

**RECENT EXCAVATIONS AT JÜHNSDORF, SOUTH OF BERLIN :  
A CONTRIBUTION TO MESOLITHIC DWELLINGS AND FIRE-PLACES**

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North-west of the little village of Jühnsdorf, a few kilometres south of Berlin in the county of Brandenburg, lies a very well known mesolithic open-air site. This site is cut by the southern section of the Berlin-Ring motorway.

During the initial motorway construction, the photographer and local antiquarian H.W.A.Dürr undertook an excavation between the years 1936 to 1937. Dürr discovered and recorded a total of 28 ground-discoloration features within an area of 80 x 22 m, also a stone-lined hearth rich in charcoal. These features measured on average ca. 3,5 x 2,5 m, were up to 80 cm deep but contained only few finds. In total 115 lithic artefacts were recovered, including one trapeze, two scalene triangles, but also 20 small undecorated ceramic sherds.

The site with all its findings and features was published 40 years later not by the excavator himself, but by B.Gramsch in an thorough article in the "*Veröffentlichungen des Museums für Ur- und Frühgeschichte, Potsdam*" in 1976 (B.Gramsch 1976). This article only based on photos and the excavation-diary of Dürr, and it is important to stress, that Gramsch never saw these features originally.

Gramsch interpreted these features as hut-plans, according to similar interpretations in the whole of Europe. Comparable features were excavated for example at the Belgian Wegnez (L.Lequeux 1923) and Roche-aux-Faucons (L.Lequeux 1923), at the site Schötz-Fischerhäusern in Switzerland (V.Bodmer-Geßner 1950; B.Gramsch 1976:Abb.26) or at the German sites Sarching (H.Werner & W.Schönweiß 1974; W.Schönweiß 1988:38f.), Tannstock (H.Reinerth 1930) and Rösrath near Cologne (W.Lung 1942). A lot of these features were also documented at Rydno (R.Schild 1967), Bartków (Z.Bagniewski 1973) and Brodno stan (Z.Bagniewski 1982) in Poland.

The general assumed construction, comprehensively described by Gramsch (B.Gramsch 1976:Abb.22), was as follows: the first task for the Mesolithic inhabitants was to dig a very deep pit, which was then filled with several layers of wood and bark, to improve the thermal-protection and air-circulation. The living-floor was constructed above this well prepared ground-pit as a wooden floor-covering installation. Here, the fire-places - of which one to three were excavated in each feature - were build. According to missing hints, the reconstruction of the carcass is vague, but could possibly have been bee-skep shaped grass-huts, arranged to a small village.

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In the following years this interpretation was questioned, especially by the article "Mesolithic dwelling structures: fact and fantasy" of R.R.Newell in 1980 (R.R.Newell 1980). On the one hand similar features can be the result of tree-falls (e.g. P.B.Kooi 1974; see also P.C.Woodman 1985:126ff.). Such features, in German "Baumwürfe", are the results of heavy storms and are comparable to the above mentioned Jühnsdorf-features not only in shape and size, but also in their typical "small-village"-accumulation. Even the distribution of finds in such a hole can show great similarities, when a tree-fall happened in a formerly inhabited place. On the other hand, the character of these most ephemeral Mesolithic open-air settlements is still poorly understood (see e.g. K.Bokelmann 1986; E.Cziesla 1992:173-183).

In early 1993 an opportunity arose to re-investigate the Jühnsdorf-site, as the motorway was to be widened and the investigation of this protected monument, a Mesolithic open-air site between the autobahn-kilometres 67,05 and 67,38, had to be financed by the motorway-department, the so-called "Brandenburgisches Autobahnamt (Dienststelle Michendorf)". These investigations directly beneath the motorway began early in February and continued until mid-June and were realized by the "Wurzel Archäologie"-Company under supervision of the authors<sup>1</sup>. The aim of search was to determine the character of the Mesolithic artefact scatter and to discover similar features, document them and, where possible, interpret them. According to the subject of this colloquium, the "natural or cultural" origin of these structures should be recognized. This first article about the site can only be a short, preliminary excavation report, because detailed analyses have not yet started.

To investigate this area of altogether 3.800 m<sup>2</sup>, 28 small trenches of 2m to 10m were dug out. In the western part of the site the amount of archaeological findings was very low, but the sections pointed to a little streamlet. This small stream had often changed his course, as to be seen by several meanders in the profile. Especially during springtime this area was overflowed and a peaty-soil could grow up.

Following to the East, and leaving this humid low-ground, we discovered a former living horizon with increasing findings and also with some discoloration features. Here the proper excavation began, and the excavation-tents were installed for some month. Each tent covered 25 m<sup>2</sup>, which were excavated by quarter-square-metres and 10 cm-levels. The whole sediment was dry-sieved with a 4 mm mesh-riddle. With the completion of the sondage programm, an area of 810 m<sup>2</sup> was exposed, containing at least ten features, generally - only generally - similar to those Dürr found in the 1930<sup>th</sup>.

The dimensions of the features reached 2m to 4,5m and they reached down to 1,1m into the intact sandy sediment horizon. Their colour was light-grey to light-brown, and only some of them contained sufficient ashy sediment or charcoal to mark their exact limits. Their shape was more or less regular.

<sup>1</sup> Wurzel Archäologie GmbH (with bureaus at Stahnsdorf and Jülich) is a private company that also works in the five new East-German counties. On the basis of the new law to protect archaeological and historical monuments (see: J.Kunow 1994) archaeological excavations have to be financed by private investors and can be carried out by archaeological teams of these private companies.

Nevertheless they can be divided into very homogeneously filled pits (Fig.1), those which show white sand in their middle or those with dark spots at their periphery (Fig.2). Those pits of the first group are situated very close together and contained a high number of artefacts (Fig.1a), those of the other two groups could only be found in the periphery of the excavated area and contained only few artefacts (Fig.2a).

Independent of shape and filling, all these features produced a large, typologically pure Middle-Mesolithic repertoire, which consisted entirely of triangular arrow-heads. All these scalene-triangles (Fig.3) were made of local Baltic-Flintstone. Domestic home-tools, such as scrapers, burins, etc. were almost totally absent, although the total number of finds is nearly 17.500 lithic artefacts<sup>2</sup>.

Nordic wild geese, which still today pass the winter in the vast water-meadows and quiet lakes of the Nuthe-Nieplitz lowland, may have existed already then in large flocks and possibly were the reason for the repeated presence of hunters. Accordingly, the quantity of the sojourns were large, and, because of the specialization, the repertoire of arrow-heads was small.

The spectrum of microliths obviously differs from that of the 1930<sup>th</sup>, because in these early years also trapezes were found. The common appearance of scalene triangles and trapezes is a characteristic of the so-called "*Jühnsdorf group*" of the Young-Mesolithic in Eastern Germany, established by Gramsch in 1973 (B.Gramsch 1973:58). The chronological sequence mainly based on surface collections, where the problem of mixture often has great influence. But our excavations at Jühnsdorf produced an inventory without any trapezes. This has two consequences: first, the "*Jühnsdorf-group*" has to be defined again, and second, the recent excavated site Jühnsdorf is older than the so-called "*Jühnsdorf group*" and older than the first appearance of trapezes in Brandenburg.

The precise nature of the post-depositional processes have not been investigated in detail, and so, it is only possible to report on the very first results. Undoubtedly the sandy heights of the Jühnsdorf area were extensively inhabited during Late Boreal/Early Atlantic period by Mesolithic tribes. Probably, they settled on this dry ground because of the near water-resource and the possibility of geese-hunting. Several hundred arrow-heads, but hardly a dozen of domestic-tools, were produced at this point. Tools and artefacts are a clear proof for intensive settlement activities. It can be supposed that pits of different shape and size and for different functions were dug. Some of them may have been used as water-holes, as on the famous Mesolithic wetland-site Friesack (B.Gramsch 1992:68), as cooking- (e.g. A.Dittmann 1990; E.Cziesla 1989) or rubbish-pits, etc.. Probably, pits were an essential part of all settlement-places. For the climatically favourable Early Atlantic phase, an intensive tree-growth on the former habitation area can be presumed, with deep-rooted trees presumably pine. From time to time, they became victims of wind-fall and part of the previously intact occupation horizon

<sup>2</sup> The exact artefact-numbers are as follows :

- 1) In the huge western excavation-field of 225,5m<sup>2</sup> we got 11.247 lithic artefacts (>3mm);
- 2) In the area 20 around the fire-place, altogether 40m<sup>2</sup>, we got 2.971 artefacts (>3mm);
- 3) In all other test trenches we got altogether 3.236 artefacts (>3mm).

was moved through root-action and disturbances. Soil and artefacts were washed into these natural holes.

Generally, it can be proceeded from the assumption that natural depressions and artificial pits show different characteristics (P.B.Kooi 1974, see also: N.Graf 1988; C.Smith 1992:133f.; J.Weishaupt 1992)<sup>3</sup>. This assumption correlates with the different pit-types, excavated at the Jühnsdorf-site. The smaller, homogeneously filled pits with a lot of artefacts in the central part of the excavated area seem to be artificially dug pits (Fig.1). The greater depressions at the periphery, with white sand in the middle or dark spots at the edge, probably are tree-falls (Fig.2).

Up to now, detailed analyses of the Jühnsdorf-site are not completed. Therefore it is not possible to give further results and to divide all pits according to their formation or their function. The variability of all pits/depressions at Jühnsdorf shows very clearly, that it is too simple to interpret all of them as dwelling structures, as has been done up to the 1970<sup>th</sup>, or as tree-falls, as has frequently been done since the 1980<sup>th</sup>.

A further feature was located some 120 m East ("Area 20") at the site of a new lay-by for which a tarred public-road was removed. An area of 40m<sup>2</sup> was recorded (Fig.4). Whilst the above mentioned features only produced little information towards the habitation behaviour of the Mesolithic people, here an exceptionally well preserved *in situ* fire-place was found. This is not only proof of the undisturbed nature of the cultural horizon, but also gives an insight into the construction of the rare fire-places on open-air sites.

In diameter the hearth was less than 1m, consisting of a circle of burnt granite that had been scattered by intensive heat. The hearth-stones lay in a 20cm deep, shallow depression (Fig.5). In between the granites a few quartzite hearth-stones could be found. The few stone artefacts all were rubbish and did show no typological characteristics. Also a lot of charcoal was found. The radiocarbon analysis is still in progress, but K.Kloss (*Brandenburgisches Landesmuseum für Ur- und Frühgeschichte, Potsdam*), who makes palynological investigations, determined the charcoal as 92,5 % pine (*pinus silvestris*) and 2,5 % poplar or willow (*populus/salix*). 5% could not be determined. K.Kloss also wants to determine all other more than 2.000 charcoal-samples of the site during the next year. Radiocarbon-dating will be done at the Cologne-laboratory (B.Weninger).

In the South-East of the fire-place we found a huge quartzite block, the only greater stone with no fire traces (Fig.5). This might be interpreted as a sitting-stone, as well known from a lot of upper Palaeolithic open air sites.

In 1m distance of the fire-place three deeply black ash-flecks were registered (Fig.6). They proof repeated cleaning and clearance, pointing towards a long standing use of this shallow sunk-hearth. Here very small granite pieces

<sup>3</sup> Tree-falls are mostly, or nearly only discussed in Mesolithic context, but we can assume, that they are characteristic for the complete Holocene, and that we will find a lot of natural "dwellings" also in other times, especially in the Neolithic (U.Boelicke et al. 1981:263) and in those cultures whoes settlement-types are characterized by pit-dwellings (Bronze-Age, Slawonic-Times, etc.). But also in older context, e.g. in the Middle Palaeolithic, different types of pits are discussed as traps or deadfalls (H.Thieme 1979); some of them also might simply be tree-falls.

accumulate and the refitting of these spots with the hearth will also be a time-consuming task for the future. Also in the close vicinity of the hearth three adzes (Fig.7), one of them complete, were found. The evaluation of this site supposedly will produce further information regarding its use and function.

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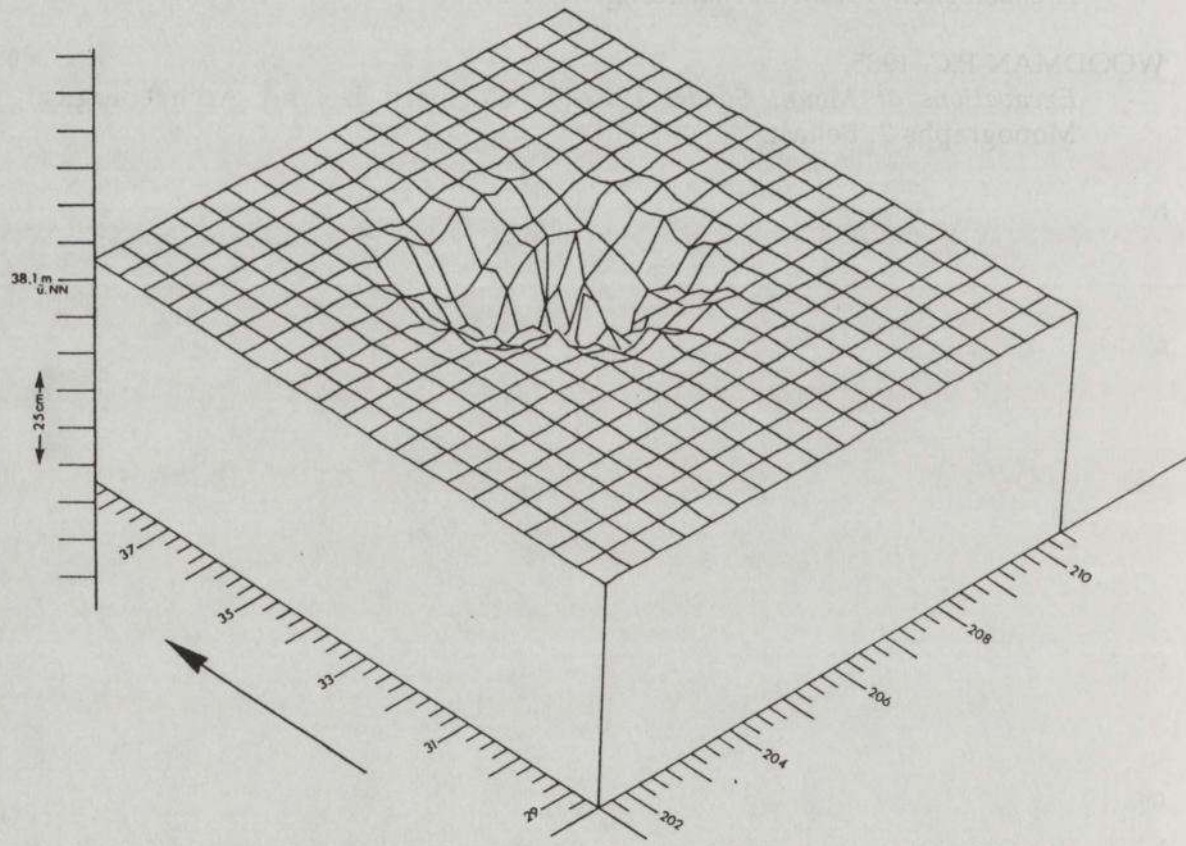
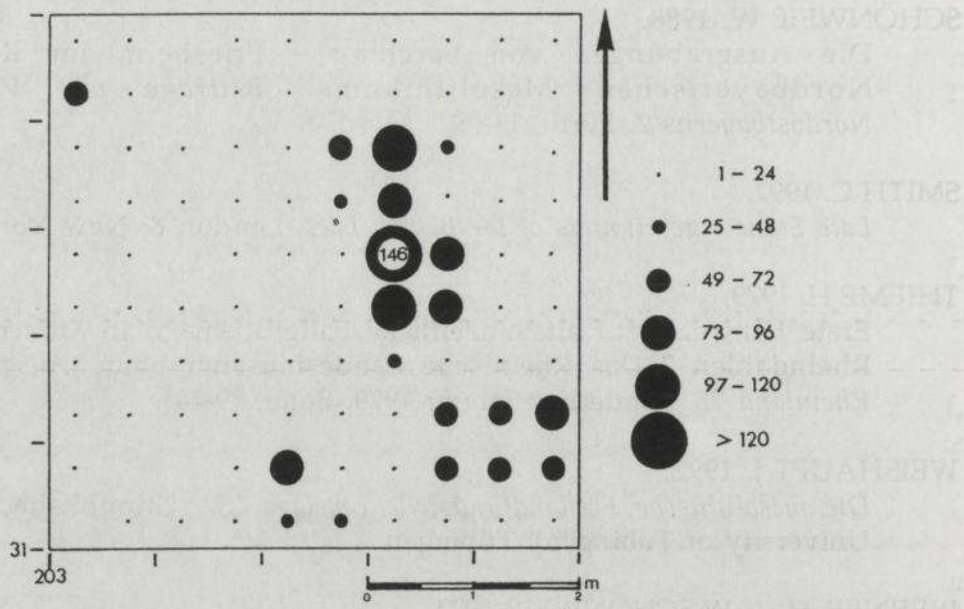


Fig.1: Jühnsdorf, site 8:  
 Feature in the middle of the excavation-field ("Area 24"):  
 a: Mapping of artefact quantities (for the method of mapping see: E.Cziesla 1990:8ff.);  
 b: Three-dimensional representation of discoloration (compare Fig.2).

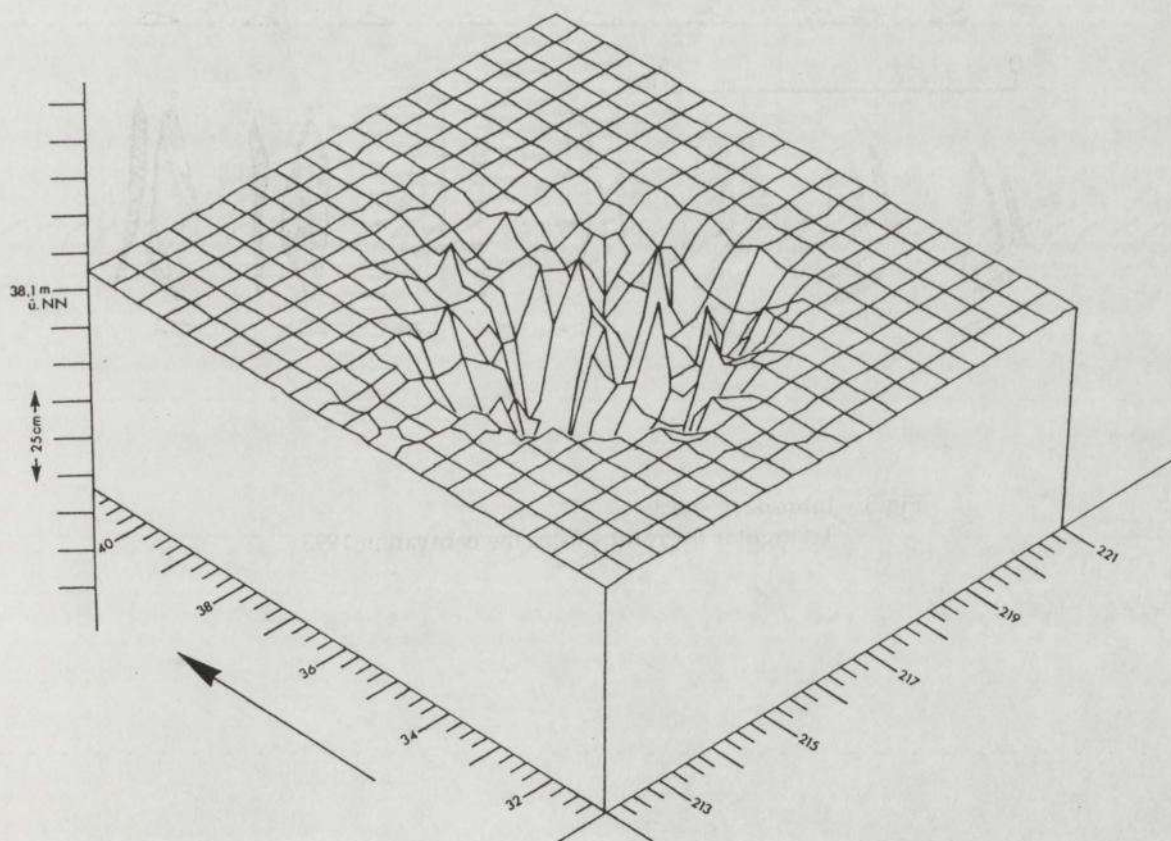
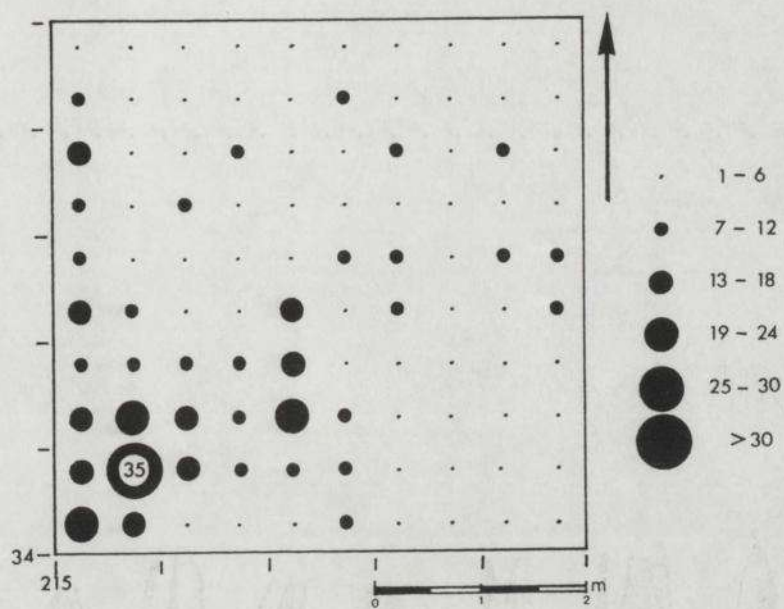


Fig.2: Jühnsdorf, site 8:  
 Feature at the periphery of the excavation-field ("Area 26"):  
 a: Mapping of artefact quantities;  
 b: Three-dimensional representation of discoloration (compare Fig.1).

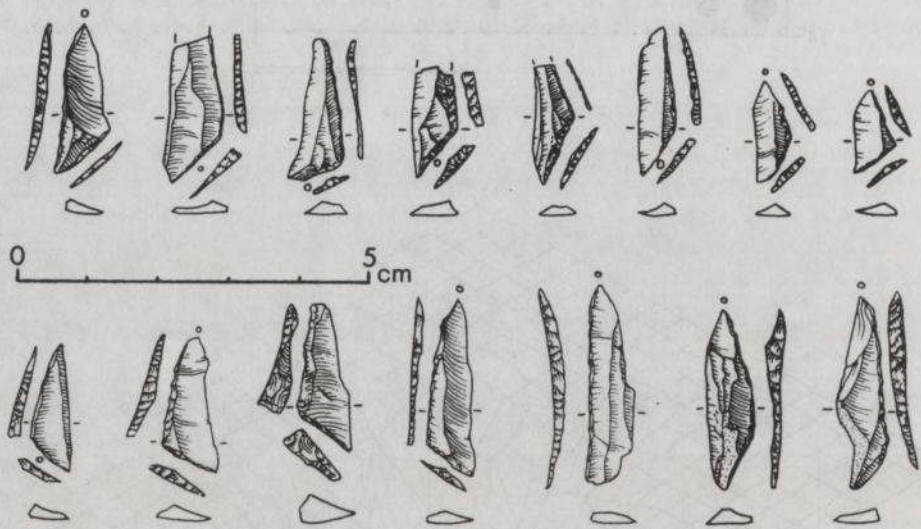


Fig.3: Jühnsdorf, site 8:  
Triangular microliths from the excavation 1993.

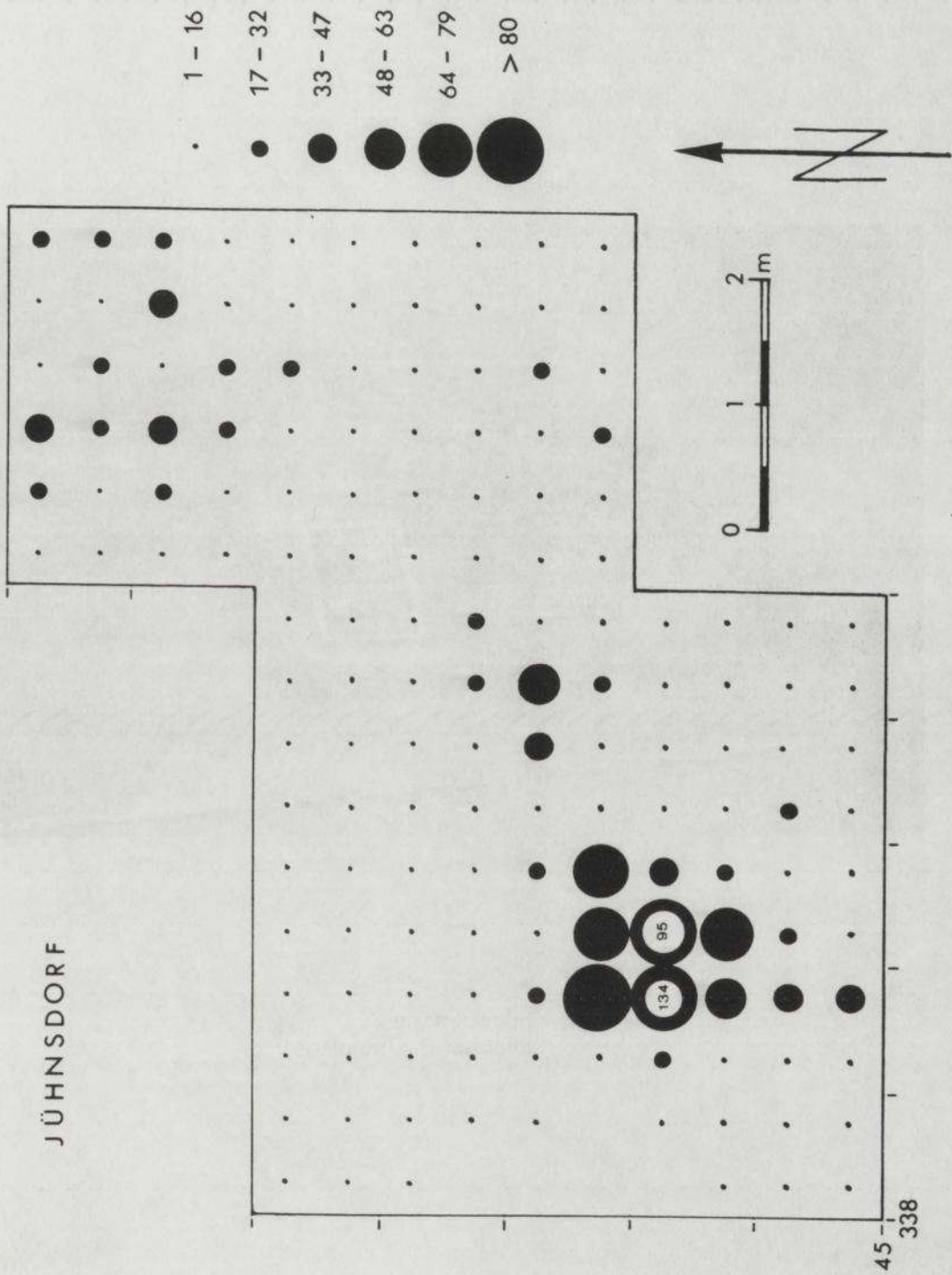


Fig.4: Jühnsdorf, site 8:  
Mapping of artefact quantities in "Area 20" (niveau 2-10; artefacts >3mm).



Fig.5: Jühnsdorf, site 8:  
Photo of the fire-place.



Fig.6: Jühnsdorf, site 8:  
 "Area 20" with the fire-place and other discolorations.

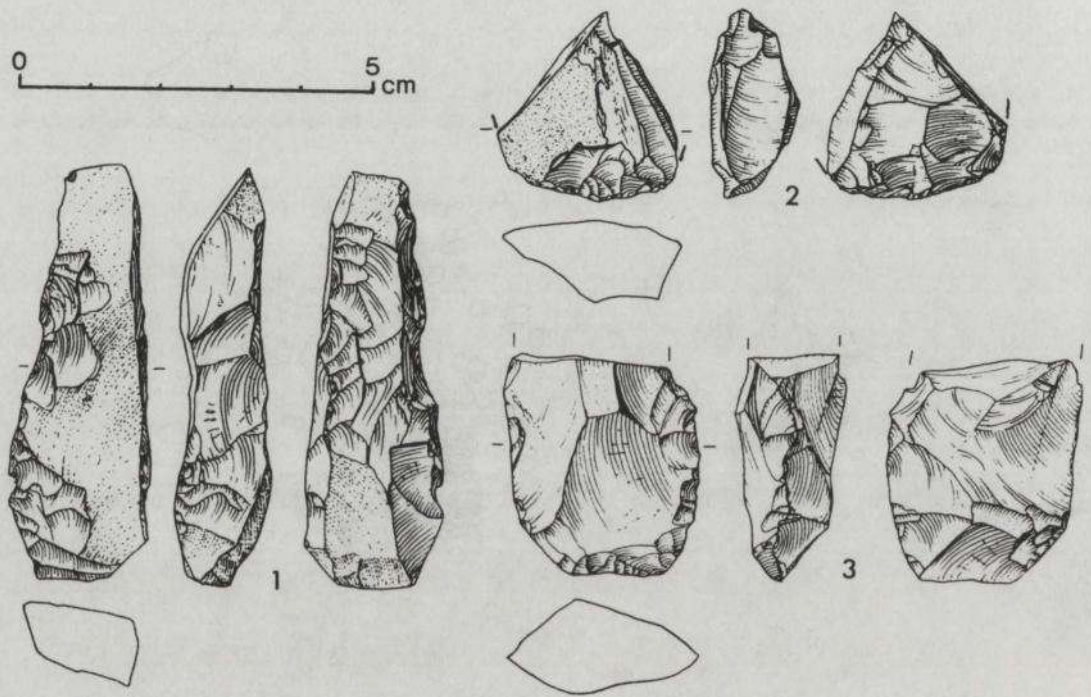


Fig.7: Jühnsdorf, site 8:  
Adzes from the area around the fire-place in "Area 20".