Abhandlung

Arne Verbrugge*, Maaike Groot, Koen Deforce, Guy De Mulder, Wouter Van der Meer, Sibrecht Reniere, Bart Cherretté, Mathieu Boudin and Anton Ervynck

Cremated animal remains and shattered pottery. Rare ritual deposits from the Middle to Late Bronze Age at Aalst – Siesegemkouter (Belgium)

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Zusammenfassung: Archäologische Untersuchungen in Aalst – Siesegemkouter offenbarten mehrere Gruben in der mittel- bis spätbronzezeitlichen Siedlung. Die meisten Gruben enthielten kaum Artefakte, aber eine Ausnahme wies eine strukturierte Stratigrafie und zahlreiche Funde auf, darunter eine große Menge an zerbrochener Keramik, Holzkohle und kalzinierten Tierknochen. Die Untersuchung dieser Assemblage und der Vergleich mit zwei anderen Gruben mit ähnlichen Merkmalen, erbrachte deutliche Hinweise auf eine „Verschlussschicht" oder eine andere Art von „site maintenance practices". In den Niederlanden stammen vergleichbare Kontexte generell aus der Eisenzeit, was darauf hindeutet, dass die Funde von Aalst – Siesegemkouter frühe Vorläufer dieser rituellen Praxis repräsentieren. Neben der frühen Datierung stellt das hohe Volumen an verbrannten Tierknochen ein nahezu einzigartiges Merkmal dar, für das sich bislang auch auf nordwesteuropäischer Ebene kaum Parallelen aus den Metallzeiten finden. Allgemein ist die Rolle organischer Überreste in rituellen Kontexten dieser Perioden und Regionen nur unzureichend verstanden, häufig aufgrund schlechter Erhaltungsbedingungen oder des Fehlens multidisziplinärer Forschungsansätze.

Schlüsselworte: Bronzezeit, Belgien, Auflassungsritual, *closing deposit, site maintenance practices*

Résumé: Les recherches archéologiques à Alost – Siesegemkouter ont révélé plusieurs fosses dans un habitat de l'âge du Bronze moyen et final. La plupart n'a livré que quelques artefacts. Une exception avait une stratigraphie structurée, ainsi qu'une abondance de trouvailles, y compris une grande quantité de céramique fragmentée, de charbon de bois et d'os calcinés d'animaux. L'étude de cet assemblage et la comparaison avec deux autres fosses qui présentent des similitudes, fournit des indices pour un dépôt structuré ou pour un autre type de pratique. Aux Pays-Bas, des contextes comparables datent en général de l'âge du Fer, ce qui suggère que la découverte d'Alost – Siesegemkouter représente un précurseur de cette pratique rituelle. A part de la datation précoce, le grand volume d'os calcinés représente une caractéristique quasi unique. Jusqu'au présent, des parallèles dans les âges des Métaux sont absents, dans toute le nord-ouest de l'Europe. Les restes organiques dans ces contextes rituels de cette époque et de cette région sont mal connus à cause de la mauvaise condition de préservation ou l'absence de recherche interdisciplinaire.

Mots-clés: Age du Bronze, Belgique, rituel d'abandon, dépôt d'abandon, pratique de maintenance d'habitat

Abstract: Archaeological research at Aalst – Siesegemkouter revealed several pits within a Middle to Late Bronze Age settlement. Most of them hardly contained any artefacts, but one exception showed a structured stratigraphy with an abundance of finds, including a large amount of

***Corresponding author: Arne Verbrugge**, Dienst Archeologie SOLVA, Erembodegem, Belgium. E-Mail: arne.verbrugge@so-lva.be
Maaike Groot, Freie Universität Berlin, Institut für Prähistorische Archäologie, Berlin, Germany. E-Mail: maaike.groot@fu-berlin.de
Koen Deforce, Department of Archaeology, Ghent University, Ghent, Belgium; Flanders Heritage Agency, Brussel, Belgium and Royal Belgian Institute of Natural Sciences, Brussel, Belgium. E-Mail: koen.deforce@naturalsciences.be
Guy De Mulder, Department of Archaeology, Ghent University, Ghent, Belgium. E-Mail: guy.demulder@ugent.be
Wouter Van der Meer, BIAX Consult, Zaandam, The Netherlands. E-Mail: vandermeer@biax.nl
Sibrecht Reniere, Department of Archaeology, Ghent University, Ghent, Belgium. E-Mail: Sibrecht.Reniere@ugent.be
Bart Cherretté, Dienst Archeologie SOLVA, Erembodegem, Belgium. E-Mail: bart.cherrette@so-lva.be
Mathieu Boudin, Royal Institute for Cultural Heritage, Brussel, Belgium. E-Mail: mathieu.boudin@kikirpa.be
Anton Ervynck, Flanders Heritage Agency, Brussel, Belgium. E-Mail: anton.ervynck@vlaanderen.be

shattered pottery, charcoal and calcined animal bone. The study of this assemblage, and comparison with two other pits showing similarities, provides strong indications of a closing deposit or another type of 'site maintenance practice'. In the Low Countries, comparable contexts generally date from the Iron Age, suggesting that the finds from Aalst – Siesegemkouter represent early forerunners of this ritual practice. On top of this early date, the large volume of cremated animal bone represents an almost unique characteristic for which, until now, parallels from the Metal Ages have hardly been found, even on a Northwestern European scale. In general, the role played by organic remains in ritual contexts from these periods and regions is poorly understood, often due to bad preservation conditions or the lack of a multidisciplinary approach.

Keywords: Bronze Age, Belgium, abandonment ritual, closing deposit, site maintenance practices

Abstract: Archeologisch onderzoek te Aalst – Siesegemkouter bracht verschillende kuilen aan het licht in een midden- tot late bronstijd-nederzetting. De meeste kuilen bevatten nauwelijks artefacten, maar één uitzondering hierop toonde een gestructureerde opbouw met talrijke vondsten, waaronder een grote hoeveelheid gebroken aardewerk, houtskool en witverbrand dierlijk bot. De studie van dit ensemble, en de vergelijking met twee andere kuilen die gelijkende kenmerken vertonen, leveren sterke aanwijzingen voor een verlatingsdepositie of een ander type van ritueel symbolisch geassocieerd met het gebruik en het onderhoud van het huis. In de Lage Landen dateren gelijkaardige contexten over het algemeen in de ijzertijd, wat doet veronderstellen dat de vondst van Aalst – Siesegemkouter een voorloper, of een vroeg voorbeeld is van dit soort rituele gebruiken. Naast de vroege datering, is ook het grote volume gecremeerd bot een quasi uniek kenmerk waarvoor tot op heden nauwelijks parallellen uit de metaaltijden te vinden zijn, zelfs op Noord-Europese schaal. De kennis van de betekenis van organische resten in rituele contexten uit deze perioden en regio is bovendien vrij pover. Dit is in de meeste gevallen te wijten aan de slechte bewaringscondities of het ontbreken van interdisciplinair onderzoek.

Sleutelwoorden: bronstijd, België, verlatingsritueel, verlatingsdepot, *site maintenance practices*

Introduction

Excavations in Flanders (the northern part of Belgium) have produced a large dataset on the Bronze Age (2100–800 BC). The focus lies on house and site ground plans, the many funerary structures present in the landscape[1], and the study of the cultural artefacts found[2]. Ecological material has received less attention, mainly due to the unfavourable preservation conditions in the often dry sandy and loamy soils[3]. Charcoal from Bronze Age sites has also rarely been studied, although the preservation potential for this type of material is much better[4]. As a result, agricultural activities and consumption patterns are not well known for this period. Only vegetation studies form an exception to this pattern, mainly due to the numerous analyses of pollen from funerary mounds[5], although most of these studies are biased by poor preservation and differential corrosion of pollen[6].

Ritual contexts outside of the funeral sphere are mainly represented by metal hoards deposited in rivers[7], while features with possible ritual connotations that are part of settlement sites are insufficiently known, recognised or studied, although attention has recently been drawn to deposits of loom weights[8]. As mentioned, organic remains do not play a part in the reconstruction of these possibly ritual deposits. As an example, due to the bad preservation of bones, structured deposits with associated bone groups, often linked to a ritual meaning[9], are absent from the Bronze Age archaeological record in Flanders.

Excavations at Aalst – Siesegemkouter now shed more light upon the little-known aspect of ritual deposits in settlement context in Flanders Bronze Age society, through the analysis of a number of structures, including a pit with 'rich' contents (including plant and animal remains). In Flanders, the chronology for the Bronze Age follows the framework defined for the Channel/North Sea area[10], including the Early Bronze Age (2100–1800 BC), the Middle Bronze Age (1800–1200/1150 BC) and the Late Bronze Age (1200/1150–800 BC). This scheme will be applied in what follows, unless noted otherwise.

1 Ampe *et al.* 1996; De Reu/Bourgeois 2013.
2 Bourgeois *et al.* 2003; Bourgeois/Cherretté 2005, De Mulder 2013.
3 Ervynck/Lentacker 2020, 90 Fig. 12 for animal remains, Bastiaens/Cooremans 2020, 53 Fig. 11 for seeds and fruits.
4 Deforce 2020b.
5 Deforce 2020a, 12–13 Fig. 5; 6.
6 *E. g.* Meylemans/Deforce 2018.
7 Verlaeckt 1996.
8 Van den Dorpel *et al.* 2018, 42.
9 Morris 2011, 2012.
10 Bourgeois/Talon 2012, 26.

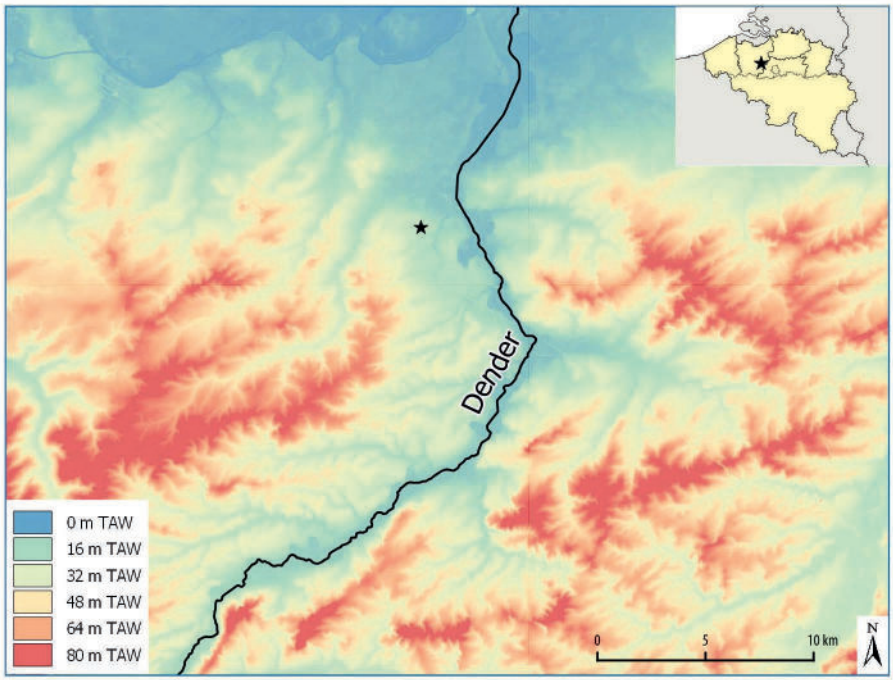

Fig. 1: Location of the site on the Digital Elevation Model (AGIV, Agentschap voor Geografische Informatie Vlaanderen) (TAW= Belgian ordnance datum, corresponding with c. 2 m below mean sea level).

The Bronze Age site

In 2015, the archaeological service of SOLVA (the inter-municipal cooperation for regional development in Southeast Flanders) undertook an excavation on a location along the western ring road (R41) around Aalst (Belgium: 50° 56' 06.40" N – 4° 00' 50.87" E), known by the toponym 'Siesegemkouter'. 'Siesegem', with its *gem*-suffix, refers to an early medieval settlement[11], while 'kouter' describes a large medieval complex of arable fields. The site is situated on dry decalcified loamy soil, on higher grounds overlooking the valley of the Siesegembeek, a small brook that is part of the basin of the river Dender (Fig. 1).

An area of c. 10 ha (hectare) was investigated through trial trenching (12.5 % coverage), leading to the selection of two plots (separated by c. 250 m and totalling 0.5 ha) for detailed excavation (Fig. 2). This selection was based upon the distribution and clustering of the archaeological traces, and the observation that part of the terrain had been disturbed by loam extraction in the 20th century. In Zone I, finds and features were discovered dating back to the Mesolithic, the Final Neolithic, and the Roman period[12]. The most important phase, however, was the Bronze Age, represented by twelve pits, a house plan and a square granary. Zone II yielded an isolated pit, also dating from the Bronze Age. The preliminary dating of these remains, on site, was based upon the typology of the house plan, the layout of the other features, and the cultural artefacts recovered.

The house plan, discovered near the eastern edge of Zone I, had an NW-SE orientation, a length of 11 m and a width of c. 3.5 m (Fig. 3). The apparently one-aisled building (see below) had a short rounded western side and at least five bays. As the features belonging to this structure are not well preserved, the building could possibly have been even longer. Except for a single sherd, the only finds recovered from the postholes are charcoal fragments.

Southwest of the building, at a distance of c. 9 m, a pit with a peculiar find assemblage was excavated (Fig. 3,A). A feature with a similar form (Fig. 3,B) was unearthed 12 m to the north of pit A. The single pit excavated in Zone II (Fig. 2,D) yielded a find assemblage comparable to that of pit A. The study of these three pits and their relation to the house plan are the subject of this article. The remaining ten pits excavated in Zone I are not discussed in further detail, as they were shallow, contained hardly any finds, and did not display any peculiar structural characteristics. Only one feature has been selected as part of the chronological analysis (Fig. 3,C).

11 Verhulst 1995, 127.
12 Verbrugge *et al.* 2018.

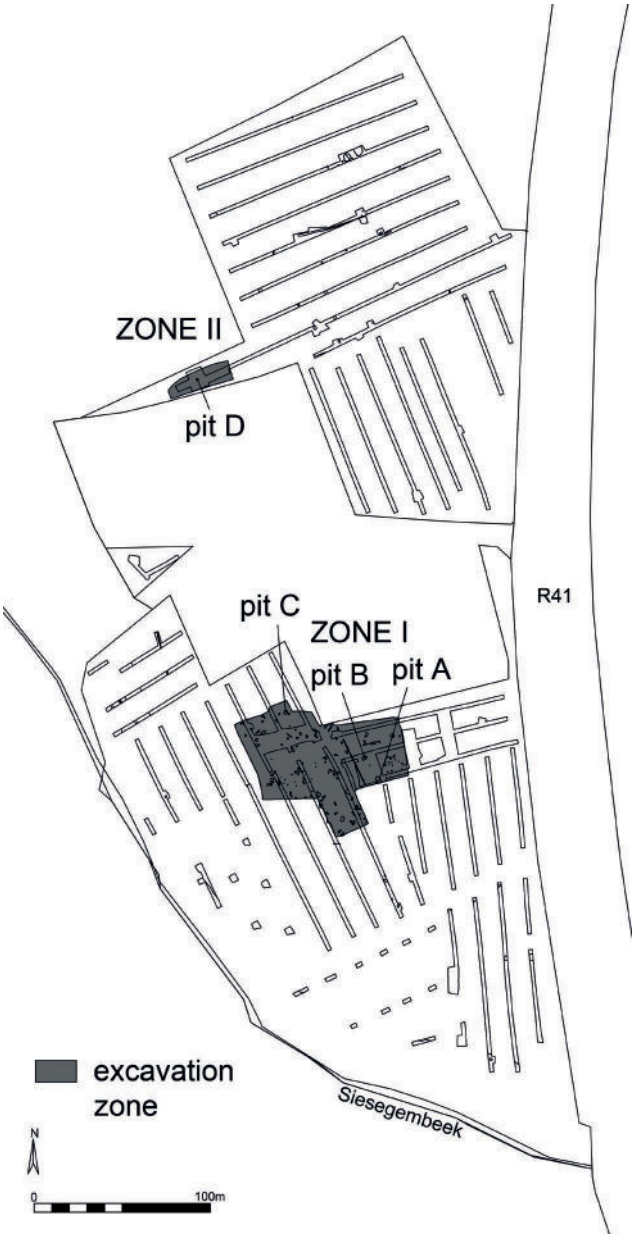

Fig. 2: Location of the trial trenches, the two excavation plots and the structures discussed in the text.

Form and stratigraphy of the pits

The contours of feature A appeared in the excavation trench as a figure of eight (c. 3.6 to 2.5 m); the result of the digging of two contiguous pits. Of the southern half (layers I-56, I-164) only a shallow part was preserved (Fig. 4). The northern half of the structure (layers I-57, I-162, I-163) had been dug deeper and contained most of the finds. This part also shows a more complex stratigraphy with a homogeneous layer at the bottom (I-163), rather poor in cultural finds but containing charcoal. Upon this layer, a mixture of charcoal, calcined bone and cultural artefacts was deposited, in its turn covered by a layer of burned loam fragments (together they form I-162). Finally, the pit was filled with a layer (I-57) which contained most of the pottery and burned loam fragments within the structure, but also a significant volume of calcined bone, situated at the bottom of this part of the deposition.

The fill of pit A was completely sieved (1730 litre), using a mesh width of 0.5 mm. A sample of 8 litres was kept unsieved for macrobotanical analyses. Samples for palynological analysis were taken as well, but no pollen or spores were preserved.

In the horizontal plane, pit B (2.6 by 1.7 m) showed a figure of eight comparable to pit A but the orientation was different (Fig. 3). Only 15 cm of the deepest part of the fill had been preserved. A sample of 10 litres was sieved for macrobotanical analyses. Pit C (with a diameter of 2.3 m), from the same part of the excavation area, has the same stratigraphic characteristics as pit B, but no peculiar form. Except for the sample from pit B, structures B and C have been investigated manually and hardly contained any finds.

Pit D, in Zone II, had a circular delineation and a diameter of c. 1.3 m. Comparable to pit A, this pit showed a structured stratigraphy (Fig. 4). At the bottom, a homogeneous layer with virtually no finds was excavated (PS1-A-4-AB-3), covered by a deposit of charcoal, calcined bone, cultural artefacts and burned loam fragments (PS1-A-4-AB-2). The uppermost fill consisted of a layer still containing some calcined bone, burned loam fragments, and a limited number of cultural artefacts (PS1-A-4-AB-1). The fill of this pit was lifted completely and sieved (370 litre), applying a 0.5 mm mesh width.

Inventory of the finds

Pit A

As mentioned, the postholes belonging to the Bronze Age house only contained a single sherd and a limited amount of charcoal fragments, not sufficient for an anthracological analysis. In contrast, the assemblage from pit A comprises a variety of find categories, predominantly, but not exclusively, deriving from the middle and upper layer of the fill (Fig. 4: layers I-162 and I-57). The cultural material includes 1,662 mainly unburned fragments of pottery, 8 fragments of one or several querns, 506 pieces of burned loam and 23 fragments of flint artefacts; the latter pos-

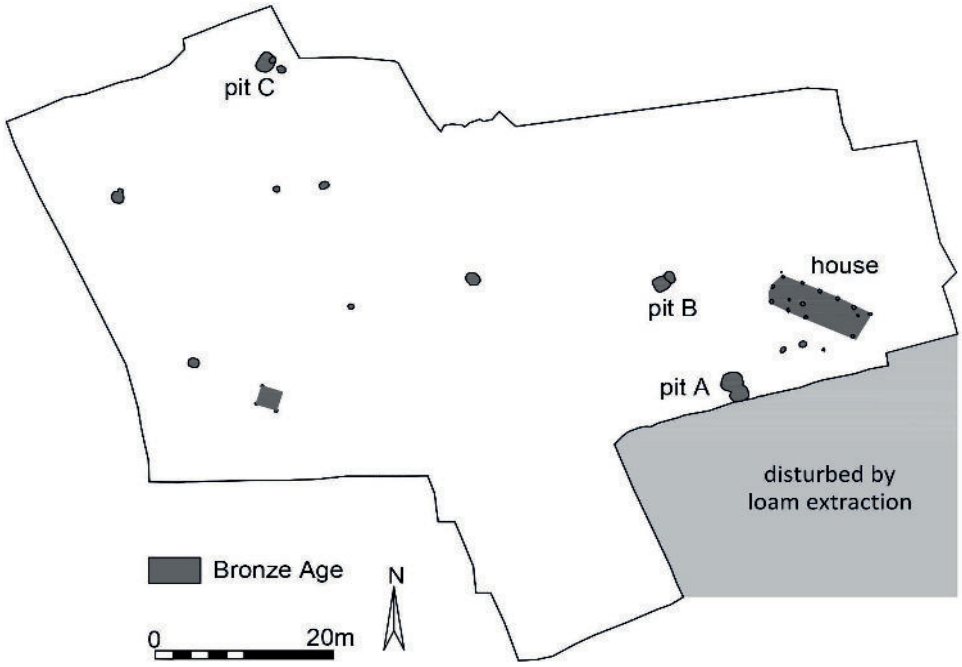

Fig. 3: Detail of Zone I with the house plan and pits A, B and C.

sibly partly residual material. 1,040 pottery fragments derive from layer I-57, 173 from I-162 and 110 from I-163. The remainder were found in the northern part of the structure: 262 in layer I-56 and 77 in I-164. From the bottom of the fill (I-163), a fragment of a spindle whorl was recovered. Impressions of twigs and branches suggest that the burned loam fragments once belonged to a wall construction in wattle and daub.

Only a small part of the ceramic sherds (Fig. 5) are burned, but their fragmentation is severe and, only in a few cases, profiles of the vessels could be reconstructed. As a result, only 16 % of the fragments could be classified as a specific form. Within this group, 44 % belong to pots, 21 % to handled cups, followed by dishes (16 %), beakers (9 %), bowls (6 %) and storage vessels (4 %). For four specimens, cross-fitting has been possible between sherds derived from I-56 and finds from I-57, showing that the artefacts from the fill of the double pit structure can be treated as a single assemblage. Similar cross-fittings have been obtained for the layers I-57, I-162 and I-163 in the

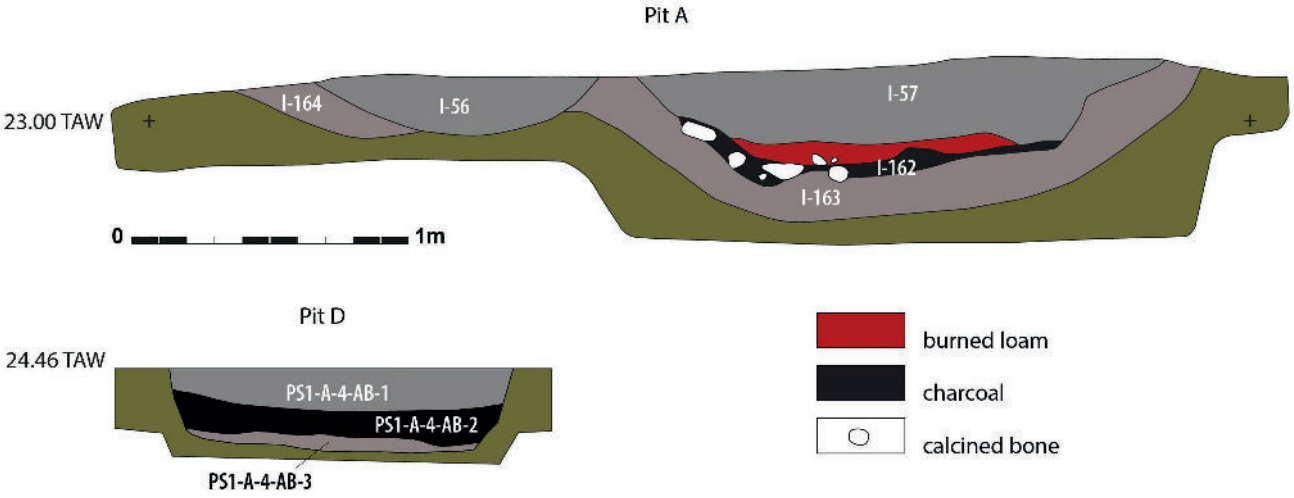

Fig. 4: Sections through pit A and D with indication of the stratigraphic layers (see text). Only real concentrations of burned loam, charcoal and calcined bone, that were clearly visible in the section, are indicated.

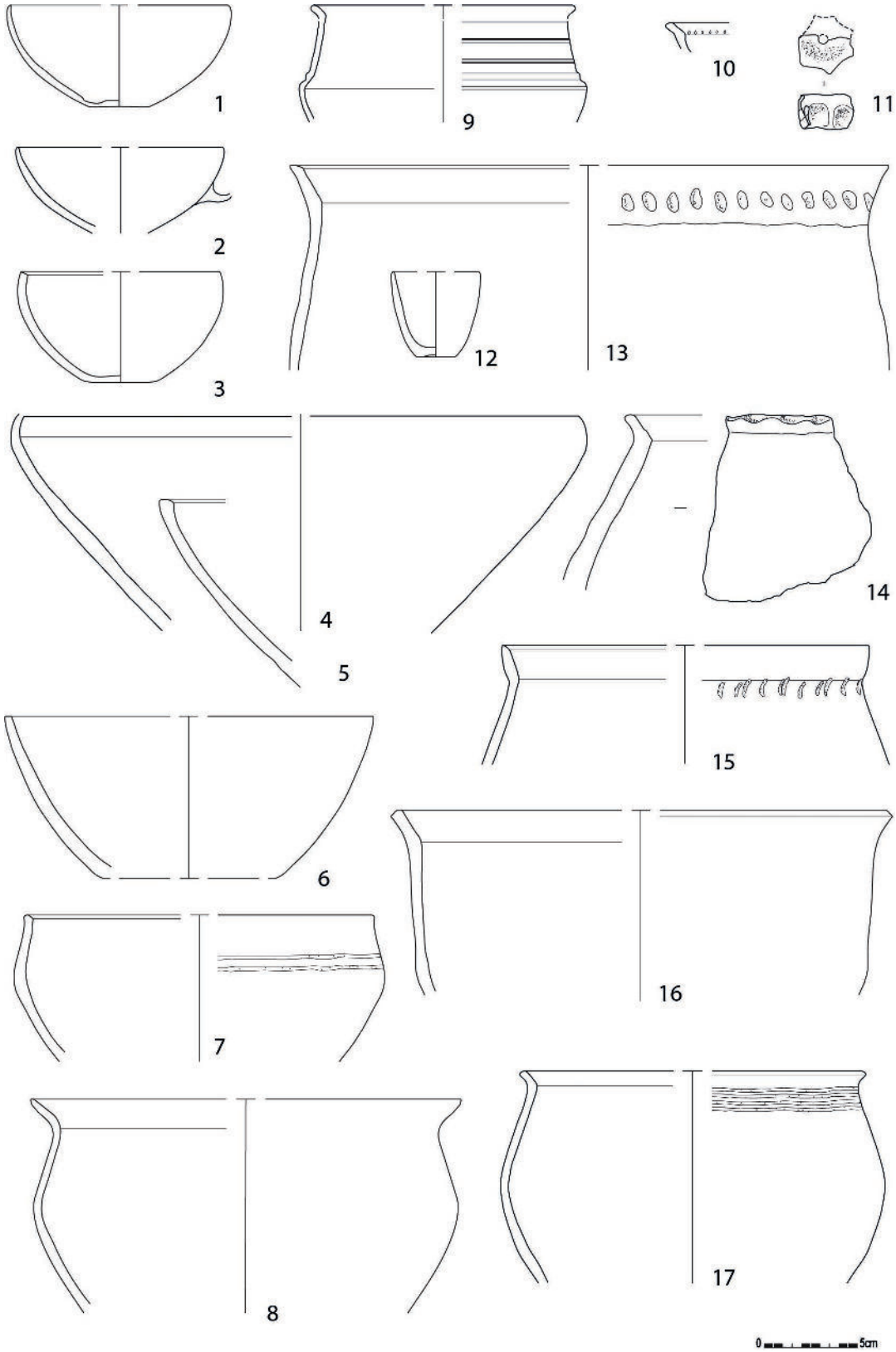

Fig. 5: Pottery forms from pit A: 1–3: handled cups; 4–7: bowls; 8–9: beakers; 10: dish; 11: spindle whorl; 12: miniature vessel; 13–14: storage vessels; 15–17: pots.

Tab. 1: Pit A: number of fragments and total weight of the animal remains per layer (medium sized mammals: cf. pig or sheep, large mammals: cf. cattle or horse).

taxon	number of fragments (n)	weight (gram)	I-57 (n)	I-162 (n)	I-163 (n)	I-56 (n)	I-164 (n)
cattle	102	203	53	39	10	–	–
cattle?	38	33	2	36	–	–	–
pig	4	10	–	4	–	–	–
subtotal	144	246	55	79	10	–	–
medium sized mammal	37	30	26	11	–	–	–
large mammal	489	771	182	307	–	–	–
mammal	15359	3632	9162	6174	–	18	5
total	16029	4679	9425	6571	10	18	5

southern part of the structure. A remarkable find is a miniature vessel (Fig. 5,12).

The five medium-sized fragments (max. 7.5 cm) and three smaller fragments of grinding tools were discovered in three different layers (I-57, I-162, I-163). Some fragments show red and pink coloured surfaces and are indicative of contact with a heat source. The stone objects are all carved in the same grey quartzitic sandstone and can probably be determined as non-rotary quern fragments that were used with a to-and-fro movement (often referred to as saddle querns). One cross-fit has been documented but all fragments potentially belong to the same grinding set of lower stone and hand-stone. Based on petrographic examination, the rock is identified as a medium-grained quartzitic sandstone, Thanetian and Lower Ypresian in age (Paleocene/Eocene). This type of rock is present in a very broad region, from Northwestern France (e. g., the Pays de Bray, north of the Paris Basin, and the surroundings of Arras, Béthune and Valenciennes) to Belgium (from the region around Blaton and Binche, province of Hainaut, Belgium, in the west, to Landen, province of Vlaams-Brabant, Belgium, in the east)[13].

In total, 4,679 grams of calcined bone was recovered from pit A (Table 1). Almost all of the material derives from layers I-162 and I-57. The bright white colour of the bone fragments indicates high burning temperatures (exceeding 645° Celsius[14]). Fragmentation is severe and most probably not only caused by the cremation but also through manipulation of the remains[15]. As a result, the identification level of this assemblage is markedly low (145 fragments out of 16,029, or 0.9 %). Still, the presence of two species of domesticated mammals could be attested. Cattle (*Bos primigenius* f. taurus) and pig (*Sus scrofa* f. domestica) remains represent skeletal elements from all body parts (Table 2). Possibly, the remains of the burning of bones from two complete animals have been deposited, without any indication that more than one animal is present per species (the apparently large total find number for cattle is only due to severe fragmentation). From cattle, two fragments of cannon bones (*metapodalia*), a fragment of a long pastern bone (*first phalanx*) and a fragment of an upper arm bone (*humerus*) were found, of which the fusion state of the articulation surfaces (*epiphyses*) indicates an age between 2 and 4 years[16]. A long pastern bone (*first phalanx*) of a pig demonstrates a slaughter age before 2 years[17]. Two bone fragments possibly show gnawing traces of a dog. Two fragments of cattle horncores bear cutting traces and chopping marks respectively. The long pastern bone (*first phalanx*) of cattle shows 'lipping', a pathological condition associated with the use of animals for traction[18].

13 Dusar *et al.* 2009; Laga *et al.* 2001.
14 Shipman *et al.* 1984.
15 Stiner *et al.* 1995, 235.
16 Following Silver 1969 and Habermehl 1975.
17 Silver 1969, Habermehl 1975.
18 Bartosiewicz *et al.* 1997.

Tab. 2: Pit A: number of skeletal elements per animal taxon. In all cases only small fragments are present. Six finds from the astragalus of cattle hence is no proof for the presence of more than one individual. The teeth fragments all derive from the roots (medium-sized mammals: cf. pig or sheep, large mammals: cf. cattle or horse, ?: uncertain identification).

skeletal element	cattle	cattle?	large mammal	pig	medium sized mammal	mammal
horncore	37	17	–	–	–	16
cranium	1	–	9+1?	–	3	1?
maxilla	7+1?	–	–	–	–	1
mandibula	6	–	–	–	–	–
teeth	30	20	–	–	–	29
axis	1	–	–	–	–	–
lumbal vertebra	–	–	2	–	1?	–
vertebra	–	–	2	–	1	–
rib	–	–	7	–	–	2
scapula	–	–	–	–	1	1
humerus	1	–	1?	1	1?	–
radius	1	1	1	1	1	–
carpalia	1	–	–	–	–	–
metacarpus	1	–	–	–	–	–
pelvis	–	–	2+3?	–	–	–
scapula/pelvis	–	–	–	–	–	1
femur	–	–	2?	–	1?	–
patella	–	–	1?	–	–	–
tibia	1	–	–	1	–	–
astragalus	6	–	–	–	–	–
tarsalia	1	–	–	–	–	–
metapodalia	2+1?	–	–	–	–	–
phalanx 1	4	–	–	1	–	–
total	102	38	31	4	9	51

The archaeobotanical analysis of a sample from the charcoal-rich layer I-162 (Fig. 4) shows that uncharred seeds and fruits are absent, while charred specimens are also very rare and badly preserved. Only two grains of barley (*Hordeum vulgare*) could be recognised, next to a single unidentifiable cereal grain and a fruit of black bindweed (*Fallopia convolvulus*). Black bindweed is a common weed on disturbed or cultivated land, and there is evidence that the dry fruits were collected as a food source in their own right during prehistory[19]. A number of charred shells of hazelnuts (*Corylus avellana*) completes this assemblage.

The charcoal assemblage from layer I-162 from pit A is diverse and includes oak (*Quercus* sp.), hazel (*Corylus avellana*), alder (*Alnus* sp.), sweet or wild cherry type (*Prunus avium* type), blackthorn type (*Prunus* type *spinosa*) and apple subfamily (Maloideae). Also charcoal from beech (*Fagus sylvatica)* has been found (Table 3).

Layer I-163 from the same pit shows largely the same charcoal assemblage with also oak, hazel, alder and wild cherry type as most important taxa, and low percentages of charcoal from blackthorn type, apple subfamily and beech. Also a small number of charcoal fragments from

19 Behre 2008.

Tab. 3: Charcoal identifications (%) from pit A and D. Total (n): total number analysed, *: includes apple (*Malus*), pear (*Pyrus*), hawthorn (*Crataegus*), medlar (*Mespilus*) and rowan (*Sorbus*).

	pit A		pit D	
	I-162	I-163	A-4-AB-2	
Acer campestre type	–	5.9	–	field maple type
Alnus sp.	13.9	10.2	–	alder
Corylus avellana	17.8	22.9	0.9	hazel
Fagus sylvatica	4.0	5.1	–	beech
Maloideae*	10.9	4.2	0.9	apple subfamily*
Prunus avium type	12.9	8.5	2.7	sweet cherry type
Prunus spinosa type	10.9	2.5	–	blackthorn type
Prunus sp.	–	–	0.9	cherry type
Quercus sp.	25.7	30.5	91.0	oak
Sambucus sp.	–	1.7	–	elder
bark undiff.	–	1.7	2.7	bark
indeterminata	4.0	6.8	0.9	indeterminata
total (n)	101	118	111	total (n)

elder (*Sambucus* sp.) and field maple type (*Acer campestre* type) have been found in this layer.

It should be noted that metal finds were completely absent from pit A, a characteristic that is equally true for all features excavated at the site, due to the unfavourable preservation conditions.

Pit B

The fill of pit B contained 68 sherds of Bronze Age pottery, amongst which fragments of a pot, a bowl, a dish, and a storage vessel. Heavily fragmented pieces of burned loam were also present, next to a few minute fragments of calcined bone and a flint artefact. A sample for macrobotanical analysis yielded a small number of charred fragments of emmer wheat (*Triticum dicoccum*), a possible fragment of a pea (*Pisum sativum*), a shell of a hazelnut (*Corylus avellana*) and a fruit of pale persicaria/lady's thumb (*Persicaria lapathifolium/maculosa*). Similar to black bindweed, the fruit of pale persicaria/lady's thumb can be considered both a contamination of harvested cereals as well as a collected food source[20]. Hardly any charcoal was recovered from this pit, and the size of the fragments was too small to allow taxonomic identification.

Pit C

Pit C contained a small number of finds, the only one worth noting being a rim fragment of a storage vessel, with oblique fingernail impressions on the transition from the shoulder to the rim and indications of oblique fingernail impressions on the lower body. Organic remains could not be recovered from this feature.

Pit D

The assemblage of cultural artefacts from pit D shows clear parallels with that of pit A, albeit that the find numbers are markedly lower. From this feature, 58 sherds were recovered (15 from layer PS1-A-4-AB-1; 42 from layer PS1-A-4-AB-2, and 1 from layer PS1-A-4-AB-3, see Fig. 4), next to 19 fragments of burned loam (10 from layer PS1-A-4-AB-1 and 9 from layer PS1-A-4-AB-2), a grinding tool fragment (layer PS1-A-4-AB-1), four other fragments of natural stone (layer PS1-A-4-AB-2), a loom weight (layer PS1-A-4-AB-1), and 12 flint fragments (7 from layer PS1-A-4-AB-1 and 5 from layer PS1-A-4-AB-2). Of the loom weight only half was present. The sherds belong to a vessel with an applied cordon, resembling pottery of the Hilversum tradition[21],

20 Ibid.

21 Warmenbol 1989, 504–506; Bourgeois/Talon 2009, 50–52.

and to ceramics with flint temper. Calcined animal bone was also present but from the small volume (30 grams) no identifiable fragments could be extracted. Charred seeds or fruits have not been recovered from this feature.

The charcoal assemblage from the fill of this pit (PS1-A-4-AB-2) is dominated by oak (*Quercus* sp.) (91 %). Also small amounts of wild cherry type (*Prunus* type *avium*), cherry type (*Prunus* sp.), apple subfamily (Maloideae) and hazel (*Corylus avellana*) have been found (Table 3).

Chronology

Pit A

The ceramics from feature A show close parallels with assemblages from the Late Bronze Age excavated in Flanders[22], Northern France[23] and Hainaut[24] (southern Belgium). Typical characteristics are the presence of carinated bowls (Fig. 5,4)[25], handled cups (Fig. 5,1–3), so-called shoulder beakers (Fig. 5,9)[26], the type of spindle whorl (Fig. 5,11)[27], and the vessels with a beveled rim (Fig. 5,13–17)[28]. A number of elements refers to the earlier stage of the Late Bronze Age. First, the shoulder beaker (Fig. 5,9) can be attributed to type 16 of the group RSFO ceramic repertory[29]. It dates to the '*Bronze final IIb–IIIa*' or the so-called '*Etappe II*' (1100–900 BC, following the chronology of Brun 1984)[30]. Secondly, the number of roughened sherds is almost negligible, which is also a pattern that coincides with the earlier part of the Late Bronze Age[31]. On the basis of the ceramics, a date range of 1100–900 BC can be proposed (Fig. 6).

Four radiocarbon dates have been obtained from finds from pit A, i. e., a cereal grain (I-162), a calcined bone fragment (I-162), a piece of charcoal (I-57), and a burned crust attached to a pottery fragment (I-57) (Table 4, Fig. 6). They all possibly refer to the Late Bronze Age although they cannot be combined through Bayesian modelling (R_Combine function in Oxcal: X^2-Test: df=3, T=14.4 (5 % 7.8)). The date from the crust is significantly younger than the three other dates. Combining the latter three is statistically justifiable (X^2-Test: df=2, T=5.5 (5 % 6.0)) and gives a date range of 1049–927 BC (95.4 % probability), which coincides well with the date range proposed by the cultural artefacts.

Pit B

The ceramics from this structure comprise too few diagnostic sherds to allow a detailed chronological interpretation. The material can only broadly be dated in the Late Bronze Age – Early Iron Age (Fig. 6). A radiocarbon date obtained from a cereal grain points towards the later half of the Late Bronze Age, roughly 900–800 BC (Table 4, Fig. 6). Pit B could thus be younger than pit A, although the cereal grain from B has a comparable radiocarbon date as that from the burned crust from feature A (a date which, however, does not match with the other dates from that pit).

Pit C

The fragment from a storage vessel refers to the transition period of the Middle to the Late Bronze Age (Fig. 6). A radiocarbon date obtained from charcoal does not contradict this chronology (Table 4, Fig. 6), but an old-wood-effect for this date cannot be excluded in case the charcoal derives from the inner, older part of a stem or a large branch, and thus only presents a *terminus post quem* for the felling date of the tree.

Pit D

On the basis of the ceramics, this feature must have been filled during the Early or Middle Bronze Age (Fig. 6). This broad dating has been refined by two radiocarbon dates, one on charcoal and one on calcined bone (Table 4, Fig. 6). Both dates can be combined (X^2-Test: df=1, T=0.0 (5 % 3.8)), yielding a date range of 1406–1262 BC (95.4 % probability). The fill of pit D is thus considerably older than that of pits A or B.

House plan

Typologically, the house plan excavated (Fig. 3) has affinities with three-aisled examples from Flanders and the

22 Bourgeois/Cherretté 2005; De Mulder 2013.
23 Blancquaert *et al.* 2005.
24 Henton/Demarez 2005; Henton 2013.
25 Brunet 2006, 318 Fig. 5,3; 13; 14.
26 Brun *et al.* 2005, 194, Fig. 4; 5.
27 Henton/Demarez 2005, 95 Fig. 9, 10–11.
28 Henton/Demarez 2005, 95; De Mulder/Deschieter 2007, 55.
29 Brun/Mordant 1988, 632.
30 Brun/Mordant 1988; Brunet 2006, 316.
31 Van den Broeke 1991.

Tab. 4: Radiocarbon dates from the pits and the house plan. Calibrations with OxCal v4.4.2 – Bronk Ramsey 2020, using the IntCal20 atmospheric calibration curve (Reimer *et al.* 2020).

Feature and material sampled	lab. code	BP	s.dev	68.3 % prob.		95.4 % prob.	
pit A – cereal grain	RICH-23057	2884	26	1111–1015 BC	68.2 %	1196–1173 BC	3.3 %
						1161–1144 BC	2.5 %
						1130–980 BC	88.7 %
						948–938 BC	1.0 %
pit A – charcoal	RICH-23137	2794	34	994–906 BC	68.2 %	1043–1035 BC	1.2 %
						1016–891 BC	82.7 %
						882–835 BC	11.6 %
pit A – burned crust	RICH-23136	2722	35	899–827 BC	68.2 %	931–806 BC	95.4 %
pit A – calcined bone	RICH-28538	2818	25	1003–931 BC	68.2 %	1047–1028 BC	4.3 %
						1021–905 BC	91.2 %
pit B – cereal grain	RICH-28533	2691	26	895–875 BC	21.8 %	900–805 BC	95.4 %
				837–808 BC	46.5 %		
pit C – charcoal	RICH-22717	2955	23	1213–1126 BC	68.2 %	1260–1106 BC	89.5 %
						1099–1077 BC	3.3 %
						1071–1055 BC	2.6 %
pit D – charcoal	RICH-25937	3065	30	1392–1335 BC	39.1 %	1415–1258 BC	92.6 %
				1324–1282 BC	29.2 %	1245–1230 BC	2.8 %
pit D – calcined bone	RICH-28537	3059	25	1387–1338 BC	37.0 %	1408–1259 BC	93.4 %
				1319–1277 BC	31.3 %	1243–1233 BC	2.0 %
house plan – charcoal	RICH-22713	3190	33	1498–1470 BC	32.6 %	1513–1408 BC	95.4 %
				1465–1434 BC	35.7 %		
house plan – charcoal	RICH-25683	3186	31	1497–1473 BC	30.4 %	1507–1411 BC	95.4 %
				1461–1431 BC	37.8 %		
house plan – charcoal	RICH-25679	3035	31	1380–1344 BC	22.8 %	1405–1206 BC	95.4 %
				1307–1257 BC	34.7 %		
				1247–1227 BC	10.7 %		

Netherlands, dating back to the Middle Bronze Age[32]. However, at the site of Sint-Gillis-Waas/Kluizenmolen a series of long three-aisled buildings has been dated to the Late Bronze Age, suggesting that this type existed longer than assumed before[33]. At the Siesegemkouter, only a one-aisled structure could be mapped but possibly traces from the outer walls were not preserved. This could also have been the case at other Bronze Age sites in the region such as Lede – Kleine Kouterrede, Ronse – Pont West and Aalst – Rozendreef. Possibly, in those cases, the outer walls of a three-aisled longhouse were based on lying beams instead of poles that were dug in[34]. The single sherd recovered from the postholes at the Siesegemkouter derives from a storage vessel with an inwardly oriented rim, resembling examples excavated from Middle Bronze Age burial mounds in the southern part of Flanders[35].

Three radiocarbon dates have been obtained from charcoal fragments recovered from the building's postholes. They cannot be combined (X^2-Test: df=2, T=15.8 (5 % 6.0)) as one is significantly younger than the other two (Table 4, Fig. 6). It seems reasonable to consider the youngest date as the best estimate for the age of the building, although it remains unsure whether the charcoal was included in the fill of the postholes when the building was erected or destructed. Moreover, in both scenarios, residual material could possibly have been dated. Taking into account the additional impact of an old-wood-effect, it is clear that the dates from the building can only be treated as a *terminus post quem*, leaving the true date of the construction and demolition in the dark. Possibly, the build-

32 De Mulder 2019, 32–35.

33 Lauwers/Van Strydonck 2018.

34 De Graeve *et al.* 2018.

35 Bourgeois/Cherretté 2005, 49.

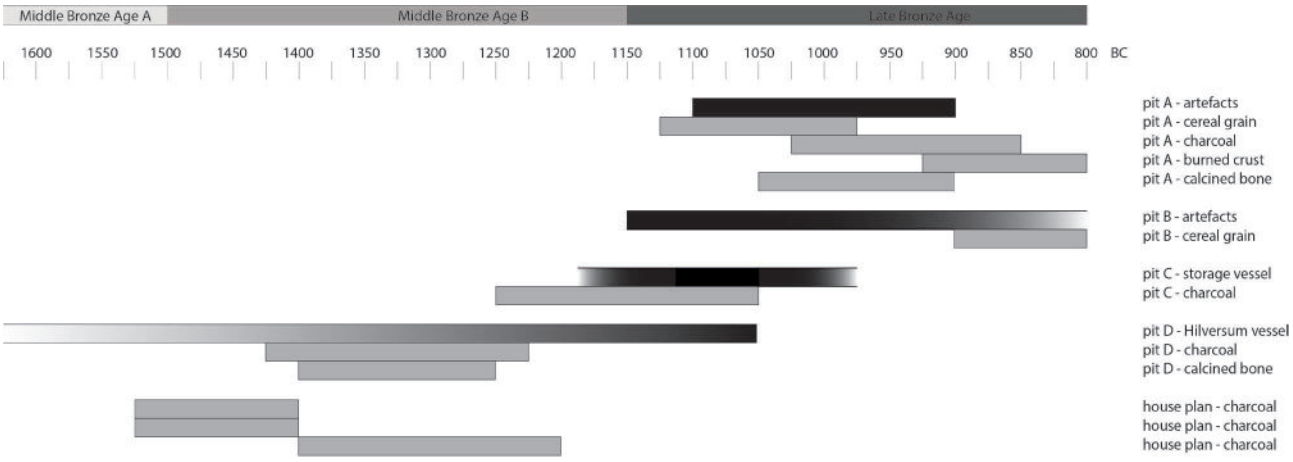

Fig. 6: Simplified chronological overview of the dates obtained: black: dating based upon cultural artefacts, grey: ^{14}C-dates, rounded up to a quarter of a century (based on the 95.4 % probability ranges, outliers neglected, see Table 4). Chronology of the cultural periods according to Bourgeois and Talon (2012).

ing dates from the middle of the Middle Bronze Age B (Fig. 6), but equally probable is a date in a more recent period.

Interpretation

Taphonomy

Before any interpretation of the cultural meaning of the excavated features can be made, taphonomic constraints must be taken into account. First, except for pits A and D, all structures (including the pits not discussed here) are badly preserved, with only the deepest part of their fill still present. Second, a number of find categories may have been present in some features but possibly disappeared through time, due to the unfavourable preservation conditions in the dry, decalcified loamy soil. This is certainly the case for wooden artefacts, textiles, uncharred plant remains and unburned bone. Within the category of burned bone, pieces that have not been exposed to the high temperatures needed to reach the stage of calcination (pure white colour) may also have disappeared from the archaeological record[36]. Stratigraphic layers within the pits that hardly contained finds may thus originally not have been 'sterile' at all[37]. Third, a large area, situated directly south of pits A, B and the house plan, was disturbed by loam extraction in the 20th century. Therefore, it can not be excluded that other features, possibly bearing a relation with the pits, or with the house plan, were present in this area. In the case of the pits, a relation with another house plan even remains a possibility.

From the composition of the finds, it is clear that the pottery was (intentionally) broken, that only some sherds were burned, and that only a portion of the fragments ended up in the pits (at least in features A and D; the others hardly contained any material). The quern fragments also illustrate severe fragmentation and partial exposure to fire. The animal bones (at least the part preserved) must have been cremated and deposited together with the burned loam fragments, charcoal and part of the pottery (I-162). The upper layer (I-57) contains most of the ceramics, a major part of the cremation remains and burned loam fragments, but no charcoal. The fill is thus clearly structured but must be regarded as the result of a single depositional event. This interpretation is justified by the homogenous nature of the pottery and bone assemblages in I-162 and I-57, and by the cross-fitting of sherds between the layers. That I-163 and I-162 have a common origin is suggested by the almost identical nature of the charcoal assemblages and by the fact that quern fragments from all three layers apparently belong to the same grinding set of lower stone and handstone. The fill of pit D showed a similar structure and internal stratigraphy, but with considerably less finds, thus not allowing the detailed analysis made for pit A.

The contents of pit A suggest the presence of the remains of two individual animals (cattle and pig), which according to the cut and chop marks must have been processed first. Gnawing marks possibly indicate that after

36 Kalsbeek/Richter 2006.

37 See the discussion for comparable Iron Age features in Van Hoof 2002, 84.

processing of the carcasses the bones were not immediately burned.

Most charcoal fragments could be assigned to branches or logs with a diameter larger than a few centimetres. This means the charcoal probably derives from the firewood used to build a fire, even though it could partly have come from burned wattle and daub constructions, as indicated by the presence of burned loam. Split trunks of most of the identified taxa could have been used as vertical stakes. However, only a few charcoal fragments, including those from hazel, could be identified as deriving from a thinner branch, which could have been used as wattle. Hazel produces long, straight and flexible shoots that are especially suitable for wattle constructions[38]. The charcoal from pit D, with a dominance of oak, probably reflects a different scenario, and can be the result of a careful selection of firewood, or the selective burning of only the larger construction wood of a built structure. A small number of seeds could have ended up in the pits by accident, or because straw or other dry plant material was used to light the fire.

Cultural connotations

When trying to unveil the cultural meaning of the deposits in the different pits, feature A must be the focus, due to its better preservation and the more detailed information extracted from the numerous finds. As a first observation, it is clear that pit A is not an ordinary consumption refuse context. The simultaneous deposition of a large number of ceramic vessels points in that direction. In the archaeology of the Metal Ages in the Netherlands, such contexts are often described as '*rijkgevulde kuilen*'[39]. The terms 'pottery assemblages'[40] or 'pottery deposits'[41] are also used, but the contents of pit A differ from those by the fact that no complete vessels were buried and that the deposition of the ceramics was not carefully arranged. It should also be noted that, except for the quern fragments, no other imported items were present in the deposit. The ceramics certainly seem to be locally produced. A remarkable artefact is a shoulder beaker (type 16) belonging to the group RSFO style, the only find recorded in Flanders. Other pottery belonging to the RSFO style is predominantly found in Urnfield cemeteries[42]. To be noticed is also the miniature vessel. These miniatures are sometimes interpreted as toys of children[43], but in other European regions sometimes generally associated with the ritual sphere[44]. In northern France, they are mostly discovered in settlement contexts from the Late Bronze Age (Bf IIIb) and the Early Iron Age[45]. However, at the cemeteries of Sint-Gillis-Waas/Reepstraat and Temse/Veldmolenwijk, miniature vessels were deposited in three cremation burials, from the Late Bronze Age[46]. Other miniatures are found in ritual contexts dating mostly to the Iron Age and the Roman period, but they are predominantly small metal versions of real artefacts[47]. In the Bronze Age cave of Han-sur-Lesse, a number of small bronze miniatures was deposited in the river[48]. The other pottery fragments all belong to local types. Except for the RSFO beaker and the miniature cup, no especially valuable, unique or strangely decorated items were found[49].

The cremation of the (at least partly) butchered remains of two animals (even regardless of the possible former presence of other, unburned or less burned animal bones) also contradicts an interpretation of ordinary, daily consumption refuse. The calcined bone from pit A cannot represent parts of food items that were accidentally burned on a small fire. For that, the total weight is too high (almost 5 kg) and the white colour must be the result of deliberate, prolonged cremation at high temperatures instead of accidental charring. Other functional interpretations can also be ruled out. Burning consumption refuse (e. g., for hygienic reasons) would not require cremation temperatures[50], and the elimination through fire of the danger presented by the corpses of animals with contagious diseases is highly unlikely, given the processing marks on the bones. Bones can have been used as fuel, making a fire last longer[51], and the result of such practice coincides with the characteristics of the assemblage from the Siesegemkouter: high degrees of calcination and fragmentation, and, subsequently, a low identification level[52]. However, in such a scenario a selection of the bones would probably be expected (favouring larger pieces), in contrast

38 Gale/Cutler 2000.
39 Pits with abundant finds, see, *e. g.*, Van den Broeke 1980, Van Hoof 2002, 84–87.
40 For the late prehistory of the Netherlands: Gerritsen 2003, 84.
41 For North and Central European Bronze Age sites: Horst 1977; Baron 2012.
42 De Mulder 2013, 240.
43 Baxter 2005, 47.
44 Kleibrink 1998.
45 Henton 2017, 109.
46 De Laet *et al.* 1958.
47 Kiernan 2015.
48 Warmenbol 2001.
49 *Sensu* Wells 2016.
50 Costa 2016; Costamagno *et al.* 2009; Dibble *et al.* 2009.
51 Théry Parisot *et al.* 2005.
52 Costamagno *et al.* 2009.

to the presence of skeletal elements derived from all parts of the animals' bodies, as observed from pit A.

In any case, pit A is associated with the prolonged burning of animal remains. The processing marks on the cattle bones suggest that the animal was skinned and that the horns were cut away from the horncores. Most probably the meat has then been consumed, but that cannot be proven. Eventually, the animal remains were burned and deposited with and above the charcoal. Pottery and a (set of) quern(s) must have been smashed and the sherds (some of which came into contact with fire) were buried, partly with bone and charcoal in layer I-162, partly – again together with calcined bone – above the charcoal layer (I-57). Some seeds were also included in the deposition but their small number suggests that this happened accidentally.

Altogether, the atmosphere of a feast comes to mind, an event after which the vessels used were deliberately destroyed. In a later cleaning operation, remaining bones were burned on a bonfire, after which the charcoal and calcined bone fragments were buried in a pit, together with the pottery sherds. Smashing the pottery and quern can be seen as a form of offering, a practice that is known from many cultures and periods[53]. If communal eating is accepted as origin for the deposition, it can be inferred that, given the large amount of pottery discarded and the slaughtering of two animals, a numerous group of people must have been present.

This interpretation is only a first step. The important question remains in which cultural context, and on what occasion, this series of events took place. For a funeral connotation, evidence is absent as human remains are lacking from the assemblage. Of course, it cannot be excluded that associated human burials were present in the parts of the site that were destroyed through recent loam extraction, but pit A, with the remains of a separate 'animal cremation', certainly does not resemble funerary contexts known from the region and the period[54]. Other interpretations must be sought; an investigation helped by a closer look at the possible symbolic meanings of the different find categories.

Whether the animal species present in the assemblage from pit A bore any symbolic connotation is difficult to answer. Cattle and pig could have represented the most common meat suppliers for the site. Unfortunately, it should again be noted that the archaeozoological record for the Bronze Age in Flanders is so poor, that any idea about the species' composition and frequencies of animals in the consumption refuse of habitation sites, is completely lacking for the region[55].

The charcoal from pit A mainly derives from tree species that are fruit-bearing (wild cherry, blackthorn, apple family, elder) or produce nuts (hazel, beech, oak). Whether this refers to a symbolic meaning (e. g. fertility) remains unclear, as most of these trees also provide excellent firewood and can thus have been selected for that reason. A clear interpretation is hampered by the lack of survey studies of firewood use during the Bronze Age in Flanders[56]. This is equally true for the Iron Age[57]. For the Roman period, an overview has been published[58], showing that for funeral pyres, mostly oak, beech and alder were selected, while charcoal assemblages from domestic contexts show a much higher taxonomic diversity, reflecting a more opportunistic selection of fuel. In general, charcoal from wild cherry type, blackthorn type or apple family never reaches 5 % in Roman sites from Flanders, except in the case of a single cremation grave from Menen, where the percentage of wild cherry type exceeds 50[59]. Also, the charcoal assemblages of the few Bronze and Iron Age cremation graves that have been studied generally show a very low taxonomic diversity and are heavily dominated by either oak or alder[60]. Iron Age charcoal kilns contain almost 100 % oak charcoal[61]. As another functional alternative to the interpretation as selected firewood, the charcoal from pit A can partially have derived from the wood that was attached to the burned loam fragments, as part of wattle and daub constructions.

A number of the cultural artefacts found possibly had a meaning that goes beyond discarded refuse. The burned loam, spindle whorl and quern fragments (and a loom weight in pit D) refer to the concept of the house and the activities that took place in that area[62]. Weaving (producing clothing) and processing food are essential activities, which, without doubt, had a deeper symbolic significance. Since Neolithic times, querns are symbols of the harvest and fertility[63], but through time their meaning has broadened. Watts[64] states that querns can eventually

53 The 'ritual killing of artefacts': Chapman 2000.
54 De Mulder 2014.
55 Ervynck/Lentacker 2020.
56 Deforce 2020a.
57 Ibid.
58 Deforce/Haneca 2012.
59 Dhaeze *et al.* 2015.
60 Van de Vijver *et al.* 2019a; 2019b; Verbruggen/Lange 2017; Annaert *et al.* 2012; Deforce 2007.
61 Draily/Deforce 2019.
62 Van Hoof 2002, 86.
63 Watts 2014a.
64 Watts 2014a, 63.

be representative of gender and womanhood, harvest and plenty, desolation and famine, life or death, transformation, the world or the heavens, people and places. From archaeological, historical and ethnographical examples it is known that quern and millstone deposits are a cross-cultural diachronic worldwide phenomenon[65]. Whether the assemblage of pottery reflects the tableware, cooking pots and storage vessels specifically used for preparing and consuming a particular feast, is a possibility but remains unsure. Perhaps the assemblage simply consists of the vessels belonging to a household at a given moment in time, or, alternatively, was carefully selected to be broken and deposited in pit A. The interpretation is certainly hampered by the fact that there is no good view on the composition of the ceramic artefacts usually present in a Late Bronze Age household due to the limited finds of waste pits, which also normally only contain small numbers of pottery fragments[66].

Accepting that probably some more perishable finds have disappeared from the archaeological record, the house (as a concept) seems to be central in the construction of the deposit in pit A. The cultural artefacts represent a *pars pro toto* for the house and its activities[67], and even the domestic animals can fit in that framework, especially because animals and people were living under the same roof in the Bronze Age longhouses. The firewood could have been selected for a pyre, but could also partly derive from the branches that were part of the wattle and daub walls of the house. The major construction wood from the load-bearing structures was not the main supplier of the charcoal assemblage, as, in that case, it would probably consist primarily of oak. Oak wood has the highest durability of all native wood taxa and is therefore the best suited wood for timber[68]. In pit D, oak dominated the charcoal assemblage but this could also be the result of a selection for firewood.

As the assemblage clearly shows an element of destruction or 'cleaning up' (shattered pottery, burned loam and cremated animal remains) and refers to the concept of the house, an interpretation as a closing deposit, the result of an abandonment ritual associated with the end of the habitation phase of a house, must be considered as a possibility. This phenomenon has been described for Iron Age sites in the southern part of the Netherlands and in Hainaut (southwestern Belgium)[69]. As typical characteristics, the presence of a large number of burned ceramics, burned loam, charcoal (all referring to the destructive but purifying function of fire), next to the deposition of querns, spindle whorls or loom weights, are mentioned[70]. However, although the assemblage from the Siesegemkouter shares an impact of fire, it differs by the fact that most of the sherds remained unburned, and by the presence of a large volume of cremated animal bones.

Another theoretical framework proposed for assemblages as the one excavated at Siesegemkouter is that of 'site maintenance practices', all ritual acts taking place in and around settlements that served to ensure the well-being of the settlement and its inhabitants[71]. Depositional practices, such as closing deposits, are one form of site maintenance practices, but they are not the only one. Site maintenance practices could accompany the renewal of part of the house, possibly involving the burning of fragments of the old walls that had to be replaced, and the offering (destruction) of the remains of a festive meal.

Finally, it should be questioned whether the figure of eight form of pit A (and also pit B) is only functional or contains a symbolic meaning in itself. Other pits from the late prehistory of the Low Countries, with clear 'special' contents, show the same form[72], but it would need a complete review of the archaeological record to see whether pits with these figure of eight contours not often just show 'ordinary' contents.

Evaluation at site level

If the interpretation of the deposit in pit A as associated with the history of a house holds true, the question arises whether the excavated house plan can be linked to it. The datings of charcoal from the features belonging to the house are much older than that proposed for the fill of pit A, but the former only represent a *terminus post quem* (see earlier). The abandonment of the house can thus have coincided with the deposition in pit A, although the former can equally have happened earlier, or even later, than the latter. The chronology established certainly does not help to discriminate between a closing deposit or another type of 'site maintenance practice'.

Pit B is located close to the house plan and to pit A, and has a similar layout. However, whether this feature had a depositional story comparable to pit A remains

65 See, *e.g.*, Peacock 2013; Watts 2014b.
66 De Mulder/De Wandel 2007, 20.
67 Van Hoof 2002, 86–89.
68 Gale/Cutler 2000; Deforce 2017.
69 Van Hoof 2002; Van den Broeke 2015.
70 Van den Broeke 2002; 2015.
71 Brück 1999, 334–335; Gerritsen 2003, 82.
72 *E.g.*, Van den Broeke 1980, or Dyselinck *et al.* 2009, see further.

unclear. A radiocarbon date suggests a younger origin for pit B albeit that the radiocarbon dates of both features are rather close. As the contents of pit B are poorly preserved, they shed no further light upon possible ritual depositions on the site. The same is true for pit C, which could possibly represent an older deposition, although the dating remains unsure (see earlier).

Pit D differs in form from pit A but contained a similar find assemblage. However, radiocarbon dates obtained from charcoal and cremated bone demonstrate a much older origin for this feature (Middle Bronze Age B). The formation process of the fill of pit D possibly reflects the same cultural framework as that of pit A, but the spatial distance from the house plan most probably contradicts a link. Unfortunately, pit D has been excavated in Zone II, a small plot where possible relations to archaeological features nearby have been lost. It should be stressed that the charcoal assemblage from pit D does show a marked difference with that from pit A. Possibly the burned remains of construction wood (especially oak) ended up in feature D, although a strict selection of firewood could also explain the composition of the charcoal assemblage. Unfortunately, pit D did not yield identifiable animal remains to compare with those from pit A.

Regional and broader comparison

Very few examples of Bronze Age ritual deposits (archaeological contexts deviating from the ordinary dumping of consumption refuse) are known from Flanders, except for the well-known bronze hoards thrown in the rivers[73]. In some cases, such as a number of depositions of loom weights, a symbolic connotation must be inferred, although the topic remains unexplored[74]. At Temse/Frankrijkstraat a circular feature was excavated which contained cremated human or animal bone and teeth from an animal, and also 300 sherds belonging to at least 6 handled cups and pots next to a loom weight. A ^{14}C-date (RICH-20299: 2745±32 BP) placed this structure into the Late Bronze Age (978–950 or 936–814 BC)[75]. The most striking parallel for the Siesegemkouter finds comes from excavations at Lanaken, where a pit with a figure of eight form contained a large quantity of unburned pottery sherds, natural stone fragments, burned loam fragments, and cereal grains. The majority of these finds, dating from the Late Bronze Age, most probably 980–910 BC, was deposited amidst a concentration of charcoal, in the middle part of the fill of the pit[76]. A difference with pit A of the Siesegemkouter, however, is the absence of cremated bone. At Oud-Turnhout, a supposed well contained a charcoal-rich layer with fragmented pottery. Underneath this layer three complete pots had been deposited. This structure has been dated to the Early Iron Age[77].

In the central and southern part of the Netherlands, contexts interpreted as closing deposits (see earlier), involving fire, are known from a rare example from the Late Bronze Age, but they are much more common in sites dating to the Iron Age[78]. They mostly consist of deposits of burned ceramics and loam fragments in postholes, but similar assemblages have also been found in pits[79]. This kind of deposit is also found in Friesland, in the north of the Netherlands, but not always in relation to a house context[80].

Next to the Netherlands, examples come from abandoned silos excavated in the central Belgian loam area, Germany, and northern France[81]. A recurrent pattern is a structured stratigraphy and the combination of a large volume of burned pottery sherds, burned loam, quern fragments, charcoal, and often also spindle whorls and loom weights[82]. At Momalle (Remicourt, Belgium), an Iron Age round pit was excavated in which a layer of burned loam fragments was deposited upon a concentration of charcoal. Amongst the loam fragments, two horse jaws were found[83]. At Vaux-et-Borset (Villers-le-Bouillet, Belgium), located at 15 km from Momalle, a large volume of ceramics and 30 kg of daub was found in an Iron Age silo[84]. At Lafelt (Riemst, Belgium) a similar structure contained c. 400 kg of burned loam[85]. Closer to the Siesegemkouter, a parallel from the Iron Age was found at Appelterre – Kapittelstraat (Ninove, Belgium), where a large quantity of burned ceramics, charcoal, burned loam, and minute fragments of cremated bone was deposited in a number of pits, and in the postholes of a granary from the Early Iron Age[86].

In England, prehistoric contexts with animal-only cremation remains are extremely rare. A single example, from

73 Verlaeckt 1996.
74 Van den Dorpel *et al.* 2018, 39.
75 Van Neste/Van Vaerenbergh 2012; De Mulder 2016.
76 Dyselinck *et al.* 2009, 39; 45; 140.
77 Cryns 2010.
78 Van den Broeke 2002.
79 Van den Broeke 2015, 95.
80 De Vries 2016, 97–99.
81 Van Hoof 2002, 83.
82 Gerritsen 2003, 97–102.
83 Destexhe 1986.
84 Van Assche 1991.
85 Pauwels *et al.* 2000, 48.
86 De Maeyer *et al.* 2015, 151.

the Late Neolithic (SUERC-89308: 4158 ± 21 BP), is the fill of a small pit with the structured deposition of worked flints, charcoal, and calcined bones of cattle and sheep, excavated at March Road, Wimblington, Cambridgeshire[87]. In England, the first millennium BC in general sees the appearance of middens, which contain a huge amount of fragmented pottery, quern stones, and bones with marks of slaughter, but these middens are merely interpreted as the leftovers after the gathering of large communities[88].

On a wider geographic scale, comparable contexts from the Iron Age have been found in the Alpine region. They are composed of charcoal, calcined bone and broken ceramics, interpreted as remains of the use of altars for cremation offerings[89]. A number of examples are also known from the foothills of the Jura mountains in Switzerland, but they date back to the end of the Middle Bronze Age. The assemblages were buried in pits and are described as the remains of collective meals, containing plant and animal remains, sherds of large storage vessels and tableware, loom weights and fragments of querns[90]. The same pattern of deposited material has been ascertained in a Late Bronze Age pit in Aargau, which was also interpreted as the remains of a feast[91].

Conclusions

Pit A and pit D excavated at the Siesegemkouter show resemblances with the Iron Age case studies cited, but are peculiar because of their early (but not simultaneous) date (Bronze Age) and especially through the presence of animal remains. In the clearest case (pit A), these are the result of the cremation of the remains of two complete animals. The mixing of their remains with the other find categories illustrates that they are part of the same structured deposit. The deposition is clearly related to 'the house' as a concept (not necessarily represented by the house plan excavated), but its exact symbolic meaning, closing deposit or another site maintenance practice, remains hidden. Pit B having a date comparable with pit A (Late Bronze Age), could have had a similar meaning, but is not well preserved. The latter is also true for pit C for which the dating remains vague.

Possibly, these Late Bronze Age features (pits A, B and D) are the rare forerunners of a ritual that became much more common in the Low Countries during the Iron Age. In the case of pit D, this feature would represent a very early example from the Middle Bronze Age B. More examples, sampled and studied within an interdisciplinary approach, will reveal the relevance of the finds from Aalst within a wider Northern European framework of the development of ritual behaviour in the Bronze and Iron Ages.

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