

2. Neolithic Periods

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Probably the most significant point in the hitherto existing research of the Neolithic in Germany came in 1938. In the two volumes of the "Handbuch der Urgeschichte Deutschlands" W. BUTTLER and E. SPROCKHOFF gave for the first time a comprehensive survey of the material and methodological position of research (BUTTLER 1938; SPROCKHOFF 1938). Thereby the intensive preoccupation with the neolithic finds, begun at the end of the nineteenth century, reached its high. Starting from numerous local and regional publications and existing older summaries and further supported by the results of the first large area excavations of neolithic settlement-sites (e.g. Köln-Lindenthal, Goldberg near Nördlingen), the two authors described the source-material, situation and finds, arranged it into larger groups (e.g. Kulturkreise) and examined the chronological and cultural connections. Thereby they were following prevailing opinion and proceeded from an abstract and theoretical basis that was principally aligned with an ethnic interpretation. The find-material was classified according to its formal characteristics in Kulturkreise, cultures and groups whereby on the lowest level pottery was the dominating criterion. This classification was a directly essential factor for reading in the "historical" chapters history in its narrowest sense, namely, political events such as migration, superimposition, absorption and the suppression of "peoples" and "tribes". This onesided view of neolithic historiography was based on the axiom, that "cultures and groups each were produced by an independent nationality" (BUTTLER 1938, 66; SPROCKHOFF 1938, 150). So the cultures with their backgrounded different peoples were the active and essential element in the historical process of the Neolithic. From this assumption this restriction of their history was quite legitimate and understandable.

The volumes of both BUTTLER and SPROCKHOFF embraced above all North-, West-, Middle- and South Germany and, in respect of time, terminate before the endneolithic beaker-cultures. A volume dealing with this period, planned by O. KUNKEL and a further volume by K. LANGENHEIM on the former East Germany, were no longer possible because of the war. In general, it was not possible for this generation to pursue its Neolithic research, research which in the nineteen-thirties within the context of Middle Europe had produced a considerable expansion of knowledge.

Continuation after this great synthesis could only mean a renewed and intensive return to the find-material and at the same time new theoretical considerations. In point of fact neolithic research since then is in the middle of this process and the time is not yet ripe for a similar synthesis. Neither is the regional publication of the find-material sufficient nor have enough modern excavations been made and published, so that one could speak of real and broadly based progress since 1938.

Least treated have been concepts and theories and new questions with regard to neolithic material. An exception is provided by the work of U. FISCHER (1956, 1958). He came to the surprising result drawn from the Middle German Material that the "cultural" groups which are defined mostly by pottery styles and some other artifacts have also their own types of funerary customs. He concludes that these customs indicate important historical groupings and not just temporary fashions. Twenty years ago this

*) I wish to thank J. Jones, Eschweiler, for her help in translating the text into English.

result would have been greeted as very welcome proof of the ethnic view. In the nineteen-fifties is contradicted the then sceptical reserve about ethnic interpretation as an object of neolithic research.

This scepticism survives today. Curiously enough FISCHER's results produced no critical analysis nor were they developed further and they were only discussed in a worth while article by H.-E. MANDERA (1965). This is very astonishing since the ethnic interpretation as a point of research slipped into the background leaving the neolithic "cultures" without content save that of chronology.

A discussion of the results from Middle Germany is really necessary for in the last few years new methodological ideas especially from Anglo-American publications have led to much criticism of the concept of culture (e.g. HARRISS 1971; DANIEL 1971). Besides the traditional research into cultural groups there is an added growing interest in ecological-geographical and sociological-demographical questions. So that "culture" is no longer the important archaeological unit but rather single settlements (CHANG 1967; RENFREW 1972, articles in BINFORD and BINFORD 1968, and UCKO and DIMBLEBY 1969). The old concept of culture is further undermined by the new preoccupation with classification resulting from statistical methods and the use of computers. These aids generally lead to a better definition of concepts and methods.

In this long process of research these last ten years which will be further discussed are only an arbitrary section as are the geographical boundaries imposed by the theme of this article. Similarly only certain selected results and problems indicative of the state of research can be dealt with because of the restricted length.

Two areas of cultural development must be differentiated: that in the South- and West-German Loess Area whose northern extension stretches approximately to the northern Border of the German Mittelgebirge and that of the North German plain. Difficulties arise from the existence of two similarly named chronological systems (Old-, Middle-, Late Neolithic, the last period being subdivided in Southern Germany into "Young- and End Neolithic"). For clarity the North German system will always be referred to as such.

General Works on the Neolithic

Amongst the regional publications, "Die jüngere Steinzeit in Bayern" by R. A. MAIER (1964) is especially worthy of mention, because he is one of the few who tries to break away from the rigid classification of the pottery "cultural groups". He insists upon the more complicated structure of the neolithic material, amongst which pottery plays a large role only because of its abundance and — it can be added — because of the great interest in chronology. Moreover even the classification of pottery is neither clear nor simple. This view, which he himself describes as "synthesized", is sometimes troubled by old taxonomic problems which have already been clarified; on the other hand it opens up new avenues of research, which are in accordance with the above mentioned trend of the last few years.

While MAIER does not systemically publish his find-material, M. GALLAY in "Die Besiedlung der südlichen Oberrheinebene in Neolithikum und Frühbronzezeit (1970)" published relatively few plates but a rich catalogue was appended to the maps. The point of interest lies in the development of settlement. It is important to note that here as well as in other regions there are areas with only lithic material (e.g. axes), outside the areas of neolithic settlements with pottery.

In this context the publication by W. KIMMIG (1966) of a site in southern Württemberg (Kirchberg bei Reusten) should be mentioned. The material can be dated from Middle until End Neolithic and the author gives a balanced survey of the relevant problems and

literature. A further regional publication with a wider basis by R. MAIER (1970) deals with the Neolithic in the region of Göttingen. The importance of this region lies in its position between the cultural centres in Northern, Middle and South Germany whose interrelationships during the Late Neolithic are still not clear on many points. The existing finds indicate that correlations will be possible. Even more restricted is the area dealt with by K. BRANDT (1967) who has published the neolithic settlements from the urban region of Bochum. His results are of more than regional importance and especially noteworthy for the development of the neolithic house.

The most complete description of the present chronological discussion in southern Germany has been published by K. MAUSER-GOLLER (1969). She gives an accurate picture of the concepts and content, which leaves much to be desired (cf. the review in *Germania* 50, 1972, 275 ff.). A very useful survey is to be found in the "Handbuch der Vorgeschichte" by MÜLLER-KARPE (1968), in which he elucidated the general European context. For an understanding of the historical meaning of the Neolithic and especially of its beginnings the two books by SMOLLA (1960, 1967), which often deal with this region, are indispensable.

Lastly, studies dealing with single phenomena of the neolithic must be mentioned because once again they cut across the traditional "cultural" classification. Such is a dissertation by SIELMANN on the relationship between ecology and culture in the early Neolithic in southwest Germany. He has now further developed the economic approach (SIELMANN 1971a, 1971b, 1971c). The economic structure of the whole middle European Neolithic has been analyzed in a Polish book whose short French summary gives little indication of its contents (TABACZYŃSKI 1970). In the prehistoric volume of the "Deutsche Agrargeschichte" a fundamental treatment of the sources for farming and the earliest domestication of plants and animals in the German area is given (JANKUHN 1969).

On the beginnings of metal working in late Neolithic one must mention the second volume of the well-known metal analysis by JUNGHANS, SANGMEISTER, SCHRÖDER (1968), in which the archaeological interpretation is fully discussed.

The concept of battle-axe cultures is normally confined to the End Neolithic period. In the last few years through the work of ZÁPOTOCKÝ (1966) it has been widened to include also the late Danubian axes ("Breitkeile und hohe durchlochete Schuhleistenkeile") of the Middle Neolithic. This view brings out a surprising continuity, especially when one considers the structural comparisons between Young and End Neolithic made by U. FISCHER (1958). In this connection a publication by K. H. BRANDT (1967 b) should be mentioned, which deals fully with the finds from a rich "axe and adze province" (Northwestern Germany).

Another, and seldom recognized, group of finds has been systematically treated by R. A. MAIER (1961). He describes cult-objects and pendants made from animal bones in Europe and underlines new contacts and correlations. The same author discusses possible cult aspects of the neolithic earthworks in southern Bavaria and elsewhere in Central Europe (MAIER 1962).

As for the state of C¹⁴ research, several newer lists of dates and commentaries which touch upon our area are mentioned as well as works dealing with the influence of dendrochronology on C¹⁴ dating, which is now much discussed (BAKKER, VOGEL, WIŚLAŃSKI 1969; NEUSTUPNÝ 1968, 1969; QUITTA 1969; WILLKOMM 1970; NOBEL-SYMPOSIUM 1970).

Excavations covering several Periods

Amongst the excavations covering several neolithic periods are those with stratigraphy which in our area is extremely rare. The material from the site of Lauterach (Kr. Ebingen in the upper Danube) is especially informative (TAUTE 1967). The stratified finds com-

prise the following periods: local End Mesolithic — older Bandkeramik — Aichbühl group — Schussenried group — developed Tumulus Bronze Age.

An excavation at Kärlich, Kr. Koblenz, produced a layer with material of the later Rössen group of Bischheim, above this a layer containing older Michelsberg and above this layers with finds of the periods Hallstatt A—C. Moreover, it gave significant information about settlement and geomorphology (LÜNING, SCHIRMER, JOACHIM 1972).

The site of Hüde on the Dümmer, not fully published, has not produced a clearly defined stratigraphy but there seem to be various concentrations within the cultural layer which are producing material and C¹⁴-dates (DEICHMÜLLER 1965, 1969). At the very bottom lies a complex which contains, amongst others, indisputable examples of late Rössen-Bischheim type pottery. Further above lies a settlement of Trichterbecher culture; in between is possibly a hiatus.

Of the large area-settlement excavations that on the "Aldenhovener Platte" lying west of Köln must be mentioned. It is situated on the edge of a brown coal open-cast mine near Jülich. Here it has been possible to investigate the settlement patterns over a complete small landscape. The evidence of neolithic settlement extends from Bandkeramik to Beaker time. Through previous systematic observations and now through the systematic excavation of all find-spots along a section of valley and on the surrounding land, in total 2,5 km long, it should be possible, when the work is complete, to submit a solid basis for the statistical investigation of settlements (KUPER et al. 1971; 1972).

The research into house types in the Old and Middle Neolithic, by P. J. R. MODDERMAN (1969) in his excavations at Hienheim, Kr. Kehlheim (upper Danube), provides a pleasant departure in this long neglected topic of southern Germany. As well as remains of Bandkeramik and Stichbandkeramik structures, a settlement area and a ditched enclosure of the late neolithic Chamer group were disclosed. In a further south German find-area, in the region of Schwäbisch Hall Bandkeramik and Rössen structures have been found (HUBER 1971).

Old Neolithic

The spread of neolithic culture in the middle European loess area, insofar as can be established, begins with the oldest Bandkeramik. The discussion kindled by V. MILOJEČIĆ in the 1950's over a possible pre-ceramic phase of the Neolithic cannot yet be substantiated by finds. Conversely, objections have been raised against the early deposition of cereal pollen in the Federsee diagrams (SCHÜTRUMPF & SCHWABEDISSEN in ZÜRN 1968). As to the relationships of the late palaeolithic-mesolithic and neolithic flint tools discussed especially by L. ZOTZ no real progress can be recorded. The present state of the total ambiguity has been critically reviewed by H. QUITTA (1964). In contrast the new theses of R. R. NEWELL (1970) referring to a considerable influence of the late Oldesloe group of the Mesolithic upon the flint tools of the Bandkeramik on the Meuse and in the Niederrhein area requires thorough discussion. Altogether large area investigations of find spots of the oldest stages of the Bandkeramik as described by H. QUITTA (1960) are lacking, a problem general in Middle Europe and not only in west and southern Germany.

Of the very necessary regional publication of bandkeramic material, part has already been produced and part can be expected in the near future. In addition to the publications mentioned earlier reference should be made to comprehensive publications on southern Hannover (ANKEL 1961), the lower Main area (MEIER-ARENDE 1966) and that part of Franconia lying in Baden (ECKERLE 1963). Several dissertations, some already concluded, dealing with Westfalia, North Hessen, the Rhineland, the area around the mouth of the Neckar and the middle area of the Neckar bring thorough synthesis into the realms

of possibility. As this synthesis strives to elucidate the fine chronological questions, however, a serious obstacle is maintained by the lack of systematically excavated settlements. The change between five bandkeramic phases at present discernible takes place mainly as a quantitative shift in characteristics which can only be pursued through statistical analysis of closed finds. In this respect the fore-mentioned investigations in the area of Jülich should bring an exemplary investigation into the possibilities and limits of these methods.

Amongst the other excavations particularly of the Old Neolithic that of Rosdorf, Kr. Göttingen, was especially outstanding (MAIER et al. 1965; ZIMMERMANN et al. 1966; SCHLÜTER 1969). Here archaeologists, botanists, zoologists and soil scientists worked together in an exemplary way. The results of soil investigations besides the numerous structural finds of importance have, above all, a broad and more than regional significance. Also in Westfalia in the regions of Bochum and Münster large area excavations of old and middle neolithic settlements have brought fresh evidence for house types and earthworks (NEUJAHRSGRUSS MÜNSTER 1967, 1970, 1971, 1972, 1973; GÜNTHER 1973).

The excavation of the bandkeramic settlement of Müddersheim, Kr. Düren should be mentioned, in whose publication K. SCHIETZEL (1965) has made numerous methodological suggestions concerning the processing and evaluation of finds.

Middle Neolithic

In this section the last ten years have possibly brought the greatest changes, although this is the least researched period of the Neolithic. The reversion of the chronology of the Rössen culture, established by A. STROH 1938, by a series of authors (lastly by MAUSER-GOLLER 1969) is therefore still more an admittedly plausible model than a fait accompli. Accordingly the Hinkelstein group is succeeded by the Großgartach and the Rössen culture and the final phase is formed by the late Rössen horizon of the Bischheim—Schwieberdingen—Straßburg—Wauwil and Aichbühl groups. A transitional phase may be indicated by the Planig-Friedberg group between Großgartach and Rössen.

As with the Bandkeramic thorough regional publications are also necessary for the Middle Neolithic. Unfortunately this work is only just beginning. It is significant that the few existing publications have resulted from investigations of the problems either of the Old or of the Young Neolithic. W. MEIER-ARENDE (1969) treats the Hinkelstein group, which lies in the transition of the Old to the Middle Neolithic. The late Rössen horizon and the early young neolithic groups are dealt with by LÜNING (1969, 1970, 1971). Among the publication of material must be mentioned finds of the Großgartach group and the Stichbandkeramik in the area west of the Bodensee (Hegau) and before all the important grave complex of the Hinkelstein-group in the Stuttgart area in Ditzingen, Kr. Leonberg (SANGMEISTER 1967, 1967 b). By mapping this group SANGMEISTER has finally demolished the traditional view that it is a local phenomenon in the northern upper Rhine area. On the contrary the pottery is now proven to be an independent horizon in the two most important neolithic regions, the Rhein-Main area and the middle Neckar region. It is indicative of the insufficient state of research that no full excavation of a Hinkelstein settlement has taken place.

While several dissertations have been begun on the northern Rössen area, such intensive work has not yet been undertaken in southern Germany. Also especially desirable, as in the case of the Old Neolithic, for the period under discussion would be a publication of the rich finds of Niederbayern. Only from the Münchshöfen group, which lies at the end of the Middle Neolithic, has some new material been published (UENZE 1964, 1965; Süß 1967a). This region is of interest because of the eastern and south-eastern influences transversing it and transforming the cultural development in south Germany. These in-

fluences can be found in this period in the Stichbandkeramik and in the Lengyel culture (Süss 1967; ΖΑΡΟΤΟΚΑ 1970).

Of the middle neolithic excavations that of the Rössen settlement near Inden, Kr. Jülich, must be mentioned; here it was possible for the first time to uncover a nearly complete settlement of this period. Here were found the trapezoidal long houses which are apparently characteristic of middle and west Europe (KUPER & PIEPERS 1966).

In general great efforts are necessary to obtain more information about the Middle Neolithic in south and west Germany, because the important trends are being developed in this period which become clear at the beginning of the Young Neolithic. It is not a question of radical change but one of continuous development.

Young Neolithic

Northwest and North Germany

During the late Middle Neolithic (that is the period of the Rössen culture and the late Rössen horizon) a highly significant development begins with the spread of the Neolithic into the North German plain.

This has been clearly shown by the Bischheim finds from the Dümmer (DEICHMÜLLER 1965, 1969) which underlined the importance of the well-known and somewhat older Rössen finds from Boberg near Hamburg. H. SCHWABEDISSEN (1967) has discussed this situation and has reconsidered the possibilities of the beginnings of the Trichterbecher culture. This is the more valuable because he includes in this his own excavations in Schleswig-Holstein, which have only been published in short summaries. His results differ greatly from the well-known ideas of C. J. BECKER on the classification of the early Trichterbecher culture. There will seem to be much necessary work to clarify this northern Early Neolithic. On the other hand the good preservation of organic material gives the possibility of good ecological results. Former finds and observations hold few possibilities and real progress is only to be expected from further settlement excavations especially those north of the loess area in Westfalia and southern Hannover.

This is a general need in north and northwest Germany for the whole Trichterbecher culture. The old material comes mostly from graves and above all from collective graves. In the last ten years a number of such complexes have been excavated but give little information for chronology and settlement patterns. That new finds yet await us has been shown by the unexpected discovery of a Trichterbecher settlement with a complex system of ditches at Büdelsdorf, Kr. Rendsburg (HINGST 1971).

Amongst other publications the Atlas of megalithic graves in Germany (vol. Schleswig-Holstein) must be mentioned (SPROCKHOFF 1966) and in this context a study of the dolmens in Schleswig-Holstein (ANER 1963). The material from northwest Germany has been thoroughly treated by H. KNÖLL (1959). In addition the publication of a rich megalithic grave by E. SCHLICHT (1968) is important. There is no such publication for Schleswig-Holstein.

Amongst the new excavation results a curious oval house of the Trichterbecherkultur from Wittenwater, Kr. Uelzen (VOSS 1964) and a grave complex from Pevestorf, Kr. Lüchow-Dannenberg, containing material from the Bernburg and Kugelampfhoren culture are important. The latter indicates complex inhumation rites.

West- and Southern Germany

At the beginning of the period under discussion stands the monograph from J. DRIEHAUS on the Altheim group and the Young Neolithic in Middle Europe (DRIEHAUS 1960).

Together with the well-known Eneolithic Symposium (Symposium Prag 1961) it forms the climax of the vital discussion in the nineteen-fifties. The material of our area was not well-known at this time. In the meantime the material of the largest South and West German group, the Michelsberg culture, has been published (LÜNING 1968). Recently a stratigraphy has been found which verifies the chronological phases (KOCH 1971). A regional publication of EICH-FRANKE (1967) should be added. Other small groups have been treated by H. MÜLLER-KARPE (1961), LÜNING (1969) and ITTEN (1970), leaving only the material of the Schussenried group to be dealt with. There are also several gaps in the local complexes, e.g. Urmitz and especially the rich material of the Bodensee area. Recently a cartographic synthesis of the old and middle section of the Young Neolithic has appeared (LÜNING 1971).

The most important new excavation is that of Ehrenstein on which two volumes have already appeared (ZÜRN 1965, 1968). But the earlier publications have shown only too well that up to now no large area-excavation of the Young Neolithic has taken place in south and west Germany. Apart from the relatively little information on the important trend in the building of earthworks so typical of this period almost nothing is known of the houses and settlement patterns in the loess area.

Therefore very little is known about the economy and ecology. The much cited houses of the Goldberg, from lake-side settlements and from marshy land (e.g. Ehrenstein), because of their special topographic situation, are no replacement for large excavations in the main settlement area, that is on loess. Besides this new research should be begun on the lake-side settlements, especially in the Bodensee region, perhaps using Swiss methods including modern diving techniques. It is new field work which will bring a better understanding of the economic and social change which seems to have taken place at the beginning of the Young Neolithic.

The area of Hessen-Westfalia which lies between northern and southern Germany and which becomes more and more culturally autonomous during the young neolithic period has been thoroughly analyzed by W. SCHRICKEL (1966, 1969). It is important that in addition to the well-known graves of this "Galeriegrab" group in the last years the very first settlements have been found, which contain rich materials (KRÜGER & SCHRICKEL 1964; GENSEN 1964).

The process of change between the Young Neolithic and the beaker cultures of the End Neolithic is still unknown. The change in source-material from settlements to graves results in methodological problems; there is the additional fact that the last phases of the Young Neolithic are not well-known. Regarding the state of research in the End Neolithic several basic publications are listed (SANGMEISTER & GERHARDT 1965; SANGMEISTER 1967 c; BEHRENS & SCHLETTE 1969; BUCHVALDECK 1971).

Conclusion

In general the state of neolithic research in our area shows a return to the intensive analysis of primary sources and especially of the material collected since the nineteenth century. This process has attained different standards within the several periods and areas. It should lead to a state of research, where large scale settlement-excavations are undertaken with a firm background of associated problems and material. It appears that above all a broader knowledge of settlement patterns, economy, social, demographical and ecological aspects of the neolithic can bring a deeper understanding to the results which have been gained by the morphological studies in the past.

These are not the only questions but they can be answered by our sources and form a new and valuable approach (cf. JANKUHN 1965).

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Manuscript received July 28, 1972.

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