FUSSGÖNHEIM - TWO LATE UPPER PALAEOLITHIC OPEN AIR SITES IN THE RHINE VALLEY NEAR MANNHEIM

by

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The village of Fussgönheim lies approximately 10 km west of Ludwigshafen and Mannheim in the region known as the Pfalz. Geographically the area belongs to the Upper Rhine Valley, at this point, a region of loess-covered, low hills, in which intensive agriculture forms the basis of the economy.

Both of the sites are found in rural farming countryside to the west and southwest of Fussgönheim (Fig. 1). Near to the two sites, which lie about 600 m apart, was also found a further single shouldered point, which without a doubt belongs in the same context.

The site of Fussgönheim I lies directly next to the channel of a small stream on slightly higher ground. The artefacts are scattered over an area of 20 by 12 m. The site was discovered in 1958 by the teacher Walter Storck from Mutterstadt. He published his finds in a small article in 1959 (Storck 1959). On one of the published drawings can be seen two shouldered points (see Fig. 4, 1-2), to which Alfred Rust made the following statement :

"The large shouldered point is typologically similar to Hamburgian forms from North Germany and would also regarded here as a splendid specimen... The smaller shouldered point can equally be found in this variation in our region... It would be extremely useful, if you could discover further evidence for the presence of Hamburgian hunters in your region."

The last sentence probably bears the main responsibility for the fact, that the Fubgönheim material gave rise to the myth of "Hamburgian culture in the Pfalz".

The site of Fussgönheim II was discovered in 1975 by another amateur collector during field-walking. This site is also on slightly raised ground, the finds scatter here over an area of 12 by 18 m.

During the summer of 1984 the author excavated a series of test pits at both sites. The main purpose of the investigations was to establish whether remains of the archaeological horizon still lay in situ, or whether the material was more or less completely reworked within the recent humus. In the case of Fussgönheim I there were found remains of a pale sandy layer, of which in one square-meter two flakes of patinated flint were discovered (see Fig. 2). At the site of Fussgönheim II there was no evidence of an original find horizon, all the excavation material is without exception from the humus layer. The chronological assignation of the material was consequently only possible using typological criteria. At the time of examination of the material a total of 498 artefacts from Fussgönheim I and 406 from Fussgönheim II were available. As in the case of almost all surface collections the material contained chronologically younger tool types (microliths, presure flaked arrow heads, polished pieces, gunflints). There was thus theoretically the possibility of contamination both among the commoner types of retouched tools (for example burins and short scrapers) and among the unretouched forms. In order to improve the validity and information value of the material it was decided as a first step to filter out all intrusive pieces. To do this the different groups of raw material were subjected to a fine classification. This was done exclusively using macroscopic attributs (matrix, banding, inclusions, colouration etc.). The presence of a chronologically relevant tool type in such a group allowed the assignment of

the other pieces. As important typological forms for the Late Upper Palaeolithic were regarded shouldered and backed points and micro-borers, for the classification as mixed material the types named above (microliths etc.).

At the end of this classification the material from both Fussgönheim sites could be subdivided into three complexes :

Complex A : comprises the certain contaminated material,

Complex B : represents material which cannot be definitely assigned chronologicaly,

Complex C : comprises the Late Upper Palaeolithic material selected according to positive criteria.

In the case of both sites the material could for the most part be established as Late Upper Palaeolithic :

Fussgönheim I = 51,4%, Fussgönheim II = 84,5%. A more detailed examination of this raw material was practically impossible because of more or less heavy patination. Modernly broken pieces demonstrated in the majority of cases a glassy brown appearence, which lies within the range of variation of both baltic and western chalk flint. Since there are no known deposits with flint in the Pfalz region, the closest sources of this material are the Saale end moraines near Krefeld-Duisbrug-Essen or the Belgian chalk areas. In both cases the distance involved is over 200 km!

Technologically the material is typically Upper Palaeolithic in character with core preparation predominantly for blade production. The presence of core preparation flakes (Fig. 3,2.3.14) along with exhausted cores (Fig. 3,1.6.11.13) shows that production in both cases accured at the site.

Retouched forms are at both sites represented in large numbers : Fussgönheim I : n=64 (17,2%); Fussgönheim II : n=109 (30,2%). Because of the underrepresentation of small forms (flaking waste) the tool percentages are of no great value.

The tool type spectra of both sites are very similar. The following common features can be recognized :

1. The backed forms are dominated by shouldered (Fig. 4,1.3.5-7; Fig. 5,1-3.5) and angle-backed points (Fig. 4,2.4); a few convex backed pieces (Fig. 4,8-9; Fig. 5,6-8) do however occur.

A particular feature is recognisable on some points in the form of a diagonally retouched base (Fig. 4,1.7; Fig. 5,2.4).

This feature is unknown on shouldered points of the Hamburgian culture, as are pieces with convex backing and backed bladelets, which are represented in Fussgönheim on both sites with one small fragment (Fig. 4,10; Fig. 5,10).

2. Together with end scrapers (Fig. 4,13-14; Fig. 5, 14) occurs also one short scraper in each Late Upper Palaeolithic complex (Fig. 4,16; Fig. 5,15).

Short scrapers are rarely found in Hamburgian context.

3. The burins are partly made on massive blades and are dominated by dihedral forms (Fig. 4,11-12; Fig. 5,11-13).

4. Borers are dominated by finer types with one or two functional ends as are common to Magdalenian context (Fig. 4,17-19; Fig. 4,16-17).

These forms occur hardly at all in the Hamburgian. The dominant forms there are heavy borers and "Zinken", which are poorly or in the case of Zinken not at all present in the Fussgönheim material.

5. At both sites splintered pieces ("pièces esquillées") are present in relevant numbers (Fig. 4,21-22; Fig. 5,19-21). The occurence of some typical splinters (Fig. 4,23; Fig. 5,20) show, that the "pièces esquillées" were used at the sites.

Splintered pieces are again unknown in assemblages of Hamburgian type.

It should now be clear, that the myth of a "Hamburgian culture in the Pfalz" cannot be mantained. The stated differences suggest rather a Magdalenian context, in which, as evidenced by the short scrapers and the convex backed points, some Final Palaeolithic elements are already present. An assemblage absolutely similar to Fussgönheim is to the author's knowledge not known elsewhere.

The closest comparison would be with a facies of the Late Magdalenian containing shouldered and backed points in the Southern German and Swiss region.

To this group belong for example the Bärenfelsgrotte, the Hohlenstein-Stadel (Layer III), the Zigeunerfels (Layer F) or the Brüggli- and Kastelhöhle (Upper Layer) in Switzerland (see Fig. 6).

The few available datings for these sites suggest a chronological position in the Older Dryas, which can also be suggested for the Fussgönheim sites.

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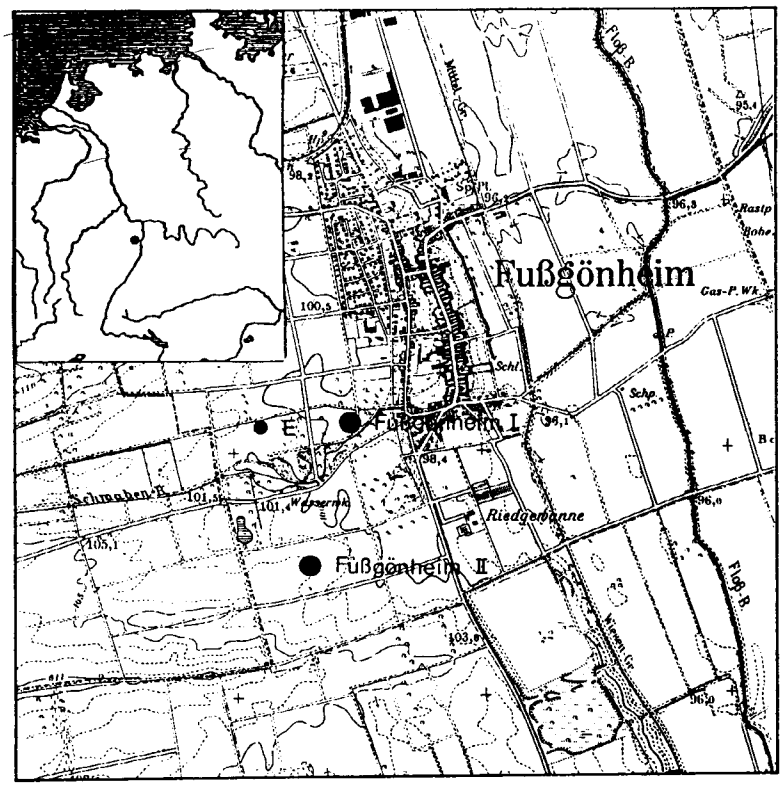

Fig. 1 : Location of the Late Upper Palaeolithic open air sites Fussgönheim I and II. - E: Position of a single found shouldered point. Extract from the topographical map 1 : 25000, no. 6515 (Bad Dürkheim-Ost), themetically completed.

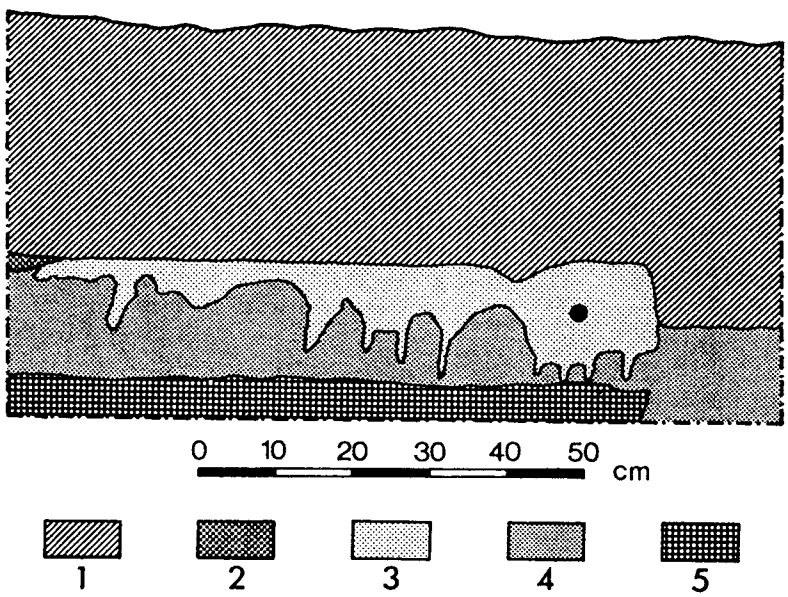

Fig. 2 : Fussgönheim I, square IV, north section. Stratigraphical position of the only Late Upper Palaeolithic artefact not found in the humus. - 1 Recent humic top soil, plough horizon. - 2 Weakly humic sand. - 3 Yellow-brown Late Glacial cover-sand. - 4 Reddish, compact clayey sand. - 5 Reddish high floodloam

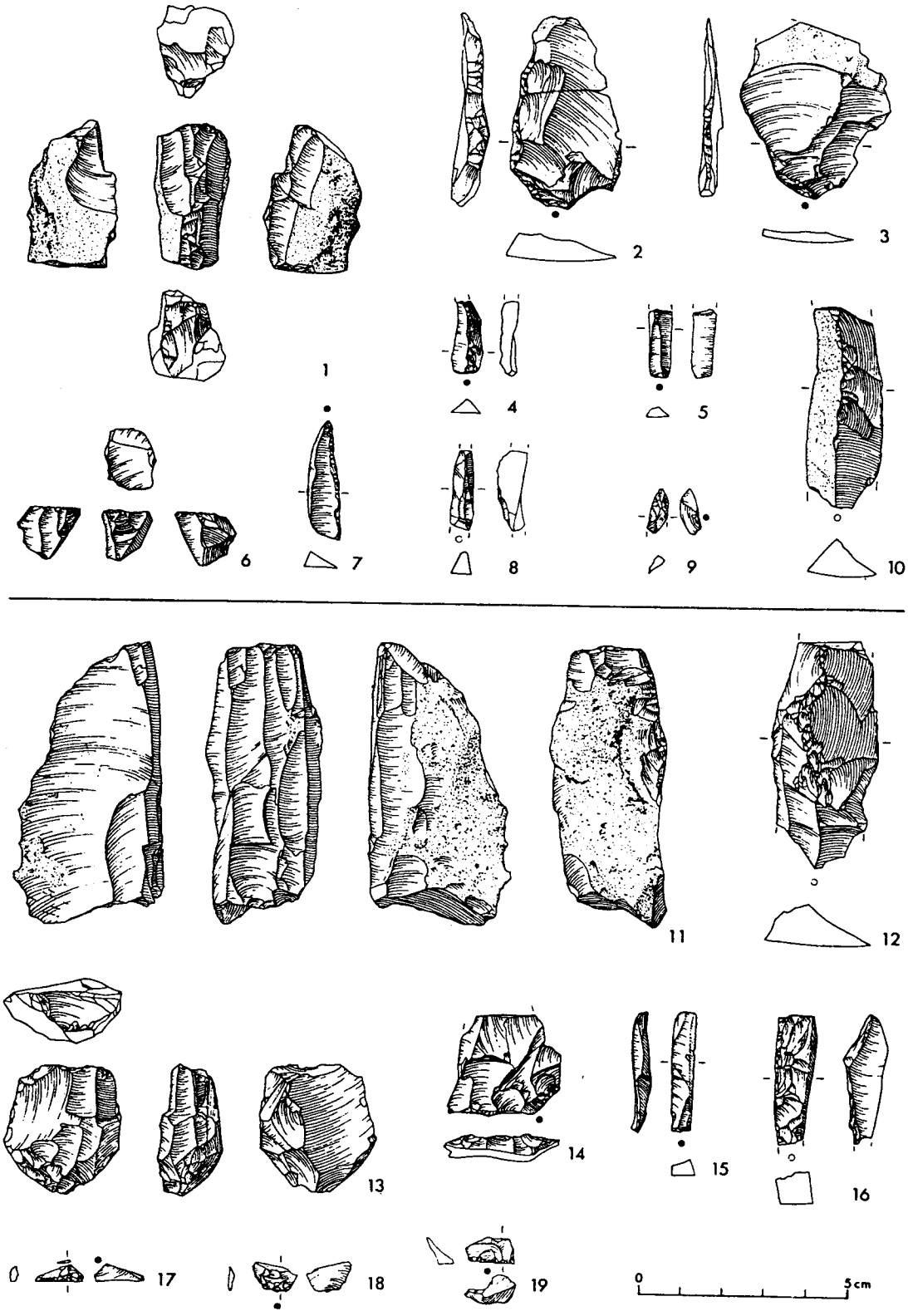

Fig. 3 : Fussgönheim I and II, Late Upper Palaeolithic stone artefacts. 1-10 Fussgönheim I; 1-19 Fussgönheim II. - 1,6,11,13 cores; 2,3,14 core preparation flakes; 4,5,7,8,15,16 burin spalls; 17-19 flaking waste from tools; 10,16 crested blades. Scale = 2 : 3.

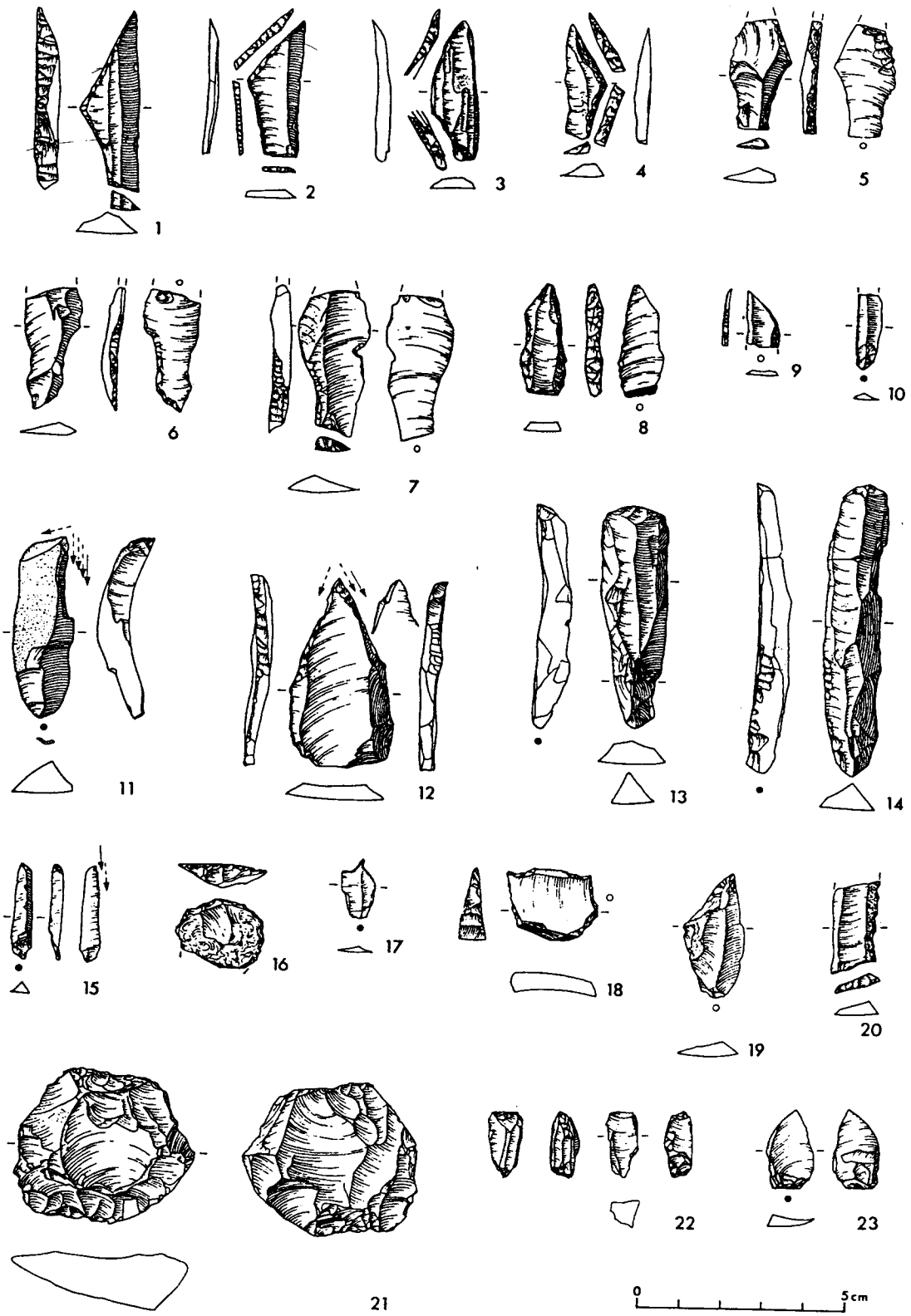

Fig. 4 Fussgönheim I. Tools from the Late Upper Palaeolithic complex. - 1-10 backed forms; 11,12,15 burins; 13,14,16 scrapers; 17-19 borers; 20 endretouched piece; 21,22 splintered pieces; 23 splinter from a splintered piece. Scale = 2 : 3.

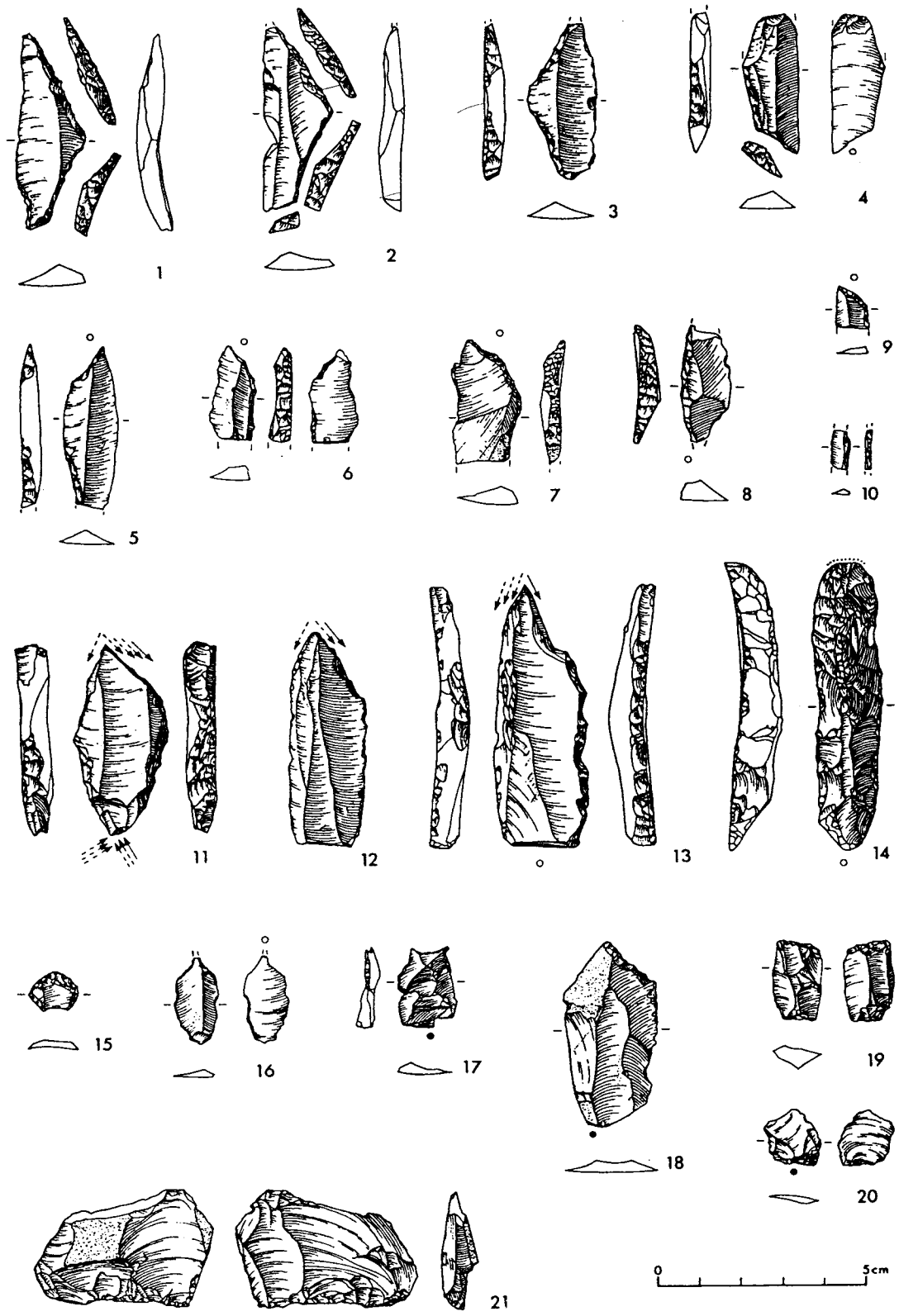

Fig. 5 Fussgönheim II. Tools from the Late Upper Palaeolithic complex. - 1-10 backed forms; 11-13 burins; 14-15 scrapers; 16-17 borers; 18 endretouched piece; 19, 21 splintered pieces; 20 splinter from a splintered piece. Scale = 2 : 3.

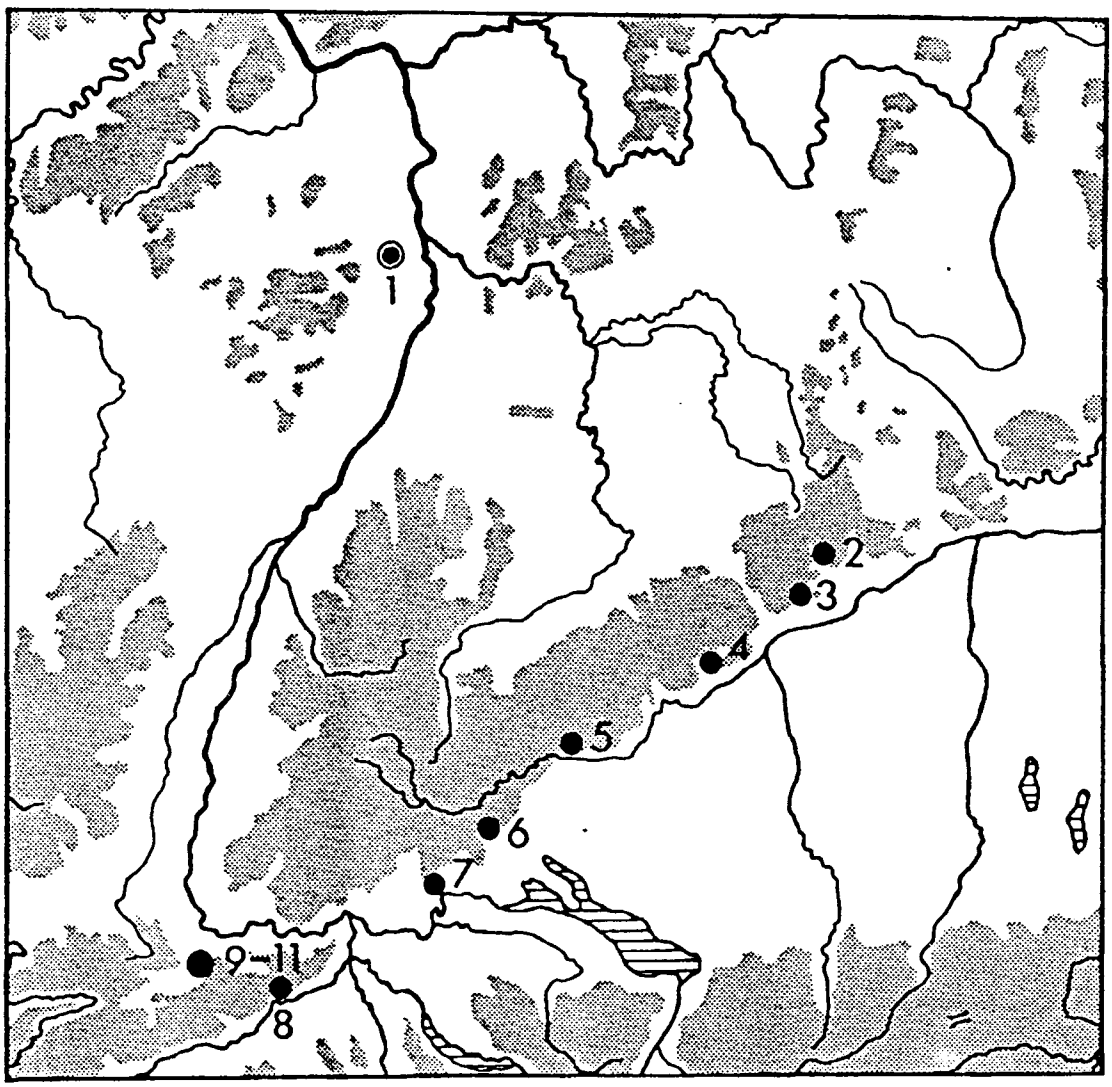

Fig. 6 Map of Southern Germany and Northern Switzerland with the most important sites of a Late Magdalenian facies with shouldered and backed points.

1 Fussgönheim I and II (W. Storck 1959; U. Stodiek 1985, 1987).
2 Bärenfelsgrotte (G. Riek 1957)
3 Hohlenstein-Stadel layer III (J. Hahn, H. Müller-Beck, W. Taute 1973)
4 Helga-Abri layer III a/b (J. Hahn, A. Scheer 1983)
5 Zigeunerfels layer F (W. Taute 1972, 1973, 1975)
6 Petersfels (E. Peters 1930; E. Peters, V. Toepfer 1932; P.F. Mauser 1970; G. Albrecht 1979)
7 Schweizersbild (J. Nüesch 1902, H.G. Bandi 1947; D. de Sonneville-Bordes 1963)
8 Winznau-Köpfli (A. Zürcher 1969)
9 Brügglihöhle (H.G. Bandi et al. 1954)
10 Kastelhöhle upper layer (T. Schweizer et al. 1959; J. Sedlmeier in preparation)
11 Kohlerhöhle (C. Lüdin 1963)