

Neolithic ceramics from Spiere “De Hel” and their contribution to the understanding of the earliest Michelsbergculture

Bart VANMONTFORT, Christian CASSEYAS & Pierre M. VERMEERSCH

I. Introduction

When the municipality of Spiere-Helkijn (West-Flanders, between Courtaai and Tournai) was planning a new community centre on a site known to be important for the Michelsbergculture (MK) (Vanmoerkerke 1988), the opportunity was given to carry out precautionary archaeological research. Between 1993 and 1995 the *Laboratorium voor Prehistorie* of the *Katholieke Universiteit Leuven* organised three successive excavation campaigns, conducted by C. Casseyas (Casseyas and Vermeersch 1994a and 1994b; Vanmontfort e.a. 1995). This article contains in brief the main results of the first study on the ceramic material of the site (Vanmontfort 1997).

The site is situated on a Pleistocene sandloam ridge (above the 17,5 m contour line) that is delimited by the valleys of the Grote Spiere (west-northwest), the Oude Spiere (south) and the Scheldt (east-southeast). The dry ridge is surrounded by weak up to moderate gleyey soils.

II. Results after three excavation campaigns (1993-1995)

II. 1. Archaeological features and artefacts

The middle Neolithic features consist mainly of the remnants of an enclosure (ditch and palisade) of which approximately one hundred meters were endangered and excavated (fig. 1). The palisade expo-

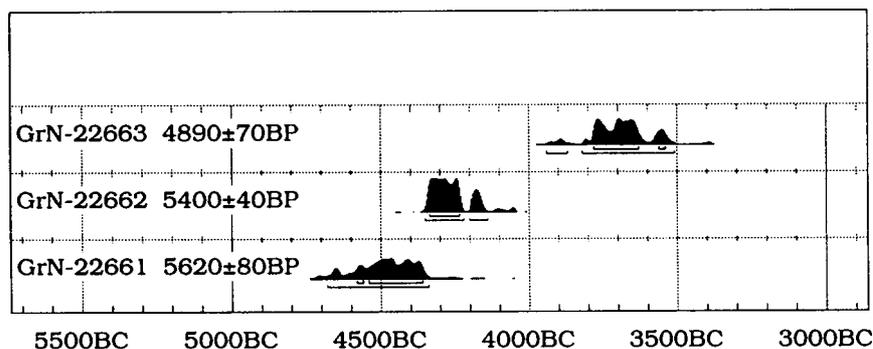
ses four interruptions of different sizes, which correspond to one interruption and three narrowings of the ditch. Undoubtedly an earth rampart, raised on both sides of the palisade accompanied the afore-mentioned features. The ditch attests a stratigraphy of phasal upfilling. Largely four units can be observed (fig. 2). The lower c-layer is interpreted as a package of sheet wash deposits, resulting from the breakdown of the ditch-wall and the sheet erosion of the rampart. On top of this package there was formed a slightly humiferous sandloamlayer (bc-layer), which is covered by a dark, strong humiferous sandloamlayer (b-layer) and ultimately by the humiferous sandloam a-layer (Casseyas and Vermeersch 1994a and 1994b).

The filling of the ditch contained an enormous amount of potsherds, an abundance of flint artefacts (mainly secondary trimmed flakes and large thick end scrapers on a flake), sandstones (polishers and grindstones), bone fragments and charcoal. In a first interpretation we seem to deal with domestic refuse, resulting from an intense occupation nearby (Casseyas and Vermeersch 1994b).

Pollen analysis revealed an image of the arrival of Michelsberg-people (Casseyas 1996).

II. 2. Dating

While hazelnut shells are being prepared for complementary dating, three radiocarbon-dates were obtained on charcoal (Graph. 1.). The first sample (GrN-22661) was taken from the base of one of the



Graph. 1. : Calibration of the ¹⁴C-dates.

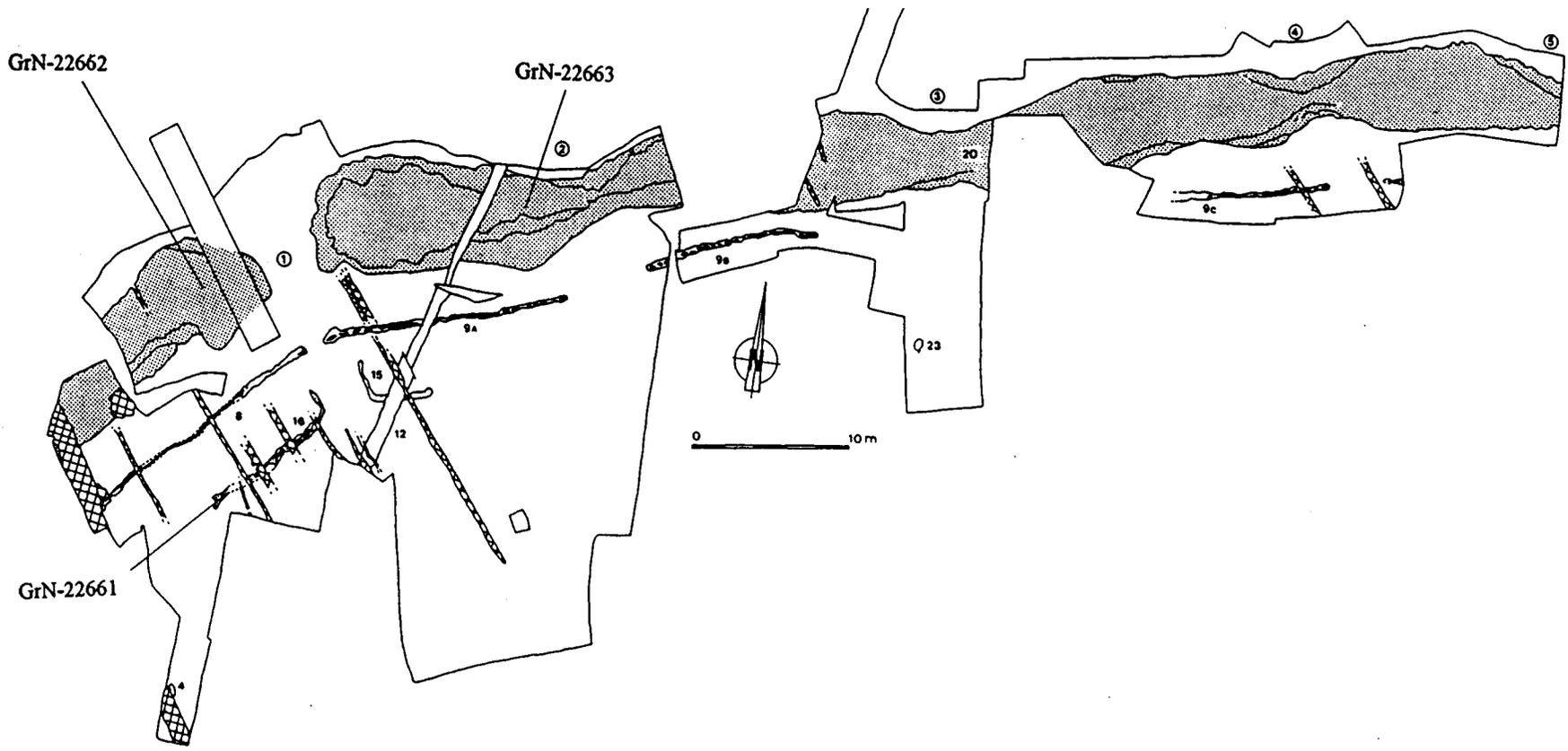


Fig. 1 - Plan of the enclosure with localisation of the ¹⁴C-samples.

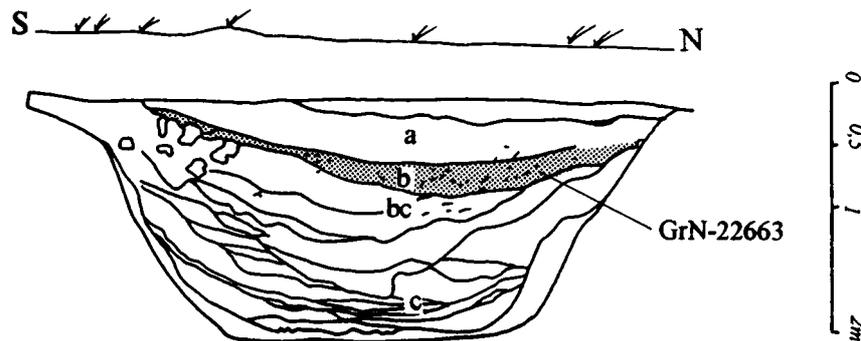


Fig. 2 - Vertical stratigraphy of the ditch at the level of the second interruption, with the localisation of one of the ^{14}C -samples.

drainage trenches (structure 16) on the level of the first interruption (fig. 1). It was dated 4540-4360 cal BC¹. Both other samples (GrN-22662 and GrN-22663) were taken out of the filling of the ditch (b-layer) on the level of the first and second interruption (fig. 1) and are dated respectively 4335-4235 cal BC and 3780-3630 cal BC. The big time gap between these last two datings (which originate from about the same stratigraphical position) still forms a problem and will have to be verified with the prospective dating of the hazelnut shells.

III. Study of the ceramics

III. 1. Morphology

III. 1.1. General outline

In view of the difficulty of applying the typology proposed by J. Lüning (1967), which was mainly based on pottery found in the Rhineland, it would not have been favourable to connect this classification to the Spiere ceramics. The rather general applicable alternative of Dubouloz (1988, 47) does not seem propitious for the particularity of an individual assemblage either. We thus tried to draft our own classification, in some ways still based on data that were proposed by J. Lüning but applied to the individuality of our assemblage (Vanmontfort 1997).

Large storage vessels dominate the assemblage. The storage beakers display a smooth profile and a strong protruding collar (fig. 5), whilst the dominating bottle shaped storage vessels have high cylindrical or slightly protruding collars and pronounced shoulders (fig. 3 and 4). This property is well known for the Chasséen and the Menneville. The classic (Rhineland) MK is characterised by rather strong

protruding collars (Piningre 1985). We note the very strong resemblances of these vessels (in particular fig. 4) with certain recipients from Liévin (e.g. Piningre 1985, fig. 13.1).

Only a restricted number of bottles occur (fig. 6 and 7). The small bottle (fig. 6) resembles amongst others the one from Liévin (Piningre 1985, fig. 13.4) and indisputably must be related to the Chasséen. The bottle shaped beaker (fig. 11) resembles a similar vessel from Spiennes (Vandeveld and Hubert 1987, fig. 3).

The remaining part of the ceramic assemblage mainly consists of rather open/flat forms that were denominated 'bowls' and 'dishes'. These display a moderately or somewhat stronger protruding collar and a horizontal ellipsoidal body (fig. 8 and 9). Also spoons and ceramic discs were found.

Grips are rather rare and can roughly be divided in three types : those without perforation ($n = 3$), those with horizontal, singular ($n = 15$) and those with vertical, multiple perforations ($n = 10$). The simple or non-perforated knobs are attached to a massive surface or inserted in an opening like some kind of plug (fig. 12). Some horizontally perforated grips wear an *ensellement médian*, which points to the Menneville and the MK sites of our regions. The vertical perforated grips are dominated by the *languettes multiformées*. They display one (not *multiformée*) up to four perforations and are typical for the northern Chasséen. Up till now it seems that only bottles wear grips. The fact that these grips are always situated on the maximal diameter of the vessel would have to be related to the MK (Piningre 1985).

III. 1.2. Decoration

The decorated rims can be subdivided in rims with fingertip imprints and rims with notches, both applied on top of the rim. Notched rims are related to the Rössen III, but also occur in the oldest MK horizons (Jeunesse 1982). Hitherto they point to old (in relation to the MK) contexts.

¹ The ^{14}C -dates were calibrated with the program Oxcal v2.14 (Bronk Ramsey 1994).

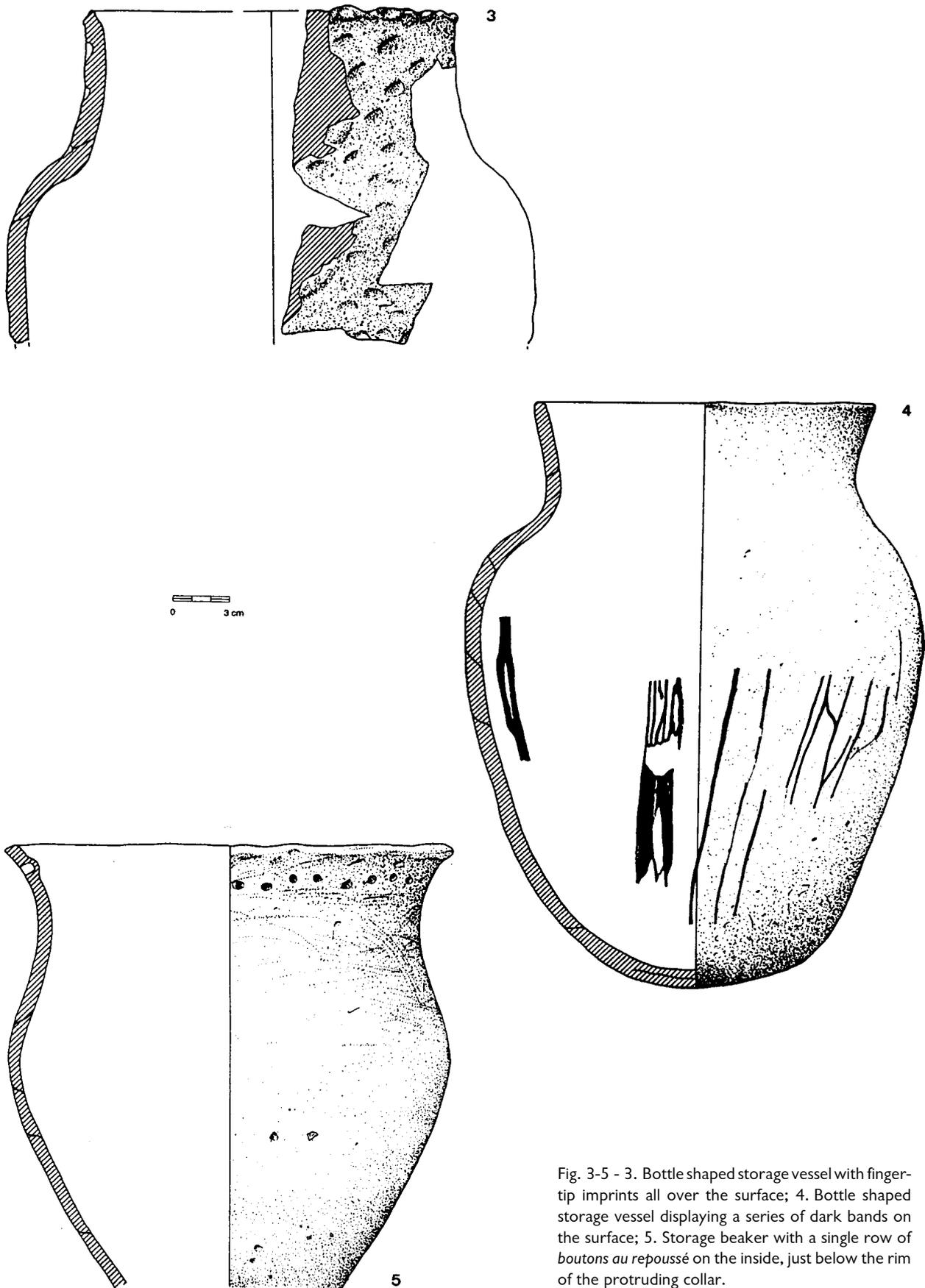


Fig. 3-5 - 3. Bottle shaped storage vessel with fingertip imprints all over the surface; 4. Bottle shaped storage vessel displaying a series of dark bands on the surface; 5. Storage beaker with a single row of *boutons au repoussé* on the inside, just below the rim of the protruding collar.

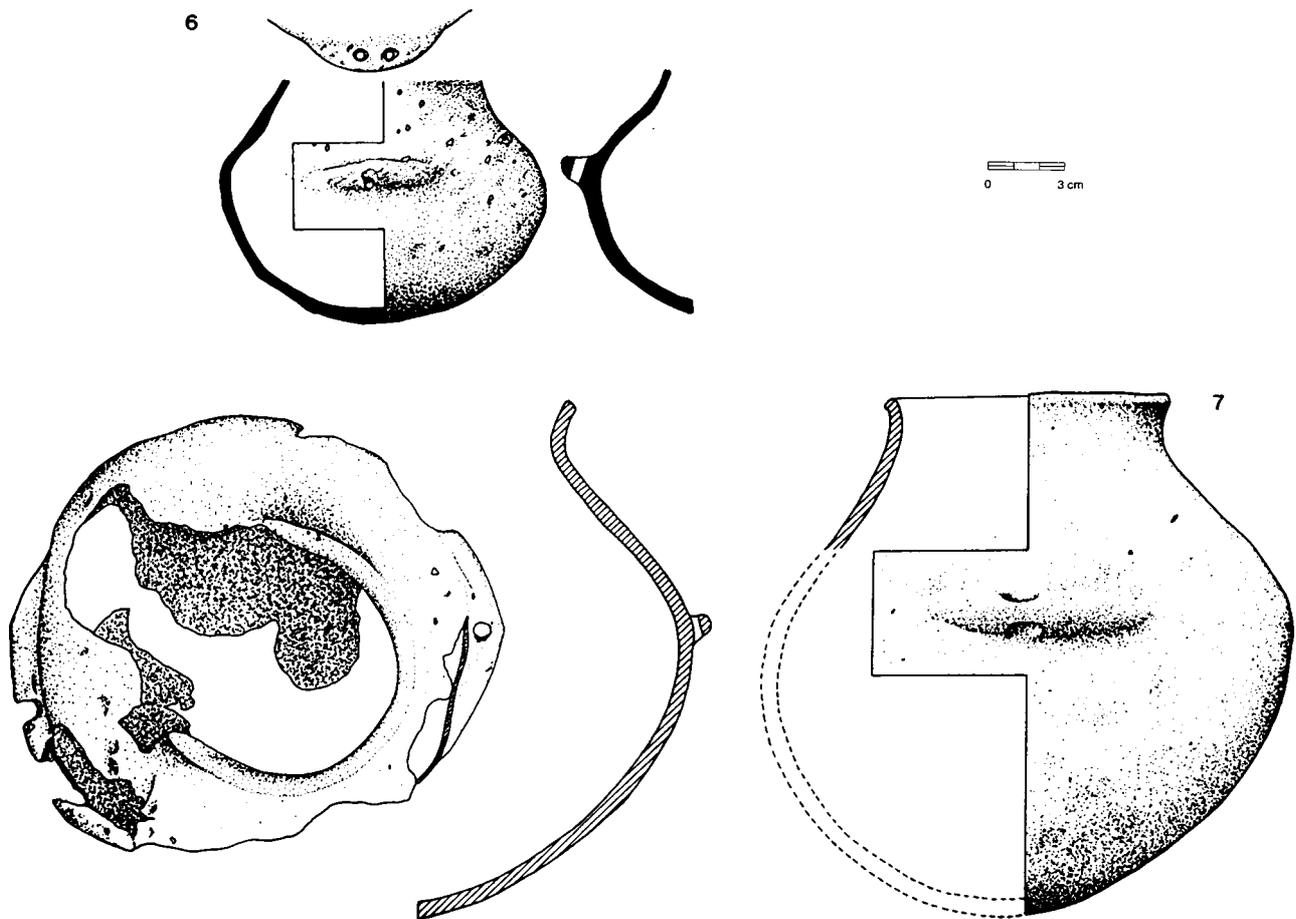


Fig. 6-7 - 6. Small bottle with *Languette biforée* situated on the maximal diameter;
7. Bottle with the combination of a double and a simple perforated *languette*, situated on the maximal diameter.

Apart from the rims, the number of decorated sherds is rather limited. The techniques are largely restricted to imprints (*poinçon fin* and *Doppelstich*) and plastic decoration (*boutons au repoussé* and squeezed out knobs). The following decorative themes could be observed:

- Two parallel (horizontal) rows of deep imprints, bordered by a slightly undulating row of deep imprints below and by a zigzag line of small imprints above. This theme was only observed on a spoon (fig. 15) for which no significant parallels were found.
- A row of imprints on the outside transition between collar and shoulder (fig. 16).
- A single row of tightly joined up *boutons au repoussé* on the inside, just below the rim of a protruding collar (fig. 17).
- A double row of tightly joined up *boutons au repoussé* on the inside, just below the rim of a protruding collar (fig. 18).
- A single row of tightly joined up *boutons au repoussé* on the outside transition between collar and

shoulder (fig. 19).

- A single row squeezed out knobs, just below the shoulder (fig. 10).

There is no doubt that the emphasis on the transition between collar and shoulder is influenced by the Bischheim. In our ceramic assemblage this accentuation consists of *Doppelstich* imprints (fig. 16) and *boutons au repoussé* (fig. 19). At Berry-au-Bac such an emphasis, and the *boutons au repoussé* in general, is only present in the Menneville-phase and is absent in the preceding late Rössen and in the subsequent early MK-level (Dubouloz 1991). Also the use of a *Doppelstich* is known from Rössen III and Menneville sites like Berry-au-Bac and Givry. It seems however to form part of the Cerny repertoire as well (Constantin 1992).

Another typical decorative theme for the northwest of France and the southwest of Belgium are the *boutons au repoussé* on the inside, just below a protruding collar. This feature has been found almost exclusively in sites attributed to the Menneville and to our MK.

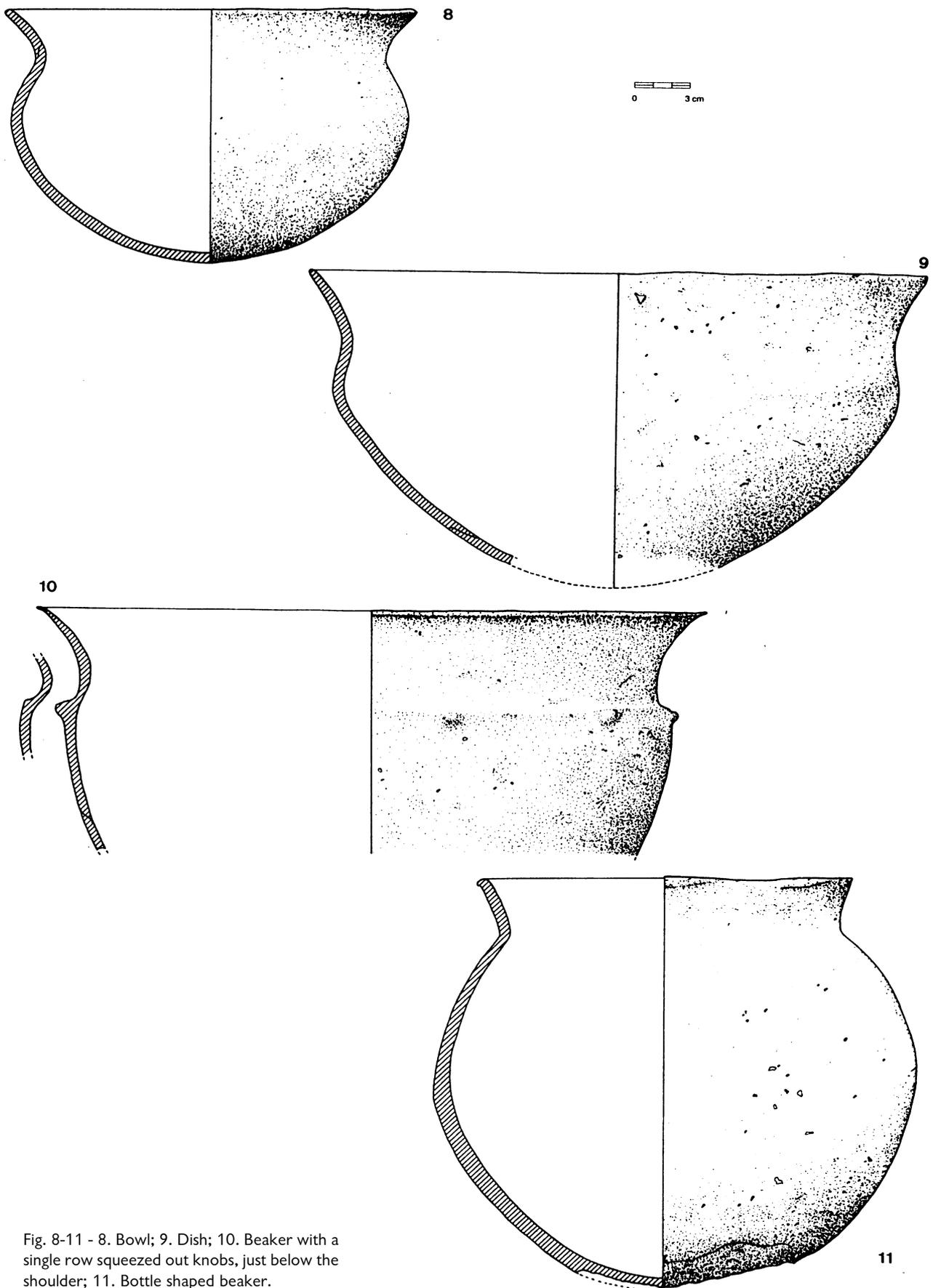


Fig. 8-11 - 8. Bowl; 9. Dish; 10. Beaker with a single row squeezed out knobs, just below the shoulder; 11. Bottle shaped beaker.

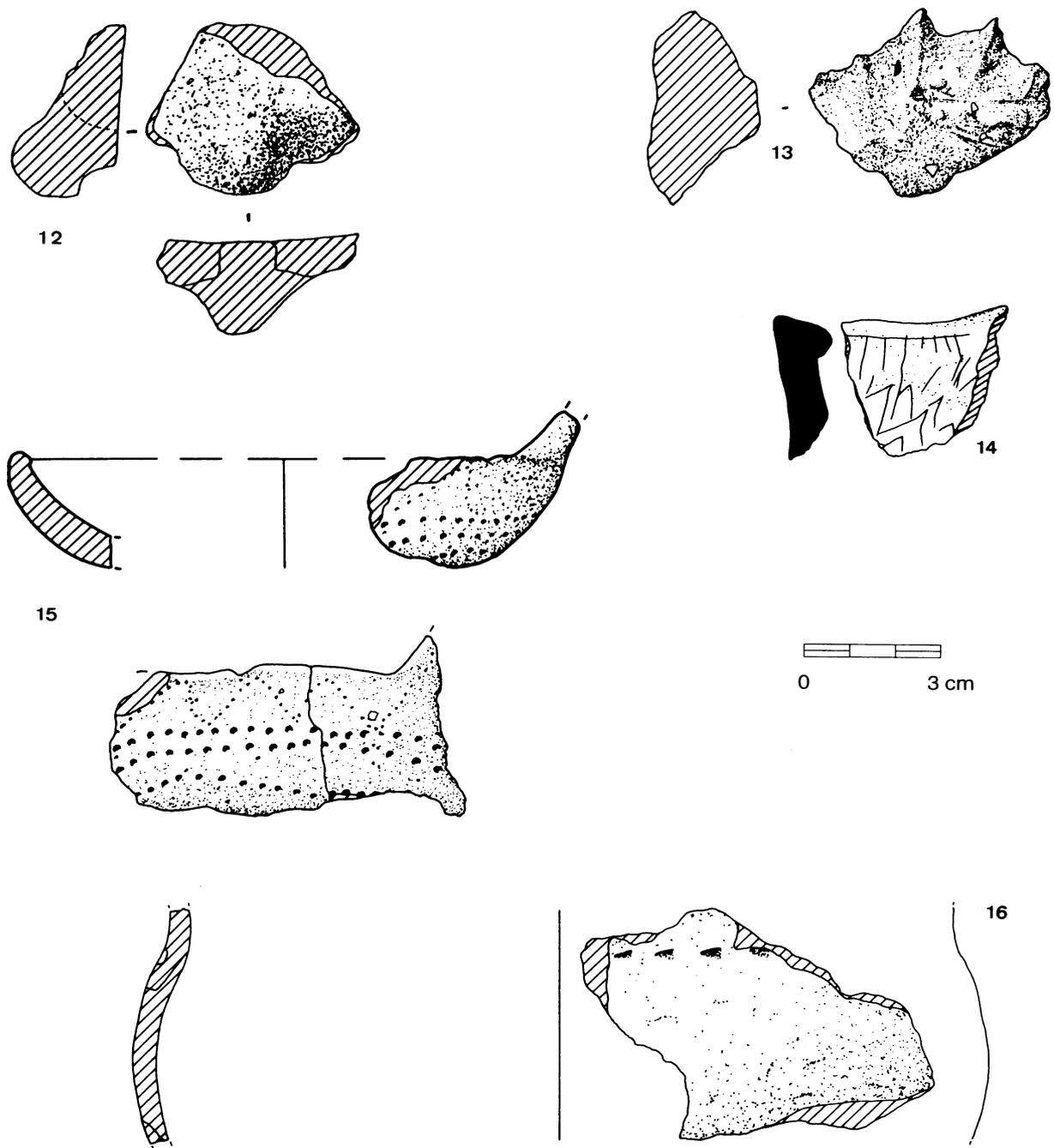


Fig. 12-16 - 12. Non-perforated knob inserted in the surface as a plug; 13. Piece of tempered clay with four oblong imprints, interpreted as the fingerprints of a child; 14. Sherd displaying an engraved pattern; 15. Spoon with two parallel rows of deep imprints, bordered by a slightly undulating row of deep imprints below and by a zigzag line of small imprints above; 16. Small bowl with a row of *Doppelstich* imprints on the outside transition between collar and shoulder.

A limited number of sherds display other than the afore-mentioned decoration. A single storage beaker wears a rib on the collar just below a notched rim. This was also found in the Menneville sites of Berry-au-Bac and Givry and in the old MK site of Neufvilles. Another storage vessel exposes fingertip imprints all over the surface (fig. 3). This is typical for the *rusticated* ware of the later

Neolithic and the early Bronze Age, but is of course not restricted to such a specific chronological and typological situation (Desittere 1970). The bottle shaped storage vessel represented on fig. 4 wears a series of parallel, dark bands on the surface. They can be the result of some kind of substance dripping over the surface, but can also be interpreted as a form of (painted) decoration. This will

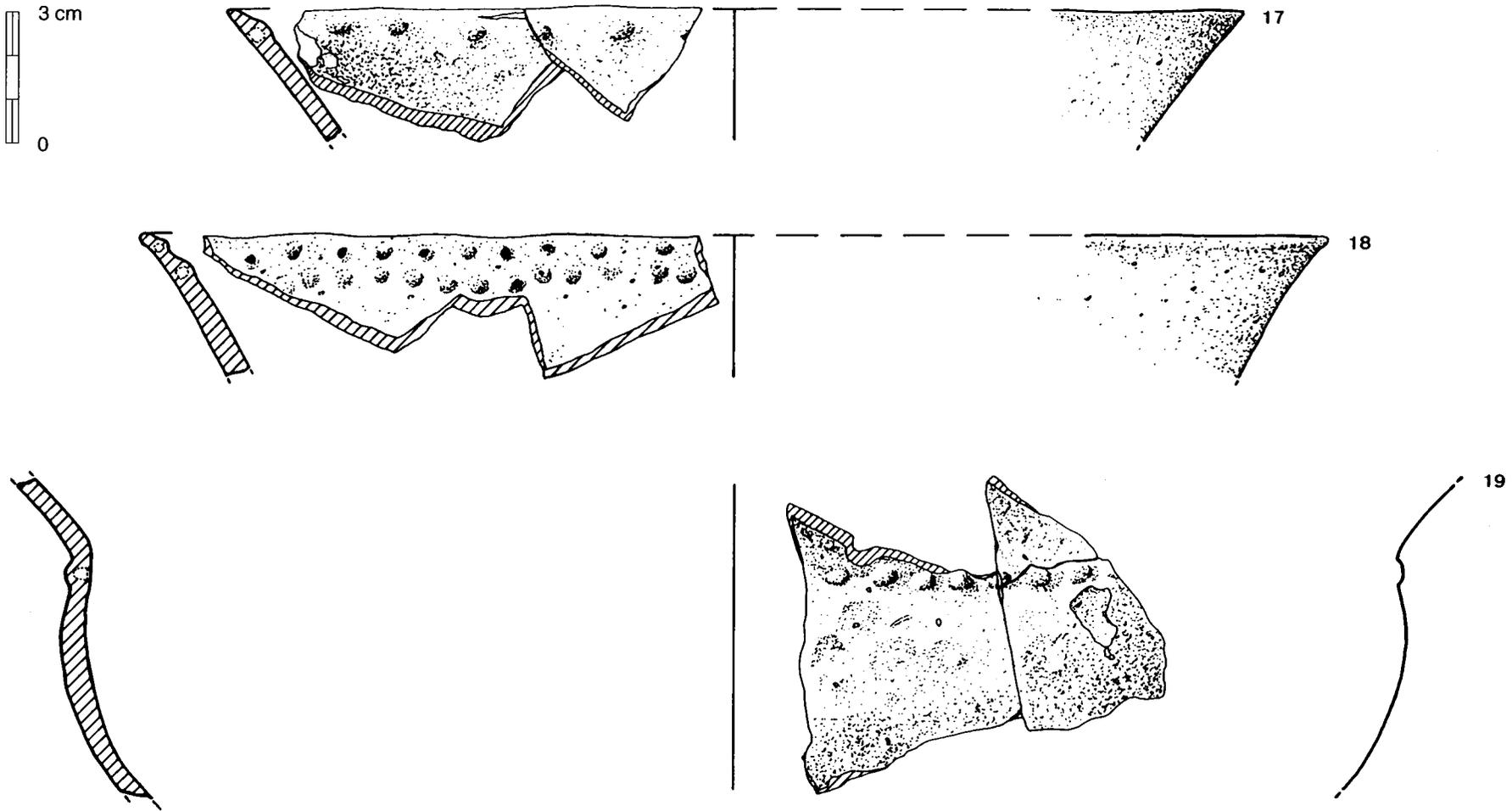


Fig. 17-19 - Protruding collar with a single row of tightly joined up *boutons au repoussé* on the inside; 18. Protruding collar with a double row of tightly joined up *boutons au repoussé* on the inside; 19. Dish displaying a single row of tightly joined up *boutons au repoussé* on the outside transition between collar and shoulder.

be studied more in detail. A small sherd displays an engraved pattern (fig. 14) and has to be related to the Chasséen.

We cannot elude comparing our data with the standard study of Lüning (1967), which still is the only good and universally used classification for MK-ceramics. According to the observed correspondences, we would place the ceramic assemblage of Spiere 'De Hel' within the Lüning-*Stufe II*.

III. 2. Technology

Two finds in the b-layer indicate the existence of a local production of pottery. The first one, a lump of clay next to a concentration of burnt flint chunks, can be seen as prepared potter's (raw) materials. The second find is a piece of clay with four oblong imprints, separated from each other by a small ridge (fig. 13). This was interpreted as a lump of -already tempered- potter's clay that was squeezed by a child and of which the imprints represent the four little fingers of the child's right hand.

All ceramics are dominantly tempered with burnt flint chunks and organic (floral) material. Charnotte and limestone were observed in a more restricted number of cases. Flint temper is generally used in our MK, but (already) occurs in the Menneville pottery. The use of organic temper is also common to both contexts, whilst it seems to be rare in the Rhine valley and in the east of France (Vroom 1987, 64).

The bottoms and bodies of the vessels were most probably constructed with a different technique. Laminar fractures were observed for the bottoms of larger (storage) vessels and for ceramic discs. These indicate the use of the hammer-and-anvil technique (Rye 1981, 85). The body of the vessels is characterised by N-fractures (according to the typology of Louwe Kooijmans 1980) and seems thus constructed with the coiling-technique.

III. 3. Spread of the ceramics within the complex

The lower layers (c and bc) are considered to form one whole. The main difference between them is the speed of upfilling due to sheet erosion and subsequent disintegration of the rampart and ditch walls. The c-layer (rapid primary filling) contains only a very restricted number of artefacts, i.c. potsherds (2 %)², including two non-smashed recipients. The above laying bc-layer is the result of a slower upfilling of the ditch and holds more artefacts (13 % of the total amount of ceramics). It concerns mainly *in situ* broken

² The percentages relate to a total weight of more than 340 kg ceramics.

pots, which cannot be seen as the result of a systematic dump. The material found in these layers displays only resemblances with Menneville and with our MK and not with Chasséen or Cerny assemblages.

By far most pottery (81 %) is found in the b-layer that seems to be the result of a systematic dump of household waste. By this time the form of the rampart and ditch was stabilised and less affected by (sheet) erosion. Only in this layer Chasséen or Cerny influences were observed. Influences from Menneville or Bischheim are still present.

The poor a-layer is interpreted as level layer.

III. 4. Intercultural interpretation of the ceramic assemblage and its contribution to the understanding of the earliest MK

This ceramic assemblage must obviously be seen in the light of the close relationship between MK and Menneville (a.o. Jeunesse 1982 and 1996, Piningre 1985, Vermeersch 1993). Moreover the dating of the assemblage fits perfectly within the sequence of Menneville and our MK datings (4600 - 3700 cal BC; fig. 20). Here we can *not* place the Menneville *before* our MK and must consequently regard them contemporaneous. In this phase also the presence of the earliest northern Chasséen was noted (Dubouloz 1991).

It is clear that influences played between the *Menneville* and our early MK. But how they played, in which direction and to what measure is still an unanswered question. Maybe we should consider them as different styles that evolved within the same "cultural entity". The development of these styles must unquestionably be seen in the light of the *chalcolithisation* and the important influence of the Bischheim (Jeunesse 1996). In a later phase (renewed) contacts were entertained with a more developed form of the Chasséen.

The distance between the origin of our MK and the MK of the Rhineland seems to be confirmed, despite of the clear affinities between our regions and the Lüning-phase MK³. There are two ways to explain these affinities. Firstly, the MK I would have formed during the same period and out from the same substratum as our early MK and the early northern Chasséen. The other possibility includes an important influence out from our already formed early MK to the Rhineland, undoubtedly correlated with trade of flint. Confirmation and specification of one of these possibilities will however need consistent datings of the MK I.

³ We mention in particular the presence of smoothed profiles, abundance of horizontally perforated grips and ceramic discs, and its distinction from the classical Rhineland MK by the absence of *Henkelgefässe*, *Tupfenleisten* and roughed surfaces (Lüning 1967, 82).

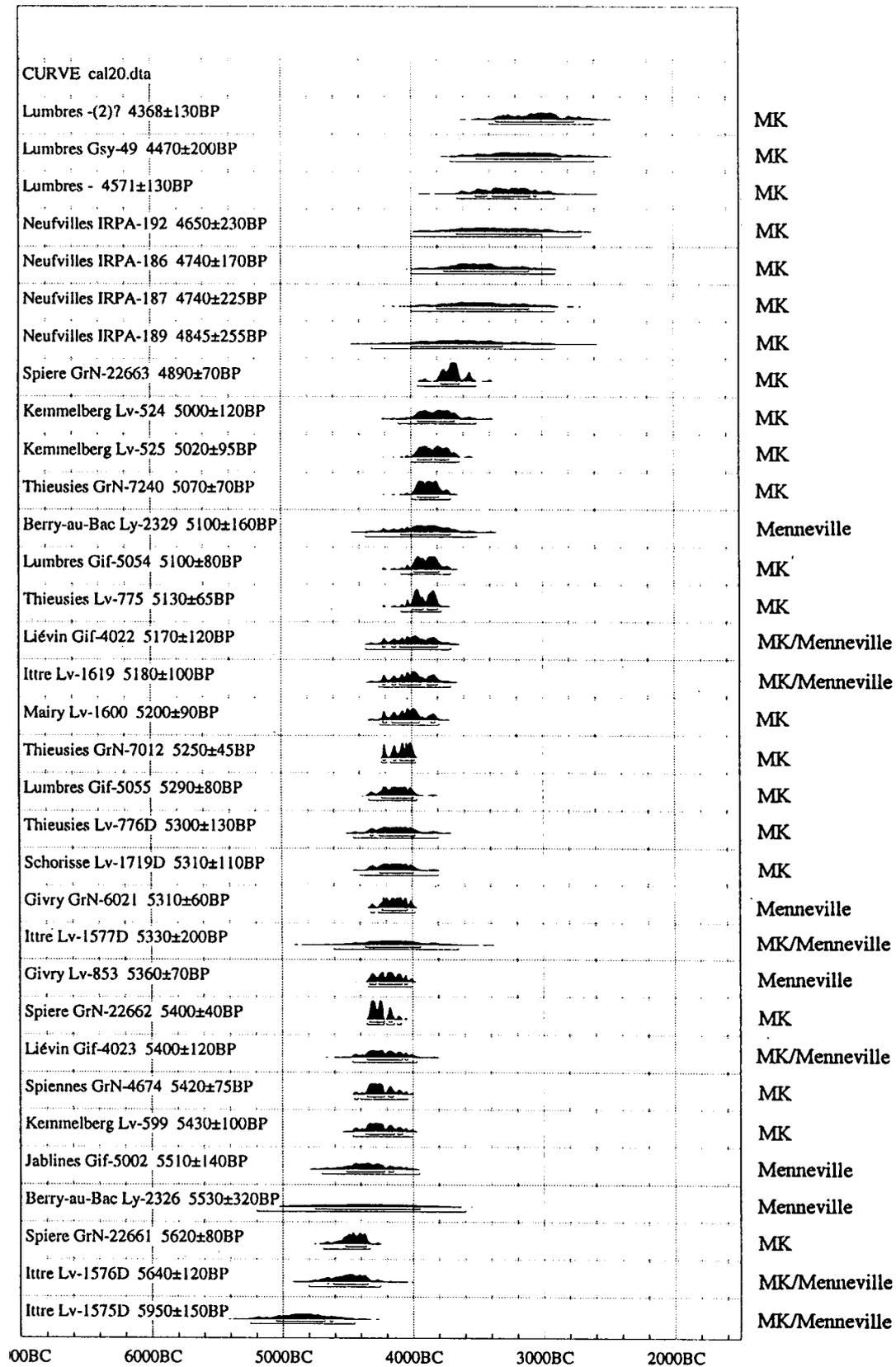


Fig. 20 - Series of calibrated ^{14}C -dates of sites attributed to our MK or to the Menneville.

IV. Conclusion

The pottery of Spiere seems to represent the earliest MK in our regions. This MK is, analogous with the *Style de Menneville* and the early northern Chasséen, characterised by important influences of late Rössen (Bischheim) ceramics. The former three styles seem thus to have formed within the same chronological phase, based on a similar cultural substratum. In addition it seems possible that our MK played a not yet clearly defined role in the origin and formation of the Rhineland variant of this culture.

V. Bibliografie

- BRONK RAMSEY, C., 1994. Analysis of Chronological Information and Radiocarbon Calibration: The Program OxCal. *Archaeological Computing Newsletter*, 41 : 11-16.
- CASSEYAS, C., 1996. Michelsberg en profil... Tilleul en péril. Examen palynologique de quelques échantillons d'un profil dans la vallée de l'Escaut à Spiere, de "Hel" (Espierres, l'Enfer"). *Notae Praehistoricae*, 16 : 155-159.
- CASSEYAS, C. & VERMEERSCH, P. M., 1994a. Een versterking uit de Michelsbergcultuur (MK) te Spiere "De Hel" (West-Vlaanderen). *Notae Praehistoricae*, 13 : 127-133.
- CASSEYAS, C. & VERMEERSCH, P. M., 1994b. Een versterking uit de Michelsbergcultuur (MK) te Spiere "De Hel" (West-Vlaanderen). Tweede opgravingscampagne. *Notae Praehistoricae*, 14 : 187-193.
- CONSTANTIN, C., 1992. La céramique du Groupe de Cerny dans la vallée de l'Aisne. *Revue Archéologique de Picardie*, 1992, 1-2 : 11-26.
- DESITTERE, M., 1970. Laatneolithisch aardewerk uit Harelbeke (Prov. Westvlaanderen). *Helinium*, 10 : 31-38.
- DUBOULOZ, J., 1988. *Le style de Menneville et les débuts du Chalcolithique dans la France du Nord*. Unpubl. Diss. phil., Université de Paris I, Paris, 1988.
- DUBOULOZ, J., 1991. Le village fortifié de Berry-au-Bac (Aisne) et sa signification pour la fin du Néolithique dans la France du Nord, in J. Lichardus (hrg.), *Die Kupferzeit als historische Epoche. Symposium Saarbrücken und Otzenhausen 6.-13.11.1988. Teil 1, (Saarbrücker Beiträge zur Altertumskunde, Band 55)*, Bonn, 1991 : 421-440.
- FOURNY, M., VAN ASSCHE, M., GILOT É. & HEIM, J., 1987. Le site d'habitat et épi-roessen/Michelsberg du "Mont-à-Henry" à Ittre (Belgique, Brabant). Aperçu du matériel archéologique et attributions culturelles. *Helinium*, 27 : 1, 46-56.
- JEUNESSE, C., 1982. Les influences épi-roessen et Michelsberg dans le Nord-est du Bassin parisien et en Belgique occidentale. Analyse chronologique. *Revue archéologique de Picardie*, 1982, 4 : 49-65.
- JEUNESSE, C., 1996. Les enceintes à fossés interrompus du Néolithique danubien ancien et moyen et leurs relations avec le Néolithique récent. *Archäologisches Korrespondenzblatt*, 26 : 251-261.
- LOUWE KOOIJMANS, L.P., 1980. De midden-neolithische vondstgroep van het Vormer bij Wijchen en het cultuurpatroon rond de zuidelijke Noordzee circa 3.000 v. Chr. *Oudheidkundige Mededelingen van het Rijksmuseum van oudheden te Leiden*, 61 : 113-208.
- LÜNING, J., 1967. Die Michelsberg Kultur. Ihre Funde in zeitlicher und räumlicher Gliederung. *Bericht der römisch-germanischen Kommission*, 1967 (1968), 48 : 1-350.
- MICHEL, J. & TABARY-PICAVET, D., 1979. La Bosse de l'Tombe à Givry (Hainaut). Tumulus protohistorique et occupation néolithique épi-Roessen. *Bulletin de la Société Royale Belge d'Anthropologie et de Préhistoire*, 90 : 5-83.
- NAZE, G., 1989. Le site d'habitat post-roessen d'Amigny-Rouy, "La Bretagne" (Aisne). Bilan des sauvetages effectués de 1986 à 1988. *Revue archéologique de Picardie*, 3-4 : 27-42.
- PININGRE, J.-F., 1985. Le site néolithique de Liévin (Pas-de-Calais). *Bulletin de la Société Préhistorique Française*, 82 : 422-448.
- RYE, O.S., 1981. Pottery Technology. Principles and Reconstruction, (*Manuals on Archaeology*, 4), Washington, 1981.
- STUIVER, M. & KRA, R. S., (eds), 1986. Calibration issue. *Radiocarbon*, 28 : 805-1030.
- STUIVER, M., LONG, A. & KRA, R. S., (eds), 1993. Calibration issue. *Radiocarbon*, 35 : 190-214.
- VANDEVELDE, P. & HUBERT, F., 1987. Deux vases Michelsberg de Spiennes et le matériel associé. *Bulletin de la Société Royale Belge d'Anthropologie et de Préhistoire*, 98 : 223-234.
- VANMOERKERKE, J., 1988. Een Midden-Neolithische site te Spiere, (*Archeologische en Historische monografieën van Zuid-West-Vlaanderen*, 19), Kortrijk, 1988.
- VANMONTFORT, B., 1997. Aardewerk uit een midden-neolithische context te Spiere "De Hel" in intercultureel en

intracultureel perspectief. Unpubl. lic. diss., K.U.Leuven, Leuven, 1997.

VANMONTFORT, B., CASSEYAS, C. & VERMEERSCH, P. M., 1995. Une enceinte de culture Michelsberg (MK) à Spiere "De Hel" (Flandre Occidentale). *Notae Praehistoricae*, 15 : 101-104.

VERMEERSCH, P. M., 1993. Le Michelsberg en Belgique et ses rapports avec les pays limitrophes. Le Néolithique du nord-est de la France et des régions limitrophes. Actes du XIIIe colloque interrégional sur le Néolithique (Metz 10-11-12 octobre 1986), (*Documents d'Archéologie Française*, 41), Paris, 1993 : 155-164.

VROOM, M., 1987. *Het Michelsbergwaardewerk van België en Noord-Frankrijk : status questionis, perspectieven voor voortgezet onderzoek*. Unpubl. lic. diss., K.U.Leuven, Leuven, 1987.

Bart Vanmontfort
Christian Casseyas
Pierre M. Vermeersch
Laboratorium voor Prehistorie
(Katholieke Universiteit Leuven)
Redingenstraat, 16
3000 Leuven