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MAKING THE INVISIBLE VISIBLE: WOMEN IN HOUSEHOLDS, HOUSEFULLS AND ARCHAEOLOGICAL HOUSE REMAINS

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When first invited to contribute to this conference I was highly skeptical whether architectural remains could be used in making inferences about gender expression in prehistory and whether there was any point in even trying. I was under the impression that I was going to have to work extremely hard to justify my presence at a conference discussing "Women and Production in Prehistory" (although this was repeatedly denied by one of the organizers) in view of my extreme skepticism on the visibility of gender differences in the archaeological record. I was moreover at a loss as to how I should rework my current research strategy to face the question of what the women were doing in the houses that I was so busy studying.

Women in European Prehistory
It is not as though the role women had never been considered in the area of my research. In fact a book discussing this very topic in the Neolithic of Southeast Europe is already in its second edition (Gimbutas 1982). The presence of zoomorphic and anthropomorphic 3-dimensional representations in the prehistoric and early historic archaeological record of Southeast Europe and the adjacent areas of the East Mediterranean basin has prompted many confident conclusions concerning the dominant political, social and economic role of women at certain points in time, notably in the supposedly pre- or non-Indo-European cultures of Old Europe (Gimbutas 1982; Todorova 1978; Srejovic 1968, 1984). These statements have been shown up to be full of inconsistencies and hasty inferences (Hayden 1986). Other archaeologists, especially those working in the socio-political context dominated by Marxist modelling of social evolution, used especially the data on settlement and subsistence strategy to propose that the early agricultural societies of the Neolithic-Copper Age period of Southeast Europe (including the SW USSR) were organized on an egalitarian basis, with some being more equal (notably women) than others (Kricevski 1940; Childe 1958; Passek 1949; Dumitrescu 1965). The excellent excavations in Soviet bloc countries,

characterized by a broad exposure of village house plans and careful attention given to recording the spatial distribution of artifacts, furniture and internal divisions in houses are the result of an effort to demonstrate this stage in social evolution.

In the climate of archaeological research of the late 1960s to the present in which rigorous testing and demonstration of such hypotheses was demanded, such conclusions on the role of women in economics, social and political relations in the prehistory of Europe were regarded as quite unvalidated. Statements on the role of women in any walk of prehistoric life have virtually ceased to be presented by any archaeologists who wanted to be accepted by the archaeological Establishment of the dominant cultures of the West. Those that have dared to discuss the topic have confined themselves to the direct data on gender differences, namely burial and other skeletal data (Randsborg 1986).

Questions on gender in prehistory are not the only ones to have fallen victim to the "scientific method". The demise of social and political questions in general in prehistory in such a climate have been well described in a number of recent works (Shanks and Tilley 1987; Hodder 1982) as well as in the paper written by Alison Wylie for this conference. As they have pointed out such questions have been seen as irrelevant "noise" disturbing concentration on the main demographic and adaptational trends of human evolution (Higgs 1975; Binford 1983).

Social Archaeology

A number of archaeologists have, however, continued to emphasise the importance of questions of human social behavior (Renfrew 1972; Renfrew and Shennan 1982; Redman et al. 1978) . The "social archaeology" which developed on both sides of the Atlantic in the 1970s and 1980s was nevertheless very much part of the trend towards processual explanation in prehistory characterizing Establishment archaeology in the last 20 years (Hodder 1982; Shanks and Tilley 1987). It has all the features of functionalism using systems modelling to order, describe and perhaps explain the archaeological data. The aim of Renfrew, Shennan and others has been to create plausible scenarios which have focused on demonstrating the evolution of dominance structures in prehistory which transformed through the interaction of societies and through the creation of hierachies of social ranking of increasing proportions. Their implicit belief is that by a natural progression of population growth and competition for power and control of material resources, more complex social forms of organization have developed. Beyond this belief in progress, however, there has been little explanation of how one social form is changed into another. They were

heavily influenced by the neo-evolutionism of White, Service and Steward in testing general models of the evolution of social complexity. According to these latter models, transformation in the the social system will come as an adaptive response to changes in the ecological system, that is, to a change in the resource base and/or growth of population. The role of the archaeologist if he/she wishes to understand change is to monitor above all the relations of humans to the material world.

The data base of "Social Archaeology" comprises three major sources. First, burial data providing information on the differential complexity of graves in terms of grave-goods and elaboration of graves for the investigation of ranks and status of persona (including women). Second, data on the location, size, and density of settlements on a regional basis in relation to each other and to ecological features; this is an ever-increasing source provided by improved methods of settlement survey, increased activity and interest in systematic survey of archaeological sites, and increased sophistication in analysing the spatial relationships of settlements and burial sites. Third, data of increasing sophistication on materials analysis, providing information on the sourcing of different products (especially minerals) which are used to reconstruct the exchange networks (especially of prestige items) linking the surveyed and excavated settlements and graves. The focus on these sources of data reflects the research priority of Social Archaeologists in inter-settlement relations, especially in terms of the interaction of political leaders. Intra-settlement relations and economics are clearly less important. Moreover, the former sources of information, as will be discussed later, are more easily formed into a large regional and inter-regional comparative data base than the latter.

A criticism of such ecological-evolutionary models of social change is that, in identifying the longer-term evolutionary trajectory of resource control and population growth and in establishing the general type of social form in a society, the context of shorter term changes (what one might call the historical trajectory) are pushed to the background as irrelevant. A dehumanization of prehistory, if we think of the nuances of human-human relations as specifically human, is produced.

Let me illustrate this with an example from European prehistory that will also establish the context of my current architectural research.

Social transformation models for Southeast Europe

The Balkan peninsula and Temperate Central Europe presents an essentially *internal* evolution from the Early Neolithic farming population of Europe to the Bronze Age (fig.1). In order to show the significance of my current research with architectural

remains, I shall compare it to a more conventional analysis of socio-economic evolution by Andrew Sherratt (1981, 1982, 1984). Whatever differences there may appear in our models, however, Sherratt and I agree that Southeast European prehistory represents a process of significant and continuous transformations of society (contrasting with the picture of dull stable Danubian peasants presented by Childe [1929]): a) A change of settlement pattern from semi-sedentary to long-term fully sedentary settlements; b) a transformation of the subsistence strategy from low-productivitiy horticulturalism and herding to relatively intensive dry agriculture and herding; c) the intensification of production in general as an enabler, precondition, and consequence of increased sedentism.

Sherratt sees the sequence from Early Neolithic to Late Copper Age as the development of "climax societies" (fig. 2). He has assumed that, once the farmers settled and adapted in their particular regions,   their success was assured and that, by the   expansionist nature of the agricultural economy , the population inevitably developed, expanded and became more complex in terms of increased ranking, centralized organization, and, sooner or later, state formation - it is just a question of how much time will pass. If an archaeologist accepts these assumptions, then his or her rôle is merely to document the already "known" path of that succession in each area.

By contrast, I tend to assume rather that the success of the earliest farming population of the   Moravo-Danube Basin was *not* necessarily assured and that it is necessary for an archaeologist to show, *at each   stage* of the process, whether the settlements *did* in fact grow in complexity, and if they did, then how and why.

Sherratt - in keeping with the mainstream of social archaeology - sees that the most important factors in the transformational process involved demographic growth and the increasing control of the material world: changes in land-use, settlement pattern, subsistence and agricultural and other productive   technology. He has explained the abandonment of large agglomerated villages at the end of the Copper Age as part of a spread of settlement to areas that were "marginal" to the previously occupied easily cultivated soils; settlement of the the marginal areas took the form of small scattered hamlets. In his model, these changes of settlement pattern were the result of adaptive strategies of technological and land-use innovation in response to modification of the resource base caused by such factors as a reduction in soil fertility, growth of population beyond the carrying capacity of the site territory,   and deforestation.

I am not so far away from the ideas of my colleagues that I do not admit the importance of these factors. And yet I must also agree with Rowlands (1982) and

Shanks and Tilley (1987) that population growth and the releasing of economic potential by innovations in agricultural technology and practices cannot by themselves explain the vast changes in cultural complexity of the scale that is seen in the Neolithic-Copper Age archaeological remains of Southeast Europe. It is my belief (I'll come back to metaphysics and theology later), however, that it is necessary to assign a more dominant rôle in the process of socio-cultural evolution to the transformation of those social human-human relations that encompass the manipulation of materials by humans rather than the transformation of the material conditions themselves. Thus although the material conditions that demanded change may have been present I regard their rôle as secondary in the change between the Early and Late Copper Ages of Southeast Europe. The material conditions, however, are easier to demonstrate in the archaeological record than human-human relations: their effect is happening over a longer time, they are more widespread on a regional basis, and they are easier to demonstrate by appealing to analogous observations of a uniformitarian kind in powerful biological and physical disciplines.

Recently, I have suggested, as an alternative to the model of adaptation by land-use and technological innovations for the early agriculturalists of southeast Europe, that a vital element comprised changes in the system of social and economic organization (Tringham and Krstić, 1990) (fig.3). The kinds of changes that I was suggesting were ones that might be reflected by a macroscale study of the overall settlement pattern and exchange of goods, but could not be demonstrated without a detailed study of the social units within villages, since they involved changes in the form and function of the households in the villages.

I hypothesized that in the Early Neolithic of the North Balkans the household was not stable or significant social and economic unit so that permanent modification of the land in terms of intensive creation of the built environment, i.e. village architecture and accumulation of debris was generally absent, or poorly developed. In the Late Neolithic/Early Copper Age (for example the Vinća culture of Yugoslavia) the households became the primary organizing units of social reproduction: production, distribution and possibly transmission of property operating relatively autonomously in large aggregated villages.

In this model, I have certainly not forgotten to ask the question of how or why such a transformation came about. One possibble scenario is that the process of social transformation seen in the Late Neolithic/Early Copper Age of Southeast Europe was set in motion much earlier, as far back as the early contact between local Mesolithic hunter-gatherers and incoming Early Neolithic agriculturalists,   such as that

hypothesized between the Lepenski Vir culture and the Starcevo culture (Srejovic 1974; Jovanovic 1969;   Voytek and Tringham, 1989). The consequences of such contacts and exchanges in contributing to the growth of social complexity of both hunter-gatherers and agriculturalists has been discussed by both social anthropologists and archaeologists (Price and Brown 1985; Bender 1985). The literature is rich in descriptions of the various forms that such contact may take, including alliances both to ensure marriage partners as well as to maintain a flow of goods between the two groups. On the basis of such ethnographic and historical observations, it is presumed that opportunities for contact between Mesolithic and Early Neolithic populations were desired and even competed for, in particular amongst the loosely-knit Starcevo (Early Neolithic) culture domestic groups.   It is possible, moreover, that such competition between the early agricultural domestic groups for the favored alliance networks with the hunter-gatherers stimulated their independence as production units and lifted any constraints on the intensification of their production (I could enlarge on this scenario gender-wise for Russel Handsman).

The large Late Neolithic/Early Copper Age villages such as those of the Vinca culture that we excavated at Selevac and Opovo in Yugoslavia , represent the culmination of this process in the establishment of such households as as the primary units of socioeconomic co-operation. In explaining the abandonment of such villages at the end of the Early Copper Age, the alternative to Gimbutas' (1980) Indo-European migrational hordes and Sherratt's (1981) technological innovations I have suggested (Tringham and Krstic, 1990) the following changes in the social relations of production: 1) a   breakdown in the complex networks of alliances and exchange hypothesized between households within and between villages; 2) limits of organizational growth in the existing social formation; 3) dissatisfaction with the dominance and possibly inheritance structure in the light of such problems as resource shortages hypothesized by Sherratt. I have suggested that there was a general tendency to fission the large aggregated villages along household lines and to establish small hamlets comprising one or two households on "marginal" lands where the traditional power structure of the large villages could be escaped. The nature and function of the Late Copper Age and Early Bronze Age households, however, was very different from that of the Early Neolithic in that it is hypothesized that the household continued to form the main unit of economic and social co-operation (Tringham and Krstic 1990; Tringham et al. 1985).

The household as the unit of social and economic co-operation in this model (or story or scenario, if you prefer) and the continuity of such a social formation from Neolithic to Bronze Age contrasts to the model of social change suggested recently by

Sherratt (1984:131). He has hypothesized, that, as part of the social adaptation to the ecological problems mentioned above, there were marked changes in   social organization from the Late Neolithic/Early Copper Age to Late Copper Age/Early Bronze Age. These changes are typically at a macroscale and involve political decisions and power brokerage. He suggests that in Late Neolithic settlements such as Selevac the political community coincided the village which aggregates several lineages and that the role and power of lineages was subordinated to cross-cutting institutions based on age grades, ritual groupings etc.; such villages were characterized by an "established territorial basis, regionally-acquired goods, public rituals and symbolic analogies based on female images". The Late Copper Age/Early Bronze Age villages, by contrast, were dispersed settlements in conditions of unconstrained expansion in which geneological units (wide-ranging lineages) were primary units of political and productive and distributive co-operation; in this scheme the individual head (male) of a lineage provided the focus of allegiances over a wider area and his power/political role is expressed in interregional symbols of rank, "exchange for exotic goods over longer distances in information-carrying goods ....., an ethos self-aggrandizing and competititve, symbolic analogies based on image of warrior male." Thus there was "a shift from societies organized on basis of community to those based on wider alliance networks through kinship", expressed in the declining importance of settlements and rising prominence of cemeteries (which map social relations symbolically that are no longer visible in residence patterns).

Sherratt's model and the one that I have presented are certainly not mutually exclusive, but they have considered co-operation and political action at different scales. Both suggest (but for different reasons) that the socio-economic evolution of Southeast Europe after an initial large aggregation of population in villages was very different from that of the Near East, since in the former a more complex, politically centralized form of organization such as an urban settlement did not develop out of the aggregated population. Michael Rowlands (1980, 1984) has formulated a model of social transformation in the later Bronze Age and Early Iron Age Europe, according to which a complex and expansionist network of exchange existed, grew and changed throughout Europe with regional variation, and which was created and maintained by the prestige and bonding needs of marital and other alliances between large households. He is arguing for a flexible basis for the ranking and stratification of society during this period. He suggests, moreover, that such a social formation remained a characteristic of European societies until they were drawn into increasingly wider political formations of the Mediterranean societies in the   1st mill. B.C.

Thus although in European prehistory after the abandonment of Selevac and other large Vinca culture settlements there were periods and areas in which large aggregated villages were established, these were matched by the fissioning and dispersal of aggregations probably for similar reasons to those suggested above. By this process, the social formation which would have enabled the centralisation of social and economic organization and the establishment of urban settlements to develop was never seen in prehistoric Europe.

The ultimate question, of course, is *why* would there have been such resistance to change the social formation of household as primary unit of social reproduction. In the context of this conference, we might ask if this question is not typical of the Establishment paradigm? Let us put this question in a different way and ask   why should we have expected the social formation to have changed in favour of one which allowed for the centralization of economic and political power and the increase in cultural complexity. A traditional explanation is to point towards the differences between Europe and the Near East in environmental potential for the growth of a dense population and complex economic organization. I would speculate that, on the contrary, ecological potential was as strong in Europe as in the Near East. Childe I think was approaching this problem in his view of the different role of bronze metallurgy in social evolution and the metalsmith in society in the two areas (Childe 1958:169; Rowlands 1984:149). But why should the metalsmith have been free agent in Europe and exploited by despots in the Near East? The explanation, I think, lies in the differences in the underlying social formation in the two areas.

I am suggesting that a social formation, in which households acted as the primary units of social reproduction, in which social inequality was founded in the transitory cycle of household development, and in which dominance structure was strongly based in the seniors controlling labour and social reproduction without the need of strongly institutionalized belief system and monopoly of communication with the gods being needed to maintain it, would have created long-term stability among European societies, but one in which neither the centralization of settlement, labor control, distribution or production, nor the emergence of a class system was encouraged.

Beautiful - but how to demonstrate it?

The Household as Unit of Analysis in Archaeology

The recent trend in popularity of "household archaeology" (e.g. Wilk and Rathje 1982; Ashmore and Wilk 1984)) has surprisingly not consciously been part of the development of Marxist oriented studies in archaeology. On the contrary, marxist-

archaeologists have tended in practice to focus on the macro-level of regional organization and patterns, including core-periphery relations in production and distribution (Rowlands 1984; Kristiansen 1984; Kohl 1981; Gilman 1981). The principles of historical materialist analysis, however, suggest that analysis of sociohistorical formations be carried out at a variety of scales, from the smallest to largest. The analysis of households provides information on the minimal unit of social reproduction and thus becomes an essential aspect of a historical materialist analysis in prehistory. Marquardt has pointed out that such analyses require sociohistorical units to be considered "..not as totalities, but as patterned facts at particular spatial and temporal scales" (Marquardt 1985 69). Thus in analyzing the changing role of households in European prehistory, one would be less interested in describing what the household did and how it differed from those of earlier periods, as explaining one its changing functions (production or generational transmission) through time, and the effect of this on other patterns at both the household (minimal scale), village and regional (macroscale) level. It is obviously of crucial importance to be able to envisage and then to demonstrate this changing role through time, but "time" in this case may be a series of single event, a generation, a human life-time (history) or long-term trends and transformations as identified in archaeological cultures (evolution), so that the opposition of synchronic to diachronic analysis which is typical of systems theory tends to become irrelevant (Rowlands 1986).

The recent trend to study households has to a certain extent aimed at filling in the most detailed level of settlement pattern analysis and obtaining information on population patterns, specialized production, class structure. Others have stressed the importance of households as "fundamental elements of human society" (Ashmore and Wilk 1984:1). Moreover, it has been suggested that since households "are the level at which social group articulate directly with economic and ecological processes" that their study offers a chance to archaeologists to examine social adaptation (or what others of us would call "some of the social relations of production") with direct reference to the empirical details of the archaeological record with the methodology of scientific logical postivism, in other words to "bridge the existing 'mid-level theory gap' in archaeology" (Wilk and Rathje 1982 617-8).

My own feeling about the study of households (which is still in its infancy in European archaeology) is that it satisfies all of these purported advantages, and that in particular it is the vehicle with which one may study the social relations of production in prehistory. By using the household as a unit of analysis one may carry out a historical materialist analysis of prehistory in keeping with the methodology described in the

various manifestos on the subject, rather than just promising this in theory (see Shanks and Tilley's [1987: 48] claims that Marxist analyses of social change are traditional functionalist studies in disguise).

In the context of this conference, it must be obvious by now after all the time that I have spent discussing it, that the household is the vehicle with which we may possibly make the invisible women of prehistory visible, since it is at this level alone–the minimal unit of social reproduction–that their presence can be guaranteed. Where one goes from there I am not sure. Alison Wylie (this conference) and others have stressed that the use of actualistic studies will help. This will be a fun topic of discussion! The same argument has been made in favor of actualistic studies to further the study of households in archaeology. A number of such actualistic studies have been carried out, notably in the field of ethnoarchaeology, and there is no doubt that each add its own invaluable information (Watson 1979, Kramer 1982a, 1982b; Horne 1982; Hayden and Cannon 1983; Dodd 1984; Wilk 1983). How we evaluate and use their information, however, should still be the topic of a lively debate. Intuitively, I can see that one may be able to make certain links between the archaeological record and gender expression, for example architectural change > change in unit of co-residence and or economic co-operation > change in household size and/or function > change in women's numbers and activities and status/roles. These links between increasingly abstract levels of inference take up the rest of this paper.

And there is the great contradiction for those of us who wish to challenge the established paradigm of social archaeology. We want to add an "ethnographic" and "historic" dimension to explanations of social change and variation by investigating human-human relations in the production process on a microscale in time and space, contrasting to and complementing the macroscopic regional scale of current social archaeological research as well as most Marxist-oriented research (Shanks and Tilley 1987). But any study at the microscopic scale spatially (the village or household) or chronologically (the generation or individual lifetime), takes surprisingly much more effort on the part of the researcher than studies encompassing much larger slices of time and space. Moreover, the study of human-human relations, as is well known, is difficult in that it involves attack of the problem through many different materials and directions, and the whole effort is fraught with danger and uncertainties (within the context of the "scientific method" in contrast to the study of the material world itself. I was impressed by the following quote from the University of Arizona team at Grasshopper Pueblo:

"For those devoted to the "Now Archaeology" of instant explanation, we call attention to the fact that at Grasshopper we have been following the spoor of the Mogollon household for fourteen years. Perhaps the length of this research results from the Mogollon household being an uncommonly elusive form; perhaps we have been dull witted in our ability to manipulate theory. Or, perhaps, the formulation of accurate reconstructions of past behavior is vastly more complicated and takes longer than one might be led to believe, especially when one's data base is large".
(Reid and Whittelsey 1982:689)

Theories to Link Households and the Archaeological Record

Traditionally - if the methodology of the New Archaeology has by now become a tradition - the construction of the bridge between general abstract theories of behavior and empirical archaeological data observation would be carried out through the medium of a series of empirical hypotheses arranged in the hierarchical levels of middle range research. The abstract theories of behavioral change which can most successfully be validated to the satisfaction of one's Establishment colleagues by middle range research are those which deal with the relationship of human societies to the material world, such as, for example, the human manipulation of the material world - the means of production. I am enough of a materialist to believe that a middle range research strategy can do a lot to provide a more sophisticated and elaborate data base from which to use one's imagination about, for example, the dialectical process of the transformation of the social relations of production. So too is Marquardt, who has also suggested such a compromise or synthesis of the "Insights of evolutionary-ecological rationalism.....with those of historical materialism." in what he calls Synthetic Processual Anthropology (Marquardt 1985 68-71). I can imagine, however, that the less important one feels is the relationship between human social action and the properties of the material world, the less one would find such a research strategy attractive.   Another great topic for discussion!

I will confess right away, however, that MRR of architecture and other products in the archaeological record forms much of the background to my more free-form thinking prehistoric social transformation.

The study of production in its social context through the detailed study of the built environment (aka architecture) is a key to understanding the social relations of production (fig.4), households, and women in production. My primary research has focused on the transformation during the Neolithic-Copper Age period itself (fig. 5). The retrieval of data that has been received at the two sites in Yugoslavia: Selevac and more recently Opovo has been designed specifically to investigate the social relations of

production through a strategy of middle range research. In that the built environment provides much of the context and focus of the social relations of production (at least those which are testable archaeologically), we can expect that our hypothesis on changes in the nature and function of the households from Early Neolithic to Late Neolithic would be associated with changes in the architecture of the   structures.

As has been pointed out by the group studying the ancient Mesoamerican households, who have been highly active in developing household archaeology, it is more important to understand what a household does in a society rather than what its social form is (who lives there and how they are related - a pretty unrealistic dream for archaeologists anyway) (Ashmore and Wilk 1984; Wilk and Rathje 1982; Wilk and Netting 1984). Thus, archaeologically we have to investigate elemental units of co-operative production, consumption, generational transmission, co-residence, reproduction. The raw data of such co-operation must come from the material record of the households and their activities: dwellings (the built environment in general), debris of activities, and possessions (Wilk and Rathje 1982:618). Spatial patterning of this material record is clearly essential, but there is a host of other ways to squeeze the data lemon, as I shall describe below for dwellings.

The identification of units of cooperation is made more challenging archaeologically by the likelihood that co-operative action is being carried out at other levels: lineages, or villages (Wilk and Rathje 1982:621).

At the minimal level of co-operation it is useful at this point to distinguish between the Co-residential Domestic Group and the Household (Laslett 1972; Hammel and Laslett 1974). A Co-residential Group

"..consists and consisted of those who share the same physical space for
the purpose of eating,sleeping, and taking rest and leisure, growing up,
child rearing and procreating" (Hammel and Laslett 1974:76)

 A household, on the other hand, comprises those who share in activities which may include co-residence and reproduction, but also include production, consumption, generational transmission of land and possessions, and/or distribution of resources.

A housefull is a Co-residential Domestic Group which does not share in any of the activities normally expected of a household (Laslett 1972).

As Ashmore and Wilk (1984) have pointed out, it is much easier for the archaeologist to define a Co-Residential Group/Housefull than a Household, since the former needs only the evidence of a structure/premises with evidence of residence

(dwelling). They agree with Reid and Whittelsey (1982 - quoted above) that a household "is an analytical unit which can be defined empirically in archaeological samples only after a protracted study" since the premises of a household cannot necessarily be equated with a dwelling (if it is, then the latter is termed a "house"), but may be spread through several dwellings in a compound, or may be reside with other households in a single dwelling, as in an apartment complex. This is the same message given to us by numerous ethnoarchaeological studies, especially those carried out in Mesoamerica, Africa and the Middle East (Horne 1982; Kramer 1982, 1983; Watson 1979; Hayden and Cannon 1982).

Ethnoarchaeological study and ethnographic observations have been used for more than cautionary tales, however. There is a body of cross-cultural observations from ethnographic and historical sources, some of which have been turned into generalizations to be used as links between the archaeological data and the activities of households. To what extent such inferences are valid will, as I mentioned above, be a topic for lively debate. At present we can use some of them to help us formulate expections in terms of changes in architectural remains which reflect changes in the role and action of the household in the Southeast European Neolithic.

Households and Production: I assume that I don't have to define production to a group like this. Wilk and Rathje emphasize the scheduling of productive labor as an important variable affecting and being affected by the size and organizational structure of households (Wilk and Rathje 1982:622). In the research carried out at Opovo and Selevac the intensification of production was regarded as essentially a *social* phenomenon involving changes in social organization of work and distribution and consumption of products. Almost all of the strategies of intensification that we have hypothesised in the Late Neolithic in agriculture, herding, as well as the production of food and non-food goods would have increased the complexity of simultaneous scheduling of labor (Tringham and Krstic, 1990; Kaiser and Voytek 1983). Such a change in labor scheduling would be expected to produce changes in the size of the household towards larger households and in its dominance structure by encouraging the importance of the role and status of household head as coordinator of the schedule of labor force and tasks (Wilk and Rathje 1982:623-4). The archaeological expression of the emergence of such a dominance structure will be discussed again below.

Households and Distribution: In considering the distributive role of households, that is, the aspect of production in which resources are moved from producers to consumers and then consumed Wilk and Rathje suggest that larger households are likely to arise in situations where pooling of resources between members of a household

is a regular and necessary practice (Wilk and Rathje 1982: 624-5). This is especially true of situations like the one that we have hypothesized in the Late Neolithic of Yugoslavia with a complex co-operative labor effort and simultaneous scheduling of tasks among an increased labor force. We have hypothesized moreover that the role of the household in this period was also to distribute resources with other settlements by exchange with households in other settlements on a regional basis resulting in inequalities of access to resources. Such changes in the social mechanisms of the distribution of resources, like those in general in production can be relatively directly monitored in the archaeological record. We would expect, therefore, that the cooperation in production and distribution at a household level as hypothesized in the Late Neolithic of Southeast Europe would be reflected not only larger household units than before, but also more permanent establishments (Wilk and Rathje 1982:626).

Distribution between generations by inheritance or what is often referred to as "transmission" has frequently been thought to be the most important factor in determining the size and nature of a household by social anthropologists and historians (Goody 1969, 1972; Laslett 1970). It is clearly of crucial importance in more modern agricultural societies where ownership and inheritance of land are a dominant social concern. It is questionable (and has been since Engels wrote his treatise on the topic) at what point, for example in European prehistory, the ownership of land became of greater concern than the ownership of labor. The importance of land ownership especially by a restricted group such as a household, has tended to be equated with land shortage. It is possible that this is an overly mechanistic correlation. Continuity of residence location of households as seen for example in the "tell" settlements of the Southeast Europe and the Near East from the Neolithic period are likely to express land ownership of a limited kind but need not reflect *shortage* of residential land. Transmission of property is an aspect of household action that is harder to seek in archaeological expression. We are investigating it architecturally for example in a detailed investigation of what happens to dwellings at the end of their use-lives and how and where they are replaced. We hypothesize that a change to special treatment of the dwelling at the end of its use-life and specific placing of the new house may reflect a change in the role of the household in transmission of property.

The suggestion that a shortage of land and other resources (potential property) is likely to lead to the household becoming the primary vehicle in the transmission of property (Wilk and Rathe 1982:627-8) might be relevant to the process modelled by both myself and Sherratt for Late Neolithic and especially Copper Age Southeast Europe (Tringham and Krstic, 1990; Sherratt 1981, 1984). In this case the intensification

of agricultural production, herding, and settlement has been hypothesized to lead to a filling in the easily cultivable land with human activity, at least relative to the low population figures of the earlier Neolithic, and would have led to more fixed land locales for both residence and cultivated areas. In some places such fixed locations led to the formation of tell settlements (Todorova 1978), and in other areas to more less enclosed but nevertheless delimited areas of residence, as we have described for Selevac (Tringham and Krstic,1990). I have hypothesized also that such a change could have been reflected in the so-called "Burned House Horizon" (see below) (Tringham 1984).

Land shortage has also been thought to be correlated with changes in the method of dividing up the property for inheritance (Goody 1969, 1972). It seems unlikely, however, that the restrictions of resources or land were so great during the period under discussion that the kinds of changes Goody refers to would have taken place. Nevertheless, the implications of partible versus impartible modes of discussion should be considerable for later European prehistory when continental European society was brought into the Mediterranean World System (Frankenstein and Rowlands 1978; Rowlands 1984).

There is no doubt that in all of the kinds of changes in the household activities and roles that I have described above, changes in the actions and roles of women in production and distribution also occurred, as well as changes in gender divisions in the dominance structure of the household itself and between households. I am sure such changes were happening, but I am a loss to know how they might be expressed archaeologically. It should not be overlooked also that if the rearing of children is carried out at the level of the household, that a large household enables pooling of effort in child-rearing and women to enter the labor force alongside men without having to rear their children directly full-time. This idea certainly excited the early Soviet archaeologists and V. Gordon Childe when interpreting the large Late Neolithic dwellings of the Ukraine as houses for large stable households of the kind seen in 19th century Russia (Childe 1958; Kričevski 1940). As Wilk and Rathje (1982:630) among others have pointed out, however, it is rare for large households to be constituted solely to perform reproductive roles.

According to our models of socio-economic transformation in the Late Neolithic of Southeast Europe, what is being suggested inductively on the basis of what we have found architecturally and on the basis of what we would expect given the evidence of intensification of production and population growth at this time is the emergence of households which contrast with those preceding them in the Early Neolithic by their role as the main unit of co-operative action in production and distribution, as well as

reproduction, by their generational stability, by their autonomy and by their size. They should not be thought of as "large" in the sense of the Mediaeval feudal and merchant households, or the "zadrugas" and other extended households of later peasant society in eastern Europe (Hammel 1980).

We are not yet ready to make the commitment to the correlation between household and dwelling i.e. house. We have only been on the spoor of the Yugoslav household for 8 years compared to Grasshopper's 15. Intuitively, however, it seems likely that the rectangular houses of Southeast Europe probably do represent a single household. The idea of the compound with its rooms, outbuildings and patio was a feature which, like mudbrick building, was never a feature of prehistoric settlement in the Danube valley, although it occurred for a short time in the Early Neolithic of the southeastern fringe of Europe. The contrast between the detached rectangular houses of Europe with their "megaron" divisions into rooms and the Near Eastern attached agglomerations of rooms and courtyards is remarkable, and one which has stimulated much discussion but little of it helpful to our topic here. It is one which I think could be usefully developed for out theme.

The Late Neolithic and Copper Age households of Southeast Europe may have been relatively small in modern peasant terms. The organization of their production and distribution, however, and the pattern of domination between and within them in a settlement and between different settlements was complex enough to comprise a crucial variable in stimulating and enabling the intensification of production, the increase of the labour supply (population), and the increase in cultural complexity. The inequalities and much of the variability between the households, are the result of differences in the cycle of demographic and economic evolution through which households pass, in which they expand, accumulate wealth, power, property and members, and then contract (Goody 1958). Thus at any one time the households of a settlement will demonstrate differences in membership, composition of labor force, activities, property and dominance structure; they will demonstrate differences in access to the products and processes of production and differences in relations with groups outside the village. But the differential pattern of social and economic relations seen in a settlement at any one time is not long-lasting; it changes from one generation to another.

Such transitory inequality in the social relations of production is manifested by differential access not only to the products of exchange with other groups, but also to the raw materials, techniques and equipment for making use of   resources, especially those requiring specialised knowledge, such as copper and ceramics. Exotic or

"prestige" items–the traditional markers of social inequality–may only rarely turn up in such a context, especially in settlements. Co-operation in production is demonstrated by a   co-resident domestic group being associated with evidence for the full sequence of tasks for the production of, for example, tools, ceramics, and textiles, in association with evidence of domestic consumption and accumulation of products. Thus, we expect a pattern of redundancy in the spatial distribution of tasks between such units. In each case, however, the pattern of economic activity should have a distinctive appearance, demonstrating differential access to the materials, means, process and products of production.

Investigation of the spatial patterning of the material record of production, consumption and distribution has formed a major aspect of the archaeological and ethnoarchaeological investigations of household co-operation (Reid and Whittelsey 1982; Hill 1970; Kramer 1983; Watson 1979;   Dodd 1984). The other primary requirement of the examination of the social context of production and economic life at an archaeological site is that a number of architectural units be exposed by excavation in order to gain a *comparative* picture of co-resident domestic groups across the site at any one time. This information is enormously enhanced, for reasons which must be obvious by now, by the provision of such a picture *through time* . The lack of details of the latter aspect has been one of the limitations of some of the Southwest US studies (Reid and Whittelsey 1982:690).

Architectural Investigation of Household Co-operation

My research into the architectural evidence of the context of the social relations of production has been carried out especially at the site of Opovo-Ugar Bajbuk, in Northeast Yugoslavia, north of the Danube (Tringham et al. 1985),   after preliminary site at the sites of Gomolava (Brukner 1980) and Vinca (Srejovic 1984). My collaborators in this endeavor are Bogdan Brukner, and specifically with the architectural study, Mirjana Stevanović. The research project at the site of Selevac, in the main agricultural area south of the Danube was especially valuable for demonstrating the gradual intensification of production and increasing sedentism during the Late Neolithic/Early Copper Age, but its lack of exposure by excavation led to limited use in architectural changes, let alone units of socioeconomic co-operation (fig. 6) (Tringham and Krstić 1990).

At Opovo-Ugar Bajbuk in 1983-87, two main periods of building activity have been recognized in the area excavated. These comprise an Upper Building Horizon, representing the final period of occupation in the excavated area and a Lower Building

Horizon. Two other less well preserved building horizons have also been identified, one earlier and one later than the Lower Building Horizon (fig. 7-8). The whole settlement demonstrates changes during a roughly 200 year period of the Late Neolithic/Early Copper Age Vinca culture, whereas occupation of Selevac lasted 500 years (fig. 5).

Similarly to McGuire and Schiffer (1983), we have treated architecture at Opovo as a process of production, subject to the same kinds of analysis as any other class of material which has been manipulated by human labor (fig. 9). The terminology of architectural behaviour may be less familiar, but the framework of use-life studies remains the same. With the results of such empirical research, the architectural data becomes much more than just a static contained space in which activities took place, but becomes the object of human action in the dynamic context of their lives. Examples of the empirical hypotheses tested in the Opovo project are:

1) Construction of buildings: which building materials used, for which buildings or parts of buildings (estimated labor and distance involved in material procurement); methods of construction (estimated relative labor expenditure and necessary skill).

The Early Neolithic dwellings are quite elusive. Pits possibly dug for building materials have been found, but surface structures are hard to find. This is in contrast to the contemporary late hunter-gatherer houses 200 km away in the Danube Gorges at Lepenski Vir. At Selevac in the lowest levels were found remains of structures with a light wooden superstructure that was probably occupied for short periods, abandoned to collapse and rot, after which it was rebuilt using the same floor area, thus implying repeated but not continuous occupation over several generations.

The Late Neolithic Vinča culture, on the other hand, is characterized by burned remains of dwellings built on a framework of upright wooden posts, planks, logs or wattling covered by a thick layer of clay daub mixed with chaff. Their floors comprise a thick layer of clay which is frequently spread over a substructure of horizontal logs or planks. On the archaeological sites the whole structure appears as a bright orange or red mass of burned collapsed clay rubble with impressions of the wooden framework (fig.10). The houses are rectangular, ca. 6 metres wide, and varying in length from 6 to 20 metres. Postholes visible beneath the floors indicate a gabled roof with 1-3 rows of internal large posts supporting the roof in addition to the external posts.

This research involves a systematic mapping of timber impressions in the burned clay daub in order to reconstruct the original dwelling from the pattern of collapse; samples of the clay daub from different parts of the houses, including floor

and wall surfaces as well as interior construction are also taken in order to see differential treatment of different parts of the house (Stevanović 1984, 1985). Kramer has, for example, indicated that this is important for identifying residential and storage areas (Kramer 1982, 1983). Liming and painting can be for decorative and preservative purposes, but either way is an important increase in effort. Micromorphological analysis is made of the soil matrix of suspected earlier and contemporary buildings which were either not burned, or were not built of daub, or both. Needless to say such a study not only involves careful recording of the data, but a new scale of detail in the excavation of the structures.

The houses at Opovo, on the basis of the preliminary study carried out so far, have all of the same features of construction as occur in other Vinca cultures settlements south of the Danube from the point of view of building materials surface treatment. In contrast to the Vinca culture houses south of the Danube, however, those of the Upper Building Horizon of Opovo did not have prepared clay floors over most of their covered area. Our interpretation of this was that the latter houses were less well prepared and less long-lived. They *did*, however, show evidence of digging a bedding trench around their perimeter to anchor the structure or to provide better rain drainage. By contrast, the dwellings of the Lower Building Horizon, do have a prepared clay floor of the kind more frequently found in Vinca culture houses. One at least of these dwellings (#5). The central high vitrified area coincided with evidence of two clay floors each separated from the other by burned ceramics, collapsed wall rubble, ash and dust. We have therefore formulated the hypothesis that Dwelling 5 had two storeys, an upper storey, probably more limited in area than the lower storey, and a lower storey; This would be the first time that a two-storeyed house has been demonstrated in Yugoslavia by two layers of floor rubble, each with their own sets of pots. Such houses have been suspected in the Late Neolithic/Copper Age of Southeast Europe, for example at Vinča and Gomolava. Similar two-storeyed houses to that excavated at Opovo are known, for example, in the contemporary cultures north of Opovo in SE Hungary (fig.11).

The dwellings from Opovo have the same orientation as most other Vinca culture settlements (long side NE-SW), possibly for reasons of wind (Soudsky 1969; Marshall 1981). Their width is also the same as Vinča culture dwellings (5.5-6 m) possibly limited by the standard width of cross beams. Rather than being rectangular, however, the houses of both levels were almost square.

2) Duration of buildings: one of the architectural changes that we expected with the emergence of stable long-lasting households as the main units of co-operative production and distribution is that provision would be made for long-term residence of

the domestic groups (households) during their cycle of growth and decline and that the anticipated and actual use-life of houses would increase. In archaeological terms we have remarked these changes under the guise of increasing degree of sedentism and permanence of settlement in the Late Neolithic/Early Copper Age settlements of Southeast Europe, including Selevac (Tringham and Krstic 1990; Kaiser and Voytek 1983; Sherratt 1982; Chapman 1981).

Evidence of increased planned and actual use-life of dwellings is provided by information on the lasting properties of building materials in given soil and weather conditions, estimations as to the relative investment of labor and commitment made by a group in their modification of the landscape and renewable and non-renewable resources during house construction (postholes, pits, trenches, quarrying, forest destruction etc.), evidence of efforts made to prolong the use-life of dwellings by maintenance (daubing   with   clay, application of lime slip, replacing rotten parts, repairs and renewals of internal features etc.), and evidence for the use-life of artifacts associated with the occupation of the house.

The addition or abandonment of parts of dwellings or   whole structures may reflect the development of the household cycle of growth and decline; the use of longer-lasting materials in   construction. Such modification is clearly seen, for example, in a contemporary settlement north of Opovo in Hungary (at Hodmezovasarhely-Gorzsa – Horvath 1987:figs. 3, 6) where two rectangular houses were joined to make one large house. It has also been suggested at least for the Central European Linear Pottery houses that houses were initially small almost square houses, and that rooms were added on at each end as the household grew so that at the end of its use-life a house might be rectangular with a length of up to 40 metres (Soudsky 1969; Soudsky and Pavlu 1972). Although it is possible that the same holds true for the rectangular houses of Neolithic Europe, it seems to me that this hard to say from secondary sources of published house-plans, and that excavation has not been carried out with the aim of distinguishing between original structure and its extension. However, there is plenty of evidence of renewal of floors and ovens and other internal features.

At Opovo, where we were looking for this kind of information, the houses are almost square, and show no evidence of such modification. This and the evidence, especially in the Upper Building Horizon, of less solid flooring of the dwellings, lead us to suggest that the households represented at Opovo are shorter-lived and less established than those in the large agricultural valleys to the north and south, those of the Upper Building Horizon more so than those of the Lower Building Horizon. The addition of a second storey, as is seen in Dwelling 5 of the Lower Building Horizon at

Opovo, has not usually been hypothesized as representing additional living space for a growing household.

3) Utilization of the buildings: this is obviously an essential aspect in establishing whether or not the dwelling houses a co-operative productive and distributive unit (household). At the same time evidence on the utilization of buildings amounts to monitoring change in the activities and role of the household or co-residential domestic group. It is based on analysis of the occupation debris that is deposited in *and around* a dwelling (or house) during its use-life; establishing the function of structures that make up the household's premises is the meat of most household archaeology (Reid and Whittelsey 1982). Such a study has to include modification of the form and size of the premises as well as the possibility of the changing function of a building or its parts (including re-using an abandoned house as a rubbish dump). As well as a detailed study of the associated artifacts and internal features   of   a   building, this involves microstratigraphic observations to establish contemporaneity or sequence of occupation of various buildings.

As mentioned above, the prehistoric structures of Europe seem to contrast with those of the much of the rest of the world in being essentially residential premises without specialized   functions. The Late Neolithic/Early Copper Age dwellings of Southeast Europe in contrast to earlier periods, however, are characterized by internal subdivisions into rooms.

In the literature on the house-forms of Neolithic Europe, there is still a lively debate as to how the internal subdivisions of the dwellings into rooms should be interpreted, those with least evidence often being the most vociferous (Soudsky 1969; Soudsky and Pavlu 1972; Modderman 1970; Coudart 1987; Todorova 1978; Stalio 1968; Brukner 1981). The crux of the problem is whether the rooms each house one social sub-division of the household, or whether each household is made up of a small nuclear unit with its complement of functionally specific rooms (kitchen, storeroom, cow-room etc.). It has been hypothesized that during the Late Neolithic/Early Copper Age, many of the activities that had previously been carried out extra-murally, were brought indoors, evidenced by the occurrence in this period of low-temperature ovens for food-preparation in the dwellings and facilities for storage of food which earlier had been outside in clay-lined pits.

The dwellings at Opovo were unusual having no internal divisions into rooms. There was a low partition wall, however, in Dwelling 2 separating the oven and food-preparation area from the rest of the dwelling. In addition Dwelling 5 in the Lower Building Horizon (which might be regarded as another form of sub-dividing the space).

Upper storeys have traditionally been interpreted as the location of internal food storage.

Such changes in the location of domestic and productive activities would clearly reflect some very great changes in household organization and of women in production.

The demographic make-up of the residents of a dwelling has occupied many pages of speculation in the archaeological literature (Coudart 1987; Startin 1978; Todorova 1978). Traditionally, the length of the dwellings has been an important method of calculating demographic make up of the co-residential group (family/household, take your choice) in Neolithic Europe (Soudsky and Pavlu 1972; Coudart 1987; Milisauskas 1978; Childe 1958) (see below). In the latter studies, it was believed that the internal divisions or rooms in the building each contained one nuclear family, or generation, making up a larger household, as in an Iroquois longhouse. In modern studies of the internal division of space and its meanings, such conclusions would probably seem somewhat naieve (Bourdieu 1977; Douglas 1972). Hunter-Anderson(1977) has correlated internally partitioned rectangular space with complexity of dominance structure and organization of activities and meanings in a building. Following this conclusion, we would suggest that the fact that the Opovo buildings are very short, and have little evidence of internal divisions indicates that they may have contained a household but one whose activities and/or size and complexity was very different from those in the large agricultural regions of Southeast Europe at this time.

4)Abandonment and destruction of the buildings: Burning in the form of charcoal, burned earth, burned artifacts and burned structural clay occurs on all the settlements in southeast Europe from the Early Neolithic onwards.   During the Late Neolithic/Early Copper Age, however, the settlements of southeast Europe are characterized by burned remains of houses which surpass those preceding and succeeding this period and those found anywhere else in Europe in terms of their volume and their universality on the settlements.   On the archaeological sites the whole structure appears as a bright orange or red mass of burned collapsed rubble over a burned floor. So spectacular is the universality of the buildings that they have even been referred to as a "Burned House Horizon".

Explanation of the "Burned House Horizon" has mostly been based on intuitive common-sense reasoning: accidental fires resulting from the increased use of fire within houses or the denser crowding of houses within the villages (Such burned houses have been excavated in large numbers throughout Southeast Europe, often in a relatively organized plan, but usually located very closely together (0.70 - 1.0 m distance) (fig. 12); deliberately set fires, either individually or as a whole village, due

to inter-settlement competition, unrest, raiding, and even invasion; deliberate firing of the walls or floors to strengthen their foundations.

Because of the coincidence of the apparently universal occurrence of house-fires with socio-economic changes I have been discussing above, the systematic investigation of their causes has taken up much of the research effort in the architectural sphere at Opovo, although it should not be regarded as the only strategy to investigate house abandonment and destruction. This research started with observations on architectural change at the site of Selevac (Tringham and Krstic, 1990), and continued with experimental study of the materials from Gomolava and Vinča (Stevanovic 1984, 1985) and culminating in the fieldwork at the site of Opovo and experimental and analytical study of its materials (Tringham et al. 1985). The examination of the immediate causes of the fires is akin to an arson investigation. The method of research to determine the cause of the fire consists of: i) mapping the distribution of temperature and atmospheric conditions of firing of clay in the different parts of the houses in order to reconstruct the path of the fire and the point of ignition, ii) reconstructing the pattern of the collapse of the structure, and iii) explaining the pattern of objects (their ashes and burned remains) consumed in the fire. Microstratigraphic observations and archaeomagnetic analysis of house remains are used to determine whether all the burned houses were part of the same conflagration, or whether they are in fact separate fires within a number of years or months of each other.

As mentioned above, this is complemented by other microstratigraphic work to determine whether there seem to be houses that did not burn. The research is still very much in process, but we can at least say that in the area of our excavation at Opovo, there were no houses that did not burn, and that at present, the houses seem to have burned in separate fires probably deliberately. Such very preliminary statements are based on the lack of burned materials in the areas between Dwellings 2 and 3, and 4 and 6; their exact contemporaneity within general building horizon assignment has not yet been definitely established. On the basis of experimental and other studies, the temperatures at which the houses burned (>1000º C) are regarded as very high for accidental fires of wattle-and-daub houses and are likely to have been "helped" (Kirk 1969). For example, the central part of Dwelling 5 at Opovo is characterized by a massive area (ca. 3 x 3 m) of vitrified structural clay and ceramics, indicating a fire of high intensity at this point; this represents the rubble of the upper storey, which collapsed along with its melted pots which were fused to the floor in the heat of the combustion, and fell onto the lower floor along with the collapsing side walls burying,

burning, crushing and preserving the ceramics, stone and other contents (including textile and string) of the lower floor.

The question of whether the fires can be proved to be simultaneous village-wide or individual and accidental or deliberate is very important for evaluating our hypothesis (gently suggested at present) that the burning of houses in the Late Neolithic/ Early Copper Age was a deliberate act with the death of the household as a symbolic end of household cycle. We recognize that there are many other reasons why dwellings might be destroyed deliberately, for example to eradicate pests, insects, disease. We also recognize that it is likely that the burned houses of the "Burned House Horizon" should be explained by a multitude of causes. The symbolic end of the household cycle, however, is certainly an "attractive" hypothesis in view of the other suggested changes in the unit of socio-economic co-operation in the Late Neolithic of Southeast Europe.

5)   Replacement of buildings: in any archaeological study of the co-operative production and especially the idea of co-operative generational transmission of land and other property by households, the relationship of the household to a locus or loci through time is essential to establish, as I have discussed above under "inheritance of land". For the archaeologist, establishing the continuity or non-continuity of a locus of residence is a possibility, that of cultivation area is a nightmare. Variability in house replacement, that is the placing of buildings in relation to each other in time as well as space is topic of huge potential in prehistory, but has to my knowledge been studied mostly implicitly and usually disguised under the title of "chronological sequence of building or occupation horizons" or some similar title. At Selevac, I noted that there was a change from a process of abandonment and rotting of old buildings and replacement using the foundations of the previous structure (phase I) to a process of sudden destruction (burning) and rebuilding of a new structure in a completely new location using completely new foundations(phase III) (fig. 6) (Tringham and Krstic 1990). As far as we could tell from the limited excavations at Selevac, such horizontal displacement coincided with the period of greatest intensification of production and permanence of settlement in the Vinca culture and resulted over a 200-300 year period in occupational materials being spread over a 53 hectare area of the site (fig.13).

In connection with these observations at Selevac, I looked superficially at comparative data on house replacement (Tringham and Krstic 1990). I noted that, although "tell" settlements (mounds of occupation debris) pile up in Southeast Europe, the nature of house replacement in the Southeast European tells is not the same as that in Near Eastern tells. Complete vertical superimposition characterizes the latter (Rosen 1986), whereas all Southeast European tells have a certain amount of horizontal

displacement of sequential buildings; that is, new buildings do not use the foundations or walls of old buildings in their construction. Their horizontal displacement is, however, more restricted than that of the dispersed settlements. I don't know quite what to make of all of this data yet, except that it point to their being greater similarity between tells like Karanovo and dispersed settlements like Selevac in terms of relationship of household and residence locus than between Near Eastern and Southeast European Late Neolithic/Early Copper Age tells.

Opovo is a small 12 hectare settlement in which the residence loci are limited by surrounding water and marshland, like the loci at the "tells" such as Vinca and Gomolava. The five seasons of excavation have provided important information on the microstratigraphy of the replacement of houses during the lifetime of the settlement. It is now surmised that in the 16x20 m. excavated block at Opovo we probably have represented the remains of four periods of building activity, in which two horizons (1) and (3) are well preserved, and two are very poorly preserved:

1) The latest of these is the Upper Building Horizon represented by the two burned structures: Dwellings 2 and 3. Both structures of the Upper Building Horizon overlapped horizontally with Dwelling #5 of the Lower Building Horizon, and moreover their bedding trenches cut into the latter.

2) Below this is a layer of weathered structural remains (Features 15 and 22) with better preserved rubble dumped in pits (features 20 and 26).Some well preserved ovens from this level may have provided a foundation layerfor the Dwellings 2 and 3.

3) Below this are the structures Dwellings 4 and 5 which we have referred to as the Lower Building Horizon.

4) Around and below these structures are other eroded fragments of structures (Features 37 and 31) which may represent a slightly earlier period of building activity .

It is likely that the different building horizons defined at Opovo do not represent any great elapse of time (?200 years).   The ceramics of the Upper Building Horizon belong typologically to the Vinča C2-D1 phase of the Vinča culture (earlier part of Vinča-Pločnik IIb), whereas those of the Lower Building Horizon belong to Vinča C1-C2 (Vinča-Pločnik IIa), a separation which has been surmised to comprise ca.100 years (3 generations) 3850-3750 b.c. (calibrated ca.4550-4400 B.C.). These absolute dates have not so far been confirmed by the radiocarbon dating of the samples taken at Opovo during 1985-7.

The two well preserved building horizons are not chronologically contiguous. Nevertheless, the builders of the Upper Building Horizon structures were probably well aware of the remains of Lower Building Horizons, and knew their exact locations, either through tradition or direct observation on or near their occupation surface. Moreover, they used these remains to their advantage in the construction of their dwellings, as a way of providing a stable foundation layer, probably without themselves having to go to the effort of preparing a clay floor.

6. Conclusions on Households at Opovo: From the start, the site of Opovo presented some striking contrasts with what we had come to expect of the Late Neolithic Vinča culture settlements along the Danube river and in the fertile agricultural valleys and hills to its south. The site itself comprises a low hill, partially artificial, rising above marshland and water, with limited agricultural land, very different from the usual settlement location.

It is clear that there are differences in the material remains of the Upper and Lower Building Horizons, but neither horizon reflects the socio-economic system of the large settlements of the Danube and Morava Basin Vinča settlements to the south, nor those of the Tisza culture to the north.

The styles of ceramic decoration and forms, however, *are* the same as those of the Danube Vinča settlements. Potters marks and figurines also occur in the same forms but in very different frequencies as the Vinča culture settlements of the Danube. Resources of many kinds–minerals, including copper, rocks, including obsidian– reached Opovo, which has no local stone in its vicinity, from a variety of areas. It would seem at present, however, that stone (especially the distant obsidian) was distributed through co-operation at a village level, and not at a household level, which perhaps is not remarkable in view of the long distance it had to travel. The Lower Building Horizon is distinguished from the Upper Building Horizon by a greater proportion of cattle, both wild and domestic, and more domestic fauna overall. There is nevertheless still an overall predominance of wild fauna in the entire assemblage, especially bones of red deer. Thus although the fauna of the Lower Building Horizon approaches some of the more lowland contemporary Vinča (Vinča C) and Tisza cultures, it still has an unusually high proportion of red deer bones.

Explanation of the contrast between Opovo and other Late Neolithic and Copper Age settlements include 1) that Opovo represents a special purpose, perhaps seasonal, site for red deer procurement and exchange with the lithic resource areas; 2) that it represents adaptation of an expanding agricultural population to the different ecological conditions of the marshy chernozem soils north of the Danube and east of

the Tisza;   3) it represents a permanent bud-off from one of the larger Danube Vinča culture sites of a "junior" or "disenfranchised" household(s) into the agriculturally marginal land north of the Danube.

According to each of these hypotheses, we would expect the household to have a different form and activity, and that in every case they would look different from the well established stable households of the agglomerated villages in the Danube and Morava Valleys. According to hypothesis (1) only a limited number of people would occupy the seasonal settlement, possibly being predominantly one gender, or one age group (transhumance situation), so that one would not expect the kind of co-operation in production, distribution and reproduction as on the larger sites. According to (2) we would expect to see poorly formed household units, probably the loose kind of co-operation as was described for the Early Neolithic situation in the Danube and Morava Valleys. According to (3) we would expect to see fully developed stable household organization, with co-operation in production and distribution, but at the beginning of their developmental cycles and with strong ties of alliance with the "homeland" as well as new exchange patterns with other areas.

Pluralism and Ambiguity in Archaeological Research

If I return to my original theme at the beginning of this paper, I have stated that I expect contradictions within the organizing principles of the social relations of production to be the moving force in producing changes in the means of production, in the relations of humans to the material world. The expectations of changes in the co-operative activities at a   household level, as well as a larger level (lineage, village) should be the enabler if not the cause of the intensification of production (including technological innovations, land-use changes, changes in resource procurement) and the changes in settlement pattern that we can document archaeologically.

But can household archaeology after all provide the mid-level theory link that Wilk and Rathje (1982) hoped? Investigating social change is that much easier if one can assume rational economic decisions for efficiency and increasing extraction of energy of the environment to keep up with any growth of complexity of organization of decision-making, since one can directly link physical, chemical and biological processes with human extractors. But what if one does not "believe" in such an assumption of rationality on the part of humans and such direct links?

The strategy of research that we have used in Southeast Europe has enabled us to make some empirically based statements about changing manipulation of the material world. A significant problem is that there is virtually no comparative data to that

from Selevac and Opovo to enable us to investigate the question of socio-economic change on a regional (let alone interregional) basis. Vital kinds of comparative information are missing - for example on the use-life of the buildings, details of their construction and destruction, quantitative use-life information (especially on techniques of manufacture and consumption) on the artifacts associated with the buildings. Quite apart from this problem, however, there is also the slightly nerve-wracking problem as to whether one could ever demonstrate a household archaeologically to a real skeptic. On top of this comes the suspicion that archaeological data is not sufficiently sensitive to demonstrate the priority of the social relations of production over technological innovations or resource availability and control as factors in the prehistoric trajectory of Southeast Europe, or *vice versa*, depending on one's underlying belief system. Finally, I do not assume that human behavior in any society except the establishment of our own dominant one is organized according the logic of "rational" action!

Whether or not a hypothesis at the level of general causal relationships in human behavior has been proved or not in archaeology often boils down to strength of the persuasive force of the person proposing the hypothesis and its appropriate data or fear and caution on the part of the listeners. The theory that will be accepted is likely to be that of a more dynamic researcher and/or which most easily fits in with the dominant socio-political system. Barbara Price (1982), like Lewis Binford, is convinced that the whole job of persuasion can be done by the logical power of the scientific method, the only "objective" viewpoint. Both have negated the value of any other viewpoint (specifically that of dialectical materialism) as unscientific and therefore valueless. As Alison Wylie has pointed out, this viewpoint, as any other, can be and should be critically analyzed.

In this case, I can only agree with Alison Wylie and especially with the "ambivalents" (or should they be "ambiguents"?), as well as with William Marquardt (1985) that persuasion by demonstrable causal relationships through application of the methodology of rational logical positivism ("the scientific method") (with or without actualistic studies) has a limited power. It will at least help to demonstrate some of your viewpoint to "mainstream" colleagues.

The point at which the the archaeologist is no longer objective observer but also subjective participant in the game for persuading others of a general theory will vary according to the archaeologists' value of the scientific method. Some might feel that a critical analysis of research is necessary at the most empirical level of data collection and counting. I personally think that this point is reached in the upper levels of middle range research (but I can be persuaded....).

The rest of the job of persuasion, however, whether general theory or all research has to be done either by brute force (rhetoric/high-school debate team style) or by a critical analysis to reveal the metaphysic which the archaeologists have used in their reasoning, and to reveal the essential differences between them and the history which they write. Such a critical analysis should prevent the pluralism of available general explanations of historical phenomena growing into a nihilistic morass of archaeological theoretical meanderings.

At the end of this paper, I realize that I have not mentioned women as actors as much as I had hoped. This is not because I was not thinking about them. It is because I am not accustomed to bring them into my discussions and they tend to slip away into invisibility, although I am sure that there was no question of their visibility as actors in the households. "Making visible the invisible" in my title does not refer to finding the material correlates of women in architectural phenomena. It is not a "remedial" (to use Alison Wylie's term) attempt to find women in household production. The title refers rather to producing a visibility of gender in my own mind's eye when I visualize such an elemental social unit as the household. On the basis of the preliminary draft of this paper, I have a feeling that I still have a long way to go!

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