PRELIMINARY REPORT ON THE 1992 EXCAVATIONS AT FOENI-SĂLAŞ: AN EARLY NEOLITHIC STARČEVO-CRIŞ SETTLEMENT IN THE ROMANIAN BANAT

INTRODUCTION

Archaeological investigation of the Early Neolithic settlement at Foeni—Sălaş was carried out for four weeks from July 22 to August 25, 1992. The research was sponsored by The University of Manitoba, Winnipeg, Canada: the Social Science and Humanities Research Council of Canada, Ottawa; and the Museum of the Banat, Timişoara, România. The excavations were directed by Haskel Greenfield and Florin Draşovean, with the assistance of Ian Kuijt. This report represents a summary of those activities and is the first preliminary report on the collaborative research excavation program of the University of Manitoba and the Museum of the Banat at Foeni—Sălaş.

The objective of the excavation was to reconstruct the internal social and economic organization of a single Starčevo-Criş settlement. As a result, a site with a single undisturbed cultural horizon where the distribution of individual features and artifacts could be extensively studied and mapped out was required. The cultural horizon needed to be relatively near the surface, so that it could be extensively excavated during the planned three seasons of excavation. Previous excavations of Starčevo-Criş settlements have not recorded and / or published the exact distribution of excavated material in a manner which would allow systematic intra-settlement spatial analysis for the reconstruction of Early Neolithic social and economic organization. The objective of this project is to rectify this imbalance in our understanding of these societies by systematically map the spatial distribution features and artifacts in an Early Neolithic Starčevo-Criş culture site to understand the relationship between different types of features and associated artifacts.

Foeni—Sălaş was chosen for systematic investigation after study of the regional surface surveys and associated museum collections from the Banat and Transylvania was conducted because:

1. it was thought to contain a single Starčevo-Criş occupation on the basis of preliminary surface collections.
2. on the basis of preliminary coring activities, it seemed that the deposits were relatively near the modern surface, relatively thin (except where features existed), and, as a result, accessible during a short excavation season;
3. there was good reason to believe that preservation of organic remains (bone and plant) was relatively good after an examination of soil conditions at the site;
4. the ceramics from the sufrace collections indicated that it was one of the (if not the earliest) Starčevo-Criş settlement in the Romanian part of the Banat; and
5. the Starčevo-Criş deposits were not disturbed by later phases of occupation.

THE SITE

Location

The prehistoric settlement at Foeni—Sălaș is 3 km north of the village of Foeni (along the asphalt road between the villages of Foeni to Ionel), and approximately 3 km from the Yougoslavian border. The 35 km marker (toward Deta) on the road is at the north end of the site. The village of Foeni is located in the county of Timiș, province of the Banat. It is approximately 45 km SW of the city of Timișoara (capital of the Banat). The coordinates are approximately 20 degrees, 52 minutes and 30 seconds longitude and 45 degrees and 31 minutes latitude.

Toponym

Toponyms can be used as indications of the presence of archaeological sites in this region. Generally, many of the oldest settlements are recognized by their place names. The name of a field or hill may indicate the nature of past use or occupation. Traditionally, when farmers recognize large quantities of ceramics on the surface of fields, they will call the location „Seliște" (which means, in Slavic, 'the place to sit'), „Sat batrîn" (old village, in Romanian). La Biserică (to/at the church, in Romanian), and Cremeniște/kremenak (the place with flint — which often has flint raw material for tools on the surface, in Romanian/Slavic). The name of the hill on which our Early Neolithic settlement is located is called Sălaș (which means, in Romanian, „little farmstead in the field").

The many low mounds created as the result of cultural activities (e.g. tumuli and tell settlements) are also frequently given names indicating their past use. In the Banat dialects of Romanian and Serbian, tumuli and tells are called gomila or humka. Tumuli are distinguishable from tells often by their shape. Tumuli in this area generally rise more quickly and have a rounded shape. Tells tend to be situated atop natural rises. They rise more slowly and unevenly, and are more irregular in shape. This is the case with Foeni—Sălaș.

Surrounding Environment

The site is located in the midst of the flat alluvial plain between the Timiș and Bega rivers. It is atop the southwest half of a natural rise (extending SW—NE) that rises above the plain. The right bank of the Timișat — a tributary stream of the Timiș river — is just to the east of the rise. A large depression is found along the southern edge of the rise. The depression, which surrounded by what appears to be an old levee that connects Foeni—Sălaș to several other known sites along the Timișat's route, probably represents an old meander channel of the Timișat stream. The paleochannel passed along the eastern and southern edges of the site. Some 19th century maps show oxbow channels of the Timișat in this position. The meander depression to the east and south of the site probably contained slow-moving water in prehistory. The large quantities of molluscs (Unio pictorum) found during the excavation supports such an environmental reconstruction.

In the 19th century, the Timișat stream, and the Bega and Timiș rivers were channelled and large areas of the plain were drained. What was formerly swamp and marsh, is today rich agricultural land. During rain, it is still difficult

to reach the site by car because the alluvial soil surrounding the site turns into a slippery mud. But once you have reached the site, the soils are dry. They drain rapidly because of the sandy substrate.

Geomorphologically, the Foeni region belongs to the Banat plain. The plain is organized into several areas depending upon the altitude and relief. Foeni is located in the Timiș plain, which includes the floodplain of the Timiș, Bega, Moravița and Bîrzava rivers (Zăvoianu 1979: 23—28). The average altitude of the Timiș plain is ca. 80 m asl. Between the Timiș and Bega rivers, the altitude of the plain is highest in the NW (90 m asl) and declines gradually toward the NE. The region has a very high water table, which when combined with the low angle of decline in the plain, causes frequent flooding of the rivers and constant and seasonal formation of swamps in the surrounding areas. The water-table is at its highest between January and July, which is the period of the formation of the seasonal swamps and lakes (both large and small) Zăvoianu 1979: 47).

The most important rivers are the Timiș and Bega, which are now channelized. But in the past, they had many branches. Today, many of these have beene filled naturally by alluvium and mud. Others are dry since they have been cut off from the rivers by a series of dam and dykes.

In the Foeni region, the soils are hydromorphic. They are not formed by the annual flooding bringing them to the region. They are formed by the frequent rising and falling of the water-table (Zăvoianu 1979: 62, fig. 13). The soils of the region were deposited above the Pleistocene loess soils. They have the composition of loamy clay. This king of soil, if there are not channels for drainage, will often become salty due to capillary action. This will reduce fertility in the area.

The region has a temperate continental climate, due to the influence of the prevailing „wet" west and southwest winds. The southern winds from the Mediterrancan have an important influence. The winters are not very severe in this area due to their influence. The winds from the east — flowing from the Russian and Ukrainian steppes — are cold and dry because they lose their moisture over the Carpathians. They blow mostly during the winter.

Other aspects of the weather are determined by the presence of the local topography creating a micro-climate. In the plain, there are large round shallow depressions (ca. 1—3 m deep and up to 1—2 km long) which have a milder microclimate than in the plain (Zăvoianu 1979: 32).

The annual temperature of the region is ca. 11 degrees C. The minimum median temperature is in January (0—minus 15 degrees C) and the maximum median is in July (21—22 degrees C) (Zăvoianu 1979). But temperaures can increase to 35 (in the shade) and 40—45 degrees C (in the sun) during July and August.

Because of the western oceanic winds and the presence the mountains to the east of the plain, the average precipitation is ca 700 mm/year. Precipitation occurs year-roung, but is highest in July, declines in August and September, and rises again in October and November (Zăvoianu 1979: 38). There are between 120—130 rainy days and 15—20 sonwy days. The snow is not very deep (10 cm average) (Zăvoianu 1979: 41).

Physical Description of Sălaș

A partial topographic map of the site was made by Ian Kuijt, with the assistance Bonnie Brenner and Sandra Jezik, during the 1992 season. The map was completed by Greenfield and Drașovean in 1993 (fig. 1). The mound at Salas is a natural hill, rising approximately 5 m above the surrounding flood plain. Human habitation has added a thin horizon (ca. 1 m) above the pre-Holocene substratum.

Topographically, the rise upon which the site is located can be divided into northeastern and southwestern sections, with the former approximately 10 cm higher. There is a slight dip (of only 20 cm) between each. The rise gradually slopes down to the plain in the north and wast, drops rapidly to the east, and more rapidly to the south into the ancient stream channel. As the site slopes to the west, it connects with a levee that borders the meander on the west, southwest, and south. In effect, the site represents the northern levee of the old Timişat channel.

The central part of the site is owned by Liviu Chira, the vice-mayor of Foeni. The northern and southern edges are owned by other villagers. The northern edge was covered by Iron Age and late Roman sherds. Starčevo-Criş surface materials were not recovered in this area and it therefore was not of concern to us. The property on southern edge of the site consists mostly of the rapidly descending slope to the old stream bed. The surface collections and the cores seemed that the property line was close to the southern edge of the Starčevo-Criş settlement area. The site has been under cultivation by the local cooperative and landowner within recent memory. This summer, maize covered the site, except for a strip along the southern edge, which was covered by sparse uncultivated weeds.

Liviu normally ploughs the soil with a relatively shllow plow, turning soil over down to depths of about 30 cm. Approximately 20 years ago, the local cooperative embarked upon an ambitious plan to increase productivity by deep ploughing (down to 50 cm). The results of the deep ploughing were apparent in our excawation.

HISTORY OF RESEARCH

Although the Banat has been the scene of archaeological research since the 19th century, the Foeni district was virtually unknown until about 20 years ago. Many of the districts in Romania, along the Yugoslavian border were not systematically investigated until after the 1989 revolution. Movement in the borderlands was severly restricted until that time.

Florin Medeleţ (Thracology Institute, Timişoara) conducted the first archaeological survey in the Foeni area in 1975 during which a number of settlements and tumulii were found (Medeleţ 1986). In 1986, Florin Draşovean (Banat Museum, Timişoara) began a rescue archaeology survey program in the area due to construction of a natural gas pumping station. The station is about 5 km south of and visibible from the site. Using maps with microtoponyms and by field-walking, eleven archaeological sites from a variety of periods were identified.

In October 1991, Florin Draşovean and Florin Gogâltan (Museum of History of Transylvania, Cluj) began excavating the Bronze Age and Late Neolithic Petreşti settlement in the Romanian orthodox cemetery of the village of Foeni. Fourth century AD graves were also found.

In April 1992, when there was little vegetation covering the surrounding countryside, they began an archaeological survey of the surrounding fields and discovered five additional prehistoric settlements, including Foeni—Sălaş. In total, sixteen sites are known from the surroundings of the village — 1 Early Neolithic Starčevo-Criş, 3 Late Neolithic Petreşti and Vinca, 1 Chalcolithic Baden, 6 Bronze Age, Early Iron Age Galstatt, 1 Late Iron Age La Tene, and 2 Medieval sites. Draşovean has since 1986 systematically surveyed by fieldwalking over 25% of the surface of the Timiş county.

The first recorded visit by archaeologists to the site at Salas was in April 1992 by Draşovean and his survey crew. At that time, the field had been cleared of vegetation and was freshly plowed. He conducted a brief surface reconnaisance of

the hill and saw two concentrations of materials in different areas. In the area of the rise nearest the road along the northern edge of the rise, pottery from the 4th century AD, Iron Age, and Late Bronze Age, and some grinding stones were found. The 4th century material seemed to be concentrated on the slope nearest the asphalt road along the northern edge of the site. On the southern part of the hill, large quantities of early Starčevo-Criș pottery were found. The ceramics seemed to be distributed across the surface of the site in a series of circular rings, possibly representing the presence of a series of structures just below the surface. At the time, he thought that recent agricultural practices had completely destroyed the cultural horizon and the upper part of any pits at the site. A single chipped stone blade was also recovered. Some Starčevo-Criș material was also found on the southern half of the northern part of the hill. Only a few pieces of pottery were found in the small dip between the two parts of the hill.

Greenfield and Kuijt visited the site for the first time on July 19, 1992 with Drașovean, while searching for potential Early Neolithic settlements to excavate with Drașovean. Its potential as a site for studying Early Neolithic social and economic organization became immediately apparent and it was chosen for further investigation.

PRE-EXCAVATION INTENSIVE SITE SURVEY

During the first week of activity at Foeni, we completed types of site survey activities were completed as part of our preliminary investigation of the site's potential. During this time, a topographic map of the site was begun, a site grid was designed and imposed, a 20×40 m area of the site was systematically surface-collected and surveyed with a proton magnetometer, and a series of soil cores of the site were made in a north-south and east-west direction across the site. Each activity was designed to enhance our information about the site and the distribution of Starčevo-Criș materials in order to guide a decision concerning the location and size of the excavation. Since features were not visible on the surface, we hoped that these activities would optimize our chance of finding the Starčevo-Criș site's center and provide an indication of the distribution of features. The results of each will be discussed in turn.

The Grid

The grid is a set of rectilinear lines imposed upon a site for the purpose of dividing that site into a series of smaller, more manageable provenience units for the various aspects of the survey and excavation. Once a grid is in place, a number of distinct activities, such as magnetometer surveying, surface collecting, excavation, etc. can occur and are easily referenced in relation to each other.

A grid was established over the entire site (and beyond it's obvious borders) to enable the location of each analytical unit (for survey, excavation, or surface collection) to be referenced to a single coordinate system (Fig. 2). The entire site is subdivided into 20×20 m blocks. Each is given a number (arabic numeral), starting with 1, with the numbers increasing in an W—E direction, beginning in the SW corner of the research area. When the end of a row of blocks is reached, the number sequence continues in the next (to the north) row of blocks, moving from

the west to the east again. The grid began off the mound in the event that the site eventually extends into what is presently alluvium. These 20×20 m blocks form the largest spatial subdivisions of the site, which are subsequently sub-divided into smaller areas for further analysis.

Each block is divided into sixteen 5×5 m units which become the basic units for excavation (trenche areas). Each trench is distinguished by a letter (A through P) within a block. In this way, the trenches are aligned with the overall site grid. Each trench is labeled firstly with a block number and secondly with a trench letter from that block. For example, trench 131F is the F trench in block 131.

Each 5×5 m trench area is divided into 25 1×1 m quadrats. This creates a grid of 1×1 m units within the trench that are also oriented to the site grid. Each of these 1×1 m quadrats receives an arabic number designation (1), and moving from left to right across the trench beginning in the NW corner (see Fig. 3). These represent the largest area that would be excavated as a single unit. All quadrat numbers follow trench numbers and are prefaced by a 'q' (e. g. 131F q1=quad or quadrat 1 in 131F).

Soil Coring

Soil coring is useful in determining several types of information about the locality prior and during excavation. One, it allows for a preliminary examination of the overall stratigraphy of the site. When a series of cores are taken across a site, they can be correlated and a stratigraphic section constructed. This technique allows for a preliminary graphic view of a site, which is very useful in guiding decisions concerning the next phases of research. Two, it is useful in determining the depths to which cultural levels extend beneath the surface. Third, coring can locate the distribution of rich or poor cultural deposits and serve to help decide where to ding.

The coring instrument used at Foeni was a large tube about a foot long attached to a handle hat can extend from 1 m to 3 m long. As the handle is attached and the corer spun into the ground, the spiral blades at the end force the dirt into the instrument. It is then pulled up and emptied. A plastic tube fits inside the metal core to receive the dirt. The outside of the tube is greased to ensure that it can be easily extracted after the core has been taken, with the soil column intact within the plastic tube. Between every coring sample, the entire instrument was thoroughly cleaned to avoid contamination between levels, and properly greased to maintain smooth operation. Each time the corer was withdrawn, a meter stick was inserted in the hole to determine the depth to which the corer reached. Sample number, depth, soil type and color, inclusions were recorded.

A series of probes were made into the soil at the site woth a soil corer in a north-south and east-west direction. The objective of the coring activity were twofold: first, to obtain á sense of the major stratigraphic subdivisions at the site and second, to identify the density and location of any subsurface features that may extend into the sterile substrate.

The former goal was achieved. The site has a relatively simple stratigraphic cross-section. The strata are described in terms of loci. A locus, as described below, is a major stratigraphic unit extending across a large area of the site.

Beneath Surface	Locus #	Description
0—15 cm	01 upper	Upper plowzone and Humus.
15—30 cm	01 lower	Lower plowzone:
30—40 cm	04	A later prehistoric plow zone that disturbed the top of locus 02.
40—60 cm	02	The major cross-settlement Starčevo-Criș cultural horizon.
60—100 cm	05	The initial post-Pleistocene humus.
60—140 cm	— —	Various sub-surface features that extend into the sterile substrate.
100— ? cm	12	Culturally sterile pre-Holocene loess.

The cores were useful for tracing soil horizons across the site, only in the most general of terms. The plow zone, the Pleistocene loess, and the Starčevo-Criș cultural horizon were clearly recognizable and traceable across the site. But the cultural horizon contained so little ceramic material that we could trace it only on the basis of its distinctive color and texture. This was unfortunately not the case with locus 4 because we did not recognize its existence until after the excavations had already begun and the coring actvity half-way finished.

Similar to our experience from other similar sites (e. g. Blagotin in Serbia), soil coring was only occasionally useful in identifying the location of subsurface features. Only two cores yielded the remains of such feature (in Blocks 131F and 149L/150I). The density of features is so light that the chance of hiting any single features with the corer is very small. For example, several of the cores were placed within 5 m of the locus 10 pit, but did yield any no evidence of any nearby features. A core 1 m to the west of the pit complex in 131F also did not reveal the presence of the pit. It only indicated that there existed a slightly thicker cultural deposit at that location (because it caught only the edge of the pit). If cores are used as a guide to where to dig, structures could be easily missed. The area would have to be cored so extensively that it would soon like like swiss cheese.

Magnetometer Survey

A proton magnetometer was employed to measure the strength of remnant magnetism in the soil at the site. The presence of magnetic highs and lows (i. e. anomolies) may indicate the presence of concentrations of ceramics, burnt clay floors or walls, or hearths. If a fire is burned at a sufficiently high temperature for a long enough time, the atoms will polarize and be detected by th magnetometer. When large magnetic anomolies are found, they can serve to aid in deciding exactly where to place the excavation trenches. When the whole site is surveyed in this manner, maps can be generated indicating the possible location of subsurface features below the surface. Foeni was considered to be a relatively good candidate for such analysis since there were no power lines, metal construction, metal deposits, buildings, etc. in the vicinity to influence the magnetometer readings.

The instrument employed to measure the remnant magnetism was a Scintrex MP—2 proton precission magnetometer, with a 1 gamma sensitivity resolution. The instrument has two components: a wand with the proton magnetometer on the head, which is connected by a electrical cord to a battery pack with a visual readout. The instrument is lightweight and portable. The instrument was on loan from the Department of Geological Services of the Manitoba Provincial Department of Energy and Mines (through Dr. Iftikar Hosein).

The magnetometer survey was oriented to the site's grid. Readings were begun 0.5 m from the edge of the block and taken at 1 m intervals across the area. The reading was then subtracted from the control point reading for the block. These data were analyzed by a topographic map-producing program called SURFER.

A 20×40 m area of the southern part of the site was test surveyed with a proton magnetometer (blocks 111 and 131). The results, at first, were discouraging due to hardware and software problems. Preliminary field analysis of the data did not reveal significant magnetic anomalies in the area surveyed. This, in addition to the difficulty of surveying through the rest of the site that was covered by high corn, resulted in the decision to abandon the magnetometer survey after the two blocks had been completed. Further magnetometer survey seemed to be unproductive.

The fild crew, however, intuitively recorded the presence of an anomaly in the NW quarter of block 131. In subsequent laboratory analysis, a magnetic anomaly was identified in this area. The intuitive identification of this anomaly was supported by the surface finds from this area and subsequently confirmed by the excavation of the pit house structures in trench 131F. There is no evidence for anomalies in block 111.

The lack of significant anomalis in this area was not well-understood during the 1992 season since the surface collection from surrounding blocks had not yet been concluded. After the 1993 season, we now understand that the lack of anomalies is due to the fact that the eastern edge of the Starčevo-Criș settlement falls within the western half of block 131 and that the feature in 131F is probably the easternmost features. Block 111 is beyond the edge of the site.

Surface Collection

Material found on the surface of a site can yield clues as to the nature of the deposits that exist below the surface. The objective of the surface collection was to identify the limits of the surface distribution of ceramics and to imply from their analysis the edges of the Starčevo-Criș area of occupation and those ares with high and low surface concentrations of Starčevo-Criș material.

The most common factor that causes the accumulation of artifacts on the surface is plowing. The average plow zone at Foeni—Salas is approximately 30 centimeters deep, and therefore any artifacts within this zone may be brought to the surface. Even though the surface collected artifacts are not 'in situ', if they are systematically collected with respect to a surface provenience, they can still provide guidance for future research activities at the site.

Since the site is relatively large, only a sample (25%) of the surface remains was systematically collected. It was not feasible, nor useful, to try to collect all the surface remains. Instead, a representative spatial sample was collected.

The first task was to decide what size units, how many units, and at what distance apart each unit should be collected. This is dependant upon the size of the surface to be collected. Only a small area of the site was systematically sur-

face-collected during the summer of 1992 (20×20 m). A larger area was briefly examined, but surface collection was difficult due to the dense vegetative cover.

During the magnetometer survey, each block was divided into 2 m wide strips or transects and the space within transects was surface-collected. Collection units were relatively large due to the low density of remains (5×2 m). Every other 5 m unit within a transect was surface-collected. Therefore, in the first transect, 0—5 m and 10—15 m was collected and bagged separately. The next transect was skipped. The third transect was collected, but with units alternating with the first — e.g. 5—10 m and 15—20 m were collected. Thus, the 20×20 m area of the block was surface-collected in a checkerboard fashion. Prior to surface-collection, the area was cleared of vegetation to enhance visibility. Drașovean identified the sherds from the surface collection according to their chronological position. Approximately 50% of the sherds were Starčevo-Criș; the other 50% was a mixture of Bronze Age, Iron Age, and late Roman.

Based upon the surface collections, Salas is a multiperiod settlement, containing deposits from the Early Neolithic, the Middle Bronze Age, Early Iron Age, the 4—5 th century AD, and the late Roman period. The Starčevo-Criș material seemed to concentrate in highest densities along the western half of block 113 (Fig. xx). This is on the flatter part of the slope and seemed to be a likely place to find preserved structures. The density of Starčevo-Criș ceramics falls off very rapidly to the east, north, and south within the collected area. There are relatively higher densities of Starčevo-Criș ceramics only along the west edge of block 131.

EXCAVATION STRATEGY AND METHODOLOGY

Excavation Strategy

On the basis of the analysis of the surface collections and cores, two areas of the site were tested excavation — in blocks 131 and 150. The magnetometer indicated the presence of a small anomaly in the NW part block 131 and the surface collection showed a hig density of Starčevo-Criș material along the western border of block 131. Some kind of Starčevo-Criș deposit had been close to the surface — wheter it was destroyed or not was the question that remained to be answered. A core at this location indicated the presence of a deeper than usual cultural horizon. As a result, two 1×20 m test trenches were placed as to cut across this area of the block.

The coring survey indicated that a deeper than usual cultural deposit also existed at the border of 149L and 150I. Shell and Starčevo-Criș ceramics were collected in the core at a substantial depth (c. 80 cm beneath the surface). Starčevo-Criș ceramics were also collected on the surface at the same location. A 1× ×10 m test trench was placed over this area, also.

Excavation Method

Generally, trenches were excavated using a combination of natural and artificial stratigraphic units. Each quadrat within a trench was excavated separately down to sterile soil. Whenever possible, the natural stratigraphy within the quadrat was used to divide excavation units both vertically and spatially within quadrats. At the conclusion of each excavated level or cut, the depth beneath datum was recorded. In 1992, the cuts reflected the absolute depth of the cut (asl = above sea level — in block 131) or the depth beneath the trench datum (in block 149 and 150), subsequently corrected to asl.

Loci were labelled by a separate numbering system than levels or cuts. Locus numbers are sequential for the site as a whole. Separate feature numbers were not issued for the 1992 season. They were assigned locus numbers insteated because it was not yet clear how large a difference there would be between loci and features. The difference between a locus and feature is largely one of size and extent. Features should be relatively small and discrete (such as a small pit — e. g. loci 11 and 15). Loci should be much larger and can include strata that cover the entire site (loci 1, 2, 4, 5, and 12) or more discrete pit complexes (loci 10, 14, 16, and 17) that extend into more than one spatial excavation units.

Excavation of each trench began by removing the topsoil in one or two cuts (at most 30 cm thick). Shovels were used to remove the soils. Underneath the plowzone, the levels were excavated in arbitrary horizontal 10 cm thick layers, unless there were noticeable changes in soil color or texture. Trowels and small handpicks were used to excavate the cultural horizons. Small tool were used for more delicate work such as cleaning concentrations (e. g. trowels, spatulas, brushes, brooms, dustpans, dental picks, and spoons). Excavations continued until culturally sterile soil was reached. This horizon was either the Pleistocene loess or the immediate post-Pleistocene humus above the loess. Shovels were used to shave undifferentiated cultural horizons flat for drawing and photography. When artifact concentrations were noticed, all large remains were drawn to scale on trench plans (1 : 10 or 1 : 20 scales) and elevations were taken of the bottom of that level or cut. A 20 cm wide profile was left standing between each of the trenches. The profiles in 131F, 149L, and 150I were drawn to scale.

The soil color and texture of each level was clearly defined. Dry soil colors were matched to a Munsell Soil Color Chart, to maximize consistency in soil colors designations. Soil textures were defined reference to soil grain sizing charts (e. g. gravely, sandy, loamy, clayey).

Some Difficulties of Excavation

Many practical problems were encountered during excavation that relates to the stratigraphic analysis. First, it was very difficult to determine stratigraphic changes during excavation since soil color and texture did not dramatically differentiate as the excavation continued downward beneath the plowzone. There is a gradual shift in texture from silt (locus 1 and 4) to silty loam (locus 2) to sandy loam (locus 5) to sandy silt (locus 12) as one excavates downwards outside of features. This made viewing the outline of structure during excavation very difficult. The color shifts also created difficulties. The plowzone (brown) and locus 4 (grey) were relatively easy to distinguish from each other. But distinguishing locus 04, locus 92 (light grey), and locus 05 (yellow grey) was often very difficult. Soil colors were best analyzed when dry and placed next to each and matched to a Munsell Color Chart.

Another problem encountered was the sun and the high summer temperatures. The high summer temperature combined with the high clay content in the soil to bake the soil in a very short time making delicate excavation almost impossible. Reflection by the directness of the sun's rays often blinded excavators as to color differences between strata. Color analyses were best done in the early morning, late afternoon, or in the shade where colors remained constant. The high temperatures also robbed the soils of their moisture content often making it difficult to determine colors.

In the end, it was realized that excavation was best conducted at the site in the shade and while the soils were still moist and retained some of the color

brilliance. Yet, some features were best identified after they were left to dry for several days so that there was no difference in moisture from one part of the feature to another. Differential soil moisture, which resulted from exposure of the feature over several days, occasionally fooled excavators into incorrectly identifying the boundaries of features. For example, during the excavation of the loci 14, 16, and 17 pit complex in 131F, it was easiest to trace the edges of the pit when the soil was still slightly moist. If it dried out too much, the edge often became indistinguishable from the pit contents. But when excavating the contents of the pit, it was best to let the entire pit dry out evenly. Only then did any interval variation become apparent and could the pit be excavated stratigraphically, as happened during the excavation of quadrats 3, 8, 13, 18, and 23.

Artifact Collection Strategy

Artifacts were recovered by hand-picking through the dirt in the plowzone. But all of the excavated soil from the cultural horizons (everything except loci 01 and 12) was sieved with a 4 mm sieve. Soil samples were water-sieved with a 1/4 mm mesh and subjected to flotation in the laboratory in Timişoara in the hope of finding microliths, microfauna, and other small artifacts. As commented on in the accompanying lithic report, few microliths were recovered. However, significant microfaunal remains (rodents and fish) were recovered and are currently undergoing analysis. In the flotation, carbonized remains were recovered and are undergoing analysis in the Paleobotany Laboratory at the University of Manitoba.

The results of the dry-sieving operations, with regard to their cost in terms of labor and time, were minimal. With careful handling of all soils in the trench, most significant artifacts were recovered already in the trenches. The distribution of macro-mammalian remains was not dramatically affected by the sieving since most fragments were relatively large and found in the trench. Mostly small fragments of shell and unidentifiable fragments of ceramic and macro-mammalian bone turned up in the sieves. Large ceramic and bone fragments were pedastled 'in situ' in the trench for drawing and photography in order to determine their relationship to other pieces, if any. The return for the effort of wet-sieving was quite the opposite with the recovery of large quantities of fish and other micro-faunal remains. These were most effectively recovered in the wet-sieving and flotation.

Soil Sampling

A variety of different types of soil samples were collected during excavation. In general, three types of samples were taken: general soil samples, phytolith soil samples, and flotation samples.

General soil samples were taken for the analysis of soil pH, phosphate, color, and particle size. pH tests measure the acidity of the soil and are important because soil acid levels are critical for understanding the differential preservation of organic remains. Soil samples were also taken for analysis of opal phytoliths within the soil — which allows reconstruction of grass types found on the site. Float samples were taken to extract carbonized material. All soil samples were extracted with great care to avoid contamination. Samples were taken from a variety of areas within trenches to answer questions that were pertinent to the project's research, such as the difference in chemical composition between the inside and outside pits and habitation areas. All samples were provenienced.

Flotation

A relatively primitive flotation system was used since the volume of soil floated in 1992 was not very large. The apparatus included a running water source, several nylons for light fraction capture, a 2 liter volume measuring cylinder, a large barrel, a mesh bottom bucket for heavy fraction capture with an outflow hole. A hose connected to the running water source was inserted into the center of the barrel and pointed upwards creating a current. The barrel was placed on a tilt and the mesh bottom bucket placed inside at the top of the barrel. The soil sample was measured for volume and then poured into the mesh bottom bucket. The heavy fraction was captured at the bottom of the meshed bucket. As excess water poured out of the mouth, the carbonized material floated and was captured by the nylon which is stretched over its mouth. Both the light and heavy fractions were allowed to dry in the shade, then bagged and tagged accordingly for later analysis.

SITE TAPHONOMY

Rodent Activity

The most important taphonomic agent at the site is rodents. Rodent activity was and is intense at Foeni-Salas. Modern rodents destroy new and old areas of the trenches each night. Rodent tunnels riddle the entire site and all strata, often blurring stratigraphic distinctions and moving artifacts down as much as 50 cm. Rodent complexes can be so large as to cause entire pots to shift downwards. Excavators needs to be aware of this in order not to mix material from different levels. Rodent-shifted materials were separately collected and discarded. Rodents seem to particularly prefer the edges of Starčevo-Criş pit complexes, destroying the walls and floors as to make them indistinguishable from the surrounding the walls and floors as to make them indistinguishable from the surrounding strata. As a result, the material within a burrow was considered as contaminated since its origin is unknown. Also it seems that rodents were possibly re-using post holes. Many post holes may have been incorporated into rodent burrows or eradicated by them. For example, one of the post holes from 131F quad 6 may have also been a rodent hole. During excavation, a spatula was jabbed into the bottom of it. As the spatula was left standing in the hole, the spatula began to move and a squeak was heard from the other end ! Yet the shape and orientation of the hole appeared to indicate that it had originally been a post hole (by the larger borrow pit surrounding it).

Differential length and depth of burial

Differential length of burial in the ground and depth beneath the surface seems to affect bone preservation. There is a substantial difference in weathering between bones from Starčevo-Criş, as opposed to those in Bronze Age, Iron Age, and late Roman deposits. The Starčevo-Criş bone material is highly weathered (whether it is in a pit or not) and covered by calcium carbonate. The Bronze Age and late Roman bone material, which mostly comes from pits cut into the Starčevo-Criş horizon, is not covered by calcium carbonate and is better preserved. Depth beneath the surface is also important. Hardly any bone survives in the plowzone (locus 01) or locus 04 horizons. Bone preservation increases at 40 cm beneath the surface. But bone is best preserved in the Starčevo-Criş cultural hori-

zon (locus 02) and pits. Those levels which seem to have an ashy consistency also seem to be better preserved. The bone in the Starčevo-Criș cultural horizon seems to be more weathered, reflecting their greater exposure to the elements, than in pits.

Plowing

Plowing is another important taphonomic agent at the site. There appears to be two periods of plowing stratigraphically preserved at the site — modern and ancient. Modern plowing has created a distinct two level modern plow zone to a depth of 30 cm beneath the surface. Ancient plowing is possibly reflected in Locus 04. This locus is relatively constant across the site, granular in texture like the modern upper plow zone, contains dispersed charcoal as if the fields were being burnt over and then plowed under, and all of the remains are disturbed within this zone.

The site has been subject to disturbance by two types of modern plowing. At least twice each year, the site is ploughed with a relatively shallow plow (20—30 cm deep), which brings up artifacts annually to the surface. Modern plows are of two types in the area. One is a shallow plow that turns over the soil to a depts of 30—40 cm. The second is a deep shovel-liche plow that extends to 50—60 cm. The effects of each can be clearly seen where the cultural horizons comes close to the modern plow zone. For example, in 131B and F, the narrow V — shaped marks (*Photo xx*) are the result of the shallow plows cutting through the cultural horizon. They are spaced at regular intervals. In 131F quad 1, shallow plow marks were found cutting through locus 13. They are triangular, narrower and shallower and found at a relatively higher elevation than those found in quad 6 (10—12 cm higher). The blade side of plow mark is compact and flat, while the opposite side is rougher and not as angled.

But, there is also evidence of deeper powing. This was especially evident in 131F quads 6, 11, 16, and 21. A series of 10 cm wide lines of loose soil extended across the trench in a E—W line (Fig. plan 131F, 79.88 m asl elevation). They cut through locus 04 and into the upper part of locus 02. These plough marks are square and extremely wide. They are grooves made by deep ploughing occasionally done in the area before the revolution to increase commune productivity. The plough grooves were excavated out as they represent later disruptions and deposition o material. They can be clearly seen in the W profile of 131F extending downwards for about 20 cm from the plough zone (14). The orientation of large clumps of soil within the groove are interpreted to mean that the plows were pulled from west to east in this area.

Details	Quadrat 1	Quadrat
shape of groove	triangular	square
width of groove	1.5 cm	9 cm
depth of groove	1 cm.	2.5 cm.
distance between grooves	58 cm.?	40 cm.?
deepest depth below ground to bottom of groove	1) 29.5 cm. 2) 33 cm.	47 cm.
Later Human Activities		

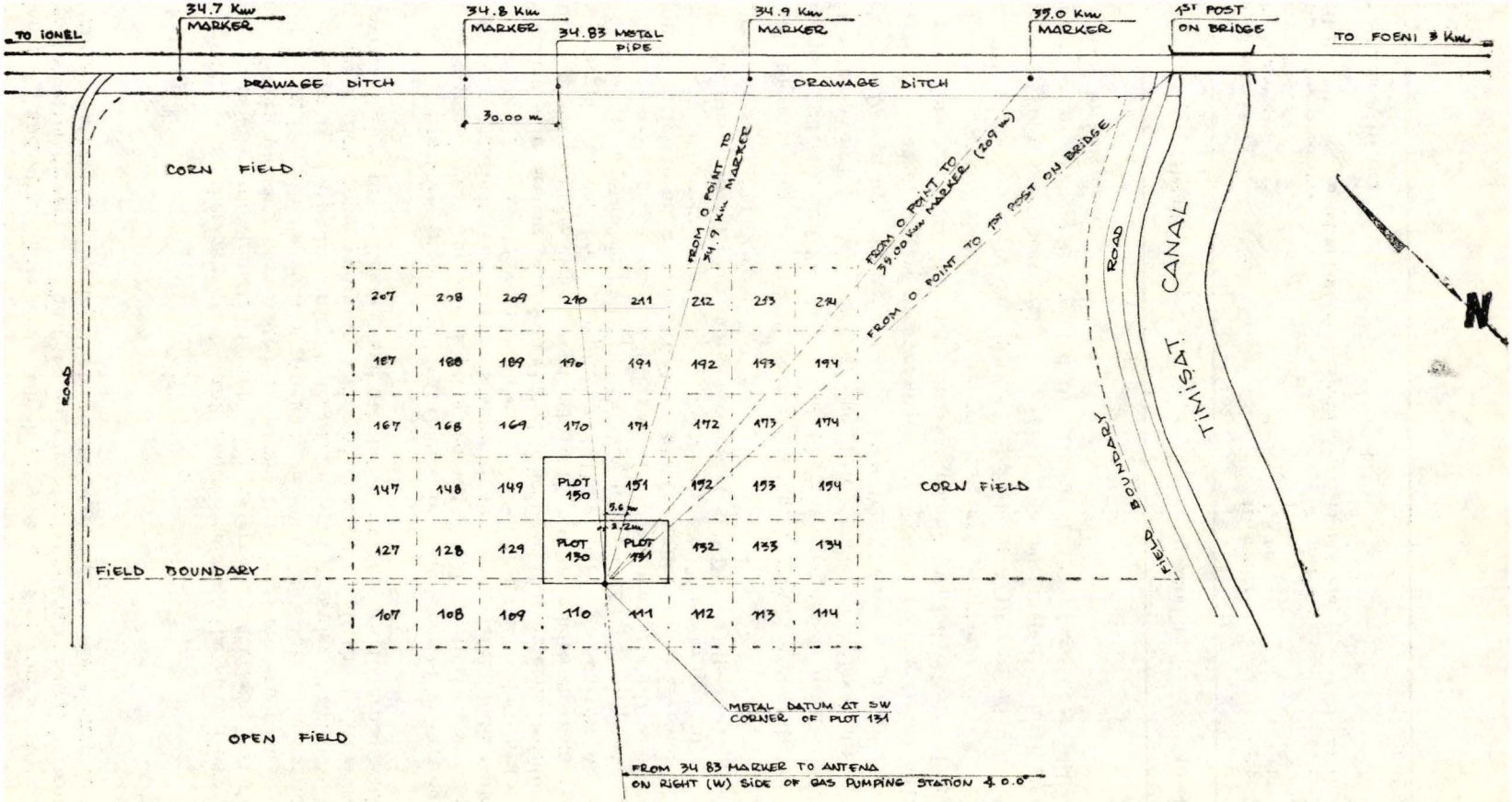

Fig. 1

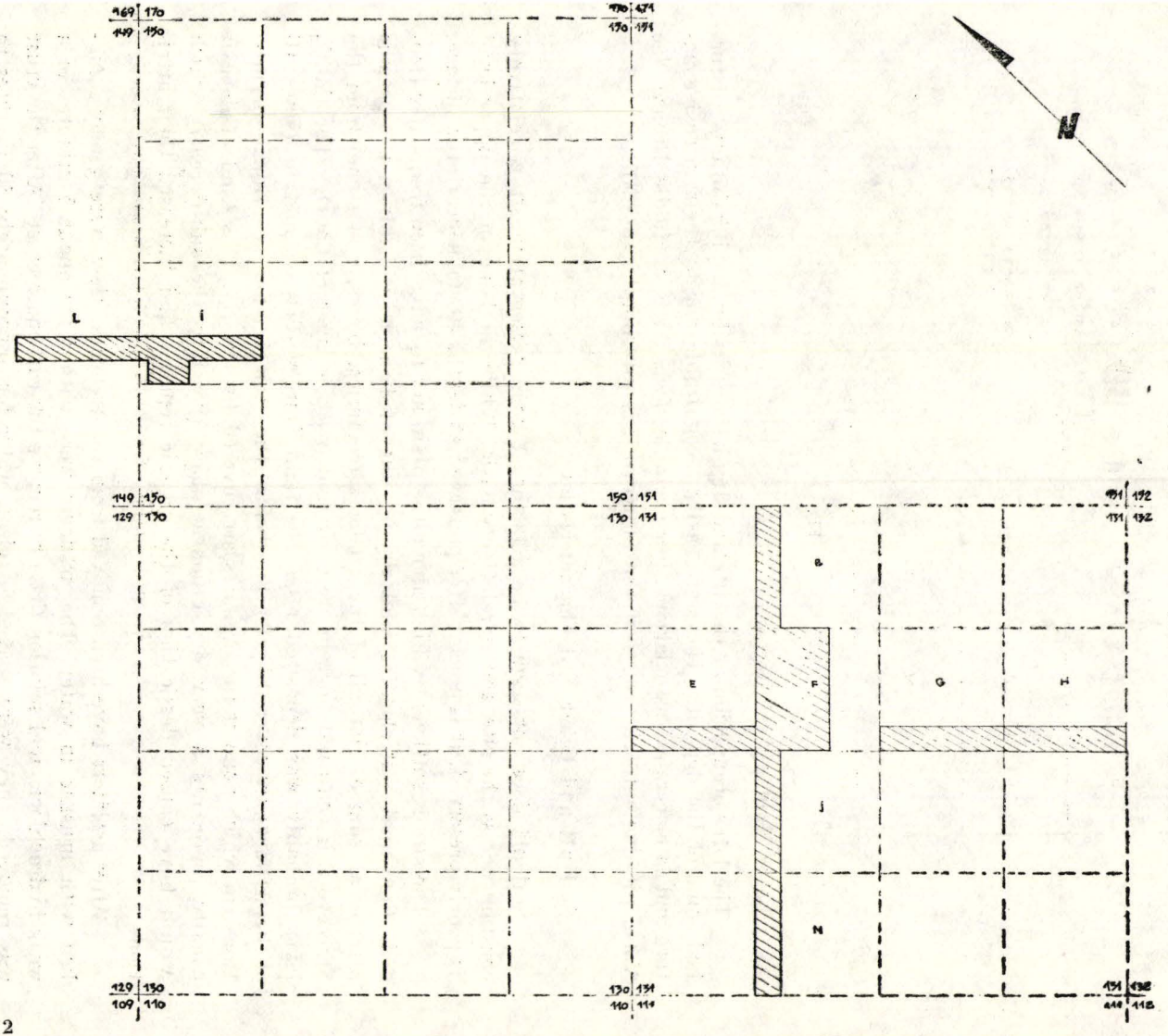

Fig. 2

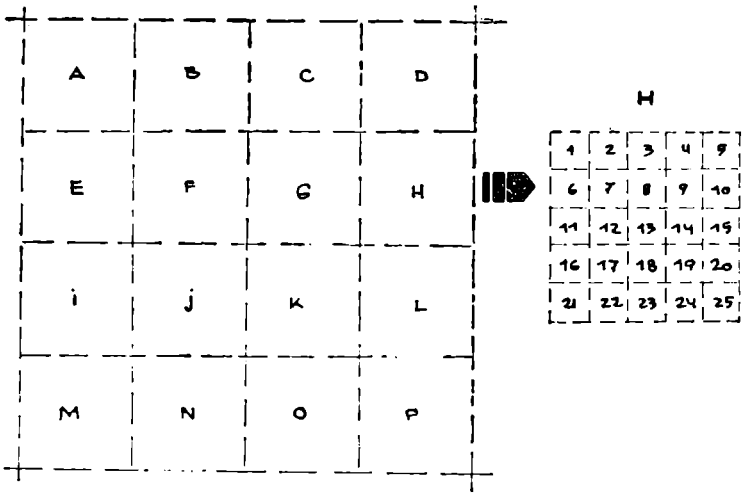

Fig. 3

Later Human Activities

The later occupation at the site and digging of pits by its inhabitants disturbed some of the deposits. These are easily recognizable due to their intrusive nature and later ceramic associations. For example, locus 15 is a Middle Bronze Age Vatin pit dug into the edges of the Starčevo-Criş pit complex in 131F.

Soil pH and Other Soil Characteristics

Soil pH does not seem to be a factor in bone preservation. It is relatively constant across the site and is relatively basic. While the bone in the upper level is poorly preserved, it is much better preserved at depths 40 cm beneath the surface.

The site is sufficiently high above the plain not to have been frequently flooded. Continual waterlogging and drying out of bone is probably not a serious attritional source. But all of the artifacts (ceramics, bones, and stone) from the Starčevo-Criş, cultural horizon were covered with a layer of $CaCO_3$. The $CaCO_3$ layer probably was deposited after the final Starčevo-Criş occupation (since all of the artifacts are covered by it), but before the Iron Age and late Roman occupations (in which none of the artifacts are covered by $CaCO_3$). This kind of deposit usually represents a very dry climatic phase (possibly the sub-Boreal?), which would have caused dessication of the organic remains and increased their attrition.

After artifacts have been removed from the trenches, they were gently scrubbed with brushes in water. The artifacts were bathed for about 5 minutes in a weak hydrochloric acid solution (5%) to remove the carbonate crust. After the crust was removed, they were soaked in clean water for approximately 30 minutes to leach out acid that may have filtered into the interior and to halt further damage by the absorbed acid. Bone was rarely subjected to this cleaning process to limit acid destruction.

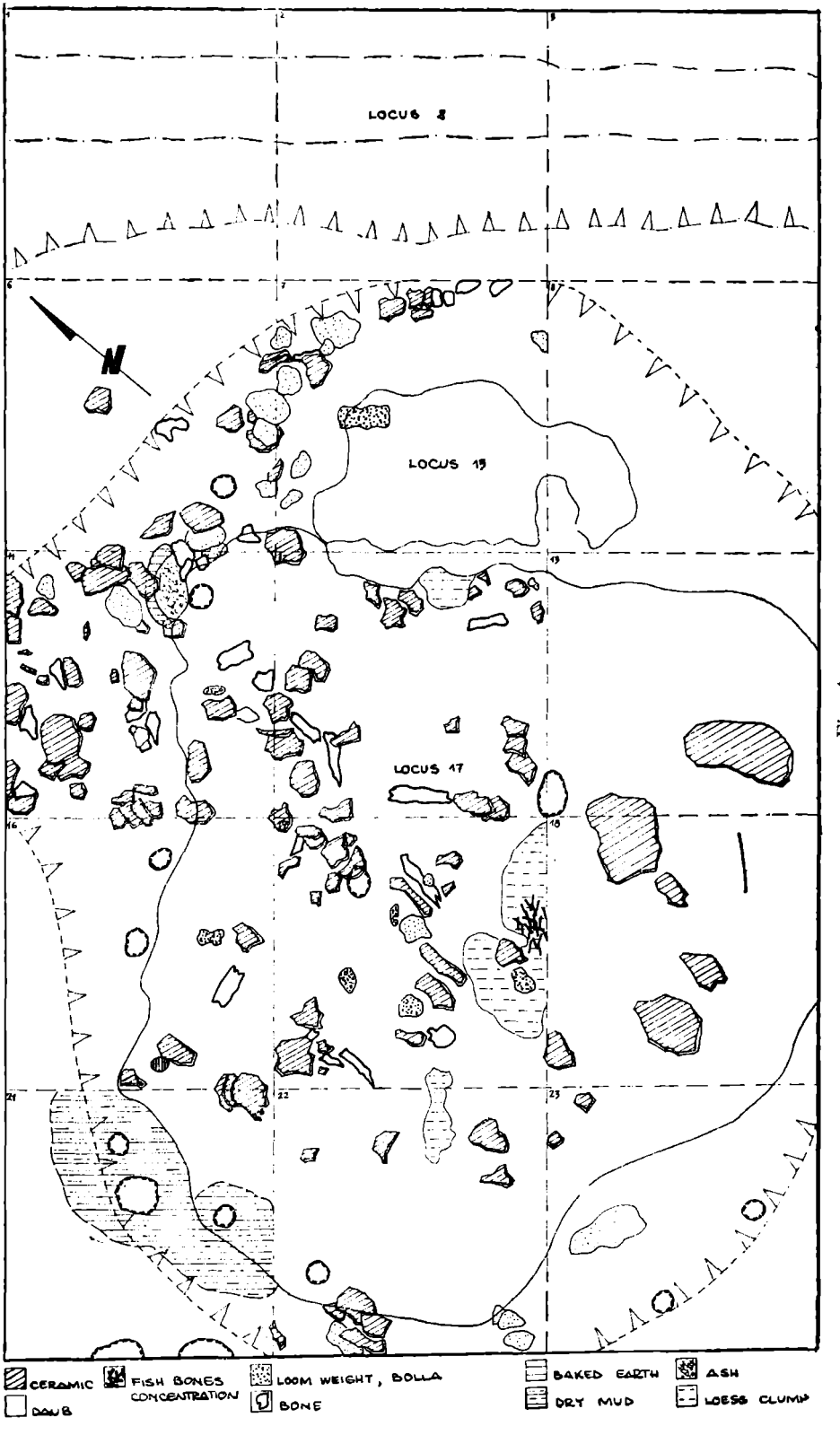

Fig. 4

Differential Exposure of Bone to Weathering

Bone preserved best in the various pit complexes. It preserved less in locus 02 and even less in locus 04 and 01. The closer to the surface and therefore the more intensely exposed to the affect of the elements (freezing, thawing, sun, etc.) over time, the poorer the bone preservation.

STRATIGRAPHY

The Locus System

Each major stratigraphic unit is called a locus. Different soil types, inside and outside of features, inside and outside of artifact concentrations, etc. are separately excavated and designated as loci. Loci are labelled sequentially within the site. Some loci may extend across the entire site, while others may be more discrete. The advantage of the locus system is that it forces the excavator during excavation to think about the meaning and stratigraphic relationships of the deposits being excavated — to decide whether they are the same as in the next trench or that found at the other end of the site (e.g. plowzone, sterile substrate, cultural horizon) — or whether it is something new and discrete to the trench area (pits).

General Stratigraphy

The general stratigraphy of Foeni-Salas is very simple. There are five major pan-site strata that were encountered everywhere during excavation and during coring. They are the following:

1. Locus 01 is the plow zone. It is about 30 cm thick, and has a distinctive color (brown), texture and organic content (high) from the other loci. It is divided into an upper and lower zone. The upper plow zone or humus has a very crumbly texture because of the frequent turning of the soil by the pow (c. 15 cm thick). The lower plow zone has a very dense soil structure because most of the finer particles have floated downwards due o constant turning of the soil (c. 15 cm thick). Most ploughing in this area is relatively shallow, although deeper ploughing has occasionally taken place in the past. The plow zone contains a light scattering of artifacts floating in the horizon, containing a mixture of Early Neolithic Starčevo-Criș, Middle Bronze Age Vatin, Early Iron Age Halstatt (Basarabi group), late Roman Sarmatian, and „Ethnographic" (recent) pottery.

2. Locus 04 lies stratigraphically beneath the plow zone. It is a distinctive stratum of grey soil which extends across the entire area of excavation. It is usually about 10 cm thick and extends from the bottom of the plough zone to approximately 40 cm beneath the surface. It has a lower organic content than the plow zone, a granular silty texture, and a medium artifact density. With careful excavation, the plow zone peels off the top of locus 04 during excavation, leaving a sharp stratigraphic division between locus 04 and the level above (locus 01). Locus 04 also easily separates from the underlying locus 02 deposits. Even when the soils are difficult to distinguish because of weather conditions, it is easy to recognize when you have begun excavating the locus 04 horizon. Ceramics in this level typically are covered on one (lower) side with a deposit of disintegrated white calcium carbonate — it is powdery in texture and easily recognized. The top of the ceramics are covered by an intact layer of $CaCO_3$. The powder is not due to disintegration of the $CaCO_3$ on the ceramics by rainwater, but by some

other agent. The powder washes off easily in water, so the level must be defined in the field — not the lab. It is not clear what chemical process is causing this to happen to the ceramics in this level and not the levels above or below. This condition is not found in any of the other horizons. The soil horizon itself contains large quantities of disintegrated $CaCO_3$ flecks and occasional pieces of carbon, making it easy to recognize during excavation from the surrounding strata.

During the first 2 weeks of excavation, locus 04 was not recognized in either of the 1×20 m test trenches in block 131. During the test excavation of 131E, it was for the first time clearly isolated and defined. At first, we were confused why it was not recognized in most of the other test trenches, until we realized from examination of profiles that it does not extend far beyond the southern and eastern edges of 131F. The 1993 excavation of 131J indicated that it does not extend more than 1 m to the south of 131F. To the southeast of 131F, where the slope begins to rapidly drop, it may have been eroded downslope. Locus 04 was not recognized during the initial excavation of 131B (quads 1, 6, 11, 16, and 21) and 131F (quads 1, 6, 11, 16, and 21) and the remains from this locus were collected with those of the plow zone. This is the reason that the locus number 2 was assigned to a lower stratum, which was recognized beforehand.

At the conclusion of the 1992 season, locus 04 was thought to represent the latest pan-site Starčevo-Criș cultural (open-air living) horizon contemporary with some of the pit complexes (e.g. locus 10). This was because almost all of the ceramics in the horizon were Starčevo-Criș. However, analysis of the ceramics from the 1993 season has made us realize that locus 04 is from a chronologically later period. While Starčevo-Criș ceramics are the most numerous within the horizon. Early Iron Age are also relatively common, implying that the horizon formed during the Iron Age (or later). There are almost no bones in this horizon indicating the poor conditions of preservation at this level. Future excavation should elucidate its nature more clearly. The exact stratigraphic connection of locus 04 to the two Halstatt features (loci 8 and 11) was ambiguous after the conclusion of the 1992 season due to profile destruction. But locus 04 is probably slightly earlier or contemporary with them.

3. Locus 02 is the third major pan-site soil horizon. It lies below locus 04 and above locus 05. It is stratigraphically connected with the structures represented by loci 10 and 17. It probably represents an open-air living surface around the structures. It is approximately 20 cm thick, light grey in color, loamy in texture, and with a medium density of artifacts. The density of artifacts seems to decline with increasing distance from pits and structures. There are relatively few bones in the horizon, although they are present. They tend to be large in size and heavily weathered.

This locus number was originally used to designate the first sub-plow zone cultural horizon (level 02). But mid-way through the field season, we discovered that there was a thin horizon between the plow zone and locus 02 and that locus 02 was really level 03. Therefore, level 02 was reassigned to as locus 04.

4. Locus 05 (sometimes referred to locus 03 — see the following section) is the fourth pan-site horizon. It is usually about 40 cm thick, yellowish brown in color, silty in texture, with a low quantity of sand inclusions. It is located stratigraphically beneath locus 02 and above locus 12. It appears that all of the Starčevo-Criș pits are cut into this horizon from locus 02. At the conclusion of the 1992 field season, we thought that locus 05 was the earliest pan-site exterior occupation surface around the structures. However, it is now considered to be the first post-Pleistocene humus on the site. The Starčevo-Criș occupation horizon lies com-

pletely above it and all the Starčevo-Criș semi-subterranean features cut through it. The ceramics within this layer are considered to have drifted downwards from locus 02 by rodent action and soil movement. The density of Starčevo-Criș ceramics associated with the horizon is very low. Almost no bone comes from this horizon.

5. Locus 12 underlies the entire site. It is composed of pre-Holocene (Pleistocene?) loess, is brownish yellow in color, sandy in texture, with a high sand content, with a relatively high quantity of calcium carbonate concretions. Small quantities of cultural material often intrudes into its upper margins because of rodent activity.

Other Loci

1. Locus 00 was used for surface collections from the surface of trench areas. It is also known as level 00.

2. Locus 03 has an unusual history. Originally this locus number was intended for the sterile subsoil (loess). But it was used inconsistently. Most commonly it was used to represent what is now called locus 05 during excavations of all of the quads in 149L/150I and 131B, E, G, H, J, and N. It was also used for the upper levels of locus 05 in some quads in 131F. But after excavation of one level of locus 05 in 131F, it was realized that there was too much material still being found and that it was not an appropriate designation for the horizon in this trench. It was also used to describe a late Prehistoric Pit and Rodent Hole Complex in 131N, q16, level 02. Due to this confusion in its use, it was not used afterwards.

3. Locus 06 was used accidentlly for a series of deposits in 131F quads 11, 12, and 22 that are currently recognized to be part of other loci. This locus number has been since abandoned.

4. Locus 07 was used to designate the surface house, garbage pit, and pithouse complex in 131F (mixtures of loci 14, 16, and 17). The divisions within the pit complex were not recognized during excavation of the first two lines of quadrats (quads 1, 2, 6, 7, 11, 12, 16, 17, 21, and 22) and only one locus number was originally assigned for the entire deposit. Therefore, the material from these quadrats was not properly separated during excavation. They were excavated in 10 cm thick levels and bagged by quadrats and levels. The internal stratigraphy of locus 07 became apparent during examination of the east profile after the second line of quadrats was excavated (quads 2, 7, 12, 17, and 22). Only locus 17 was visible in the west profile, which was exposed first, leading us to believe that the pit contained only one fill level. The third line of quadrats (3, 8, 13, 18 and 23) were excavated stratigraphically so that the different loci were not mixed. On the basis of subsequent stratigraphic reanalysis of the pit area, most of the different levels of locus 07 were reassigned to loci 14, 16, or 17 or designated as mixed. Each of the loci are described separately below.

5. Locus 08 represents a deep ditch (ca. 1 m deep) that extends in an E–W orientation across the north end of 131F (q 1–3). Either it cuts or is connected stratigraphically with locus 04. It is brown in color, granular and silty in texture, with no inclusions. A relatively low frequency of ceramics are included in the soil, which are a mixture of Starčevo-Criș and Halstatt. The ditch was filled during the Early Iron Age. Its purpose is unclear. It seems to have settled slightly after filling, since a thin lens (locus 13) was deposited above it.

6. Locus 09 was not used.

7. Locus 10 represents a Starčevo-Criş pit complex excavated at the border of 149L (quad 20) and 150I (quads 16, 17, 21, 22). It was discovered during coring, which indicated the presence of a deeper than usual cultural deposit at this location. Locus 10 was partially excavated in a narrow test trench that cut across this area. The soil in the locus is grey in color and loamy in texture. The locus is stratigraphically below locus 04 and cut into locus 05 (also known as locus 03 in this area). The deposit was recognized at 79.59 m asl and it's distribution (3 m wide) was first drawn with artifacts from the at 79.59—.49 m asl (40—50 cm below surface). It extended to a depth of 79.09 at its deepest with a much reduced area (40 cm).

It is presently difficult to be certain whether it is a Starčevo-Criş semi-subterranean structure or simply a garbage pit, because too little of it has been excavated to date. But there is some evidence of architectural remains associated with this feature in the form of daub concentration, interior postholes, steep sides implying its original function as a structure. It was later filled as a midden.

No internal stratigraphy was discernible during excavation or examination of the profiles. But when the excavation levels are examined individually, there are changes in the distribution of materials from the upper to lower levels. The largest change is in the number of snail shells. A large number of snail shells were associated with the western half of the upper levels of the pit (79.59—79.39), implying that we may have garbage fill level, as in locus 16. Shell concentrations extend into the lower levels where the natural stratigraphy appeared to be uneven. All of the levels are laced with rodent holes accounting for some of the spread of shells to lower living horizons. The lower (or basal) 30 cm has relatively few shells, as in the basal levels of locus 14. But the density of shells in the upper 30 cm is not uniform either, with most congregating in the western half (150I quad 16 and 149L quad 20). This may imply that the garbage fill level was spread over the entire deposit at 79.59—79.49 m, restricted to 79.49—79.39 m in the westernmost 1 m of the fill, limited to patches in the 79.39—79.29 m level.

Except in the last level, all of the levels contain a large number of large fragments of well-preserved Starčevo-Criş ceramic vessels, other clay artifacts, stone artifacts, and mammalian bones. At 79.29 m, which seems to be the beginning of the basal living horizon, a complete bowl, several large vessel fragments, two bollas, daub, clay deposits, and a post-hole were found. The post hole extended into the underlying sterile soil. The lowest level of the pit contained only bone and a small concentration of snail shells which filled the upper levels of the post-hole.

The separation of artifacts in locus 10 by excavation level has created an illusion of their relationship. The artifacts in the lowest levels of the pit are in the center of the pit (79.29—79.09 m), while most of those in the middle levels are distributed around the edges (e. g. 79.49—79.29 m). This is a reflection of the method of excavation which used horizontal 10 cm thick cuts. The artifacts in the bottom-most levels are probably contemporary with the artifacts in the middle levels along the side of the pit. A similar situation probably exists with locus 17. Culturally, the entire uppermost level (79.59—79.49 m) and the centers of the middle levels are probably garbage fill.

8. Locus 11 is a small later prehistoric pit (with Early Iron Age Halstatt ceramics) found in 150I, quad 18. It was cut through locus 02 and into locus 05.

9. Locus 13 represents a lens-like fill beneath locus 04 in the depression above locus 08 in 131F, quads 1, 2, and 3. It is yellow-brown in color. It was most visible during excavation of 131F, q 3 where it was separately excavated

and collected. In quads 1—2, the artifacts were collected with those from the top the of locus 08. No ceramics have yet been analyzed that are associated with this locus.

10. Locus 14 represents the upper fill level (also known as the Upper Pit) of the former locus 07 pit complex of trench 131F. Locus 14 begins at an average depth of 79.88 m asl and is found within the center of the depression of the locus 17 structure. It is filled with a lighter density of material than in the subsequent locus 16 level. The density of remains in this level may represent the natural erosion of the edges of locus 16 and 17 material and the disposal of new material into the still-open depression. The soil is yellowish grey in color, loamy in texture, with a medium quantity of snail shells.

11. Locus 15 represents the remains of a small Middle Bronze Age Vatin culture pit. It was excavated in 131F (most of q7 and the west edge of quad 8). It must have been cut down through loci 02 and 05. The bottom of the pit was cut into locus 12. It was first recognized in quad 7 at a depth of 79.48 m and continued to a depth of 79.28. However, the upper levels of the pit were not recognized as a pit separate from surrounding deposits during excavation. The upper levels were severely disturbed by rodent burrows (see plan 79.68) and there was very little ceramic or bone material. Only the bottom half of the pit was clearly distinguishable from the surrounding deposits. Rodents disturbed the profile above 79.48 m asl. Only the bottom of the pit was clearly visible in the east profile of quad 7. Therefore, it was difficult to reconstruct its exact shape and from where it was dug. There is no question that locus 15 was sealed by locus 04. It is interesting to note that in all of the plans of artifact and post-hole distributions above 79.48, there was nothing in this area to draw. These quads were probably disturbed by the pit.

The top level of the ceramic concentration in the pit is found at 79.48 m asl and is associated with a layer of white, ashy clay at the edge of the pit. The soil around the ashy at this level was full of carbonized remains. The pit was used for heating something to a high temperature (hence the white ashy clay and other carbonized remains in one part of the pit). The pit was probably not open for a very long period of time since the bone was hardly weathered and there was no evidence of more than one fill.

At the bottom of the pit (79.28), a classic MBA Vatina culture sherd was found amongst Starčevo-Criș ceramics. A large number of relatively well-preserved macro-mammalian bones were found with the ceramics in the pit. They were better preserved than the bones in the neighboring Starčevo-Criș deposits.

12. Locus 16 represents the middle level (also known as Middle Pit) of the former locus 07 pit complex of trench 131F. It is a kidney bean-shaped (see Plate 1) midden deposit. It is distinguishable by its fill — a high quantity of snail shells (almost 10,000), mixed with smaller percentages of mussel shells, Starčevo-Criș ceramics and mammal bones. Bone is better preserved in the refuse pit level (locus 16) than in the levels above.

In this locus (16), the locus 17 pit complex is abandoned as a living structure and the remaining depression is rapidly filled with garbage. The fill is brownish grey in color and silty loam in texture. It is found stratigraphically below locus 14 and above locus 17. One the basis of both eastern profiles of the trench and excavation of quads 8, 13, 18, and 23, the top of pit is not at a single level. It begins between 79.74 m in the east (quad 18) and 79.60 m in the west (quad 11). The bottom lies between 79.58 m (quad 18) 79.48 m (quad 11), but extends deeper into the underlying locus 17 deposit in a small area along the eastern border of

quad 11 and in the western part of quad 12 (79.38—.28 m), where it seems to have filled what might have been a large post hole associated with the locus 17 deposit.

There is a strong change in soil color and distinctive lack of shell in the transition to the underlying locus, so that the relative quantity of shell in each excavated level was a good indicator for dividing the former locus 07 into three separate loci — 14, 16, and 17. Rodents favored the organic debris in this level since the entire area is laced with rodent holes and large numbers of snail shells were pulled into tunnels connecting to the deposit in neighboring quads. This locus and the stratigraphically inferior locus (17) were undisturbed by modern agricultural activities.

13. Locus 17 represents the basal level of the former locus 07 pit house complex in trench 131F. It is cut from locus 02 at 79.88 through locus 05 and into locus 12 deposits, with a basal depth of 79.18 m. The upper 20 cm slopes gradually from 79.88—79.68 and then rapidly descends to 79.18. The upper slope is very narrow on the south (10—20 cm), but very wide on the west (50—100 cm).

It is located in quads 6, 7, 8, 11, 12, 13, 16, 17, 18, 21, 22 and 23. The fill is yellowish brown in color and silty or loamy in texture. The basal fill extends from 79.48 to 79.18 m, and from 79.95—79.68 m on the shelf surrounding the steep-sided area of the pit. The pit edge becoms steeply inclined at about 79.68 m.

We determined that it is a pit house and not simply a pit on the basis of its formal characteristics. Based upon ethnographic analogies from this region other regions in which each of us have experience, we made the decision that a pit must possess a series of criteria before it can be defined as a living structure. First, they must have evidence of being covered — which means that post holes must exist around the edges and/or inside to support a roof. Second, they have to have a definable shape. For example, their sides have to be relatively vertical and steep to maximize walking space under the roof and to prevent water from sliding in. Third, around the outside edges should be a slight hump of soil to prevent mud from washing-in during a rain storm. Fourth, it should have material lying 'in situ' on the floor and not simply floating in the sediment. Fifth, they may have some kind of soil bench around the edge.

Locus 17 fits these criteria well. First, it contains 2 interior and a series of post-holes around the steeply inclined area of the pit. Second, it has a definite formal shape (rectangular or sloppy trapezoidal) with sharply inclined sides on the west, north, and south sides of the structure. The floor appears to slope slowly downwards from east to west, implying that it is entered from the east. Third, soil humps were clearly present on the north and west sides of the structure during excavation. The sediment in these humps was similar to the locus 12 soil. This is probably the result of the way in which the pit was excavated by its occupants. They piled the soil from locus 12 around the edges of the pit — hence the image of reverse stratigraphy. Fourth, Starčevo-Criș-phase ceramics, artifacts, and bones were found 'in situ' on the floor. A large quantity of fish bones were found along the eastern edge of quad 18, near a posthole. There are relatively few snail shells in this locus. The floor of the original pit house occupation level is found along the bottom of the pit and on the surrounding shelf. The material floating higher up in this locus probably represent materials that filled the pithouse after it is abandoned and collapsed. Fifth, along the northern edge, within the pit, there was a large loess-like bench that was constructed after the pit was originally dug.

Locus 17 is a semi-subterranean Starčevo-Criș structure. Only part of the concentration of material associated with this structure was excavated. Unexcavated areas extend into the west, south and east profiles. Two possible post-holes

were found in the profile immediately to the west of the depression. This depression represents the corner of the structure. An examination of the post-holes and distribution of remains seems to indicate that the structure enclosed a ellipsoid area about 3×4 m. The northern part of locus 17 is disturbed by rodent activity and locus 15. It is stratigraphically connected with locus 02, which seems to be its associated cultural horizon and exterior living surface. The surrounding post holes are mostly in the shelf area or gradual slope of the pit. They are not at very sharp angles, but either vertical or slight angles.

We have reconstructed the structure to have a relatively wide eave along the southern, western and northern sides because the shelf is very wide in these areas and full of artifacts (the artifact distribution in quad 16 was dense but was disturbed during excavation). There is a high density of associated artifacts on the shelf, but to the west and north of the postholes. A hearth area was found in quads 6/11, with a semi-circle of burnt clay opening towards the inside of the structure (to the east) and filled with carbon and some ash.

A large quantity of Starčevo-Criș ceramics, loom weights, bollas, macro-mammalian bones, and a medium frequencies of snail shells are associated with this locus. Relatively low frequencies of daub (but higher than in other loci) are associated with the edges of the shelf area of the locus.

Distinguishing post holes from rodent holes at Foeni was extremely difficult. The best criteria that were used were that post holes were discrete — meaning that they could not be traced into tunnels and had a definite bottom to them. All of the holes that met these criteria were relatively perpendicular to the ground. All of the slanted holes and some of the perpendicular holes seem to connect to rodent tunnels and were not counted as post holes. Some post holes were readily recognizable by their stratigraphic association. For example, a few had compact or baked clayey soil surrounding them (e.g. quad 21). There were two different post hole sizes — larger (10—20 cm wide) and smaller (5—10 cm wide). Only the larger holes were associated with compact of baked soil. The reason that compact soils would occur is that first the posthole must be dug. It is usually slightly larger than the post to fill it — therefore there is a small space around it that needs to be filled. After the post is placed in the hole, the space is filled dy soil and pressed around the base of the pole to make sure it remains in place. If the pole eventually burns, the soil becomes burnt.

The area under the floor of the pit is full of rodent holes. Ceramics have filtered into the horizon (locus 12) under Locus 017. The material collected from 79.18 to 79.08 m asl comes from the rodent-infested level beneath the „real" basal or floor level of the pit house.

STRATIGRAPHIC ANALYSIS OF TEST TRENCHES

Block 131

Initially, two 1×20 m trenches were opened in block 131 in a N—S and E—W orientation to test for the presence of a Starčevo-Criș structure in this location. They were placed to cross the area of highest surface Starčevo-Criș ceramic densities and a magnetic anomaly. The east-west test trench included 131 E (quads 21—25), 131 F (quads 21—25), 131 G (quads 21—25) and 131 H (quads 21—25). The north-south test trench included 131 B (quads 1, 6, 11, 15, 21), 131 F (quads 1, 6, 11, 15, 21), 131 J (quads 1, 6, 11, 15, 21), and 131 N (quads 1, 6, 11, 15, 21). A dense concentration of Starčevo-Criș ceramics and associated artifacts was

discovered approximately 10 cm beneath the plowzone in the area of 131 F and in the southern end of 131 B. The other test trenches did not yield any other significant concentrations of material. The density of Starčevo-Criş material beneath the plow zone was relatively light in the other areas, mirroring the results of the surface collection analysis, which seems to have a high degree of predictability on this site. A 1×5 m area was excavated in 131 B (quads 1, 6, 11, 16, 21) to a depth of about 1 m beneath the surface. The line of quadrats was oriented N—S. The stratigraphy in most of the trench was very simple: locus 01 plow zone (30 cm thick), locus 04 (10 cm thick), locus 02 (20 cm thick), locus 05 (only the top of 05 was excavated, since it appeared to be sterile). Locus 12 was not excavated at all. Only in locus 02, quad 21, were a larger than usual density of Starčevo-Criş materials recovered. The other excavated quadrats did not yield many artifacts and no concentrations were observed.

A 1×5 m area of 131 E (quads 21—25) was rapidly tested by excavation. The topsoil in quads 5, 10, 15, 20, and 25 was also removed in preparation for excavation, which did not take place until 1993. The general stratigraphy was as in 131 B: locus 01 plow zone (30 cm thick), locus 04 (10 cm thick), locus 02 (20 cm thick), and locus 05. No features or artifact concentrations were noticed. The locus 02 horizon was relatively empty of cultural material. The pit complex in 131 F did not extend in this direction.

Trench 131 F was initially opened as part of the N—S (quads 1, 6, 11, 16, 21) and E—W (quads 20—25) 1×20 m trenches. By the end of the season, it had been expanded to a 3×5 m trench, oriented N—S. The plow zone was quickly removed. Excavation of locus 04 and 02 began in alternate quads (6, 16, 21). Once locus 02 was encountered and it was realized that we were excavating some kind of concentration, the unexcavated alternate quads and the neighboring lines of quads (2, 7, 12, 17, 22) were opened.

A concentration of pottery sherds and whole snail shells were encountered at a depth of 80.08—79.98 m (bottom of level 02; locus 04) in 131/F quads 6 and 7. From this point onwards, we realized that we had come onto a large deposit of Starčevo-Criş material, contrary to any of the other excavation areas in Block 131. The area of excavation was expanded eventually into a 3×5 m unit around the high density of material in order to examine its spatial extent. Eventually, the concentration was revealed to be a series of superimposed deposits over a large pit complex, with three phases of use (loci 14, 16, 17 — described above in locus summaries).

Two test trenches (131 G and 131 H — quads 21—25) were opened up in line with 131 E and 131 F. The general stratigraphic pattern found elsewhere emerged: locus 01 (30 cm), locus 04 (10 cm), locus 02 (20 cm) and locus 05. While excavating 131 G, a number of pottery sherds were recovered in the first 30 cm (Locus 01). Locus 04 extends through 131/G. In 131/G, around quads 23 and 24, there seemed to be a small increase in the abundance of pottery. A number of snail shells and a few bone fragments were also found. East of this quad, nothing of significance was found. Only a plow zone and culturally sterile horizons (131G q 24—25; 131 H q 21—25).

Two test trenches (131 J and 131 N — quads 1, 6, 11, 16, 21) were opened in line with 131 B and 131 F. Each was 1×5 m and oriented N—S. Alternate quadrats in trenches 131 N (quads 6, 16) and 131 J (quads 1, 11) were excavated to sterile soil (locus 05). The stratigraphy was relatively constant in this area with three major horizons: locus 01 (30 cm), locus 02 (20 cm), and locus 05. In the northernmost quad of 131 J (q 1), the density of Starčevo-Criş ceramics was highest and is probably a continuation of the ceramic distribution centered in

131 F. The pit complex in 131 F however did not seem to extend into this area. The density of material in locus 02 rapidly dropped to the south. In 131 M q 16, there was a large rodent pit complex with a number of later prehistoric finds.

Blocks 149 L / 150 I

A second series of long thin trenches were opened in block 149 L quads 16—20 (1×5 m) and 150 I quads 16—20 (1×5 m) and quads 21, 22 (1×1.5 m). In addition, the topsoil and top of locus 04 horizon were removed in 150 I quads, 6, 7, 11, 12. This area was chosen because one of the cores revealed a concentration of ceramics and shell similar to those found in the pit in 131 F.

Excavation of this area revealed another Starčevo-Criș pit (locus 10), centered on 149 L quad 20 and 150 I quads 16, 17, 21, 22, with probable extension into quads 11—12. It was undisturbed by ploughing activities. It contained a number of well-preserved ceramic pieces, large pieces of bone, and large number of shells. The ceramics and bone seemed to be deposited horizontally as on a floor. The molluscs seemed to congregate in the western edge as if dumped there. It is uncertain yet whether this represents another pit house. More area needs to be excavated to determine this possibility.

In 150 I quad 18, a small later prehistoric pit (locus 11) was cut into the western edge of locus 10. It was not visible until excavation in this area was almost completed and missed one of the profiles completely.

Outside of the locus 10 and 11 areas, the stratigraphy of the test trench was very simple: locus 01 plow zone (30 cm), locus 04 (10 cm); locus 02 (20 cm); and locus 03/05 (sterile).

CHRONOLOGY

The earliest Starčevo-Criș sites in Romania are Gura Baciului (Vlassa 1966), Ocna Sibiului (Paul 1981), and Circea (Nica 1976). They are stylistically connected to Starčevo-Criș settlements to the south and west, such as Donja Branjevina (Karmanski 1968, 1975), Anzabegovo I (Gimbutas 1976), and Vršnik I (Garašanin 1959, 1979: 104). These sites have been traditionally assigned to the Starčevo-Criș IB-IC phase on the basis of their stylistic elements (cf. Milojčić 1949). These communities have been stylistically-connected with the earliest horizon of painted pottery from Macedonia and are traditionally thought to have a southern origin. The earliest Starčevo-Criș communities in Romania are traditionally thought to have a southern origin (Gura Baciului, Ocna — Sibiu, and Circea), settled in the midst of indigenous epipaleolithic populations, and had an important role in the neolithization of epipaleolithic populations (Lazarovici 1984: 59; Vlassa 1980: 695, 697).

The Early Neolithic occupation of Sălaș is tentatively dated to the second phase of the Starčevo-Criș culture (IIA and IIB), on the basis of the presence and absence of stylistic elements found during the preliminary analysis of the ceramics (Lazarovici 1977, 1979, 1984; Milojčić 1949). For example, Starčevo-Criș II ceramics are found in the middle (locus 16) and upper (locus 14) levels of the pit complex in 131 F and in locus 10 pit in 150 I. These levels contained pottery with chaff and sand (not mixed) temper. The ceramics are in general monochrome globular in shape and decorated with finger nail impressions and pinches on the rim. The most diagnostic shapes for this period include open bowls, widemouthed jars, and

narrow necked pots. A possible earlier phase of Starčevo-Criş (IIA?) was identified on the basis of the absence of pseudo-barbotine decoration on the ceramics in the lower pit of 131 F — locus 17. It is characterized by monochrome pottery, very well polished, and very well fired ceramics with chaff and sand tempers.

The discoveries from Foeni-Sălaş are stylistically connected (and contemporary?) with several other Starčevo-Criş II settlements from the area, such as those from Timişoara-Fratelia, Cuina Turcului I. (Păunescu 1979), Gura Baciului II (Vlassa 1980), Ocna Sibiului II (Paul 1981), Lepenski Vir III A (Srejović 1968), and Fratelia (Lazarovici 1984: 62), and is therefore one of the earliest settlements in the Banat (Romanian and Yugoslavian). Each of these sites demonstrate the continuous evolution of Starčevo-Criş culture in this region. The characteristics of the pottery from these settlements continue the monochrome decoration and globular shapes common in the first Starčevo-Criş phase. The characteristics of the pottery (sandy and chaff tempers, globular shapes, pseudo-barbotine decoration, pinched and finger-nail impressions on the rim and neck, prevalence of lug handles suitable for hanging pottery, etc.) from Foeni—Sălaş is similar to that from the above sites. But Foeni—Sălaş may be distinguished from two other Starčevo-Criş phase II settlements in the Banat. Unip and Cenad have only monochrome decoration on the ceramics, and lack the finger nail and pinched impressions characteristic of Foeni—Sălaş. However, these two sites are known only through very small ceramic samples. Lazarovici (1984: 62) considers the stylistic complexes characteristic of these two sites to an example of localized evolution of Starčevo-Criş phase I communities (e.g. Gura Baciului I and Circea I) which does not contribute to the evolution of the later phases of the Starčevo-Criş culture.

OCCUPATIONAL HISTORY

The stratigraphic sequence of deposits in 131 F, enable us to reconstruct the occupational sequence at the site with a high degree of certainty. There is no evidence for pre- Starčevo-Criş occupation at the site. During the Pleistocene, it was covered by a layer of loess (locus 12). At the end of the Pleistocene, the upper loess horizon is colonized by vegetation. The resulting soil modification caused by the vegetative growth and the accumulation of detritus caused the formation of locus 05. It probably began as part of locus 12 but has been differentiated through post-depositional modification. For example, it became relatively thicker as detritus built up over time. Locus 05 probably represents the first post-Pleistocene humus at the site. When the first occupants (Starčevo-Criş) arrived on the site, the surface of the site was sterile of any cultural material. It seems on the basis of the profiles that they settled on top of the locus 05 horizon to form locus 02 — the Starčevo-Criş cultural horizon. They dug through locus 05 (post-pleistocene humus) and locus 12 (Pleistocene loess) to build structures.

The earliest structure on the site is locus 17. It is dug into locus 12. The locus 17 structure seems to be stratigraphically connected to locus 02. It was occupied for a shorte time, since there is no evidence of more than a single thin cultural horizon along the bottom levels of the pit. Locus 02 is probably the exterior living horizon for locus 17. The ceramics from the locus 02 around locus 17 is form the Starčevo-Criş II phasde. The quad 7 and 12 eastern profile of. 131 F was badly destroyed by rodent and later human (Vatin) activities in the area where the two loci connect. But in the quad 8 and 13 eastern profile of 131 F. locus 02 seems stratigraphically connected to locus 17.

At about the same time, the pit from locus 10 is dug and another structure is built. It is also stratigraphically connected to locus 2, and contains ceramics from the Starčevo-Criș „culture" (II B).

Locus 02 is the pan-site Starčevo-Criș exterior living horizon cultural that stratigraphically seals all of the earlier loci and connects to all of the semi-subterranean structures (loci 10 and 17). It is found over the entire excavation area — blocks 131, 149 and 150 and in each of the soil cores. But there is only one locus 02 horizon. We could not find a second living horizon in the locus. The stratigraphy in locus 02 is clearly connected to both locus 14 and 17. There is no superposition of Starčevo-Criș horizons in locus 02. Starčevo-Criș stratigraphy is is laterally displaced, not vertically superimposed. Stratigraphically, we can reconstruct the following sequence. When locus 17 was occupied, the occupants dropped artifacts both inside the structure (along its bottom) and around it. Then the pit structure of locus 17 is abandoned and filled with locus 16 refuse. The owners of the locus 16 refuse must have been living elsewhere on the site and accumulating livind floor refuse around their structure at the same tim. There isn't a second horizon, however. This may be explained only in the following way — one that Robert Ehrich suggested many years ago (1977: 64). He suggested that the micro-temporal exterior occupational strata in such settlements were mixed long ago through the action of people and animals walking through mud and displacing artifacts downwards. After a rain, the soil turns to a slippery mud, which can be literally skated through, and in which feet sink to 20—30 cm. The locus 02 horizon is therefore probably a mixture of exterior microstratigraphic units.

When loci 10 and 17 are abandoned, they are filled by midden deposits (e.g. locus 16). The occupants have moved to another part of the site and are using abandoned pit-dwellings for refuse disposal. After the pit is almost filled by locus 16, it stops being filled by new cultural material and slowly silts up in the center. The site is abandoned for more than 2000 years.

The site is briefly reoccupied during the Middle Bronze Age by members of the Vatina „culture". A single pit, Locus 15, was dug through loci 02, 05, and 12. There is no other evidence of Bronze Age occupation at the site afte the abandonment of the site by the Starčevo-Criș „culture" until the Early Iron Age. The site is abandoned for almost a thousand years. During this time, a thin humus forms (locus 04) above the final Starčevo-Criș level of occupation. It seals all previous strata.

The next major phase of occupation appears during the Early Iron Age. This phase is characterized by ceramics from the Halstatt B/C „culture" (Bosut III a group — Gumă 1983, 1993; Medović 1988). The ceramics from this culture are found in locus 04, which also contains Starčevo-Criș ceramics. No structures are preserved in this level. They may have been destroeyd by prehistoric plowing or erosion. Two Halstatt features (loci 08 and 11) either cut or are cut from the locus 04 horizon. It was not certain from the profiles. The function of loci 08 and 11 are not certain, since each contained relatively little cultural material.

The only evidence for a Late Iron Age La Tene occupation at the site in the form of a 3 rd century BC fibula found in 131 F, quad 12, 79.98—.88 (fig. 4).

The site is abandoned for 5—600 years and is reoccupied in the late Roman period (3—5 th century AD). In the plow zone (locus 01), a number of late Roman locally-produced ceramics were found, probably representing the final phase of occupation at the site.

Faunal Analysis

A preliminary analysis of the faunal remains (table XX) is one the one hand very revealing and on the other misleading. It is misleading in the sense that it does not include any of the remains recovered in the water-sieving and flotation process. The micro-faunal remains are a substantial, in numerical terms, part of the collection. But they have not yet been analyzed or quantified. In general terms, the microfauna are dominated by small fish remains.

Almost all of the faunal remains are from Starčevo-Criș deposits. Few remains were recovered from later deposits that can be definitely associated with those phases. For example, most of the ceramics (and by implication — bones) found in locus 15 were Starčevo-Criș ceramics. But the locus is undoubtedly a MBA deposit. It is safe to assume that a substantial proportion of the bones were also originally from disturbed Starčevo-Criș deposits.

The analyzed faunal remains have been divided between periods. The difference from period to period, in terms of proportions, is not very great. In each of the periods, cattle dominate the proportions both in terms of frequency and percentages. They represent 52% of the vertebrate assemblage in Starčevo-Criș deposits, but increase over time to represent 75% in the Vatina and Halstatt deposits. In Starčevo-Criș deposits, sheep (and sheep/goats) are the next most common taxon accounting for 25% of the assemblage. Sheep/goats decline in importance in Vatin (10%) and Halstatt (8%). In Starčevo-Criș deposits, domestic pigs are not very common (3%). Their frequency rises in the later prehistoric deposits (Vatin — 10%; Halstatt — 8%).

It is interesting to note that pigs (wild or domestic) are not very common in the assemblage, even though one would expect that pigs would be more prevalent in the surrounding environment. The environment around Foeni-Sălaș was very wet and swampy until the surrounding swamps drained were in recent times. This is the king of environment where we would expect to find a larger percentage of pigs. The frequency of semiand aquatic fauna support a reconstruction of the surrounding environment as wet and swampy.

A variety of wild and domestic fauna account for the remainder of the assemblage, including fish, aurochs, domestic and wild pigs, goats, roe deer, red deer, and various birds, reptiles and amphibians. Their frequency and percentages are different in each phase of occupation.

The fauna from many of the earliest Starčevo-Criș settlements in Serbia and the Vojvodina seem to be dominated by cattle and sheep remains. Although, the situation at Foeni seems to be different than at Donja Branjevina where sheep/goats represent almost 50% of the identified vertebrate assemblage. Pigs and wild fauna become. relatively more important only in the succeeding Starčevo-Criș phases (III) and Vinča culture period. The implication of these observations is that the local economy is heavily reliant upon pastoralism. The importance of fishing to the economy will be more accurately evaluate when the faunal analysis is completed.

Shells

Large quantities of snail shells and lesser quantities of river mussel shells (Unio pictorum) were recovered during excavation. While 6 species of snails were identified, 99% of the snails came from a single species — the common snail (Helix

sp.) of the region. Almost all of the snails derive from the Starčevo-Criș deposits. A few of the species are probably intrusive, either through boring or rodents.

There has been no discussion of snail exploitation from Early Neolithic sites in this region. An interesting idea to explore will be the relationship between the near absence of wheat and barley in the assemblage and the prevalence of shell foods. Contrary to common belief, snail shell meat is not an adequate protein replacement for other animal meats. It has its greatest value as a carbohydrate replacement — in other words, as a replacement for grains. In an area where grain is not cultivated on a large scale, collection and processing of shell foods may have gained great importance. Another possible interpretation for the substantial quantities of shells at this (and a few other Starčevo-Criș localities — Zlatara — all in the swampy lowlands of the Vojvodina and Banat) was suggested by some of the older villagers in Foeni. They remembered stories that during periods of crop failures which lead to widespread famine during mid — and late — 19th century, villagers gathered snails in large quantities. Snails are not part of the normal diet of the modern or 19th century local inhabitants. The snail shells were ground into flour and used for baking and cooking. The actual shells become a starvation substitute for flour made from grains. A third possibility is that the snails were actually collected as part the normal round of exploitation of seasonally-available resources. Little work has been done upon the issue of Starčevo-Criș seasonal movements or exploitation of resources. In the future, the mussels shells will be examined for evidence of seasonality.

Paleobotanical Analysis

The carbonized paleobotanical remains are currently undergoin identification and analysis at the University of Manitoba by Sandra Jezik. Her preliminary conclusions are that very few carbonized remains were recovered considering the quantity of soil that was floated. Most of the remains consists of unidentifiable fragments of burnt wood. There is no definite evidence of charred grains of domestic wheat or barley.

Soil samples for the analysis of opal phytoliths were recovered during excavation. They are currently being analyzed by Dr. Irwin Rovner, University of North Carolina.

Starčevo-Criș Ceramic Analysis

Wide-mouth globular vessels dominate the assemblage. There is a limited variety of shapes (mostly bowls — fig. 5) and jars — fig. 6). Plates (or more accurately shallow bowls) are only occasionally found. Only one complete pot (a bowl) was found.

Most of the pots are red-painted monochrome wares. The best repertoire of already analyzed ceramics comes from loci 10, 14 and related external surfaces (locus 02). Few of the locus 17 ceramics are as yet analyzed. They are either undecorated (fig. 7) or decorated with a limited variety of motifs (finger-nail impressions on the body or rim — fig. 8—10; finger pinching in shape of wheat fig. 11 left; finger pinching on a roughened surface fig. 11 right; finger pinching in parallel lines — fig. 12; finger pinching in shape of wheat and with crossed vertical and horizontal lines — fig. 13; finger-nail impressions (right) 92/32-23 and 34/15 (left); punctates (left) — fig. 14, right; plastic rib with finger impressions and roughened surface — fig. 15). The lack of barbotine decoration implies a relatively early date in the Starčevo-Criș traditional chronology for the assemblage.

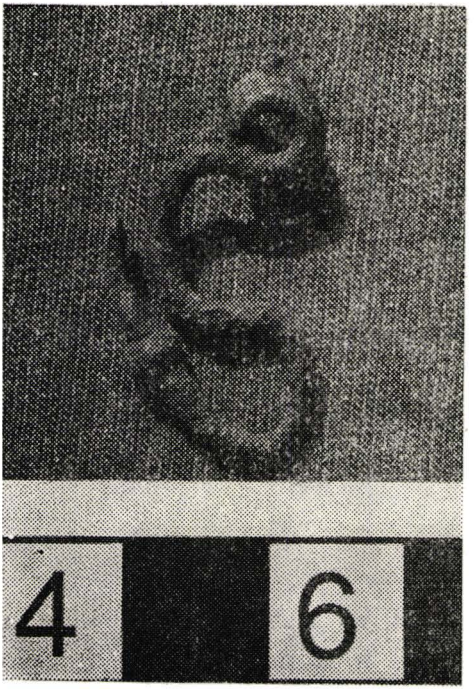

Fig. 5

Fig. 7

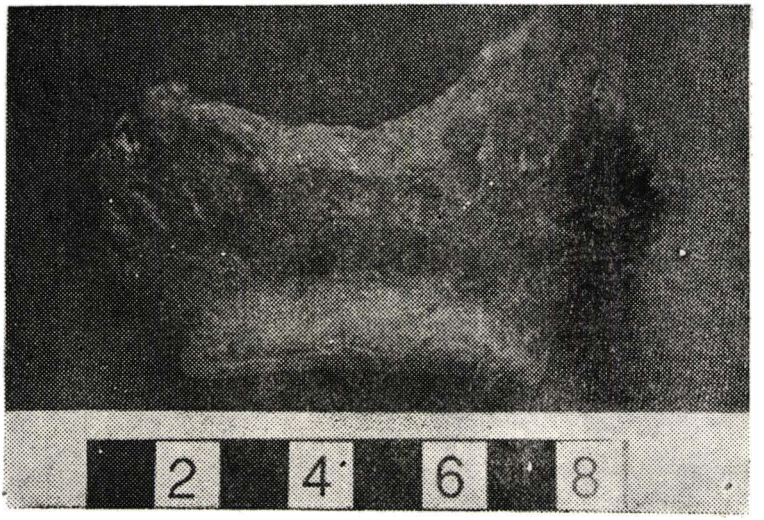

Fig. 6

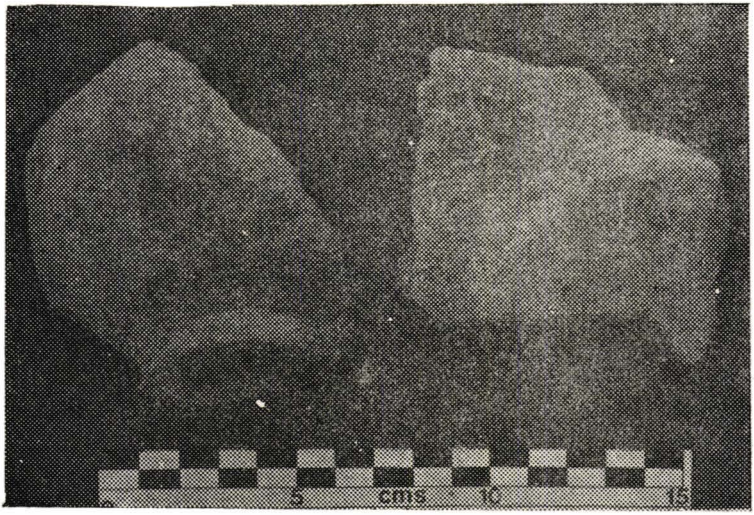

Fig. 8

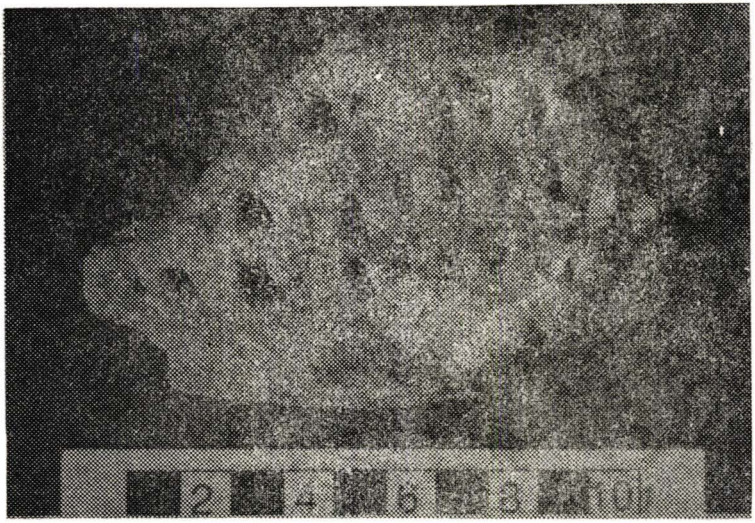

Fig. 9

Starčevo-Criș handles, while often considered decorative because of their size, are in fact very functional. They are designed to hang the pot from either post in a house by stringing a piece of rope either through a vertical hole in the handle (fig. 16), between three vertically oriented bumps (fig. 17), or between two horizontal bumps fig. 18). Good examples of ceramics with only a single bump as a handle were not found. The chronological differences (if any) between each of these decorative motifs remains to be worked out.

Non-Starčevo-Criș Ceramic Analysis

A single „classic" Vatin rim sherd was found at the bottom of locus 14 (fig. 17).

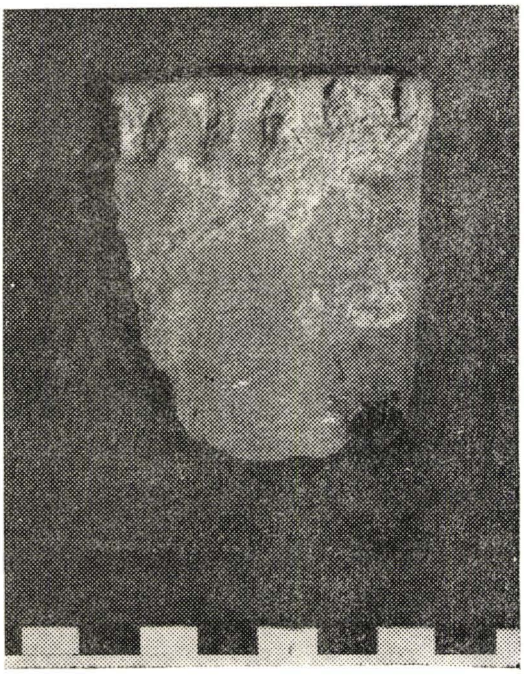

Fig. 10

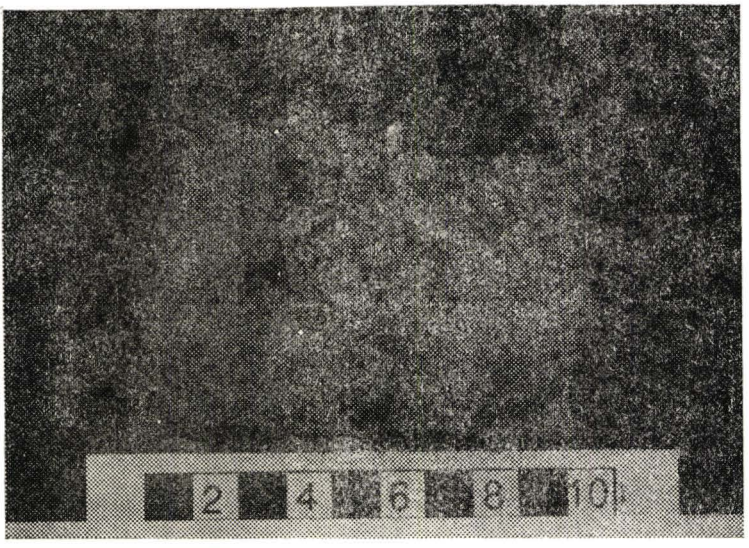

Fig. 11

Other Starčevo-Criș Ceramic Artifacts

A number of typical and unusually-shaped artifacts were found in the Starčevo-Criș occupation and refuse deposits — loci 02, 10, 14, 16, und 17. One of the more interesting is a fragment of a sheep figurine was found in locus 17? Only the headt is preserved (fig. 20).

There is a diverse group of artifact types that come under the grouping of weights but that are morphologiclly-distinct and standardized. The first group,

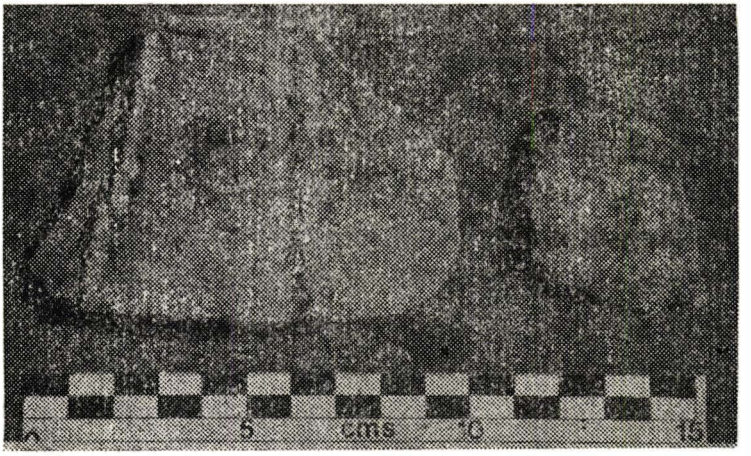

Fig. 12

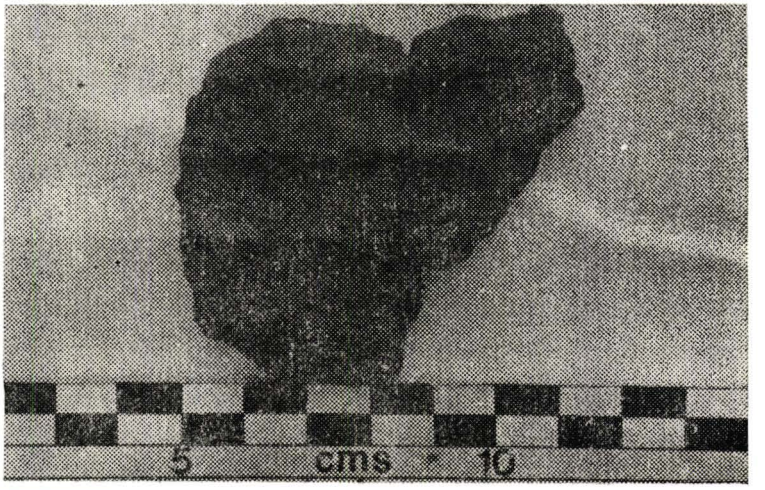

Fig. 13

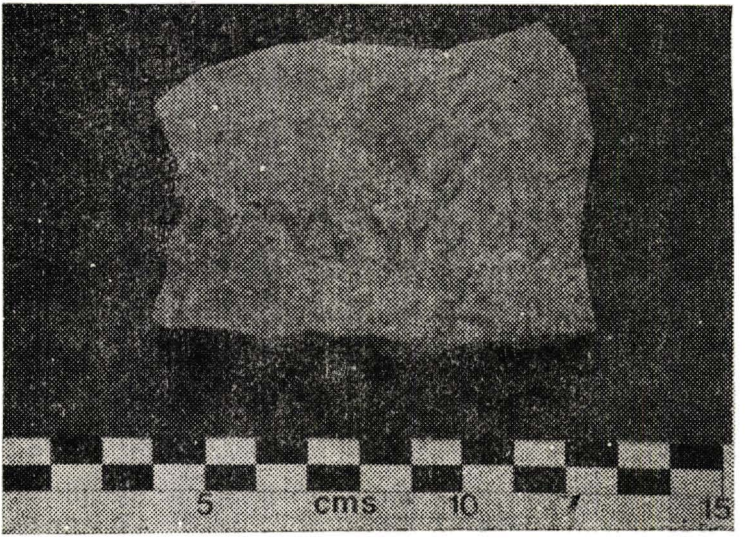

Fig. 14

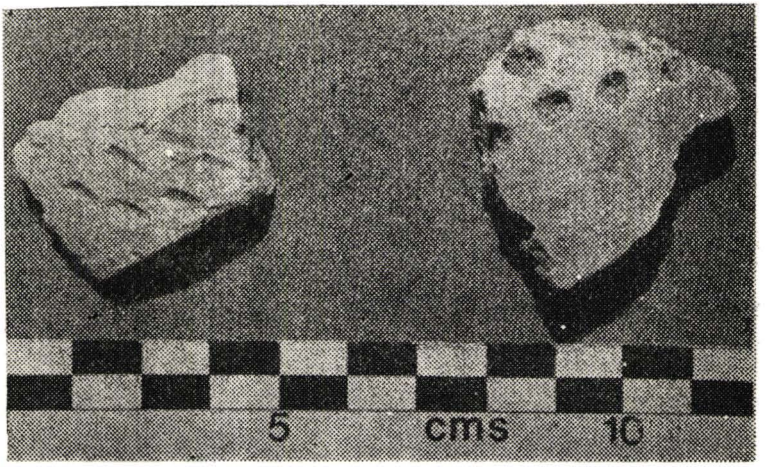

Fig. 15

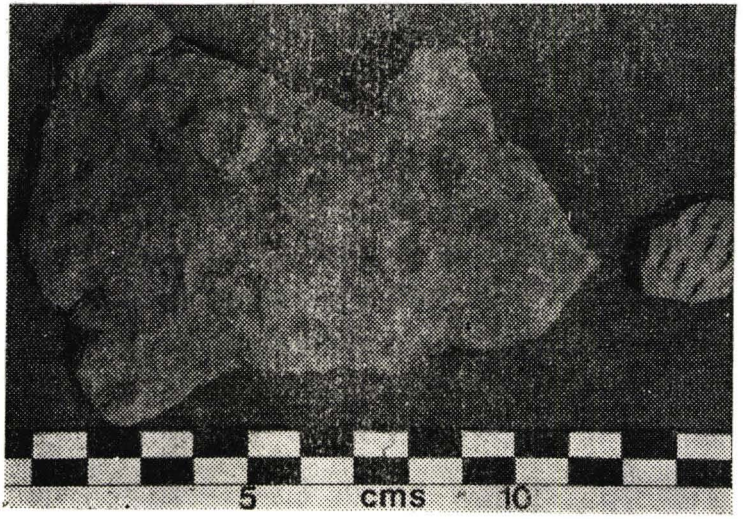

Fig. 16

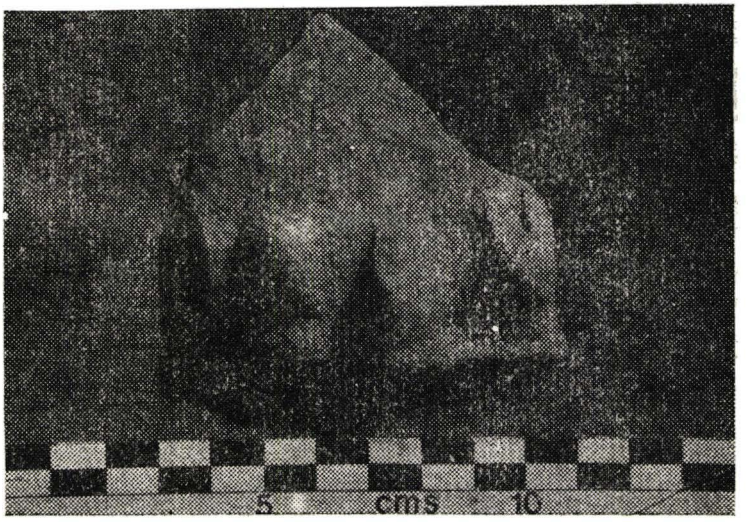

Fig. 18

Fig. 17

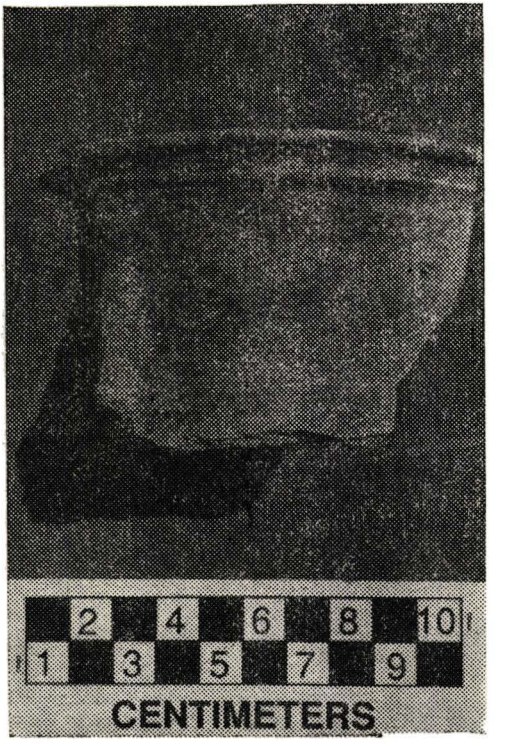

Fig. 20

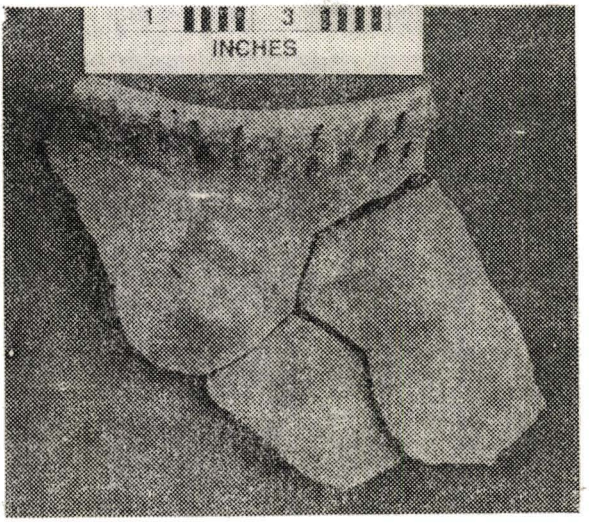

Fig. 19

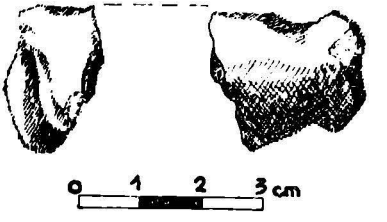

Fig. 21

which we are calling a bolla, was found on the floors of two Starčevo-Criş occupation deposits — loci 10 and 17 (fig. 21). It is called a bolla to distinguish it from more obvious loom weights and to reflect its morphological similarity to similar ethnographically-known objects with such a use. The second group are loom weights. Several loom weights (e.g. fig. 22) were recovered in the three Starčevo-Criş occupation deposits — loci 10, 14 and 17. They wee not found concentrated in any single parts of the structures, but were spread across the floors. The third group is a classic example of a fish-net weight (fig. 23) with a small hole that extends through the length of the weight. It not only resembles closely net-weights that are used by fisherman today and ethnographically. Also the holes is too small for use with anything except the finest of thread, unlike those in the loom-weights. Only one example was found. Both loom-weights and bollas are crudely made with chaff temper and poorly fired. The fourth group has a less certain function. Only one example was found. It may have been part of baton. It is better made than the previous two groups. It is made with a fine sand temper, and highly fired. It's hole is relatively large and smoothed on the inside. The hole is either for a large rope or to slide it onto a piece of wood, possibly as part of a baton. The latter seems more likely (fig. 24 and 25).

Another group of artifacts are called plugs and loaves. These terms are used to reflect their shape and not function. The former (fig. 26) appear to be shaped for use as plugs in narrow-mouthed jars. However, such ceramic shapes do not appear in this period or site. Also, it is important to note that the flat side seems to have experienced use as a „rubber". The second group is shaped as a low loaf of bread. The flat-concave surface is also rubbed smooth. The importance of the associated function of these two artifact categories is especially important when one considers the near absence of stone grinding mortars and pestles from all of the Starčevo-Criş deposits. Only one mortar (fig. 27) was found associated with a Starčevo-Criş horizon (locus 17). The general lack of availability of stone resources in the area would have placed a premium upon finding a locallyavailable substitute for grinding activities. The low frequencies of grains in the carbonized remains would also imply that grinding grain was not an important activity at this site.

Evidence for daub architecture is minimal. Very small quantities of daub were recovered in any of the deposits.

CONCLUSIONS

The excavations at Foeni-Sălaş has demonstrated the presence of a new Starčevo-Criş II settlement in the Romanian Banat. The site appears to be one of the earliest Starčevo-Criş settelements in the area.

The importance of this site lies in its ephemeral nature. We feel that it is a very short-lived site that is useful for understanding the nature of Early Neolithic adaptations to this area. The site has a single and very thin occupation level. There is no evidence of later Starčevo-Criş structures cutting into earlier ones. There is a near absence of daub architecture and the construction of durable structures. The occupants of the site invested very little energy in modifying and improving their living area. Simple semi-subterranean huts were constructed and occupied for a short period of time. Floors were not specially constructed or plastered. Instead, they were simply the bottom of the pit, which was dug into the well-drained Pleistocene loess deposits. The dwellings seem to have been abandoned relatively soon after construction because there is no evidence of the stratigraphic

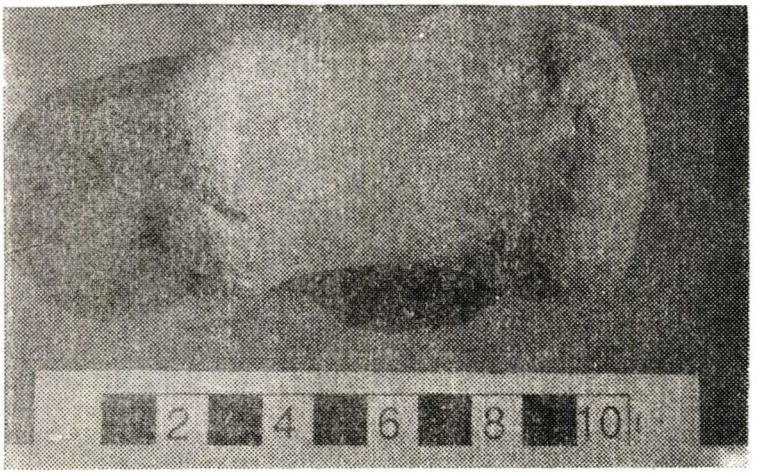

Fig. 22

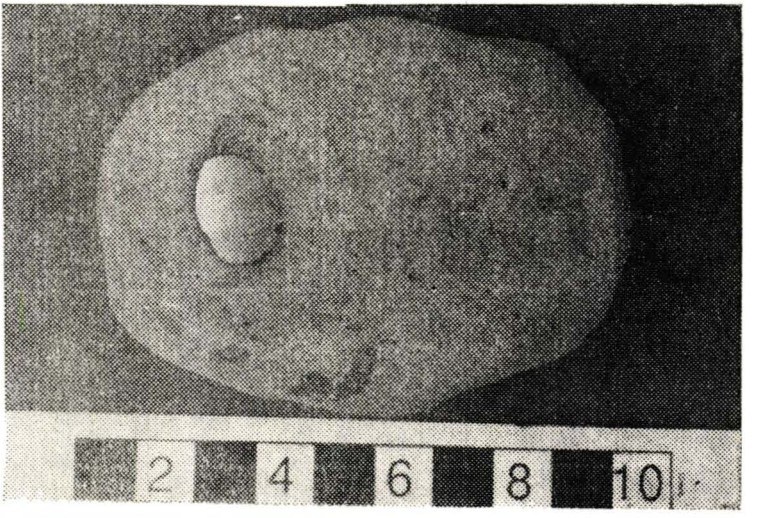

Fig. 23

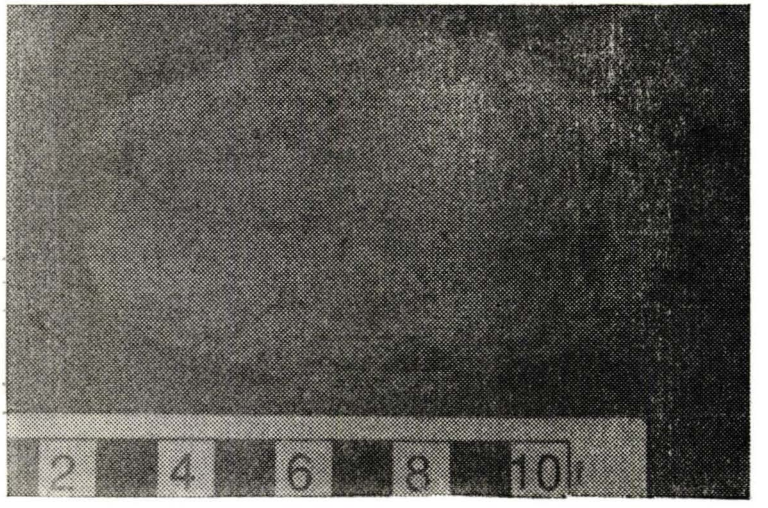

Fig. 24

Fig. 25

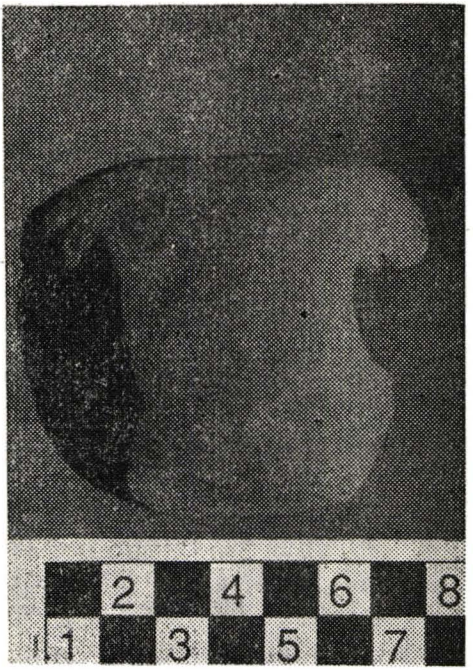

Fig. 26

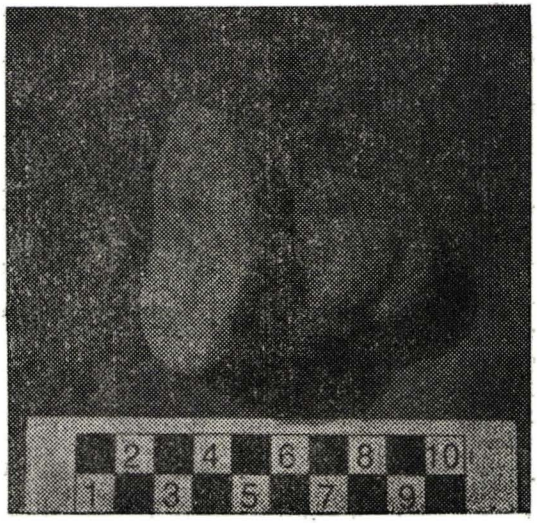

Fig. 27

Fig. 28

accumulation of occupation debris and habitation levels above the basal level, lack of well-constructed hearths for warming the interior during the colder seasons, lack of immoveable storage facilities (such as clay ovens and large storage pots), etc. characteristic of more sedentary societies. After the pitdwellings were abandoned, they were filled with midden materials from neighboring structures. But they were not subsequently reoccupied or dug into indicating that the pits were probably tsill open during the rest of the occupation.

The nature of the remains at Foeni-Sălaş implies that this may not be a sedentary settlement. Whether it was occupied for a season or a year is unknown at this point. The abundant nature of shell remains implies that it was occupied during the warmer part of the year, possibly as part of the annual round of movements in the search for pasture for the domestic stock. The domestic economy is heavily based upon domestic grazing animals. But the gathering of wild resources was still very important as evidenced by the abundance of shell animals, fish, and the paucity of domesticated carbonized remains.

October 20, 1993.

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