



PAST SOCIETIES

Human Development in Landscapes

edited by

JOHANNES MÜLLER AND ANDREA RICCI



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Interaction and Networks in the Neolithic Funnel Beaker Culture

Julia Menne

Abstract

The study presented here deals with the ceramic grave goods recovered from a selection of megalithic tombs associated with the Funnel Beaker culture (more precisely with the TRB West Group) in Northwestern Germany. The main focus of this particular study was on the sociocultural and economic links between the individual funerary communities as represented by stylistic changes in terms of the diversity of the deposited vessels. Based on its high density of megalithic tombs, the Emsland District, which is one of the regional groups within the TRB West Group, was chosen as the study area. The small groups throughout the region were examined for potential connections between the individual burial sites. As part of this study, it has been possible for the first time to obtain proof of the existence of a dense system of communication networks within the TRB West Group in this region.

Introduction

The following study, based on a high density of megalithic tombs, deals with the ceramic grave goods recovered from several megalithic tombs associated with the Funnel Beaker culture (TRB West Group) in Northwestern Germany. Today, more than 60 of over 130 known monuments are preserved (Sprockhoff 1975) (Fig. 1).

These sites have been known for a long time. Since the beginning of the 20th century, scientific interest increased and first compilations of these megalithic sites were published. This led to excavations and several publications of the sites between the 1950s and the 1970s. These investigations dealt with first data collections and arrangements of finds. As a consequence, after an interruption of the investigation of megalithic graves for decades, the aim of the presented study was a revision of the old excavation material. In particular, the ceramic assemblages, including technical and material analyses, were investigated extensively by statistic and geochemical methods. These focus

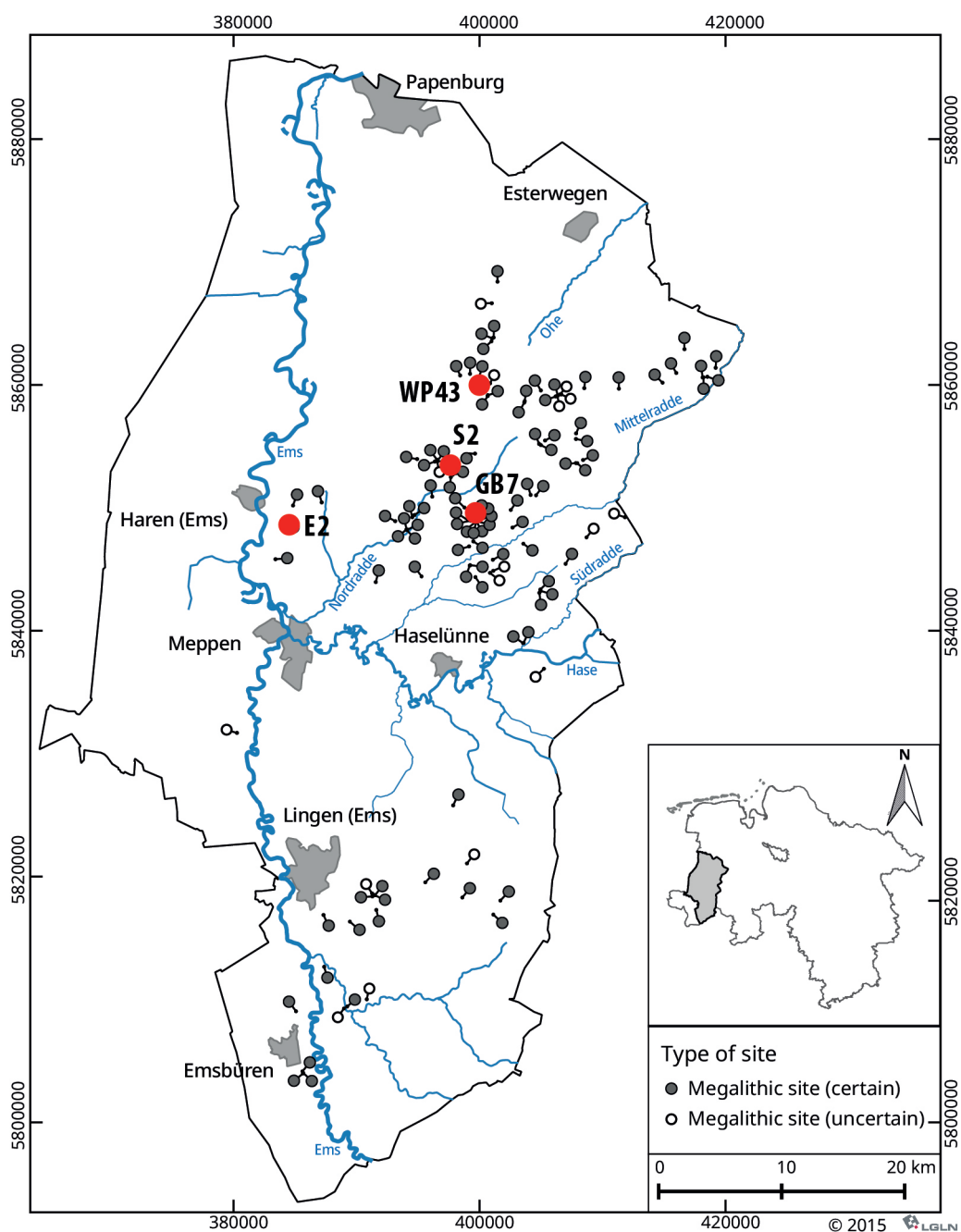


Figure 1. Distribution map of megalithic sites in the area of research (Emsland District, Lower Saxony) (map: J. Menne).

on interdisciplinary approaches for the study of past human-environmental dynamics in the research area (*e.g.* Lorenz 2018).

The main emphasis of this work focused on the sociocultural and economic links between the individual funerary communities as represented by stylistic changes in terms of the diversity of the deposited vessels. The high density of megalithic tombs in this area made a broad investigation of several megalithic groups possible. The small groupings throughout the region were examined for potential connections between the individual burial sites. As part of this study, it has been possible for the first time to obtain proof of the existence of a dense system of communication networks within the TRB West Group in this region.

Material and Methods

The pottery assemblages studied here were recovered from Emmeln 2 on the River Ems, from Groß Berßen 7, Werpeloh 43 and Sögel 2 in the Hümmling area, and also included finds from surface collections at megalithic tombs in the Emsland District (Fig. 2).

The sites were investigated by E. Schlicht in the 1950s and 1960s and some of the results were subsequently published (Schlicht 1953; 1968; 1972; 1982). The funerary constructions had been completely removed in some cases so that only the artefacts from inside the chambers could be recovered. The reassessment of the ceramic finds from these tombs now allows us to directly compare them with each other.

The finds were catalogued and classified using the modular NoNeK system (Nordmitteleuropäische Neolithische Keramik = North Central European Neolithic pottery; <https://www.uf.phil.fau.de/abteilungen/juengere-urgeschichte/projekte-der-juengeren-urgeschichte/nonek-nordmitteleuropaeische-neolithische-keramik/>) (NoNeK 2006). It allows researchers to compare finds from different sites, categories and chronological periods. The system was slightly modified for the purposes of this study, which allowed us to compile a detailed description of each vessel unit comprising up to 60 features. A total of 2068 vessel units from 12 sites consisting of 8522 individual sherds weighing 110 kg were part of the study. Despite the high degree of fragmentation, it was possible to identify the exact type for two thirds of the vessels.



Figure 2. Emmeln 2. Excavation situation in 1953/54 with a view into the former chamber (photo: estate E. Schlicht, EHB).



Figure 3. TRB-pottery – Funnel Beaker collared flasks and cylinder-necked vessels from the megalithic sites Emmeln 2, Sögel and Groß Berßen 7: (a-d) Emmeln 2; (e) Sögel; (f) Groß Berßen 7 (plate: J. Menne).

The surfaces of the TRB pottery were highly decorated and 155 patterns were defined. The individual patterns were combined to form numerous more complex pattern sets. By virtue of the craftsmanship and arrangement of the individual patterns, each vessel is unique (Fig. 3-4).

Descriptive statistical methods were used for this purpose, including data sample, cross-tables and chi-squared tests, and tests for normal distribution at different scale levels, based on metric and non-metric variables. Emmeln 2, Groß Berßen 7 and Werpeloh 43 were selected for this next step because of their verified contexts and the large numbers of finds (Menne 2012a; 2012b; 2014).

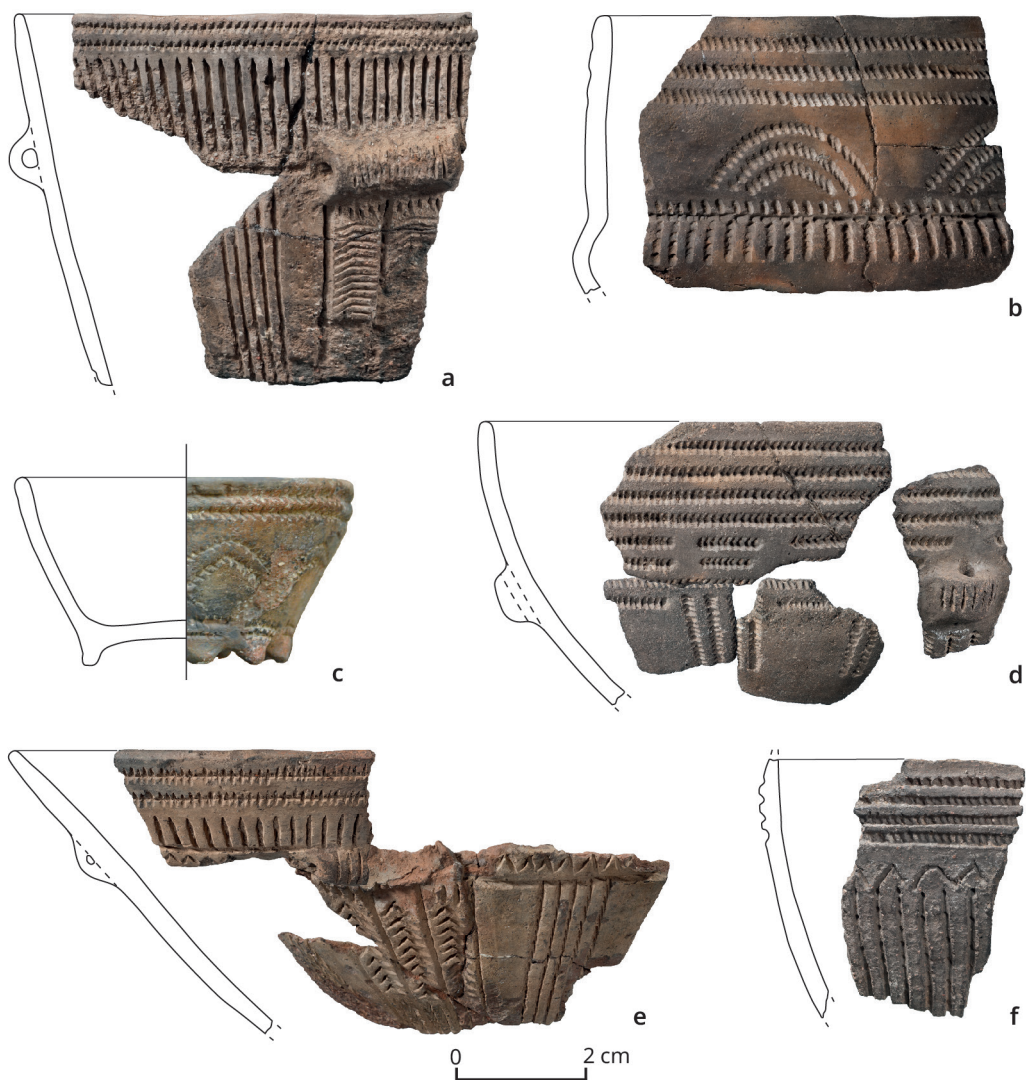


Figure 4. Bowls and pails from the excavation of Emmeln 2 and Groß Berßen 7: (a, e) Groß Berßen 7; (b-d, f) Emmeln 2 (plate: J. Menne).

Additionally, material analyses by means of petrographic thin sections and portable energy-dispersive X-ray fluorescence spectrometry (P-ED-XRF) were conducted to determine the differences in the use of the raw material sources between the megalithic sites. This enables us to draw conclusions on the pottery production for each site. It clearly shows that local raw material sources with similar chemical compositions were exploited for pottery production. The pottery was therefore produced locally and the possibility that pottery was imported, for instance, via exchange contacts or kinship relations can be excluded.

Results

The quantitative overall study of the material was followed by an analysis of the individual assemblages. Comparisons between the sites showed that the production techniques, vessel shapes and decorations were largely similar. This was carried out by qualitative analysis, including correspondence analysis and network analysis, visualised by GIS (Fig. 5).

The conclusion could therefore be drawn that the funerary pottery from the megalithic tombs in the Hümmling region defined a homogenous area with uniform funerary rites. This was clearly borne out by the repeated deposition of the same ratios of bowls, collared flasks, and funnel-necked or cylinder-necked vessels.

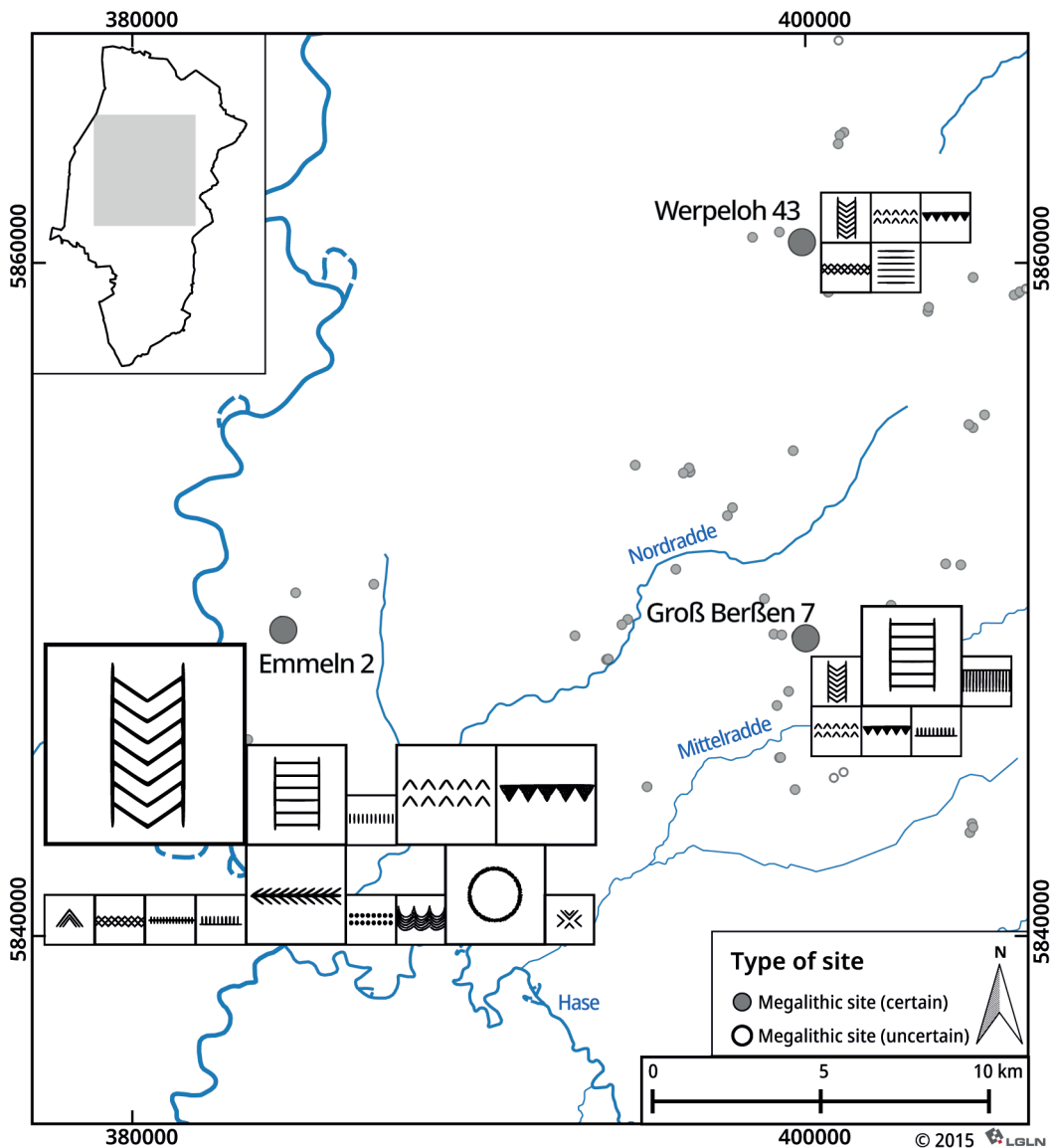


Figure 5. Distribution of stylistic patterns for the sites Emmeln 2, Groß Berßen 7 and Werpeloh 43 (map: J. Menne).

The same uniformity was also visible in the use of decorative patterns on the vessels. So-called “standard pattern types” occurred at every site and were employed by all potters with the same regularity. Bands, garlands, circles, lozenges, zig-zags and triangle garlands, in comparison, allowed us to differentiate between the individual sites. Each funerary community expressed itself by choosing site-specific pattern types to decorate its pottery. These were then combined with the standard pattern types, thus creating an individual formal vocabulary which differentiated each assemblage from its counterparts. The individual funerary communities also had an apparent influence on each other, which can be seen in the distribution of pattern types within the study area. Emmeln 2 appears to have been an innovative driving force behind various stylistic expressions in the region. The tomb was located at the geographical and typological interface between the Hümmling and Drente areas, which acted as a gateway for the transfer of decorative motifs between both regions. The greater the distance between two sites, the more dissimilar the vessel surface decorations became (Fig. 5). Observations about the existence of trading routes and potters’ workshops in the Neolithic, concentrating on the distribution of different pottery styles, were made some time ago by the excavator E. Schlicht (Schlicht 1962a; 1962b; 1971).

For an absolute chronological view in order to indicate the period of grave use, radiocarbon dating of charcoal and bone from the inside the chambers was carried out. The results coincide with the typological dates of the pottery. The deposits in the excavated tombs at Emmeln 2, Groß Berßen 7 and Werpeloh 43 were made between 3500/3400 cal BC and 2800/2700 cal BC. Typochronologically, this corresponds to a Funnel Beaker period use in horizons 2 to 6/7 after Brindley (1986b) (cf. Bakker 1979). Deposits began to decline in number from around 3350 BC onwards and this coincided with a general change in the climate of Central and North Central Europe and certain social changes associated with it.

Discussion

In order to put the homogeneity of the study area into context with microregions of the TRB West Group, megalithic tombs from the adjacent site of Ostenwalde 1 (Fansa 1978) and from neighbouring regions were also examined. They included assemblages of funerary pottery from the Oldenburg region (Fansa 1980; 1982), the Netherlands (Brindley 1986a; Brindley and Lanting 1992) and northern Westphalia (Knöll 1983). This part of the study showed that vessel shape ratios in these regions followed a similar principle. The distribution of decorative motifs again relied on the use of standard pattern types.

There was an obvious gradual change and development in the formal and decorative pottery vocabulary, which could be seen in the different microregions within the TRB West Group. Each of these microregions had its own identity as expressed by the formal vocabulary of its funerary pottery which, however, was based on the overall regional formal vocabulary of the TRB West Group. Social and cultural areas apparent within territorial and environmental boundaries were thus influenced by contrasting identities. The ritual landscape as defined by the construction of megalithic tombs and by the associated funerary rites can be viewed as a process of adaptation and standardisation in which patterns of contact are reflected within a dense network of social

relationships. The internal coherence of the TRB West Group was not only manifested just by way of the funerary architecture but also by the relationships between the individual deposits. The statistical analysis of the material from Emmeln 2, Groß Berßen 7, Werpeloh 43 and Sögel 2 allowed us to postulate the existence of close communication networks between the individual TRB West Group sites.

However, based on the data currently available, the supra-regional study has only allowed us to identify tendencies. Detailed comparisons with neighbouring regions will only be possible if the corresponding data become available for those areas.

Conclusion

As part of this study, it has been possible for the first time to obtain proof of the existence of a dense system of communication networks within the TRB West Group in the region of Northwestern Germany. Based on the quantitative distribution of the pottery in the individual megalithic tombs, it has also been possible to reconstruct periods of use that continued for the entire duration of the TRB period occupation of the sites. The qualitative analysis of the finds yielded evidence of a dense cultural web of funerary communities. The Hümmling region was thus an extraordinarily densely occupied archaeological region within Northwestern German Neolithic research (Menne 2018).

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The author studied Pre- and Protohistoric Archaeology, Medieval and Post Medieval Archaeology, and Heritage Sciences at the University of Bamberg (Magistra Artium 2011) and subsequently researched at the Altertumskommission für Westfalen in Münster. From 2013 onwards, she worked on her PhD at the Graduate School “Human Development in Landscapes”, Kiel University, and received her doctorate in 2017 for her thesis entitled *Keramik aus Megalithgräbern in Nordwestdeutschland. Interaktionen und Netzwerke der Trichterbecherwestgruppe* (Menne 2018) from the Institute for Pre- and Protohistoric Archaeology, Kiel University. In 2017/18, she was awarded a travel grant from the German Archaeological Institute (DAI) and was active in various research projects at Kiel University (GS, SFB 1266 and SPP 1400). She is currently working at the University of Hamburg.