

Danish Archaeology in the 1980's

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INTRODUCTION

Periods of change interfere with periods of stability within any discipline. In Danish archaeology the last 2–3 generations have seen a long period of consolidated research with little need to question either the basic premises of research or the future goals of archaeology as commonly and implicitly agreed upon. The last 10–15 years, however, have witnessed rather drastic changes in the archaeological environment making a general debate of research policies urgent (e.g. Kristiansen 1978, Thrane 1982). But a discussion of Danish archaeology in the 1980's also implies a discussion of the common Scandinavian tradition of which it is part (Klindt-Jensen 1975, Moberg 1981). This raises the question: what constitutes such a tradition? Here one can mention at least two things strongly felt by many Scandinavian archaeologists – the burden of archaeological history and the burden of data. It has had a strong impact on research traditions to be one of the regions in the world with the longest history of archaeological research (Daniel 1975). Add to this the enormous number of archaeological monuments and objects preserved both in the landscape and museums. In many ways this background has been decisive for the way in which Scandinavian archaeologists have reacted to and assimilated the various theoretical and methodological trends within the New Archaeology over the past 15 years. To illuminate this I shall first give a short historical account of some major theoretical trends in Scandinavian archaeology.

THE BURDEN OF TRADITION

During the middle and late 19th century Scandinavian archaeology produced three traditions of archaeological research. 1) The chronological and spatial classification of archaeological objects into periods and cultures based on the principles of typology – 2) the ecological analysis of settlements and subsistence based on interdisciplinary research programs – 3) and the total registration of all visible prehistoric structures in the landscape by systematic field survey.

The first tradition is closely linked with the name of the Swede Oscar Montelius (Gräslund 1974 and 1976). This approach very soon became dominant in Central European archaeology as the basic tool of archaeological research and was later linked to ethnic and diffusionist interpretations of culture (Eggers 1959), representing a particularising, historical approach familiar to modern political history. Although political misuses during the 1930's and 1940's and later the radio carbon revolution have led to the final collapse of this interpretative framework (Renfrew 1973), the basic methodo-

logical exercises still dominate most Central European archaeological research and also much Scandinavian research, now being dressed in a modern suit of definitions and statistics.

The second tradition is closely associated with the name of J.J. Worsaae and his botanical and geological colleagues J.J.S. Steenstrup and J.G. Forchhammer. During the early 1850's these men formed an interdisciplinary commission that discovered and documented the first evidence of a mesolithic hunting subsistence in Europe, the "Ertebølle culture" characterized by shell middens along the Danish coasts – the so-called "kitchen middens", from a Danish word that was internationally applied in the archaeological terminology at that time (Klindt-Jensen 1975, 71 f.). This ecological tradition never became dominant, but lived a quiet life as a helping tool for archaeologists often with little interest in ecology and economy, although new interdisciplinary commissions were founded again during the 1890's and during the 1930's (Fischer and Kristiansen in press). The latter resulted in the breakthrough of pollen-analysis as an independent cultural-ecological research tradition linked with the names of Johannes Iversen and Troels Smith, especially Iversen's classical study "Land Occupation in Denmark's Stone Age. A pollen analytical study of the influence of farmer culture on the vegetational development." (1941). This new research tradition, however, had a stronger impact on English, Dutch and Swedish archaeology than on Danish archaeology, in that the last generally remained loyal to the typological traditions of data classification and presentation. It was not until the appearance of the Anglo American new Archaeology in the late sixties and early seventies that a theoretical and methodological re-orientation to restore the position of ecological studies began at least in Denmark (see also Andersen et al 1983). In Sweden and Norway, however, co-operation between archaeologists and geographers had led to the development of a tradition of settlement studies which in many ways preceded the New Archaeology (e.g. discussion in Norwegian Archaeological Review 1974, volume 7, no. 1. Since 1980 in *Bebyggelseshistorisk Tidsskrift*. Also Kristiansen in press a). (1). These studies were empirically based on the systematic recording of the many well preserved relics of barrows, cemeteries, prehistoric farmsteads and field systems in the more marginal areas of Central Scandinavia (e.g. Ambrosiani 1964, Lindquist 1968, Myhre 1972 and 1973) (2).

This leads us to the third Scandinavian tradition, namely the total registration of all visible prehistoric structures in the landscape by systematic field survey. This tradition took its beginning in Denmark in 1873 and was later adopted in several European countries (Worsaae 1877 and 1879). In Denmark the

work was done by 1930, in Sweden it has only recently been finished and Norway is still on its way (see articles in Fornvæn-
nen 1978). Thus there exists in Scandinavia central registers of
all known ancient monuments and sites – in Sweden approx.
500,000, in Denmark only a little more than 115,000 (Nielsen
1981, Ebbesen in press). These registers create a specific basis
for landscape and settlement studies (e.g. Hyenstrand 1979 a
& b, and 1981). Together with the enormous number of
archaeological objects from burials, hoards, settlements etc. –
accumulated during 150 years of research (Kristiansen
in press b) – they constitute what I started by calling “the burden
of data”, but which should rather be termed the potential of a
representative sample of the prehistoric past. It should be
noticed, however, that this research tradition was also closely
linked to a strong conservation policy rooted in a national-
historical ideology that characterizes all Scandinavian coun-
tries also today (Klindt-Jensen 1975, Kristiansen 1981).

In Scandinavia we had no Roman villas, no Hellenistic
temples, none of the glory of the Mediterranean civilizations.
But we had a quite unusual number of prehistoric barrows and
megaliths which were, and still are, a significant feature of
many Scandinavian landscapes. In a period of final decline
from former national and territorial greatness during the
medieval period and the Renaissance, “What has been out-
wardly lost, should be inwardly gained” as it was said by a
leading figure in the 1860’s, after the final Danish humiliation
and loss of Schleswig-Holstein to the Germans. Thus archae-
ology in Scandinavia arose in a period of decline from former
greatness, which helps to explain its strong position from an
early date.

These historical elements constitute part of the general
background through which the new trends in archaeology of
the late sixties were filtered. But before we consider how
Danish research traditions were restructured as a consequence
of this development, let us consider the process which has
normally been given too little attention (but see Moberg 1977
and 1978 a & b).

AWAKENING FROM THE LONG SLEEP – THE IMPACT OF NEW ARCHAEOLOGY

Between 1884 and 1966 no major theoretical works appeared
in Danish archaeology (Müller 1884, Jensen 1966) (3). The
paradigm of Thomsen, Worsaae and especially Sophus Müller
remained a firm foundation (Klindt-Jensen 1975). Archae-
ology was mainly practised at the National Museum, also
housing a small university department, and at the new
museum centre and university department at Moesgård near
Aarhus. The 2 university departments produced 1 or perhaps
2 candidates a year, highly specialized after 7–8 years of purely
archaeological studies spanning Europe and the Near East.
The 20 or so Danish archaeologists formed a small community
firmly rooted in the traditions of Müller and Brøndsted and
innovations remained within the basic methodological frame-
work (4). Müller was still within living memory. It was not until
the number of students and jobs suddenly exploded during the

late 1960’s and 1970’s that this framework began to crack and
soon collapsed. Therefore, it seems appropriate to apply Colin
Renfrew’s metaphor “the long sleep” also to describe the
Danish background of the new development (Renfrew 1982).

In several aspects the process of assimilating the New
Archaeology has conformed to the sociological pattern de-
scribed by Kuhn as characteristic of paradigmatic change
(Kuhn 1970). A few established and respected senior archae-
ologists have pioneered or supported the new ideas among
their students and helped to legitimize them. This was fol-
lowed by a massive student mobilization among the genera-
tion to which the present writer belongs, most of us now in our
mid-thirties, which resulted in the formation of an association
of Scandinavian archaeology students in 1969. Since then,
they have organized New Archaeology conferences each year
primarily for research students, and issued a periodical twice
a year consistently debating theoretical themes, read but little
cited. Also new periodicals like Norwegian Archaeological
Review (NAR), and books like “New Directions in Scandina-
vian Archaeology” (Kristiansen and Paludan Müller 1978)
have followed in the wake of this development. In short the in-
troduction of NA into Scandinavia over the last 15 years can be
described as progressing from ignorance over polemics to
quiet acceptance (naturally with minority exceptions). Let us,
however, describe the process in greater detail.

The first phase from the late sixties to the mid or late seventies
was the pioneer phase. Yet if one analyses the official archae-
ological publications and periodicals of those years this will
not be at all apparent. They were still dominated by traditional
publications of finds and chronological studies, as seen in fig.
1. One has to look to the periodical of the Nordic Archaeologi-
cal Students “*Kontaktstencil*”, which during the same period
issued 10–12 volumes of theoretical debate. Otherwise Danish
New Archaeology during this period was mainly published in
non-Danish periodicals (e.g. Mortensen 1973, Randsborg
1974 and 1975).

This picture represents not only a senior/junior dichotomy
but also the separation between the major archaeological insti-
tutions in Denmark at that time: universities, ancient monu-
ment administration and museums. The New Archaeology
(NA) was mainly supported by active students, seeking
strength through Scandinavian co-operation and supported by
a few acknowledged scholars. To those involved it was an ex-
citing period, taking place parallel with the revolutionary
changes of the universities that broke the rule of professors
and brought students to power. At several university depart-
ments in Scandinavia, in Denmark especially in Aarhus,
teaching was completely changed, and social anthropology,
statistics, philosophy of science etc. were incorporated as
obligatory disciplines.

This was also a pioneer period for museums, the most ex-
pansive time in their history due to new museum legislation in
1958 and 1977 (Betænkning nr. 152 1956, Betænkning nr. 727
1975). Most regional museums acquired professional staff for
the first time, permanent exhibitions were restructured, new
museums were built etc. Debates about the role of museums in

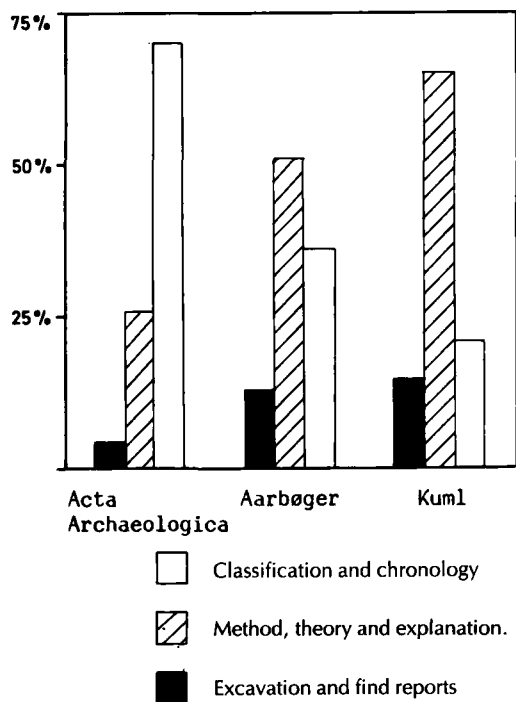


Fig. 1. Contents of the three major Danish periodicals in the period 1966-77.

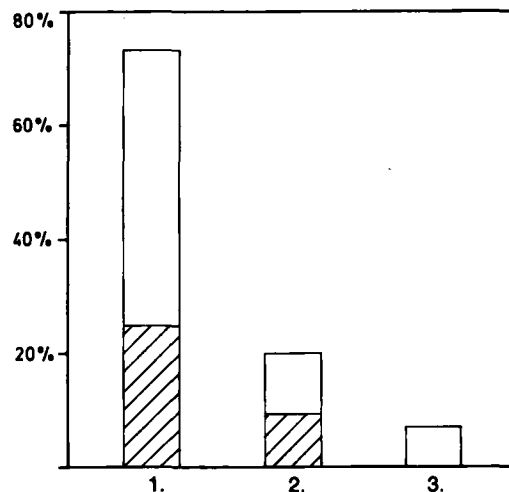


Fig. 2. Output of the three major periodicals in fig. 1 (Acta Archaeologica, Aarbøger og Kuml) in the period 1966-77, classified according to:

1. University departments (Aarhus hatched, Copenhagen blank)
2. Central museums (Aarhus Moesgård hatched, National Museum blank)
3. Regional museums.

society flourished (e.g. Witt 1977), and the general preoccupation was new exhibitions. Also at the National Museum most resources were spent on a reorganization of the old exhibition, just as magazines were modernized. Little was left for research during these years. It should be noted, though, that most of those archaeologists that got jobs throughout this period had been trained according to the old university traditions with cultures and chronologies as the major objectives.

It is also characteristic that archaeologists at regional museums were scarcely represented in the official periodicals although during the seventies they soon outnumbered the central institutions (fig. 2).

For the ancient monument administration, however, this was a period of very slow expansion, although the new Conservation of Nature Act in 1969 for the first time opened up possibilities of financing rescue excavations (Betænkning nr. 461 1967). Due to this a new ancient monument department was founded in 1970 under the Keeper of National Antiquities and from 1975 under the National Agency for the Protection of Nature, Monuments and Sites. Museums, it seemed, were too busy with exhibitions fully to realize the potential of this legal reform, just as they were opposed to the central administration which they believed might threaten their own expansion. To this it should be added that ancient monument administration at that time was regarded as low status work hardly worth worrying about. Consequently, the administration was rather segregated from the general trend of expansion and new ideas.

As will be apparent "separatism" is the most appropriate term for the first phase of restructuring, every sector being busy with its own future. For the general public the only observable change was in the regional museums, whereas popular archaeology continued old traditions of culture history. Quite typically, the earlier popular outlines of archaeology by J. Brøndsted and P.V. Glob were reprinted.

The second phase which might be said to encompass the last five to seven years reflects the gradual breaking down of separatism and a general reorientation at all levels of research. As can be seen from Nordic Archaeological Abstracts these changes are also observable now in the major periodicals, while chronological studies have become less numerous, although still clearly dominant (Furingsten 1983).

At the universities a younger generation of candidates trained in the New Archaeology have come into jobs, mostly at museums and in the Ancient Monuments administration. Just as important, however, are the new types of conferences and seminars which have stimulated new directions of research also among more traditionally trained archaeologists. This is especially true of the annual settlement seminars, initiated by Henrik Thrane since 1975 with widely circulated, cheap and quickly published conference reports.

Most regional museums have initiated various types of settlement projects, thus basing their research on the local area and making possible a better integration with rescue

archaeology. Moreover conservation archaeology has undergone a rapid development both administratively and economically. Museums are engaging themselves more seriously in rescue administration, a precondition for expansion, and from 1979–1980 the economic framework for rescue archaeology consequently trebled. The ancient monument administration itself has also initiated a stronger co-operation with both regional museums and the National Museum with respect to new projects: monument and site registration, computer projects etc., just as they founded their own periodical in 1977 (*Antikvariske Studier* 1977 ff). The earlier conflicts were resolved by the setting up of a government committee in 1979, which in 1982 recommended that rescue archaeology should be transferred to the Keeper of National Antiquities (*Betænkning* nr. 953, 1982), thus creating an administrative separation between rescue excavations (museums) and conservation of monuments in situ (nature conservation authorities). This was implemented 1st January, 1983.

In print this development is reflected in various ways, e.g. new types of publications, in seminar reports (Thrane 1975 ff), and in this journal responding to the needs of regional museums. From a strategic point of view it was important that polemics should become official (e.g. Kristiansen 1978, Becker and Jensen 1979), just as traditional chronological research was critically analysed (in *Hikuin* no. 4, 1978). Also in popular archaeology the new generation has made its appearance, resulting in a series of books presenting new perspectives on Danish prehistory to the general public (e.g. Jensen 1982, plus 8 volumes of a new popular presentation of danish prehistory for the general reader, lavishly illustrated).

The final result has been neither a rapid nor deep-going revolution, but rather a gradual reorientation within all fields of research: from chronological studies towards settlement- and social studies; that is, a change in research priorities and a very gradual application of new analytical methods. Chronological studies no longer give a priori scientific merit. Due to this gradual change a better coordination of research between Museums, the Ancient Monument Administration and Universities has gradually developed. This trend, however, deserves to be discussed in more detail in order to delineate the preconditions for its future success.

THE PRESENT FRAMEWORK – PROBLEMS AND PROSPECTS

As starting point let us consider the resource base as reflected in the number of archaeologists and their distribution in museums, universities and in ancient monument administration, as this represents both the potential and the limitations of what can be achieved. (Kristiansen 1983, fig. 2) As can be seen, the strongest single research resource is regional museums. This implies that any future growth of Danish archaeology demands co-operation between regional museums and other institutions such as the National Museum, the Administration of Ancient Monuments and Universities. Having stated this, the first question to ask is: what are the unifying elements? The answer, in my opinion, is the history of the cultural landscape. This gives a scientific foundation for research priorities in

rescue archaeology, and for explaining the landscape and the monuments to the public. Thus both museums, universities and administration must change their priorities towards ecological orientated settlement studies, and this is gradually happening. It further implies that the traditional role played by these sectors in research and protection should be reconsidered and proposals for the development of future research should be formulated. Let us therefore in the following consider the implications of such an approach in more detail.

The Ancient Monument Administration must put a high priority on research. The implicit and prevailing assumption that the protection and management of monuments can be carried out in isolation has to be refuted. Administration without research priorities and a clear research perspective too easily becomes a waste of resources. However, in order to link administrative ends to research goals it is necessary to develop new types of research: to explore and analyze surveying methods, excavation methods, the history of the cultural landscape, the care and management of monuments etc. etc. There is a whole sector of applied research that has only started to develop very recently (e.g. Cherry, Gamble and Shennan 1978, Schiffer et al 1978, Hyenstrand 1981, in Denmark a new report series published by the Ancient Monument Administration since 1980). To support a development of this kind it is also important for scientific merit to be attached to this type of research.

This underlining of research priorities as a guiding principle for conservation or Cultural Resource Management (CRM) – does not mean that administration should be disregarded. Quite the opposite. Also within this field, professionalism is highly necessary. The indifference during the 1960's and early 1970's to administrative professionalism was *one* of the reasons that conservation archaeology did not develop significantly in Denmark until the later 1970's.

At the other end of the scale popularization and information about the monuments should not be forgotten, as this is a precondition for the future support of archaeology. Also here professionalism is much needed. In conclusion, an ancient monument administration which is active in research and publicly informative is essential for maintaining the support of the population, for protecting our archaeological heritage, and for integrating museums and universities in rescue archaeology, which represents 80–90% of all excavations in Denmark, and thereby determines a major part of our future archaeological data base.

At *museums* the trend towards settlement studies should be strengthened because museums thereby create a foundation for linking research to their local area. This implies that they are able to explain the settlement history of their local area in exhibitions rather than by repeating the general prehistory of Denmark over and over again as still not uncommon in many museums. It also means that archaeologists at regional museums can maintain research without being dependent upon comparative studies and travels, necessary when dealing with chronological and diffusionist studies, but normally impossible for them. Finally, it creates a basis for research priorities of rescue excavations.

In order to support this development *universities* must also change their priorities. At the more general level: from objects and cultures as a basic objective to social units and structures – from a diffusionist framework to a social system framework, thereby linking research and education to the Ancient Monument Administration and museums through landscape and settlement studies. This can be further supported by more actively engaging research projects and Ph.D. papers to regional and local museums. A development which has only taken place very gradually. It therefore seems important that the two university departments more consistently and explicitly define their research policy in relation to museums and the administration of ancient monuments.

The general research policy which I have sketched above naturally needs support and implementation in several other sectors (4). One of the most important among these is publication, which will therefore be considered in more detail.

Within any discipline publication should as far as possible transmit a representative sample of research. When basic changes are taking place within a discipline, as in archaeology within the past 15 years, it is important that the structure of publication is adjusted to these changes. This will often demand some restructuring of the publishing policy which mostly takes place by degrees and at random. Very rarely has an analysis of publication structure been carried out as a basis for planning and formulating present and future needs; this is very unfortunate (but see Lavell 1981).

In Denmark an analysis carried out some years ago by the present author showed some basic discrepancies in the publication structure. It led to the formulation of a proposal for a future publication structure, e.g. leading to the foundation of this journal (4). The main elements of such a structure should be:

1. Catalogues of the type of Aner and Kersten (but less ambitious presentations will also do), comprising total regional presentations of groups of finds, that can be regarded as representative because most finds are already in our museums and future ones will not change the representation significantly. That is mainly graves, burial finds and hoards. To this category also belong full monographs of single monuments and sites of extreme importance.

Such catalogues serve extremely important functions at a time when more and more archaeologists will have less and less opportunity to travel around and look at the finds themselves. Thus they represent the future basis for research. They help to make research more efficient and also more democratic by making the data available in a systematic way to both local and international groups of archaeologists. They help to improve scientific standards as research results can be verified and finally, they serve to internationalize research and break down monopolies and barriers based on access to unpublished data.

2. At the next level we should find research journals that appear regularly with short articles and notes on new finds, discussions, reviews etc. like JDA. The objective is to keep actual results and the published knowledge in line, and to stimulate discussion as a basis for research priorities. More

important finds will be published here, either as a supplement to the above regional catalogues or as a basis for later final publications. Thus such journals serve integrating functions between Museums, Universities and Ancient Monument Administration.

3. Finally, we have the traditional in depth comparative studies which have normally dominated archaeological monographs and journals. With a change of priority from chronological studies towards settlement and social studies such primarily in depth research articles will often serve as a starting point for planning and priorities on the one hand, and for popularization on the other hand. It is through them that new problems and hypotheses are formulated which could well serve as a catalyst to future research.

Thus the 3 levels of publication given here represent different but complementary levels of research: from total (often regional) documentation, over selected presentation and discussion to general, comparative research (6). Since 1974, Nordic Archaeologic Abstract has served national and international researchers.

If we look around Europe, we note that a publication structure similar to the one proposed here, is already on its way or in existence. Perhaps most developed in Northern Germany. However, it is important to plan future publications as part of an explicit research strategy at both regional and national levels, thereby integrating the work of both museums, Ancient Monument Administration and Universities. Such an explicit approach and planning must also include a discussion of levels of documentation, techniques of presentation etc. Subjects that have been badly neglected in archaeology.

CONCLUSION

In the preceding pages I have tried to summarize some of the major changes that have taken place within Danish archaeology during the last 15 years. In order to understand the way in which Danish archaeology responded to these changes I started by sketching the historical traditions of Danish and Scandinavian archaeology as I believe that any deep-going reorientation of a discipline demands a critical re-evaluation and re-structuring of previous research. Thus after the first stage of destruction and breaking down follows inevitably a period of reconstruction. What can be used and what has to be left behind. In Scandinavia, with the burden of archaeological history upon our shoulders, such re-evaluations must necessarily become historical in scope, and due to the strong ideological impact archaeology has had in society, it must also by necessity include a re-evaluation of the role of archaeology in Scandinavian society (Kristiansen 1981). Thus archaeology in society has been analyzed from the perspective of the founding of museums and their role in society (Kjær 1980), as well as from the perspective of the peasant proletariat making a living as barrow robbers to supply wealthy collectors and museums (Thorsen 1979).

Another major concern, especially in Danish archaeology, has been the analysis of the effect of post-depositional factors in order to illuminate the representativeness of the major find

groups: burials, settlement and hoards throughout later pre-history (e.g. Kristiansen 1976). Danish archaeologists have carried out such analyses covering the period 1805–1975 (Kristiansen in press (b)). This type of historical source criticism is especially important in a region where the accumulation of archaeological data has taken place over a period of nearly 200 years under various circumstances. Thus the utilization of this historical data base, which represents perhaps 2/3 of the available evidence even today, demands a historical and critical evaluation of how representative it is.

A third major reorientation is witnessed within settlement archaeology and ecologically inspired research as described above. Interdisciplinary settlement projects have thus been promoted in all Scandinavian countries throughout the seventies, and today this is the dominant trend also in Danish archaeology (7). To this should be added experimental archaeology which after a pioneer phase during the 1960's and 1970's (Coles 1973) is now expanding its scientific scope, and will probably achieve increasing importance during the 1980's (e.g. Fischer et al 1979, Lund 1981, Vemming and Madsen 1983).

Thus the situation in Denmark should be characterized as a mixture between that of Central Europe and England. Tradition is still very strong, and most archaeologists support it, there is only a small group of "pure" New Archaeologists. However, the NA in Denmark is also building on the earlier traditions of both settlement- and ecological studies, and as the data base is highly representative, it has gradually become acknowledged that we can actually reach an understanding of past societies in social and economic terms. Thus today most Danish archaeologists are implicitly influenced by NA in their research priorities, and this reflects a gradual change taking place on all levels both at Universities, in Museums and in the Ancient Monument Administration. In a few years everybody will probably have forgotten the polemics of the seventies. The pioneers will state that they introduced and implemented the new trends, and the more traditional archaeologists will claim that they saved them from speculation. Thus it is the combination of a strong data base and practically applied or "middle range" theory which constitute what I regard as a special Danish or Scandinavian profile within the general stream of New Archaeology. As the average Danish archaeologist is in his or her mid- to late thirties, this will probably remain our profile throughout the 1980's – perhaps longer.

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NOTES

This article originates from two presentations of Scandinavian and Danish archaeology. At the 4th TAG (Theoretical Archaeology Group) conference in Durham in December 1982 I had kindly been asked to organize and introduce a Scandinavian session. Later in February 1983, I attended an informal meeting in Unkel, south of Bonn in Germany, organized by a group of more theoretically orientated German archae-

ologists reacting against the burden of tradition in German archaeology. I want to thank the organizers of the two meetings for giving me the opportunity not only to present but also critically to re-examine Danish archaeology in the 1980's. It should be noted that medieval archaeology is not treated. The reader is referred to a recent survey by Olaf Olsen (1977) and theoretical debates in *META* a small periodical from Lund.

1. In Denmark a similar tradition could have been founded upon the work of Gudmund Hatt. However, this chance was abandoned by the prevailing research traditions during the 1940's and 1950's (Stumann 1982). After the completion of the Paris surveys a few significant studies illustrated the potential of this data base (e.g. Müller 1904, La Cour 1927). Although new regional field survey projects were initiated in the 1940's (Mathiesen 1948 and 1957) their potential was never explored as no methodological development had followed the earlier work of Müller, La Cour and Gudmund Hatt. Also in this field tradition was carried on outside Denmark, especially in Sweden.
2. The archaeological exploration of the vast marginal areas of Northern Scandinavia has also been the focus of research during the 1960's and 1970's (e.g. Baudou and Selinge 1977, Selinge 1979 and recent volumes of Norwegian Archaeological Review) leading to the foundation of archaeological university departments in Umeå in Sweden and in Tromsø in Norway.
3. It should be stressed that "the long sleep" is referring to a theoretical stagnation. In terms of archaeological excavations, new techniques etc. major developments took place, just as in the natural sciences. This development is most recently described by C.J. Becker (1977).
4. An important methodological clarification of the foundations and limitations of typology and classification took place during the 1950's and 1960's, presented in a few studies of outstanding quality by Almgren (1955), Malmer (1963) and Ørsnes (1969). This also resulted in the formulation of new methodological standards (definitions, quantification, the use of statistics etc.) which have only gradually been applied during the 1970's, but mostly by ignoring the basic methodological problems originally raised especially by Almgren and Malmer.
5. Complete qualitative and quantitative national surveys of the archaeological environment (institutions, research, education, publication etc.) are unfortunately very rarely published. I only know of one (Chapelot, Querrien and Schnapp 1979 and 1984). Such surveys may serve both comparative international objectives (see Cleere in press) or serve as a platform for national planning proposals: and as such most of them remain internal government reports known only by a small group of people.
6. The major archaeological *periodicals* in Denmark are:
 - Aarbøger for Nordisk Oldkyndighed og Historie*
This is the oldest among the periodicals and has been issued since 1866 by the Royal Society of Northern Antiquaries.
 - Acta Archaeologica*
was founded in 1930 by a group of Scandinavian archaeologists. This is the only Inter-Scandinavian international archaeological journal publishing both prehistory, classical and medieval archaeology.
 - Kuml*
was founded in 1951 by the Jutland Archaeological Society. It contained both social anthropology and archaeology, but is dominated by prehistoric archaeology.

Hiquin

was founded in 1976 and has been dominated by archaeology, in recent volumes by medieval archaeology.

Antikvariske Studier

has been published since 1977 by the National Agency for the Protection of Nature, Monuments and Sites. It contains articles on archaeology, historical buildings and cultural resource management.

Finally, the *Journal of Danish Archaeology* was founded in 1982 in response to the expanding needs of the many regional museums and as a vehicle for discussion and review, much needed in Danish archaeology.

*Monographical series:**Nordiske Fortidsminder*

is the oldest founded in 1889 and is issued by the Royal Society of Northern Antiquaries.

Jysk arkæologisk Selskabs Skrifter

is the monographical series published by the Jutland Archaeological Society.

Arkæologiske Studier

is a monographical series published by the Department of Archaeology at the University of Copenhagen since 1973.

Besides these monographical series, major monographs have also been published, especially by two regional museums: Fyns Stiftsmuseum in Odense – monographs on the Iron Age in Fyn; and the Langeland Museum – the early monographs on the neolithic excavations in Langeland by Winther later succeeded by Berg and now Jørgen Skaarup.

The National Museum also publishes archaeological monographs from time to time.

Apart from these national and regional archaeological periodicals and monographical series we find a great number of local and regional museum periodicals whose output in the period 1966–77 represented nearly 20% of the total archaeological output published in Denmark in this span of time. Archaeological monographs represented 24% and the major archaeological periodicals mentioned above reached the same figure. The last 33% was represented by popular archaeology, most of it written by professional archaeologists. This is a noteworthy feature of Danish archaeology.

7. It should be noted that the basis for this planned, selective publication structure, are the central registers of the National Museum containing (in principle) all archaeological information in Denmark, including full excavation reports that are normally delivered within one year after the completion of the excavations. Thus the central registers serve as a data base available to researchers. During the 1980's a major part of it – the Parish Register of all archaeological site and find localities in Denmark – has been computerized. Phase 1, the digitizing of find maps, is already finished (Hansen 1982).
8. Bertha Stjernquist has recently summarized the Swedish projects (Stjernquist 1979). The Inter-Scandinavian "Bebyggelseshistorisk Tidsskrift" issued since 1979 by the Department of Human Geography in Stockholm (Review of Settlement History) stresses the increasing importance of settlement archaeology in Scandinavia. Its potential for contributing to world archaeology was also recently pointed out by Moberg (1981).

REFERENCES

- ALMGREN, B. 1955: *Bronsnicklar och djurornamentik vid övergången från vandelid till vikingatid*. Uppsala.
- AMBROSIANI, B. 1964: *Fornlämningar och bebyggelse*. (English Summary). Uppsala.
- ANDERSEN, S. TH., AABYE, B. & ODGAARD B.V. 1983: Environment and Man. Current Studies in Vegetational History at the Geological Survey of Denmark. *Journal of Danish Archaeology*, vol. 2. Odense University Press.
- BAUDOU, E., SELINGE K.G. 1977: *Västernorrlands Förhistoria*. Motala.
- BECKER, C. J. 1977: Efterskrift til J. Brøndsted "De ældste tider". Danmark indtil år 600. Politikens forlag.
- 1979: Arkæologi i Danmark – igår, idag og imorgen. *Fortid og Nutid*, vol. 28, no. 1. Copenhagen.
- BETÆNKNING NR. 152 1956: *Betænkning om en nyanordning af de kulturhistoriske lokalmuseers forhold*. Copenhagen.
- BETÆNKNING NR. 461 1967: *Betænkning om naturfredning I–II*. Copenhagen.
- BETÆNKNING NR. 727 1975: *Betænkning afgivet af udvalget vedrørende revision af museumslovene*. Copenhagen.
- BETÆNKNING NR. 953 1982: *Betænkning om samarbejdet mellem fredningsmyndighederne og museerne*. Copenhagen.
- CHAPELOT, J., QUERRIEN, A., & SCHNAPP, A. 1979: L'archéologie en France. Les facteurs d'une crise. *Le progrès scientifique*, pp. 57–110.
- 1984: *Second rapport sur la politique de la recherche archéologique en France* – Centre coopératif de recherches et de diffusion en anthropologie. Fondation de la Maison des Sciences de l'Homme. Paris.
- CHERRY, J.F., GAMBLE, C., SHENNAN, S. 1978: *Sampling in Contemporary British Archaeology*. BAR British Series 50, Oxford.
- CLEERE, H. (ed) In press: *Approaches to the Archaeological Heritage*. A comparative Study of World Cultural Resource Management Systems. Cambridge University Press.
- COLES, J. 1973 *Archaeology by Experiment*. Academic Press.
- DANIEL, G. 1975: *150 Years of Archaeology*. Duckworth. London.
- EBBESEN, K. In press: *Fortidsminderegistreringen i Danmark*. (Summary: The Registration of Ancient Monuments in Denmark). Fredningsstyrelsen, Copenhagen.
- EGGERS, H.J. 1959: *Einführung in die Vorgeschichte*. R. Piper & Co. München.
- FISCHER, A. et al 1979: *Stenalderekspementer i Lejre*. Working Papers No. 8. National Museum Press. Copenhagen.
- FISCHER, A., & KRISTIANSEN, K. (eds.) In press: *The Transition from Hunting to Farming in Northern Europe*. To appear in Edinburgh University Press.
- FURINGSTEN, A. 1983: Nordisk arkeologi – traditionell eller nytänkande? Skrifter i Nordic Archaeological Abstracts 1974–1980. In *Arkeologi i Sverige 1980*. Riksantikvarieämbetet och statens historiska museer, Rapport 1983: 3. Stockholm.
- GRÄSSLUND, B. 1974: Relativ datering. Om kronologisk metod i nordisk arkeologi. TOR 16. Uppsala.
- 1976: Relative Chronology. Dating Methods in Scandinavian Archaeology. *Norwegian Archaeological Review* 9. 69–82. Oslo.

- HANSEN, B. P. 1982: EDB og arkæologi (EDP and Archaeology). *Antikvariske Studier* 5, Copenhagen.
- HYENSTRAND, Å. 1979a: *Arkeologisk regioninddeling av Sverige*. Riksantikvarieämbetet. Stockholm.
- 1979b: *Ancient Monuments and Prehistoric Society*. Riksantikvarieämbetet, Stockholm.
- HYENSTRAND, Å. (ed) 1981: *Dokumentation – forskning* (English Summaries). Riksantikvarieämbetet. Stockholm.
- IVERSEN, J. 1941: *Land Occupation in Denmark's Stone Age*. A Pollen Analytical Study of the Influence of Farmer Culture on the vegetational Development. D.G.U. II. Række, nr. 66, Copenhagen.
- JENSEN, J. 1966: Arkæologi og kulturforskning (English Summary). *Historisk Tidsskrift* 12. række, bind 2, hæfte 1, Copenh.
- 1979: En kommentar til debatten om dansk arkæologi – fortid og fremtid. *Fortid og Nutid*, vol. 28, no. 1. Copenhagen.
- 1982: *The Prehistory of Denmark*. Methuen. London, New York.
- KJER, B. 1980: "Gamle Thomsens" børnebørn. Om oprettelsen af de første provinsmuseer i Danmark. *Fortid og Nutid* Bd. XXVIII. Hefte 3.
- KLINDT-JENSEN, O. 1975: *A History of Scandinavian Archaeology*. Thames and Hudson, London.
- KRISTIANSEN, K. 1976: En kildekritisk analyse af depotfund fra Danmarks yngre bronzealder (periode IV–V). Et bidrag til den arkæologiske kildekritik. *Aarbøger for nordisk Oldkyndighed og Historie* 1974.
- 1978: Dansk arkæologi – fortid og fremtid. *Fortid og Nutid* XXVII, 279–319, Copenhagen.
- KRISTIANSEN, K. & PALUDAN-MÜLLER, C. (eds.) 1978: *New Directions in Scandinavian Archaeology*. National Museum Press, Copenhagen.
- KRISTIANSEN, K. 1980: Dansk arkæologis publikationsbehov. *Fortid og Nutid*, vol. 28, no. 3.
- 1981: A Social History of Danish Archaeology (1805–1975). In *Towards a History of Archaeology*, edited by GLYN DANIEL, Thames and Hudson.
- 1983 Rescue Archaeology in Denmark 1870–1982. *Journal of Danish Archaeology* vol. 2. Odense University Press.
- (ed.) In press (a): *Settlement and Economy in Later Scandinavian Prehistory*. BAR International Series.
- (ed.) In press (b): *Archaeological Formation Processes*. The Representativity of Archaeological Remains from Danish Prehistory. National Museum Press, Copenhagen.
- KUHN, S. 1971: *The Structure of Scientific Revolutions*. Second Edition, enlarged. University of Chicago Press.
- LA COUR, V. 1927: *Sjællands ældste Bygder*. København.
- LAVELL, C. 1981: *Publication: An obligation*. *Archaeological Documentation in Britain Today*. Bulletin no. 18 of the Institute of Archaeology. London.
- LINDQUIST, S.O. 1968: *Det förhistoriska kulturlandskapet i Östra Östergötland* (mit deutscher Zusammenfassung). Studies in Northern European Archaeology 2, Stockholm.
- LUND, J. & THOMSEN, V. 1981: Toftinghuset. Om rekonstruktion af et jernalderhus (on the Reconstruction of an Iron Age House). *KUML*, Aarhus.
- MALMER, M. P. 1963: *Metodproblem inom järnålderns konsthistoria*. Acta Archaeologica Lundensia. Series in 8°, No. 3.
- MATHIASSEN, T. 1948: *Studier over Vestjyllands Oldtidsbebyggelse* (Studies of the Prehistoric Settlements of West Jutland). Nationalmuseets Skrifter. Arkæol-Hist. Rk. II.
- 1959: *Nordvestsjællands Oldtidsbebyggelse* (The prehistoric Settlement of Northwestern Zealand). Nationalmuseets Skrifter. Ark.-hist. rk. VII, København.
- MOBERG, C. A. 1977: Archaeology today: The old World. A Scandinavian perspective. In "New Perspectives in Canadian Archaeology". Ottawa.
- 1978a: Some Developments in North European Prehistory in the period 1969–1976. *Norwegian Archaeological Review*. Vol. 11, No. 1, Oslo.
- 1978b: Traditioner i arkeologi. In T. FORSER (ed.) *Humaniora på undantag? Humanistiske forskningstraditioner i Sverige. En antologi*. Stockholm.
- 1981: From Artefacts to Timetables to Maps (to Mankind?): Regional traditions in Scandinavia. *World Archaeology*, Vol. 13, No. 2.
- MORTENSEN, P. 1973: On the reflection of Cultural Changes in Artefact Materials – with special regard to the study of Innovation contrasted against type stability. In *The Explanation of Culture Change*, edited by COLIN RENFREW. London.
- MYHRE, B. 1972: *Funn, fornminner og ødegårder. Jernalderens bosetning i Høyland Fjellbygd*. Stavanger Museums Skrifter 7.
- 1973: Iron Age Farms in Southwest Norway. *Norwegian Arch. Review*, Vol. 7, No. 7.
- MÜLLER, S. 1884: Mindre Bidrag til den forhistoriske Archæologis Methode. *Aarbøger for nordisk Oldkyndighed og Historie*, Copenhagen.
- 1904: Vei- og Bygd i Sten- og Bronzealderen. *Aarbøger for nordisk Oldkyndighed og Historie*. Copenhagen.
- NIELSEN, P. O. 1981: Hundre tusind fortidsminder. Om den arkæologiske kortlægning af Danmark. *Nationalmuseets Arbejdsmark*, Copenhagen.
- OLSEN, O. 1977: Perspektiver for dansk middelalder arkæologi. *Hikuin* 3, Aarhus.
- RANDBORG, K. 1974: Social Stratification in Early Bronze Age Denmark: A Study in the Regulation of Cultural Systems. *Præhistorische Zeitschrift* 49. Band. Berlin.
- 1975: Social Dimensions of Early Neolithic Denmark. *Proceedings of the Prehistoric Society*, vol. 41. Cambridge.
- RENFREW, C. 1973: *Before Civilization*. The Radio Carbon Revolution and Prehistoric Europe. Jonathan Cape.
- 1982: Explanation Revisited. In *Theory and Explanation in Archaeology*. Eds. C. RENFREW, M. ROWLANDS and B. ABBOTT SEGRAVES. Academic Press, New York.
- SCHIFFER, M. B. & GUMMERMAN, G. J. 1977: *Conservation Archaeology*. A Guide for Cultural Resource Management Studies. Academic Press.
- SELINGE, K.G. 1979: *Agrarian Settlement and Hunting Grounds*. Theses and Papers in North-European Archaeology 8, Stockholm.
- STJERNQUIST, B. 1978: Approaches to Settlement Archaeology in Sweden. *World Archaeology*, Vol. 9, No. 3.
- STUMMANN, S. 1982: Gudmund Hatt – The Individualist against his Time. Paper given at the 4th TAG Conference in Durham, Dec. 1981.

- THORSEN, S. 1979: Opofrende venner og farlige fjender...” 1890’ernes højplyndringer, og et bidrag til arkæologiens socialhistorie. *Fortid og Nutid*, Bd. XXVIII, hefte 2.
- THRANE, H. 1975 ff: *Settlement Archaeological Seminar Reports*, issued yearly since 1975 in Danish on Odense University Press.
- 1982: Towards a Research Policy for Bronze Age Settlements. *Journal of Danish Archaeology*, Vol. 1. 45–50, Odense University Press.
- VEMMING, P. & MADSEN, B. 1983: An Experimental Investigation of a Neolithic Axe Manufacture Site at Hastrup Vænget, East Zealand. *Journal of Danish Archaeology*, Vol. 2. Odense University Press.
- WITT, T. 1977: *Hvad med museerne*. Wormianum.
- WORSAAE, J.J.A. 1877: Om Bevaringen af de fædrelandske Oldsager og Mindesmærker i Danmark. *Aarbøger for nordisk Oldkyndighed og Historie*. Copenhagen.
- 1879: *On the Preservation of National Antiquities and Monuments in Denmark*. Read before the Society of Antiquaries 1879.
- ØRSNES, M. 1969: Südsandinavische Ornamentik. *Acta Archaeologica*, vol. XL.

Comment

by HENRIK THRANE

From Kristian Kristiansen’s (KK in the following) survey I have picked some problems of special interest to my own situation.

The national interest in the preservation of ancient monuments for future generations has loomed large in the development of our registration of antiquities and was used as a strong argument whenever these registrations were financed – and they were all financed by special funds. I agree that it is preferable to regard this great mass of information as a potential which still remains to be utilized for integrated regional studies. This realisation is not new, however (Mathiassen 1949, Ambrosiani 1964).

The national resurgence movement after 1863 was an explicable reaction to the loss of an important part of the realm, and the registration of ancient monuments can be seen as part of this movement. Without the popular support, which in part must be attributed to the high schools (Danish: Højskoler) I doubt if even an energetic agitator like Worsaae with his useful connections in the upper levels of society could have persuaded the government to invest in ancient monuments.

I think that KK exaggerates “the long sleep”. It was felt in the archaeological society that the down to earth methods of Sophus Müller had preserved Danish archaeology from the ideological misfortunes that befell our German colleagues.

The Müller tradition was revered and accepted as a still useful base for new work. The tacit accept of the belief in objectivity – in the field as well as in the study of the material – was a main feature of the fifties and sixties. Work was done at a rate per caput which probably outrates the present day literary production per archaeologist. While KK may think that the Müller tradition collapsed in the 1960’es and 1970’es, I do not agree. Work is still being produced in that solid Danish tradition though it is realized that objectivity is impossible even in the field. It is, however, still regarded as a goal to do a good objective registration of the features which the excavator selects as the relevant ones.

Danish Archaeologists with an interest in methods have shown an early interest in New Archaeology and can boast of sections and heretics just as they can further west, e.g. Trigger, Flannery and others.

I don’t regard the publication of what KK calls New Archaeology papers in foreign journals as signifying a rejection on the part of the Danish editors. It rather shows an interest in presenting the results internationally and also shows the personal links of the relevant authors.

It may sound absurd, but actually it was customary in the 1950’es to include social anthropology, ethnology, medieval and classical archaeology in the study of Prehistory because the study plan was so elastic – too elastic for some – that each student could compose his own study. Up to 1970 or even later it must be fair to say that most students were brought up on the old tradition sprinkled with bits of New Archaeology.

The reason why regional archaeologists have not published much may have been that they were too busy in the field – especially after the 1969 law. Even by 1970 there was no more than a balance between Copenhagen and the provinces. There was a marked tendency to stay in Copenhagen or Århus if one wanted to do research. That was simply where the collections were. Archaeologists who went to the smaller museums had poor libraries and little additional facilities for producing more than excavation reports.

I disagree strongly with the contention that local museums did not use the opportunities presented by the 1969 law. They plunged into rescue archaeology as soon as the first few years of reticence on the part of the national administration had been overcome. Some museums had by 1969 done rescue archaeology for 30 years on end! Several museums are now no more engaged in rescue archaeology than they already were in the 1970’es. Unfortunately the conflicts of the 70’es have not been resolved by the switch back to the National Museum of part of the national administration.

The most bitter struggle arose over the allocation of the preventive rescue work on the gas pipeline across Denmark. KK is partly to blame for this cleft which has become more important than the original issue. The local museums were not allowed to continue their earlier practice of doing the job from start to end. The central administration forced a division so that survey and trial excavations were made by staff from the central administration, while the museums were only allowed to do the eventual final excavation.¹ This completely irrational procedure has been upheld by the administration after its