

Ritual Cooperation and Ritual Collectivity: The Social Structure of the Middle and Younger Funnel Beaker North Group (3500 – 2800 BC)

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Zusammenfassung

Die soziale Entwicklung der Trichterbecher-Nordgruppe wird am Beispiel der Nordfriesischen Inseln nachvollzogen. Aus einer eher weniger reglementierten Gruppe um 3400 v. Chr. entwickelt sich eine mehr stratifizierte soziale Formation um 3000 v. Chr., sofern die wenigen Informationen aus den nordfriesischen Grabanlagen ein Bild erlauben, das durch die Analyse von Verzierungsvielfalt und Grabenwerken anderer Gebiete untermauert wird.

Im Ergebnis wird zwischen einem ideologischen Konzept der „rituellen Kooperation“ und einer Entwicklung hin zum Konzept der „rituellen Kollektivität“ unterschieden. Während Grabenwerke und bestimmte Grabrituale für die „rituelle Kooperation“ stehen, werden Ganggräber eher zur Darstellung von „ritueller Kollektivität“ benutzt.

Summary

A model about the social development of a TRB society – the change from a society with individual and group diversity around 3400 BC to a more stratified social formation around 3000 BC – is shown to be the outcome of both burial evidence on the North Friesian Islands as well as information on enclosures, decoration diversity and economic variables from further regions of the southern TRB-North group.

While the former is linked to ideological concepts of “ritual cooperation”, the later ideology might be labelled “ritual collectiveness”. Expressions of “ritual cooperation” are causewayed enclosures and different burial customs, the means of “ritual collectiveness” passage graves.

Introduction

The reconstruction of the social structures of Funnel Beaker societies requires regional and time specific responses. Between ca. 4100-2800 BC Funnel Beaker societies existed over an area spreading from the Carpathians to Southern Norway and from the Netherlands to Eastern Poland. General studies on the socio-historical development which stem from the presence of manifold sources ranging from differing grave forms, settlements, depositions and from causewayed enclosures and their possible social-archaeological interpretations require an intensive review (e.g. Kristiansen 1984; Larsson 1985; Müller 2009).

By means of the following example the author will attempt to make statements about the social structure of Funnel Beaker societies within the framework of the production, consumption and dis-

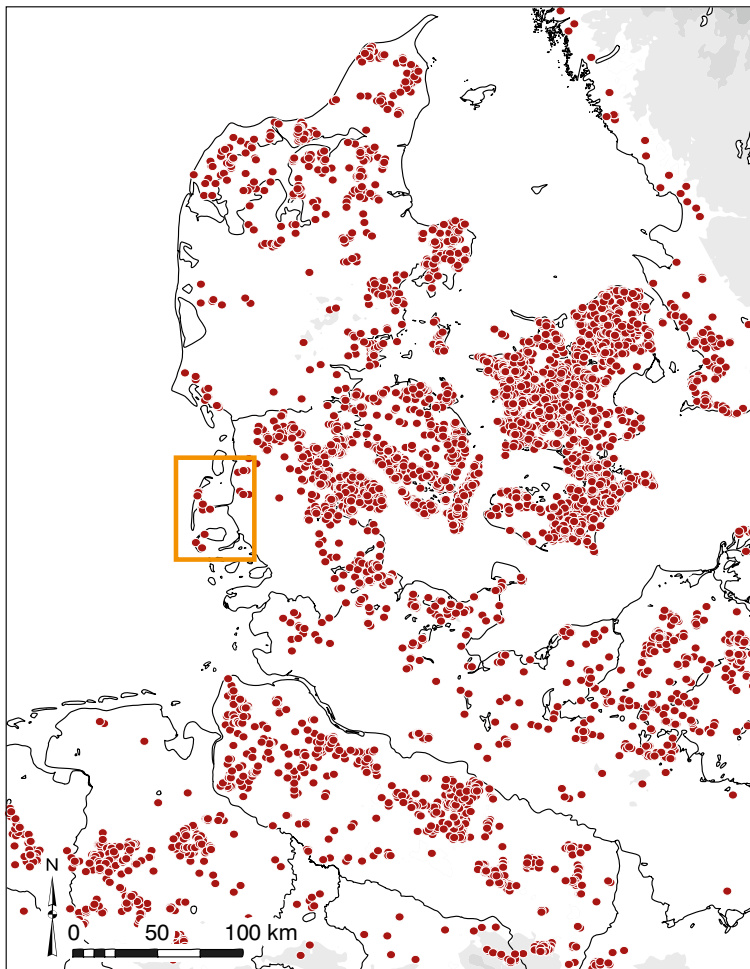


Fig. 1. The position of the North Friesian Islands in the framework of megalithic monuments of the Funnel Beaker North Group.

Abb. 1. Lage der Nordfriesischen Inseln im Rahmen der Verbreitung von Grabmonumenten der Trichterbecher-Nordgruppe.

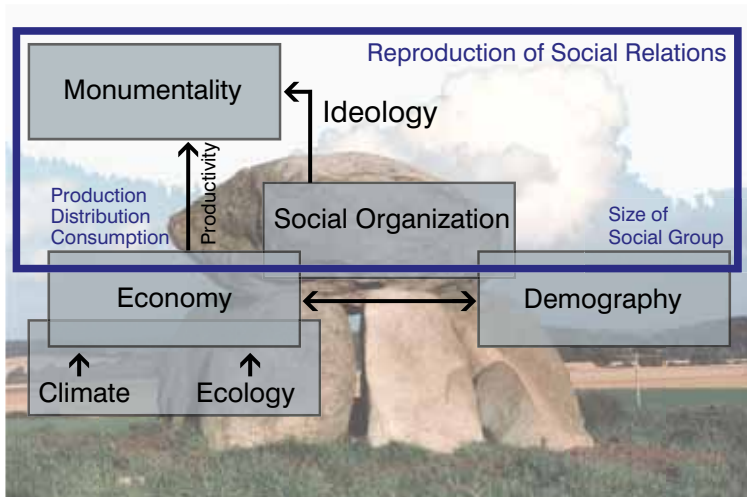
tribution of material goods and architecture. Due to an assessable database which has already been published (Hinrichsen 2006), the North Friesian Islands (fig. 1) were chosen as a setting for this purpose. Therefore, a southern part of the Funnel Beaker North Group is considered in this analysis.

Essential Questions and Hypotheses

Conceptually, the reproduction of social relationships is viewed in connection with varying general aspects (cf. fig. 2). It is assumed that social relationships in Funnel Beaker societies are to be located within the framework of the economical system, social organisation and monumentality in which on the one hand productivity and on the other hand ideology plays an important role. The former facilitates the building of above ground monuments, the latter uses these for the reproduction of societal relationships.

In essence the following questions are of interest for the assumed societal transformation processes:

1. How did the reproduction of social relationships take place in Funnel Beaker societies? Which social identities and which contradictions can be recognized in the development of the southern part of the Funnel Beaker North Group?
2. What function do graves of different types (flat graves, non-megalithic graves in long mounds, dolmen, and passage graves) have in the construction of social identities?



- Is there a dependency between demographic development, productivity, surplus-product and the development of social identities? Can quantitative changes in the proportional relationship between equipment that can be used as weapons and consumptive products be observed?

Grave types and grave sizes as well as the number and composition of the grave depositions will be operationalized as a research strategy for the mentioned test region in order to discuss the stated questions based on an analysis which focuses on archaeological remains. Unfortunately, settlement finds are missing in this respect due to poor regional preservation conditions. In spite of this, a model of the social development in the North Friesian area will be a “product” of the social-archaeological investigation.

The Test Region: North Friesian Islands

The North Friesian Islands Amrum, Sylt and Föhr constitute today together 202,4 km². Even though they constituted a totally different coastal route in Neolithic times (cf. Meier 2006, 38 concerning the reconstruction as larger islands and Behre 2003; 2007), they will nevertheless be considered here as a closed entity (fig. 3).

Table 1 shows that 94 megalithic tombs are known or recorded (2,2/km²), 15 sites with non-megalithic graves exist and that the number of the remaining sites falls far behind this. As a result of poor documentation only 33 graves could be used for the intended quantitative analysis. The status of documentation and the source of transmission of the rest of the sites is too unclear.

The Neolithic settling of the islands is concentrated on four moraine areas on the islands of Sylt and Föhr. The first evidence is composed of early graves which are to be positioned at the transition FNII / MNIIa (e.g. Sylt-Ost-Archsum 127; Utersum 19 and Borgsum 1, cf. Hinrichsen 2006, map 6), followed by the settling of the whole coastal geest area in MNII – MNV. The status of documentation for Amrum is too poor and therefore hinders its inclusion in such considerations.

On the basis of the variety of grave sites the chosen region is certainly appropriate for social-archaeological questioning. Thus, we identify single flat graves or flat grave groups (e.g. Tinnum LA 37), single graves in non-megalithic long mounds (e.g. Morsum LA 2), dolmen, extended dolmen, large dolmen and polygonal passage graves (e.g. Denghoog, see fig. 4).

Fig. 2. The reproduction of social relationships in the framework of economy, demography and social organization. For the Funnel Beaker societies, visual monuments play an important role in creating social space.

Abb. 2. Die Reproduktion sozialer Beziehungen im Rahmen von Wirtschaft, Demographie und sozialer Organisation. Für die Trichterbecher-Gesellschaften spielen oberirdisch sichtbare Monumente bei der Schaffung eines sozialen Raumes eine wichtige Rolle.

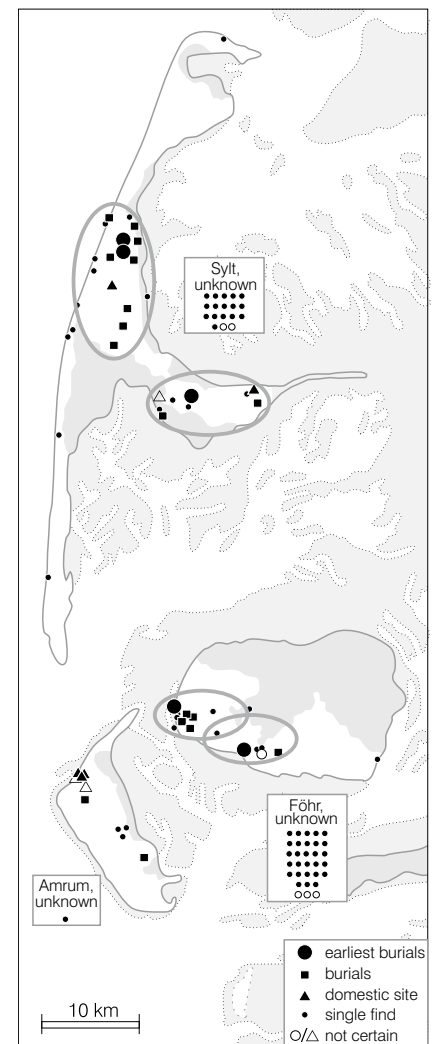


Fig. 3. The dispersion of Neolithic finds on the North Friesian islands (after Hinrichsen 2006, map 6). Also marked are the earliest graves (ca. 3400 BC) which surely mark the origins of Funnel Beaker occupation on the moraine plateaus of the islands.

Abb. 3. Die Verbreitung neolithischer Funde auf den Nordfriesischen Inseln (nach Hinrichsen 2006, Karte 6). Markiert sind ebenfalls die frühesten Gräber (ca. 3400 v. Chr.), die sicherlich Ausgangspunkt der Ansiedlung der Geestinseln sind.

overview data:				
Amrum 20,46 km ² ; Sylt 99,14 km ² ; Föhr 82,82 km ²				
megaliths (n): 94 (2,2/km ²)				
11 dolmen, 1 great dolmen, 6 polygonic passage graves, 3 nordic passage graves				
15 sites featuring non-megalithic grave monuments				
	well-dated graves (n)	sum burial floor (m ²)	grave items (n)	sum graves
flat graves	18 (54)	54,5	17	35
dolmen	8 (24)	24,2	51	12
passage graves	5 (15)	15,2	144	9
long mounds	2 (6)	3,0	8	5
Sum	33 (100)	96,9	220	134

*all megaliths (including non-classifiable megaliths)

Tab. 1. The basic data from the North Friesian Islands (Hinrichsen 2006, 293 ff).

Tab. 1. Die Datenbasis auf den Nordfriesischen Inseln (nach Hinrichsen 2006, 293 ff.).

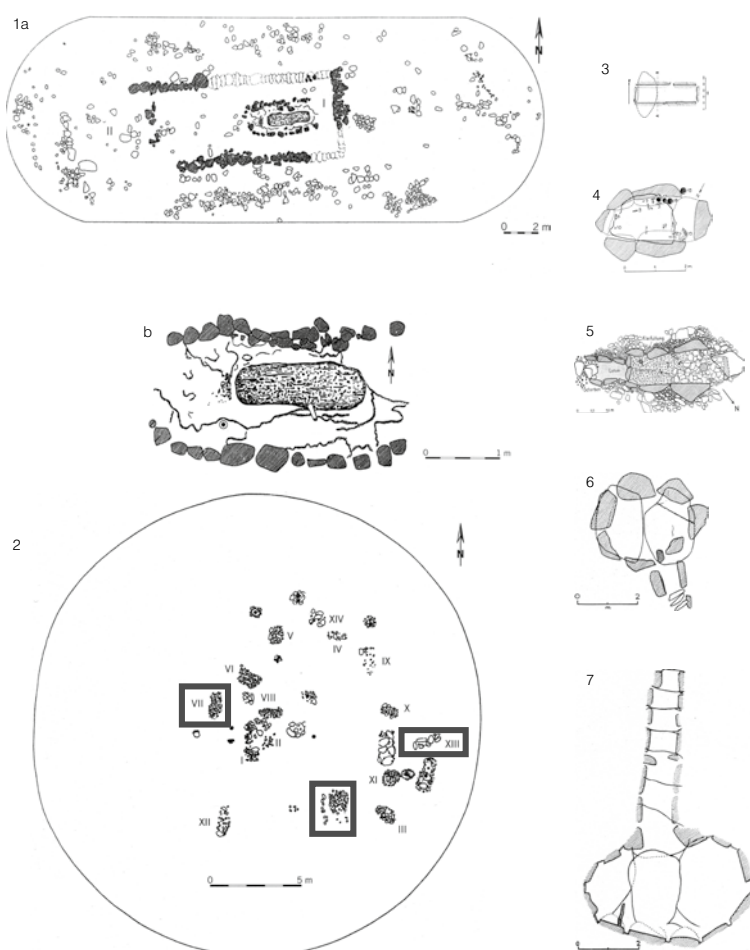


Fig. 4. Neolithic grave forms on the North Friesian Islands: Non-megalithic and megalithic sites (compare Hinrichsen 2006, Plates 9–10 and Kossian 2004, Plate 157, 40 and Plate 160, 245). 1 Tinum-LA 37; 2 Morsum-LA 2; 3 Utersum LA-19; 4 Sylt-Ost-Keitum LA-70; 5 Kampen LA-180; 6 Kampen LA-2; 7 Wenningstedt-Denhoog LA 85. For Morsum 3 flat graves with furnishings are marked. The part of the flat grave cemetery was preserved under a burial mound.

Abb. 4. Neolithische Grabformen auf den Nordfriesischen Inseln: Nichtmegalithische und megalithische Anlagen (vgl. Hinrichsen 2006, Taf. 9–10 u. Kossian 2004, Taf. 157,40 u. Taf. 160,245). 1 Tinum-LA 37; 2 Morsum-LA 2; 3 Utersum LA-19; 4 Sylt-Ost-Keitum LA-70; 5 Kampen LA-180; 6 Kampen LA-2; 7 Wenningstedt-Denhoog LA 85. Für Morsum sind die drei Flachgräber mit Beigaben gekennzeichnet. Der Teil des Flachgräberfriedhofes hat sich unter einem Grabhügel erhalten.

For the following analyses grave categories and burial furnishings were entered into a data bank and the relative-chronological dating of the grave inventories by Christiane Hinrichsen was noted (cf. among others Hinrichsen 128, Tab. 1). This could be implemented in absolute-chronological time spans with an accuracy of about 100 year stages and for example for megalithic graves the absolute-chronological time span of its usage was registered referring to the relative-chronological span of the inventories (cf. fig. 8). In order to compare the different inventory sizes, a relative adjustment due to the absolute usage length of the grave-chambers documented by the inventories was necessary. It goes without saying here that we are dealing with minimum representations.

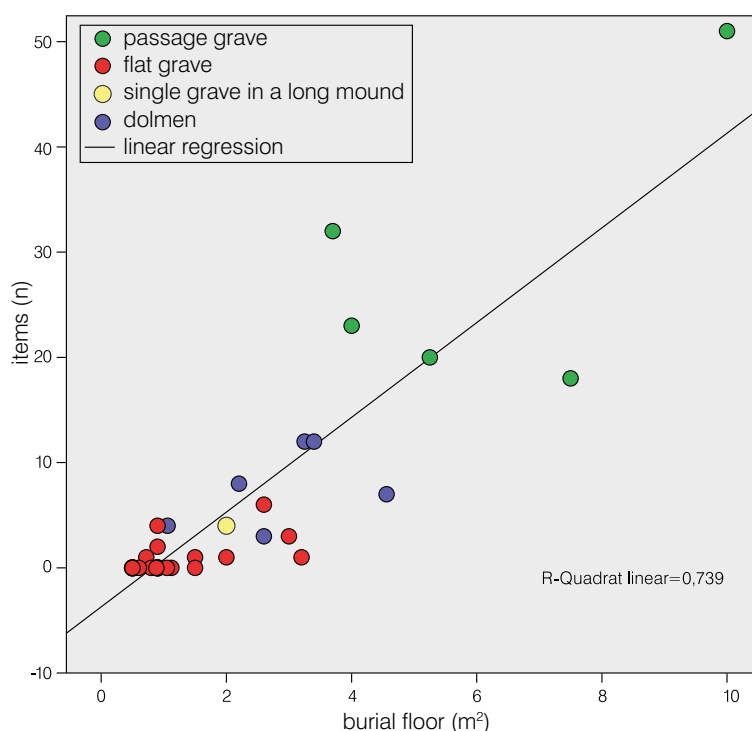


Fig. 5. The ratio between grave size and grave furnishing on the North Friesian Islands. In spite of differing grave forms a highly significant correlation is at hand.

Abb. 5. Das Verhältnis zwischen Grabgröße und Beigabenzahl auf den Nordfriesischen Inseln. Trotz unterschiedlicher Grabformen ergibt sich eine hochsignifikante Korrelation.

Investigations

Grave Sizes and the Quantity of Grave Goods

In order to achieve comparability between the different grave sites different architectural parameters were compared with parameters of the grave goods. A high significant correlation between the size of the grave floor space and the number of grave furnishings emerged (fig. 5). This was particularly surprising due to the fact that rather different concepts were followed in the erection of non-megalithic single graves and passage graves. As a result we assume that the mean floor area of a single grave (1,28 m², standard deviation 0,2) is the size of floor space used for 1 individual and in turn for dolmen and passage graves the minimum capacity for the number of interred persons of the respective sites can be calculated rather easily. Following the idea of Jan-Albert Bakker, who once used the number of grave goods in single graves in the Netherlands in order to evaluate the minimum number of interred persons in megalithic graves according to the furnishings of the chambers, we can also attempt a similar calculation. Thereby, the mean number of grave furnishings per single grave (0,94 items, standard deviation 0,4) will serve as a value that stands for 1 individual.

Proxies and Demography

If we use the gained observation for the reconstruction of the minimum population size on the islands two ways are possible: either using the floor area or the number of grave goods.

Table 2 a shows the results for the floor area differentiated according to three time slices. We begin with the floor space of the best dated 33 graves and multiply the data by the factor of all of the known graves (* 4,1). Where groups of flat graves are known, a relationship of 1.4 emerges between graves with and without furnishings, so that the number of flat graves must categorically be increased by 80 %.

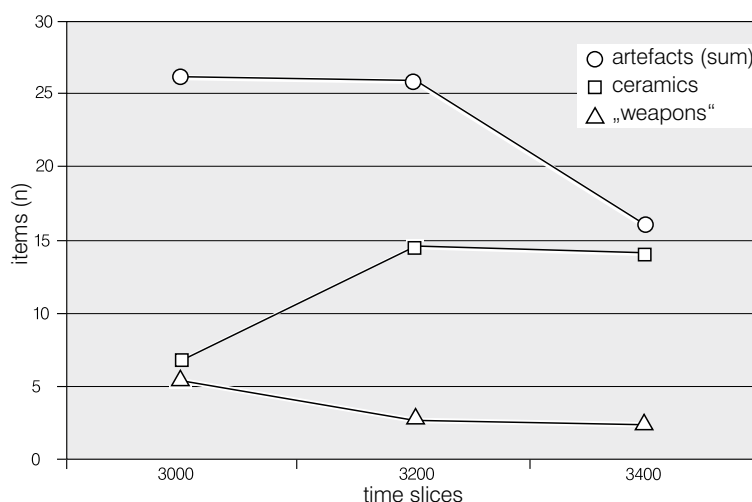


Fig. 6. The distribution of goods in graves on the North Friesian Islands according to time slices. Represented are the total number of grave items in 3 time phases and the proportion of artifacts, which could be used as weapons, and ceramics, which are interpreted as consumptive commodities.

Abb. 6. Güterverteilung in den Gräbern der Nordfriesischen Inseln nach Zeitscheiben. Dargestellt sind die Gesamtzahl der Beigaben in drei Zeitphasen und die Anteile von Waffen- und Keramikbeigaben.

We also know that in some regions in which megalithic graves are documented by older maps, on the average a loss of four-fifths of the early modern inventory is to be assumed (e.g. for the county Uelzen von Estorff 1846; cf. Richter 2002; for Rügen: Schuldt 1972; cf. also for the Altmark Fritsch/Müller 2002). With these calculations we come up with values between 200 and 1500 persons if we divide the modeled floor area by the value 1,28 m²/i., i.e. a population density between 1 and 7,4 inhabitants per m². If we assume 10 persons living on each farm compound, this could suggest 20 – 150 units on the North Friesian Islands. Hence, the notion of “one megalithic grave per farm compound” is still principally relevant. If a similar calculation is carried out on the basis of the number of grave furnishings, comparable values are found, whereby the postulated population growth does not turn out to be so high (Table 2 b).

Therefore, relatively small group sizes and population numbers can be assumed for the North Friesian Islands. Substantial demographic growth between 3400 and 3200 BC can also be observed, which led from a doubling through to a five-fold expansion of the population.

Surplus, Grave Furnishings and Conflict Potential

The possibility of taking objects out of the circulation of commodities by deposition only exists when a society produces more than it needs for its subsistence. Respectively, the sum of all deposited goods of a society represents the minimum of the surplus. Further aspects can and must be added to this, e.g. the expenditure of energy for non-profane architecture or for the total of all non-functional reconstructable courses of action. Nonetheless, in the following we would like to proceed from a minimum surplus product which we reconstruct for the sake of simplicity out of the number of goods deposited at a specific time.

Fig. 6 illustrates the rise in goods taken out of circulation which were deposited in graves between 3400–3200 BC. We recognize an absolute rise in production, which can likely be associated with the postulated demographic growth. Although the absolute surplus product increases one has to assume an actual unchanging or even a decreasing surplus product per person. This level of production or surplus product respectively stays constant on the North Friesian Islands until at least 3000 BC.

Interestingly, the composition of the goods deposited in graves

a calculation on basis of burial floor sizes

m ²	3400 BC	3200 BC	3000 BC
33 sites (well-dated graves)	7,20	40,69	26,75
134 sites (all graves) (*4, 1)	29,52	166,83	109,68
correction flat graves (1 : 4)	65,19	427,23	109,68
correction loss (* 4, 5)	260,76	1922,53	493,56
population (/ 1,28 m ²)	203,72	1501,98	385,59
n hamlets (/ 10)	20,00	150,00	38,00
Per/km ² (/ 202,42)	1,00	7,40	1,90

b calculation on basis of items (n)

items	3400 BC	3200 BC	3000 BC
33 sites (well-dated graves)	16	25,82	26,70
134 sites (all graves) (*4, 1)	65,6	105,86	106,89
correction loss (* 4, 5)	295,20	476,38	480,99
population (/ 0,94 items)	314,04	506,79	511,69
n hamlets (/ 10)	31,4	50,68	51,17
Pers/km ² (/ 202,42)	1,55	2,50	2,53

Tab. 2. Model calculation of the Neolithic population densities on the North Friesian Islands on the basis of the size of grave floor space (a) and the number of grave furnishings (b).

Tab. 2. Modellrechnung zur Bevölkerungszahl auf den Nordfriesischen Inseln mit Neolithikum auf Basis der Gräbergrundflächen (a) und der Beigabenzahl (b).

changes during the considered time period. If we denote, for example, such goods as “weapons” with which people were verifiably killed in prehistoric times (i. e. transverse and other arrowheads, mace heads, axes and hatchets) then their proportion increases greater in the time phase between 3200 and 3000 BC than in preceding time periods. If we take furnishings which cannot be connected to killing into account, then we observe that their absolute and relative values increase sharply between 3400 and 3200 BC to then decrease again slightly until 3000 BC. If we consider ceramic vessels as mediums of consumption, i.e. as vessels for drinking, eating or for the storage of food, then we observe that their absolute values rise between 3400 and 3200 BC and decrease afterwards until 3000 BC.

In connection with the postulated population growth between 3400 and 3200 BC we recognize particularly an absolute increase of consumption goods which respective of the population growth can only be designated as a relative magnitude. Interestingly, the proportion of consumption goods remained the same until 3000 BC or decreased again, which would correspond to a stable population or even reflect a reduction of consumption possibilities, since there is no sign of changes in burial rites.

Generally, an increase in the absolute and relative proportion of weapons after a phase of population growth can be observed. We assume that on the one hand the increase of the surplus product until 3200 BC reflects an increase in production and on the other hand that this was not sufficient to fully compensate for population growth when maintaining a stable standard. This is also manifested in the decrease of furnishings per grave. The subsequent increase of weapons beginning ca. 3200 BC most likely displays an increase in internal and external conflicts.

Fundamentally, the proportion of weapons in dolmens and passage graves is higher than in flat graves and single graves from long barrows, whereas the proportion of consumption goods is at its highest in at least dolmens and long barrows. An increase in social conflicts and the relative reduction of consumption activities is reflected in these figures. Before this observation can be evaluated, the question about the chronological changes of the grave types should be posed.

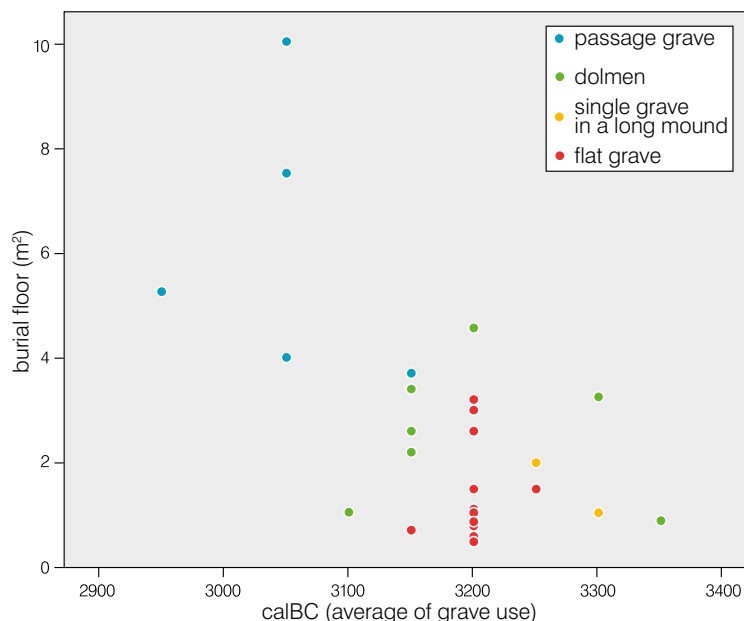


Fig. 7. The size of the grave floor areas and the average dating of the grave use. The duration of use was calculated by the typo-chronological identification of the burial assemblage. Burial types are marked.

Abb. 7. Die Größe der Grabgrundflächen und das durchschnittliche Benutzungsalter unterschiedlicher Grabformen.

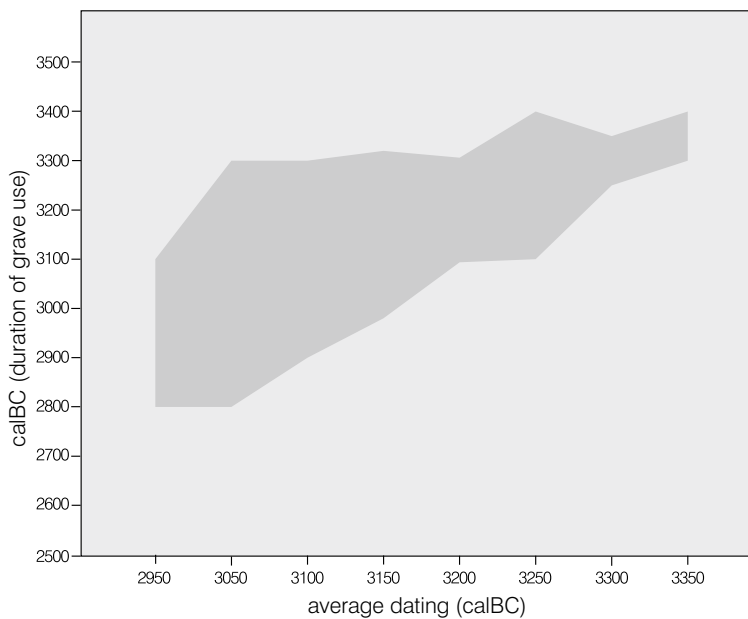


Fig. 8. The length of grave use on the basis of typo-chronological dating of the grave inventories.

Abb. 8. Die Nutzungsdauer der Gräber aufgrund der typo-chronologischen Datierung der Grabinventare.

Grave types, grave duration and the distribution of furnishings

Looking at it from a time perspective on the one hand, a clear increase in the graves used can be detected and on the other hand a change from using singular interment forms to collective burials (fig. 7). In fact, around 3000 BC only interment forms of the collective type were being used, whereas around 3400 BC single graves with differing grave types and smaller dolmens (probably also for single interments) characterize the funerary ritual respectively (fig. 3).

In addition, a change in the average length of grave usage can be observed (fig. 8). Although the most graves were erected around ca. 3400 / 3300 BC and the earliest usage does not show any great differ-

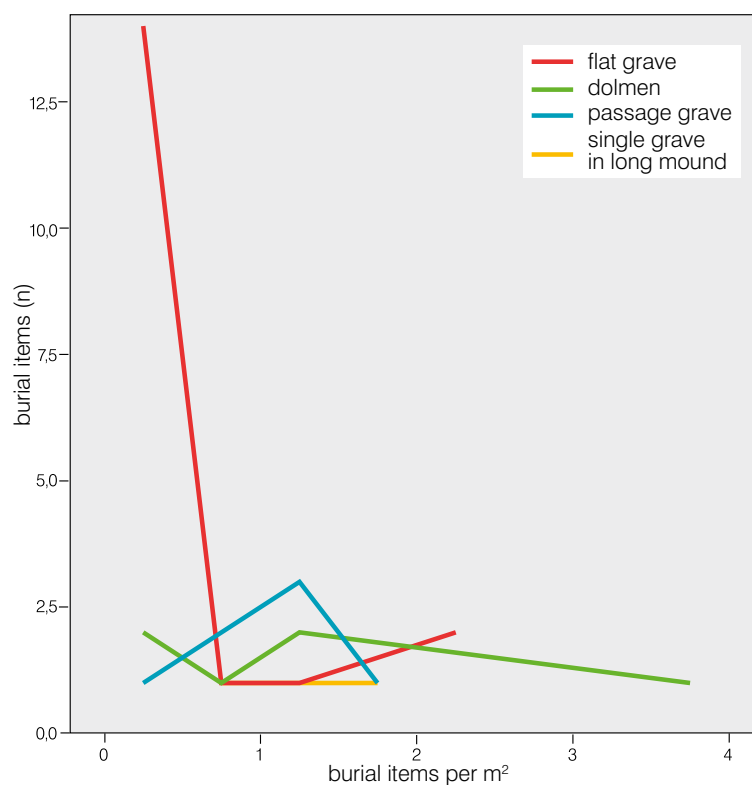


Fig. 9. The number of grave items per m² surface area in the different grave forms.

Abb. 9. Die Beigabenzahl pro Quadratmeter Grundfläche in den unterschiedlichen Grabformen.

		flat graves	single graves in non-megalithic long mounds	dolmen	passage graves	
		single burials		collective burials		all
average number of items per m ²	correction time	0,39	1,30	1,3	1,3	.
	without correction time	0,54	1,66	3,4	6,3	.
	3400 BC	2,00	2,00	12	.	5,3
	3200 BC	0,50	1,30	2,1	6,4	1,1
	3000 BC	.	.	1	6,3	1,1
percentage "weapons" (%)		8,8	12,5	25,1	19,7	.
average size of floor area (Σ sum burial sizes) in m ²	3400 BC	1,5 (2,9)	1,0 (1,1)	3,3 (3,3)	1,8 (-)	.
	3200 BC	1,2 (21,2)	2,0 (2,0)	2,8 (13,8)	1,7 (3,7)	.
	3000 BC	- (-)	- (-)	- (-)	6,7 (26,8)	6,7 (26,8)
	all	1,7	1,5	2,8	6,1	.
burial type	3400 BC	2	1	1	0	4
	3200 BC	17	1	5	1	(24)
	3000 BC	0	0	1	4	5
	all	19	2	7	5	33

Tab. 3. Usage of different grave forms. A correction by the duration time was necessary, thus the average number of items is corrected to this number per hundred years (number of items divided by typo-chronological duration of burial use).

Tab. 3. Die Nutzung unterschiedlicher Grabformen.

ences, usually the younger facilities exhibit longer usage intervals according to the evidence of the grave goods.

As a consequence we can presume that a societal change to collective graves in funerary conventions can be observed. Since this particularly went hand in hand with the development of above ground, visible collective graves, i.e. passage graves and larger dolmens, the longer usage intervals are not surprising. They show that the expression of social identity on the same localities increases over time and surely a social need for the visible transmission of social relations on the landscape.

If we observe the number of grave furnishings in terms of the floor area of the single grave forms and corrected by the factor of usage length for collective graves, no extreme differences appear (fig. 9). It becomes clear though, that the majority of burials without grave furnishings are flat graves, whereas graves with more furnishings can either be dolmens, passages graves or flat graves. Consequently, this means that in the centuries of the Funnel-Beaker societies richer burials were repeatedly carried out, initially in single graves and small dolmens and later only in passage graves.

The mean floor area of the graves increases over the course of the Funnel Beaker development, which is not surprising in light of the existing observations. After the probable large increase in population, the absolute number of grave constructions decreases until 3000 BC with a stable absolute number of grave furnishings which could suggest a certain concentration of resources (Tab. 3).

Interpretation

How are the existing results to be interpreted from a social archaeological point of view? By and large, considerable changes in the constellation of social relations become clear. A large population growth between ca. 3400–3200 BC coupled with an adequate rate of economic growth is followed by a stable population density and production rate until ca. 3000 BC. The simultaneous, observable reduction in the average number of burial furnishings per grave shows, that under the new economical conditions it becomes more difficult to furnish graves with individual goods. An identification with locations and the community is documented through the longer us-

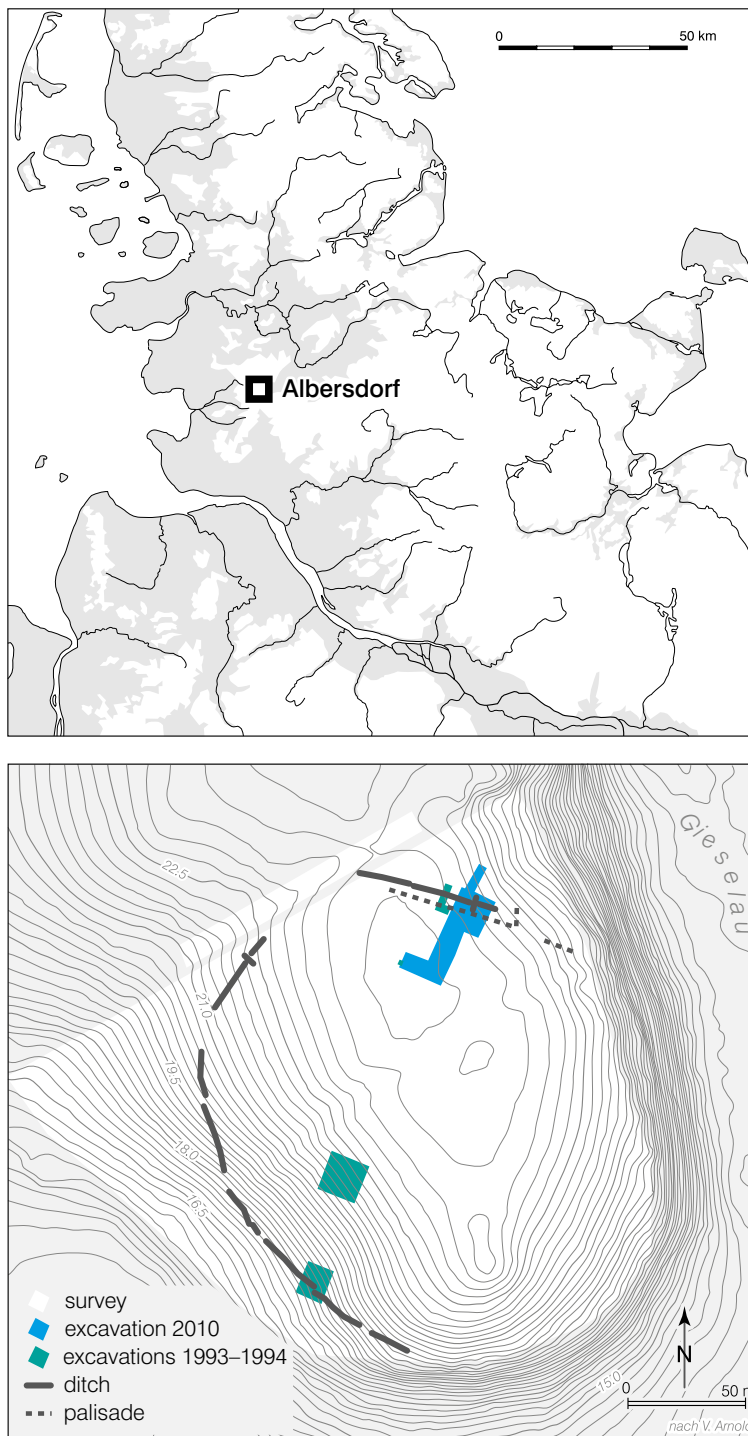


Fig. 10. Surface area plan and position of the causewayed enclosure Albersdorf-Dieksknöll.

Abb. 10. Grundplan und Lage des Grabenwerkes Albersdorf-Dieksknöll.

age of collective and visible burial sites on the surface: the locality of megalithic tombs becomes a cross-generational medium for building traditions and a culture of remembrance. The whole development is accompanied by an increase in weapons furnishings as opposed to consumption furnishings which certainly corresponds to increasing conflicts in the society.

Important for a social archaeological interpretation is the assessment, that due to the dispersed settlement pattern on the respective moraine islands exogamous marriages were necessary. The exemplarily assumed correlation of individual megalithic graves or grave groups to individual farms or hamlets, which appears possible due to the above mentioned demographic reconstructions, demanded institutionalized gatherings, which document the connec-



Fig. 11. Section through the ditch in Albersdorf-Dieksknöll (after Dibbern/Hage, in prep.).

Abb. 11. Profilschnitt durch den Graben in Albersdorf-Dieksknöll (nach Dibbern/Hage in Vorb.).

tions between families and groups. This would be the case for the mobilization of a workforce for building megalithic graves or non-megalithic long barrows and for causewayed enclosures. Whereas for megalithic tombs it can be assumed that on the North Friesian Islands in the first centuries of the Funnel Beaker development a grave was erected each year and then looked after for generations, evidence for causewayed enclosures are missing there until now. We assume that this is a problem stemming from research history. Accordingly, we should consider the character of an enclosure near the North Friesian Islands.

Arguments from outside: Causewayed enclosures as meeting places, decoration diversity and pollen analyses

The new excavations at the causewayed enclosure Albersdorf-Dieksknöll confirm its association with the Fuchsberg style, in a time frame between ca. 3500 and 3300 BC. We are dealing with a 0,9 ha installation which does not display any Neolithic findings inside but is marked by a palisade and a ditch on the outside (fig. 10). The ditch consists of a number of segments and the ditch profile shows at least 3 infilling and cutting phases (fig. 11). Because an open standing ditch in sandy soil collapses or re-sediments itself relatively swiftly within a period of a few years the burying/digging periods can only have involved short-term events. The homogeneity of filling material verifies the briefness of the filling processes which obviously were carried out deliberately. The missing development of humus between the single phases substantiates how short the time intervals were in between. The symmetrical ditch filling shows, that we are not dealing with a wall to either side of the ditch. With a 3 m gap a palisade is located inside the ditch system, which was burned at a certain point in time and whose debris has been deposited in an upper ditch segment. The ditch was also filled and re-excavated after this aggradation.

Consequently, this means that a minimal work force for the digging and filling of the often only 4–7 m long ditch segments can be estimated. This is different for the palisade, for which a great deal of manpower would have been necessary. In spite of it all it becomes clear that for the causewayed enclosure at Dieksknöll smaller groups would have cooperatively met repeatedly in order to follow a common, but not terribly economical basic idea, that is to carry out ritual acts connected with digging and filling soil. This occurs at a time

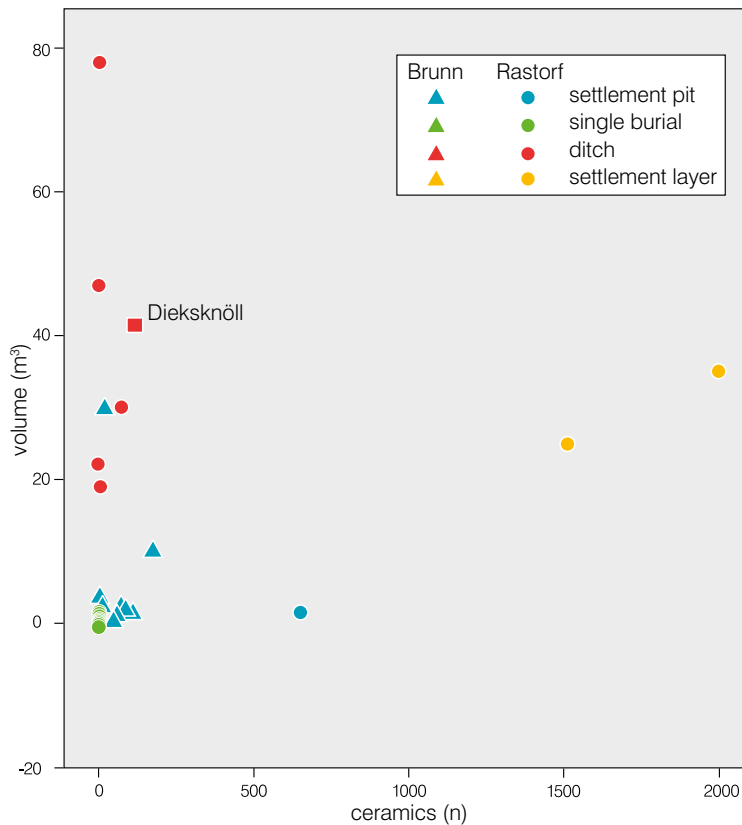


Fig. 12. Frequency of finds in different sites from Funnel-Beaker times. Data of Dieksknöll from Rastorf (Steffens 2009) and from Brunn (Vogt 2009) were used. While domestic features display a dense find accumulation, only few items were deposited in causewayed enclosures.

Abb. 12. Fundhäufigkeiten in trichterbecherzeitlichen Fundplätzen. Benutzt wurden Daten vom Dieksknöll, aus Rastorf (Steffens 2009) und aus Brunn (Vogt 2009).

when the first dolmens were erected, flat graves were created and burials were carried out in long barrows.

Such short “actions” were necessary in order to secure mutual cooperation for gatherings. The briefness of the events is also shown in the low precipitation of findings which differs greatly from settlement findings (fig. 12).

Since the results presented about Dieksknöll correspond to those from Sarup on Fünen (Anderson 1997) or Rastorf in Ostholstein (Steffens 2009), a basic pattern for causewayed enclosures in the northern TRB group is implied. They functioned as gathering places at the beginning of Neolithic developments (cf. also Klatt 2009).

After observing the beginning of the tracked development here in which only few depositions of weapons in the causewayed enclosures, single graves, non-megalithic long barrows, single flat graves and dolmen occur, we observe at the end of the development the usage of passage graves with depositions of numerous weapons. This development is accompanied by an increase in the typological variation of pottery, especially the decoration patterns. An example from western Mecklenburg shows how highly diverse the decoration patterns particularly were in the 31st century BC (fig. 13). This also leads to the assumption that the society was going through a great change and a change of markings through signs – in this case the decoration patterns on the vessels – was necessary.

If we want to assess the evidence correctly, hints concerning the economic situation are missing. Without going into detail one could use pollen analyses to find a scale about the influence of humans on the environment and with that also a scale concerning economic activities. It becomes clear in relevant pollen analyses from southern areas of the Funnel Beaker northern groups that beginning in about 3500 BC an abrupt opening of the landscape began which then abated beginning in 3200 BC (e.g. in the Belauer Lake profile, cf. Wiethold 1998; Dörfler 2008, 140 with new dating). Without going into more

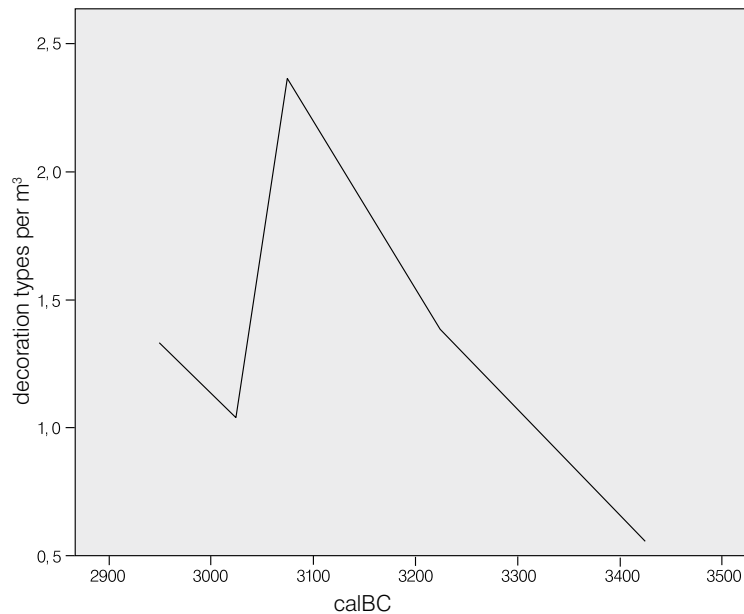


Fig. 13. Diversity of decorations in the settlement Triwalk in western Mecklenburg. Shown is the number of different decorations pattern types per m³. In order to obtain this value, the number of decoration patterns as well as the volume of the excavated surface area was applied to the absolute length of the observed phases (the quotient is the number of decoration motifs per century and m³ volume per century). The basic data originate from Staude (in preparation).

Abb. 13. Verzierungsdiversität in der westmecklenburgischen Siedlung Triwalk. Dargestellt ist Anzahl unterschiedlicher Dekorationsmustertypen pro Kubikmeter. Um diesen Wert zu erhalten, wurden sowohl Dekorationsmusterzahl als auch das Volumen der ausgegrabenen Fläche umgerechnet auf die absolute Dauer der betrachteten Phasen (Quotient aus Verzierungsmotivzahl pro Jahrhundert und Kubikmetervolumen pro Jahrhundert. Die Grunddaten stammen aus Staude i. Vorb.

detail here, we can recognize a production surge in the subsistence economy which probably can be associated with the introduction of the plough.

Modelling

In summarizing the results of the conducted observations the following can be assumed:

- The attempts to assess the Early and Middle Neolithic population density on the North Friesian Islands showed that the number of archaeological known or supposed graves is adequate for the burial of every dead person.
- Approximately 3400 BC a society exists that practices diversity in burial rites with an emphasis on individual grave placement on the one hand and on the other hand stresses cooperative moments through the erection and usage of causewayed enclosures.
- A strong population growth with increasing production stands surely in connection with the introduction of new production techniques (the plough). Until approximately 3200 BC one can observe an increase in graves, particularly in the first erection of passage graves. One continues to use causewayed enclosures but no new systems are built.
- Until 3000 BC population and production growth do not show any considerable increases. Rather, an increase in weapons and a short phase of great diversity in decoration patterns suggests an increase of internal conflicts. Instead of being buried in single graves, the dead are (almost?) exclusively buried interred in collective graves.

How can such a development be explained? Superficially, such differences between individual burials around 3400 BC and the collective burials around 3000 BC have been interpreted as a development from a weak socially differentiated society to a rather egalitarian society. Instead, I assume that especially the visual diversity in burial rites is rather an expression of a less structured and social differentiated society, while the dominance of collective burials at the end of the development described here is the expression of new divergencies:

The praxis of community burials is an indication of one prevailing group within society which dominates the investment in the maintenance of burial sites while attempting to ideologically “simulate” the egalitarianism of the structures within and without. The erection of the causewayed enclosures at the beginning of the phase described here can also be understood as the expression of cooperative conduct, labeled as “ritual cooperation”, whereas the mode of burials in passage graves of the last phase can be denoted as “ritual collectivity”, whereby components of both ideologies could naturally have existed with differing intensities parallel to one another at different times.

Fundamentally, the development of the society in the southern area of the Funnel Beaker North Group from a rather egalitarian structured society with an ideological orientation denoted as “ritual cooperation” to a socially differentiated formation with an ideology of “ritual collectivity” is indicated. If the model and the presented interpretation possess a certain probability, we would surely register processes which can be located in a “trans-egalitarian” society (cf. the concept in Hayden 2009). The emergence of new individual burials with weapons after 3000 BC which are registered as “warriors” of single-grave societies speaks for the depicted social process.

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