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## STRATIGRAPHY OF THE MESOLITHIC SETTLEMENT IN THE ROCKSHELTER AT HEŘMÁNKY (POLOMENÉ MTS., NORTH BOHEMIA)

The region of Polomené Mts., inhabited by the Mesolithic people, can be divided into two different parts: 1. the rocky highland with numerous canyons and rockshelters suitable for human occupation and 2. the bow-shaped depression entouring the N and NE ridges of the highland with its open-air sites, perhaps filled with lakes during the earlier phases of Holocene. It is possible that there was a sort of cyclic movements, perhaps seasonal, between the sites of the area. If so, slightly different human activities are to be supposed in the two different ecological environments (prevailing hunting on the highland, fishing and gathering in the depressions). For these reasons a detailed archaeological study with respect to the geomorphology might be important.

The archaeological research in the region has been carried out for a longer time. F. Prošek and V. Ložek excavated the rockshelter at Zátyní (1951) and in 1977 some results concerning the sites of the depression were published (Svoboda 1977 with further references).

New stratigraphic evidence was found in a sandstone rockshelter at the village of Heřmánky (near Dřevčice). The rockshelter is situated in a E-W oriented side-canyon, is exposed to the sun during the whole day and well protected against winds in all directions. Under the site, at the bottom of the valley, nowadays there is a small lake serving as a water source for animals.

The purpose of the excavations held in 1978 was to establish the stratigraphic sequence of the site (for details see Svoboda 1978); this is formed by following layers:

1. gray powder-like sand, containing Late Middle Age objects and secondary placed artefacts of higher age
2. brown sandy-loam layer, containing prehistoric pottery, Neolithic and later, animal bones and stone industry
3. ochre sand with Mesolithic stone artefacts, burned sandstone pieces and charcoals
4. sterile yellow sand produced by the rock-alteration
5. yellow-brown sandy slope sediments
6. white sterile sand gradually passing into rocky subsoil

During the excavation several hearths have been found. Two of them have been sunk into the upper parties of the *layer 2* and are probably of very recent origin (section AB, CD). Another one lies at the basis of the *layer 2*, at the bottom of a prehistoric dwelling object (section GH). It is formed by red-burned sand with wood charcoals. In the Mesolithic layer a rounded hearth was discovered, composed by red-burned sand, sandstone pieces and wood charcoals with stone implements in it (section EF, plan 1). The burned pieces of sandstone are straggled through all the Mesolithic layer. When wet, they can be used as red colouring-matter for decoration of rock wall, skin, etc. It cannot be proved whether they are just scattered pieces from hearths or whether they were intentionally burned to obtain the pigment.

The Mesolithic layer (*layer 3*) is closely attached to the rock wall. As seen from the sections, it forms probably the filling of a hut or huts, sunk into the white sand subsoil (*layer 6*) and constructed (similarly as in the Lazaret Cave) by poles leaning against a ledge in the rock wall. In the section GH

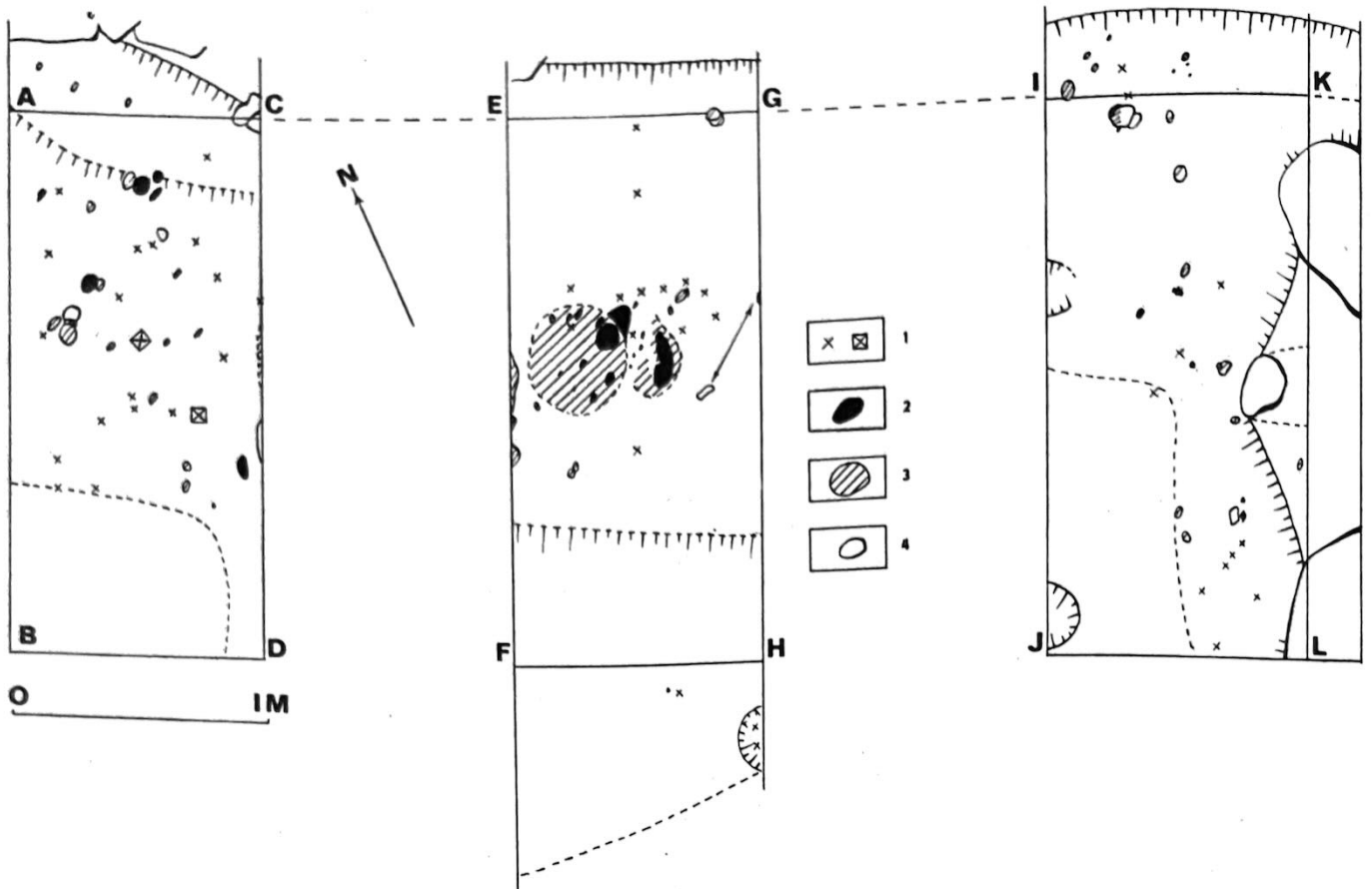


Fig. 1. Dřevčice-Heřmánky. Plan of the excavated area, layer 3. 1: stone artefacts, cores; 2: charcoals; 3: red-burned sand and sandstone; 4: stone blocs.

one such post hole with two Mesolithic artefacts in it was detected and there is probably another one in the section IJ. Large sandstone blocs could help to establish the construction. Future excavations will perhaps throw more light on the construction and space organisation within the dwelling, especially its limits and their relations to the position of the hearths.

The following erosions have disturbed some parts of the structure, especially its exterior margins. During the next sedimentary phases new layers of yellow elluvial sand (layer 4) were deposited over the disturbed traces of the structure and sandy slope deposits (layer 5) have been formed in the marginal parts of the space.

The later prehistoric occupants of the rockshelter (layer 2) came into the described terrain situation. The Neolithic, Bronze Age and later inhabitants have formed a thick cultural layer witnessing by the number of bones their hunting activities in the rocky woodland of Polomené Mts. Unfortunately this occupation has anew disturbed the traces of Mesolithic settlement in its subsoil. The last inhabitants were the Late Middle Age people, looking perhaps for a refuge during the war times (layer 1).

The stratigraphic evidence could indicate that between the abandonment of the rockshelter by the Mesolithic people and the coming of the Early

Neolithic inhabitants, a long time period, characterized by an erosive and a sedimentary phase, must have passed. This fact may be important from the point of view of some theories concerning the contacts of Mesolithic and Neolithic populations.

#### THE STONE INDUSTRY

In the Mesolithic layer 56 artefacts have been found. They are made mainly out of silex (42 pieces, 8 of them burned in fire), coming probably from the northern moraine region, some of them from the Ploučnice river terraces (a large cumulation of flint knolles, transported by this river as far as Česká Lípa, was found in the deposits near Žizníkov). The fine dinas quartzites from NW Bohemia are not so frequent as in the open-air Mesolithic sites in the nearby Holany depression (S v o b o d a 1977); they represent 9 pieces, 6 of them are of the Bečov type. The coarse-grained quartzite, coming probably directly from the Holany depression (Stvolínky), is represented by 1 piece and is documenting the direct contacts between the rockshelter and the open-air sites. The 4 coarse rocks are of unknown origin. They are more or less metamorphosed sediments of lower quality for tool-production.

For comparison, in the upper Neolithic materials of the same site the silex is represented by 14 pieces, 8 of them burned in fire. From the dif-

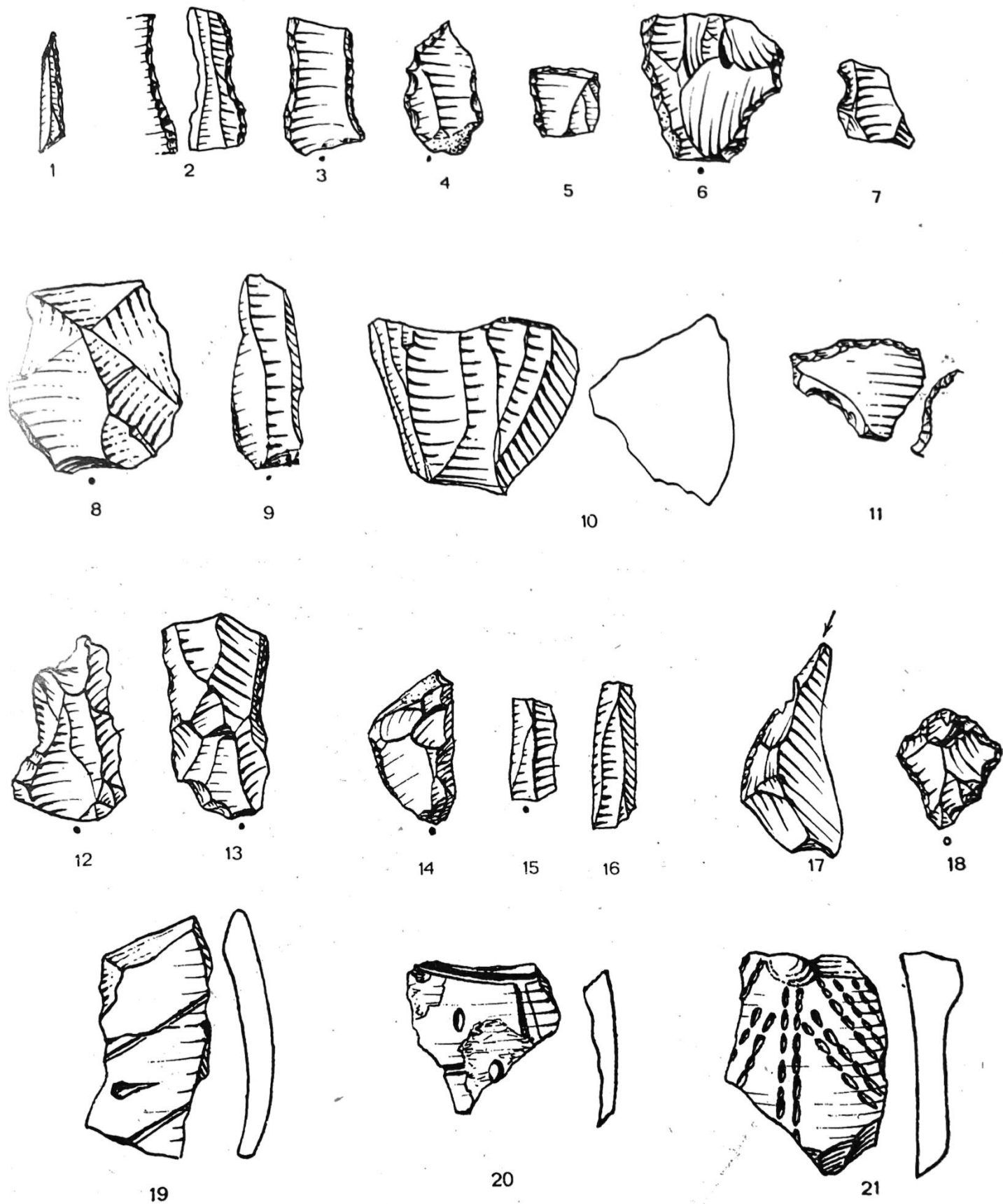







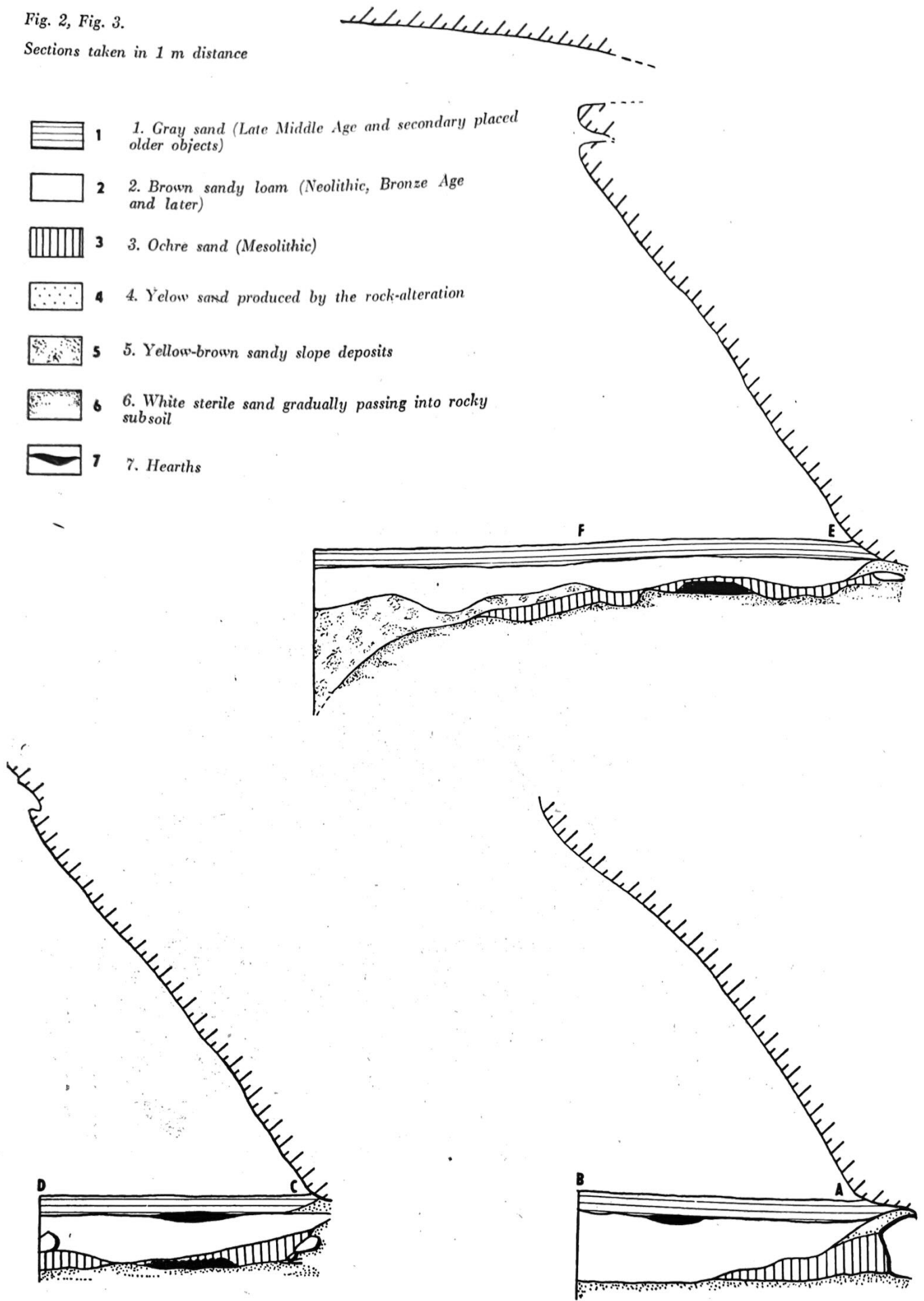


Fig. 4. Dřevčice-Heřmánky, artefacts. 1-13: layer 3; 14-16,19,21: layer 2; 20: layer 1; 17-18: surface

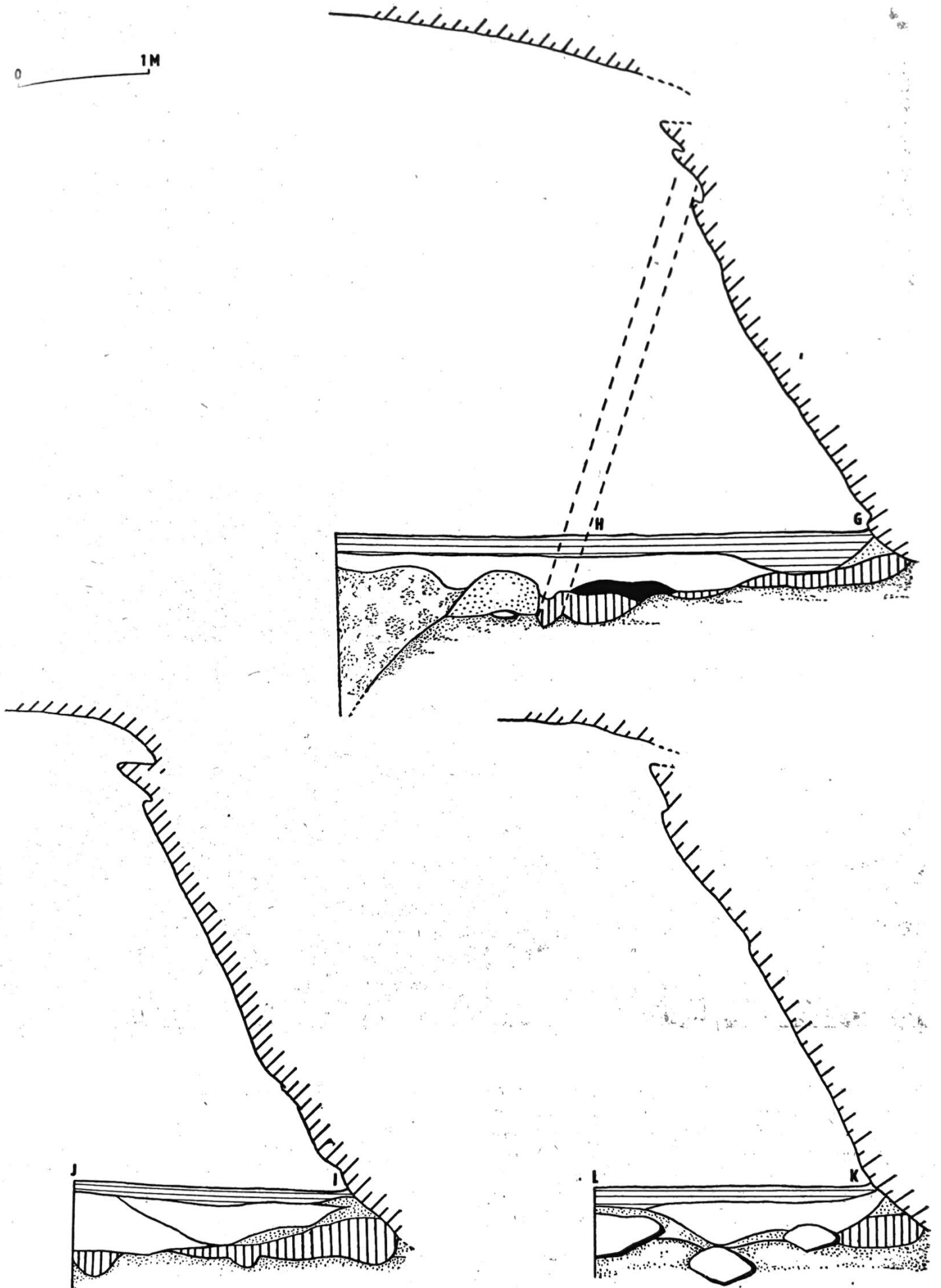
Fig. 2, Fig. 3.

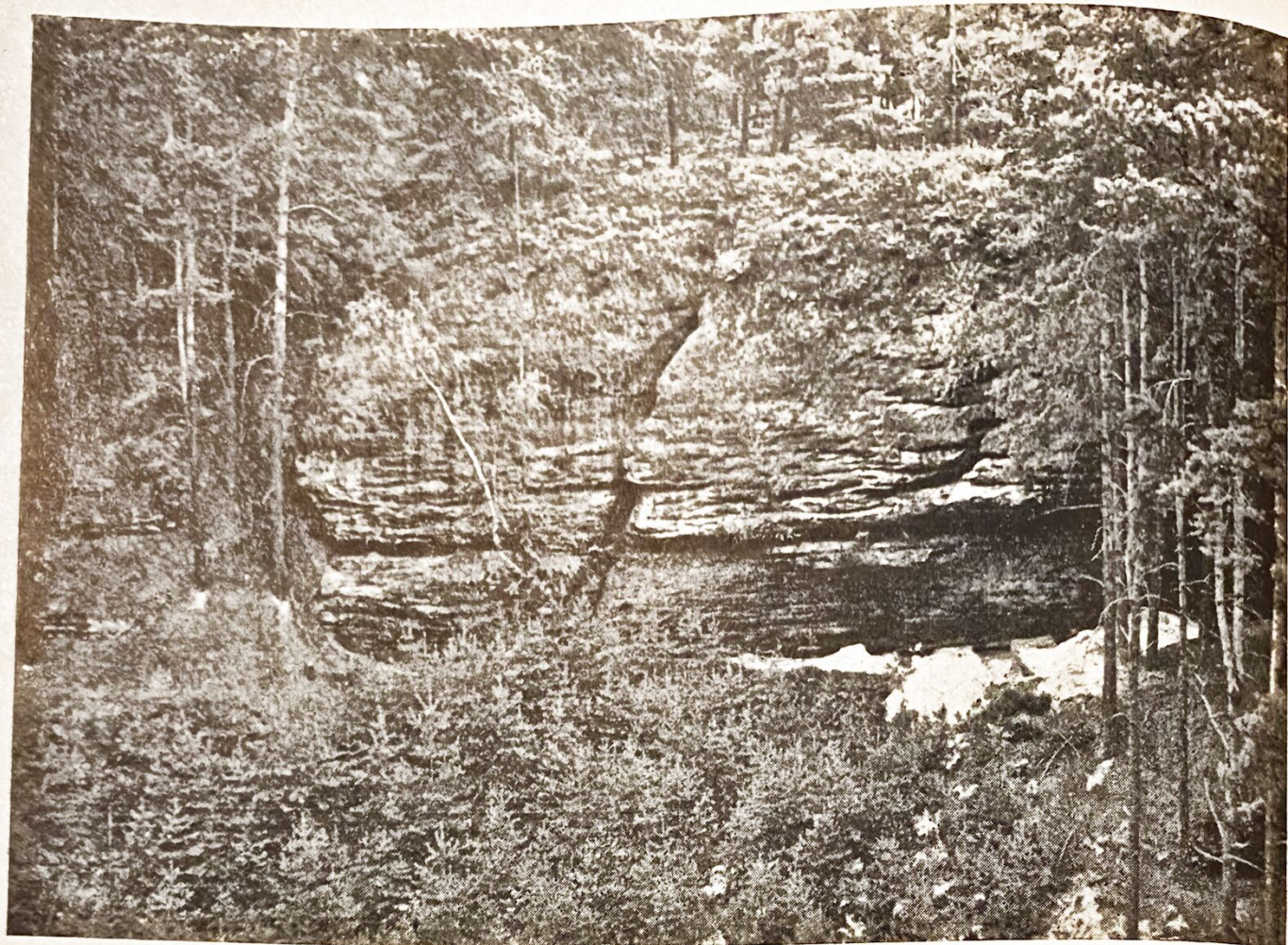
Sections taken in 1 m distance

-  1 1. Gray sand (Late Middle Age and secondary placed older objects)
-  2 2. Brown sandy loam (Neolithic, Bronze Age and later)
-  3 3. Ochre sand (Mesolithic)
-  4 4. Yellow sand produced by the rock-alteration
-  5 5. Yellow-brown sandy slope deposits
-  6 6. White sterile sand gradually passing into rocky subsoil
-  7 7. Hearths



0 1M





▲ Fig. 5. Dřevčice-Heřmánky, general view of the site

▼ Fig. 6. Dřevčice-Heřmánky, section GH



ferent types of dinas quartzites only the Bečov type was choised (6 pieces) and the lower quality quartzite probably from Stvolínky was used in one case. Newly comes one piece probably from radiolarite. This raw material is not known from any of the Mesolithic sites in the region and it could witness new directions of contact opened during the Neolithic towards the SE.

On the surface of the layer 1 have been found in secondary position: 5 pieces of silex, one of them burned in fire, one piece of the Bečov-type quartzite and one more radiolarite (?) piece.

#### Survey of the industry (layer 3):

- A. Cores (2)
  - 1 single-platform core without prepared platform
  - 1 single-platform core with prepared platform (Fig. 4:10)
- B. Tools (5)
  - 1 backed microlithic triangle (Fig. 4:1)
  - 1 retouched microlith (Fig. 4:5)
  - 1 micro-scraper (Fig. 4:11)
  - 2 notched pieces (Fig. 4:6,7)
- C. Flakes, blades and fragments (48)
  - 26 flakes (Fig. 4:8,12)
  - 3 retouched flakes (Fig. 4:4,13)
  - 4 blades (Fig. 4:9)

1 bilaterally retouched blade (Fig. 4:3)

1 alternately retouched blade (Fig. 4:2)

13 fragments

D. Cracelled pebble (1)

From the typological point of view it is important that the microlithic backed points are present in all larger collections from the area.

The Neolithic collection from the layer 2 is typologically not expressive (Fig. 4: 14–16). Out of the pieces found in the secondary position on the surface of the rockshelter one burin (Fig. 4: 17) and one end-scraper (Fig. 4: 18) could be mentioned.

## CONCLUSIONS

The preliminary results show that the research under the rockshelter of Heřmánky could be useful for better understanding of the Mesolithic dwelling structures and their spatial organization. Further on

it could supply some stratigraphic, chronologic and ecologic evidence on the Mesolithic settlement of the region. Finally, it could throw some light on the presumed cyclic movements of the Mesolithic people between the rockshelters of the rocky highland and the open-air sites of the depression and on the possibilities of human adaptation to these two different environments.

## REFERENCES:

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