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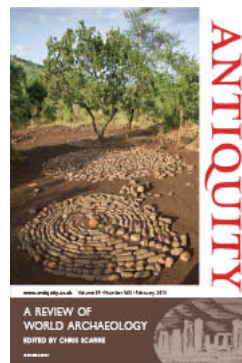
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## The social organization at Branč

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## The social organization at Branč

SUSAN SHENNAN

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Recently there has been a marked revival of interest among archaeologists in the possibilities of reconstructing the social organization of prehistoric societies and there has even been a call for 'social archaeology' (Renfrew, 1973). As Renfrew rightly points out it is not possible to comprehend the growth of society without investigating social factors as intensively as others such as subsistence and technology, which have long received considerable attention. In this paper I intend to concentrate on one particular aspect of the analysis of such social factors; the investigation from the archaeological record of social stratification and hierarchy. The period chosen for study is particularly interesting from this point of view since it has long been believed that the appearance of the Bronze Age is to be associated with the development of stratified society (Otto, 1955; Childe, 1958; Gimbutas, 1965), often regarded as patriarchal, especially by Marxist prehistorians. This conclusion has been reached partly from theoretical considerations and partly by using a limited amount of evidence abstracted from its context and then assuming that the results are valid for most of Central Europe. It seems to me that a more realistic view is likely to emerge by adopting the opposite approach of first investigating individual sites and groups of sites from a small area until a larger-scale picture is gradually built up from the parts. Almost all the archaeological evidence from this period is of a funerary nature so in effect the

approach requires the detailed analysis of ever-increasing numbers of cemeteries. Until recently information in sufficient quantity and of the necessary quality was not available but even if it had been, it is doubtful whether satisfactory use could have been made of it because of the sheer amount of work involved in doing a systematic analysis. This has only become possible with the advent of computer methods.

Here I present the results of such an analysis of the cemetery at Branč in S.W. Slovakia (Vladár, 1973). This is only one of a number of large Early Bronze Age cemeteries from S.W. Slovakia and E. Moravia which I am studying. Culturally they belong to the Nitra group (Točík, 1963) and the Únětice culture (Schubert, 1973), which is later than the Nitra group in this area. The cemeteries have only recently been investigated and for the most part remain unpublished although the excavators most generously made the information available to me. The quality of the work carried out by the Archaeological Institutes of the Czechoslovak Academy of Sciences has been extremely high and the documentation is meticulous.

### THE BRANČ CEMETERY

In any cemetery study it is important to realize that there will be numerous factors affecting the details of the burial. In previous studies one or other of these has tended to be overemphasized

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at the expense of the others, for instance, chronology (Hodson, 1968) or social factors (Saxe, 1971; Binford, 1972) and this is clearly unsatisfactory. Ucko (1969) on the other hand is equally mistaken in his nihilistic view since he has neglected the potential use of independent evidence which is often available (as it is here) on the reasons for some of the variation, notably chronology and the age and sex of the skeleton. It is possible to understand patterning in the artifact associations and distributions caused by both these factors and to take it into account when later attempting to understand those aspects of the variation which could relate to social stratification.

The cemetery as a whole contains 308 inhumation graves, the majority of which belong to the Nitra group together with some of the Únětice culture. The excavator, because he believed the appearance of the Únětice culture represented a new influx of population, regarded the site as two cemeteries, one Nitra group, the other Únětice, even though there is no real physical division between them and there is strong evidence of continuity in both burial rite and artifacts. As will appear below it is more likely that the cemetery should be regarded as a whole but that it gradually extended from south to north through time.

Unfortunately there are no absolute dates from Branč, or indeed from the Nitra group as a whole. It is, however, possible to use dates from neighbouring areas to obtain some idea of the time span involved (see e.g. Machnik, 1973). When these dates are recalibrated (using the tables provided in Damson *et al.* (1974)) and studied in relation to the known chronological sequence in this area (Schubert, 1973), they suggest that the maximum duration of the site is approximately 2400–2000 BC, although it could have been as short as about 200 years. (The significance of these figures for the important question of community size and the rate at which graves were being deposited will be considered below.)

Vertical stratigraphies were few and not very useful; the most fruitful approach was to look at the distribution in the cemetery as a whole of artifact types already known to characterize

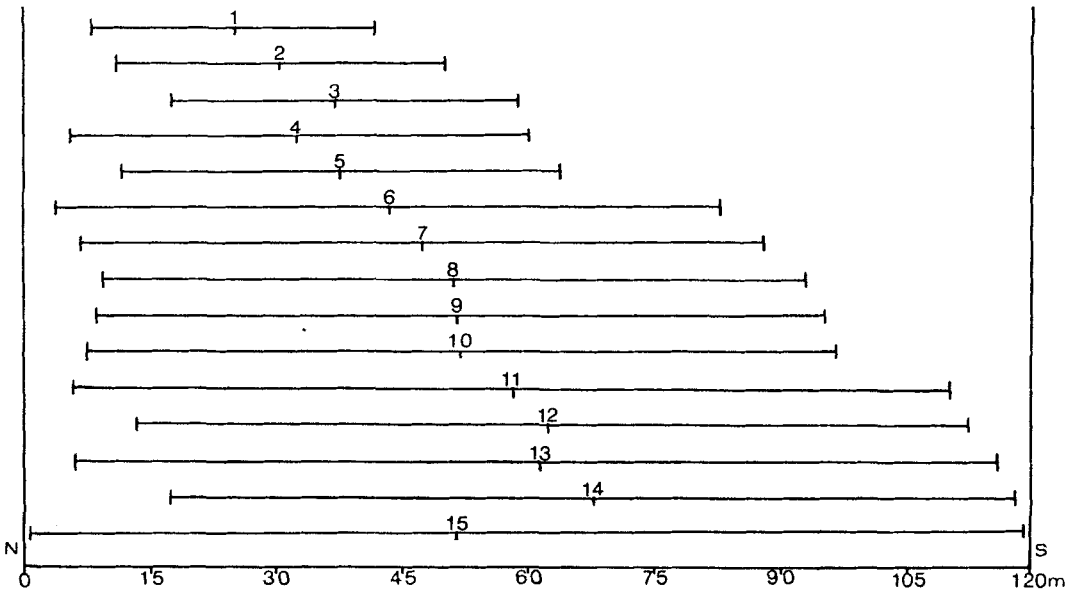
particular phases in the established regional chronological sequence. This was systematized by plotting the co-ordinates of every grave and then, for each artifact with 10 or more examples, calculating the mean and standard deviation for each axis of the co-ordinates of the graves containing those objects, to give a measure of that object's range of distribution on each axis. The results of these calculations for the N-S axis can be seen (FIG. 1).

A number of artifacts were known to be chronologically diagnostic in the regional sequence (Schubert, 1973) and together they formed a fairly coherent distribution picture in the cemetery. The Chxopice-Veselé cup (grave 291) is known to be very early (see e.g. Machnik, 1967), other early types include the profiled bone pin, the willowleaf copper ring, the willowleaf copper knife, the bone spacerplate and the single example of a bone bow pendant. Definitely late artifacts include certain of the metal pin types, especially the 'Hulsenadel', the decorated triangular dagger (grave 272), the spatula axe, the palstave and the classic Únětice cups.

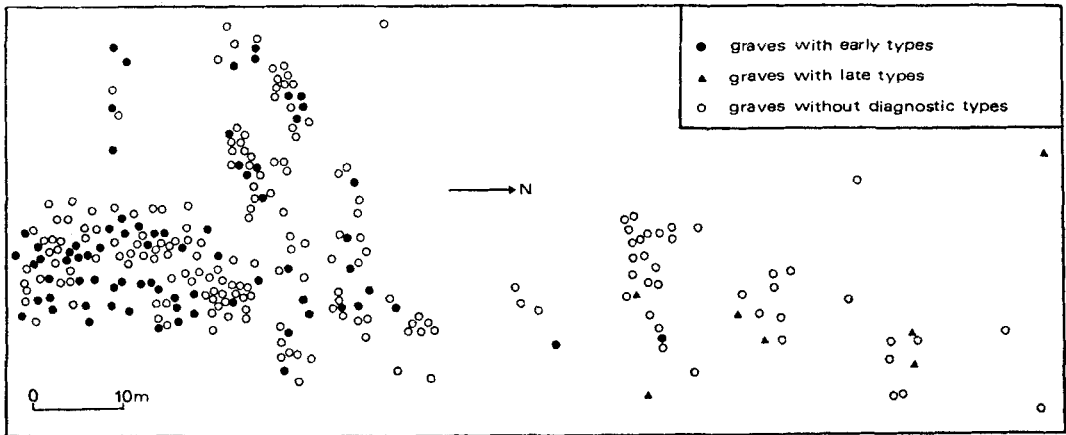
When these artifacts of known chronological period were plotted on a plan of the cemetery, a clear pattern emerged which can be seen (FIG. 2). Those graves which had early artifacts were found in the southern area of the site while those with late types were confined to the north. Continuity between the two parts of the site is amply documented by the same burial rite and by the presence of a number of artifact types throughout the whole cemetery. Among these are bone awls, simple rings, hollowbased arrowheads, faience, spiral copper tubes and columbella shells. The distinction in the distribution on the north-south axis between different kinds of artifact can be seen (FIG. 1). Spacerplates and willowleaf rings, for example, are restricted to the southern part of the site whereas hollowbased arrowheads are found throughout its length.

In summary the results from this investigation of chronological patterning show that there is a general trend of chronological development from south to north while the evidence is, I believe, quite sufficient to refute Vladár's

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*Fig. 1. The range of distribution of different artifact types along the north-south axis of the Branč cemetery: 1. bone spacerplate; 2. willowleaf ring; 3. willowleaf knife; 4. metal tubes; 5. bone beads; 6. bone awls; 7. faience; 8. simple rings; 9. animal bones; 10. spiral rings; 11. columbella; 12. noppenring; 13. metal spiral tubes; 14. flint flakes; 15. arrowheads*



*Fig. 2. The distribution of diagnostic early and late artifact types at Branč*

claim that there are two quite separate and independent cemeteries on the one site. The late graves were not included in further analyses, which were restricted to the Nitra group graves (274 out of the 308 on the site) so excluding

most of that variation in the grave good associations which was a result of chronological factors.

As already indicated, the study continued with an examination of the extent to which the

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types of grave goods and details of interment correlated with age and/or sex categories. The associations were investigated systematically using the subprogram FASTABS from the set of programmes 'Statistical Package for the Social Sciences' (Nie, Bent, and Hull, 1970), available on the Cambridge IBM 370/165 computer. The data were coded and stored on the computer in such a way that information was available on the quantity of the different artifact types in a given grave and not merely whether they were present or absent. This proved extremely useful in later stages of the analysis.

First of all the age and sex categories were cross-tabulated against the various details of interment, including the side on which the skeleton was lying, its orientation and the type of grave. The results showed that females were generally buried lying on their left-hand sides (81 per cent) while males were usually placed on their right-hand sides (69 per cent). In fact, 20 per cent of the skeletons anthropologically identified as male were on their left-hand sides and it may well be that the anthropologist was biased towards designating skeletons as male: Weiss (1972) found that traditional methods of skeletal sexing based on the application of a few criteria tended to produce a systematic bias in favour of males of about 12 per cent. Other evidence also suggested that there might have been such a bias. Orientation too showed a strong correlation with the sex of the individual buried. Skeletons orientated E-W and NE-SW were mostly female while those lying W-E and SW-NE were mainly male; this association became even stronger when orientation was tabulated against the side on which the skeleton was lying, rather than the anthropologically identified sex. Graves of unusually elaborate type were strongly associated with males. No correlation whatsoever was found between any of these grave attributes and the age of the skeleton.

The next stage was to investigate the extent to which the deposition of the various grave goods was determined by the age and sex of the individual buried and this too produced significant results. Boars' tusks, willowleaf knives, copper daggers, bone amulets, arrowheads,

metal sheet and amphorae were all found exclusively with males, as well as all chipped stone except obsidian. Certain artifacts were also found predominantly in female graves although in no case was this exclusive; they included willowleaf rings, bone beads and bone spacerplates. Many objects were too rare to be associated convincingly with either sex but some, including bone awls, simple rings and animal bones, all of which were found in quite large numbers, were clearly not sexually determined. Other objects clearly related to the age of the deceased: miniature or very small pottery types were only found with children while normal sized vessels were with adults. Metal sheeting, a male associated artifact, only occurred with individuals in the young adult age group; arrowheads, whetstones and bone amulets appeared with adult and adult/mature male skeletons. Finger-rings were restricted to individuals under the age of *c.* 20, mainly males.

It is clear that several of the artifact types were constituent parts of costumes which must have been worn for burial. Pins were found in the shoulder area; bone beads were worn by women both as necklaces and as garters on the lower left leg. The metal sheeting which we have previously seen to be associated with young males is always found in the pelvis/thigh area, as were daggers, willowleaf knives, whetstones and the single stone axe; these clearly must have been attached to some sort of belt. Willowleaf rings were worn in different places depending on age: on children they are armlets, on adults they are ear-rings while juveniles have them in both positions.

In short these analyses present us with a graphic picture of different age and sex groups having their own well defined modes of dress and ornamentation by which their status was socially recognized, just as it was in Slovakian peasant villages well into this century. Moreover, the results strongly suggest that the grave goods found in the grave really are a reflexion of the deceased's status at death and therefore make it unnecessary just to assume this, a procedure much criticized by Ucko and others. If certain goods symbolize age and sex differentiation at death it seems likely that any other

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variation in the grave goods will symbolize further distinctions which were present in the society.

The next part of this study is an investigation of these further distinctions and especially those which relate to social ranking and stratification. As we saw at the beginning of this paper, these questions are of particular interest in the Early Bronze Age, which is supposed to coincide with the first appearance of a stratified society in the area. A necessary preliminary to any such investigation is an estimate of the probable size of the community and its age/sex distribution at any one time. It is obviously unlikely that organization will be complex and highly stratified if only about ten people were alive at a given moment.

Given the absolute dates already mentioned, a reasonable estimate for the duration of the Nitra group part of the cemetery would be between 175 and 300 years. In calculating the size of the community at any one time, it is important to consider not only those people who died in a given age category, but also the deceased's contemporaries who were alive and survived that age to die as members of an older age group. In order to find out how many of these individuals were alive at one time it is necessary to divide the estimated duration of the cemetery into periods of time of the same length as that taken totally to renew any of the age categories (which must, of course, each be of roughly equal length). This is still not quite right since we are only interested in the number of people *alive*. If allowance is made for this one obtains an order of magnitude size estimate for the living community of around 30-40 people at one time, of whom 50 per cent were children. The calculations assume, of course, that the community population size and structure were constant throughout the period.

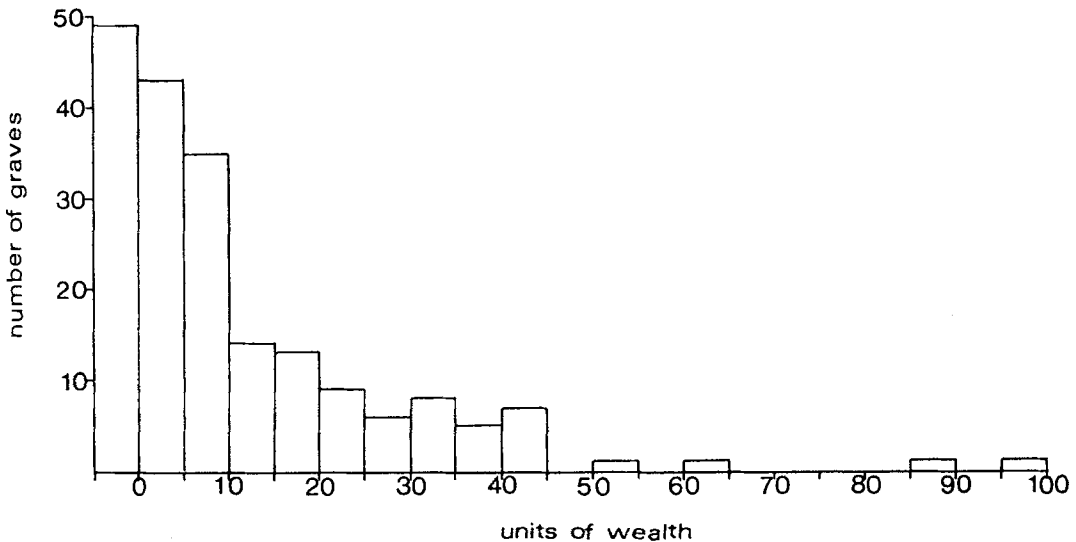
Within the framework of this basic limit the aim was to investigate whether the community at Branč was essentially egalitarian or not. As we have already seen, certain goods correlate with particular age and sex groups, but none of these is possessed by all members of any such group and it therefore seems likely that additional distinctions are present. Binford

(1971) maintains, citing ethnographic evidence to support his claim, that the more of these additional distinctions that exist, the more complex the society. Saxe (1970) has argued on similar lines, suggesting that each combination of artifacts and type of interment will represent a different status position and he too has shown that such a view is supported by ethnographic data.

Using this premise of Saxe's the Branč cemetery was investigated for the possible number of status positions represented by different types of grave good association. Particular attention was paid to whether there were any indications of differential access to wealth among the different sections of the community. To carry out such a study it was necessary to order the graves in such a way that those which were most similar in terms of their contents were adjacent to one another for comparison. This was done by means of cluster analysis using the CLUSTAN IB computer package (Wishart, 1971). Hierarchic fusion methods of clustering were employed. These involve putting individuals together at high levels of similarity and then joining the resultant groups into larger groups at successively lower similarity indices. This has the advantage that the results may then be presented in the form of a dendrogram, which is an easily understandable two dimensional representation of the fusions which have been made at each successive level. Several such methods were used and all gave closely comparable results. A check on the validity of the clusters produced could be made by examining the contents of the graves in each cluster to find out exactly how similar they were; this showed that the average-link clustering method gave the best results.

On examination of the contents of the graves in these groups it became clear that in terms of number of types of goods present the clusters were not equal. This could be taken as evidence for a 'rich' cluster of graves and therefore, presumably, a 'rich' section of the community although it is certainly not conclusive. Our conviction that a 'rich' cluster exists would be considerably strengthened if the same graves emerged as 'rich' on a number of different

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*Fig. 3. Shows the distribution of wealth scores among the graves at Branč*

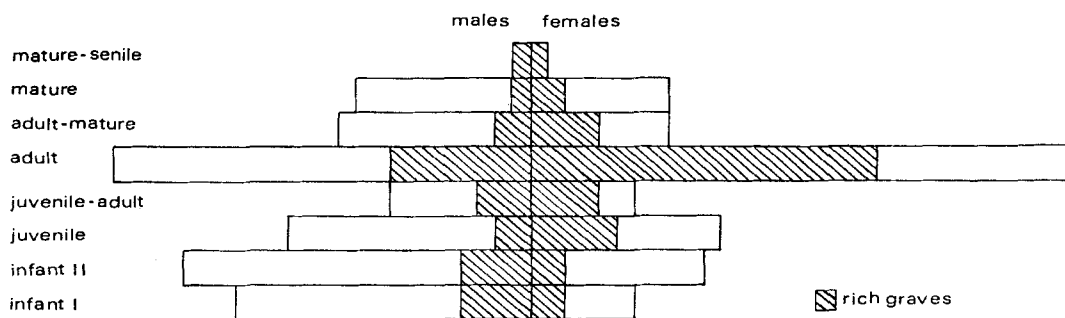
criteria: variety of goods has already been mentioned; others used were the quantity of particular artifact types and the number of points on a scale of units of wealth. The latter was determined *a priori* on the basis of distance and difficulty in obtaining raw materials and estimated time taken in producing the artifact (cf. Clarke, 1975), thus metal rings, for instance, scored higher than bone awls. The distribution of wealth scores can be seen in the histogram (FIG. 3), which shows a marked break between those graves that have less than 10 points and those that have 10 or more, which have therefore been defined here as 'rich'. On all the different criteria the same graves proved to be the 'richest' and the majority of these were restricted to just one of the groups produced by the cluster analysis.

The next question to be asked was whether those individuals who were exceptionally 'rich' had any other sort of distinctive status, perhaps reflected in specific artifacts restricted to them (cf. earlier discussion). Every artifact type was considered and it was found that very elaborate necklaces, bone bead garters, profiled bone pins, spiral rings and noppenrings were almost exclusively restricted to the 'rich' cluster. All

these items were obviously worn as part of a standard costume and may be taken as evidence of a 'status uniform' (cf. Winter, 1968; Binford, 1971) worn by the 'rich' segment of the society. The presence of this obviously coherent 'rich' group which not only has a greater number of objects but also a certain number which are specifically limited to them seems conclusive evidence for a non-egalitarian distribution of wealth.

It was now of considerable interest to know how this differential access to wealth was organized within the community, in particular how it related to the different sexes and whether it was achieved or ascribed at birth. If a system of ascribed hereditary wealth existed one possible expression of it might be the presence of wealthy graves belonging to young, non-productive members of the society (cf. Hill, 1970; Binford, 1971). Examination shows that there are children (infants I and II) in both the 'rich' and 'poor' groups (FIG. 4). It might be thought that the high number of adults with 'rich' goods could be taken as evidence that wealth was achieved but it is important to realize that the adults who survived might have had their wealth throughout all the younger age grades.

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*Fig. 4. The age and sex distribution of the skeletons found at Branč; those individuals with more than ten units of wealth are distinguished as 'rich'*

A further expectation was that if wealth was achieved there might be greater differences in this respect among adults than among children. This was clearly not the case for male individuals (right hand side lying) as an infant I skeleton was in the second highest category in terms of units of wealth. With the females the situation was more complicated. The few 'richest' individuals were exclusively in the age groups juvenile-adult and above. On the other hand, there are only very few rich female infants compared with the older age-groups so it is difficult to know whether any special significance should be attached to the fact that there were eight female graves 'richer' than the 'richest' female infant. Depending on the view one takes of this last point it is possible to develop two entirely different hypotheses concerning the status of women. As there is a large number of 'rich' females in the juvenile-adult and adult categories it could be suggested that the women were achieving their wealth on marriage (or at least then being used as vehicles for their husbands' wealth). On this argument the presence of the 'rich' female infants might be seen as reflecting arranged marriages for female children, who in these four cases unfortunately died in infancy. Given that the 'rich' females are the counterpart of the 'rich' males, the much larger number of 'rich' females might be explained as evidence for the practice of polygyny. On the other hypothesis the 'rich' female infants are regarded as showing that female wealth was ascribed at birth. If one accepts this idea of ascribed wealth it is possible

to test for differential patterns of mortality between the 'rich' and 'poor' of each sex by working out the proportion of 'rich' and 'poor' who died at each age in each sex and then testing for differences between the groups by means of the Kolmogorov-Smirnov test (Campbell, 1967, 56). The two sexes were taken separately because females naturally survive infancy better than males although slightly more males are born. The tests showed a significant difference in the distribution of age at death between the 'rich' females and the other groups, except the 'rich' males, who were, however, much closer in their distribution to these other groups than to the 'rich' females. The 'rich' females were less likely to die as infants than any other group. The differences in mortality between 'poor' men and 'poor' women were, however, not significant, a fact which emphasizes that it is the wealth, rather than the sex factor which is important for survival. Given the ascribed wealth hypothesis, the conclusion must be that the 'rich' females received preferential treatment from birth, possibly in the form of better nutrition and living conditions.

This suggestion is especially interesting in the light of the fact that 'rich' females have considerably more wealth than 'rich' males, and even more striking when it is known that the 'rich' cluster produced by the cluster analysis was composed exclusively of females; as we have seen already, this group was characterized by distinctive costume and ornamentation. The 'rich' male graves did not cluster in



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this way and it seems that male expressions of wealth were neither so distinctive nor so uniform.

A further test of the extent of the differentiation of the 'rich' individuals was carried out by investigating their spatial distribution in the cemetery. Clearly if they were separate from the rest of the population it would be a further indication of their distinctiveness. Using a nearest neighbour measure of spatial association (Pielou, 1961) it was possible to see that the distributions of 'rich' and 'poor' graves of both males and females were randomly intermixed. This might be regarded as supporting the hypothesis that female status is achieved; certainly it argues against any idea of a monolithic 'rich' group, as do the differences among the 'rich' graves themselves (see FIG. 3). The complexity of the situation is confirmed by a consideration of all the groups produced by the cluster analysis. These show a wide variety of different subdivisions of the society which it would be beyond the scope of this article to describe, since our main interest here is social stratification.

The analyses described above have provided a considerable amount of information of the differentiation present in the Branč cemetery. In some cases the conclusions derived from this seem quite well established; in others it has not yet been possible to distinguish between rival hypotheses and these will be the subject of further work.

The community does seem to have been stratified, with unequal access to wealth for both men and women. There is some indication that wealth coincided with status, particularly among the females, as 'rich' individuals seem to have been characterized by a particular mode of dress and ornamentation. For males this wealth was most probably hereditary but at present it is not possible to say whether female wealth was ascribed or achieved and, depending on which of these is preferred very different conclusions follow concerning the nature of the behaviour which produced the differentiation in the cemetery.

Given the ascribed view, the reality of the privileges associated with the 'rich' female group

may be seen in the fact that its members were more likely to survive infancy than any other section of the community. The importance attached to the 'rich' females which this evidence indicates, suggests, as one possibility, that descent may have been calculated through the female line and that female children were therefore vital to group continuity. A consequence of this situation in such a small community as that at Branč might well have been the introduction of men for marriage from neighbouring communities. Indeed, a population of only about 40 individuals would not be reproductively viable without some sort of exogamy.

On the other hand, the view of female status as achieved fits all the evidence equally well at present. The fact that the mortality pattern reconstructed when female wealth is believed to be ascribed is so different from those of other groups may well in itself be regarded as casting doubts on its validity. If it is assumed that on the whole female wealth was achieved on marriage the anomaly is immediately removed. Moreover, it should be noted that the women's wealth went with them into the grave and this too might be considered an argument against the view that they were custodians of group wealth. The smaller number of 'rich' males might then be explained as we have seen by the practice of polygyny, and the wealth of the females interpreted in such terms as payment of bride-wealth or the use of the women as vehicles for the display of their husband's resources. In such a situation descent might well be patrilineal and, in this case given the necessity of exogamy in such a small scale community, the women would have to come in from outside. As we have seen this is an aspect which can be tested by further work.

It might be argued that the complex picture presented here is unrealistic for a community of only 40 individuals and for this reason it seems likely that the status differences may have a more than local relevance. This would be entirely in keeping with the practice of exogamy as it would be necessary for an individual's status to be communicated to outsiders. Furthermore, preliminary examination of the

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neighbouring cemeteries actually documents such a situation, since it shows that social differences were organized and expressed in the same way as at Branč. Nevertheless, it is important to emphasize that the degree of stratification should not be exaggerated as the distinctions between 'rich' individuals and others are by no means absolute. Even the difference between 'richest' and 'poorest' seems very small if compared for instance with the Mediterranean civilizations. On the other hand as we have mentioned, there seem to have been numerous other groups in the society which together present a picture of complexity of another kind, although it is worth noting that most probably only one or two of the individuals in these groups would have been alive at one time.

This analysis of the Branč cemetery has shown that it is unsatisfactory to use simple

*Acknowledgements:* I would like to express my gratitude to Dr J. Vladár for allowing me to study his material from Branč and to Dr M. Hanulík of the University of Bratislava for giving me details of his age and sex determinations of the skeletons from Branč which made this study possible. I would also

general categories, such as 'warrior aristocracy', to characterize the social organization of Early Bronze Age Central Europe. Indeed, the contrast which the situation at Branč makes with such better known areas as Central Germany shows that it is not possible to generalize about Early Bronze Age society on the basis of a single site or region. I believe that the main value of this type of systematic study is the detailed knowledge it can give of the organization of a single community, which, in the case of Branč, will be fitted into its local context when the neighbouring contemporary cemeteries have been analysed. In this way we can gradually build up a coherent picture of the organization of Early Bronze Age society over larger areas, which will be the first stage in a move away from the simplistic models of social evolution that have been applied to the Early Bronze Age in the past.

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