



Universiteit
Leiden
The Netherlands

The Ideological Significance of Flint for Neolithic and Bronze Age Communities in the Rhine/Meuse Delta of the Netherlands

Gijn, A.L. van; O`Conner, B; Cooney, G; Chapman, J

Citation

Gijn, A. L. van. (2009). The Ideological Significance of Flint for Neolithic and Bronze Age Communities in the Rhine/Meuse Delta of the Netherlands. *Prehistoric Society Research Paper*, 3, 127-137. Retrieved from <https://hdl.handle.net/1887/32737>

Version: Not Applicable (or Unknown)

License:

Downloaded from: <https://hdl.handle.net/1887/32737>

Note: To cite this publication please use the final published version (if applicable).

Materialitas

Working Stone, Carving Identity

edited by

Blaze O'Connor, Gabriel Cooney and John Chapman



Prehistoric Society Research Paper 3

In association with the UCD Humanities Institute of Ireland





THE PREHISTORIC SOCIETY

MATERIALITAS



THE PREHISTORIC SOCIETY

Materialitas

working stone, carving identity

edited by
Blaze O'Connor,
Gabriel Cooney and John Chapman

Prehistoric Society Research Paper No. 3

*Published in association with the
UCD Humanities Institute of Ireland*



THE PREHISTORIC SOCIETY
Series Editors: Michael J. Allen and David McOmish
Managing Editor: Julie Gardiner

OXBOW BOOKS 2009

Published by
The Prehistoric Society
and
Oxbow Books, Oxford, UK
in association with the UCD Humanities Institute of Ireland

© The Prehistoric Society, Oxbow Books and the individual authors, 2010

Prehistoric Society Research Papers
ISSN 2040-5049
ISBN 978-1-84217-377-0

This book is available direct from:

Oxbow Books, Oxford, UK
(Phone: 01865-241249; Fax: 01865-794449)

and

The David Brown Book Company
PO Box 511, Oakville, CT 06779, USA
(Phone: 860-945-9329; Fax: 860-945-9468)

or from our website

www.oxbowbooks.com

Cover: photograph of rock outcrops near the summit of Glyder Fawr, Snowdonia, north Wales by Aaron Watson
Back cover: photograph of Nieuw Dordrecht lithics by Quentin Bourgois
(top); photograph of Knockroe passage tomb by Ken Williams (bottom)

A CIP record of this book is available from the British Library

Library of Congress Cataloging-in-Publication Data

Materialitas : working stone, carving identity / edited by Blaze O'Connor, Gabriel Cooney and John Chapman.

p. cm. -- (Prehistoric society research paper no. 3)

"Published in association with the UCD, Humanities Institute of Ireland."

Includes index.

ISBN 978-1-84217-377-0

1. Megalithic monuments--Europe. 2. Sculpture, Prehistoric--Europe. 3. Stone implements--Europe. 4. Neolithic period--Europe. 5. Bronze age--Europe. 6. Antiquities, Prehistoric--Europe. I. O'Connor, Blaze. II. Cooney, Gabriel. III. Chapman, John.

GN790.M387 2009

936--dc22

2009046206

Printed and bound in Great Britain by
The Cromwell Press Group
Trowbridge, Wiltshire

THE PREHISTORIC SOCIETY RESEARCH PAPERS

The Prehistoric Society Research Papers publish collections of edited papers covering aspects of Prehistory. These may be derived from conferences, or research projects; they specifically *exclude* the publication of single excavation reports. The Research Papers present the fruits of the best of prehistoric research, complementing the Society's respected *Proceedings* by allowing broader treatment of key research areas.

The Research Papers is a peer reviewed series whose production is managed by the Society.

Further information can be found on the Society's website (www.prehistoricsociety.org)

SERIES EDITORS: MICHAEL J. ALLEN AND DAVID MCOMISH

Editorial Advisory Committee:

M. Aldhouse-Green
G. Cooney
C. Gosden
A. Sheridan

N. Ashton
J. Chapman
F. Healy
G.J. Wainwright

G. Barker
A.E.U. David
A. Saville

T. Champion
C. French
I.A.G. Shepherd†

THE PREHISTORIC SOCIETY

The Prehistoric Society's interests are world wide and extend from the earliest human origins to the emergence of written records. Membership is open to all, and includes professional, amateur, student and retired members.

An active programme of events – lectures, study tours, day and weekend conferences, and research weekends – allows members to participate fully in the Society and to meet other members and interested parties. The study excursions cater for all preferences from the relatively luxurious to the more economical, including highly popular student study tours. Day visits to sites are arranged whenever possible.

The Society produces two publications that are included with most categories of membership: the annual journal, *Proceedings of the Prehistoric Society* and the topical newsletter, *PAST*, which is published in April, July and November. In addition the *Prehistoric Society Research Papers* are published occasionally on which members may have discount.

Further information can be found on the Society's website (www.prehistoricsociety.org), or via the Prehistoric Society's registered address: % Institute of Archaeology, University College London, 31–34 Gordon Square, London, WC1H 0PY.

The Society is a registered charity (no. 1000567)



The UCD Humanities Institute of Ireland

Published in association with the UCD Humanities Institute of Ireland

The UCD Humanities Institute of Ireland has, through its programme on *Memory, Meaning and Identity in the 21st century*, funded by the Higher Education Authority Programme for Research in Third Level Institutions (PRTL), established itself as a vibrant and creative space for interdisciplinary research in the humanities and cognate social sciences in Ireland.

Under the broad operational theme of *Society, Culture and Change* the HII now provides both a physical and intellectual space for research clusters/projects, groups and centres. It also provides a creative environment for graduate students affiliated to programmes and centres being conducted through the HII.

This volume is dedicated to Blaze O'Connor (1975–2009)

Blaze was meticulous in everything she did. Her organisation of the Materialitas conference and these proceedings illustrate the quality of her work, how much she enjoyed archaeology and her professionalism. Blaze was delighted to see this volume at final proof stage.

This book is one of her many accomplishments in a life full of achievement.

The Ideological Significance of Flint for Neolithic and Bronze Age Communities in the Rhine/Meuse Delta of The Netherlands

Annelou Van Gijn

Flint tools are generally considered to be a rather mundane material, mostly related to subsistence and craft activities. Only the large or highly crafted objects of exotic flint have commonly been attributed a special significance but this has rarely been substantiated by empirical data. This paper attempts to demonstrate how use-wear and residue analysis can provide empirical evidence for inferences about the social and ideological significance of flint objects. Through microscopic analysis, we obtain a more detailed knowledge of the biography of the tools: special uses to which the object is put (for example evidence for frequent display or lack of any use wear) or a differential treatment upon deposition (like rubbing with ochre). Examples of the ideological significance of flint are given, illustrating how not only the big and beautiful but also the small domestic items of flint could have had a special (ritual or ideological) significance for communities living in the Rhine/Meuse delta from the Middle Neolithic through the Late Bronze Age.

A social or ideological significance has long been assumed for flint objects that are very large and/or very pretty, like the oversized Funnel Beaker axes or the Late Neolithic Grand-Pressigny daggers. However, assumptions about the ritual meaning of these objects were mainly based on the foreign origin of the flint or their special depositional context (eg, Drenth 1990; Ter Wal 1996). I would like to show in this paper how use-wear and residue analysis of flint tools can not only provide empirical evidence to support such assumptions, but also supplies

clues as to the general nature of the assumed ritual significance. Although use-wear analysis is frequently treated as an additional source of information about subsistence and craft activities, it can also provide crucial indications about the social and ideological significance of flint implements. This is because detailed microscopic analyses provide insight into the biography of implements: about actual use, hafting or handling, on repetitive behaviour associated with the implements, and about the treatment objects received prior to their

2009). Hazendonk flint from the coastal sites is characterised by the local production of simple domestic tools of locally available raw material that are used for plant fibre processing, bone tool production and hide preparation. Additionally, a small amount of usually finished flint implements made of southern Belgian flint was imported. Although basically domestic items, these imported tools were selected for specific tasks like harvesting cereals, the production of ornaments and making fire, all of which seem to have had an ideological significance in Hazendonk society (Van Gijn *et al.* 2006). They also may have been important in the negotiation of identity (Van Gijn 2008).

The exotic flint tools used for harvesting cereals underwent a series of peculiar and apparently intentional treatments prior to their discard or deposition. First they were burned, after which the used edge was (partially) destroyed by removing a few roughly placed flakes. However, the use-wear polish was still visible at places. The last step, visible on some harvesting implements, was the rubbing of the tools with a red or orange substance, possibly ochre. These simple objects, used for an apparently profane subsistence task, were therefore subjected to a specific, most likely ritual, treatment: they were intentionally destroyed and not simply discarded.

This destruction does not seem to be related to the fact that they were made from exotic flint, because other domestic tools from foreign flint, used for fire- and ornament-making, were not burned or fragmented. The apparent ritual treatment of cereal harvesting tools may rather be related to the fact that growing crops in these wet environments may still have been perceived as something 'special'. With respect to the site of Schipluiden, it was argued that the fields must have been relatively small, situated on the high points in the landscape away from the danger of floods (Kubiak-Mertens 2006). These fields probably did not produce a high enough yield for cereals to become the main staple food. This could imply that the cereals were more a festive or ritual food, consumed on special occasions, an option already proposed before for early cereal cultivation in Britain (Thomas 1999). It should also be noted that growing crops was something quite 'new' and related to a foreign identity: that of the Michelsberg culture of the



south (Van Gijn 2008). It may be suggested that crop growing was perceived as in some ways contrary to nature and threatening the 'old ways' with their strong Mesolithic roots. Destroying the 'culprits', that is the tools involved in harvesting, could have been a way to appease the spirits and restore the balance in nature. There is however no evidence that the tools were placed in a special place within the settlement area, but this may be due to taphonomic reasons.

In this context, it is interesting to note that also in the Early Neolithic Bandkeramik culture we find evidence for the ritual treatment of agrarian implements: after the use-life of the querns was finished, they were intentionally broken after which the broken edges were rubbed with ochre (Verbaas & Van Gijn 2007). In many societies, red ochre symbolises blood and is associated with matters of life and death (eg. Taçon 2004). Also in the subsequent Funnel Beaker culture, we see that agricultural tools receive a special treatment (see below).

We have as yet no convincing evidence for the ritual deposition of flint objects in the

Figure 12.1: Map of present-day Netherlands showing the location of the sites mentioned in the text. The square (A) indicates the location of the distribution map in Figure 12.4

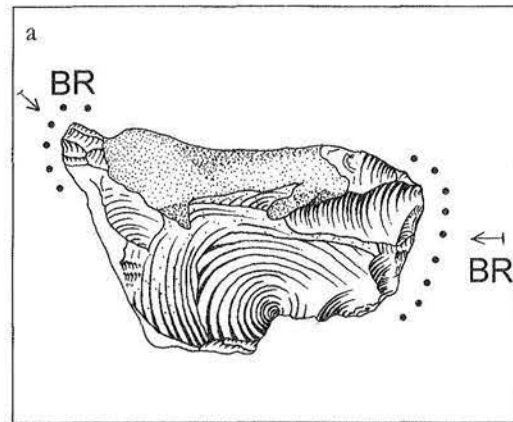
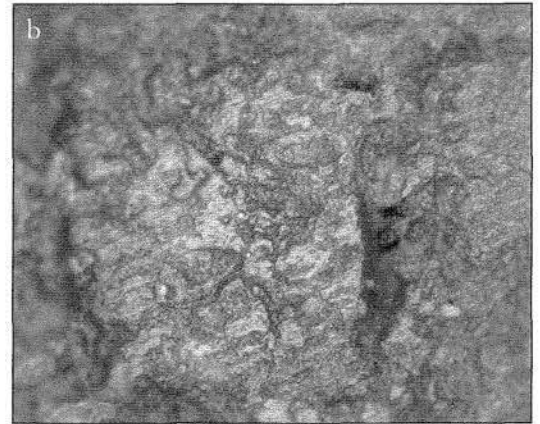


Figure 12.2a: Strike-a-light from the grave of an adult male found at the Middle Neolithic site of Schipluiden, on the Dutch coast

Figure 12.2b: Wear traces observed on this tool (original magnification 200×)



Hazendonk group. Flint is also not considered an appropriate burial gift: grave goods generally were confined to personal ornaments like amber and jet beads (Van Gijn 2006; Van Gijn in press a). However, there is one remarkable exception, coming from the site of Schipluiden. In the hand of one of the skeletons (an adult male), three strike-a-lights were found along with a nodule of pyrite (Van Gijn *et al.* 2006) (Fig. 12.2). The hand was situated close to the mouth, evoking the image of someone blowing a spark. I would suggest that this special group of burial gifts provides us with a glimpse of the ideology of the inhabitants: it indicates the importance of fire and suggests that the person buried there had something to do with the use of fire and may have had a special role in society, maybe akin to the present-day shamans of Siberia. We may even draw a connection to the burning of the flint sickles of exotic origin described above.

The Funnel Beaker culture

The subsequent Funnel Beaker period (Middle Neolithic B, 3400–2900 cal BC) is the period during which the megalithic graves were constructed and used as collective burial places (Bakker 1979; Bakker 2005; Van Gijn & Bakker 2005). It is then that we find the first evidence for the craft production of special flint objects deposited in special places. At the same time, we see that domestic tools are produced on locally available flint with a rather *ad hoc* technology; imported flint is virtually absent in the settlement assemblages.

Flint tools do however constitute important burial gifts: we find many transverse arrowheads and strike-a-lights, picks, axes,

and also scrapers and sickles. Some of these tool types also occur in settlement contexts but, with the exception of scrapers, in much smaller quantities. Sickle blades are almost exclusively found in burials, suggesting that they constituted a special tool that could not be discarded in settlement contexts. Remarkably enough, some of the floors of the megaliths and flat graves incorporated querns or fragments thereof (Bakker 1979). These observations are relevant in the light of the special connotations of agricultural implements also seen in the Hazendonk period.

Many of the picks and strike-a-lights found in the megaliths appear unused, and it may be argued that they were knapped specifically for deposition in the grave. It can be imagined that the sound of flintknapping contributed to the occasion. The axes found in burials have, in contrast, been extensively used and are much smaller than the axes from the hoards (less than 150 mm in length versus 200–300 mm for the large ceremonial axes) (Wentink 2006; Wentink & Van Gijn 2008). The axes were re-sharpened prior to their deposition in the graves, giving them, as it were, a new life but retaining their specific history. They may have embodied the identity of their owners or their lineage and constituted a material reference to the history of the local community.

The large axes found in bogs as single finds or in groups have a very different biography from the axes deposited in the megaliths (Wentink 2006). They were made by skilled craftsmen and imported as finished products from Northern Germany and Denmark (Beuker 2005). They were too big to be used and were probably even never meant to be used. These large axes received a special treatment prior to deposition:

they were rubbed with ochre and their surfaces displayed use-wear polish that was due to wrapping and unwrapping numerous times. We have looked at a large number of these axes through the years and they display a consistent wear pattern. Unfortunately, despite extensive experimentation, we do not yet know in which kind of material the axes were wrapped, but the practice of wrapping ceremonial or exchange objects has been noted ethnographically (ie, Akerman *et al.* 2002). On the basis of the ideas of Weiner, Helms, Mauss and Godelier, Wentink substantiates the idea that the large Funnel Beaker ceremonial axes were inalienable objects, embodying Funnel Beaker cosmology and recognised as ‘special’ by local communities living far apart. That the ceremonial axes were not commensurable with the local group is shown by their deposition in liminal places, notably in rivers, that probably formed boundaries between the territories of different local communities. They constituted mobile reminders of Funnel Beaker cosmology, with a significance transcending the local community (Wentink 2006).

What is important to note about the Funnel Beaker culture is the fact that the settlements, graves and votive depositions constitute distinct cosmological categories that could not be mixed: the settlement was the land of the living, the megalith symbolised the local ancestral lineage and the large ceremonial axes from the bogs that were brought here as finished objects from southern Scandinavia embodied the wider Funnel Beaker cosmology. Each of these three categories was characterised by different flint objects with different cultural biographies.

The Single Grave culture

In the Single Grave culture (Late Neolithic A, 2900–2500 cal BC), the erection of the first burial barrows is demonstrated (Fokkens 2005). Our knowledge of settlement flint is sparse, but the trend towards the *ad hoc* production of domestic flint using local raw materials, seems to continue and intensify (Peeters 2001). During the early Single Grave culture, until c. 2600 BC, axes continue to be deposited in wet places (Ter Wal 1996). There are, however, some important differences in depositional practices compared to the preceding Funnel Beaker period. Most of the axes display traces of use, they are



smaller in size than the earlier Funnel Beaker ones due to recurrent re-sharpening and they lack the characteristic wrapping traces. They are however still rubbed with ochre. This indicates that the cosmological significance of these depositions must have changed considerably, even though some of the actual practices continue. It is also important to note that the integrity of the depositions has changed: whereas, in the Funnel Beaker period, all objects were of Scandinavian origin, these are now supplemented with objects made of local flint, such as the occasional scraper and small locally produced axes (Achterop 1960). We also see an additional northern import – unretouched blades – gradually replacing the import of large axes. The contents of the hoard of Nieuw Dordrecht (Harsema 1981), with a large axe and several blades, all of the same flint (some blades could be refitted), may represent this transition during which the influx of large ceremonial axes diminished and was gradually replaced by the circulation of large blades (Fig. 12.3). None of these blades displayed traces of use.

Figure 12.3: The deposition of Nieuw-Dordrecht dated to the early Single Grave culture. Some of the blades could be refitted (collection Rijksmuseum van Oudheden, Leiden, photograph: Quentin Bourgois)

The burial ritual also changed: individual dead were buried in flat graves – a type already present in the Funnel Beaker period – or in barrows, accompanied by a small set of grave goods (Lanting & Van der Waals 1976). As far as flint is concerned, both burial contexts have the same burial gifts: axes (often of local origin and quite small), blades of northern flint, and arrowheads. The axes from burials are usually relatively small and intensively used. In contrast, the imported blades of northern flint deposited in the graves generally do not exhibit traces of use. The locally used axes and other objects may represent personal or group identity, just like the earlier Funnel Beaker axes in the megaliths. The unused exotic blades, brought to the south in finished form, may be seen as a continuation of the importance of an affiliation with southern Scandinavia. However, these exotic blades are placed in graves that are presumably linked to local identity, and not deposited in liminal places outside local group territories, as was the case with the imported ceremonial axes from the Funnel Beaker period. It is not entirely clear how we should interpret this shift. However, whatever the interpretation given, the flint objects placed both in the graves and in the deposits display a mix of imported unused exotics and used local objects, whereas these two spheres were strictly separated in Funnel Beaker times, indicating that the structuring role of flint objects became less stringent.

From *c.* 2600–2450 cal BC, that is the later Single Grave culture, we occasionally find another grave good: beautifully made ‘daggers’ made on very long (up to 250 mm) blades of French Grand-Pressigny and Romigny Léhy flint (Lanting & Van der Waals 1976). Because they came from far away and because of their size, craftsmanship and colour, these daggers have traditionally been interpreted as prestige items (Drenth & Lohof 2005), maybe associated with the emergence of a warrior elite buried in the barrows (Fokkens 1999). This would have been supported by the relatively low number of barrows containing such a dagger. Surprisingly enough, these daggers do not display any utilitarian wear traces along the cutting edges. It is clear that the blades were hafted, probably a haft involving soft plant material. The surface of the blade however shows traces from having been pulled in and out of a sheath many times. This sheath

must have been made of plant material, as the polish visible on the dorsal ridges mostly resembles the polish obtained from contact with silicious plants. This wear pattern may indeed support the idea that these daggers were display items belonging to a martial elite, used to validate and stress a special position in society. However, there are arguments why we may have to interpret the configuration of Single Grave burial goods in another way. First of all, use-wear analysis of French and Swiss Grand-Pressigny daggers has shown them to be harvesting implements (Beugnier & Plisson 2004), a conclusion that is quite in contrast with their presumed martial character. It should also be noted that the daggers always form part of a small fixed set of burial items, never exceeding four to five items in total. This suggests that the burial kit was governed by strict rules of tradition and not used for the ‘power play’ of individuals. If this had been the case we would expect a redundancy of prestige items. The individual buried with this exotic object may therefore rather be seen as a dividual (eg, Fowler 2004), someone whose identity and position was closely entwined with that of the larger community of which he/she was part. As objects from mystical faraway places are often conceived of as linked with the ancestors (Helms 1988), thus having significance for the larger group, the person buried with this precious object may embody and symbolise the links of the local Single Grave community with the larger Single Grave network.

Bell Beaker times and the Early Bronze Age

From *c.* 2350 cal BC onwards, during the Bell Beaker period, daggers of Scandinavian flint were produced in Denmark by specialised craftsmen and distributed across large areas of north and west Europe (Apel 2001; Callahan 2006) including most of the Netherlands (Bloemers 1968; Beuker & Drenth 2006). They were imported as finished products because we have not encountered production waste and only very occasionally half-finished implements. On the basis of their metrical properties, the Scandinavian daggers from Holland have not become shorter through use and re-sharpening (Apel 2001), except when they were broken (broken fragments are encountered in settlement contexts and

are sometimes modified into other tools). Just like the French daggers from the Single Grave period, they display hafting traces but are devoid of any traces from a 'functional' use: we only find traces from them having been pulled in and out of a sheath many times, again presumably for display. These daggers were therefore not meant to be used in the utilitarian sense of the word. Even a long distance from their original production centre, it was clear to their new owners that these tools had a special meaning and were not to be used for mundane tasks.

Whereas the complete French daggers are exclusively found in Single Grave burials (Lanting & Van der Waals 1976), the later daggers of Scandinavian origin never derive from burials but instead are located along rivers or near bogs, usually as single finds (Beuker & Drenth 2006). This may suggest that they were offerings. Interestingly enough there is one incidence of the deposition of a Type 2 dagger with 'display use-wear polish', in an earlier Single Grave burial barrow containing a Grand-Pressigny dagger (Bloemers 1968, 76). The dagger was found as a stray find in the flank of the barrow and was not associated with a grave. It is tempting to interpret this as evidence for the existence of long-term memories of past important places: the barrow was possibly seen as an ancestral place with a special significance. Stories of its contents may have persisted over time. The subsequent deposition of a Scandinavian dagger is therefore likely to have been intentional. Its presence in a Single Grave barrow may be interpreted as an appropriation of this ancestral place by the later Bell Beaker inhabitants. Alternatively, the barrow may have been seen as a place of the ancestors, equivalent to the bog (the most frequently occurring context of these daggers), and thus an appropriate location for the deposition of a valuable Scandinavian Type 2 dagger.

Burial gifts of flint from the Bell Beaker period include the so-called Bell Beaker knives, tanged-and-barbed arrowheads and flakes that are combined with other elements of the Bell Beaker package like a beaker, wrist-guard, ornaments, and copper dagger (Lanting & Van der Waals 1976). Flint axes, numerous in Single Grave burial contexts, are notably absent in Bell Beaker graves. The arrowheads from graves do not display wear traces, in contrast

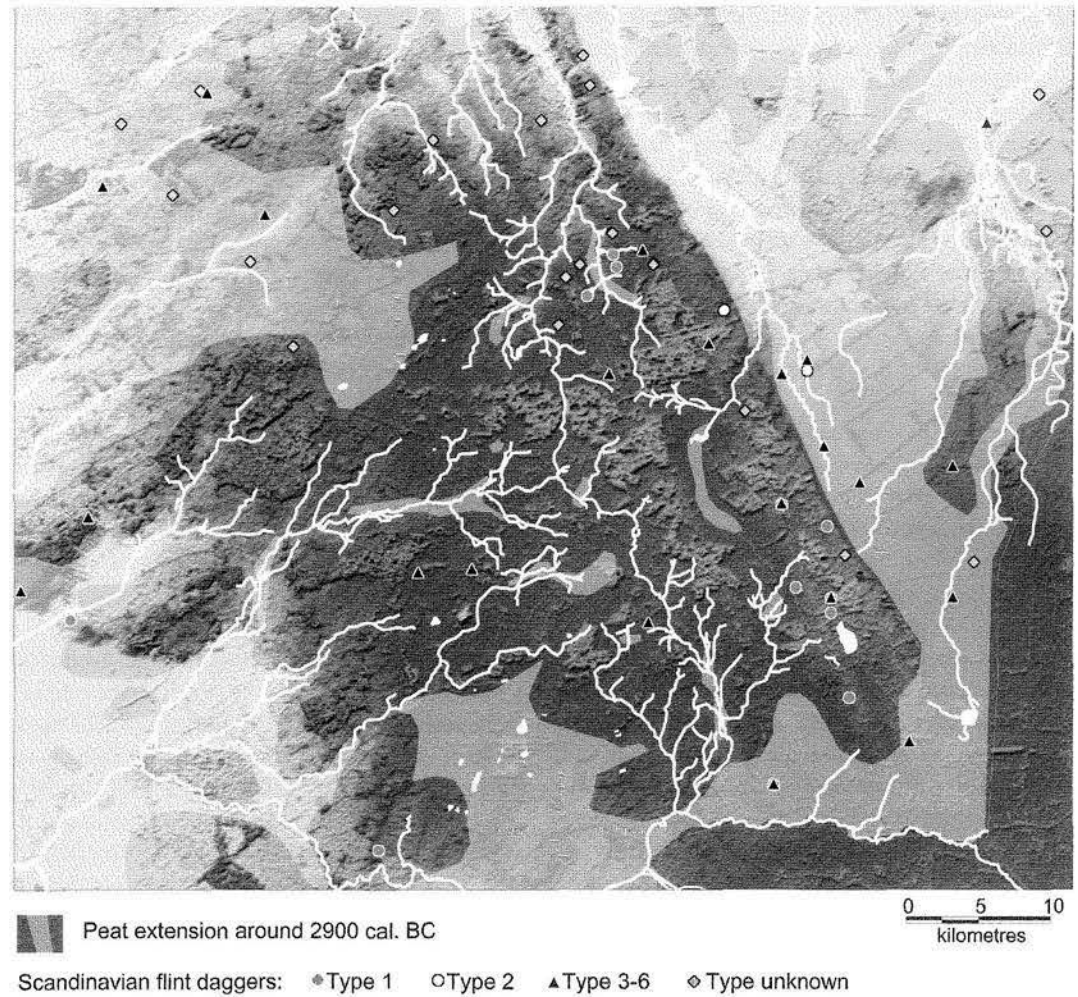
with identical items found in contemporary settlement contexts. On one occasion they were all burnt, in an apparently very controlled manner because none were broken and all displayed a beautiful, uniform white colour as a result, suggesting that the burning was intentional. It seems that the Bell Beaker burial package was composed of exotic objects like wristguards and copper daggers, as well as flint implements without a former functional life. This is different from preceding periods when we always encountered at least some flint objects with a previous use-life in the graves.

The Early Bronze Age (*c.* 2000–1800 cal BC) sees a continuation of the import of Scandinavian daggers, now evolved in what is called Type 3, basically a *skeuomorph* of metal counterparts. The Scandinavian flint daggers are seen as an attempt to use the relatively easily accessible flint for the production of prestige items, supposedly as a response to the influx of metal objects from the South (Apel 2001). Again, the daggers were, on the basis of their wear pattern, interpreted as items that must have been displayed frequently during their life. The find location of these Type 3 daggers is, however, slightly different from that of the earlier Type 1 and 2 daggers: they seem to be deposited further into the bog areas (Fig. 12.4). Although the edges of bogs and rivers can be designated as liminal zones, the bog itself is beyond that, either no man's land or the territory of the gods. We can maybe interpret the deposition of the Scandinavian daggers in the bogs as a continuation of the age-old practice of depositing exotic, skilfully made flint objects in a place with a wider cosmological significance, transcending that of the local community.

The demise of flint

The Bronze Age is the period during which the number of flint artefacts found in settlement context starts to diminish drastically. The tools are made in an *ad hoc* fashion on local raw material, often by means of bipolar flaking, and are usually rather briefly used. They do however play a role in quite a wide range of daily domestic activities, such as wood- and bone-working, which shows that flint has not become obsolete. Also, if selected for use, the tools seem to be curated and employed for an extended period of time. This pertains

Figure 12.4: The distribution of the Scandinavian daggers on and around the Drents Plateau in the province of Drenthe, Northern Netherlands. The light-grey zone indicate the bogs in which a relatively large number of Type 3 daggers were found



especially to hide scrapers and strike-a-lights (Van Gijn & Niekus 2001; Van Gijn in press b). Generally speaking, flint burial goods are limited to arrowheads, and an occasional strike-a-light. The arrowheads of Sögel type, like those from the famous Middle Bronze Age barrow of Drouwen (Butler & Fokkens 2005), were hafted and frequently display traces of use. The strike-a-lights were also invariably heavily used. It may be argued that both the points and the strike-a-lights were personal items of the dead.

Although the demise of flint is pretty much completed by the end of the Bronze Age, it is during this period that we see the import of the skilfully made crescent-shaped sickles from southern Scandinavia (Fig. 12.5). Again, as with the Funnel Beaker axes and the French and Scandinavian daggers, these objects came in finished form and were invested with a great amount of knowledge and skills. Several hoards

of these tools have been found in the northern Netherlands, composed of three to five objects. These objects also display curious wear traces: they were apparently not used as sickles but as knives to cut turf (Van Gijn 1999). Although this seems an extremely mundane task for such beautiful implements, it is important to realise that turf provided essential building material for the houses of the living and the dead alike in the tree- and stone-less landscape of the northern Netherlands. These tools may be seen as yet another allusion to the special importance of agricultural tools in the belief systems of the people of the Rhine/Meuse delta. In their land of origin, these tools were indeed sickles, used for harvesting cereals (Helle Juel Jensen, pers. comm.). It may be suggested that the fact that these tools were *sickles* made them 'significant' enough to be used for the important task of house and barrow building.

Although flint is occasionally found in Iron

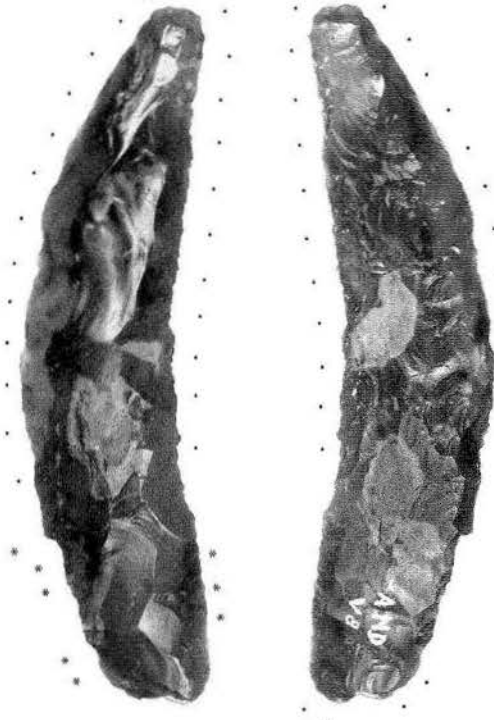
Age assemblages, this is generally limited to a few scavenged pieces. Iron tools completely displace flint counterparts, probably because, contrary to bronze, it can be obtained relatively easily from locally available raw materials. By the end of the Early Iron Age, the demise of flint seems to be complete. Remarkably enough, the only distinctive type of flint tool that survived throughout the Iron Age and the Roman period, was the strike-a-light, a practice that continued far into the 19th century as evidenced by gunflint production (Knowles & Barnes 1937). However, this had nothing to do with ideology or social identity but with a particular property of flint: its capacity to create sparks in combination with other materials like pyrite or iron.

Conclusion

This paper set out to show the ideological and social significance of flint through the incorporation of use-wear and residue studies in the wider cultural biographical approach of artefact studies. Because of its physical properties and its durability, flint was clearly an important ‘focal material resource’ (Boivin 2004; Cooney 2008) for prehistoric communities of the Middle and Late Neolithic in the present-day Netherlands. Especially during the Funnel Beaker period, flint appears to have been crucial in materialising ideological values: the cultural biography of the flint objects from settlements, megalithic graves and special depositions is in all respects different and even largely mutually exclusive. The ceremonial Funnel Beaker axe which is wrapped and unwrapped during its ‘use life’, rubbed with ochre and subsequently deposited in a bog, never to be retrieved, has a very different biography from the hide scraper we find in a settlement context. It is thus during this period that we first see a strict division between settlement flint and ‘special’ flint. In preceding periods, domestic flint tools found in settlement context may have had a special biography as well, as illustrated by the harvesting implements from the Middle Neolithic Hazendonk group, but flint does not seem to have had the structuring role it had during the later Funnel Beaker period. The dichotomy between domestic and ‘special’ flint objects intensified during the Beaker period and Bronze Age. ‘Special’ objects of high-quality imported flint, invested with knowledge and



• Turve-cutting
* Handling



skills, were imbued with social and ideological significance, linking communities far and wide apart into larger networks of exchange. These objects did not have a domestic utilitarian role, but were for example displayed, like the Grand-Pressigny and Scandinavian daggers. The ideological significance of flint continued until the Late Bronze Age, when we see the import of skilfully produced sickles of Scandinavian flint that are used in their new context for cutting turf, presumably for barrow and house construction.

In this paper, I hope to have shown how use-wear and residue analysis contributes to a better understanding of the cultural biography of flint implements. It is such a biographical approach towards objects that provides us with clues about the special nature of certain objects and hence about their significance in terms of past ideology and social practices. This pertains not only to spectacular objects like large axes or daggers, but also to the less noticeable aspects of past technology, such as simple domestic flint tools.

Acknowledgements

A first draft of this paper was written during a sabbatical spent at the Netherlands Institute for Advanced Study (NIAS) in Wassenaar, the

Figure 12.5a: Sickle from Andijk (West-Friesland) dating to the Late Bronze Age/Early Iron Age. Note the strong gloss visible on most of the surface (collection West-Fries Museum, Hoorn, photograph: Jan Pauptit). b: Wear traces observed on this sickle (original magnification 200×)

Netherlands. This research was financed by the Netherlands Organisation of Scientific Research (NWO). I thank Gabriel Cooney and Blaze O'Connor for inviting me to this wonderful conference. Karsten Wentink made comments on an earlier draft of this paper for which I am grateful. I also thank the two anonymous referees for their valuable criticism.

Note

- 1 For details on the methods and techniques used the reader is referred to Van Gijn (1990) and Wentink (2006).

Bibliography

- Achterop, S.H. 1960. Een depot van vuurstenen bijlen bij de Reest. *Nieuwe Drentse Volksalmanak* 78, 179–89
- Akerman, K.R., Fullagar, R. & Van Gijn, A.L. 2002. Weapons and *wunan*: production, function and exchange of Kimberley points. *Australian Aboriginal Studies* 1, 13–42
- Apel, J. 2001. *Daggers, Knowledge and Power. The Social Aspects of Flint-Dagger Technology in Scandinavia 2350–1500 cal BC*. Uppsala: Uppsala University
- Bakker, J.A. 1979. *The TRB West Group. Studies in the chronology and geography of the makers of the hunebeds and Tielstich pottery*. Unpublished PhD thesis, University of Amsterdam
- Bakker, J.A. 2005. Funerary buildings from erratic boulder. The construction and function of the hunebedden. In L.P. Louwe Kooijmans, P.W. Van Den Broeke, H. Fokkens & A.L. Van Gijn (eds), *The Prehistory of the Netherlands*, 307–10. Amsterdam: University Press
- Beugnier, V. & Plisson, H. 2004. Les poignards en silex du Grand-Pressigny: fonction de signe et fonctions d'usage. In P. Bodu & C. Constantin (eds), *Approches fonctionnelles en Préhistoire, Actes du XXV^e Congrès Préhistorique de France, Nanterre, 24–26 nov. 2000*, 139–54. Nanterre: Société Préhistorique Française
- Beuker, J.R. 2005. Import from all quarters. Stone axes in the northern Netherlands. In L.P. Louwe Kooijmans, P.W. Van den Broeke, H. Fokkens & A.L. Van Gijn (eds), *The Prehistory of the Netherlands*, 277–80. Amsterdam: University Press
- Beuker, J.R. & Drenth E. 2006. Scandinavian type flint daggers from the province of Drenthe, the Netherlands. In G. Korlin & G. Weisgerber (eds), *Stone Age – Mining Age. Proceedings of the VIIIth International Flint Symposium 1999*, 285–300. Bochum: Deutschen Bergbau-Museums
- Bloemers, J.H.F. 1968. Flintdolche vom Skandinavischen Typus in den Niederlanden. *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 18, 47–110
- Boivin, N. 2004. Mind over matter? Collapsing the mind-matter dichotomy in material culture studies. In E. DeMarrais, C. Gosden & C. Renfrew (eds), *Rethinking materiality: the engagement of mind with the material world*, 63–71. Cambridge: MacDonal Institute Monographs
- Butler, J.J. & Fokkens, H. 2005. From stone to bronze. Technology and material culture. In L.P. Louwe Kooijmans, P.W. Van Den Broeke, H. Fokkens & A.L. Van Gijn (eds), *The Prehistory of the Netherlands*, 371–400. Amsterdam: University Press
- Callahan, E. 2006. Neolithic Danish daggers: an experimental peek. In J. Apel & K. Knutsson (eds), *Skilled Production and Social Reproduction. Aspects of Traditional Stone-Tool Technologies*, 115–29. Uppsala: Societas Archaeologica Upsaliensis
- Cooney, G. 2008. Engaging with stone: making the Neolithic in Ireland and Western Britain. In H. Fokkens, B. Coles, A.L. Van Gijn, J.P. Kleine, H.H. Ponjee & C.G. Slappendel (eds), *Between Foraging and Farming: an extended broad spectrum of papers presented to Leendert Louwe Kooijmans*, 203–14. Analecta Praehistorica Leidensia 40
- Dobres, M. & Hoffman C.R. 1994. Social agency and the dynamics of prehistoric technology. *Journal of Archaeological Method and Theory* 1(3), 211–58
- Drenth, E. 1990. Een onderzoek naar aspecten van de symbolische betekenis van Grand-Pressigny- en pseudo-Grand-Pressigny-dolken in graven van de Enkelgrafcultuur in Nederland. In A.T.L. Niklewicz-Hokse & C. Lagerwerf (eds), *Bundel van de Steentijd*, 100–21. Groningen: Biologisch-Archaeologisch Instituut
- Drenth, E. & Lohof, E. 2005. Mounds for the dead. Funerary and burial ritual in the Beaker Period, Early and Middle Bronze Age. In L.P. Louwe Kooijmans, P.W. Van Den Broeke, H. Fokkens & A.L. Van Gijn (eds), *The Prehistory of the Netherlands*, 433–54. Amsterdam: University Press
- Fokkens, H. 1999. Cattle and mortality: changing relations between man and landscape in the late Neolithic and the Bronze Age. In C. Fabech & J. Ringtved (eds), *Settlement and Landscape. Proceedings of a Conference in Arhus, Denmark, May 4–7 1998*. Arhus: University Press
- Fokkens, H. 2005. Late Neolithic, Early and Middle Bronze Age: introduction. 2900–1100 BC. In L.P. Louwe Kooijmans, P.W. Van den Broeke, H. Fokkens & A.L. Van Gijn (eds), *The Prehistory of the Netherlands*, 357–370. Amsterdam: Amsterdam University Press
- Fowler, C. 2004. *The Archaeology of Personhood. An Anthropological Approach*. London: Routledge
- Harsema, O.H. 1981. Het neolithische vuursteendepot van Nieuw Dordrecht, gem. Emmen en het optreden van lange klinglen in de prehistorie. *Nieuwe Drentse Volksalmanak* 98, 19 (113)–34 (128)
- Helms, M. 1988. *Ulysses' Sail: an ethnographic odyssey of power, knowledge, and geographical distance*. Princeton: University Press
- Helms, M. 1993. *Craft and the Kingly Ideal: art, trade and power*. Austin: University of Texas Press
- Jones, A. 2004. Matter and memory: colour, remembrance and the Neolithic/Bronze Age transition. In E. DeMarrais, C. Gosden & C. Renfrew (eds), *Rethinking Materiality: the engagement of mind with the material world*, 167–78. Cambridge: MacDonal Institute Monographs
- Kopytoff, I. 1986. The cultural biography of things: commoditization as process. In A. Appadurai (ed.), *The Social Life of Things: commodities in cultural perspective*, 64–94. Cambridge: University Press
- Knowles, F.H.S. & Barnes, A.S. 1937. Manufacture of gun-flints. *Antiquity* 11, 201–7

- Kubiak-Mertens, L. 2006. Botanical remains and plant food subsistence. In L.P. Louwe Kooijmans & P.F.B. Jongste (eds), *Schipluiden-Harnaschpolder. A Middle Neolithic site on the Dutch coast (3800–3500 BC)*, 317–38. *Analecta Praehistorica Leidensia* 37/38
- Lanting, J.N. & Van der Waals, J.D. 1976. Beaker Culture relations in the Lower Rhine Basin. In J.N. Lanting & J.D. Van der Waals (eds), *Glockenbecher Symposium Oberried 1974*, 1–80. Haarlem: Fibula & Van Dishoeck
- Louwe Kooijmans, L.P. 2005. Hunters become farmers. Early Neolithic B and Middle Neolithic A. In L.P. Louwe Kooijmans, P.W. Van den Broeke, H. Fokkens & A.L. Van Gijn (eds), *The Prehistory of the Netherlands*, 249–72. Amsterdam: University Press
- Peeters, J.H.M. 2001. Het Lithisch materiaal van Mienakker: Technologische organisatie en typologie. In R.M. v. Heeringen & E.M. Theunissen (eds), *Kwaliteitsbepalend onderzoek ten behoeve van duurzaam behoud van neolithische terreinen in West-Friesland en de Kop van Noord-Holland*, 515–625. Amersfoort: ROB
- Raemaekers, D., Bakels, C.C., Beerenhout, B., Van Gijn, A.L., Hänninen, K., Molenaar, S., Paalman, D., Verbruggen, M., & Vermeeren, C. 1997. Wateringen 4: a settlement of the Middle Neolithic Hazendonk 3 group in the Dutch coastal area. *Analecta Praehistorica Leidensia* 29, 143–92
- Taçon, P.S.C. 2004. Ochre, clay, stone and art: the symbolic importance of minerals as life-force among aboriginal peoples of Northern and Central Australia. In N. Boivin & M.A. Owoc (eds), *Soils, Stones and Symbols: cultural perceptions of the mineral world*, 192–207. London: UCL Press
- Ter Wal, A. 1996. Een onderzoek naar de depositie van vuurstenen bijlen. *Palaeohistoria* 37/38, 127–58
- Thomas, J. 1999. *Understanding the Neolithic*. London: Routledge
- Van Gijn, A.L. 1990. *The wear and tear of flint. Principles of functional analysis applied to Dutch Neolithic assemblages*. (PhD thesis Leiden) *Analecta Praehistorica Leidensia* 22
- Van Gijn, A.L. 1998. Craft activities in the Dutch Neolithic: a lithic viewpoint. In M. Edmonds & C. Richards (eds), *Understanding the Neolithic of North-Western Europe*, 328–50. Glasgow: Cruithne Press
- Van Gijn, A.L. 1999. The interpretation of “sickles”: a cautionary tale. In P.C. Anderson (ed.), *Prehistory of Agriculture. new experimental and ethnographic approaches*, 254–9. Los Angeles: University of California, Institute of Archaeology Monograph 40
- Van Gijn, A.L. 2006. Ornaments of jet, amber and bone. In L.P. Louwe Kooijmans & P.F.B. Jongste (eds), *Schipluiden-Harnaschpolder. A Middle Neolithic site on the Dutch coast (3800–3500 BC)*, 195–206. *Analecta Praehistorica Leidensia* 37/38
- Van Gijn, A.L. 2008. Exotic flint and the negotiation of a new identity in the ‘margins’ of the agricultural world: the case of the Rhine-Meuse delta. In H. Fokkens, B. Coles, A.L. Van Gijn, J.P. Kleine, H.H. Ponjee & C.G. Slappendel (eds), *Between Foraging and Farming: an extended broad spectrum of papers presented to Leendert Louwe Kooijmans, 193–202*. *Analecta Praehistorica Leidensia* 40
- Van Gijn, A.L. in press a. De ornamenten van Ypenburg. In J.M. Koot, L. Bruning & R.A. Houkes (eds), *Ypenburg-locatie 4, Een nederzetting met grafveld uit het Midden-Neolithicum in het West-Nederlandse Kustgebied*. Den Haag
- Van Gijn, A.L. in press b. Not at all obsolete! The social significance of flint for Bronze Age communities, case studies from the Netherlands. In B. Eriksen (ed.), *Lithic Technology in Metal Using Societies*. Aarhus
- Van Gijn, A.L. & Bakker, J.A. 2005. Megalith builders and sturgeon fishers. Middle Neolithic B: funnel beaker culture and Vlaardingen group. In L.P. Louwe Kooijmans, P.W. Van den Broeke, H. Fokkens & A.L. Van Gijn (eds), *The Prehistory of the Netherlands*, 281–306. Amsterdam: University Press
- Van Gijn, A.L. & Niekus, M.J.L.T. 2001. Bronze Age settlement flint from the Netherlands: the Cinderella of lithic research. In W.H. Metz, B.L. Van Beek & H. Steegstra (eds), *Patina. Essays presented to Jay Jordan Butler on the occasion of his 80th birthday*, 305–20. Groningen: Groningen Instituut voor Archeologie
- Van Gijn, A.L., Van Betuw, V., Verbaas, A., Wentink, K. 2006. Flint: procurement and use. In L.P. Louwe Kooijmans & P.F.B. Jongste (eds), *Schipluiden-Harnaschpolder. A Middle Neolithic site on the Dutch coast (3800–3500 BC)*, 129–66. *Analecta Praehistorica Leidensia* 37/38
- Van Gijn, A.L. & Verbaas, A. 2008. Het technologisch systeem van Ypenburg: een gebruikssporenanalyse van verschillende werktuigtypen. In J.M. Koot, L. Bruning & R.A. Houkes (eds), *Ypenburg-locatie 4, Een nederzetting met grafveld uit het Midden-Neolithicum in het West-Nederlandse Kustgebied I*, 289–314. Den Haag
- Verbaas, A. & Van Gijn, A.L. 2007. The querns of Geleen-Janskamperveld: a use-wear and residue study. In P. VanderVelde (ed.), *Geleen-Janskamperveld: an early Bandkeramik settlement in the southern Netherlands*. *Analecta Praehistorica Leidensia* 39, 191–204
- Wentink, K. 2006. *Ceci n'est pas une bache. Neolithic depositions in the Northern Netherlands*. Leiden: Faculty of Archaeology, University of Leiden
- Wentink, K. & Van Gijn, A.L. 2008. Neolithic depositions in the Northern Netherlands. In C. Hamon & B. Quilliec (eds), *Hoards from the Neolithic to the Metal Ages*, 29–43. Oxford: British Archaeological Report S1758