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Toward a Definition of Context: the North German Megaliths

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Mit 6 Abbildungen

The past fifteen years have seen radical changes in the understanding of European prehistory. While many of the most superficially striking departures from the traditional picture are chronological, the more fundamental transformations will, I believe, prove to have been in the way that we as archaeologists tackle the problem of explanation. There are few clearer cases of the shift in perspective than those offered by the megaliths of western Europe.

Twenty years ago it was conventional to see all the neolithic stone monuments of western Europe as dating from a period after 2500 BC (or 2700 BC), the result of a movement of people, or at least of ideas, from the east Mediterranean. Today the earliest of them may be dated two millennia earlier, and the notion of east Mediterranean origin can be totally refuted (although this is not yet universally accepted).

The consequences for our understanding of the neolithic monuments of any area are profound. And this must inevitably be so for any region so rich in monuments of this time as Germany, and particularly as Niedersachsen.

We possess one advantage in this undertaking which will make the task of reassessment easier. The monuments have long been the object of systematic study. No-one who has the privilege of owning, as do I, the splendid volume 3 (Niedersachsen-Westfalen) of the *Atlas der Megalithgräber Deutschlands* can fail to acknowledge gratitude to the late Ernst SPROCKHOFF and to Dr. Gerhard KÖRNER for the production of this magnificent corpus. Yet an earlier work by SPROCKHOFF was in some ways more significant. I refer to his *Die nordische Megalithkultur,* published in 1938, where the monuments are clearly set in their cultural context. There he followed up the insights of Karl SCHUCHHARDT (1928), with his recognition of a *nordischer Kreis,* and with the aid of distribution maps of dolmens, *Giants graves* (Riesensteingräber) and passage graves, was able to set the discussion in a firm cultural context, with due reference to geographical as well as chronological variation. The culture of the passage grave period was divided up into culture provinces (SPROCKHOFF 1938, map 5), of which the emsländische Kulturprovinz (Weser-Emsgebiet) is particularly relevant to us today. For as I am sure we shall see during the course of this conference, an understanding of the monuments can only emerge

in terms of the living society which created them. So it is entirely appropriate that this conference should focus upon *Die Megalithkultur in Niedersachsen* rather than solely upon the monuments.

With the question of *europäische Verbindungen* I am very much more cautious. But there is no doubt that the time is ripe for the examination of this problem, and certainly none that with the distinguished scholars from nearby lands whom you have invited to join these discussions, there are good prospects that this Symposium will have fruitful results.

I see it as my task to pose a number of questions. It is not for me to give answers relating to the prehistory of Niedersachsen in the presence of so many specialists in this area. Indeed it is nearly twenty years since I last had the opportunity of studying in the Niedersächsische Landesmuseum. It is, however, my central point that while the connections and contacts between the different megalithic groups have often been exaggerated, the resemblances amongst them are of significance. This significance in many cases is not one of historical linkage, but rather the reflection of processes which may have occurred quite independently in different areas, but which proceeded from closely analogous antecedent circumstances to very comparable results.

The questions which I think we might jointly ask are as follows:

(1) Was there a single European megalithic phenomenon? That is to say, can we regard the megaliths of Europe as a single unit, whatever the considerable regional differences, with a common historical origin? If we answer that question in the negative, a second inevitably follows.

(2) How many independent nuclear areas for the inception of stone monuments may be discerned in the neolithic of Europe?

(3) What were the functions of the monuments within the societies in each region, and particularly in Niedersachsen? The circumstance that they were used as a place of disposal for human remains need not lead to the conclusion that this was their sole or their principal purpose or function.

(4) What was the scale of the social unit responsible for the construction and use of each specific monument within the area under study? In particular, was it the product of a small-scale segmentary society, or rather the work of a larger unit, perhaps showing a ranking of individuals in terms of prestige and authority, such as a chiefdom? Megalith building was a social activity, and has to be studied in a social context.

(5) What were the antecedents of monument building in Niedersachsen and neighbouring lands? Is there any evidence for earlier funerary practices? What is the possible relevance of non-farming (*mesolithic*) communities in the area (cf. CLARK 1977)?

(6) What factors can be discerned as causally relevant to the development of monument construction in the area? Demographic pressure may be one, related to limitations in available land, and potential disputes over rights of access to land. It will be necessary to link monument building with developments in the agri-

cultural economy of the area, and it is appropriate to seek data relating to land use and environmental factors — such as pollen remains or land mollusca, as well as indications of ploughing and other indications of agricultural intensification.

Chronological arguments will prove decisive in answering a number of these questions, but I shall not attempt any chronological survey for north Germany now, since Dr. Schwabedissen will be doing it so very much more ably for the Symposium. In the comments which follow I shall instead try to indicate how some of these questions which I have posed are beginning to be answered in other regions of Europe, and I know that colleagues from different areas will be able to amplify and extend these comments on the basis of the interesting and original research currently being carried out. It is my belief that these insights into current research methods in other areas, and hence into the processes at work which favoured the development of neolithic stone monuments in those areas, will prove to be more fruitful than discussions of long-distance connections. Indeed it is possible to set the discussion in a still wider context, and to suggest that the developments of megalithic architecture in other parts of the world, such as the Pacific, may be relevant also. Not, of course, through any direct contacts between the two areas, but for the insights which they may offer into the working of analogous culture processes.

The Megalithic Phenomenon in Europe

In trying to see clearly the nature of the problem which we are considering today, it is relevant first to look closely at the assumptions which have shaped the prevailing views of the subject. Very often the term *common sense* refers simply to the body of assumptions that have remained unquestioned for so long that they at first sight appear beyond question. They do not always prove so.

Let it be clearly stated, therefore, that the first archaeologists, the fathers of our discipline to whom we owe so much, in general assumed, first that the megaliths of Europe represent a unitary phenomenon, and second that they were disseminated by a process of migration of peoples. There is, of course, nothing unreasonable in this, and we today hold a very similar view for the dissemination of farming in Europe. But we see today that what may hold for the initial distribution of the plant and animal domesticates need not necessarily apply to the construction of built stone tombs and other monuments which was not necessarily undertaken at the same time. Thus WORSAAE (1886, 7) wrote:

> *The very appearance of these stone graves is remarkable. In structure they are peculiar and on comparison evidently uniform. They can be traced to North Africa and far into Asia, nay, even to Japan and North America. It is highly probable therefore that the distinct progress of culture in south and west Europe during the Later Stone Age — as indicated by the appearance of pile dwellings and other remains, was due to foreign influences, or more directly to a steadily increasing immigration of peoples.*

On a later page (WORSAAE 1886, 23) he remarks:

> *If the stone graves of the North cannot compare in size and decorations with many of the monuments of western Europe dating from the close of the Stone Age . . . yet numerous*

Northern stone graves also present an imposing magnitude as well as distinct and very noticeable characteristics. In spite of the differences between the monuments and antiquities in the Western and Northern groups the internal agreement between the two groups both in style of structure and contents of the stone graves are still in many details so great that they evidently not only stand on the same level, but the Northern must be regarded as a continuation and progressive development of the Western.

These views were entirely reasonable at the time, and indeed are still followed by some scholars today. But it should be noted that very little supporting argument is offered: the conclusions are asserted rather than following a closely reasoned sequence of ideas. Moreover, later generations of workers have refuted entirely and supposed historical links between the monuments of Europe and those of Japan, India or North America. Yet the arguments which would link the monuments of those areas with those of the different regions of Europe are as strong in themselves as those which would relate those of different areas within Europe.

These arguments achieved a yet more authoritative status at the beginning of this century through the work of Oscar MONTELIUS. In his *Der Orient und Europa* (1899) he examined in detail the dolmens, passage graves, rock-cut graves and round buildings with corbelled vaults, and concluded that each was the result of oriental influence. His very first words set down this conclusion (or assumption):

Zu einer Zeit, wo die Völker Europas so zu sagen noch aller Civilisation bar waren, befand sich der Orient, und besonders das Euphratgebiet und das Nilthal, im Besitz einer blühenden Cultur. Diese Cultur begann schon früh Einfluss auf unserem Weltheil zu üben . . . Die Civilisation, welche allmälig in unserem Weltheil in Erscheinung trat, war lange nur ein schwacher Wiederschein der Cultur des Ostens.

While allowing that cist graves could be local, graves that could be entered from the side, whether dolmens or passage graves, were regarded as the result of Oriental influence. The matter, in the entire book, although illustrated in a most scholarly way with a mass of examples, is never carefully analysed, and often owes more to assertion than to logic. Thus MONTELIUS argues (1899, 31):

Man braucht nicht eben tief in das Studium der Zeiten, die uns hier beschäftigen einzudringen — namentlich nicht in die Zustände hier im Norden während des Steinalters — um einzusehen, daß die ursprüngliche Heimat der Dolmen nicht in Nordeuropa gesucht werden darf, daß sie sich nicht von dort nach dem Südgestade des Mittelmeeres, Palästina und Indien haben ausbreiten können. Die ganze hier vorliegende Abhandlung zeigt, daß dies ungereimt sein würde. Eine so mächtige Bewegung, die auf die Begräbnisart so vieler und auf einem so weit ausgedehnten Gebiet wohnender Völkerschaften einzuwirken vermochte, kann nicht Jahrtausende v. Chr. Geb. von unseren Gegenden ausgegangen sein. Es ist schon merkwürdig genug, daß sie, vom Orient ausgehend, so früh bis zu uns hat vordringen können.

I have quoted these passages at length to stress how deep in our archaeological subconscious was implanted the principle that the dolmens and passage graves came to northern Europe from the south, and a fortiori how automatically it has always been assumed that the dolmens of Europe are all historically related, one with another, and the passage graves likewise. The first conclusion has been accepted by most commentators, including the highly influential Gordon CHILDE, although its

converse was propounded by KOSSINNA (1941, 6—11). The latter has only very recently been called into question.

Already, however, before the application of radiocarbon dating in a consistent way to European prehistory, it was possible to show that the notion of ‚colonists' in Iberia, as argued by BLANCE (1961), SANGMEISTER and others, was open to serious question (RENFREW 1965; 1967). The calibration of radiocarbon dates has now definitely documented that an Aegean origin for the collective burial and chamber tombs of western Europe is untenable (RENFREW 1973). The great majority of scholars would now agree that the megaliths of Europe are a European phenomenon, although SAVORY (1977) has argued that communal burial in built structures should still be regarded as a contribution of the Near East.

It is perhaps not necessary to set out the arguments which militate against the presence of east Mediterranean colonists in Iberia at a time when the earliest megalithic tombs or the earliest passage graves in that region were first constructed, since they have been set out in detail elsewhere (RENFREW 1967). The general arguments against the outside inspiration for the origins of collective burial in Iberia rest both on the absence of any good evidence for east Mediterranean contact, and the paucity of evidence for relevant prototypes in the Near East, although SAVORY is right to draw attention to the early *dolmens* of Palestine.

The key issue remains as to whether, given that the megaliths are a European phenomenon, they are a unitary one. There is no overriding principle which guarantees for us that they are. WORSAAE and MONTELIUS certainly assumed this to be the case, but I have set out some of their principal arguments above to show on how unsure a basis they rest. If their theory of an Oriental origin is refuted, very little is left of the arguments which would seek to show that all the stone monuments of the European neolithic came from a common origin. It is my submission, then, that this must be regarded as an open question, to be decided in the light of the evidence, and by means of general principles which have yet to be argued coherently. A common origin is one of a number of possibilities which lies before us.

It should be noted too that if a solution involving multiple origins is preferred, the very concept of *„megaliths"* as something which can logically be isolated and identified in each region where they occur is no longer an appropriate one. And the idea of a *„Megalithkultur"*, implying the preponderant importance given to this feature by archaeologists when studying a range of different cultures, has no more logic than would a *„Keramikkultur"* or a *„Dolchkultur"*. This point reminds us that the term *„Glockenbecherkultur"* has recently been criticised on similar grounds for laying too much emphasis on a single feature. The implication must be that to define and order cultures on the basis of the occurence of a particular funerary form will often be a rather fruitless exercise in taxonomy. A regional unit of study will often be more fruitful.

The Recognition of Nuclear Areas

If it be accepted that stone built tombs had an independent origin in Europe, and that such a phenomenon is feasible it ist clearly possible that groups of monuments

in different areas likewise had an independent origin. How then are these areas to be recognised? For it would clearly be rather absurd to imagine that each individual monument, or that those of every local sub-area, was the result of a unique inspiration in its builder, without reference to the tradition for construction in the area in question.

One line of approach is distributional: to look at the distribution of monuments on the map, and see to what extent they group themselves in identifiable clusters, separated by areas without such constructions. Secondly it is reasonable to consider the form of the monuments, in a general sense, and identify different taxonomic groupings. When these taxonomic groupings correspond with the spatial ones, the impression of separateness can validly be reinforced.

In any given area it is natural to look to the chronology to establish the local evolution of the form of monuments. Here absolute dating, normally by means of radiocarbon, is crucially relevant. When an approximately continuous distribution in space is observed of monuments of roughly the same form, it is reasonable to regard the earliest of that form as potentially ancestral to the others.

Such assumptions of ancestry cannot reliably be made when the distributions are discontinuous, and when the forms compared are remote in space, or in time, or in both space and time. Tele-connection of this kind has been shown to be a bad guide, in prehistoric archaeology, when taken in the absence of firm supporting evidence. Of course that is not to deny the possibility that there was indeed some movement of people in any given case, bringing with it the transfer of burial conventions. That would be a reasonable assumption whenever any such colonising movement can be documented through comparison of the entire material cultural complex at the two points, particularly when the characterisation of raw materials can make some measure of contact between the two areas absolutely certain.

I have argued elsewhere (RENFREW 1973, 129; 1976, 200—204) that there may have been some four or five nuclear areas for the emergence of stone monuments in Europe during the neolithic period: Brittany; Iberia; north Europe; south Britain; and perhaps Ireland. These ideas were explored at an early stage by DANIEL (1967; 1970) in the light of the early impact of radiocarbon dates.

In relation to northern Europe, the local origin of the dolmen (SPROCKHOFF 1938, map 1) seems overwhelmingly likely, since there are no very plausible antecendents for long dolmens elsewhere in Europe. An examination of the absolute chronology is necessary, within the area defined by Sprockhoff, as revised in the light of further evidence, to determine with greater precision where the evolutionary process occurred. And of course it could have occurred, in effect simultaneously, throughout an area where neighbouring communities were in close and effective social contact. Here Dr. SCHWABEDISSEN's review of the radiocarbon dating evidence may come to our aid.

At this point, indeed sooner, a consideration of context becomes imperative. For it is pointless to consider burial customs in isolation. The whole material culture of the society should instead be considered. Is it the case that the earliest stone funerary

monuments of northern Europe, whether in Denmark or in north Germany, are found within a cultural matrix of what we have come to call the Trichterbecherkultur? That is a question which I hope to see definitively answered at this symposium.

And does the entire distribution of the dolmens, as delineated by SPROCKHOFF and subsequently revised, fall within what may be regarded as the same cultural province? Or can we detect significant variations in material culture in the early phases? And are these accompanied by significant variations in funerary custom and tomb form? If this were the case it would be pertinent to ask whether we might have, within this ‚northern' group, not one but two nuclear areas for the development of funerary monuments. I have in mind here the Kujavian barrows of Poland, massive earth mounds surrounded by boulders, which have been well described by a number of Polish scholars, notably CHMIELEWSKI and JAZDEWSKI (1973). There may well be a good case for regarding these as a separate local development of an autonomous burial form which happens to involve monumental structures. A decision upon this point will rest upon a study of the form of the structure, upon the general cultural context, and upon the chronology. It must also rest upon an analysis of function and social context, a point to which I shall return below.

Dolmens and Passage Graves

Since the time of WORSAAE and particularly of MONTELIUS it has been conventional to divide the stone graves of the north into two classes: dolmens and passage graves. And while some commentators have felt able to see a local evolution of the former, indigenous development has rarely been accepted for the latter. For instance, Dr. KAELAS, in her valuable study of the Scandinavian megalithic tombs (1967) would distinguish the Scandinavian passage graves sharply from the dolmen series, a distinction which enabled her to see the former as the result of culture contacts.

These are matters where we are entitled to seek fresh clarification, in the light of recent thinking. It is now generally accepted among those studying the principles of classification that the same body of data may be subdivided and classified quite validly in a number of different ways. Each taxonomic approach should suit the problem which it is designed to elucidate. Some careful discussion is therefore needed of the term passage grave, which in a restricted sense of the term some scholars such as KAELAS would restrict in effect to Scandinavia (KAELAS 1967, 301), while in a broader sense, such as employed by Sprockhoff, the distribution is somewhat wider. This is a matter which I should like to see clarified further.

The main question, however, is whether it is in fact possible to see a plausible evolution from the earlier simple dolmen form to the later, more complex passage grave of the northern group? I shall be exceedingly surprised if this case cannot be made very effectively indeed. For the notion of a massive influx of ideas (or of people) into Denmark during the Middle Neolithic, in order to initiate the architecture of the passage graves has always seemed to rest on very uncertain foundations. The evidence in the artefacts for such contacts is exiguous — surely no no-one today would make anything of supposed *Symbolkeramik*. Moreover the obvious feature of what has been identified as the *passage grave tradition* of the west is the tombs built of drysto-

ne technique and with a corbelled vault. Although I am sceptical of the unity of this tradition, it must certainly be admitted that monuments of such a form are indeed seen in Iberia, Brittany, Ireland and Scotland. They are not found in Scandinavia, where the architecture has a style very much its own. Of course there are geological factors which underlie these differences, but the distinction serves to underline the markedly Scandinavian character of the Scandinavian passage graves. I would thus firmly advance the hypothesis that the passage graves of the north are the result of a local evolution from the earlier dolmens, and are not to be explained in terms of ‚culture contacts' with Britain, France or Ireland.

This point is relevant to our general understanding of the position of Niedersachsen, for it would encourage us to seek the explanation for the Megalithkultur in its entirety within a northern context. This need not, of course, preclude a careful consideration of the origins of the wooden house forms in all the areas which we are considering. For the interaction between domestic and funerary architecture has always been an evident one. And of course it is entirely reasonable to suggest that the long mounds accompanying some burial practices may correlate with domestic architecture in the form of long houses. But this kind of interaction among architectural forms within a given area is surely to be expected at any time in any context. It does not itself bear on the origin of funerary monumentality.

It is time now, however, to turn from the traditional concerns with typology and with chronology, to a consideration of the social context of the monuments.

Societal Questions

For a century, archaeologists have concentrated their attention upon cross-cultural comparisons of form among neolithic stone monuments. The main result of these erudite comparisons has been to suggest connections and contacts where none existed. That is not to assert that prehistoric communities lived in isolation. Recent studies of traded materials, such as obsidian, Spondylus and amber show quite the converse. But to demonstrate an exchange link is not the same as the documentation of some more general *influence* which *permeates* the receiving society — which for some reason never adequately explained, even by MONTELIUS, always lies north of the donor.

But the monuments which occasion our study are not offered to us by their prehistoric builders as some abstract exercise in typology. They are the material remnant of social groups, which built them for evidently well-defined and pressing social purposes. And while there is good evidence to show that funerary practices were carried out at many of them, it would be erroneous to suppose that their primary function was the disposal of the dead. For it is entirely obvious that the remains of the dead can be disposed of in a whole range of ways, whether conspicuous or inconspicuous, without the enormous labour of erecting these conspicuous structures.

The monuments which we study are by definition monumental. And the erection of any prominent monument is in effect a statement — it is a conspicuous public act. In Andrew FLEMINGs phrase, such structures are *‚tombs for the living'* — that is to say

they are built by living people to impress living people and to fulfill a role in a living society. Indeed, as I have argued, it may be a mistake to regard them as primarily tombs at all.

It should of course be stressed that in many cases these monuments were the work of small local groups, without any indications of a strongly centralised society such as we associate with early states or even chiefdoms. In such small societies the construction and maintenance of such a monument would often be the most important — that is to say the most labour-demanding — public work of the society. Here then is the nub of the question: in what circumstances do small-scale societies undertake communal endeavours of such a scale?

The material evidence of such corporate endeavour must, if we consider it properly, be able to tell us something of the corporate structure of the society. It need not, of course, be inferred that those buried together in a monument represent the complete population of the society which lived together in a particular territory, nor indeed that all those so buried did in their daily life share a particular territory. But it is reasonable to infer that there will have been a coherent pattern to these things: the investment of so much effort will not have been in order to create facilities allocated in a trivial or haphazard manner.

The problem here is one of the interrelationship between funerary space, by which is meant the spatial organisation applied to the disposal of the dead (i.e. where the bodies go), social space, meaning the spatial disposition of the corporate group or groups to which individuals belonged, and activity space, meaning the territory in which individuals habitually lived and worked. In some cases all three may overlap. The individual may live, with his neighbours, in a localised area, and together with his neighbours constitute a small, effectively autonomous polity. And they may be buried together in a well defined funerery area. In such a case the activity, social and funerary spaces have a common focus. But there are other cases, for instance among the Merina of Madagascar (BLOCH 1971) where the situation is less simple. SAXE (1970) is one of those who has considered some of these issues, stressing that the dead of corporate descent groups will often be buried together within well defined funerary areas.

My essential point this afternoon ist that a suitable investigation of the circumstances of burial, of the distribution of funerary monuments, and of their relation to settlements (or in the absence of settlement remains, to arable land and other resources) can lead one to valid inferences about the nature of the social groups involved.

Scandinavian archaeologists have already done a good deal to illuminate our understanding of the grave monuments in some cases, by showing us that they were sometimes simply one element in a more complex series of facilities relating to the disposal of the dead — I refer here to the recognition of mortuary houses like those of Tustrup and Ferslev (KJAERUM 1967; BECKER 1973). There have been pioneering investigations also of the funerary facilities within a given, well defined local region, which offer a much clearer context — here I am thinking of work such as that by Dr. STRÖMBERG at Hagestad and elsewhere (STRÖMBERG 1968; 1971; 1975). Here,

in my view, is the way forward for any area, for Niedersachsen as much as in Schonen.

At this point I should like to refer to work of my own undertaken in the Orkney Islands of north Scotland, not because there is any likelihood of connection between that area and Niedersachsen, but because such work offers insight into the societies in question, and such insights are needed in each area of study. The main site under investigation was Quanterness, on the Mainland of Orkney. A consideration of the tomb finds, of the local environment studies carried out, and of the relationship with other tombs led to the following conclusions (RENFREW 1979, 218—9):

> *The conclusions, if they are accepted, may be of relevance far beyond Orkney, and it is appropriate to make a first preliminary attempt to apply them to the wide distribution of broadly contemporary monuments in western Europe, and indeed by implication to the monumental architecture anywhere of societies that are not highly centralised or highly stratified.*
>
> 1) *At the time of its early use the cairn at Quanterness was not stratified in a hierarchy above or below monuments of different scale.*
> 2) *Quanterness was an equal access tomb, with balanced representation of both sexes and all ages (despite a low average age).*
> 3) *No prominent ranking is indicated among the tomb occupants, either by disparity in grave goods or difference in funerary practice (although three grave inhumations were noted).*
> 4) *Elaborate burial practices were documented; inhumation within the chambered cairn was among the last stages in the treatment of the deceased.*
> 5) *The chamber was in use for at least five centuries.*
> 6) *The size of the group using the cairn may have been of the order of twenty.*
> 7) *The labour required for the construction of the monument, about 10000 man hours, would without difficulty have been invested in the space of just a few years by such a group, perhaps with the assistance of neighbouring groups.*
> 8) *Quanterness is just one of a number of similar Orcadian cairns of comparable scale.*
> 9) *The distribution of these cairns is fairly dispersed, suggesting that the corporate group using each was largely a locality group, although it could at the same time have been formally organised as a descent group.*
> 10) *A subsistence base of mixed farming is inferred (although reference to the settlement site at Skara Brae is necessary to document the cereal component), with the exploitation of game (deer — not necessarily wild), birds and fish.*
> 11) *Vegetation was open and treeless, and the environment much like that of today (with little geomorphic change).*
> 12) *Late in the period in question just a few monuments of larger scale were constructed in a single central area implying the emergence of some form of*

centralised organisation. The development is analogous to that seen in south Britain at about this time.

In the earlier period, before the construction of the two henge monuments, the Ring of Brogar and the Stones of Stenness, complicates the picture, we have evidence for polities which in two senses are not ranked. In the first place there is no evidence of prominent ranking of persons within them: they could perhaps be claimed as 'egalitarian' if that dangerous and much-criticised term can properly be applied to any human group. Secondly, and more significantly, there is no evidence of any ranking between them.

The consideration of the spatial arrangement of neighbouring monuments is of considerable relevance, and in Orkney we were able to argue that the tombs in question, although they were not built simultaneously, did not go out of use and become entirely forgotten and disregarded, while others were still being built. In areas with a more complicated chronological picture the inferences would be more complicated, but there is no reason why such difficulties should not be overcome.

In favourable cases the arrangement of the tombs may suggest some division in the land surface into territories. When settlement is dispersed, and when there is a

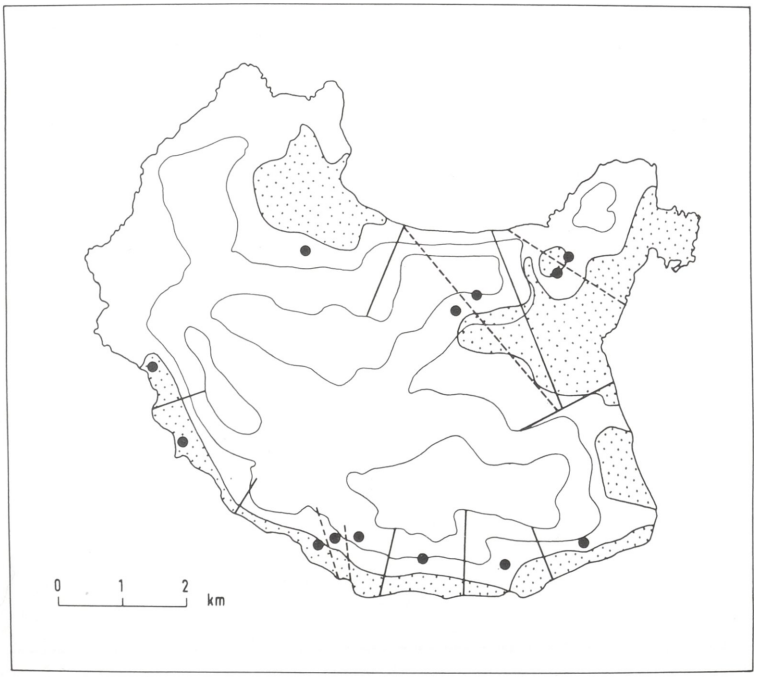

Fig. 1

Neolithic stone cairns on the island of Rousay (Orkney Islands, north Scotland). Arable land is shown by stippling. The hypothetical territories of cairn-using communities are indicated by the construction of Thiessen polygons.

strong correlation between funerary space and activity space, an analysis of tomb distribution can give worthwhile information about territorial organisation even in the absence of adequate settlement remains. One technique for approaching this question is the construction of simple Thiessen polygons, although these have the disadvantage that they make no allowance for the differing size of monuments, or for the possibility that in some cases a single community may use two or more monuments, whether simultaneously or consecutively (*fig. 1*). Some of these difficulties can be overcome by using a method of defining territories on the basis of the archaeological finds, which takes note of scale as well as position. The XTENT model (RENFREW and LEVEL 1979) is one such approach (*fig. 2*). It may be relevant also to take into account aspects of the placing of monuments within the landscape, and the use of visibility diagrams may be relevant here (DAVIDSON 1979; *fig. 3*).

Elsewhere I have tried to consider the complexities which may arise when settlement is dispersed, but burial nucleated or when settlement is nucleated (RENFREW 1979, 221). This point has been usefully examined by DARVILL (1979) in the case of the megalithic tombs of Ireland, which show strong evidence of nucleation into cemete-

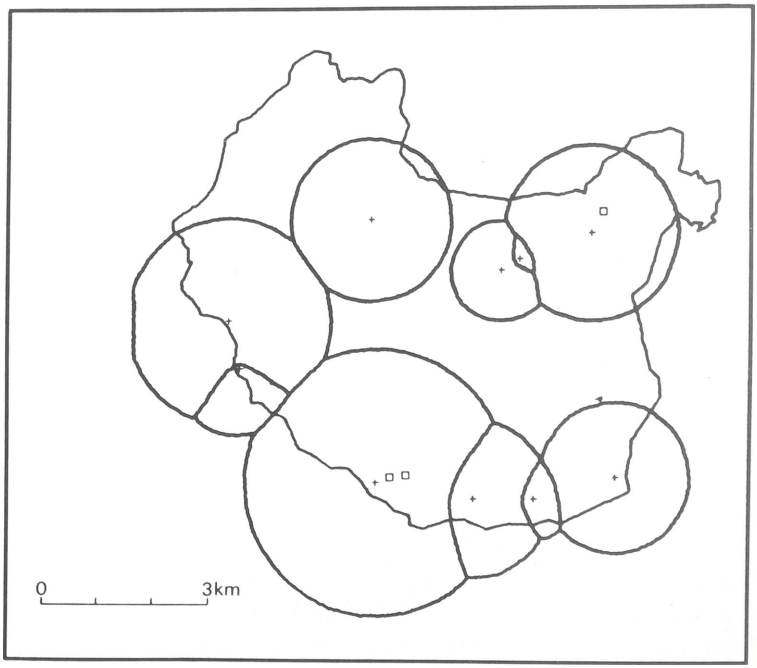

Fig. 2

Territorial divisions in neolithic Rousay, as indicated by the XTENT model (RENFREW and LEVEL 1979). Crosses indicate cairns acting as territorial centres, squares indicate subordinate cairns.

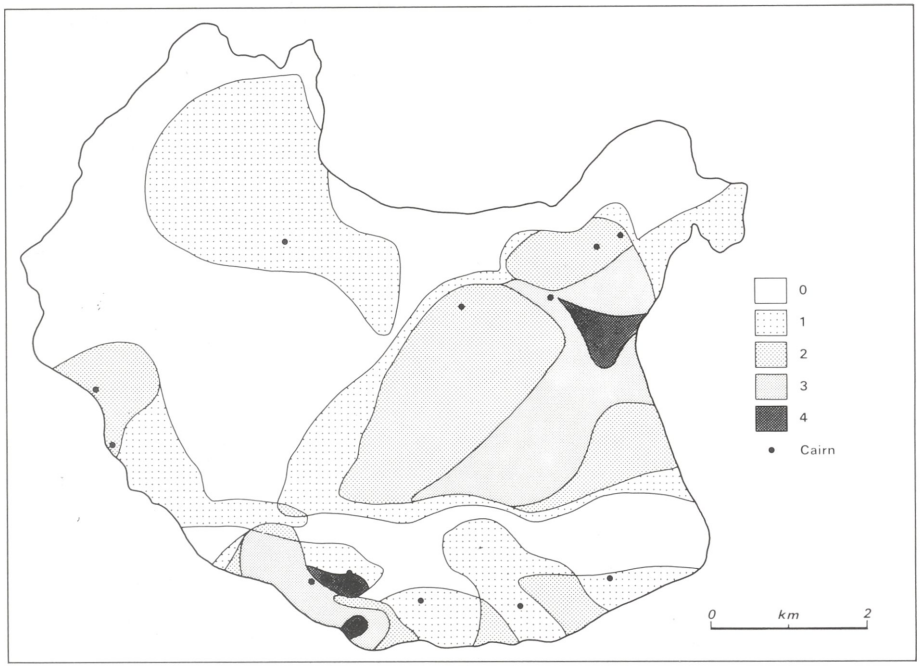

Fig. 3
Visibility diagram for the Rousay cairns. Shading indicates the number of cairns visible from each position on the island.

ries during the period of the passage graves. The distribution at that time contrasts markedly with that of the (presumably earlier) court cairns. A simple spatial analysis (*fig. 4*) leads to interesting inferences about social configurations. Comparable work considering the distribution of neolithic monuments in south Britain, not all of them primarily funerary, leads to the suggestion of the evolution of social ranking during the neolithic period.

It is my suggestion that such approaches as these should be applied to the monuments of north Germany. The first stage must be a chronological (and typological) examination to see whether there are distinct phases of tomb use which would have to be separated. Such was not the case in Orkney, but was emphatically so in Ireland, where to treat the court cairns and the passage graves simultaneously would lead to needless confusion. Naturally a coherent chronological picture can only emerge after a programme of field research and excavation. In areas where the remains are very rich, and represent a long period of use, such as in Brittany, such a programme implies the work of many years. But, as the excavations of Professor GIOT, and of his colleagues such as Dr. L'HELGOUACH so clearly show, a sustained programme can

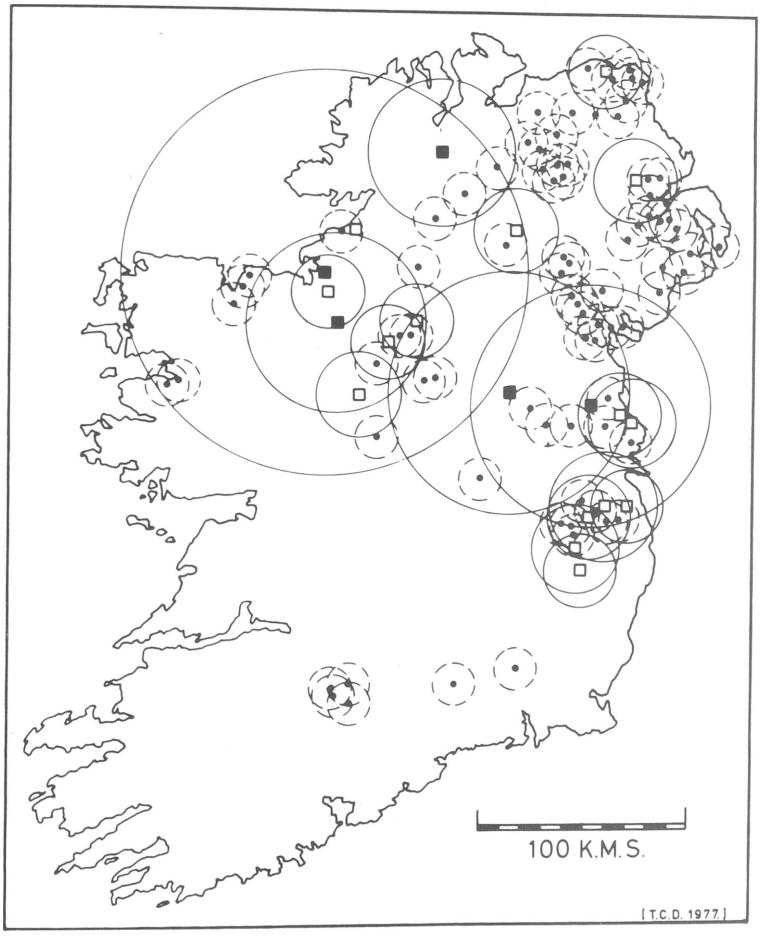

Fig. 4

Passage graves and passage grave cemeteries (squares) of Ireland. The area of each circle is proportional to the number of passage graves forming the cemetery. After DARVILL 1979.

make coherent sense out of even a very complex situation. It is my impression that the evidence in Niedersachsen is less complex than in Brittany.

Secondly it is appropriate to select individual monuments, or groups of monuments for intensive study, in terms of their function, or their relationship with settlement and with possible land use within a localised territory. That is the approach which Dr. STRÖMBERG has been employing, and which I have tried to use in Orkney.

Then thirdly it is relevant to consider the relationship of monuments, one to another, in space. They do, after all, define a kind of social landscape. This has proved feasible in Orkney and in Ireland, as we have seen, and even in south Britain. But inevitably it does depend upon the preservation of a high proportion of the monuments. In Orkney we are helped by the circumstance that the area has only recently been farmed by intensive techniques, and preservation of monuments is in general good. In south Britain we were aided by the results of aerial photography in what re-

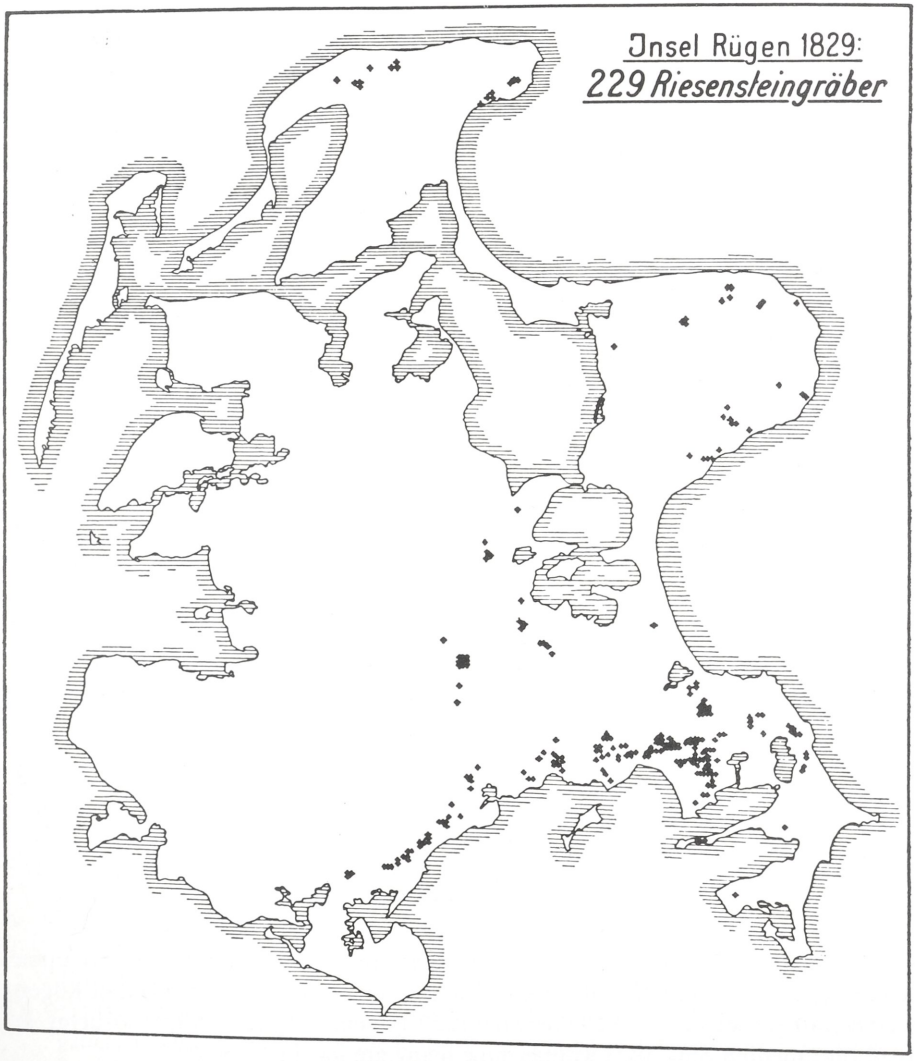

Fig. 5
Megalithic tombs in the Baltic island of Rügen in 1829. After SPROCKHOFF 1938.

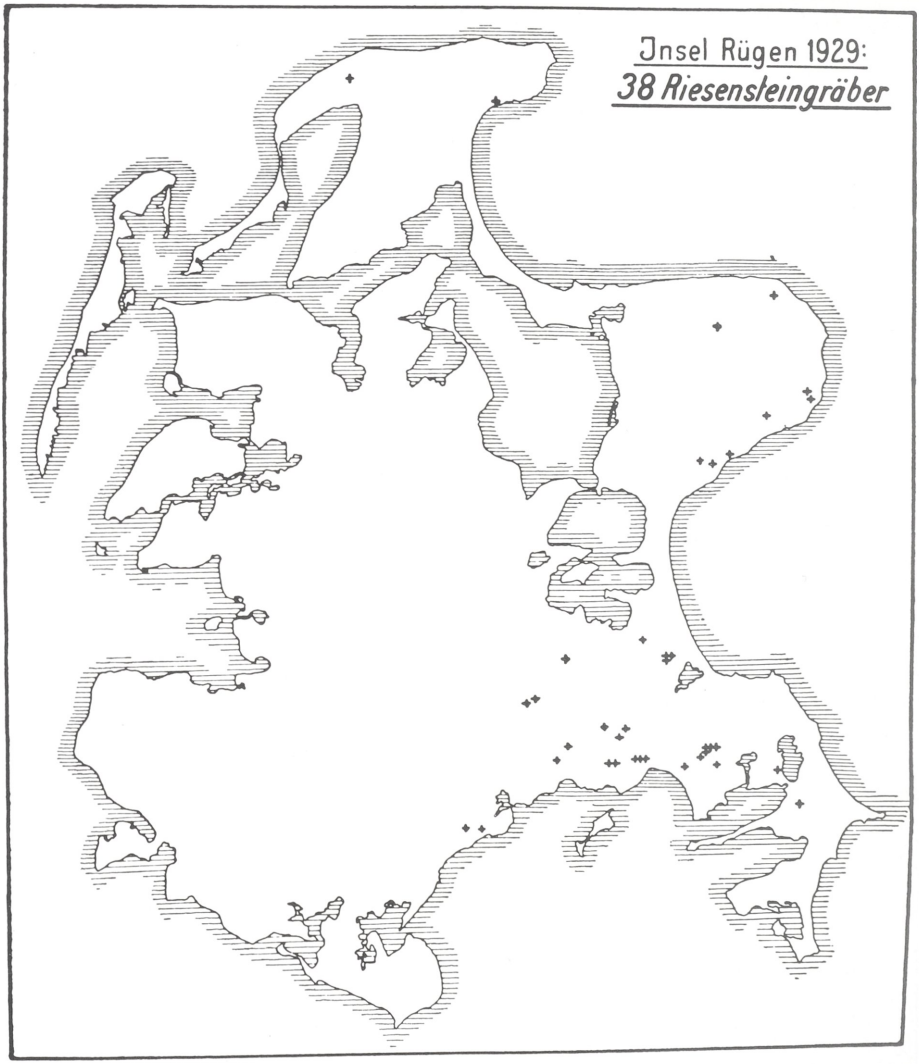

Fig. 6
Megalithic tombs in the Baltic island Rügen in 1929 indicating the extent of destruction. After SPROCKHOFF.

mains essentially a rural area. In Germany there may be grounds for anxiety upon this score. For as SPROCKHOFF pointed out, a survey of the Baltic island of Rügen exactly 150 years ago (in 1829) recorded 229 Riesensteingräber, while a survey in 1929 documented only 38. I wonder how many are left in 1979?

I should like to conclude my contribution with the relevant illustrations of this point (*fig. 5 and 6*) taken from SPROCKHOFF's work (1938, 50 f. figs. 62 and 63). For the

task is not simply one of excavation and interpretation, it is one of Denkmalpflege. Fortunately in Niedersachsen there are large areas of what in modern agricultural terms may be regarded as marginal land — I am thinking, of course, primarily of the Lüneburger Heide — where preservation is likely to be good. But farmers are not the only culprits, and injudicious land use by military as well as civilian agencies can do great demage. Here, then, is a possibility for an intensive area study, backed up by excavation of selected monuments, which I believe may give real insight into the social function and meaning of the northern megaliths. In doing so Niedersachsen could greatly further our understanding of megalithic problems as a whole. Indeed the most significant europäischen Verbindungen are, in my view, likely to be in this direction. We should be seeking analogies in the use and function of funerary monuments in different areas, analogies which will help us to unterstand better their social meaning and hence their origin in each region, rather than evidence of direct connections, which have so often in the past proved illusory.

It has often been lamented that so little else is preserved of the culture of the communities which constructed megalithic tombs. But if we regard these monuments, as I have argued elsewhere (Renfrew 1976), as the signalling devices of segmentary societies, they carry for us messages not only about prehistoric rituals and religion, but about social organisation and land use. Far from lacking in evidence of prehistoric settlement, prehistoric northern Europe may be one of the most richly furnished areas in the world, of we learn to use the data effectively. I know that Niedersachsen is particularly rich in relevant material. And I would like to conclude with an expression of my conviction that, if we ask the right questions, it will answer us abundantly.

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