



MEGALITHS SOCIETIES LANDSCAPES

EARLY MONUMENTALITY **AND**
SOCIAL DIFFERENTIATION IN
NEOLITHIC EUROPE

VOLUME **3**

Frühe Monumentalität und soziale Differenzierung 18

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Megaliths – Societies – Landscapes
Early Monumentality and Social Differentiation in Neolithic Europe

Volume 3

Proceedings of the international conference »Megaliths – Societies – Landscapes. Early Monumentality and Social Differentiation in Neolithic Europe« (16th–20th June 2015) in Kiel

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Preface of the Series Editor

The DFG Priority Program 1400 »Early Monumentality and Social Differentiation: On the origin and development of Neolithic large-scale buildings and the emergence of early complex societies in Northern and Central Europe« started its work in 2009. Its research agenda focused on the investigation of the phenomenon of monumental structures, in particular on megalithic constructions and their social and economic backgrounds during the Neolithic with a focus on Northern Central Europe. Already in May 2010 a workshop on the topic »Megaliths and Identities« took place in Kiel. The vivid dialogue that had started on

this early workshop continued throughout the years after. In consequence the international conference »Megaliths, Societies, Landscapes« was organized five years after on a broader scale. Many experts gathered to discuss research on megalithic and monumental structures and the societies that built them on not only a European scale.

The three volumes, which you hold in your hands, may inspire again new ideas and perhaps new insides for future research on the development of these early monumental landscapes!

Johannes Müller

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Preface

Monumentality and megaliths continue to be a prominent and central research object in prehistoric archaeology, as reflected by the lasting interest in the research of monumentality in the course of many research projects. A considerable improvement of the understanding of monumentality has been accomplished by improved dating-methods and comparative perspectives. In accordance with these developments, an international conference was held in Kiel in 2015, aiming to bring together researchers from all over Europe and their respective perspectives on different forms of monumentality. The conference »Megaliths, Societies, Landscapes. Early Monumentality and Social Differentiation in Neolithic Europe« was organised by and meant as a platform for final discussions of the Priority Programme 1400 »Early Monumentality and Social Differentiation. On the origin and development of Neolithic large-scale buildings and the emergence of early complex societies in Northern Central Europe«. This priority programme lasted for six years and included several institutions in Germany. We would like to thank all of the researchers involved for their persistent and fruitful work, which are mainly also published as monographs within this series. The European Megalithic Study Group also took part in the conference.

The conference – and with it this publication – provided a framework for the presentation and discussion of many different case studies, which shed light on the interconnectedness and diversity of the complex ›monumentality‹ in Neolithic and Chalcolithic Europe. It also provided a place to discuss open questions

and problems, whereby we hope that this book will equally provide a basis for further discussions.

It is undoubtedly the contributions that make up the quality of these three volumes, and we are extremely grateful that so many European colleagues have been willing to contribute their knowledge to the overview of the current state of research that these books intend to provide. Indeed, it is not least thanks to the contributors' discipline, friendliness, patience and professionalism that we have been able to compile such an extensive body of research. In advance, we had hoped that this publication could become a reference book on Early Monumentality and Social Differentiation, and if we succeed, it is thanks to every single author. Therefore, we would like to express our deep gratitude.

In addition, a multitude of helping hands – in language correction, image processing and layout – make such a comprehensive publication possible in the first place, and whose work is far too rarely appreciated. These include Julia Menne, Richard Forsythe, who honed the last linguistic imperfections, Janine Cordts, Nicole Schwerdtfeger, Susanne Beyer, Agnes Heitmann and Carsten Reckweg, who edited hundreds of illustrations and arranged them in the right places.

Without the support of the German Science Foundation (DFG), it would not have been possible to carry out the DFG-Priority Programme or the conference and this publication. We would like to express our sincere thanks to all these parties involved.

Martin Hinz, Johannes Müller, Maria Wunderlich

The monumentalisation of European landscapes

Martin Hinz, Johannes Müller, Maria Wunderlich

It is the monumental sites that characterised large parts of Neolithic Europe during the 5th and 4th millennia. During these centuries, Neolithic societies began to construct above-ground monuments and enclosures in many regions of southern, western, northern and central Europe. These developments might be linked to processes of social differentiation, changed economic practices, new exchange systems and ritual traditions.

These perspectives were the central focus of the conference ›Megaliths, Societies, Landscapes. Early Monumentality and Social Differentiation in Neolithic Europe‹, which was held in Kiel with 184 participants from 14 countries by the SPP 1400 ›Early Monumentality and Social Differentiation. On the origin and development of Neolithic large-scale buildings and the emergence of early complex societies in Northern Central Europe‹. The conference especially focused on the interlinkage between Neolithic monuments, the construction of landscapes and the societies.

This took place against the background of the priority programme, which from the onset aimed to understand and analyse the monuments in their context. For too long, megaliths in particular have been examined detached as monoliths, so to speak, which in their own right represent a prominent archaeological phenomenon of the European Neolithic, but whose real significance can only be appreciated through their entanglement in the overall network of socio-cultural conditions of early agricultural societies. The investigation of architecture and its regional characteristics is certainly very valuable in itself, and a classification and chronology form an important starting point for further investigations. However, it must not be limited to that! Therefore, the objective of the priority programme was clear from the beginning, and this view was reinforced during the course of the project, namely that the monumentalisation of the landscape through the collective work of communities is to be explained by social processes of differentiation resulting from changed ways of economy, new exchange systems and ritual ideas. Only from the synthesis of all available and newly-acquired data combined with the interpretation from ecological, socio-historical

and cultural anthropological perspectives can an understanding of these processes be made possible. The structure of both the priority program and the conference is committed to this goal: the monuments as such must be studied in detail, whereby those that are not made of stone and therefore have not visibly survived to this day and thus have experienced less research activity require special attention. Nonetheless, at least as important is the analysis of the economic basis of the communities constructing them, the material culture, which can be directly or indirectly connected to the monuments themselves, the social conditions, which can be deduced from these traces of human activities and must be given special consideration against the background of collective work and burial, and, finally, the people of the Neolithic period themselves, who we can seldom enough identify for the area of megalithic architecture in general but who are the bearers of this phenomenon and ultimately responsible for the monuments, which still shape landscapes today and can and indeed still do serve as markers and points of crystallisation of identity.

The phase of early monumentality offers important insights into processes that have influenced human coexistence. While it is difficult to recognise a social structure before, the dynamics of change intensify enormously during the construction period of Neolithic monuments. Starting with the Passy type graves, in which individuality and monumentality suddenly emerge to an enormous extent, we see an ever-more developing focus on cooperation. The multiple change in cognitive expression, this quasi search for a social configuration against the background of the new way of life and economy—certainly connected with new ideologies—can be located precisely during the phase of early monumentality.

Therefore, in addition to the individual case studies on individual monument landscapes, the SPP also included projects investigating the background of early monumentality; in fact, more projects were related to this aspect than those set up in the traditional sense. Indeed, this is also the basis for the division of the conference into the individual sessions, which again

reflects a focus on the holistic approach to the concept of early monumentality.

There is a close relationship between monumentality and cooperative practices in the construction and use, especially the burial and other ritual practices of and within the monuments themselves. Expressions of this concept can be found in the form of megalithic tombs, menhirs, stone circles, avenues and non-megalithic constructions like long and round barrows, causewayed enclosures and further timber-and-earth constructions. The session ›*Monuments of Stone, Wood and Earth*‹ provided an overview of the various manifestations of monumentality in their European context.

Monuments are a part of an economic, social and ritual landscape. Monuments are always embedded in an overall landscape and social practices, from which they gain their meaning. Domestic structures often represent the background and link of symbolic and ritual components associated with monumentality. In order to understand the phenomenon of monumentalisation, it is essential to take an archaeological perspective that integrates social practices and landscapes. In the session ›*Monumental Landscapes*‹, this entanglement was examined. Several contributions identified different levels of meaning by addressing groups of monuments, their relationships with each other and to the non-monumental elements of the Neolithic worlds.

It has always been assumed that early monumentality is associated with changes in subsistence, economy and technology, and may be causally related to these changes. In its quantity and omnipresence, monumentalisation remains linked—according to today's state of knowledge—to productive economies. Today, we have a large amount of data, dating and new methods at our disposal in field archaeology and scientific analysis to confirm or question this notion. New light is cast on agricultural tools, techniques and the organisation of the Neolithic subsistence economy, including the movement and mobility of things, plants, animals and humans. In this sense, the development of monumentality in relation to economies can be correctly assessed. The session ›*Neolithic Subsistence and Megaliths*‹ therefore comprised contributions dealing with the Neolithic subsistence in general, as well as the connection between economy and monumentality in particular.

The study of material culture has always been the backbone of archaeological research. Material culture itself is the most direct way of observing the life of Neolithic societies responsible for the construction of the monuments. Through the exploration of material culture, processes of production and consumption become perceptible, of which the monuments

themselves are part. With the help of such analyses, the work processes that to a certain extent determined Neolithic societies can be examined. In addition, it is the tangible densification of communication processes that connected the individual groups of spaces, whereby the exchange of objects may have been a medium for the reproduction of these societies. In the session ›*Material Culture in Monumental Settings*‹, material culture was examined in the context of the phenomenon of early monumentality. The focus was on research investigating the production, use and distribution of objects and thus addressing the overarching questions. Chorological or chronological differences in the use of an entire group of materials, site-specific analyses and microscopic examination of individual objects formed the broad framework. The objects themselves were in focus, but above all the question of the practices that were made possible by the artefacts and into which they were embedded.

As a distinctive phenomenon, the megalithic tomb represents a form of monument that points to a significant cooperative aspect. Such monuments could only be built together. At the same time, the common use of these structures is made plausible by a collective burial custom. The same applies to other forms of monumentality in which cooperative building processes by larger groups of people were necessary. At the same time, these monuments may have been important as ritual and symbolic central places, especially for both large or disperse groups of people. In addition to the integrative character of monuments, they might often be associated with the exclusion of persons. For example, a megalithic tomb separates the enclosed from the outside world. The same applies to causewayed enclosures, where in these cases a distinction is made between inside and outside. Accordingly, are these monuments the expression of a cooperative ideology, or do they testify to the power of some over the labour of many? In addition to these inherent characteristics of monuments, the timespan of their emergence seems to be characterised by a stronger (inner) differentiation of groups of people, recognisable archaeological in the field of material culture. For example, in northern Funnel Beaker Societies, there is a significant regionalisation of decorations and ceramic forms, while they are spatially connected by a very similar burial custom, almost a variation of a supra-regional sharing of megalithic construction customs. The topic dealt with in the session ›*Social Diversity and Differentiation*‹ highlighted references to the underlying processes of the mentioned phenomena, which result from current studies. How can we interpret the rather sparse and often seemingly contradictory traces of the social organisation of Neolithic societies? Can social differentiation be observed in the context of the

monumentality of the landscape, and in what forms are the different developments presented in different regions? Although a differentiated picture has been drawn, a common line may nevertheless be presumed that architecture is in most cases indeed more cooperative but also most often the most traditional and inert element in the course of social change.

There are some approaches that lead directly to the people who erected the monuments, namely the direct study of human remains and the analysis of their sparse personal testimonies. Ultimately, with their data, ethnoarchaeological studies – even if they do not examine Neolithic cultures themselves – represent an invaluable extension of the interpretive scope. Human remains are unevenly present in the different areas of the distribution of the phenomenon of early monumentality. Nevertheless, they become all the more important as a source where they are present. Although a knowledge transfer of anthropological studies from one research area where they can be carried out to another must use the same analogy as ethnoarchaeological studies, they represent unique focal points that illuminate an otherwise only indirectly visible area. The ›*Monuments and their Builders*‹ session was devoted to the task of collecting such evidence to get ›closer to the people behind the monuments‹.

The three volumes presented here broadly reflect the original structure or the conference. The first volume deals with ›*Monuments of Wood and Earth*‹, as well as ›*Megalithic Studies*‹.

We have decided to separate the originally-consolidated session for the publication. This decision was influenced by the outstanding role of non-megalithic monuments made of wood and earth due to their significance as the earliest appearing types of monumental structures in Neolithic Europe. The second chapter focuses on monuments built of stone. Despite this division between the two types of monuments, we would like to stress the interconnectedness, their – in many

cases – chronological continuity, as well as the shared role of the monuments in the creation of new and renewed monumental landscapes.

The second volume comprises chapters on ›*Monumental Landscapes*‹ and ›*Neolithic Subsistence and Megaliths*‹. Both chapters take an overarching perspective on different regions and types of monuments. Their focus lies on aspects of the creation and alteration of landscapes, as well as aspects of Neolithic economy and subsistence. One of the main accomplishments of these case studies lies in their chance to provide a socioeconomic background against which the phenomenon of monumentality might be understood and interpreted.

Finally, the third volume is devoted to different aspects of material culture, social differentiation and dynamics. It comprises chapters on ›*Material Culture in Monumental Settings*‹, ›*Social Diversity and Differentiation*‹ and ›*Monuments and their Builders*‹. The papers included in these sections provide a background on the social processes and mechanism being influential in monumental building practices. They also provide a comparative perspective, including recent examples of ethnoarchaeological research in areas of megalith building traditions.

The newly-acquired data now makes it much more possible to integrate the phase of early monumentality meaningfully into developments that span the arc from complex foragers via agriculturalists to metal-producing societies. In our observation, most of the European megaliths are linked to societies that already produced surplus but comprised cooperative ideologies.

However, it is precisely the regional heterogeneity and inner dynamics that ensure that the investigation of early monumentality and social differentiation will continue to be an exciting field of research in the future, which is also relevant for the assessment of today's social configurations.

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Diversified monuments:

A chronological framework of the creation of monumental landscapes in prehistoric Europe

Maria Wunderlich, Johannes Müller, Martin Hinz

The emergence of different kinds of prehistoric monumentality within modern-day Europe creates a complex structure of diverse building traditions, including both megalithic and non-megalithic monuments.

Only recently, B. SCHULZ PAULSSON (2017) presented a comprehensive summary of available dates of megalithic monuments in western and parts of central Europe. Expanded by the British Isles as well as modern-day Germany and Poland, Figure 1 presents a general overview of the different chronological and social contexts in which the construction of prehistoric monuments took place. In order to ensure comparability and accessibility, the classification of monument types is based on the distinction between dolmens, passage graves and (megalithic and non-megalithic) long barrows. The category of dolmens comprises different sub-types, such as the extended and small dolmens present in Funnel Beaker contexts.

Megalith building traditions and the construction of enclosures represent an archaeological topic of European scale, spanning different regions and times. Both aspects have been the subject of intensive and diverse research questions as well as extensive dating programmes. Besides early approaches (cp. MÜLLER 1984; 1998), especially the improvement of archaeological excavation techniques and the use of Bayesian modelling has significantly improved our understanding of the chronological framework within which the rise of monumentality took place (among others: SCHULZ PAULSSON 2017; WHITTLE et al. 2011). The summary that we present here strongly relies on these studies.

As reflected in the different chapters of this book, monumentality encompasses monuments made of wood, earth and stone. Certainly among the most impressive sites are the different kinds of enclosures that were built throughout the Neolithic and Chalcolithic phases of European prehistory. Among early examples of causewayed enclosures are those within the context of Cerny and Michelsberger Groups in the Paris Basin, as well as in central Germany (JEUNESSE 2004; KLASSEN 2014; WHITTLE et al. 2011). Several centuries later, enclosures were frequently built in the context of Funnel Beaker communities in what is now northern

Germany and Denmark (compare Andersen this volume; HAGE 2016). With one of the highest densities, but in a different context, enclosures were also erected on the British Isles from 3800 cal BC onwards (WHITTLE et al. 2011). In contrast to these situations, the building of enclosures in the Iberian Peninsula started slightly later, around 3300 cal BC (JIMÉNEZ-JÁIMEZ/MÁRQUEZ-ROMERO 2016), already situating them in Late Neolithic and Early Chalcolithic contexts.

The second type of non-megalithic monuments are long barrows, which represent the earliest types of monumental grave structures in the respective regions. Outstanding examples of these early grave types are to be found in both the Paris Basin as well as north-western France. Long barrows are preceded by the monumental tombs of the Passy type in the Paris Basin, of which similar examples can also be found in the Normandy (CHAMBON 2010; GHESQUIÈRE et al., this volume; SCHULZ PAULSSON 2017; GUILAINE 2011).

Long barrows are also present in Funnel Beaker contexts, representing the earliest monumental burial types in northern Germany, Denmark and Poland with an appearance from 3900/3800 cal BC onwards (compare MISCHKA 2014; MÜLLER 2014; RZEPECKI 2011; SJÖGREN 2011). Nevertheless, a distinction can be made between the Kujavian grave types in modern-day Poland – which were always non-megalithic long barrows – and the monuments in northern Germany and Denmark, which were partly transformed into megalithic long barrows by the integration of megalithic grave chambers (MISCHKA 2014; NOWAK 2013; POSPIESZNY 2010). A similar development is also detectable in southern England. Here as well, the earliest monuments comprise non-megalithic long barrows (3700 cal BC), while later on a transformation into megalithic monuments took place (DARVILL 2016).

Soon after the introduction of long barrows, the construction of dolmens and passage graves mark the most intensive phase of megalithic building activities throughout Europe. In many cases, the appearance of dolmens precedes the emergence of passage graves, although – based on available ¹⁴C-data – a

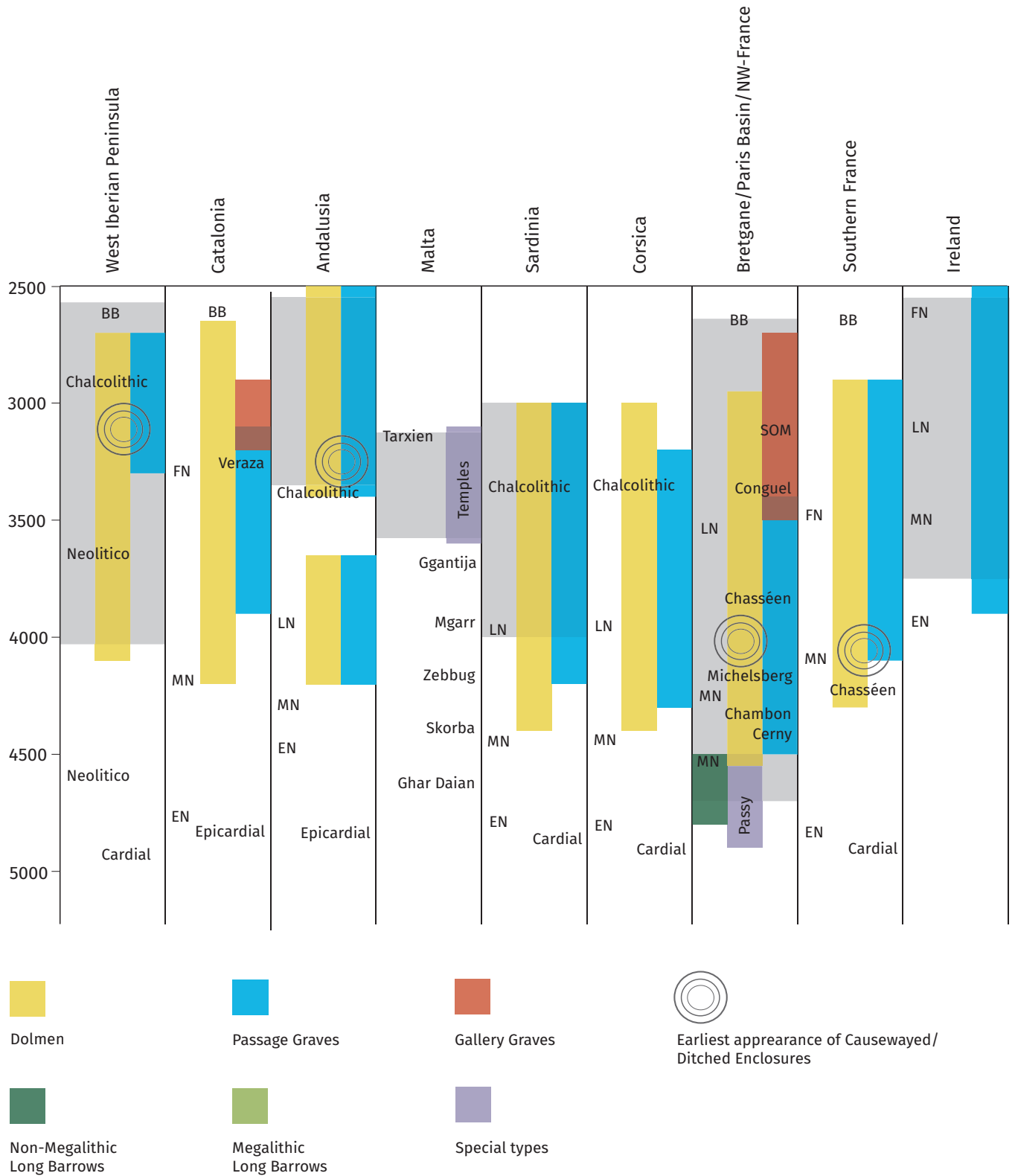
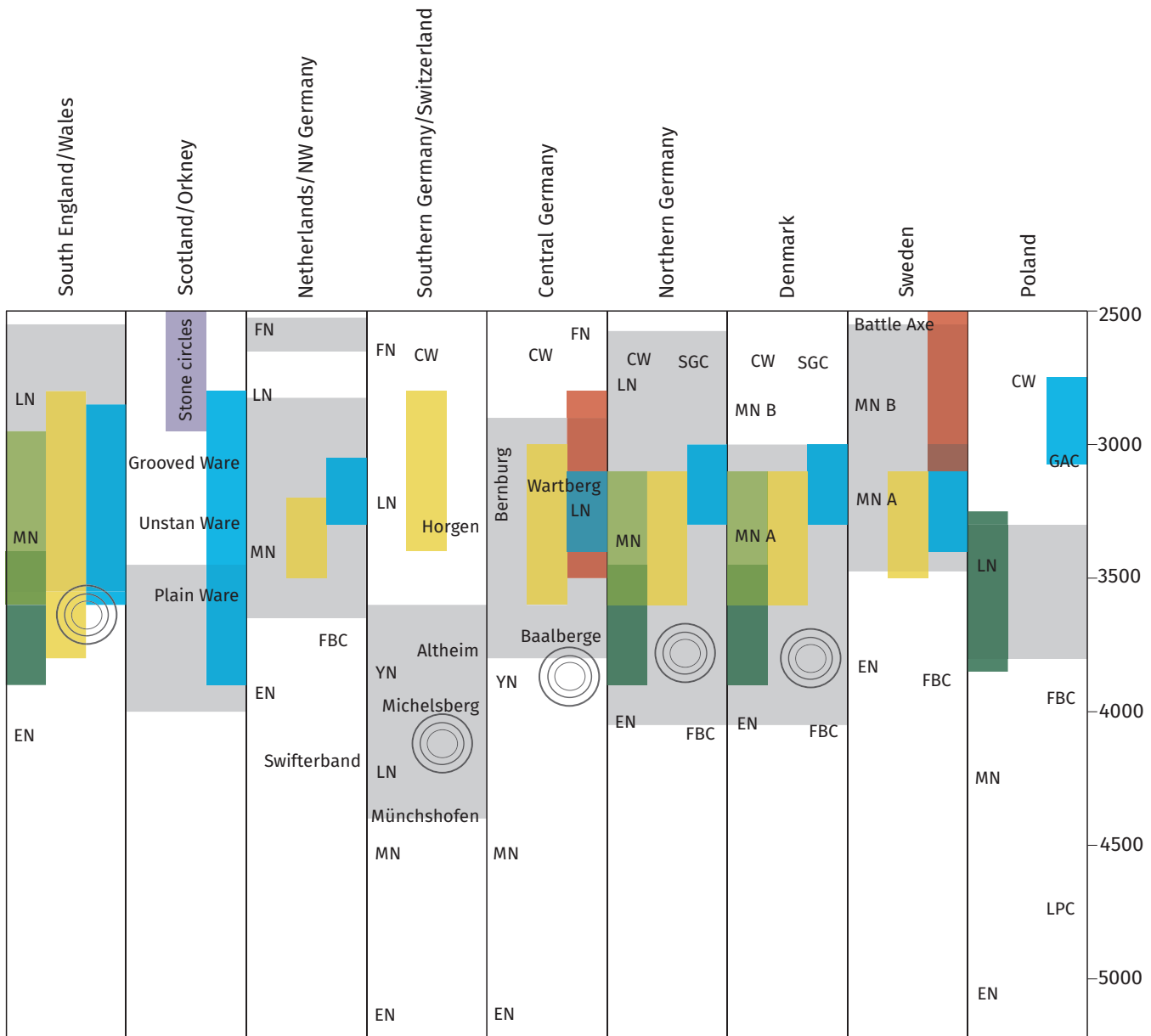


Fig.1. The chronological framework of megalith building traditions in Neolithic and Copper Age Europe. Included are both monuments made of stone, as well as stone and earth monuments. The depicted enclosures mark the earliest appearance of this phenomenon in the respective regions. Nevertheless, the presence and use of these enclosures spans a longer timeframe. The different contexts covered by the contributions within this book are marked in lighter grey.



contemporaneity of both grave types must be assumed (FURHOLT/MISCHKA, this volume; SCHULZ PAULSSON 2017; SJÖGREN 2011). Once again, the earliest dates of human bones from megalithic grave chambers are to be found around 4500 cal BC in Brittany and along the Atlantic coastline of France in Castelic and Sandun contexts (SCHULZ PAULSSON 2017). The whole area of Brittany, north-western France as well as the Paris Basin provides an extraordinary case of diversified monumentality, encompassing diverse grave types and a long duration of monumental building activities in different contexts (LE ROY et al. 2014; GUILAINE 2011; BOUJOT/CASSEN 1993).

Around 4400/4300 cal BC, the earliest dolmens in Sardinia and Corsica were built during the Middle Neolithic, soon to be followed by passage graves and accompanied by the erection of standing stones. These building activities continued until the end of the 4th millennium BC (CICILLONI, this volume).

Another centre of megalith building activities is to be found on the Iberian Peninsula, with the earliest construction phases of dolmens starting around 4300 cal BC in Andalusia and Catalonia. Andalusia provides an interesting case study, including from another perspective. Here, megalith building can be divided into two distinct construction phases. After the

initial Neolithic phase, megalith building activities immensely decreased, although the old monuments were still important places. It is only during the Chalcolithic period that building activities became clearly intensified again. This second phase of megalith building started in the second half of the 4th millennium and lasted for many centuries (SCHULZ PAULSSON 2017; GARCÍA SANJUÁN et al. 2011; GARCÍA SANJUÁN et al., this volume).

On the British Isles, in the Netherlands and Germany as well as Scandinavia, the earliest appearance of dolmens and passage graves is to be found mostly later during the second half of the 4th millennium BC. Many of these monuments are situated in the context of the different Funnel Beaker groups, as well as the neighbouring Wartberg and Bernburg Groups. The megalithic grave chambers appear at a very similar time within the modern-day areas of the Netherlands, northern and central Germany, as well as Denmark. Only in Sweden, the erection of dolmens

started slightly later and partly in contemporaneity with the passage graves (FURHOLT/MISCHKA, this volume; MISCHKA 2014, MÜLLER 2014; RAMSTEIN 2014; SCHULZ PAULSSON 2010; SJÖGREN 2011).

The last type of megalithic building activities is represented by the gallery graves that occur in modern-day Sweden, Germany, France and Catalonia. These tombs represent a different construction type, albeit at the same time providing a continuation of collective burial rites in the respective regions (RAETZEL-FABIAN 2000; BLANK et al. 2018; SCHIERHOLD 2012).

Despite presenting a wide scope of case studies within different regional and chronological contexts, this compilation is only a summary of the fundamentally diverse and complex monumental building activities in the scope of the 5th to 3rd millennium BC. Future research will sharpen our understanding of chronological matters as well as the occurrence of megalithic architecture in other regions of Europe.

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Pots for the ancestors. The structure and meaning of pottery depositions at passage graves

Torsten Madsen

ABSTRACT

Despite the total destruction of the passage grave at Nørremarksgård, part of the pottery deposited in front of the tomb was exceptionally well preserved. This has made it possible to reconstruct the sequence of depositions in front of the tomb in detail, adding valuable information to our knowledge of this type of events. The first part of the paper describes and analyse the depositions at Nørremarksgård. Based on vertical and horizontal stratigraphic evidence and stylistic differences, I separate eight depositions and place them in a chronolog-

ical sequence. Further, the paper demonstrates the deliberate destruction of pots and the deposition of incomplete pots. The second part of the paper draws the lines from the depositions at Nørremarksgård to other megalithic tombs and to causewayed enclosures. The development in burial practices is discussed and it is shown that a shift in depositions from causewayed enclosures to megalithic tombs may occur at the turn from EN II to MN A I. Finally, the paper discusses the implications for the social structure of society in the TBR culture.

INTRODUCTION

A remarkable feature associated with megalithic tombs in northern Europe and especially in South Scandinavia is the extraordinary amount of exquisite pottery found along the kerbstone lines, centring on the entrance area to the chambers (MIDGLEY 2008, 148 ff.).

From the outset, the pottery found in front of megalithic tombs was considered offerings in connection with burials in the chambers (MADSEN 1896; MÜLLER 1923) or from initiation ceremonies of the tombs (ALMGREN 1910, 77; NORDMAN 1917b). Later an interpretation of the pottery as the result of clearances of the chamber to make room for new burials was added (ROSENBERG 1929, 1933; FORSANDER 1936; BRØNDSTED 1938, 205–6).

It was Knud Thorvildsen's excavation at the Grønhøj passage grave in 1940 that finally settled the question (THORVILDSSEN 1946). Six pots stood undisturbed on the chamber floor and shards from a seventh lay in the chamber, the passage and outside. These pots can be dated from early in MN A I to the beginning of MN A II, while the pottery placed in front of the kerbstones dates from early in MN A I to the end of

MN A II. Thorvildsen (1946, 91–92) convincingly concludes that the pottery in front of the kerbstones had been placed there through time in connection with activities inside the tomb. This does not mean that clearances of chambers did not take place, but in well-documented cases, it appear to happen at a later stage, after the depositions of pottery in front of the tombs ceased (KJÆRUM 1970, 55).

Discussions following the publication of Grønhøj mostly focussed on the frequency of the depositions in front of the tombs ranging from suggestions that pots were added continuously with only one or two pots at a time (EBBESEN 1979, 32) to suggestions that they reflect one or a few depositions in connection with burials (GEBAUER 1979, 142). One publication, however, stood out. Poul Kjærums paper on his investigations of the passage grave Jordhøj was a dedicated attempt to elucidate the nature of the deposits. A careful analysis of the position of individual pots and their dates based on stylistic evidence suggested a total of four to seven deposits (KJÆRUM 1970, 52).

THE PASSAGE GRAVE AT NØRREMARKSGÅRD

The Nørremarksgård passage grave, located 4 km west of Horsens in Eastern Jutland, Denmark (Fig. 1),

was excavated by the author in 1985 (Horsens Museum j. no. 102). The tomb lies in an area with many

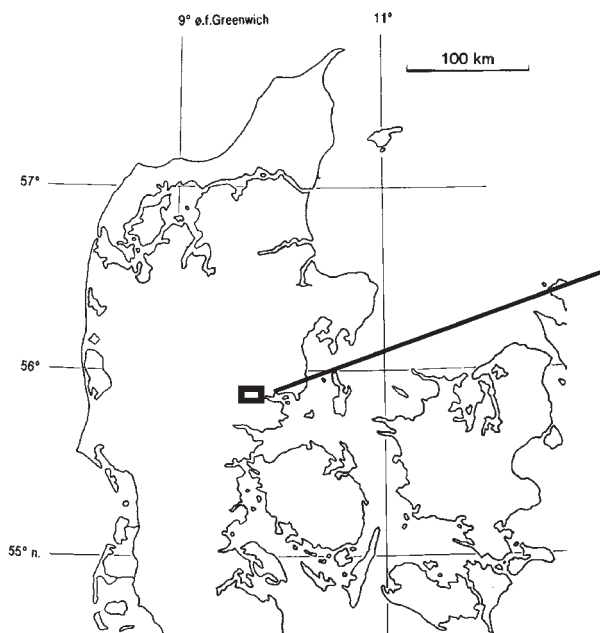


Fig. 1. Map showing the position of the Nørremsgård passage grave (1) together with a number of other megalithic tombs west of Horsens town in eastern Jutland. The Grønhøj passage grave (2) mentioned in the text is one of these.

megalithic tombs, most of which are ruined to various degrees. A number of these tombs have been excavated, including the well-known and well-preserved Grønhøj passage grave (THORVILDTSEN 1946).

In 1905, G. Sarauw described the Nørremsgård site (Sb 18 of Hatting parish, Hatting District, Vejle County) as a »Ploughed over barrow, 1.6 m high and 30 m in diameter. In the southern half, the remnants of a demolished passage grave with a passage to the south are visible. Four large uprights in the chamber and two in the passage; one stone overturned. The other stones removed. Under a large stone in the chamber, a collec-



Fig. 2. The passage grave seen from the south after removal of the top soil and all disturbed layers (photo: T. Madsen).

tion of potshards occurred. These were handed over to the museum as a gift« (NM A22440; Fig. 4).

The excavation in 1985 revealed a chamber in the southern half of a round barrow encircled by a row of 65–70 kerbstones – now all gone (Fig. 2 and 3). The barrow had a diameter of approximately 19 m with a fill preserved to a height of 0.5 m. Due to disturbances in the south-west part of the barrow only 46 kerbstones could be traced through their imprints in the ground. The barrow consisted of sand and gravel with embedded layers of brown humus. Below the barrow, traces after ard ploughing were noted.

All uprights from the chamber and passage had disappeared, but the excavation revealed clear marks after the stones. The chamber had a round to oval floor plan measuring 3.3 m by 3.2 m with the longest axis perpendicular to the passage (Fig. 3). It had nine uprights – four on each side in an arched setting and one huge stone at the rear. Between the uprights, slabs forming the lower part of drywall stacks stood in situ. Behind the uprights lay a massive packing of clay mixed with both crushed and burned flint. In a limited area, a floor paved with flat stone slabs and covered with a layer of white burned, crushed flint mixed with charcoal was preserved.

The passage was 2.5 m long and 0.8 m wide. It had three sets of upright of which the central pair had been of a fair size, while both the inner and outer pairs were small (Fig. 3). Between the inner pair a large flat stone slab, set on edge into the ground, filled the space between the two uprights, constituting a threshold

stone for a door arrangement. The outer pair of uprights had probably not carried a capstone. Towards the entrance, the kerbstones bend inwards, forming a funnel to the passage.

From the disturbed soil of the chamber came a few shards, fragments of amber beads and the front part of a flint chisel. Among the shards is one from a ledged vessel decorated below the rim with a horizontal row of stick stabs followed by vertical rows of stick stabs reaching down to the ledge. The vessel that must come from a burial in the chamber dates to a late part of MN A.

The pottery shards donated to the National Museum in 1905 must also come from burials in the chamber. They are from six different vessels – five shouldered vessels and a funnel-neck beaker (Fig. 4). Stylistically this pottery dates to MN A I–II.

A dense layer of stones, partly destroyed by ploughing lay outside the kerbstone line, east of the passage. Below the stones, up to 7 m east of the passage, deposits of broken pots were found. The stones continued, though not so densely, along the east side of the barrow, but without pottery finds.

The area west of the passage and partly in front of it was heavily disturbed. A few potshards in the disturbed layers are probably the leftovers of deposits like those found east of the passage.

POTTERY DEPOSITIONS AT NØRREMARKSGÅRD

In front of the kerbstone line, the excavation revealed around 15.000 shards with a weight of app. 75 kg. The condition of the shards is generally good, and as the degree of decoration is high, it was possible for me to sort most of the shards (around 13.000) into 85 individual pots. Some of these pots are more or less complete, but in most cases, parts of the pots are missing.

The pots have been restored to varying degrees, but even where all or most of the shards from individual pots are preserved, complete pots have not been assembled. In some cases, this is due to the crumbling of shard edges, but mainly the reason is a decision not to use plaster to reconstruct the pots. Thus, just looking at the illustrations of the pots does not provide an idea of how well they are preserved. To obtain a preservation index, I have measured how much of the circumferences at characteristic points as the rim, the neck-belly transition and the transition between upper and lower bellies are preserved. Combining these measures with the respective diameters, I have calculated a preservation index in percentage for each pot. You can find the preservation indexes in the captions to the illustrations of the pots.

Anne Bjerrekær (BJERREKÆR 1992) studied the pots and the details of their deposition as part of her MA



Fig. 3. Plan of the passage grave. Stone marks are shown in dark grey, clay and flint packing around the chamber in yellow and disturbances in red. The first six kerbstones east of the passage are numbered for comparisons with figures 21–24.



Fig. 4. Shards from pots found in the chamber and donated to the National Museum in 1905 – M 1:3 (photo: T. Madsen).

theses. Using stratigraphic evidence as well as horizontal and vertical plots of shards from individual pots, she separated seven major depositions and some possible single depositions of pots. I have reanalysed the material and separated eight major depositions,



Fig. 5. Seven of the nine pots found in deposition I – M 1:3. The preservation indexes for the pots are 25: 60%; 27: 40%; 57: 90%; 58: 30%; 61: < 20%; 62: > 90%; 63: 80%; 80: < 20% and 83: < 20% (photo: T. Madsen).

seven of which are the same as those separated by Bjerrekær. There are, however, differences with respect to which pots belongs to what depositions.

Deposition I. This deposition consisted of nine pots (Fig. 5). The pots were placed in front of and between the third and fourth kerbstone east of the passage within an area of no more than 0.8 by 0.6 m, although some of the shards had been spread a little wider than this (Fig. 20). The deposition contains five funnel-neck beakers, three funnel-neck bowls and a pedestal bowl. The funnel-neck bowl 27 and the funnel-neck beakers 57, 62 and 63 were placed together in a low depression directly in front of a kerbstone. Lat-

er, activities in connection with an adjacent pit containing pottery depositions (VI–VIII) had disturbed Pot 27 with the result that many minor shards lay dispersed to the south and west. The same is partly true with pot 63. The funnel-neck bowls 25 and 83 lay on the slope of a small heap of burned flint and sand between two kerbstones (Fig. 7). They had obviously been disturbed during stone removal along the kerbstone line. The few shards from the pedestal bowl 80 lay adjacent to a kerbstone and slightly deeper than shards from the other pots. It was probably disturbed in connection with the removal of the kerbstone. The few shards from the funnel-neck beakers 58 and 61 lay on

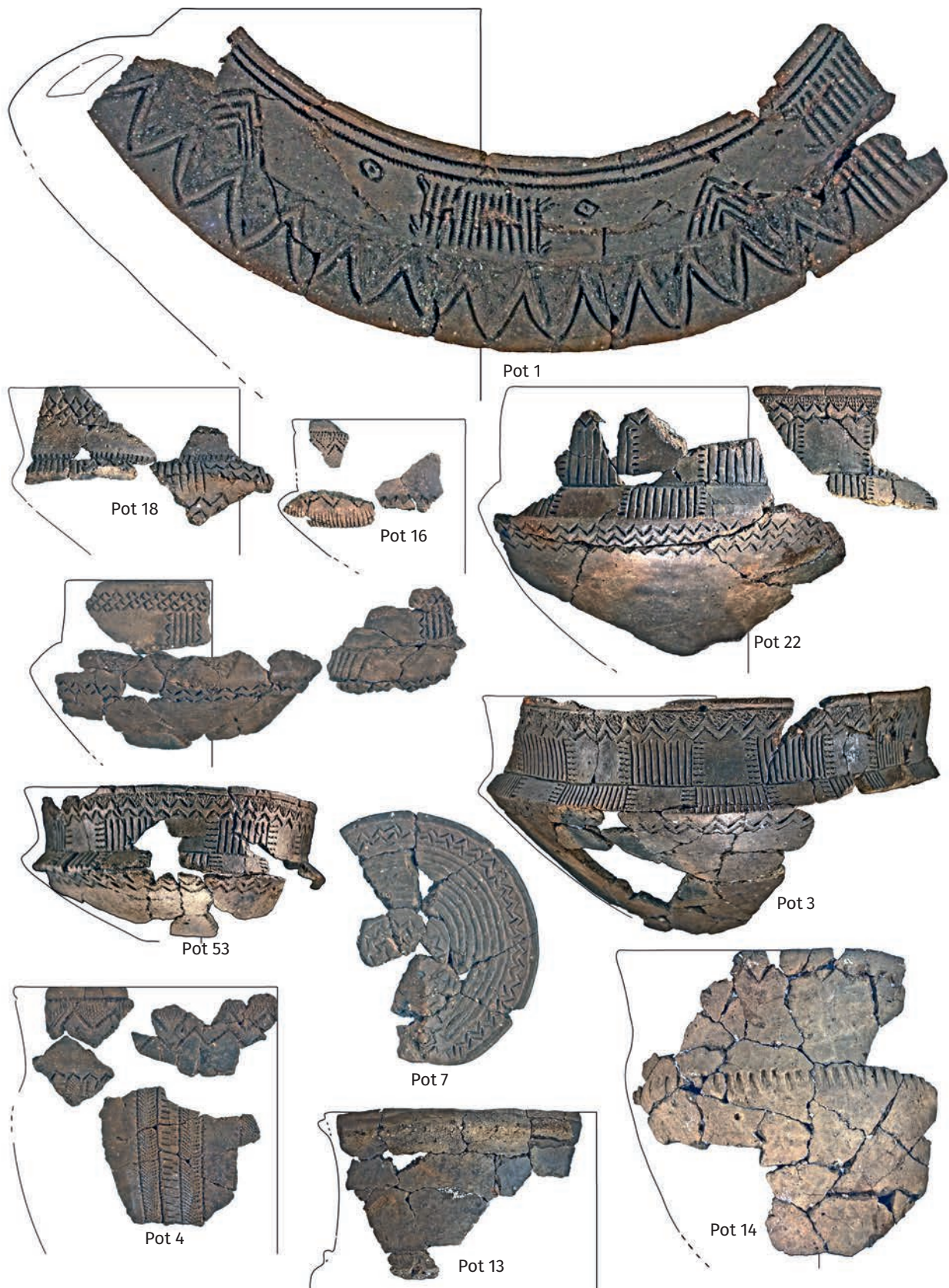


Fig. 6. Sixteen of the eighteen pots found in deposition II – M 1:3. The preservation indexes for the pots are 1: > 90%; 2: 70%; 3: > 90%; 4: 20%; 5: 70%; 6: 40%; 7: 60%; 13: 60%; 14: 30%; 15: < 20%; 16: 20%; 18: 40%; 19: 50%; 21: 60%; 22: 70%; 23: ?; 26: 40% and 53: > 90% (photo: T. Madsen).

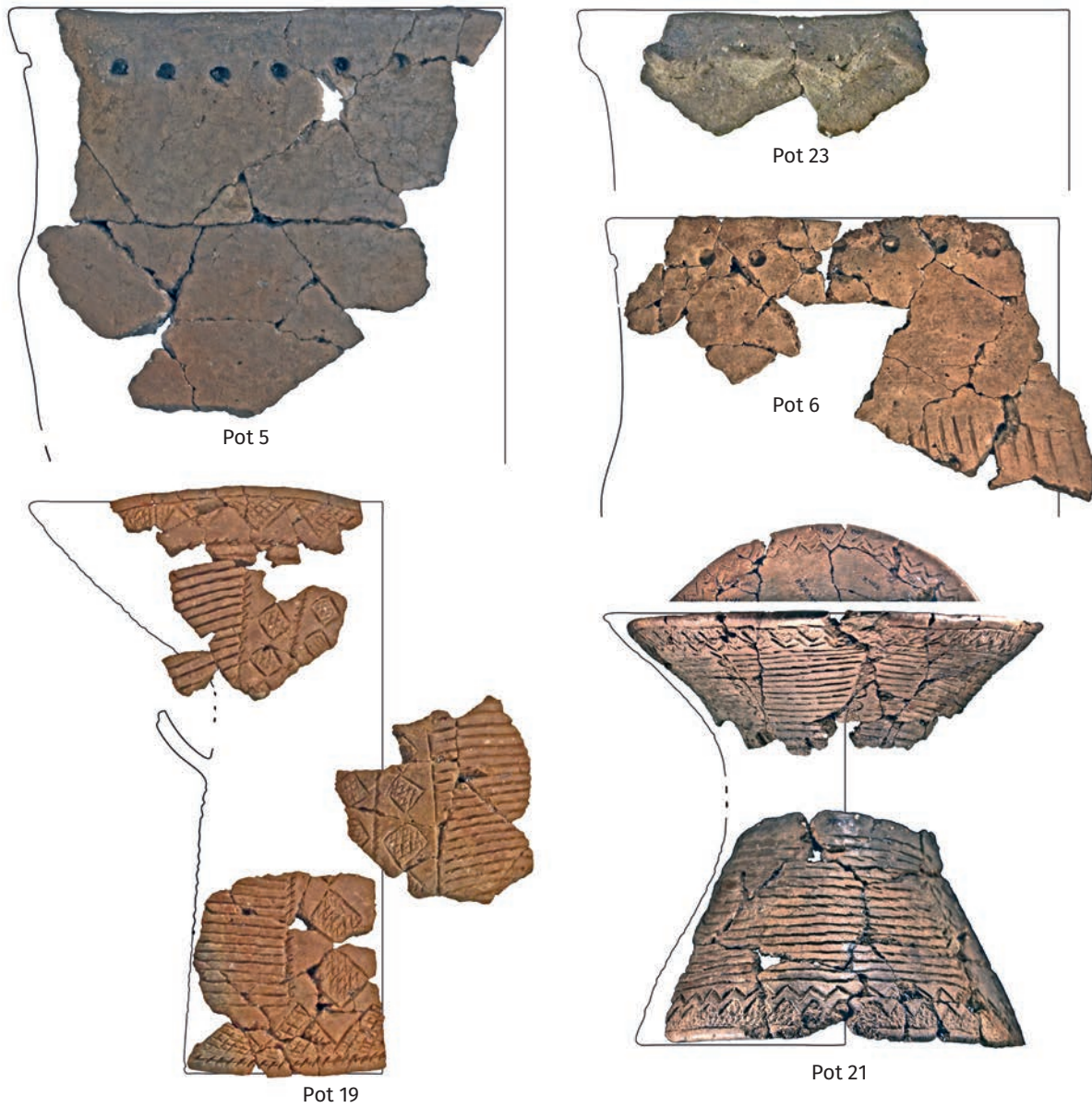


Fig. 6. Continued.

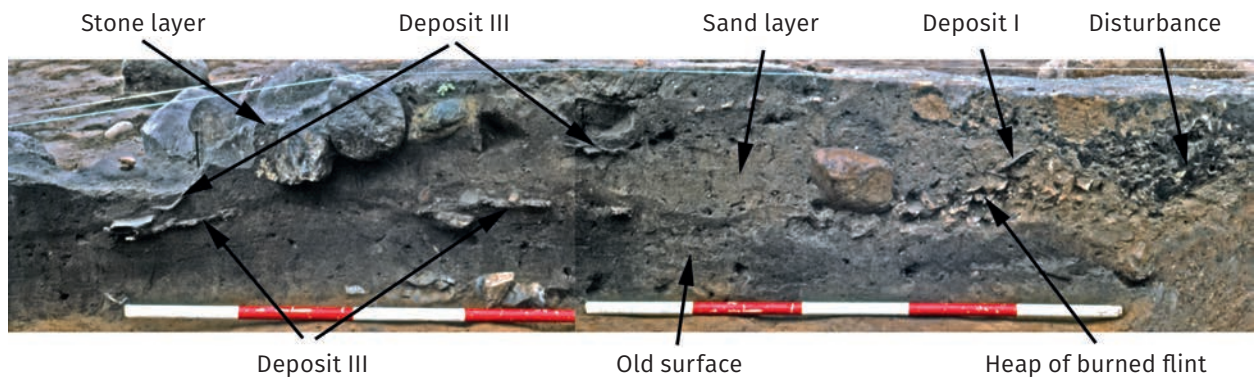


Fig. 7. Section through deposited layers in front of the kerbstone line seen from the east. The disturbance to the right marks the position of a kerbstone (photo: T. Madsen).

a slightly higher level than the shards from the other pots. Recent disturbances had clearly affected them.

Deposition II. This deposition consisted of eighteen pots (Fig. 6). The pots lay in front of the kerbstone line in an area measuring 2 by 1.7 m with most of them less than a metre from the kerbstones (Fig. 21). The shards lay on a humus-filled layer of sand that probably represents the original surface, and a layer of yellow-brown sand that sealed them off from the higher lying deposition III (Fig. 7) covered them. The sand was thickest close to the kerbstones, where it partly covered deposition I as well. It thinned down outwards where it disappeared after 1.8 m. and it thus only covered part of the shards from pots 13, 22, 23 and 26. The deposit contained seven shouldered vessels, five funnel-neck beakers, two funnel-neck bowls, two pedestal bowls, a clay ladle and a clay disk. The preservation of the individual pots is of special interest due to the covering layer of sand.

Three of the shouldered vessels are fully preserved. Pot 1 lay bottom up with three stones covering its centre (Fig. 8). The stones lay in such a way that they must have been thrown onto the pot, crushing it. The shards all lay concentrated within a small area and, apart from the crushing, apparently undisturbed. Most of Pot 53 lay almost undisturbed in a slanting position against a stone on which it may originally have been placed or more likely smashed against (Fig. 9). The position of the pot is above the general shard layer of deposit II visible below the pot and the stone. Pot 53 must have been one of the last pots added to the deposit before this was covered and engulfed in sand leaving us a snapshot from the past as seen on Figure 9. Yet a few of its shards lay a couple of metres from where it stood. Pot 3 lay broken with the shards concentrated within a limited area all covered by the layer of sand.

Seven pots (2, 5, 7, 13, 19, 21 and 22) had a preservation index between 50% and 70%. Characteristic for these pots are that major parts are present and often well preserved, while other parts of the pots are missing completely. An illuminating example is the clay ladle pot 7. All shards from one-half of the ladle lay together, while not a single shard from the other half was present. The shards from pots 2, 5, 7, 19 and 22 lay concentrated within limited areas, and there was no indication for a spread of the missing parts. Most of the shards from pots 13 and 21 also lay within limited areas, but 5–10% of the shards lay up to 3 m from their respective distribution centres continuing outside the layer of covering sand. Thus, missing parts from these pots may partly have been removed by disturbances from the plough zone.

Of the remaining eight pots, seven (4, 6, 14, 15, 16, 18 and 26) had a preservation index of less than 50% while for Pot 23 the index could not be established. For some of these pots all shards lay concentrated (pots 18,



Fig. 8. Pot 1 from deposition II. The pot had been placed upside down and deliberately smashed with three stones. The stones lay directly on the rim of the pot, while bottom shards had collapsed around the stones, partly leaning against them. The hole to the right is the emptied stone mark from kerbstone 4. (photo: T. Madsen).



Fig. 9. Pot 53 from deposition II. The pot was one of the last to be added to deposition II before this was covered with sand. It had either been placed on the adjacent stone or smashed against it (photo: T. Madsen).

23 and 26), for others (pot 4 and 6) most of the shards lay concentrated with a few spread out, while for the rest (pots 14, 15 and 16) the pattern is unclear. For all pots, however, the missing parts were definitely not to be found within the excavation area, and the covering layer of sterile sand preclude that they should have been removed through modern disturbances.

Deposition III. This deposition consisted of three pots (Fig. 10). They rested upon the layer of sand that covered deposition II. A layer of stones covered the shards (Fig. 7 and 22). The deposition consisted of two shouldered vessels and a pedestal bowl.

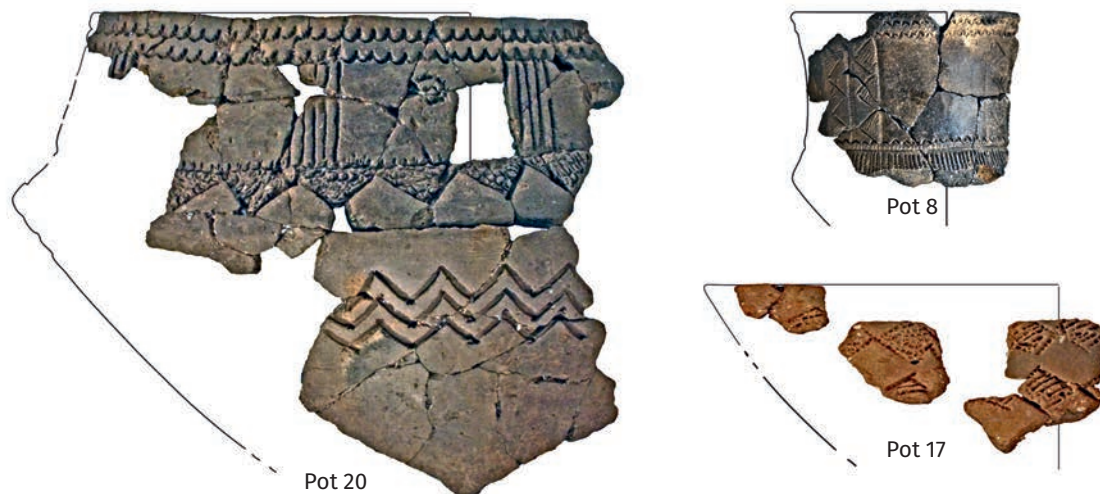


Fig. 10. The three pots found in deposition III – M 1:3. The preservation indexes for the pots are 8: 50%; 17: 30% and 20: 60% (photo: T. Madsen).

All three pots had a main concentration of shards extending no more than a metre from their respective distribution centres, but for pot 8 and 20, 10% of the shards had a wider distribution with up to 3 m from the centre point. There is no indication of how much time passed between the depositing of the pots and the coverage with stones, and hence arguing the reason for the missing parts of the pots is difficult. To the degree, that the distribution of the shards had continued further than the current limit of the covering layer of stones, shards may have been lost to the plough zone.

Deposition IV. Four pots formed an easterly isolated group (Fig. 11 and 22). The pots lay on the old surface, and all shards from individual pots lay concentrated. The deposition contained two clay disks, a funnel-neck beaker and a shouldered vessel. As undisturbed deposits did not seal off the pots, we cannot argue the reason for the missing parts. Further, we cannot establish a relationship with the other depositions.

Deposition V. Seven pots that lay in front of the entrance close to each other and relatively deep may represent a separate deposition (Fig. 12 and 20). The deposition contained three funnel-necked beakers, two shouldered vessels, one pedestal bowl and one clay ladle. The shards from the individual pots formed clear clusters, but some shards from pots 46, 52 and 69 lay between 1 and 2 m from their distribution centres. As undisturbed deposits did not seal off the pots, we cannot argue the reason for the missing parts. Further, we cannot establish a relationship with the other depositions. You may note that the position of this deposition is classical for clearances from the chamber. However, the high preservation index for each pot as well as the distinct distribution pattern of shards from individual pots speaks against a clearance from the chamber.

Deposition VI. Between the second and third kerbstone east of the passage a 0.9 by 0.9 m wide and 0.3–0.4 m deep pit had been dug partly undermining the kerbstones (Fig. 13 and 22). Stones filled the western part of the pit, while potshards filled the eastern part and continued under the stones as well. The deposit contained nine pots (Fig. 14), six of which were funnel-necked beakers, one a shouldered vessel, one a pedestal bowl and one a clay ladle. The shards formed a solid mass in the pit, where it was not possible to identify individual pots during the excavation. As seen from Figure 21, the distribution centre for all pots lie within 50 cm of each other, but a few shards lay outside the pit as the result of a later recut into the pit with a new deposition (VII).

Deposition VII. This deposition consisted of nine pots – three funnel-neck beakers, three pedestal bowls, two shouldered vessels and one bowl (Fig. 15). They lay in a recut into the pit that contained deposition VI. The new pit was slightly larger than the previous (1.2 by 0.9 m), but shallower although still undermining the kerbstones. Only part of the shards lay inside the recut. A good deal lay outside to the west and some to the east where they intermingled with shards from pot 13 in deposition II (Fig. 22). The layer of sand that covered deposition II did not cover all shards from pot 13, so it is uncertain whether the mixing with shards from deposition VII happened before or after the layer of sand had been added. Nor have we any evidence that the layer of sand had covered the pit at any point in time. The preservation indexes for the pots vary considerably, but on average, half of the pots are preserved.

Deposition VIII. A final deposition of seven pots (Fig. 16) took place in and partly outside a 1.3 by 0.8 m wide, low depression that hardly can be called a recut

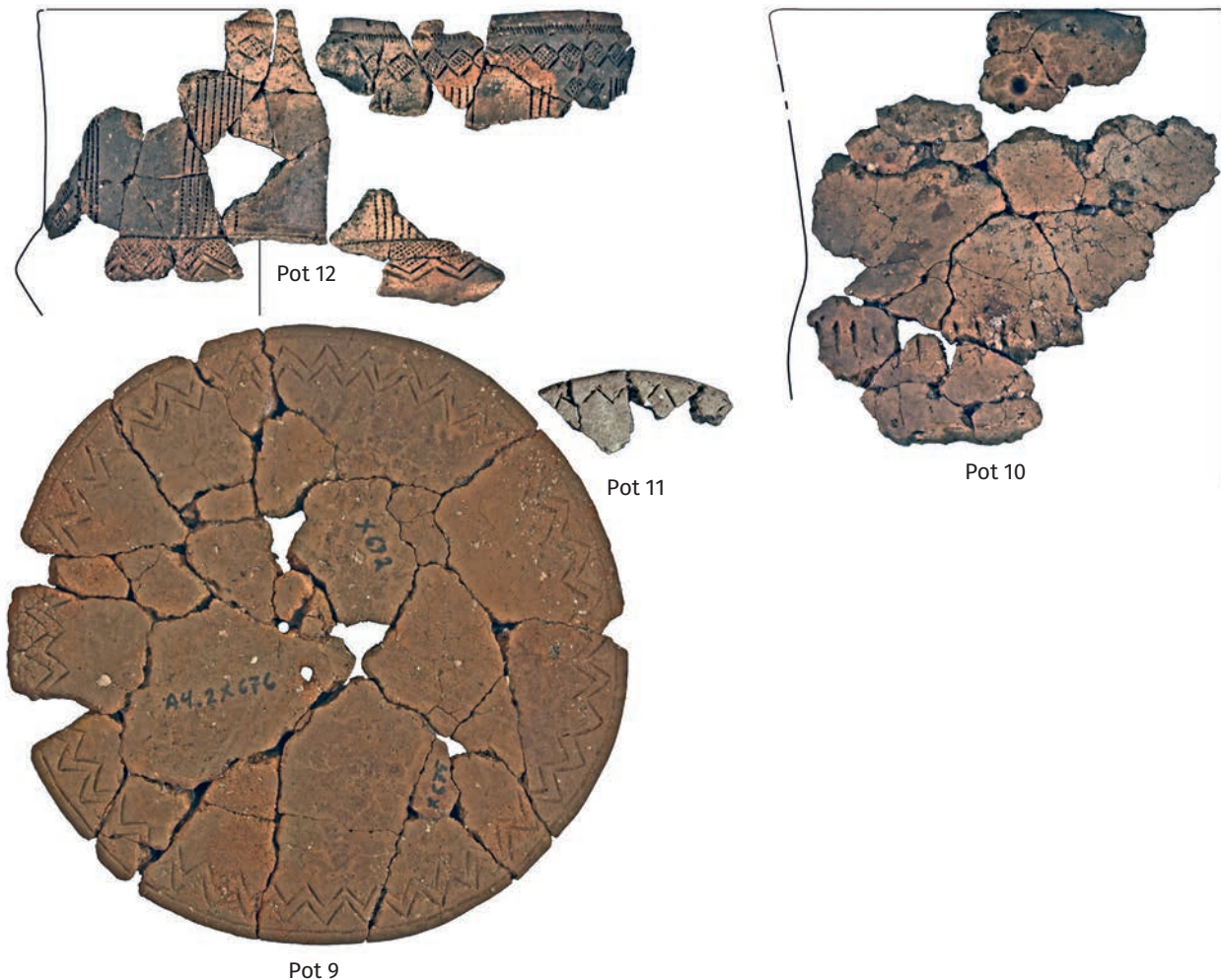


Fig. 11. The four pots found in deposition IV – M 1:3. The preservation indexes for the pots are 9: > 90%; 10: 30%; 11: 40% and 12: 40% (photo: T. Madsen).

into the pit (Fig. 17 and 23). The deposition consisted of three funnel-neck bowls, three bi-conical vessels, and one pedestal bowl. The pots lay in well-defined concentrations indicating individual depositing, but their preservation indexes are low. A layer of stones partly covered the shards. These stones lay in direct contact with the shards making depressions into the shard layer. When we removed a stone, the shards formed a perfect lining of the stone mark (Fig. 18). Obviously, the layer of stones had been laid down directly on the newly formed layer of shards partly being responsible for crushing them. This indicates that the missing parts of the pots were removed either before the stones covered the shards, or were never part of the deposition. If shards during the destructions had been dispersed further to the southwest than indicated on figure 23 some may have been lost to the plough zone, but in general the likelihood of modern disturbances appear low.

Additional pots. Seventeen pots cannot be attributed to any particular deposition (not depicted). Especially

this is true with pots coming from the disturbed areas in front and west of the entrance. These pots include four funnel-neck beakers (pot 54, 66, 67 and 74), three shouldered vessels (pot 30, 76 and 84), three clay ladles (pot 39, 51 and 81), two clay disks (pot 43 and 65), two open bowls (pot 60, 78), a ledged vessel (pot 75), a pedestal bowl (pot 24) and a pot of uncertain type (pot 79).

Criteria for separating the depositions. As described above, I have separated eight depositions. The criteria for some of these separations are straightforward others are not. Depositions IV and V separated themselves by forming isolated groups with no overlaps to other depositions (Fig. 20 and 22) and a layer of sand separated depositions II and III (Fig. 7). The separation between deposition I and II on the other hand is not entirely clear, as there is no stratigraphic evidence. The two depositions lie adjacent to each other and some shards from deposition II crosscut with deposition I. Further, the sand that covered deposition II also covered deposition I. The main reason to see the two as separate depositions is

partly the position of deposition I on a sloping »mound« of sand and fire cracked flint and partly that there appear to be a slight interruption between the tight group of pots in deposition I and the wider distribution pattern of pots in deposition II (Figs. 20 and 21).

The pit that contained deposition VI, VII and VIII was clearly visible throughout the excavation of the shard layers. Thus, stratigraphic observation separates these three depositions from the other depositions. Separating the three depositions from each other, however, proved to be a much more difficult task. During the excavation, it was clear that the outline and position of the pit changed as digging progressed, indicating that recuts had taken place, but there was no notable bottom lines of the cuts (the pit was not sectioned), and with each recut disturbances to the underlying shard layers obviously occurred. The only possible neutral criterion to separate the three depositions is the level of the shards in the pit. Consequently, I sorted the pots in a sequence using as a first criterion the depth of the lowest lying shard from each pot and next the lowest lying median depth of the shards from a pot. This gave a continuous distribution with no clear plateaus and therefore I had to make a judgement of where to place the borderlines for the three groups. Deliberately, I here considered stylistic elements. The figures for the primary criterion are deposition VI – depth 146–135 cm; deposition VII – depth 135–124 cm; deposition VIII – depth 123–109 cm. The measures are depth below an arbitrary datum line.

Depositional history. To reconstruct the depositional history we have the following stratigraphic observations: deposition II is older than deposition III; deposition VI is older than deposition VII; deposition VII is older than deposition VIII.

To gain additional information we have to look at the decorative elements on the pots from the depositions. This I did as follows: The presence of stylistic elements in the various decoration zones of the pots (rim, neck, shoulder, belly bowl-side, pedestal etc.) were counted separately and then added together to one set of counts for each pot. Next the counts for the pots were added together to form representative counts for the individual depositions. These counts were analysed through a correspondence analysis, where a criteria was that a variable had to have at least five occurrences to enter the analysis. This led to a simplification of the original recording as related stylistic elements were lumped together (for example I reduced straight cuts, arched cuts and flint edge cuts to cuts) and a few elements were left out (for example a rosette with only two occurrences). Originally, I recorded fifty-two elements that subsequently were reduced to twenty-one elements (Tab. 1).

The analysis shows a clear result (Fig. 19). If we apply the stratigraphic information outlined above we can see that there is a temporal sequence from left to right,

and a differentiation on the left hand side between deposition I and V on the one hand and deposition II and VI on the other. I interpret the result as follows:

- The oldest depositions are deposition I and deposition V (Fig. 20). They are characterised by cuts, roundish stabs, simple rows, cross fills, chevron stack fills and to a lesser degree linear bands. Stylistically, the pottery dates to MN A I. Deposition I (Fig. 5) is clearly the older of the two, but deposition V (Fig. 12) on the other hand is just as clearly older than the depositions in the next group.
- The second set of depositions consists of deposition II and deposition VI (Fig. 21). It is characterised by chisel/spatula stabs, chevron rows, chisel-stab-lines, groove-lines, groupings (of rows and lines), triangle bands and scrape off fills. The content of the chamber attach to this group. Stylistically, the pottery from deposition II (Fig. 6) and deposition VI (Fig. 14) dates to a late part of MN A I or an early part of MN A II depending on which particular pots you favour to base your date on. Deposition VI appears to be the older of the two.
- The third set of depositions consists of deposition III, deposition IV and deposition VII (Fig. 22). It is characterised by cardium imprints, cross-stab-lines, chevron stacks, and as an intermediate between older and younger depositions, by chisel/spatula stabs, chevron rows and rhomb bands. Stylistically, the pottery from these three depositions dates to MN A II where deposition VII (Fig. 15) is the older and deposition IV (Fig. 11) and especially deposition III (Fig. 10) are the youngest of the three.
- The youngest deposition is deposition VIII (Fig. 23). It is characterised by dent-stabs, dent-stab-lines, chevron bands, linear bands, rhomb bands, oblique fills and transverse fills. Stylistically, the pottery in deposition VIII (Fig. 16) belongs to the Ferslev style dating to early MN A III.

The result of the analysis shows that the minimum number of depositional events cannot be less than four based on the stylistic differences in the material, but the number of events must be higher even though all eight depositions are not necessarily separate events in time. We should not overlook the possibility of parallel depositions. For the time being, however, I view all eight depositions as separate events in the following order:

1. Deposition I consisted of nine pots placed individually in a tight group in front of and very close to two kerbstones situated in part on a small heap of burned flint and sand (Fig. 20). The pots had a highly variable preservation (between <20% and >90%) partly due to modern disturbances.



Fig. 12. Six of the seven pots found in deposition V – M 1:3. The preservation indexes for the pots are 46: < 20%; 52: 70%; 68: 70%; 69: 70%; 70: 90%; 71: ? and 73: 40% (photo: T. Madsen).

2. Deposition V consisted of seven pots placed individually in front of the entrance (Fig. 20). Even if modern disturbances are fully possible for this deposition, preservation indexes are generally high. Stylistically the deposition belongs here in the sequence.
3. Deposition VI took place associated with stones in a 40 cm deep pit dug adjacent to a kerbstone partly undermining this (Fig. 21). The deposition consisted of nine pots with between 20 and 80% of the individual pots accounted for.
4. Deposition II consisted of eighteen pots placed individually over a 4-m² area in front of the kerbstone line (Fig. 21). Subsequently a layer of sand sealed off the deposit. This created a favorable condition for observation: Pots were deliberately destroyed after they had been deposited; Pots were still being deposited after previously placed pots had been destroyed; Missing parts of some of the pots were either not deposited or were removed from the site as part of the destruction process. Preservation indexes varies widely between < 20% and > 90% emphasizing the effect of these activities.
5. Deposition VII took place in a recut into the pit that contained deposition VI (Fig. 22). It consisted of nine pots that mainly lay in the pit but with a fair amount of shards found outside it as well. The preservation indexes vary between 20% and 80%. Disturbance occurred in connection with the following deposition (VIII) and missing parts of the pots may have been removed on this occasion, but more likely, they either were removed in connection with the deposition itself or were not part of it.
6. Deposition IV consisted of four pots placed individually in a group in front of the kerbstones to the east of the other deposits (Fig. 22). One pot was completely preserved while the three others had indexes of 30–40% only. It is uncertain to what degree this is due to modern disturbances.
7. Deposition III consisted of three pots placed individually on the layer of sand that covered deposition II (Fig. 22). The pots with preservation indexes that vary from 30% to 60% were destroyed and the shards spread out before a layer of stones covered the deposit. It is uncertain when this happened and what happened to the missing parts.
8. Deposition VIII consisted of seven pots placed individually, partly in and partly outside a shallow depression in the top of the pit that contained deposition VI and VII (Fig. 23). With preservation indexes between < 20% and 40% only, the pots are notably incomplete. Despite the possibility of modern disturbances if the shards had been dispersed further than recorded during the excavation, I find it likely that the missing parts either were removed before the coverage with stones, or were never part of the deposition.

Table 2 summarize the content of the depositions. We find that funnel-neck beakers including storage vessels, shoulder vessels and pedestal bowls make up the majority of the pots with funnel-neck beakers

dominating in the beginning, gradually superseded by shoulder vessels, and with pedestal bowls as a stable component throughout the sequence. If we look at the average preservation index for the depositions, we may find that there is a tendency for the late depositions to contain fewer parts of the individual pots than the early ones. Deposition I breaks this pattern, but this is probably the result of the disturbances caused by the removal of kerbstones. As noted above in the summary of the individual depositions, post-depositional activities may have affected some of the depositions. These activities have happened over the last one-hundred years following the total destruction of the tomb and with the advent of heavy farming machinery. The layer of stones that covered most of the area where the depositions took place, however, formed a shield against this hazard. Only to the degree that parts of the depositions are located outside this stone layer, modern disturbances are a possibility.

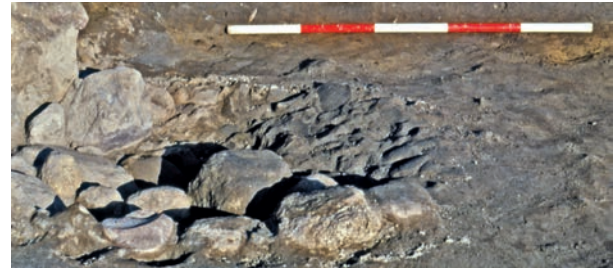


Fig. 13. The pit in front of the kerbstone line containing deposition VI (photo T. Madsen).

In addition to the eight depositions recognised and defined there must have existed more, as indicated by the seventeen pots that mainly come from disturbed areas. If there has been some kind of symmetry in the depositions around the entrance, then we should expect the existence of a number of depositions in the



Fig. 14. Eight of nine pots found in deposition VI – M 1:3. The preservation indexes for the pots are 29: 40%; 31 a & b: 80%; 33: 50%; 37: 80%; 38: 60%; 40: 80%; 41: 50% and 48: 50% (photo: T. Madsen).

completely destroyed area west of the entrance. How many is pure guesswork of course, but we cannot neglect them if we want to evaluate the deposition activity in front of the tomb.

The depositions represent a time interval from somewhere in the middle of MN A I to somewhere in MN A III, which equals a period of 150–200 years. This would mean a deposition every 20–25 years on average. If



Fig. 15. The nine pots found in deposition VII – M 1:3. The preservation indexes for the pots are 34: 80%; 35: 60%; 36: 80%; 49: 40%; 50: 50%; 55: 40%; 56: 20%; 59: 30% and 64: 20% (photo: T. Madsen).

there was about the same number of depositions west of the entrance, the average could come down to around 10–15 years, unless of course the depositions west of the entrance started earlier, which they may well have done.

Without committing ourselves too much to exact numbers, we can conclude that depositions occurred in front of the Nørremarksgård passage grave with an average interval of 10–20 years.

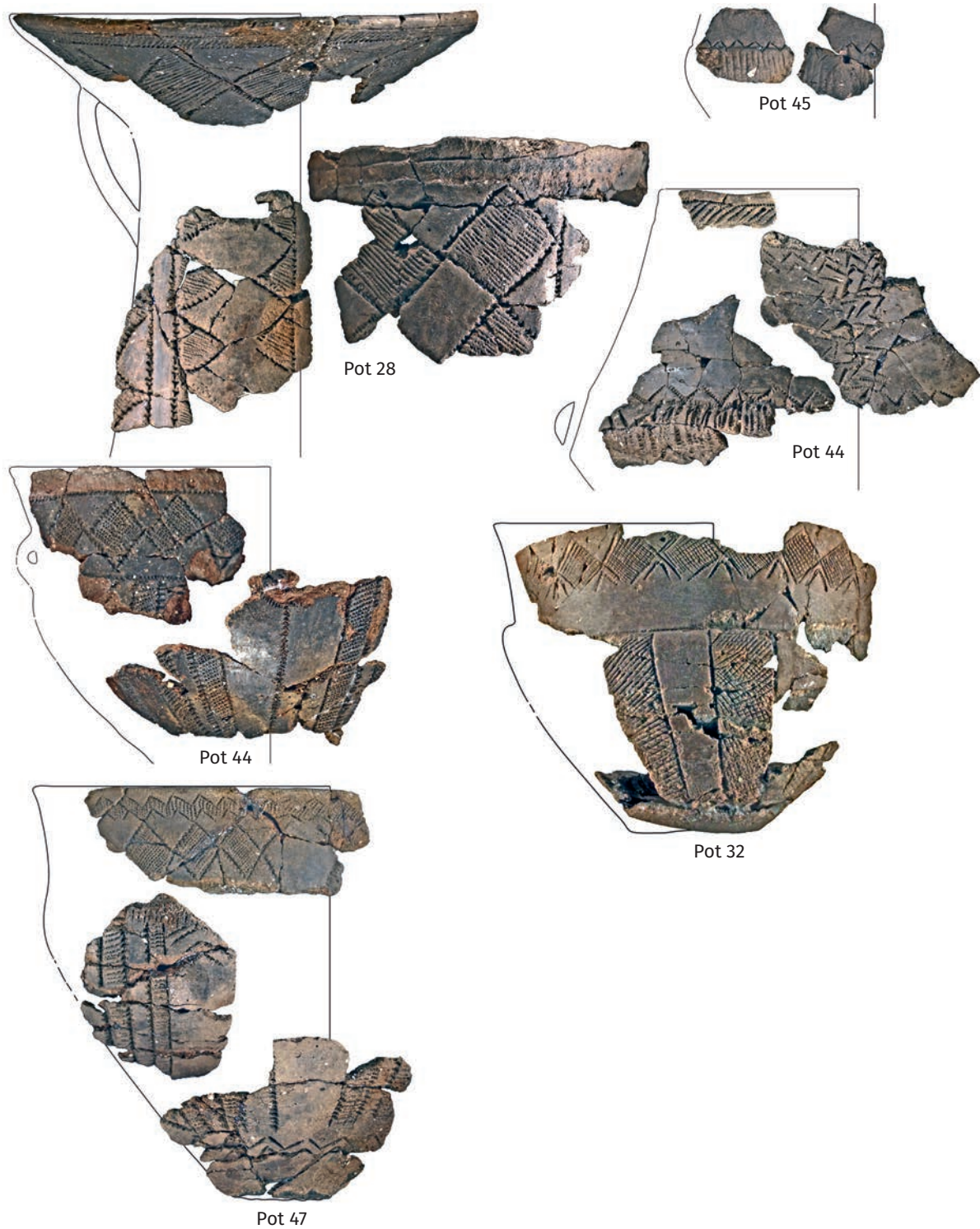


Fig. 16. Six of the seven pots found in deposition VIII – M 1:3. The preservation indexes for the pots are 28: 40%; 32: ?; 42: 30%; 44: 40%; 45: 20%; 47: 30% and 85: < 20% (photo: T. Madsen).

THE POTTERY DEPOSITIONS IN A WIDER CONTEXT

Coverage of depositions. Soil and/or stones always cover pottery deposited in front of megalithic tombs. Otherwise, we would not find the shards today. The nature of the coverage has drawn little attention, however. We may tend to see it as the result of an erosion from



Fig. 17. Deposition VIII in front of the kerbstones on the left and deposition II on the right (photo: T. Madsen).



Fig. 18. Shards from pot 44 in deposition VIII found immediately below a covering layer of stones. The stones lay in direct contact with the shards (a). When removed a depression from the stones in the shard layer could be seen (b) (photo: T. Madsen).

the barrow, but it is a view that we should challenge. At Nørremarksgård, a layer of sand covered deposition II immediately after the event. A new deposition (III) was added, and subsequently a dense layer of stones covered the whole area in front of the tomb. We can explain neither the layer of sand nor the heap of stones by erosion from the barrow. A number of observations at other passage graves points in the same direction.

At the nearby Grønhøj, an up to 30 cm thick tightly packed layer of coarse yellow sand that had virtually cemented around the shards covered the pottery in front of the tomb, followed by a dense layer of stones (THORVILDSSEN 1946, 80–81). Thorvildsen does not discuss the origin of the layers of sand and stones, but his choice of words indicate that he considered both as the result of deliberate acts: The sand »was placed« and the stones »were heaped up«.

At Jordhøj, a 10–15 cm thick layer of grey sand followed by 10–15 cm of grey-black greasy sand covered the pottery. The latter contained artefacts from the first clearance of the chamber, which probably took place in MN A V or slightly later (KJÆRUM 1970, 26, 52–54). A covering layer of stones was thus not present. Kjærums does not comment on the origin of the layer of grey sand, but as the surface of the barrow behind the kerbstones were covered with a layer of white, fire cracked flint, and as no such flint was found in the sand, it cannot have been created by erosion from the barrow.

At Hagebrogård, a »mound of earth«, 2–3 m wide and up to 50 cm thick covered the pottery, followed by a layer of stones (JØRGENSEN 1977, 14–15). At Vroue Hede I, a low yellow-grey heap of sand followed by a layer of stones covered the pottery (JØRGENSEN 1977, 42–43), and at Vroue Hede III, a crescent-shaped 4 m wide 11 m long and up to 60 cm high heap of sand followed by a layer of stones covered the pottery (JØRGENSEN 1977; 107, 110).

At Egeløkke, a 2 m wide and 5 m long heap of stones covered the pottery. Four thick-butted flint axes lay on top of the stones (SKAARUP 1985, 98). At Skovtofte, the pottery were »mostly« embedded in grey sand and covered by a large heap of stones, upon which several thick-butted flint axes, two thick-butted flint adzes, a pointed-butted flint adze, and a couple of flint chisels were found (Skaarup 1985, 103). At Tvede Skov, the pottery lay embedded in sand, and covered by a 3 m wide, 7.5 m long and up to 40 cm thick crescent shaped heap of stones, upon which lay eleven thick-butted, thick- and thin-bladed flint axes (SKAARUP 1985, 106, 108). At Hjulbjerg, a 2.5 m wide, 7–8 m long and up to 40 cm high crescent shaped heap of stones covered the pottery, and at Kragnæs, the pottery lay below and partly embedded in a 3 m wide stone heap. Directly in

Tab. 1. Table showing counts of stylistic elements on pots from the depositions and in the chamber.

Deposit	TECHNIQUE					ROWS		LINES				BANDS				BAND FILLS					
	Cuts	Roundish Stabs	Chisel/spatula stabs	Dent stabs	Cardium imprints	Simple rows	Chevron rows	Groove-lines	Dent-stab-lines	Chisel-stab-lines	Cross-stab-lines	Linear bands	Triangle bands	Chevron bands	Rhomb bands	Transverse fills	Oblique fills	Cross fills	Chevron stack fills	Scrape off fills	Groupings
I	7	3	15	2		6	6	7		1	3	3	2		1			6	1		2
II	7	5	31	9	9	11	23	9	1	6	13	1	14		2		2	4	1	7	9
III		1	7	5		1	4		2		2		2		2		3			1	1
IV	1	1	6	3		2	3	2	2		1		1		2		2	1			2
V	5		6			1	4	2		1	4	1	2		1		1	2	1		1
VI	2	1	14			1	7	5		5	3		4	1	1		1			4	3
VII	3		17	7	4	2	13	8	2	2	6	1	2	2	4		6	1	1	1	3
VIII	2		9	24	4		11	3	3	2	13	7	1	3	6	3	12	2	1		
Chamber			4	2	1		6	8			1	1			1					1	2

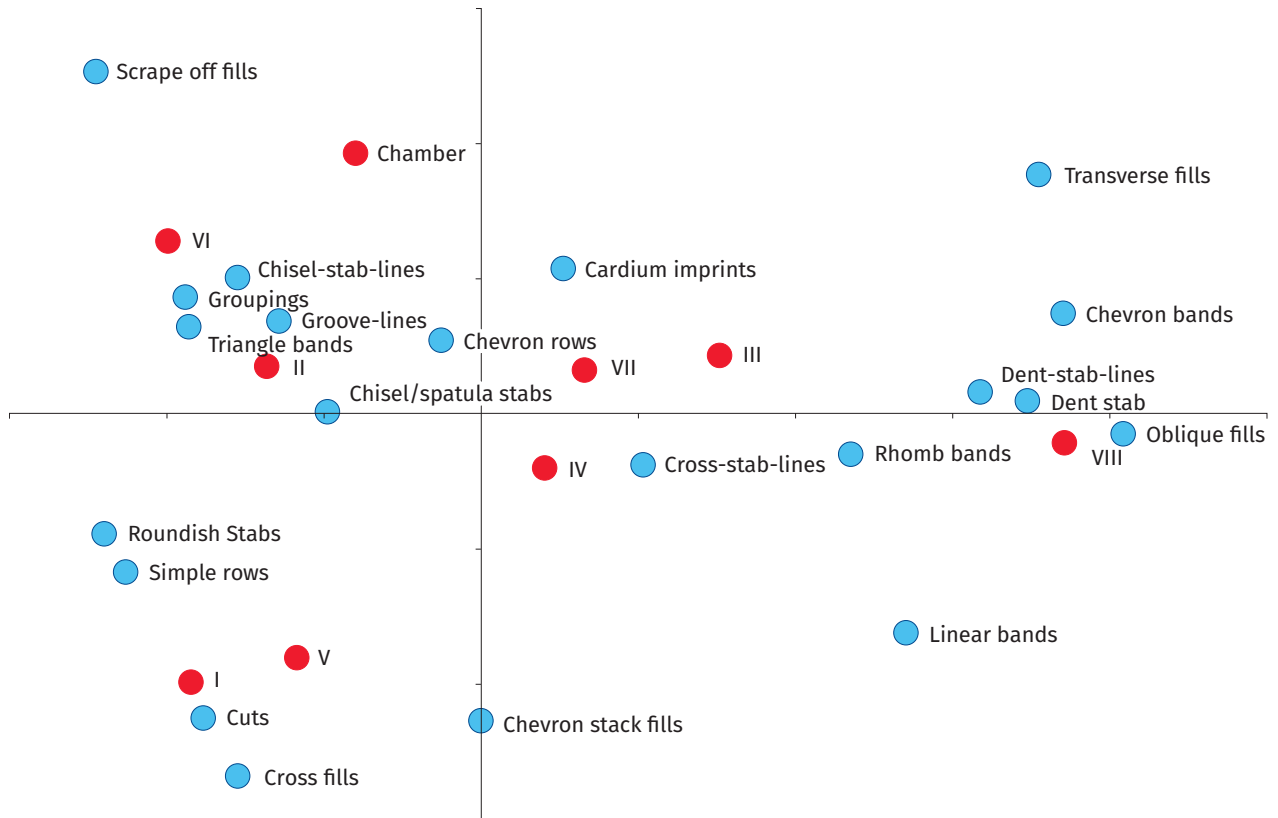


Fig. 19. Correspondence analysis of the counts in table 1. A combined plot of depositions and stylistic elements on the two first principal axes are shown.

front of the entrance, also covered by the stone heap, a layer of brown greasy sand containing many shards from MN A in general constituted a clearance layer (SKAARUP 1985, 253–54).

At Knarregård, the pottery lay embedded in a 15–40 cm thick layer of sand covered by a heap of stones (ROSENBERG 1929, 234), and at Nordre Stensebygaard, the pottery lay embedded in a 20 cm thick

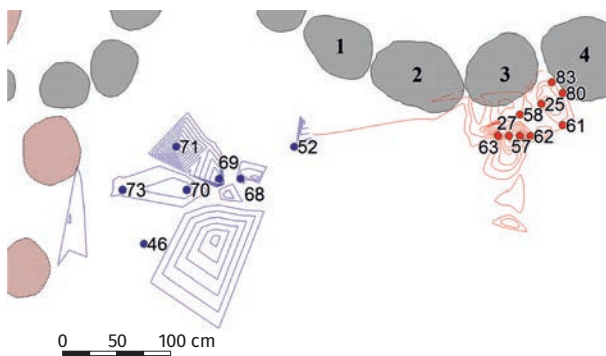


Fig. 20. Map showing the position of deposition I (red) and V (blue). Dots with pot numbers show the centre points of sherd distributions for individual pots, and contour-lines show the overall distribution of sherds in the depositions.

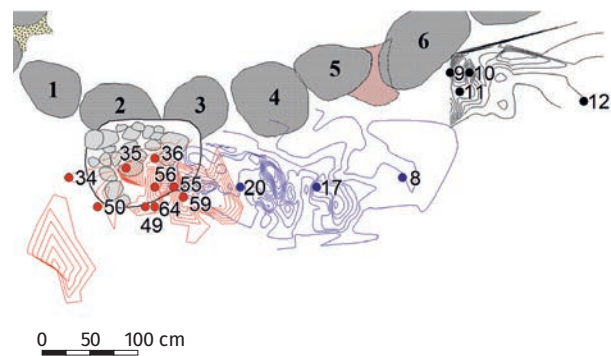


Fig. 22. Map showing the position of deposition III (blue), IV (black) and VII (red). Dots with pot numbers show the centre points of sherd distributions for individual pots, and contour-lines show the overall distribution of sherds in the depositions.

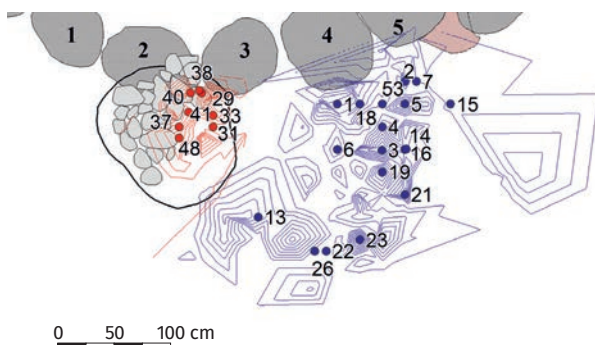


Fig. 21. Map showing the position of deposition II (blue) and VI (red). Dots with pot numbers show the centre points of sherd distributions for individual pots, and contour-lines show the overall distribution of sherds in the depositions.

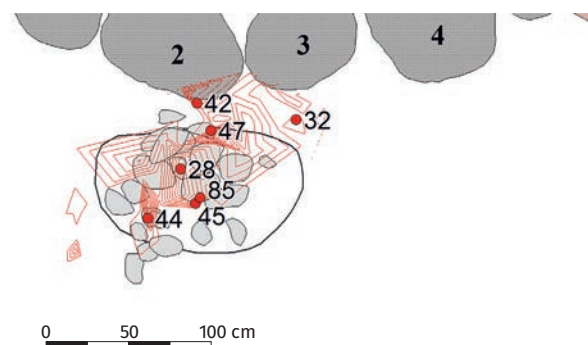


Fig. 23. Map showing the position of deposition VIII. Dots with pot numbers show the centre points of sherd distributions for individual pots, and contour-lines show the overall distribution of sherds in the deposition. Note that the stones covered the sherds, and not the other way around as you might believe from the graphics.

layer of »former agricultural« soil covered by three separate heaps of stones (ROSENBERG 1929, 238). At Fjälkinge 9, the pottery lay compressed in a 5 cm thick layer of black, burned soil covered by a layer of stones (BAGGE & KÆLAS 1950, 68). Finally, at Kong Svends Høj, a layer of crushed white burned flint covered the pottery (DEHN et al. 1995, 86 ff.).

These examples from northern Jutland, the Danish isles and Scania clearly shows that there was a wide spread practise of covering the pottery with heaps or layers of stone. The available dating evidence shows that in many cases, this occurred around the turn from MN A to MN B but of course, some may also be earlier. In most cases, if not always, the pots below the stones lie embedded in a layer of sand. At Grøn-høj, the coarse yellow sand that had cemented around the sherds included both early and late pottery. The best-preserved pots, lying close to the kerbstones,

where the layer of sand was thickest, all belonged to the oldest depositions. The sand must have piled up around these pots shortly after their deposition, and before the deposition of the late pottery. The late sherd material was very fragmented and difficult to reconstruct into pots, but we have no information as to the reason for this condition.

At Nørremarksgård, it was clearly demonstrated that deposition II was covered by sand after its deposition. The sherds from depositions IV and V also lay in sand when found. The only difference to layer II was that we could not make any inference about the origin of this sand. The circumstances for deposition III is less clear. A layer of stones covered the sherds, but there is no evidence of when the coverage happened.

Depositions in pits. At first glance, the pit containing depositions VI, VII and VIII is a unique feature. However, pits in front of megalithic tombs containing pottery

are not an entirely unknown phenomenon. At a long dolmen at Tolne, a pit immediately in front and partly below a kerbstone contained a shard from a pedestal bowl. The excavator assumed that the pit antedated the dolmen (STERUM 1975, 159–60). At a passage grave at Vedsted, a pit east of the passage contained a shard layer. Klaus Ebbesen, who published the site, assumed it was old fox burrow (EBBESEN 1979, 24 fig. 32). Judging from the photo of the pit, I find this unlikely.

At Nørballe, two pits outside the kerbstone line contained shards from at least seventy pots dating to MN A I–II. Because the presence of a thick-butted flint axe and a tongued arrowhead of type D, the excavator considered the content of the two pits to be the result of a »cleaning operation« in the chamber, passage and in front of the passage (SKAARUP 1985: 165–66). At Kragnæs, a pit close to the kerbstone line contained shards from eight different funnel-neck beakers, a clay disk and eighteen flake scrapers of flint (SKAARUP 1985, 254). At Ramshög, pits outside the kerbstone line contained shards from a number of different pots. As the pots date to more stylistic periods and shards from the pits matched with shards found outside the pits, the pits were considered to represent a secondary deposition (STRÖMBERG 1971, 364).

At first glance, none of these examples matches the pit at Nørremarksgård, and yet they may. If we had excavated the pit at Nørremarksgård with less rigour and focus on stratigraphic control, then it would have looked a lot like the pits from Ramshög with pottery from different periods and with shards outside the pit that fitted with shards inside it. The same might be true with the pit at Nørballe. Here it all hinges on where the flint in the pit comes from. Still the pit at Nørremarksgård presents us with some new intriguing problems and questions. Foremost of these, how exactly did the deposition take place?

If the pots of deposition VI had been deposited individually in the pit, we would have been able to identify them during the excavation, even if they had been smashed and shards had been (re)moved by the later recut. All we could see, however, was a solid mass of shards from where I could separate pots only later. The conclusion must be that the pots were already broken up before deposition.

The find circumstances of deposition VII were somewhat different and more complex as shards from the pots lay not only in the pit but also outside it to the west and to the east, where they intermingled with shards from deposition II. It is not possible to decide whether the pots originally lay in the pit and later were disturbed, or if shards from the pots were deposited both inside and outside the pit, in which case the pots must have been broken up before deposition.

The pots of deposition VIII were deposited individually, but subsequently smashed thoroughly with a layer of stones that was part of the deposition.

The pit leaves us with the clear impression that a deliberate reduction of the pots to a shard layer was an integrated part of the rituals. The pots had to be destroyed, and as part of the destruction, parts of the pots were removed from or never introduced into the material deposited. Are these observations unique to this pit or do they apply on a wider scale? Is deliberate destruction of pots in depositions the rule rather than the exception, and was it common that only part of the pots ended up in the deposits?

Destruction of pots. The shouldered vessel (pot 1) placed upside down with three stones through its bottom is indisputable evidence of deliberate destruction of a pot placed in front of a megalithic tomb (Fig. 8). I know of only one direct parallel. In front of the passage grave at Vroue Hede I, a pot lay upside down with a stone pressed through its bottom (JØRGENSEN 1977, 42).

Tab. 2. Showing the distribution of pottery types across depositions arranged in a chronological order. Numbers in brackets show how many of the funnel-neck beakers in a deposition are of storage vessel types. The last row of the table shows the average preservation index for the pots in each deposition.

	DEPOSITIONS							
	I	V	VI	II	VII	IV	III	VIII
Funnel-neck beaker	5	3	6(1)	5(4)	3	1		
Bowl	3			2	1			3
Shoulder vessel		2	1	7	2	1	2	
Pedestal bowl	1	1	1	2	3		1	1
Clay ladle		1	1	1				
Bi-conical vessel								3
Clay disk				1		2		
Preservation index	48	57	59	55	47	53	43	28



Fig. 24. Three pots placed upside down in front of kerbstones at the Grønhøj passage grave. Photo from excavation report.

Pots placed upside down in front of the kerbstones are also known from Grønhøj, where it was suggested that they had been placed on top of the kerbstones, from where they had fallen down, ending upside down right in front of the kerbstones. Four such pots occurred, and shards from one of them came from behind the kerbstones proving to the excavator, their original position on the barrow (THORVILDSSEN 1946, 82–83).

A picture from the excavation report shows three of the pots standing in front of the kerbstones (Fig. 24). Two of them lie squeezed in very close to the kerbstones, standing in a perfect upside down position. I find it impossible that they should have fallen there by themselves. Indeed, it is doubtful whether large pots tumbling down from a barrow would ever land in an upside down position. They are much more likely to end up lying on their sides. Further, the shards found behind the kerbstones lay 2 m from the pot to which they belonged.

The deposition of pots on top of the kerbstones or the barrow surface is a standard assumption in the literature (MIDGLEY 2008, 150–51). It originated at Grønhøj with the four pots standing upside down, but

exactly those four pots do not prove the assumption. They were beyond doubt deliberately placed upside down where they stood. However, pots were in some cases placed on top of the kerbstones as well-documented cases show (KJÆRUM 1970, 49; EBBESEN 1979, 30–32; DEHN et al 1995, 91). I do not believe, however, that pots were left there to disintegrate and for shards to be dispersed by chance. Rather, they may have been displayed there and subsequently broken before the shards were deposited. Whatever happened during the different stages of the rituals performed, the pots were meant to be left broken in front of the kerbstones.

At Nørremarksgård, deposit II is the well-documented example of this. As at numerous other megalithic tombs, we can decide the position of the individual pots from the distribution of the shards (Fig. 21), but in contrast to other tombs, we can also say something about what happened to the pots before sand covered them. Apart from the evidence from pot 1, pot 53 shows us that other pots of the deposit were already reduced to a layer of shards, when it was added to the deposition (Fig. 9). One conclusion from this is that pots in a

deposition had to be broken. It was part of the rituals to break up the pots. Another inference we can make from the situation in Figure 9 is that deposition II was not a mass deposition of pots with a subsequent coverage. Probably, pots were added and destroyed individually or in small batches until the rituals were completed and the deposited material covered.

There is discordance here with the more or less contemporary deposition VI in the pit. The nine pots here were broken up and deposited as one. The result was the same, but the procedures must have been different. One possible reason could be that only the final part of the rituals had taken place at the tomb, and that the shard material came from rituals somewhere else.

Depositing incomplete pots. The amount of shards from individual pots in depositions is often such that we may assume that they had been complete or almost complete, when they were deposited. However, were they? We can reconstruct many pots, but not reassemble them completely because parts of the pots are missing. Normally, we consider this irrelevant, as disturbances may have removed part of the pots. This is even more the case, where large parts of pots are missing. Can we be sure, however, that it is always later disturbances that are responsible, or could it be due to cultural formation processes in the past? Obviously, we have to focus on instances where sand covers the deposits. At Grønhøj Thorvildsen could point to the spot of deposition for more than 20 pots (1946, fig. 1), but only few of these were »complete«. The excavation, however, was not of a nature where we can claim beyond doubt that the missing parts are not missing due to disturbances. The same is true with most excavations. If we do not recognize and address the problem during the excavation, then subsequently we are left in doubt.

BURIALS AND DEPOSITS

A variety of tombs was in use during the millennium that the TRB culture lasted in South Scandinavia. They include: Simple inhumation graves; Earthen long barrows and elongated enclosures with wooden built chambers or wooden and stone built cists; Dolmens of various forms; Passage graves; Mortuary houses; Flat grave cemeteries.

Most notable in EN I is the earthen long barrows and enclosures (MADSEN 1979, 1993). They were probably introduced around 3800 BC (SØRENSEN 2014, 112), and recent research show that they may be even more versatile than they appeared originally (ANDERSEN 2015). Parallel to these we also have simple inhumation graves as the well-known Dragsholm grave now firmly dated around 3700 BC (PRICE et al. 2007, 212). Graves with preserved skeletons are very few, but in addition to

Already Nordman (1917a, 89) mentioned the possibility of the deposition of incomplete, fragmented pots in front of passage graves in connection with Mejls, and in a major, unfortunately unpublished work, Lars Holten (1997) focused on the presence of incomplete fragmented pots in front of the megalithic tombs as opposed to more complete pots inside the tombs.

At Nørremarksgård, we can address the problem in connection with deposition II and deposition VI. For deposition II the covering layer of sand provided with a *terminus ante quem* by deposition III, precludes any ideas of modern disturbances. Thus, we must explain missing parts of the pots in terms of formation processes in contemporary society.

The preservation indexes for the pots varies from over 90% to less than 20% (see caption to Fig. 6), and on average, 59% of all pots is present. Pot 1 that we know was broken in situ is one of the pots with a preservation index above 90%, and the same is true with Pot 53 that was smashed against or placed on a neighbouring stone (Fig. 9), although some of the bottom shards are in fact missing from this pot.

If pots with a lower preservation index belonging to deposition II were treated in the same way as pot 1 and 53, we must assume that a removal of parts of the pots occurred. Logically, we can explain these missing parts in two ways: they were removed after the pots were broken but before the sand cover was added, or the pots were broken elsewhere and only part of them were deposited. We do not know which of these options are correct.

For deposition VI between 20% and 60% of the pots were missing. As the shards from the pots entered the pit as one batch the missing parts must have been removed before deposition took place.

the grave from Dragsholm and a few others with one individual (EBBESEN 1992, 88 ff. numbers 13, 15 and 50), we have graves with four and five articulated individuals (MADSEN 1993). In some cases, the graves are richly furnished including copper ornaments (BECKER 1947, 249–254; STÜRUP 1966; LIVERSAGE 1992, 25; KRISTIANSEN 2000; ANDERSEN 2015, 124). Pottery occurs in the graves (EBBESEN 1992, fig. 10) as well as in association with the barrows. Mostly we find it in connection with the timber facades that terminate the barrows in one end (f. ex. MADSEN 1980, 88–96; KRISTENSEN 1991, 75–76, LIVERSAGE 1992, 31), although pots along the sides of the barrows are known also (KJÆRUM 1977, 23; AUD 1995, 176). The pots appear complete and in many cases unbroken, when deposited, not only in the graves, but also at the terminal facades.

In EN II, dolmens become dominant, although the use of both earthen long barrows with wooden chambers and simple inhumation graves continue. Already in 1947, C. J. Becker (1947, 264–269) advocated that the dolmens were locally developed from cists of wood and stone, something that today has been substantiated (ERIKSEN/ANDERSEN 2014, 97 ff.). The dolmen chambers datable to EN II covers a range of forms from closed to more or less open types (ERIKSEN/ANDERSEN 2014, 39 ff.). Skeletal material with an unquestionable date to the period is not abundant, but exists. Traditionally, we view the burials as articulated, but some of the finds do not support this view. In a recent survey, Eriksen and Andersen (2014, 273 ff.) suggests that all burials in dolmens in fact were disarticulated. I am not fully prepared to follow this view. Some of the dolmens contain fully articulated but disturbed burials, I believe, as do the contemporary simple inhumation grave from Lohals (SKAARUP 1985, 324). However, things were changing, and some form of disarticulation did occur in EN II. The grave goods also change and become less lavish. We see a shift away from axes and amber beads and towards a standard inventory of a collar flask and/or a lugged flask, previously known as a dolmen flask. Pottery deposited outside the tombs is virtually unknown, but may turn up more frequently as excavations of monuments become more complete (see f. ex. ERIKSEN/ANDERSEN 2014, 261).

In MN A I we end up with evolved dolmens and passage graves. There are plenty of old excavation photos of Danish passage grave chambers with stacks of bones, illustrating the use of the chambers for mass burials. Unfortunately, most of the bones in these pictures are with high probability from MN B and LN. A good example is the passage grave Hjulbjerg on Langeland (SKAARUP 1985, 190 ff.). Here bones from a large number of people in more layers occurred. The upper layer clearly dated to MN B and LN, but the lower was expected to date to MN A. ^{14}C dates, however, of seven femurs from different persons all fell in LN (RAHBK/RASMUSSEN 1996, 303–304). I should add, though, that it is unclear from which layers the dated specimens came.

When it comes to the use of the chambers in MN A, we know very little. From Denmark, our best knowledge comes from a burial layer in the Trekroner polygonal dolmen on Zealand ^{14}C dated between 3360–3020 BC cal., which clearly points to MN A and possibly to an early part of this period (KAUL 1994, 7–11). The burial layer that held no datable artefacts contained bones from at least five adults and five children. The preservation of the bones was good, but still a large number of bones were missing from the individuals, especially the larger long bones and the skulls (but not the jaws). Another

example comes from the passage grave at Sarup Gamle Skole on the Island of Fyn. On the primary floor were some badly preserved bones together with a couple of un-datable flint tools. A lower jaw among the bones was from a 16–20 year old, presumably a girl. On a secondary floor that sealed off the original floor, badly preserved bones from several persons were found together with artefacts. The oldest datable artefacts on this floor were pottery from MN A II (ANDERSEN 1997, 97–8, 116–17; ANDERSEN 2000, 21; Niels H. Andersen personal communication).

In the double passage grave Aldersro on Zealand (HOLTEN 2000), sealed off burial layers contained bones from several individuals without anatomical order and with many parts of the bodies missing (no anatomical report is available). ^{14}C dates of bones from both chambers resulted in dates between 3100–2500 cal BC, equalling the second half of MN A and the first half of MN B approximately. Artefacts were present in both burial layers datable to MN A II–V (HEINEMEIER/RUD 2001, 317–318). From Scania it is worth mentioning a pit below the floor of the Carlshögen passage grave with selected bones from a number of individuals including a skull ^{14}C dated to between 3100–2700 cal BC equalling the last half of MN A and the beginning of MN B (STRÖMBERG 1971, 59). To this comes a pit below the floor of the Ramshög passage grave with selected bones from two individuals ^{14}C dated to between 3350–3000 cal BC equalling the first half of MN A.

The most detailed information from South Scandinavia, however, comes from the passage grave Frålegården in Falbygden (SJÖGREN 2015). The bone material stems from at least 51 individuals that roughly represented two groups of interments. The younger group, characterised by persons interred in articulated conditions, dates around 3000–2900 cal BC equalling the first half of MN A V. The older group showing signs of disarticulation dates around 3100–3000 cal BC equalling MN A II–IV. It has not been possible to determine the precise nature or cause of the disarticulation.

Passage graves with large amounts of grave goods are common. Good examples are the double passage grave from Gundsøllille on Zealand (EBBESEN 1975, 346 ff.) and the passage grave Hjulbjerg on Langeland (SKAARUP 1985, 190 ff.). When it comes to dolmens or passage graves with undisturbed inventories from the beginning of MN A, however, there are only few to mention.

Most notable is Grønhøj. In a 25 cm thick layer of yellow sand lay four unbroken pots (Fig. 25), one broken but completely preserved pot, and one broken pot, where part of the shards were missing. In addition to this, the layer contained a thick-butted flint axe, six flint flakes, two amber beads and a few loose shards only. Above the layer came artefacts from LN

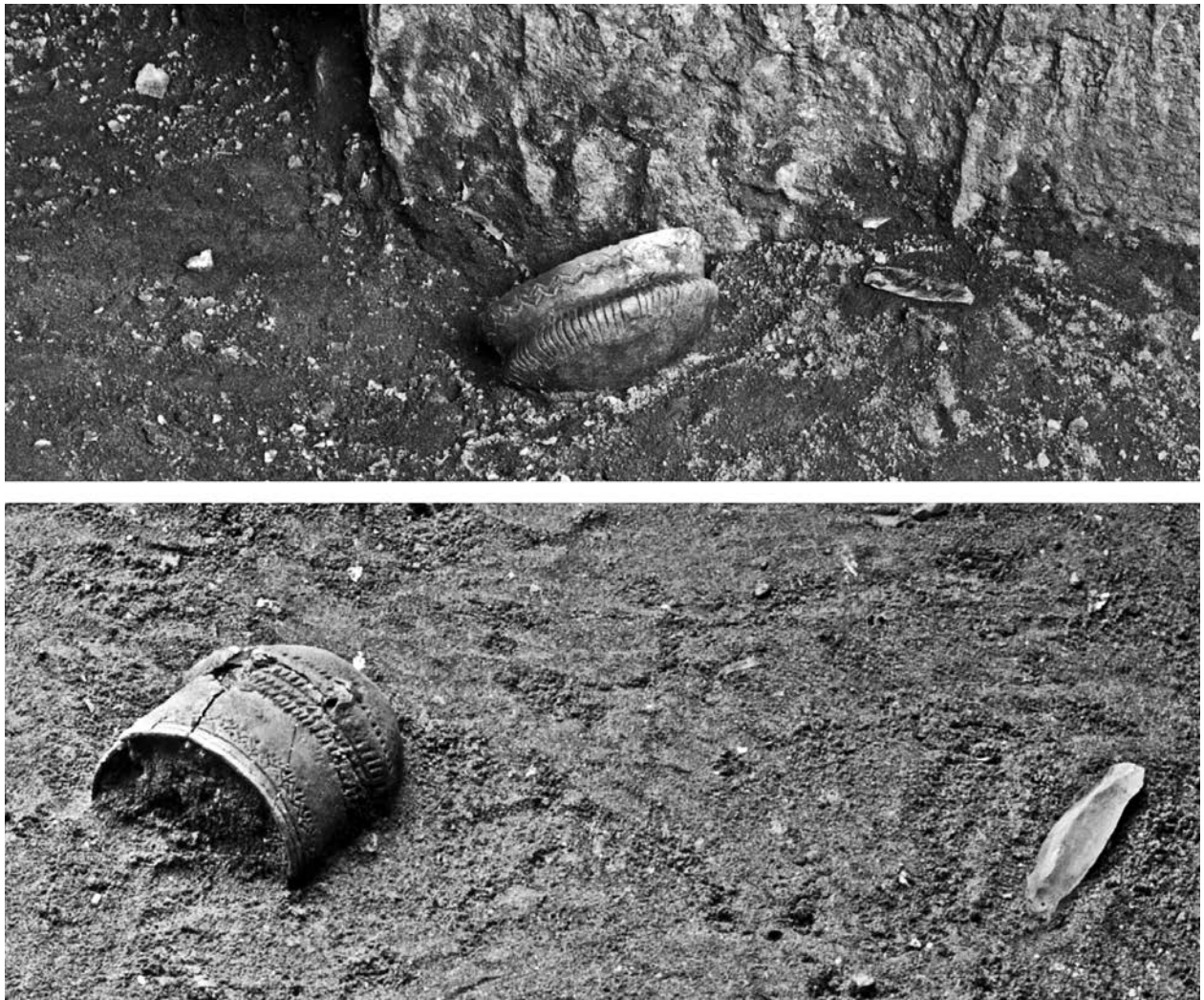


Fig. 25. Two of six pots preserved unbroken on the floor of the Grønhoj passage grave. Photo from excavation report.

burials (THORVILDSSEN 1946, 77–79 fig. 3, fig. 12). The stylistic date of the pots in the chamber match the stylistic development in the deposits outside the chamber, and the immediate impression is one of a limited number of interments in the chamber, where on each occasion great care was taken not to disturb the artefacts associated with earlier burials. There were no traces of bone in the acid sand, but neither was there any dark discolorations indicating a major burial layer.

Also notable is Mogenstrup on Djursland (NORMAN 1917a, 94–98). The chamber contained two complete pots and shards from a third incomplete pot standing on the floor. A small amber bead and a thin-butted, thin-bladed flint axe lay in a pit dug into the floor. The pots and the flint axe dates to MN A I, and one of the pots – an open bowl – to its very beginning. We know nothing about pottery offerings outside the tomb, as excavations were never carried out there.

At Hagebrogård, two complete pots stood on the floor, while shards from a third lay loose in the fill. Three thin-butted, thin-bladed flint axes also lay on the floor, as well as a large part of some fifty amber beads. On a higher level in the chamber, burial remains from the single grave culture occurred (NORMAN 1917a, 102–106; JØRGENSEN 1977, 15–17). The pots and the flint axes dates to MN A I. Depositions of pots were found outside the chamber on both sides of the entrance (JØRGENSEN 1977, 14–15. From the descriptions and illustrations of the pots, at least fifty different pots were present, all datable to MN A I.

Two complete pots come from a megalithic tomb at Lønt near Haderslev (JØRGENSEN 1983, 32), and we may also note that the famous Skarpsalling funnel-neck bowl (NM A11073 – depicted on Danish fifty kroner bills) come from a megalithic tomb in Himmerland. A comparable, though not quite as splendid funnel-neck bowl, come from a megalithic tomb at Odder

in eastern Jutland (NM A1233). Further, from Klaus Ebbesen's survey of pots from megalithic tombs in Jutland (EBBESEN 1978, 77 ff.) we learn of more complete or almost complete pots dating to an early part of MN A.

However few these examples may be, they hold some important implications. Firstly, complete pots were deposited in the chambers and they remained unbroken there, at least during the early phase of burials in the chambers. Apparently, this is exactly as with burials in EN II, where funnel-neck beakers and collared- and lugged flasks often have survived intact. Secondly, the evidence from Hagebrogård and especially Grønhøj suggests that there is a clear synchronism between what happens inside and outside the chamber, but also a behavioural difference. We can state this as follows: When a complete pot was placed inside the chamber, a number of broken pots were placed outside the chamber.

All examples cited above with one exception come from Jutland. I have not been able to find any from

Zealand and southern Sweden, and the evidence for burials from Trekroner and Aldersro on Zealand does not appear congruous with the situations at Grønhøj and Hagebrogård. It could be because burial customs were different, but it could also be due to a temporal difference. The Aldersro date is clearly younger than the complete pots from the passage graves mentioned above, and the one date from Trekroner with a range from the middle of MN A I to the beginning of MN A V may also be younger. The explanation for the lack of complete pots from the beginning of MN A in Zealand could instead be that here burial activities in the chambers were much more intense in the late part of MN A and throughout the younger Neolithic with clearances and disturbances as the result. It is not helpful either that all our knowledge about buried persons in megalithic tombs comes from the eastern parts of South Scandinavia, while preserved bones are rare in the acid soils of Jutland.

DEPOSITS AT CAUSEWAYED ENCLOSURES

Depositions of pottery are also notable at causewayed enclosures and in water. Here I will focus at the causewayed enclosures exclusively, but I should stress that the depositions in water are also of relevance.

A couple of broken pots, one of them complete, were found at the bottom of ditch segments at the Sarup I enclosure (ANDERSEN 1997, 49). Further, shards from one pot were found distributed in three ditch segments and four adjacent pits of the Sarup II enclosure (ANDERSEN 1997, 74). In the nearby row of enclosure ditches at Sarup Gamle Skole shards from a broken incomplete pot lay in association with a miniature dolmen chamber at the bottom of one of the ditch segments (ANDERSEN 2009, 32)

At Toftum, shards that could be assembled to complete pots were found in recuts in the ditches. In four cases, the shards lay scattered around stones in the otherwise stone free sand indicating a deliberate breakage of the pots (MADSEN 1988, 314). At Bjerggård, we find three cases of broken but complete pots on the bottom of ditch segments or recuts (MADSEN 1988, 310). In one case, a pot lay on a stone pavement in association with a fire, in another a pot was found on a stone pavement in association with dog skeletons.

In two ditch segments at Store Brokhøj, large amounts of pottery occurred in association with stone pavements and fireplaces (TORFING 2013, 70). At Kildevang broken pots were found deposited partly in pits forming a row and partly in what can best be considered a ditch segment (SKOUSEN 2008, 162–176). At Ellerødgård, both complete and incomplete broken

pots lay in recuts into what must have been a ditch segment of a causewayed enclosure (NIELSEN 1988). At Markildegård, pots were placed in the ditch segments, some of them apparently on birch bark mats (SØRENSEN 1995, 19).

Pots were also placed at the foot of the palisades of the Sarup I enclosure. 81 m of the palisade trench was excavated and here shards from several hundred pots were found, some of them forming clear clusters (ANDERSEN 1997, 34).

Pits containing whole, unbroken objects – especially pots, have been found on the inner surface of both Sarup I and Sarup II (ANDERSEN 1997, 56, 77). Due to the lack of excavations of inner surfaces on other sites, we do not know if this feature occurs elsewhere, but two unbroken pots and the copper hoard in a lugged jar from Aarupgård, may constitute another example (MADSEN 1988, 309).

Causewayed enclosures in South Scandinavia as elsewhere in Europe contain human bones even if the condition of preservation in general is bad. Andersen (1997, 273) mentions seven sites where the ditch segments contain human bones. Especially at Bundsø and Hygind, the finds are impressive. Burnt human bones are also found at the palisade of Sarup I and from pits on the inner surface of Sarup II (ANDERSEN 1997, 62, 86).

In my opinion the causewayed enclosures played a role in the relationship between the living and the dead (MADSEN 2009, 129 ff.), and find the term ›villages for the souls of the dead‹ very much to the point (ANDERSEN 1997, 309). There is an obvious

parallelism between what happened at the megalithic tombs and what happened at the causewayed enclosures (ANDERSEN 1997, 315; MADSEN 2009, 131). Let me just make the following points

- Pots are deliberately broken and deposited along the margins of both tombs and enclosures.
- Pots may be complete, or incomplete when deposited.
- The depositions happen as part of delimited events.
- The depositions are subsequently buried with sand or stone. At enclosures and now in the pit at Nør-

remarksgård, it happened »below« ground, while at megalithic tombs and at the palisade at Sarup, it happened »above« ground by piling up dirt.

- Pots deposited inside the tombs and inside the enclosures are not deliberately broken.
- Chronologically the events at the enclosures and at the tombs are not contemporary, although they overlap.

The conclusion as I see it is that we are dealing with similar events at the causewayed enclosures and the megalithic tombs.

FEASTING, ENCHAINMENT AND KINSHIP ORGANISATION

The causewayed enclosures date back to around 3800 calBC, probably with a background in the Michelsberg area (KLASSEN 2014, 232). At the same time, the earthen long barrows were introduced, probably with a more westerly background (RASSMANN 2011). A few were buried in the monumental tombs, but probably their souls lived elsewhere together with the souls of all those whose bodies were disposed of differently. They may have lived below ground and it may have been possible to communicate with them at the causewayed enclosures.

With time, both tombs and causewayed enclosures became more and more monumental. As noted previously, there is a clear developmental line from the early wooden built tombs to the imposing dolmens at the end of EN II and the beginning of MN A. Many of the late dolmens were true monumental structures with enormous freestanding chambers that for all practical purposes stood open. We do not have evidence for the nature of the burials in these late chambers following the erection. The nearest we come is the extended dolmen Klokkehøj, where we find a regular burial of a man and a child, but also evidence of disarticulation in relation to the man and a third person (THORSEN 1981, 117–120; ERIKSEN/ANDERSEN 2014, 275). I do not think, though, that there is reason to believe that these open chambers were used differently from the rest of the tombs.

There can be little doubt that the building of increasingly monumental tombs in EN was part of a social competition in society. It may be tempting to see this as competition between males for a dominating position in society, but the burial of men, women and children alike clearly contradict this. It seems much more likely to be a case of group-based competition. Various kinship groups were competing for dominance and rights. Building a monumental tomb was one way to impress, and the inducement to build one was not necessarily the death of a powerful person. It

could be the death of one or more persons of internal significance to the group.

At the beginning of MN A, a profound change to the megalithic tombs occurred. The monumental chambers that hitherto had been fully visible became hidden in barrows with access through a narrow passage, only. Although, it is fully possible to see this change as a typological development from the older dolmens (ERIKSEN/ANDERSEN 2014, 39 ff.) it is probably not as simple as that. The concepts attached to this architectural change in the megalithic tombs were certainly not local. It was part of a general trend in North and Northwest Europe towards a secluded burial and/or ritual space. How and where it evolved is immaterial here.

The architectural change, whether inherent to the ideas that followed or not, broke the tradition of building new monumental tombs. Instead, the new passage graves were reused with regular intervals. As outlined above, concrete evidence for the nature of burials in the chambers during the early part of MN A are missing, but looking at Grønhøj it can be argued that the complete pots in the chamber shows a continuing tradition. Now burial sessions occurred at intervals where earlier new tombs were built at intervals. At the same time, the lack of a dark greasy layer at the bottom of the tomb speaks against a steady accumulation of bodies.

The burial sessions were associated with depositions of pots outside the tombs. There may be a background for this in the depositions at the terminal facades of the long barrows in EN I, but also in the depositions of pots in the ditch segments of the causewayed enclosures. The latter prevailed in EN II, where deposits of pots outside the tombs were scanty at best, and then disappeared as the custom gained momentum in front of the tombs.

In addition to broken pots in the ditch segments of causewayed enclosures, we also find deposits of more

ordinary rubbish often combined with traces of burning. This type of deposits seldom if ever occur in the primary ditch segments. They are found in later recuts into the ditches (MADSEN 1988, 315; ANDERSEN 1997, 51), and cannot be considered as ordinary dumping of settlement debris. A good example can be seen in a section through a ditch at Toftum (MADSEN 1978, 165 fig. 2; KLASSEN/KNOCHE this volume). Here a sequence of deposits can be seen, including two thin layers of rubbish separated by a sterile layer of sand and followed by a red burned layer of clay. Clearly, this is a case of careful deposition of rubbish, and not one of dumping. The layer of shells in the section should also be noted (KLASSEN/KNOCHE this volume). Shells are found in many of the recuts in ditch segments at Toftum that lies more than a kilometre from the coast, but not in the nearby contemporary settlement.

In relation to the Aalstrup enclosure, I suggested that ditch segments, or here perhaps more correctly pits, were cut as part of *rites of passage*, to create openings for the souls to pass (MADSEN 2009, 131). The recuts with cultural debris, however, clearly differ and is best explained, I believe, as evidence of feasting for the dead. We find them in EN I at around 3700–3600 cal BC (SKOUSEN 2008, 172 ff.). They are abundant in EN II and continue into early MN A. At Sarup recuts containing cultural debris continues into the later periods of MN A as well (ANDERSEN 1997, 51, 73–74), beyond the primary usage of the enclosures. It is tempting to see this as a continuing tradition of feasting for the dead on the former causewayed enclosures, but it is difficult to prove, as Sarup now increasingly became a regular settlement site.

How then shall we understand the depositions of pots? The only reasonable answer is that they were meant for the ancestors. To be able to transfer them to the ancestors they were systematically broken (‘killed’) and then covered up whether in the ditch segments or in front of the tombs as shown at Nørremarksgård. However, that would be only half of the explanation. If pots were broken in order to reach the souls of the dead, then why were only parts of the pots deposited? Why for instance do deposition II at Nørremarksgård include only half of a clay ladle (pot 7, Fig. 6), and not all of it. John Chapman has discussed this phenomenon in detail (2000, 23 ff.) and convincingly argued that by offering only part of an object and keeping the other part for yourself; you were actively building up links with the deceased. You were enchainning yourself to the ancestors.

If those standing outside of enclosures and tombs could connect to the souls inside by depositing incomplete pots, then how should we view the complete pots inside the tombs and enclosures? An immediate answer to this would be that they were there for the

convenience of the dead souls. As the living needed pots that were functional, so did the dead.

The displacement of pottery depositions from causewayed enclosures to megalithic tombs around the turn from EN to MN raises the question if this indicates a change in beliefs. Were the souls no longer living below ground? Had they instead taken residence in the secluded space of the passage graves? This may be what happened, as we may note that at the same time the primary functions of the causewayed enclosures obviously crumbled. Possibly, the feast for the dead continued at the ditch segments, but the depositions of broken pots followed the souls.

How often and on what occasions did these events take place? The answer to the frequency lies with the depositions – between 10 and 20 years on average at Nørremarksgård for instance. The occasion for feasting and depositing pottery is another matter, however. The immediate answer would be that it was caused by the death of a person, but I believe this to be too simple an answer.

Probably, the events were regulated partly by norms in the society and partly by needs and possibilities arising within the group, very much like the Huron’s ‘feast of the death’ (HEIDENREICH 1978, 374 – without any further analogy). We should not overlook, that even though the feasting was for the dead, the participants were the living, who were actively engaged in social relationships. Each megalithic tomb probably belonged to a kinship group that were in social competition with other kinship groups, and who at the same time regularly needed to reinstall their ties with the ancestors as a mean of legitimization. This could certainly influence the decisions that triggered an event.

However, what about those who actually died on a daily basis so to speak? What happened to them if they were not automatically buried in the tombs, as they died – which I am certain they were not. Where were they buried, and were they articulated, disarticulated or cremated? Did they remain where they were interred first or were they moved around? Yes, probably all of this and possibly more! If we add the information we have on skeletal material from EN and MN A together, we find a very complicated and versatile picture, where there appear to be no rhyme and reason.

Few people, in fact very few, were buried in the monumental tombs including the passage graves in the period immediately after they had been built. Those interred there were probably articulated, when they were buried, and in the wooden chambers, they stayed articulated for good reasons. In the stone chambers, on the other hand all sorts of things could happen, including removal of bones and contamination with bones from other contexts. Those that were not

buried in the monumental tombs may have been buried in pits, in water, left to disarticulate or were cremated. Their bones may have vanished, or people could have kept them at their houses as souvenirs or used them in connection with rituals at causewayed enclosures. We should not put too much stress on what happened to the bones, I believe. The souls mattered, and the bones, so to speak, were more or less discarded containers that could be used in various ways.

Throughout EN and the first part of MN A, society was controlled by norms of group affiliation. Kinship was everything and the competition between kinship groups was the driving factor behind social organization and development. Monumental tombs were the tangible evidence in the landscape that legitimized

the rights of groups. They were also tombs, but not in the sense that they were communal burial grounds for those who died. If you ended up being buried in a monumental tomb, it was not because of you as a person, but rather as an emblem of your kinship group.

During MN A, these norms began to change, and gradually, ideas of the individual were (re)instated. The role of the megalithic tombs, now no longer built, changed. They became the focus for multiple burials of articulated individuals. Often chambers were thoroughly cleaned out in advance, or new floors were laid down. Further, the evidence for the rituals that had been practiced outside were covered up and defused by heaps of stones. By MN B, these new ideas were fully implemented, but it may have started earlier than this.

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