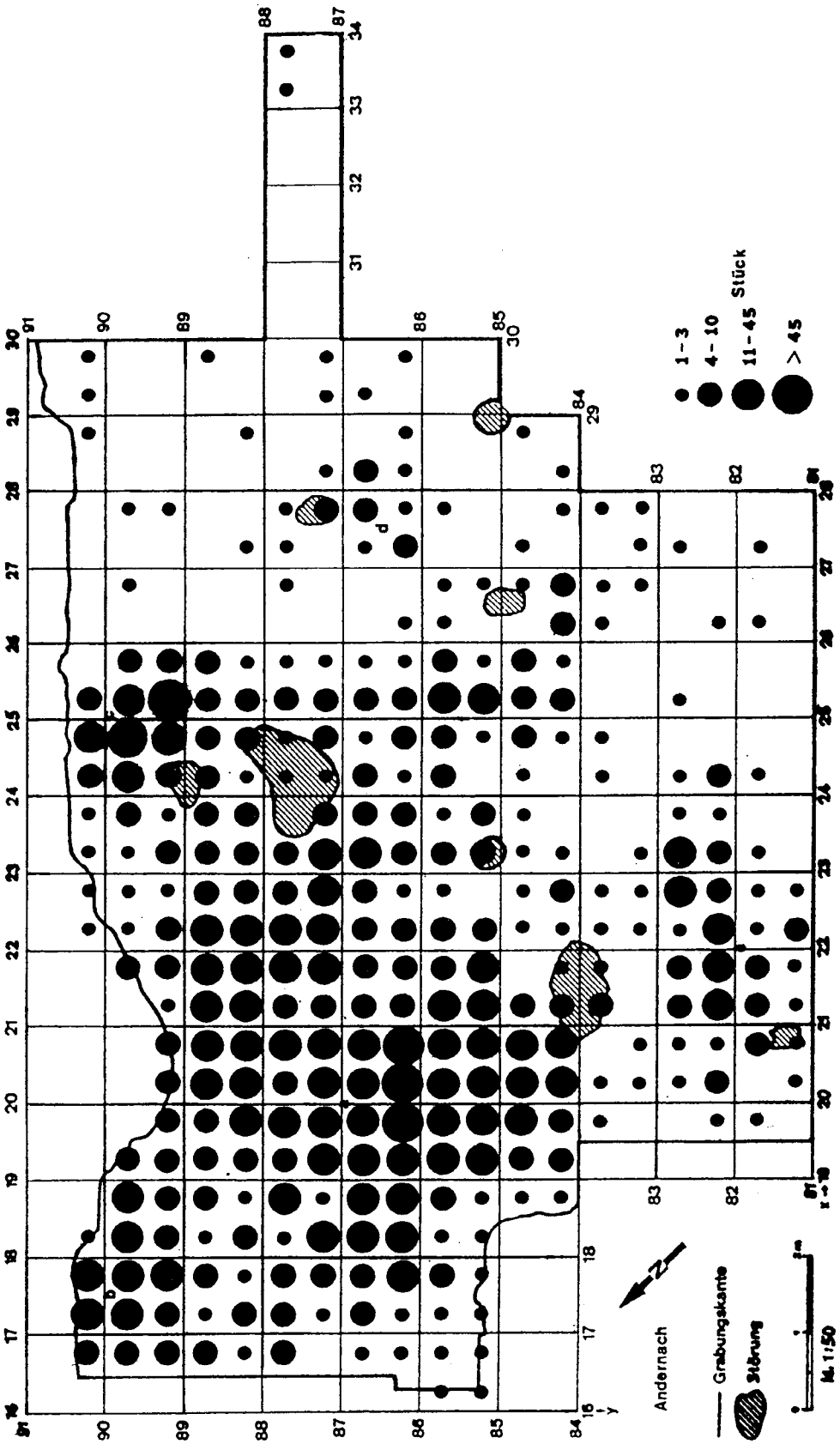

Fig. 12: Andernach. Distribution of all final palaeolithic stone artifacts.

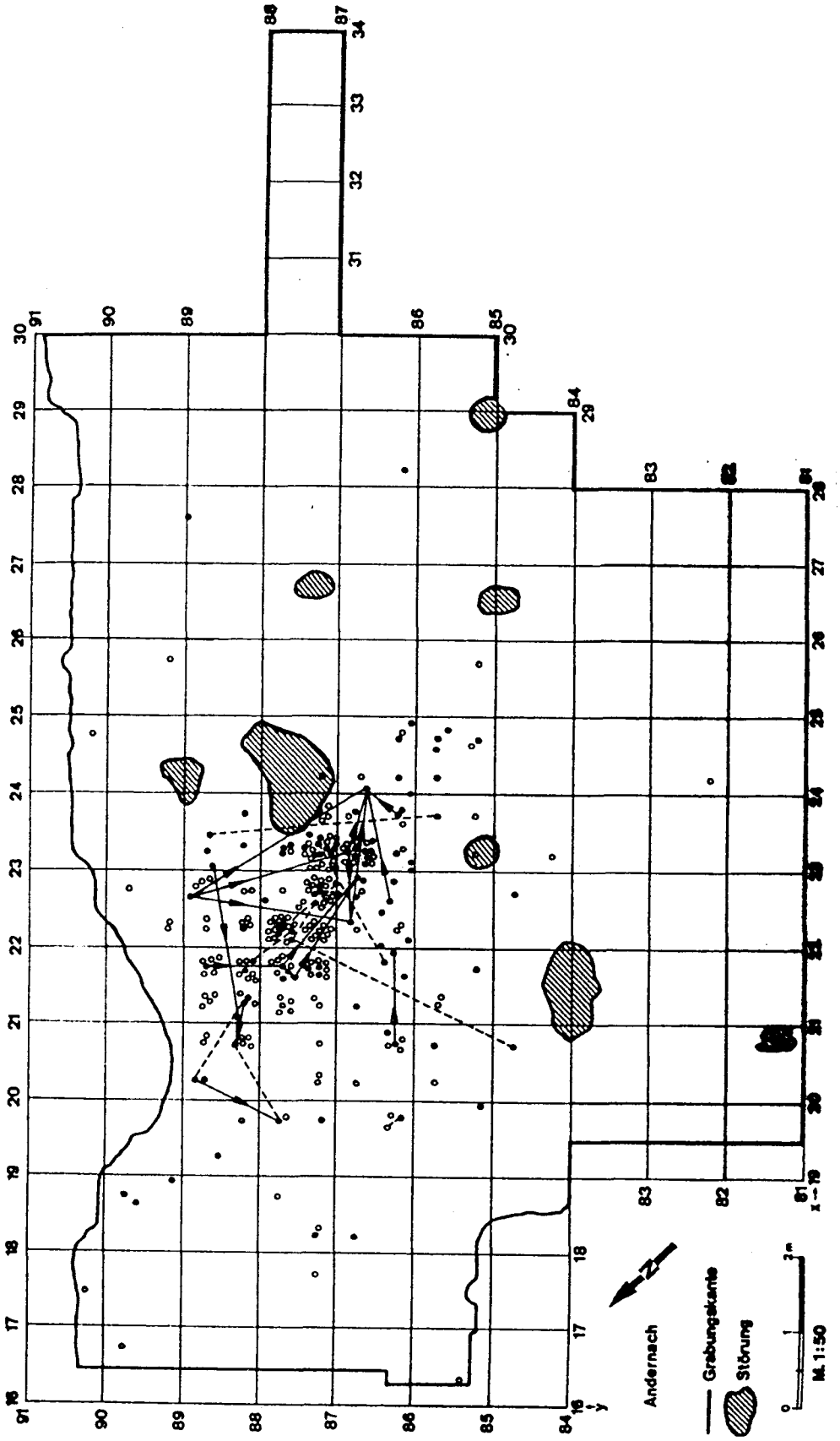

Fig. 13: Andernach. Distribution of one quartzite variety.

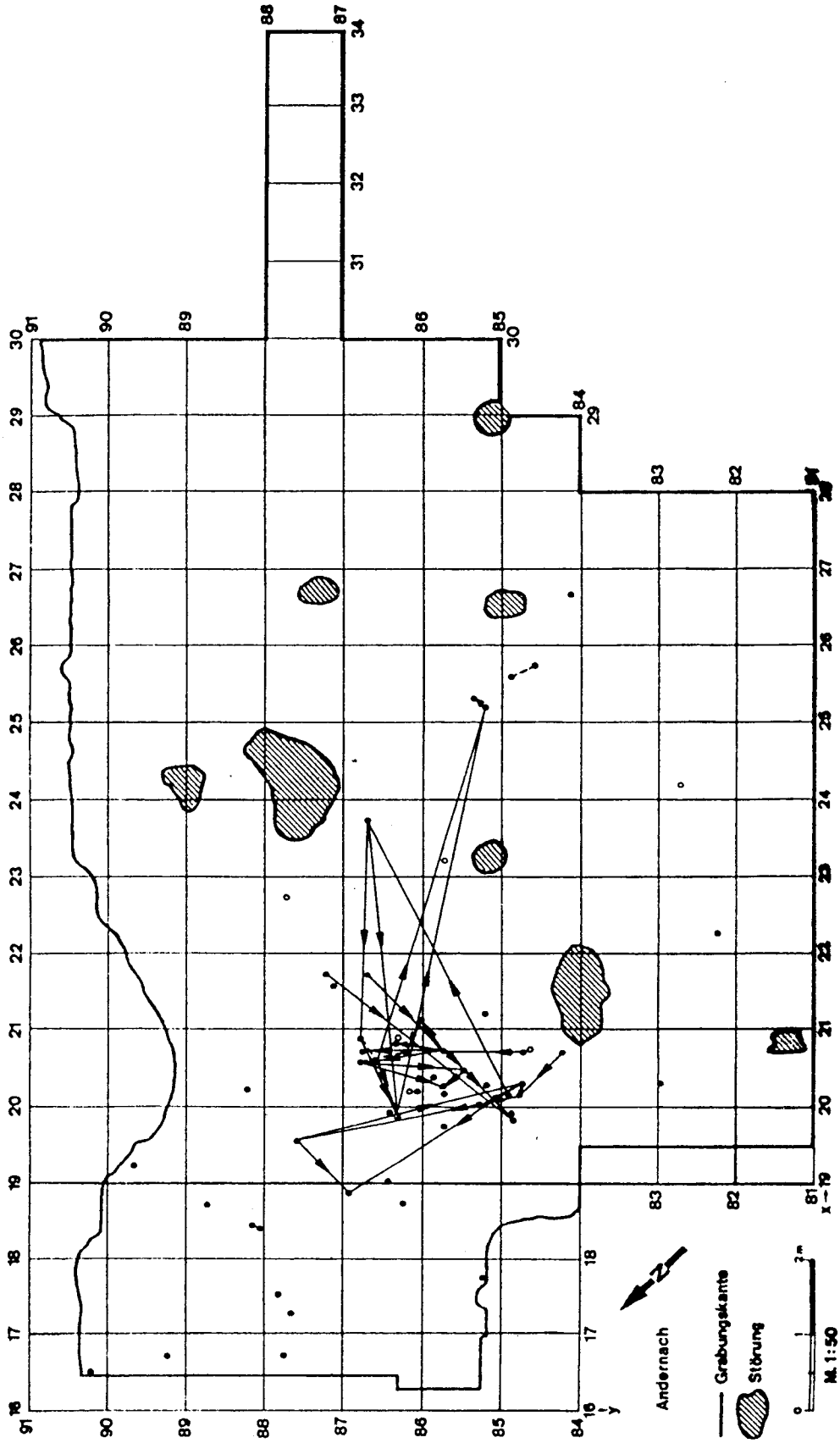

Fig. 14: Andernach. Distribution of lydite.