

THE PIEPENKOPF HILLFORT,
NORTH - RHINE WESTPHALIA,
GERMANY:
AN INTERIM REPORT ON THE
2018-22 EXCAVATIONS



By

I. Dennis and O. Davis

With contributions by Grace Hewitt and Dana Challinor

CARDIFF STUDIES IN ARCHAEOLOGY



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1. Introduction

The project was initiated in 2017 at the Westphalian hillforts of the Grotenburg and Piepenkopf and was a pilot scheme intended to build upon existing collaborative working between Lippisches Landesmuseum Detmold (LLM), Germany and Cardiff University (UK). The aspiration was to link the theoretical approaches to Iron Age hillfort studies across Europe and enable comparative analysis between different regions. In the summer of 2018 additional excavations were undertaken at the Grotenburg and Piepenkopf hillforts, while in 2019 and 2022 further excavations were continued on the Piepenkopf.

The hillfort of the Piepenkopf was declared a listed monument in 1941 after Forest Warden Köster brought it to the attention of the authorities in 1933. The excavation of three trenches (Schnitt I-III) in 1939 had to be abandoned due to the outbreak of World War II. A quartzite quarry was dug inside the hillfort in 1942. Protests were ignored because the material was declared “kriegswichtig” - important for the war effort (Hohenschwert 1978, 87), and approximately 0.5 ha of the 7 ha central fort were destroyed. In 1966 Hohenschwert cleaned up and re-recorded Schnitt I from 1939, placed a new cutting, Schnitt IV over the south-east corner of the rampart (to investigate the possibility of an entrance due the gap in the outer palisade) and redrew all the plans and sections, including Schnitt III across the outer boundary. These were published in the late 1970s along with photographs (Hohenschwert 1978). A single radiocarbon determination was obtained from a charcoal sample recovered from a posthole in Schnitt IV. This produced a date of 390-200 cal. BC (68.3%), but it is unclear if this is related to the beginning, middle or end of Iron Age activity at the site. Until the commencement of this work in 2017 there had been no further excavations (Fig 1.)

This interim report details the findings of three four-week excavations carried out at the Piepenkopf in 2018, 2019 and 2022. This was a continuation of work from 2017 which is aiming to establish an important chronological framework for this hillfort and enhance our understanding of the construction and use of the site. It is part of a broader scheme to investigate and characterise several hillforts in the Lippe region of Westphalia including the hillforts of the Grotenburg, the Herlingsburg and the Rodenstatt. All this work is a collaboration between Cardiff University (UK), Lippisches Landesmuseum Detmold (LLM), Landesverband (LLB) German, with

the aspiration to link the theoretical approaches to Iron Age hillfort studies in Germany and the UK.

In total, seven trenches have been opened at the site over the course of four seasons of investigation. The fieldwork was directed by Mr Ian Dennis and (Cardiff University) and Dr Johannes Muller-Kissing (LLM) in 2017, 2018 and 2019, and by Mr Ian Dennis in 2022.

This report summarises the results of the excavations and includes the stratigraphic sequences recorded in all of the seven trenches. The various specialist reports (e.g. charcoal, pottery, C14 dating) are currently in preparation and are not presented in detail here, although basic lists and counts of finds are provided.

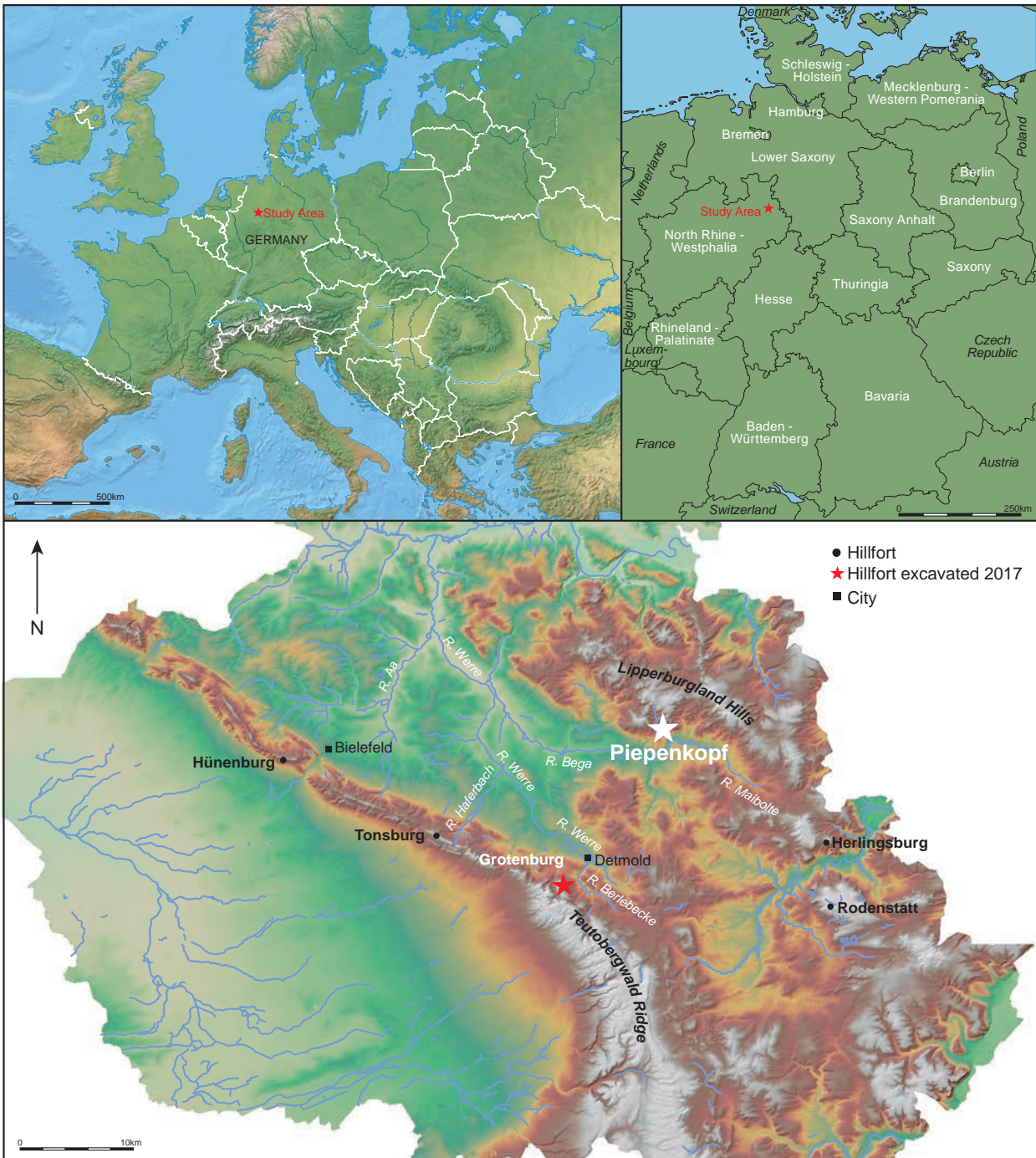


Fig 1. Location map showing the study area and the location of the Piepenkopf hillfort

2. Research Background

A detailed consideration of the background to this research was provided in the previous interim report (Dennis et al. 2018) and therefore only a brief statement will be provided here.

The Piepenkopf Hillfort is located on the Lipper Bergland Hills. It occupies a triangular-shaped promontory with steep slopes on the northern, western and southern sides, and a relatively gentle sloping ascent on the east. The hillfort encloses around 7 ha in total and is defined by two closely spaced inner ramparts on its eastern and southern sides, and a third, outer rampart, around 20-30m beyond the inner boundaries. Early plans of the site show the inner rampart running continuously around the promontory, but there is no surviving upstanding evidence of it today along the steep northern edge. The middle rampart is set approximately between 4 to 10m

in front of the inner boundary. For much of the circuit it closely follows the course of the inner rampart except at the north-eastern corner where it splays out to form a large polygonal enclosure or annexe (Fig2. RouvenMeidlinger https://commons.wikimedia.org/wiki/File:Piepenkopf_Gel%C3%A4ndemodell.jpg 2021). The outer rampart is a relatively ephemeral feature and survives as little more than a terrace. Running from the western tip of the promontory it takes a much wider circuit than the inner and middle ramparts across the southern and south-eastern slopes of the escarpment before kinking to the north-east and joining with the eastern edge of the annexe. The position of the original entrance is unclear, but it is most likely located in the north-eastern corner where the boundaries are at their most complex and elaborate. The entire site is under dense mature woodland and crossed by forestry tracks, even so a number of terraces, possibly

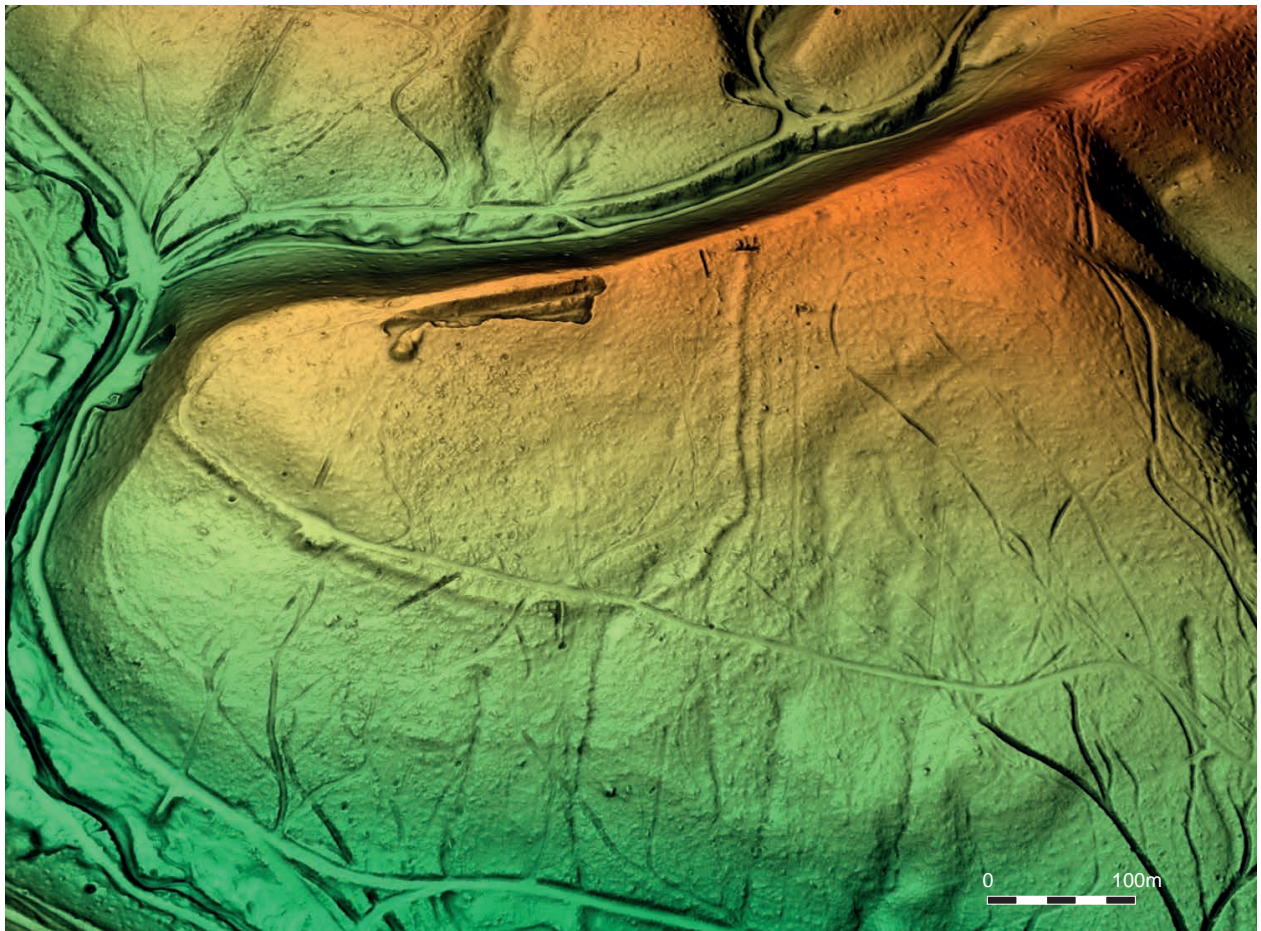


Fig 2. LiDAR image of the Piepenkopf showing the two outer enclosures and the main rampart (Rouven Meidlinger 2021).

platforms for buildings, are noticeable within the interior of the hillfort. A spring emanates in the south-east corner of the hillfort and flows out across the inner and middle ramparts which appear to deviate course at this point in order to incorporate the spring within the hillfort interior.

The hillfort has been previously excavated twice. In 1939, Nebelsiek opened three cuttings across the inner and middle ramparts (Schnitt's I-III). He identified an apparently single-phased inner rampart constructed of stone, earth and timber and fronted by a shallow ditch. The timber work showed some evidence of burning. The middle rampart by contrast was a timber palisade. Unfortunately, these cuttings had to be abandoned due to the outbreak of the Second World War and were left unfinished. In 1966 Hohenschwert returned to the site. He cleaned up and re-recorded Schnitt I and redrew all the plans and sections, including Schnitt III across the middle boundary (Hohenschwert 1978). He also placed a new cutting, Schnitt IV, over the south-east corner of the inner rampart. Within this cutting he identified a number of postholes at the front and back of the rampart and evidence of a burning event. He interpreted the rampart as being of a single phase with posts supporting a dry-stone front face and a timber wall at the rear. A single radiocarbon determination was obtained from a charcoal sample recovered from a posthole in this cutting, which has been taken to suggest the hillfort was constructed in the 3rd century BCE.

Despite these excavations there remains three key problems with the interpretation of the site. First, the structure of the inner rampart is not certain. Günther (1981), for instance, has postulated a two-phase construction. He argues that the posts at the rear of the rampart formed an earlier, simple, post and plank wall, which was replaced by an earth and stone embankment fronted by a timber-post and stone-revetment. Second, the dating of the site to the 3rd century BC is problematic. It is based on a single date from an isolated feature, which does little to elucidate the relative construction sequence, and absolute chronology, of the inner, middle and outer ramparts. Third, the nature and date of occupation and activity within the interior of the hillfort has not been addressed. This is crucial in order to understand the relationship between the hillfort and its surrounding landscape.

3. Excavation Aims for 2018, 2019 & 2022

The Piepenkopf excavations for 2018, 2019 and 2022 were designed to continue the examination of the ramparts and evaluate the nature of surviving features and deposits within the hillfort interior. The overall aims were:

- To better understand the structural nature of the inner and middle ramparts.
- To confirm the presence or absence of the inner rampart along the northern edge of the escarpment.
- To evaluate the nature of any surviving occupation features and deposits within the hillfort interior.
- To obtain palaeo-environmental samples from the waterlogged soils around the spring
- To obtain further dating material to help fix the construction, use and abandonment of the site.

4. Excavation Methodology

All excavation was conducted in compliance with the standards described in the Chartered Institute for Archaeologist's (CIfA) Standard and Guidance for Archaeological Excavations (www.1), except where they are superseded by statements made below.

4.1 Excavation and recording

All invasive investigations of archaeological features and deposits were conducted by hand using hand tools and recorded using the single context recording method. To achieve this, the standard Cardiff University recording systems were used: all contexts and features were recorded using standard pro-forma context record sheets; a record of the full extent in plan of all archaeological deposits encountered were made (1:20); appropriate sections were drawn (1:10); the OD of all principal strata and features were indicated on appropriate plans and sections. Complex structured deposits were planned in greater detail (1:10 or even 1:5). A full photographic record was maintained.

4.2 Sampling strategy

A structured programme of environmental sampling appropriate to the aims of the project was implemented and carried out to standards described in the English Heritage Centre for Archaeology Guidelines, Environmental Archaeology (Campbell et al. 2011).

Bulk soil samples for plant macro fossils, small animal bones and other small artefacts were taken from appropriate well sealed and dated/datable archaeological contexts or features associated with clearly defined structures. Samples of between 10-20 litres were taken or 100% of smaller contexts. Spot samples of charcoal-rich contexts were also taken.

Bulk samples were processed by standard flotation methods. The flot was retained on a 0.5mm mesh, with residues fractionated into 10mm and 2mm fractions and dried. Coarse fractions (>10mm) were sorted, weighed and discarded, while finer residues were retained for further analysis.

4.3 Radiocarbon dating

Samples derived from bulk and spot samples will be sent for radiocarbon dating. These will be obtained only

from suitable contexted single entity samples (articulated animal and human bone, discrete and distinctive carbonised plant samples and carbonised residues from diagnostic and stratified ceramics).

4.4 Environmental sampling

Where waterlogged features were encountered during the excavation a monolith was taken along a cleaned vertical surface for the retrieval of pollen.

4.5 Treatment of finds

All archaeological finds from excavated contexts were retained, marked, bagged and boxed in an appropriate manner. Any finds requiring conservation or specific storage conditions were dealt with by Cardiff University conservation staff.

5. The Excavation 2018–2022

In total seven trenches (1-7) were opened between 2018 and 2022. The excavation conditions were variable. In 2018 they were very hot with two weeks where the excavation had to start at 6am and finish at 1.30pm to avoid the excessive heat. There were very similar conditions in 2019 and 2022 for nearly three weeks in each season, with very little rain.

Archaeological features and all finds, when identified, were surveyed in using a Leica TS06 Flexline Total Station. All trenches were located in coniferous woodland apart from trench 5 which is in the newly planted deciduous woodland area towards the east of the hillfort. The soils at the Piepenkopf hillfort are extremely acidic, therefore there is no organic/bone or metal preservation, only ceramic and burnt deposits (charcoal) survive.

5.1 Trench 1

Trench 1 was located cutting across the inner rampart on the north-eastern side of the hillfort and extended north. This expanded upon Schnitt II from the 1939 excavations by Nebelsiek (Hohenschwert 1978), which had been left open due to the outbreak of the Second World War and re-recorded in 2017. One of the aims of the excavation was to continue the 2017 excavation and recording. Trench 1 was expanded north over the rampart to explore the possibility of an entrance to the hillfort and obtain further information for possible earlier construction phases. After cleaning back and recording, it was apparent that the rampart was more complex than originally anticipated, with features and deposits of potentially more than one phase. However, the narrowness of the cutting, combined with the disturbance and removal of rampart material during the 1939 excavations, meant that it was difficult to understand its nature. Therefore, in 2018, 2019 and 2022 the trench was expanded 12m to the north, and 14m to the east and west (Fig 3) into areas undisturbed by previous archaeological activity. The specific aims were to:

- Fully characterise the structural sequence.
- Recover further dating material.
- Confirm whether an external ditch existed at this point along the rampart circuit.
- Examine the possibility that the rampart terminated at the point where the modern road encroaches upon it and whether this represents an original entrance into the hillfort

Natural deposits

001, 002, 004, 007, 013, 016, 055, 058

In certain areas of the trench, it has been possible to excavate to the natural bedrock (016) and to the gravel type marl (007). This has shown that even in this relatively small area of the hillfort the natural deposits undulate irregularly. In many places the natural has weathered to a compact orange-brown silty sand (004/013/015/020/055). To the east of the rampart/wall, further excavation was implemented to investigate the possibility of an associated ditch towards the front of the wall. After extensive excavation no evidence was found for an outer ditch, and it was demonstrated that the natural bedrock (058 = 016) outcrops just below the modern topsoil (001, 002) (Fig 4 A & B).

The buried soils and degraded sub-soils

008, 011, 015, 019, 020, 036, 047, 060, 105

Sealing the weathered natural deposits in trench 1, and at various locations, is a thin layer of light creamy-buff-yellow sandy clay (008/011/019/047/060/105). These contexts are best interpreted as buried soils or the original Iron Age land surface. Context (047) found towards the bottom of the 1939 trench near the base of the rampart (030) is a very compact creamy-white-yellow deposit with charcoal flecks. This requires further excavation to determine if it is an old Iron Age surface from the rampart construction, possibly a result of quarrying for stone in the, or a deposit that relates to the 1939 excavation. Context (036) is a light-brown-yellow, mottled colour that is compacted and probably the original Iron Age surface. It is east of the rampart, directly in front of the large outer wall stones. Six sherds of pottery were recorded from this context, with one sherd partially sealed under one of the large frontal stones.

Earlier activity

025, 050, 060, 061, 062, 069, 075, 076, 198

There is a discrete large feature [197] and (198), possibly a pit, at the base of the baulk towards the southwest of the rampart (Fig 5). This feature is capped by a white-yellow clay (008, 076), and cuts context (015, 020). Further excavation in 2023 will more fully characterise

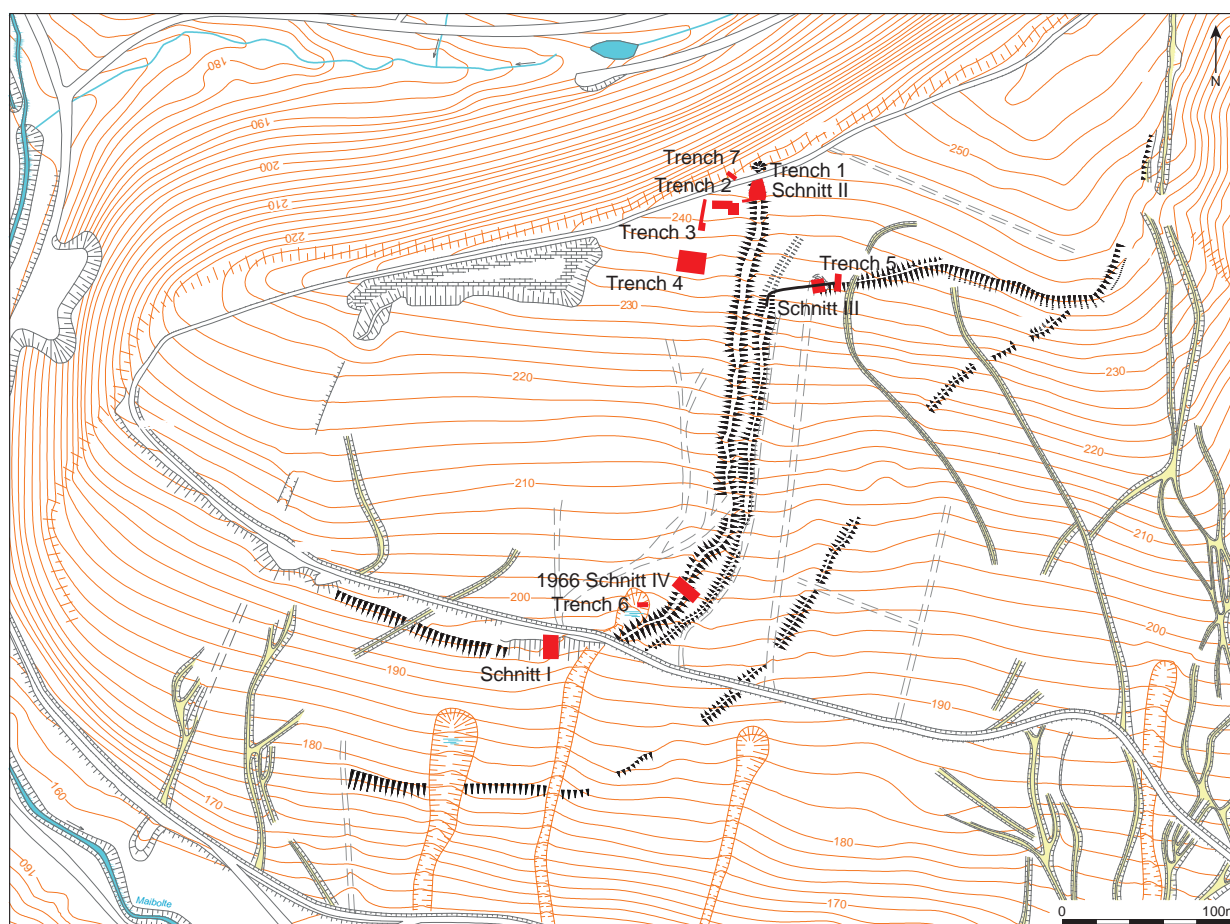


Fig 3. Topographical map and trench locations from the 1939, 1966, 2017 to 2022 excavations of the Piepenkopf. Cardiff University and Lippisches Landesmuseum Detmold (LLM).

this feature. Context (060) is a yellow-white compact clay directly located behind the rampart and is sealed by context (50). Context (50) is also located directly behind the back of the rampart revetment (195). It is a distinctive rectangular yellow-white-loose gravel patch that overlies context (060). It is unclear what this unburnt deposit represents. It was clearly visible after the removal of the upper layers of the burning contexts (044 and 045) and may have supported a structural element of the rampart at the back. It was investigated with a small sondage and half sectioned to characterise the deposit. It contained context (062) a circular charcoal rich deposit, which is thought to be a small burnt post and could be associated with post (061) from an earlier phase. Cutting this deposit is a small post (061) which has a dark yellow-ash-white fill rich with charcoal. This post may be from earlier activity within the immediate location, and burnt in-situ, as it is sealed by context (050) and currently has no proven relationship to the posts or stakes that are associated with the wooden structure behind the wall, or the burning event (Fig 6).

To the south approximately 4m and 2m southwest of post (061) are another two possible postholes (025) and (069) that may also be from an earlier phase or activity. Post (025) was found in 2017, (Dennis et al. 2017, p25-26).

This was circular in plan, 0.14m in diameter, and filled by a light brown-grey silty deposit with charcoal flecks. It cut deposit (019) and (020) and was overlain by context (044) which was a burnt rich charcoal deposit. Post (069) is located around 3m to the north-west of post (025). It is approximately the same size and with a similar fill to that of post (025) and was overlain by context (037). Further excavation is required to see what context this feature cuts. Further to west of post (069) is another possible post hole (075). It is located at the bottom of the baulk that runs west to the east across trench and overlies or cuts the possible pit [197] (see Fig 5). It is sub-rectangular with vertical sides a flat base. It contains stone packing and the degraded remnants of a post in the section leaning to the west. It is similar to posts (025 and 069) in that it appears to have rotted in-situ.

The rampart.

029, 030, 034, 036, 038, 047, 051, 053, 055, 072, 073, 081, 182, 194, 195, 196, 200

The majority of the deposits within all of Trench 1 are yellow buff or yellow ochre in colour, varying in compaction, from hard to loose with some orange mottling. This made it difficult, especially on bright



A



B

Fig 4. Photos after the removal of the topsoil on the eastern side of the wall in trench 1, exposing the tumble and natural sandstone outcrop, image A, and the natural soils, image B.

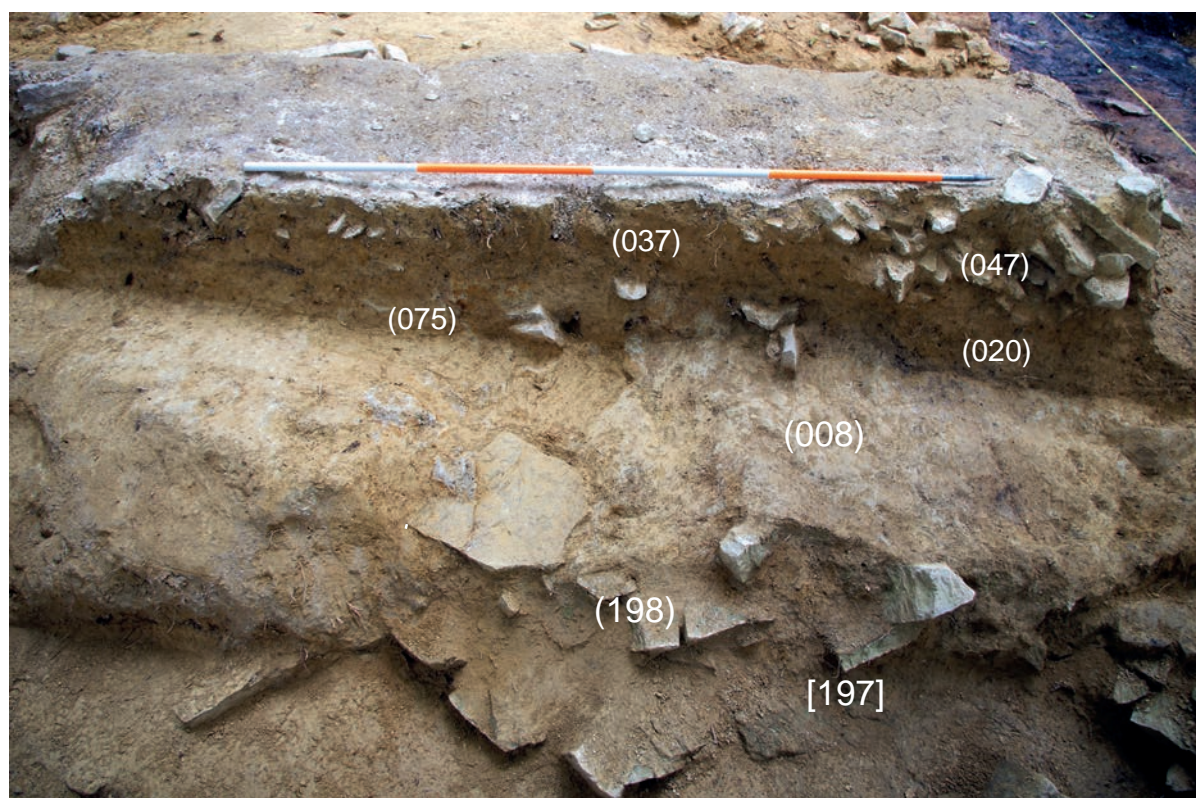


Fig 5. Feature [197] possible large pit with rubble fill.



Fig 6. Burnt stake (61) in context (60) which is below the main burning episode (44/45) and sealed by a gravel patch (50).

sunshine affected days, to identify subtle colour changes and distinguish between contexts except for obvious burnt contexts directly at the back of the wall. Trench 1 currently appears to be a single-phase rampart, although further excavation in 2023 may reveal evidence of an earlier phase. The trench is divided by the stone wall/features contexts (029), (030) and (194) (Fig 7.). Cut (196) is the foundation trench for the rampart wall. This was very difficult to identify and is possibly up to 2m deep but its dimensions need to be confirmed in the planned 2023 campaign. It contains all the contexts associated with the rampart foundation and construction elements. It cuts context (036, and 051/053) which is a loose but slightly compacted deposit below context (036). Context (051/053) consists of small and medium, angular stones, it is yellow grey in colour and lies directly over (055) a loose gravel type deposit, yellow-grey in colour – best interpreted as natural degraded gravels.

The earliest deposit that may relate to the construction of the rampart is (034). This consists of medium-sized angular stones that appear to cut the bedrock (016) and is possibly a rubble hard core foundation for the construction of the rampart. The deposit has been cut and partially removed by the 1939 excavation Schnitt 3 (Fig 8). This is overlain by deposit (195) which is slightly reddish yellow in colour with small to medium angular stones and earth. It is ‘mound-like’ in appearance and may be an earlier phase or bank, although it is not visible in the south section of the 1939 Schnitt and may therefore be a localised construction/foundation deposit. This is overlain by contexts (030/073). These are light-yellow ochre deposits with small to medium-sized angular stones, represent a stoney earth fill for the middle of the rampart. This was cut by feature [181] (filled by (182)). This was first observed in 2019 in the east to west cross section (Fig 9) and thought to be a post hole from an earlier phase. Subsequent excavation in 2022 has shown this to be a continuous linear cut running north to south located towards the back the rampart. It sits directly on (195) and has a flat stoney base. It ranges from 0.2 m to 0.25 m wide and is up to 0.5 m deep. Stone packing for timbers is evident on either side of the cut (Fig 10.). This is best interpreted as a cut to support a continuous wooden palisade, that probably formed the rear of a box structure that would have been filled with stone and earth. This palisade slot is further supported by context (194) which represents a stone revetment at the back of the rampart. It consists of medium to large flat stones, running up to the palisade slot [181], (182).

The rampart wall (029) at the front of Trench 1, only has a single course of stones remaining in situ. This may be due to collapse, as there is a large spread of stone extending eastwards (confirmed with excavation in 2019 context (058)), or from the robbing of stone over time for other building purposes. Context (029) consists of large to very large stones associated with the

front of the wall and forms a stable foundation/footing for further courses of stone to increase the height of the stone façade at the front of the rampart. It is level with context (036). The large stones, context (029), extend westward into the rampart (approximately 1.5m) before terminating. They presumably act as stone packing for context [181] and (182).. There are two recesses in the front of the wall (Fig 11). The recess located towards the south part of the wall is 0.60m wide and 0.50m deep. This recess contained a large post cut ([38], context (039) that was 0.35 m in diameter, and cut 0.15m into the underlying deposit (036). Although shallow for a post of this size, the deposit (036) that it was cut into may have been truncated. It was seemingly rotted in-situ, as there was very little charcoal recovered. The character of this post is similar to posts Nebelsiek identified in Schnitt I, during the 1939 excavations. These are best interpreted as helping to support the front wall revetment and possible wooden palisade on top of the wall (Fig 12. Lippisches Landesmuseum archive. Hohenschwert 1978). The recess towards the north end of the rampart is 1.60m wide and 1 m deep. Within the recess is a very large flat flagstone (054) which is 0.90m wide and 0.70m thick, and roughly trapezoidal in shape. This is likely to have been a pad for a substantial timber post, which may have formed a load bearing structural element/feature for a gate/gatehouse entrance into the hillfort (Fig 13 & Fig 7).

Associated wooden structure, and post/stake holes (behind the rampart).

062, 063, 064, 065, 066, 067, 068, 070, 084, 086, 088, 090, 092, 094, 096, 098, 100, 102, 104, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 174, 041, 1200, 1202, 105,

Associated with the rampart construction immediately behind the stone revetment (194) are the burnt remains of fifty-two stake holes or small post holes (062 to 1204), and three larger posts (041), (1200), and (1202) (Fig 14 & Fig 7). They all cut into contexts (008), (105), (015), and (020), which represent the old ground surface and sub-soils. All the stake holes and posts were rich in charcoal, and all were sampled for selective future dating. Above and probably associated with the stake holes, were three burnt horizontal beams running west for 2 m away from the rampart samples 13 and 14 (Fig 15). They terminate adjacent to a large stone, as seen on plan (Fig 7). However, there is no direct relationship with the large stone, as it is set back from the beams and separated from them by context (037). These horizontal beams may represent the remains of a wooden ramp up to the wall. Immediately to the south of the stone is context (174), which is buff white in colour with occasional small flecks of charcoal. When the area is dry it is white and extremely compacted, but when damp it is yellow ochre in colour very similar to (037) and not compacted or hard. This deposit may be the

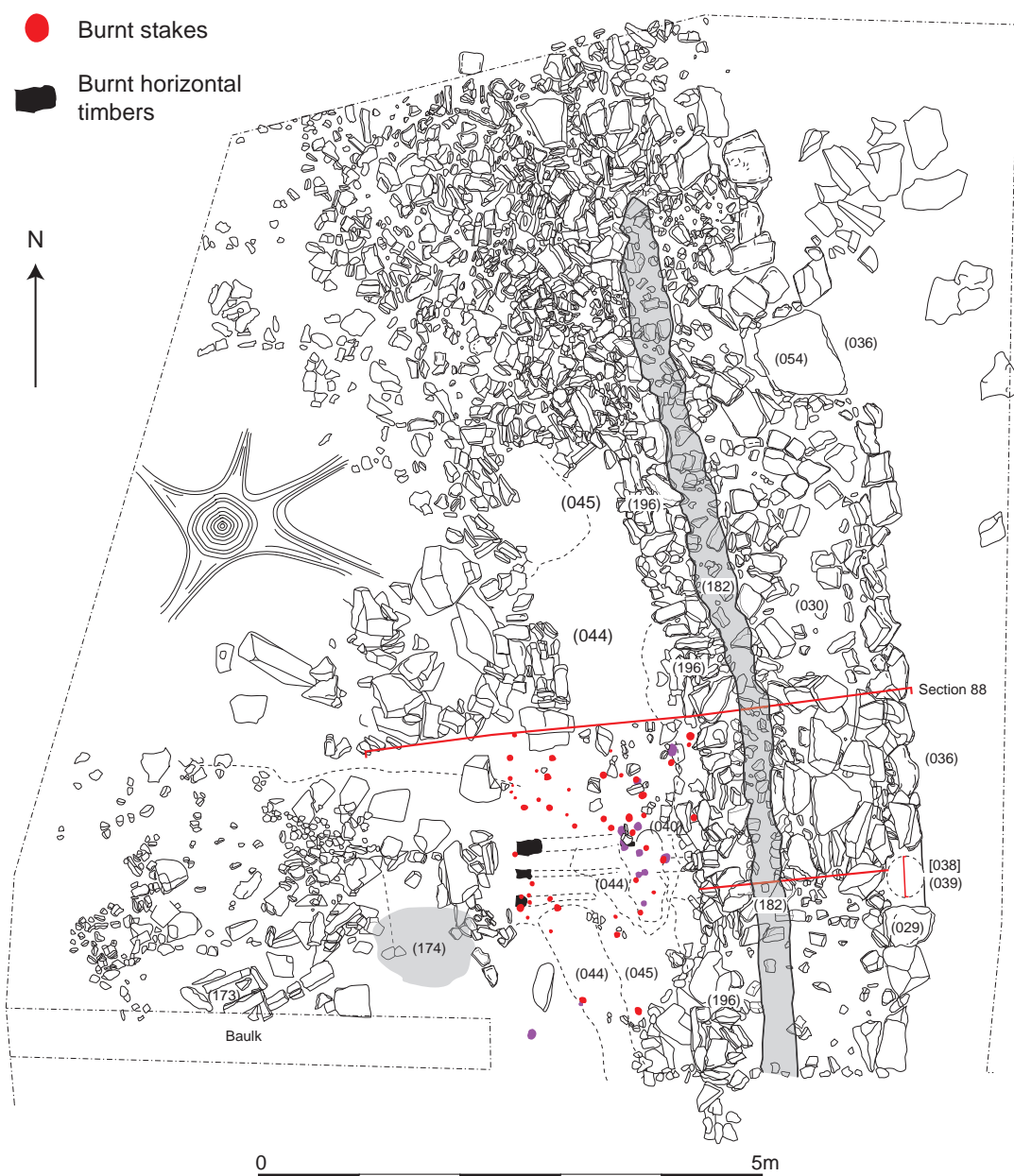


Fig 7. Overall plan of Trench at the end of the excavation in 2022, showing the wall, the palisade slot and associated features

remains of a compacted clay floor surface. Other charcoal deposits running north to south may be the remains of planking attached to the supporting beams, perhaps acting as a ramp to access the top of the wall. The beams and planking appear to have been fixed to the larger posts (041) and (1202)), using tapered wooden pegs. One has been recovered from the burnt context (044), along with a piece of burnt wood with a tapered drill hole, presumably designed to receive a peg, small find # 77 (Fig 16). The posts (041), (1200), and (1202) are best interpreted as supports for the ramp. Post (1202) is 2.5m from the ramp and positioned just behind the revetted wall at the back (194). These posts may also have had horizontal planking running between them, which may have helped support the back of the rampart. Hohenschwert's excavation of the rampart in Schnitt IV in 1966, (260m south of Trench

1) (see Fig 3), clearly shows on the plan at the back of the wall a line of posts approximately 1m apart, all burnt in-situ with further burning in between and around them., This again suggests horizontal planking to support the rampart wall at its rear (Fig 17. Hohenschwert, 1978).

Rampart destruction by fire.

017, 018, 037, 044, 045 and all previously discussed stake and post holes

Sealing these burnt timbers at the back of the rampart is context (017/044). It is dark grey black and consists almost entirely of burnt material and charcoal that varies in size from small flecks to large pieces (Fig 18). This deposit runs along the entire length of the Trench at the

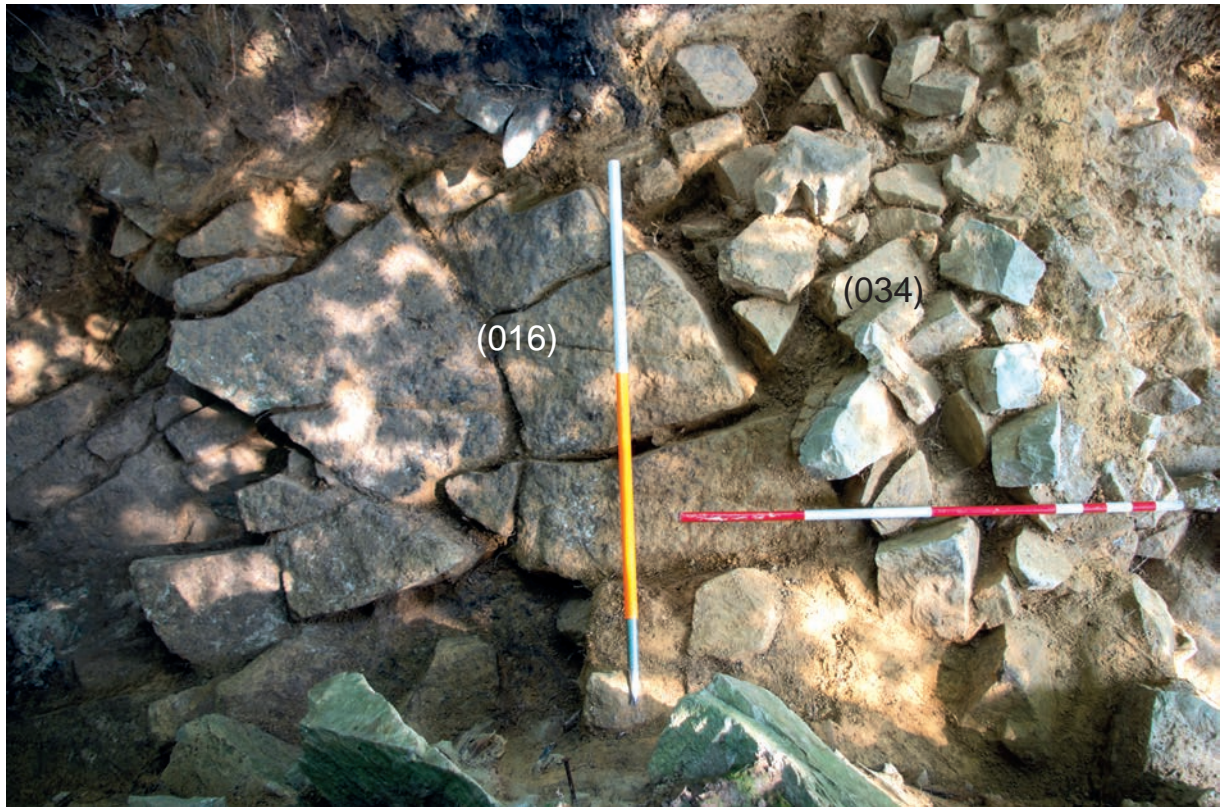


Fig 8. Context 034 cutting the natural 016, possibly a rubble hard core foundation for the construction of the rampart.

back of the wall, and it is equivalent to context (017) from the 2017 excavations (Dennis et al. 2017, p26). A sample from (017/044) was sent for radiocarbon dating in 2017 and produced a date of 380-200 cal. BCE (95.4%). This indicates a possible construction date for the rampart at some point in the 4th or 3rd century BCE, although further dates are required to make a compelling case. Deposit (045) is red/orange in colour and is the scorched/burnt clay found either side and above the burnt deposit (044). Also, above (017/044) were occasional highly burnt or heat affected sandstones (018) probably representing the rampart revetment (194) that had fractured and crumbled due to intense heat.

These layers were sealed by a light yellow-ochre sandy-clay deposit (037) (Fig 19). The deposit is similar to (045) but unburnt and may possibly represent a deliberate deposition of soil to cover the timber structure of the rampart while it was still burning or smouldering. This may account for the sandy clay being scorched red around and above the burnt areas. A number of pottery sherds were recovered from this context.

Post-abandonment structure.

001, 037, 046, 048, 049, 059, 071, 171, 173, 189, 190, 193,

Sometime after the accumulation of (037) a small possible structure may have been built towards the back

of the rampart in the western area of the trench. An arc of possible walling contexts (046, 048, 049 and 071) created a relatively ephemeral structure (Fig 20, 19 and 7). Another line of walling (059) may also be related to this feature as may (171) and (173) which are possible post holes with rectangular stone packing Fig 7). Contexts (189), (190) and (193) are also possible small posts holes with stone packing, located under the west end of the collapsed baulk. There is also a small area 1.5m around (173) that may be the degraded remains of a cobbled surface (1205). These features may date to some point after the burning event of the rampart, but its precise relationship to (037) requires further investigation in 2023.

Rampart tumble and stabilisation layers

001, 002, 003, 005, 006, 014, 021, 032, 300

Sealing the deposits at the back of the rampart was an orange yellow silty deposit (003/032) containing medium-sized angular stones. This is probably equivalent to deposit 002/036 identified to the east of the rampart and presumably represents a stabilisation layer. Covering these layers at the front and back of the rampart were numerous medium to large stones (005, 006/014/021/300) which are currently thought to be tumble from the exposed rampart structure. All of these layers were then covered by the topsoil (001).

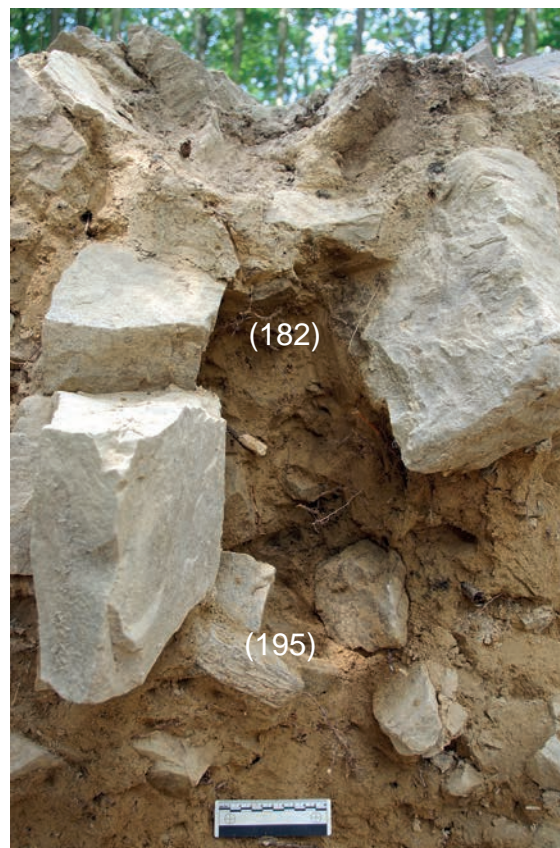


Fig 9. Section photo of the end of the wall (029 and 030). Clearly showing the palisade cut and fill (182) and the rubble base that the posts sat on (195). The support revetment (194) can be seen further supporting the posts at the back.



A



B

Fig 10. Photo A: The palisade slot visible to the right of the ranging rods after cleaning the wall. Photo B: The palisade slot during excavation.



A



B

Fig 11. Trench 1, recess in the front of the wall for a large post.

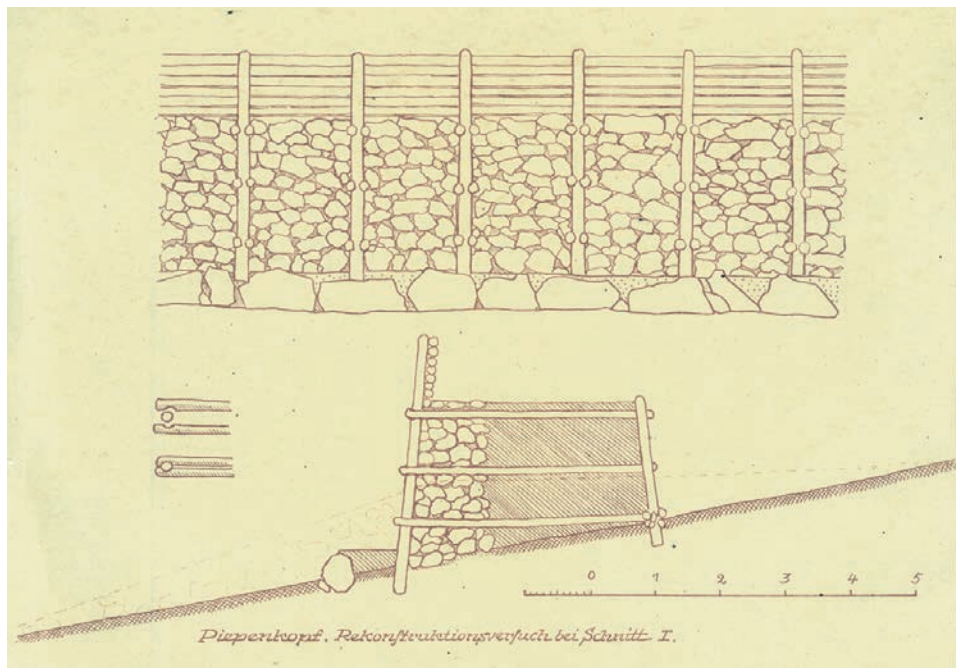
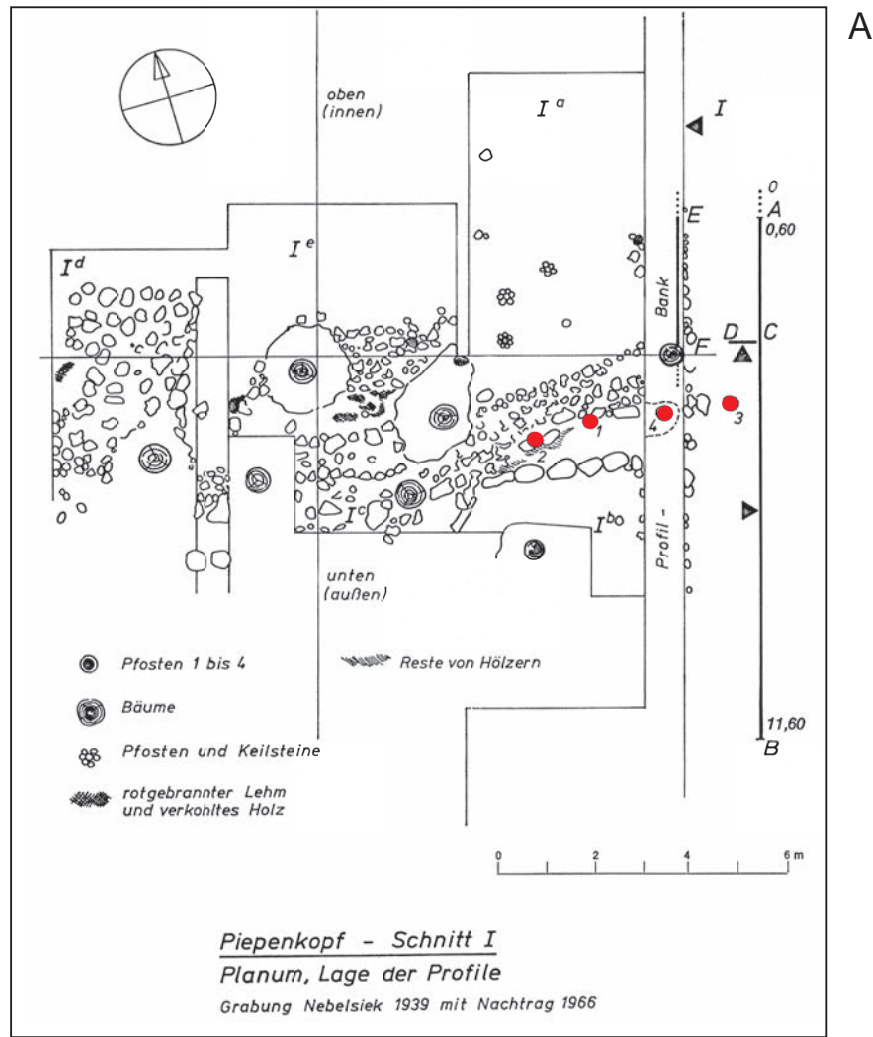


Fig 12. Image A: Nebelsiek's 1939 plan of Schnitt I showing the posts in recessed into the front of the wall (in red). Image B: Nebelsiek's reconstruction of what the Piepenkopf wall may have looked like. (Hohenschwert 1978 and the Lippisches Landesmuseum archive).



Fig 13. Large trapezoidal flat stone that have been a support pad for a substantial timber post, which may have formed a load bearing structural element/feature for the gate/gatehouse entrance into the hillfort.



Fig 14. The numerous burnt small post and stake holes at the back of the wall in Trench 1.

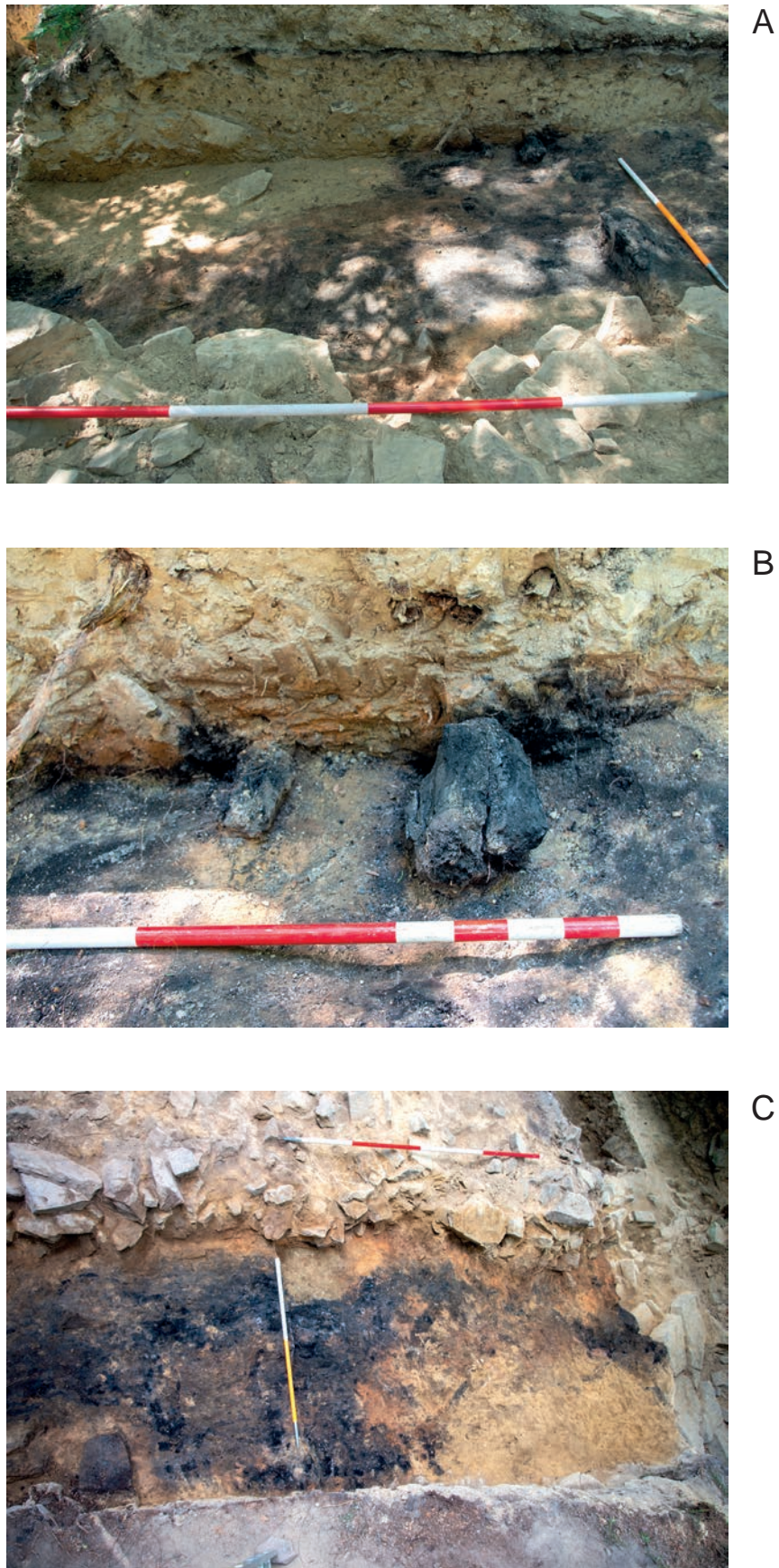
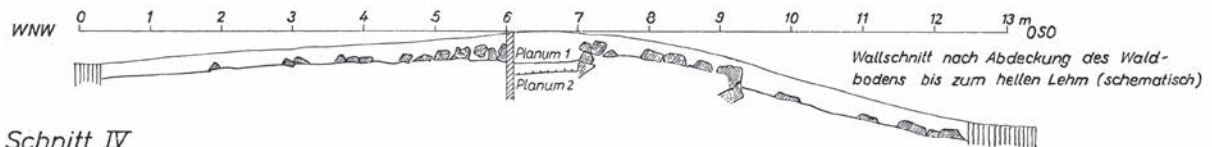


Fig 15. Three images of the burnt horizontal beams in situ. A: The carbonised beams in the section, B: Close up of the carbonised remains. C: Overhead view of the burnt beam area suggesting a wooden ramp structure.



Fig 16. Small find #77, burnt wood with a hole for a wooden dowel/peg.



Schnitt IV
Piepenkopf 1966
Plana und Teilprofil

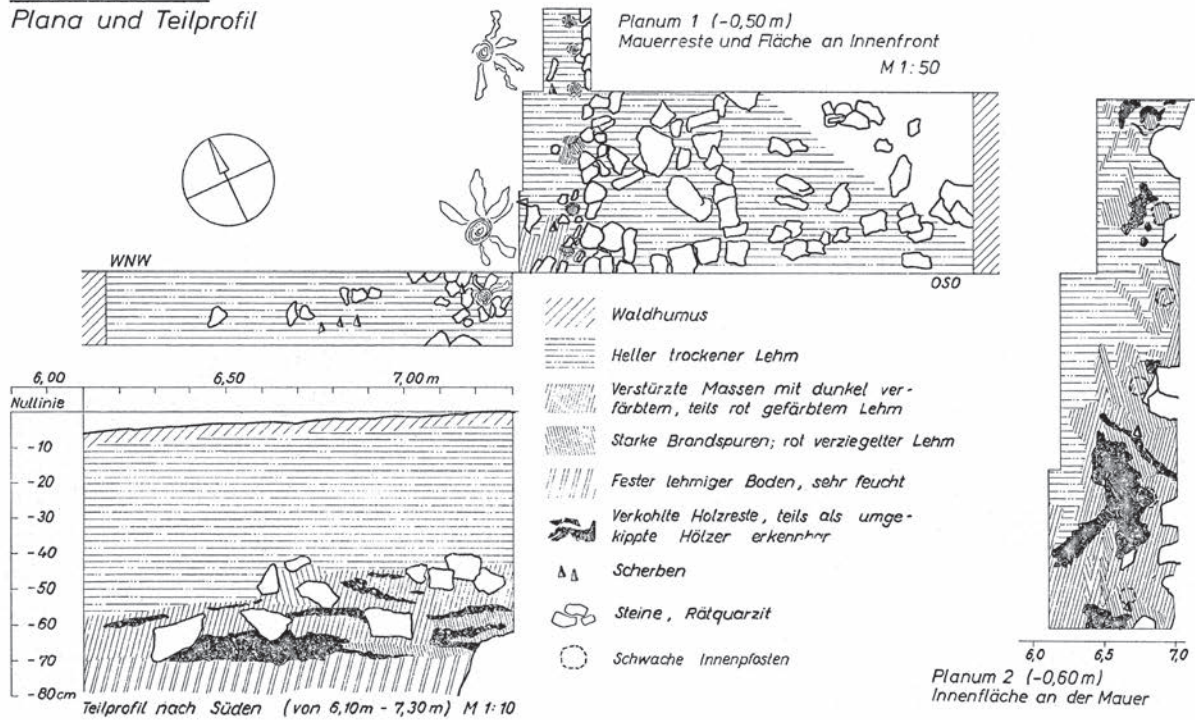


Fig 17. Hohenschwert's plans and section from the 1966 excavations at Schnitt IV, showing the burnt posts and possible burnt planking at the back supporting the stone revetment of the wall (Hohenschwert, 1978).

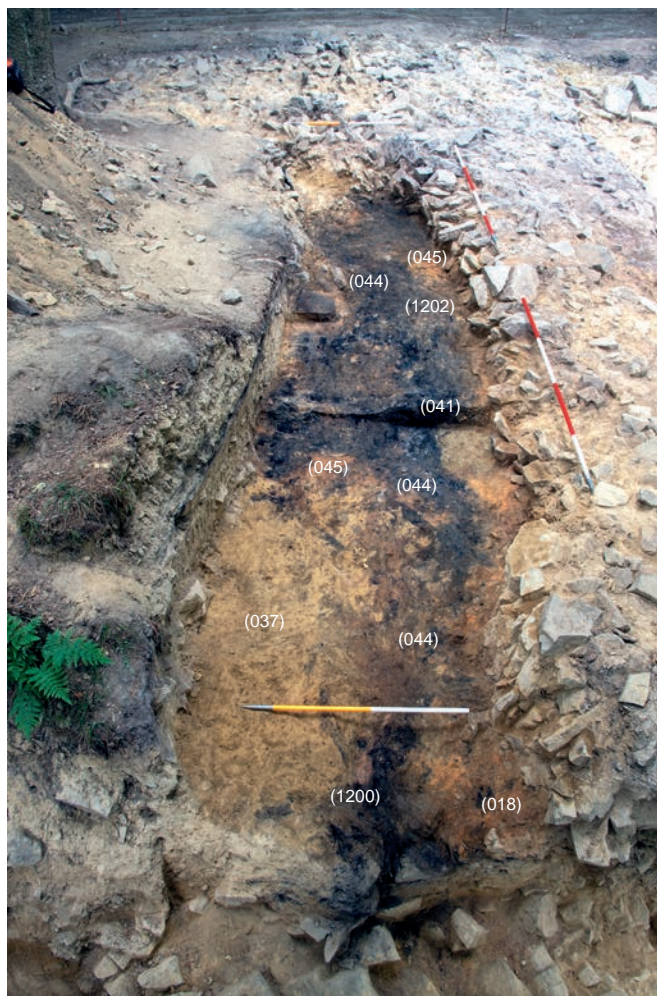


Fig 18. The burning event, clearly showing the burnt red clay (045), and the burnt wooden remains (044). Contexts (041) and (200) are the burnt upright timbers.



Fig 19. Context (037) after initial cleaning, with the revetment at the back of the wall beginning to appear.

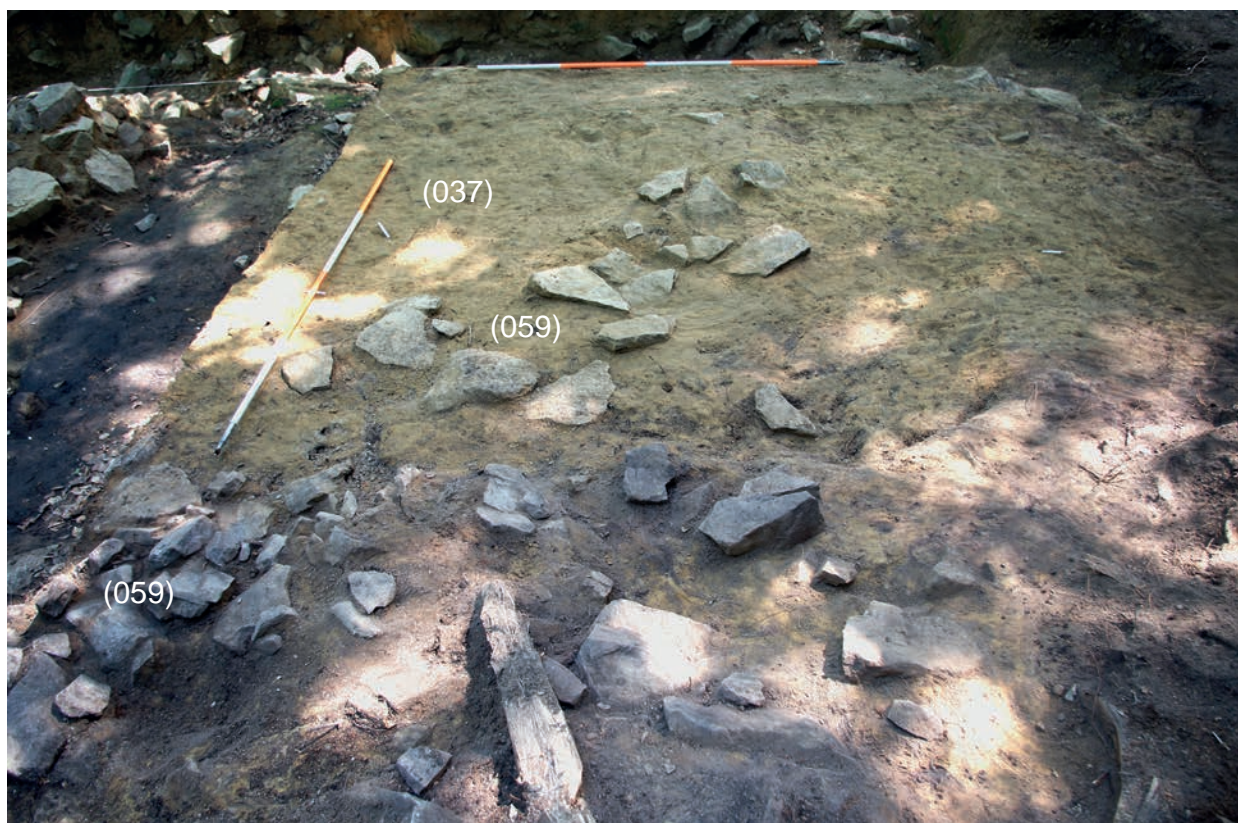


Fig 20. Possible later linear stone feature context 059.

5.2 Trench 2

Trench 2 was a small evaluation trench, 2m x 2m in size, opened on a possible artificial terrace 30m west of Trench 1 in 2017. A large number of pottery sherds were recovered from the trench although no obvious features were initially identified. In 2018 the trench was expanded 4m x 4m to the east (Trench 2 Extension East). More pottery sherds were recovered, and a possible pit was identified. A cutting 2m x 2m was made to the east of the 2018 trench (Trench 2 Extensions East) revealing further features and more pottery. An area 1m x 2m was also added to the west of the 2017 trench (Trench 2 Extension West) because weathering of the section edge from 2017 had revealed several inter-cutting pits. These had been previously invisible in the largely homogenous soils and the opportunity was taken to investigate the nature of this pit complex. In 2019 the trench was extended further to incorporate the large feature/pit revealed in 2018. At the end of the 2019 season the original trench and all of its extensions resembled a flattened 'T' in plan, but this was further extended in 2022 eastwards 5m x 8m to characterise and determine the size of the feature/pit. For clarity, the trench and extensions will be referred to simply as 'Trench 2' and deposits and features will be discussed below according to their spatial location in the western, central, or eastern areas of the trench (Fig 21).

Cut features and deposits in the western area.

100, 101, 104, 105, 106, 107, 108, 109, 117, 119, 120, 121, 122, 125, 126, 127, 128

The earliest features cutting the natural (109/117) were four intercutting pits within a 3 x 2m trench. The earliest was pit [128]. This was 0.85m deep. It was cut by pit [127], which was 0.90m deep. Pit [127] was in turn cut by pit (125). This pit was also 0.90 m deep. Finally, cutting pit [125] was pit [126]. This pit was 0.98m deep. These pits were only identified in plan and their fills were virtually indistinguishable and largely sterile (Fig 22). Over 100 pottery sherds were recovered from this 2m x 2m area of the trench in 2017, including a large finger impressed rim of Harpstedter Rauhtöpfe ware, group 4, variant 4.3 (Bérenger, 2000, p24-25). The purpose of the pits remains obscure since they are not apparently structural. Morphologically similar features excavated at other hillforts have often been assigned as storage or waste pits (Gensen 1989), but the poor preservation of organics at the Piepenkopf mean that it is difficult to talk with any certainty.

Sealing the pit complex was a compacted light yellow-orange silty clay (108). Above this was a dark orange-yellow sandy clay (119/122) containing several pottery sherds. This deposit is equivalent to context (104) from the 2017 excavation and deposit (111/124) from the central and eastern area of the trench (see below). It was



Fig 21. Trench 2 after the initial cleaning.

cut by an elongated oval pit [120] (Fig 23). This was 1.45 m long, 0.5m wide and 0.6m deep, with vertical sides leading to a flat base, and filled by a red-brown fine sandy clay (121). It was sealed by a friable yellow-orange silty clay (101) which is equivalent to context (110) and (123) in the central eastern area of the trench. Approximately 1 m to the north-east of pit [120] was a small oval deposit/feature (105) cutting context (104). This was 0.2 - 0.3m in diameter and 0.08m deep with steeply sloping sides and a flat base. The primary fill was compact pale-grey clayey silt (107), which was sealed by a dark grey silt (106). This appears to have been a small scoop within (104) with burnt material sealing it (106). Adjacent to this deposit was small find 02, the finger impressed rim of Harpstedter Rauhtöpfe ware. Stratigraphically, pit [120] must be of relatively recent origin. All these features and deposits were covered by the humic topsoil (100).

Cut features and deposits in the central area.

100, 110, 111, 112, 113, 115, 118, 117, 123, 124, 129, 130, 132, 133, 134, 135, 137, 138, 141, 143, 149, 150, 151, 152, 153, 154, 155

The natural grey-blue-green compacted mudstone (117), equivalent to (109) undulated across the central and eastern area of the trench and in places it was covered by a light yellow compact sandy clay (116) and a firm orange-brown clay (114). The earliest feature identified cutting the natural was the terminus of a linear ditch [118]. This was orientated south-east to north-west and terminated at its north-western end in the central area

of the trench. The terminus is 1.40m wide and 1m deep with a U-shaped bottom. The primary fill was a yellow ochre sandy clay (134) that contained flecks of charcoal. This was sealed by a yellow-orange sandy silt (115) with frequent charcoal flecks and pottery sherds. Overlying this was (111), which is equivalent to (104). This was sealed by (110), (101) and (100) which represent the sub-soil and bioturbated topsoil (Fig 24.).

In 2022 the trench was extended to further characterise the linear/pit feature [118]. It was shown to be 2.10m wide and 1.10m deep (Fig 25). It is predominately U-shaped with a flat base 0.2m wide. The earliest deposit is (151), a firm compact, clayey soil, yellow-orange and slightly grey in colour. This is directly overlain by (150). This is very similar to (151) being a firm compact, yellow-orange, brown, grey in colour, fine silt with small angular stones. Context (154) directly overlies [118] on its northern side. It is yellow-orange in colour with pale grey clay patches and iron panning within. On the southern side of the ditch/pit is context (155/143). This deposit is very similar in colour and compaction to (154), but is slightly paler in colour. Overlying deposits (150, 154 and 155) is context (149). It is a 0.02m thin black to dark brown humic lens at the bottom of the context, turning to a thicker yellow brown to grey colour 0.10m thick as it slopes up the north side of the ditch/pit. Associated with (149) is a small post hole or stake hole [140] with a rich charcoal fill (141). It was located on the north side of [118] 0.38m from the section edge and 0.37m below the stone lining (133) of pit [132]. It was 0.07m in diameter and 0.10m in depth, and sealed by context (134). This

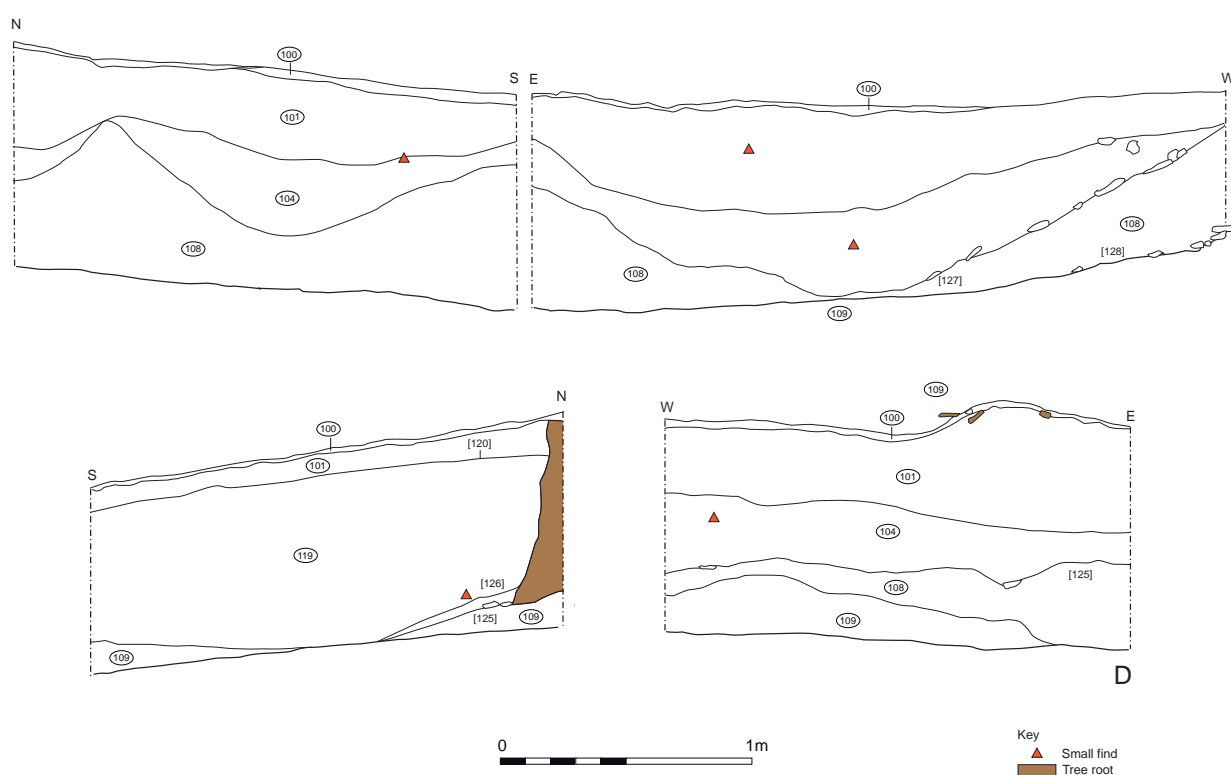


Fig 22. Photograph of the North facing section in Trench 2 showing pit [127] and the indistinguishable colours of the pit fills, and section drawings from all four sides of the 2 x 2m, trench 2 west, showing the intercutting pits.



Fig 23. Context 120, a later elongated cut at the west end of trench 2 west cutting the pit complex.



Fig 24. Photo of the section at the terminus end of a possible linear ditch feature [118].

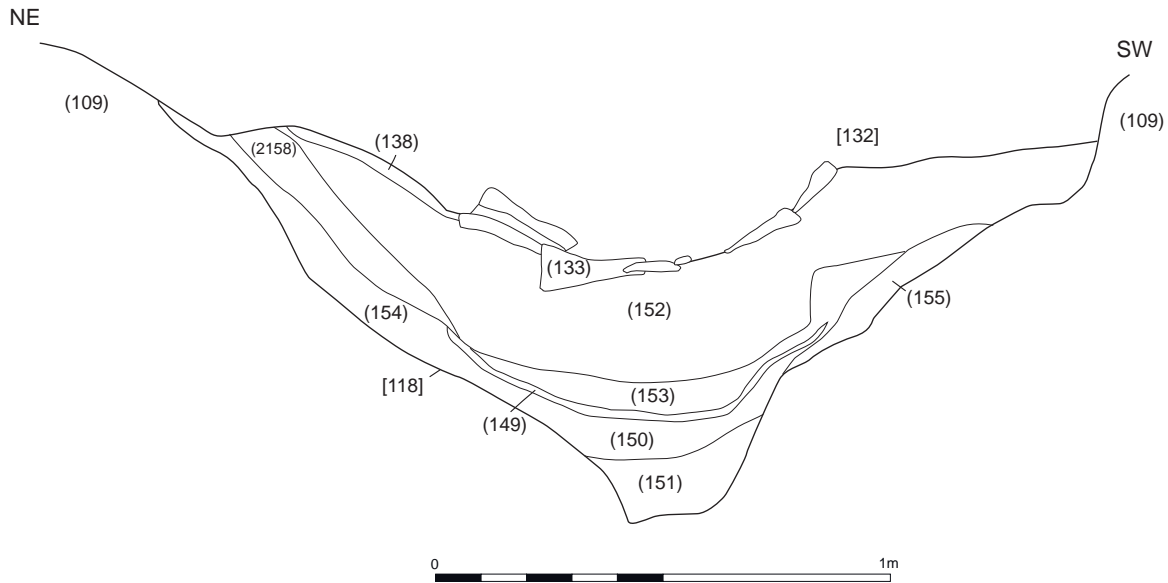


Fig 25. Section and photo of central ditch and pit features in trench 2.

small post hole may be associated to activity related to (149). Towards the southern side of the ditch/pit as the dark humic lens rises, it terminates at context (155). It may continue above and overlie (155) and dissipate into as a thin gritty lens, but this is not certain. In the centre of the feature overlying context (149) is deposit (153). It is firm and slightly compacted fine silt, yellow, orange, grey in colour and 0.05 m thick in the centre of the deposit tapering out to north and south. Above this deposit is context (152/134). It is similar if not the same in colour and consistency as (134). It is 1.8 m wide and 0.25 m

deep at the centre of the deposit.

Cutting the primary fill (152/134) of the linear ditch/feature [118] was a shallow oval pit [132]. It is 1.35 m wide, 1.6 m long and 0.30 m deep, with shallow-sloping sides and a rounded base. The primary fill of pit is context (138), a thin layer 0.02 m thick of pale grey sandy clay with yellow patches. Immediately above this and impressed into it, is a layer of medium flat stones (133) laid onto the base (138) and sides to create a stone lining. Some of the stones had been knapped around the

edges to shape them, especially the ones placed around the boundary of the feature (Fig 26.). This was sealed by a grey-black ashy-sand deposit (130) that contained frequent charcoal inclusions and is presumably derived from the deposition of burnt, organic, material. A sample of charcoal from this context produced a date of 380-190 cal. BCE (95.4%) which is consistent with that obtained from the rampart. Above this layer was a yellow, orange, grey sandy clay (129) that contained a large number of pottery sherds representing a largely, complete vessel of Harpstedter Rauhtöpfe ware (Fig 28.). A radiocarbon determination of cal. AD 30-120 (68.3%) was obtained from a sherd of pottery from context (124) which seals

context (129).

Sealing all these features was a slightly darker orange-yellow sandy clay (111/124/137) (Fig 27) towards the south of the image are the stones that were overlying the large pot on the edge of the pit [132]]. These upper contexts are equivalent to (104/119/122) from the western area of the trench. In the central area a small discrete post-setting [112] and (113) was identified within (111). It was defined by a circular arrangement of medium-sized stones, presumably packing or support for a post. Above this feature was a pale-yellow silty clay (123) which is equivalent to (101/110), and the topsoil (100).

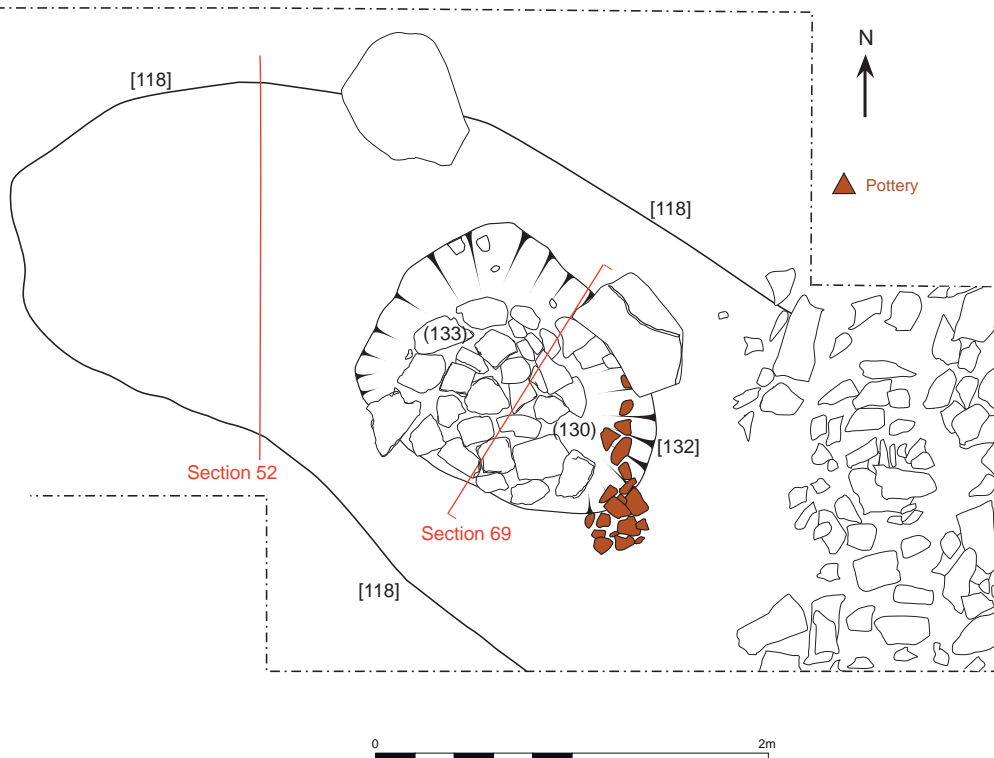


Fig 26. Plan, section and photo of the stone lined pit in trench 2. The plan also shows the location of the large Harpstedter Rauhtöpfe vessel.



Fig 27. The large Harpstedter Rauhtöpfe ware deposited on the side and into the fill (129) of the stone lined pit [132].

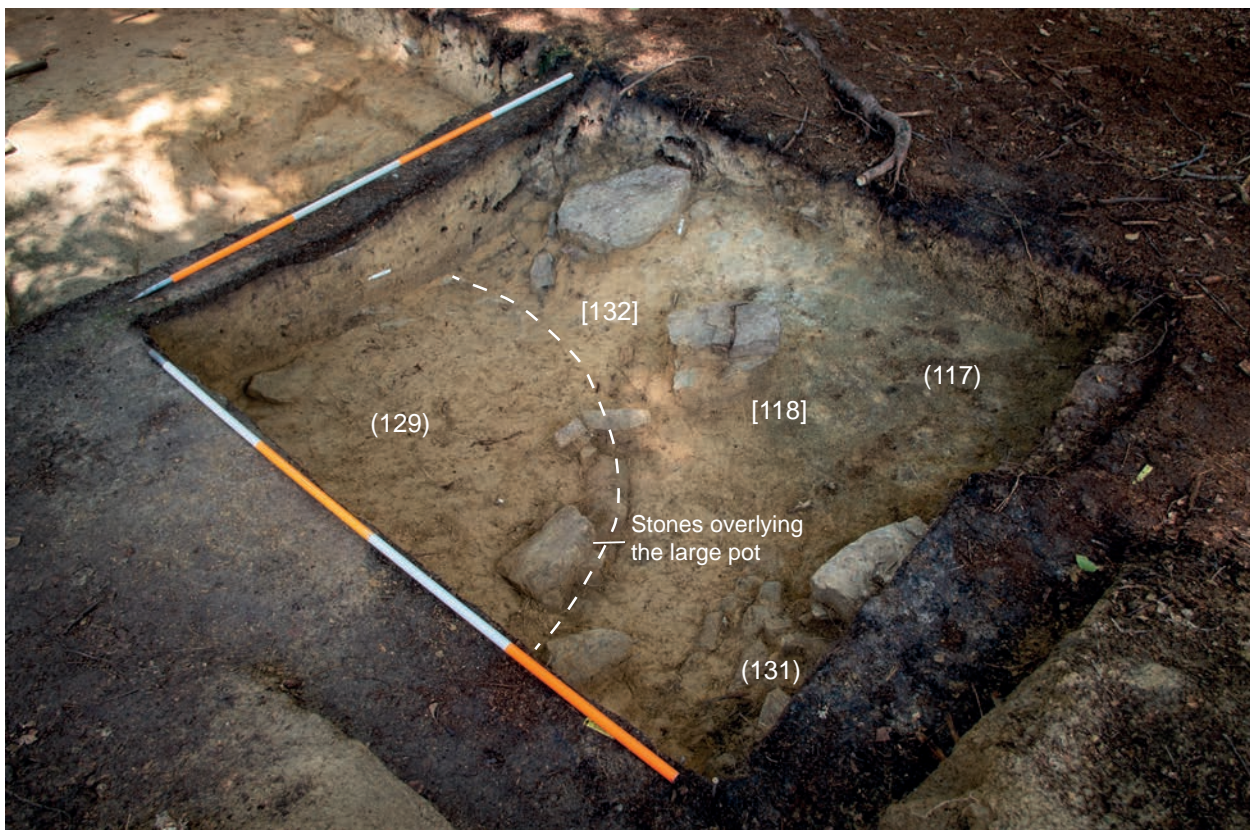


Fig 28. Trench 2 central area, the first signs of the stoned lined pit [132] the fill (129), and the ditch [118]. The stones towards the bottom of the image are the stones overlying the large pot.



Fig 29. Stone feature (131) at the eastern end of trench 2.

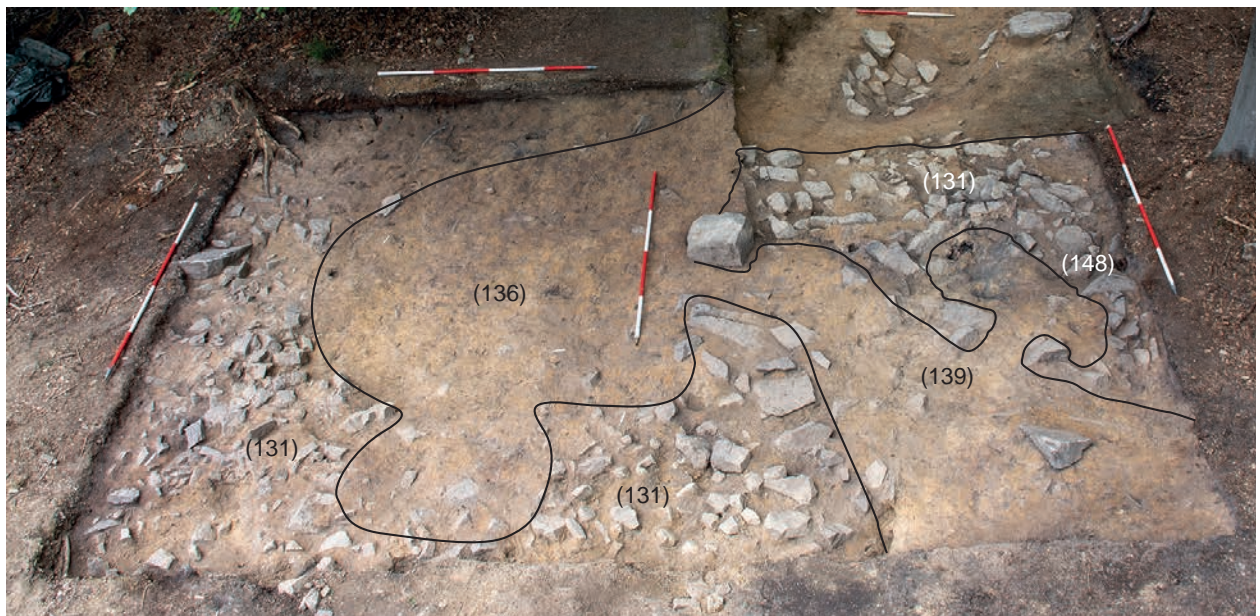


Fig 30. Trench 2 extension to further investigate context (131) which suggests an oval shaped feature with a possible entrance narrowing at the large stone in the centre, with two possible cells, one to the north and one to the east. This feature may be associated with the stoned lined pit seen in the top right of the photo.

Cut features and deposits in the eastern area.

131, 136, 139, 145, 147, 148

In 2019 in the eastern corner of the trench, another linear feature (131) was identified. This was orientated north to south and filled by a yellow-orange sandy clay that contained very frequent medium to large stones (Fig 29). This feature is believed to have a stratigraphic relationship with the ditch/large pit [118]. The full extent of this feature went beyond the trench limits in 2019, therefore in 2022 the trench was extended eastwards a further 5m to the east and 8m to the south to investigate the deposit (131). After the initial cleaning of the extended area (Fig 30) an oval shape void of stones could be seen in context (136). This was defined by stone rubble (131) and (148) which appears to have some structure to it, with a western edge and internal rubble free areas and possible entrance towards the north east. The cleaner central area was divided into four quadrants, the northwest quadrant and southeast quadrant were excavated to possible bedrock/natural, but further excavation in 2023 is required to fully characterise this feature.

Context (136) is a light-yellow mottled orange, brown sandy silt, although after drying out the colour changed to a light-yellow buff colour. At the centre of the feature context (136) has a current depth of 0.4m and but it was shallower towards the periphery. Sixty-nine sherds of pottery have been recovered from this context, mainly from the northwest and southeast excavated quadrants. Within (136) towards the centre is a possible post (145) with stone packing [144]. It is 0.38m deep and 0.18m wide at the top with vertical stones either side to support a post. It appears to cut into (136). The fill (145) is very similar in colour to (136) but is slightly greyer. Context (142) is again very similar in colour and texture to (136) and located in the northwest quadrant, above (131). It is a small shallow scoop 0.45m long, 0.38m wide and currently 0.18m deep but has not been fully excavated. This feature had several sherds of pottery recovered from it. All the sherds are Harpstedter Rauttöpfe ware and very similar to the large vessel found on the edge of the stone lined pit [132] 1.2m northwest and may be associated with activities in and around the stone lined pit.

5.3 Trench 3

In late June 2018, a small team of archaeologists from Detmold Landesmuseum, opened an exploratory trench (Trench 3) with a small machine within the interior of the hillfort, 65m west from the inner hillfort rampart (see fig 3). The cutting was 23m long and 1m wide (Fig 31). The aim was to examine the potential for archaeological features and identify the type and limits of the natural geologies. Little of archaeological significance was identified, except towards the southern end of the trench

where several groups of large angular and sub-angular sandstone blocks suggested the presence of structural remains. The trench was therefore expanded 4m x 3m later in the summer by the Cardiff team in order to characterise the features. Unfortunately, excavation over the subsequent four-week period was limited by excessive heat and extreme temperatures since no natural shade was available. In 2019, when temperatures were not so high, excavations continued, and the trench was extended 5.6m by 4.8m to the west (see Fig 31).

Possible quarry area and natural stone spreads

307, 312, 313, 314, 315, 316, 317, 318, 319

At the southern area of Trench 3, beyond the machine-cut slot, the earliest deposit encountered above the natural (319) was firm greyish-yellow clayey silt (312/313). This layer is probably a result of the weathering of the clay natural. Above this deposit was a layer of large angular sandstone rubble (307) that spread most of the way across the southern part of the trench. It is most likely that this is an outcrop of the sandstone bedrock, but conceivably, it could be a dump of quarried stone. It was sealed by a light greyish-yellow sandy silt containing small to large sub-angular stones (316/317/318) presumably derived from the weathering of 307. In the north-east corner of the extended trench was the curving arc of a shallow feature [315] cutting 312/313. It was filled by a light-yellow silty sand containing frequent small to large sub-angular stones (314). The purpose of this feature is unclear, but it may be a quarry pit to obtain sandstone blocks for construction.

Structural feature

305, 306

Also cutting 312/313, but in the centre of the extended trench, was post-setting [305] (Fig 32). This was defined by a roughly circular arrangement of large angular stones, 0.8 m in diameter. At the centre was a void, presumably the location of a post, filled by a loose yellow-brown sandy clay (306). No other structural features were identified in the trench, so its purpose is unclear.

All of these layers were sealed by a yellow-sandy clay subsoil (304) and the topsoil (303).



A



B

Fig 31. A: Trial trench in 2018 and B: Trench 3 and the the extension undertaken in 2019.



Fig 32. Possible stone packing for a large post in Trench 3.

5.4 Trench 4

Trench 4 was opened in 2019 within the interior of the hillfort. It was located on an obvious terrace approximately 15m south of Trench 3. Artificial terraces on steep slopes are a common feature within Westphalian hillforts and typically represent the building sites of houses and storage buildings (Schulze-Forster 2007). The aim of the trench was to investigate whether such occupation features and structural remains were present within the hillfort and to assess their nature and survival. Initially, a rectangular area 11m x 3m, orientated north to south, was opened, but this was extended 5m to the south and 1m to the east to create a trench that was ‘L’ shaped in plan 13 m by 4 m (Fig 33). In 2022 the trench was extended 7.2m towards the west at the north end of the trench, and 3 m to the west at the south end of the trench and 3m to south at the southern end of the trench. This was to investigate the further possible post settings and confirm the presence of a large single structure or the possibility of several multi-phase smaller structures.

Modern disturbance

400, 401, 402, 411, 429

After removal of the topsoil (400 and 429 in the western extension of the trench) the northern third of the trench could be seen to have been heavily disturbed by recent activity. An irregular scoop (411) filled by a sterile

bright yellow sandy clay (401) is likely to be the result of disturbance by forest machinery. The remainder of the trench, however, was covered by a yellow-brown mottled sandy clay (402), which, once removed exposed a large number of post-settings and postholes (Fig 34 pic of posts the composite one). Unfortunately, the trench was too small to reveal meaningful floor plans, but some of the postholes are substantial and presumably the mesh of features represents the structural remains of several timber buildings.

The revetment wall

403, 419, 425

The earliest feature, exposed in a small 1.8m x 1.8m sondage in the south-west corner of the trench, was a poorly preserved possible wall of three courses (425) standing 0.25m to 0.35m high (Fig 35). It was constructed of large angular and sub-angular stone blocks that sat on a pale-yellow sand (419), possibly the natural. It is possibly a revetment wall defining the southern edge of the terrace since abutting the rear of this structure was a thick deposit of yellow sandy clay (403) that covered the majority of the rest of the trench. This layer was the deposit into which the majority of the structural features had been cut and presumably represents the Iron Age ground surface.

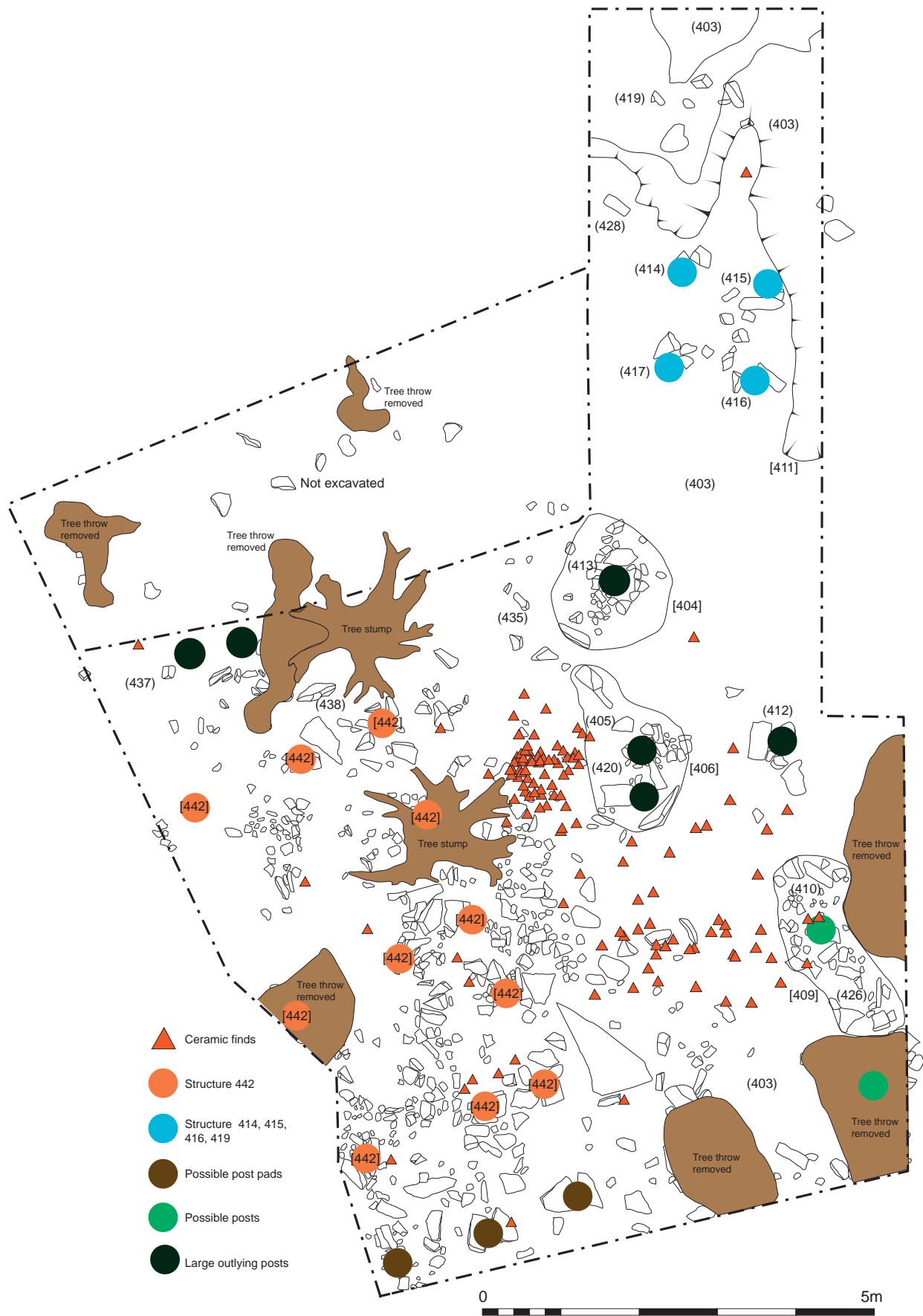


Fig 33. Trench 4 plan showing post holes, post pads, features and ceramic distribution.

Large post settings in the southern half of the trench

404, 405, 406, 407, 409, 410, 412, 413, 420, 421, 422, 423, 426, 427

The most substantial features cutting context (403) were two pits [406 and 409]. Pit [409] was located in the south-east corner of the trench (see Fig 33 & Fig 34 D). It was sub-rectangular in plan, 2.2m long and 1.2m wide, with steeply sloping sides and an irregular flat base. The primary fill in the centre of the pit was a firm pale-yellow silty clay (410) that contained many large sub-angular sandstone blocks. This is likely the packing for two large posts positioned at either end of the pit and which had been subsequently removed. At the south-eastern end of the pit the void left by the post was filled with a firm yellow silt (427) and at the north-western end the post void was filled with a similar firm yellow silt (426) containing frequent small and medium sized stones. Pit [406] was located 1.4m north-west of pit [409]. This was also sub-rectangular in plan, 2.6m by 0.7m, with steeply sloping sides and a concave base. The primary fill was a pale-yellow silt that contained frequent large sandstone blocks (420). This is likely to be post packing to support a very large upright timber at the south-eastern end of the pit where a void created by the removal of this post had been filled by a dark yellow silt (407). This fill contained a very large angular stone that rested against the pit edge and was presumably used to

wedge the upright in position (see Fig 34 B & C). Above fill (420) was a deliberate deposit of large sub-angular blocks in a yellow silt matrix (421). These were arranged at a 45 degree angle to the bottom of the pit. This was sealed by a dark-yellow compact silty clay (422), which is presumably a post-pipe representing the remains of a post that was bedded at an angle rather than upright. This deposit was in turn covered by a yellow compact silt that contained one very large sub-angular sandstone block (423), probably used to wedge the angled post in place. The simplest interpretation is that this post was a brace for the very large upright positioned at the south-eastern end of this pit, although it is possible that it could be a double post hole pit. In 2022 this feature could not be further investigated due to a bees' nest within the feature, hopefully in 2023 this can be resolved if the bees have moved on.

Adjacent to pit [406] were two other features that represent the settings for posts (412 and 404). Pit [404] was defined by a shallow cut, circular in plan and approximately 1 m in diameter, as the feature went into the west section and has not been fully excavated and defined. At the centre was a circular grouping of medium to large angular and sub-angular stones (413) presumably providing a robust surface for the placement of a post. This was covered by a light brown sandy clay (405). Feature [412] was similarly defined by several medium to large angular and sub-angular sandstone blocks. These were embedded



Fig 34. Trench 4 2019, A: stone packing for posts can be seen across the trench. B & C: Post pit and large vertical stone packing for posts (405) and (406). D: initial spread of ceramic finds towards the south end of the trench.

into layer (403) and clearly represent another setting for a post. Unfortunately, these features do not make a coherent ground plan, but they clearly represent the structural elements of one or more substantial buildings. A large number of pottery sherds were recovered from the vicinity between these features suggesting this area may have been a focus of domestic activity (see Fig 33).

Post settings in the northern half of the trench

414, 415, 416, 417, 418, , 428

Six more post-settings were identified in the northern half of the trench (414, 415, 416, 417, and 428) (see Fig 33). These were all characterised by roughly circular groups of medium to large sandstone blocks surrounding a central void, presumably the location of the post. A further possible post-setting (418) was identified in the section that formed the eastern edge of the trench. The features did not resolve into coherent ground plans of any buildings, although post-settings (414, 416, 417 and 418) do form a squared structure and could conceivably represent a possible granary or something similar, orientated north-west to south-east. Unfortunately, the northern part of the trench where these features were found, has been damaged by forestry machinery, therefore making interpretation difficult.

Post settings and structural elements in the western extension of Trench 4

429, 430, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442

After removal of the topsoil in the western extension (429) evidence of heavily disturbed post settings were found immediately below the humic layer, aligned along a north-south long axis forming three main rows running downslope. Initial cleaning (430, 432, 433, 434, 435, 436, 437, 438 and 439) clarified the nature and spacing of the individual components of an 8m north-south by 2.8m east-west wide structure (442), (see fig 33) comprising of 15 probable post settings and three post pads at the base of the slope just inside the southern baulk.

Heavy root disturbance meant that no cuts for the post settings were visible in plan, the evidence for the features being restricted to remnant post packing, the uprights of which had been splayed apart by the movement of tree roots and forestry activity. None of the post settings were excavated in the 2022 season and will be a focus for excavation in 2023. At this stage Structure (442) appears to comprise six east-west rows of three to four post settings set between 1 and 1.5m apart with a single row of post pads at its southern extent 1.5 to 2 m from the southernmost row of post settings (see Figures 36 A and B). Adjacent to and outside the southeastern post setting of (442) was a large triangular slab of sandstone, 1.26m long by 0.7m wide, with evidence of working along its



Fig 35. Small test pit in the southwest corner of trench 4 which revealed stone coursing which may have been a revetment running east to west.



A



B

Fig 36. A: Overhead view of trench 4 and the 2022 extension revealing the possible post pads and holes. B: Overhead view with students from Cardiff standing where the posts for structure (442) are.

long edge. This may have functioned as a corner stone for Structure (442) when upright. While the post settings and post pads have been interpreted as belonging to the same structure it is possible that elements belong to other structures to the north, west and south.

Immediately to the east of Structure (442) was a concentration of largely unabraded sherds of pottery within a clear c.1.5m x 1.5m area. It was initially thought that this close association indicated the presence of a feature [441] filled with (440)) (Fig 33), the edges of which had been masked by the prevalent root disturbance. However, excavation showed that the pottery was not contained within a feature, the vertical distribution of the sherds varying by only a few centimetres. It is likely that this concentration was the remnant of a positive feature – possibly a midden – located just outside Structure (442) with the spread of pottery to south deriving from soil movement downslope and/or later disturbance.

5.5 Trench 5

Trench 5 was opened in 2019 and located 30m outside of the main wall and rampart to the east (see Fig 3). This trench was designed to further investigate and obtain dating evidence for an outer palisade excavated by Nebelsiek in 1939 (Hohenschwert 1978) (Fig 37). The trench was rectangular in plan 6.5m by 3.5, orientated north to south, and with a small .05m by 0.5 m extension in the south-east corner. It was located 5m east of Schnitt III from 1939 across the hillfort's middle boundary at the point which it begins to splay out and form a large polygonal enclosure or annexe. Nebelsiek's excavations had revealed this boundary to be formed by a timber palisade, quite different in character to the earth, timber and stone construction of the inner rampart (Fig 38, Hohenschwert 1978, image supplement booklet). Unfortunately, no dating evidence was obtained and its chronological relationship to the inner boundary is uncertain. However, given that the line of the middle palisade appears to partially follow the course of the inner rampart, before turning abruptly to the east, suggests that it should be later in date. Although recent LiDAR images do suggest the palisade does appear to continue north and peter out and that the palisade investigated in 1939 and 2019 appears to abut or join the palisade that heads directly to the east (Fig 39). This junction where they may possibly meet needs to be investigated and confirmed. Considering the potential multi-phase nature of the inner boundary, the aim of this trench therefore was to further investigate the character of the middle boundary and recover material for radiocarbon dating. The excavations in 2019 did reveal the palisade slot trench and evidence for a bank behind it (Fig 40). Iron Age pottery similar to the that found within the hillfort has been recovered from under the bank at the back of the palisade.

Features and deposits pre-dating the palisade

504, 506, 510, 513, 514, 516, 517, 518, 520, 521, 524, 525, 533, 537, 538, 539, 540, 541, 542

The earliest deposit identified above the natural (521) was a mottled orange-grey clay (516/524/525). This was up to 0.4 m in thickness, but varied throughout the trench, and presumably represents a deposit derived from the weathering of the natural. At the extreme southern end of the trench, it was sealed by a yellow ochre sandy-clay (533), but elsewhere it was cut by a series of discrete features (504, 517, 520, 537, 539, 540, 541) (Fig 41.).

Towards the southern end of the trench was the small posthole (541). This was 0.2m in depth and filled by a yellow-darkish-orange sandy clay (542) that contained a medium-sized stone, presumably packing for a post. Immediately to the north of this feature was a shallow scoop or pit (504). This was oval in plan, 2.10m in length and 0.15m in depth. Its width could not be determined because it ran beneath the western trench edge. It was filled by a yellow-brown sandy clay (506) that contained some charcoal flecks. The pit cut (504) may be contemporary with the adjacent posthole (541), although its fill (506) appeared to spill out and seal that feature and must therefore post-date it. Both features are, however, stratigraphically earlier than the palisade boundary (Fig 41).

Elsewhere in the trench were five postholes or post-settings either set within, or cutting, deposit 516/524/525. In the south-eastern corner of the trench and set against the trench edge was posthole 537. This was 0.3 m in depth and filled by a yellow-orange sandy-clay (538) that contained charcoal flecks and stone packing for a post. Around 1 m north of this feature was posthole 520. This was only recognised in section but was filled by a light-brown sandy clay. In the central area of the trench was a setting of three medium-sized sandstone slabs (540) presumably arranged to support a post. To the west of this feature was a small, oval, posthole (517) 0.32 m by 0.25 m, which contained a greyish-orange-brown sandy-clay fill (518), while to the north was another post-setting (539) located adjacent to the northern trench edge. Conceivably these five features could be either earlier or later than the palisade boundary as no stratigraphic relationship existed between them, but given their proximity, and similar morphology, to posthole [541] it is considered here most likely that they represent the structural remains of a building pre-dating the palisade (Fig 41).

The palisade rampart/boundary

509, 510, 511, 512, 513, 514, 526, 527, 528, 529, 530, 531, 532, 534

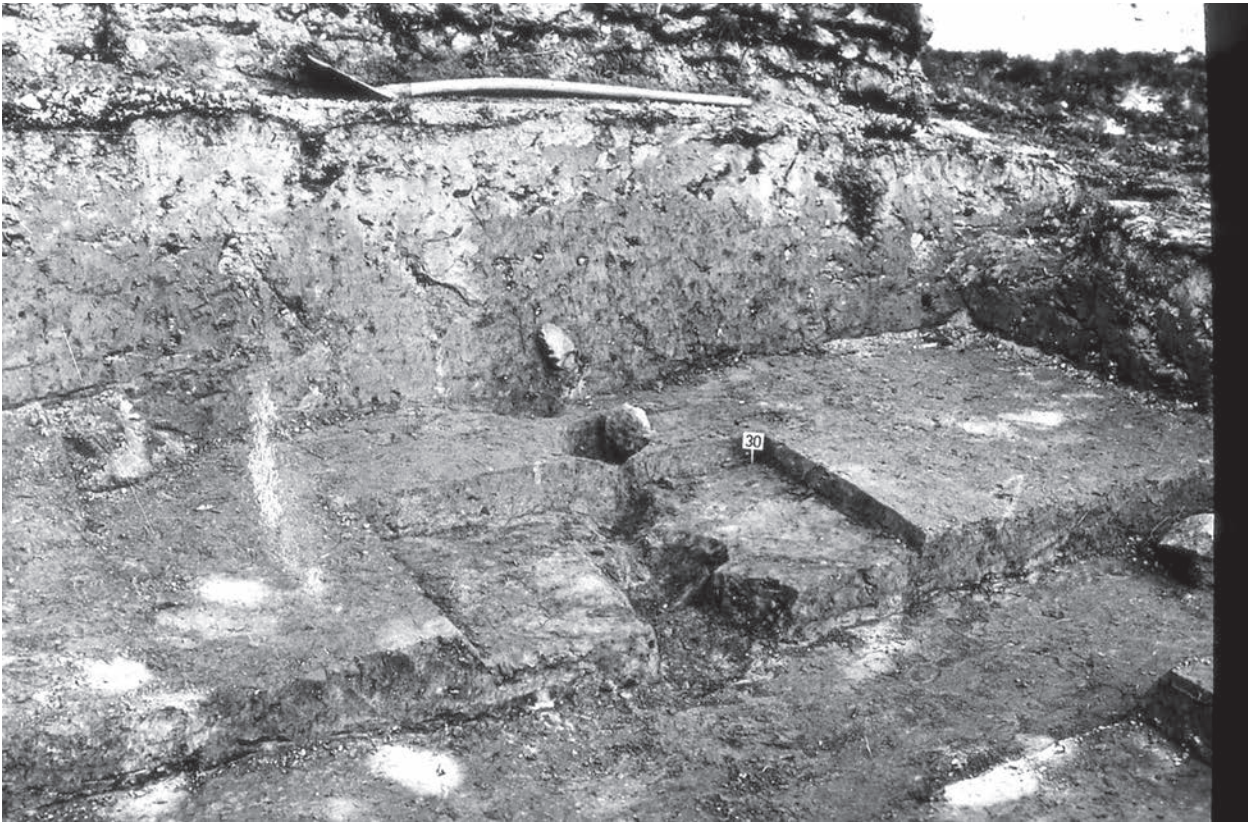


Fig 37. Photograph of Schnitt III Nebelsiek's excavations in 1939 showing the Palisade and bank Photo LLM)

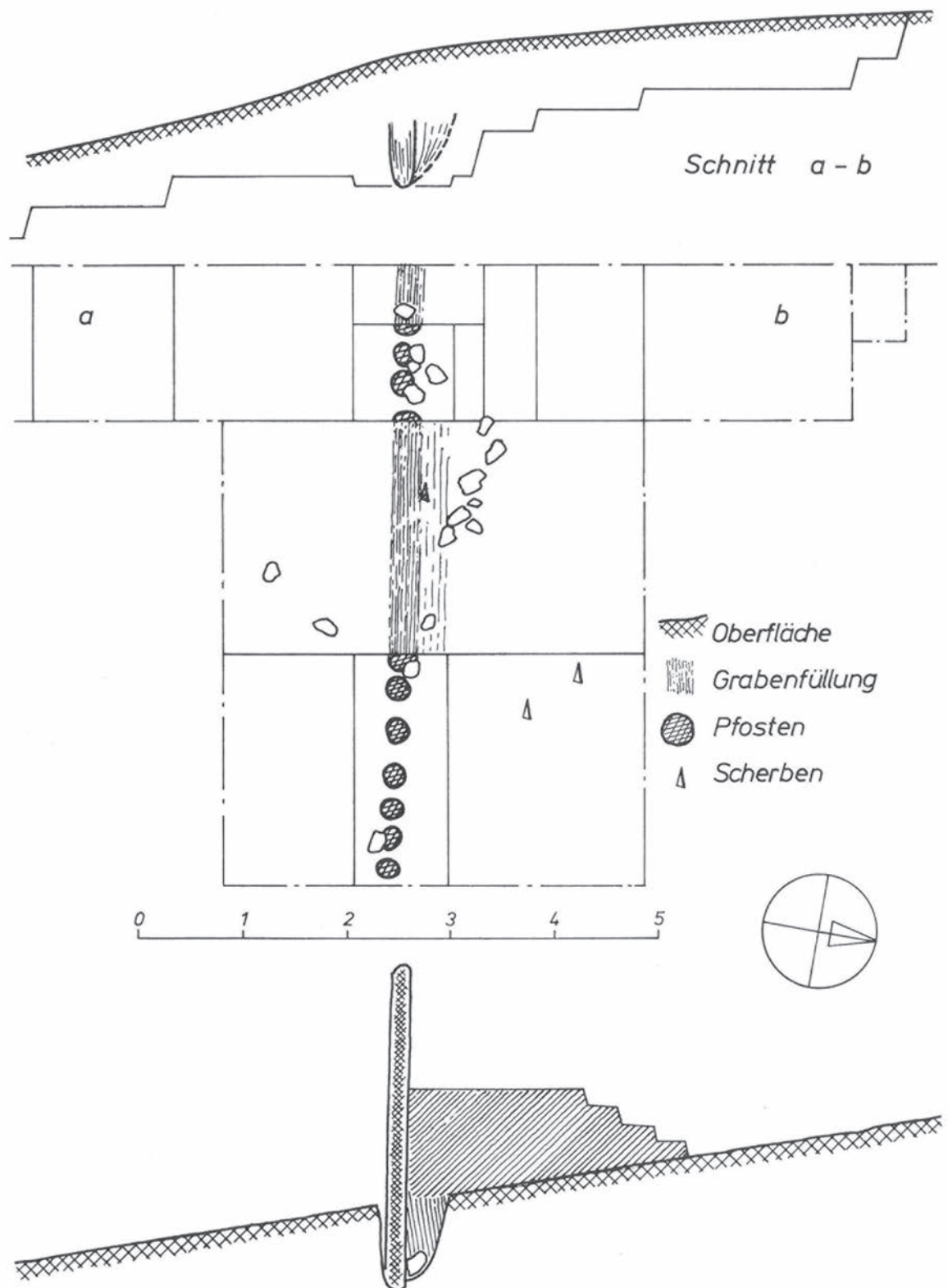
Cutting through deposits (533/516/524/525) towards the southern end of the trench was a slot for a palisade (526/511). (Fig 43 and Fig 40). This was orientated west-south-west to east-north-east and ran continuously from trench edge to trench edge. The cutting was U-shaped in profile with a flat base. Its fills were arranged vertically (Fig 42). The northern half of the slot was filled by a yellow ochre sandy clay (527/512) that contained charcoal flecks. This presumably represents the remains of timber uprights that had rotted in situ. A radiocarbon date from charcoal within this fill produced a date of 820-670 cal. BCE (95.4%). The southern half of the slot was filled with a dark-orange sandy clay (534) which contained medium sized stones clearly designed to pack the slot and hold the timbers in place. Immediately to the north of the palisade slot was the remains of a tapering reddish-brown sandy clay deposit (528/509). This was 0.6m thick at its southern end and is presumably the remains of a bank at the rear of the palisade. It was constructed over a thin lens of compact orange sandy clay (510/514) which sealed the shallow oval pit 504. This deposit (510/514) may be a buried soil and a similar deposit (513) was identified immediately to the south of the palisade slot. In between the bank (528/509) and the timber uprights (527/512) was a yellow ochre sandy clay (532) sealed by light-yellow sandy clay (531). The simplest explanation is that these represent in-fill at the rear of the palisade to add extra stability to the timber posts (see fig 40, 41 & 42). At the rear (northern end) of the bank (528/509) was the cut for a posthole (529). This was only seen in section but was

0.30 m in diameter and 0.20m in depth and filled by a yellow ochre-brownish sandy clay (530) that contained charcoal flecks. This feature probably represents a timber post marking the back of the middle hillfort boundary and presumably supporting horizontal timbers in order to create a walkway or support low planking to support the earthen bank from eroding.

Features and deposits post-dating the palisade

500, 501, 502, 503, 505, 507, 515, 535, 536

A number of features and deposits that probably post-date the palisade were also identified. Immediately to the south of the palisade slot, three small discrete lenses of yellow-grey sandy clay (501, 502, 503) were identified sealing deposit (513). Cutting 513 was a shallow scoop or pit (535). It was filled by a dark-yellowish ochre sandy clay (536) that contained charcoal flecks. Conceivably this feature could pre-date the palisade, but it was only identified in the southern section of the trench and was not fully explored (Fig 44). However, to the rear (north) of the palisade an oval-shaped pit (515), 0.90m by 0.60 m, was identified cutting the boundary bank (528/509). Its primary fill was a yellow-brown sandy clay (505) that contained charcoal flecks. This was sealed by a yellow sandy clay (507). No finds were recovered from the fills and its function and date is unclear. Sealing all of the features and deposits in the trench was a yellow clay subsoil (500) and topsoil.



Piepenkopf - Schnitt III

Profil, Planum, Rekonstruktion; Grabung Nebelsiek 1939

Fig 38. Schnitt III, Nebelsiek's 1939 plan showing the palisade in plan and section, with a proposed reconstruction.

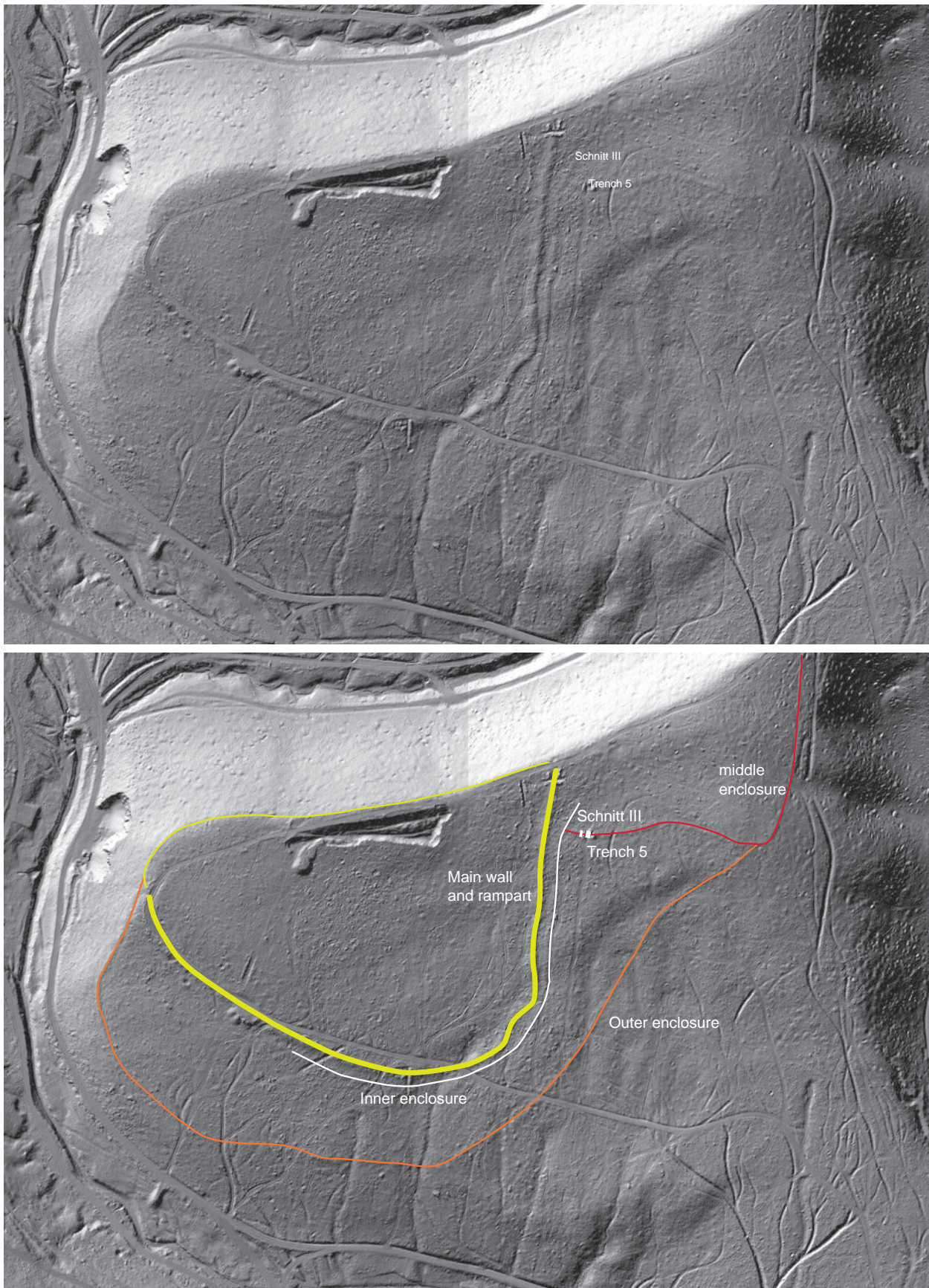


Fig 39. Recent LiDAR of the Piepenkopf showing outer palisades/enclosure boundaries.



A



B

Fig 40. Photo from 2019 of the palisade and bank behind in section

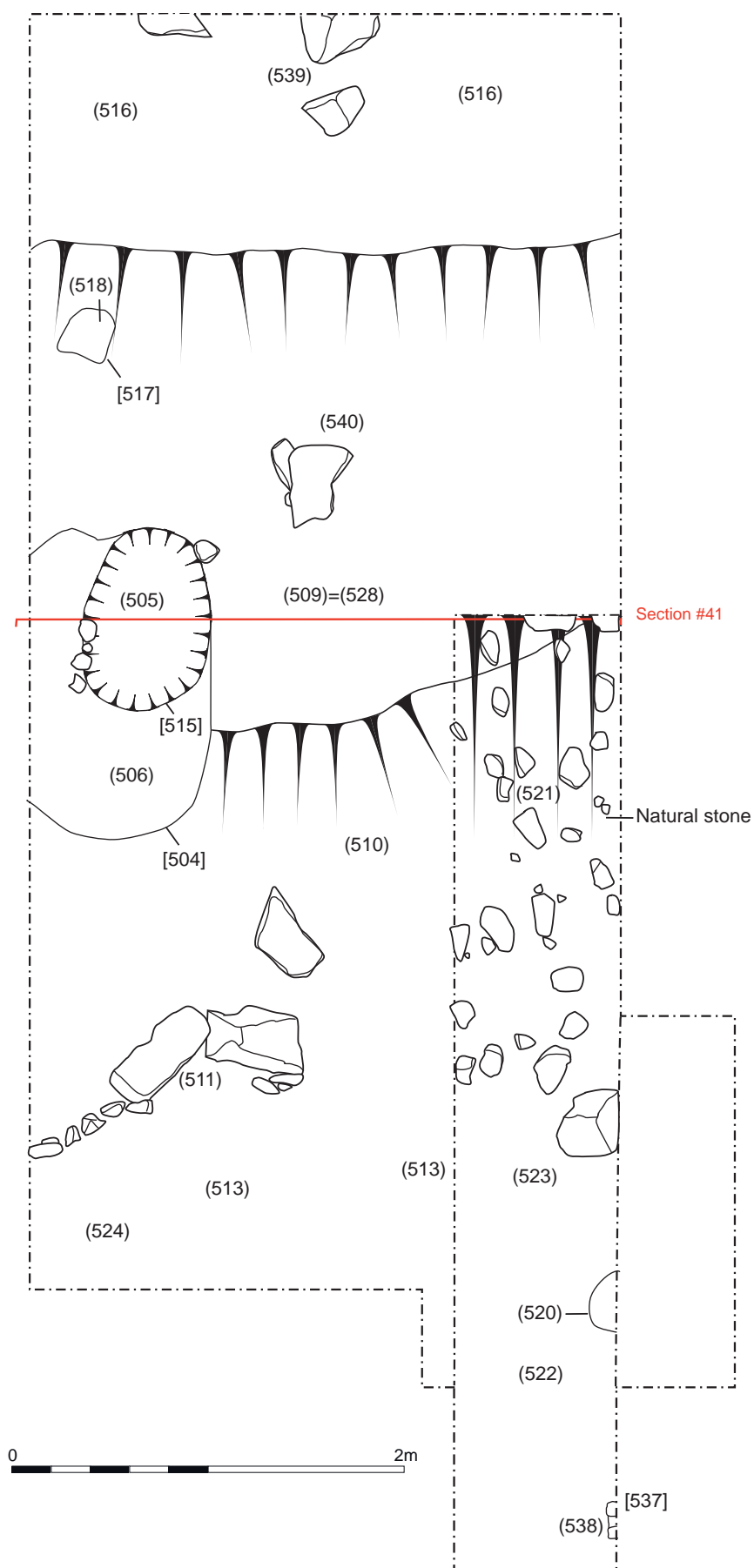


Fig 41. Trench 5 plan showing contexts and features.

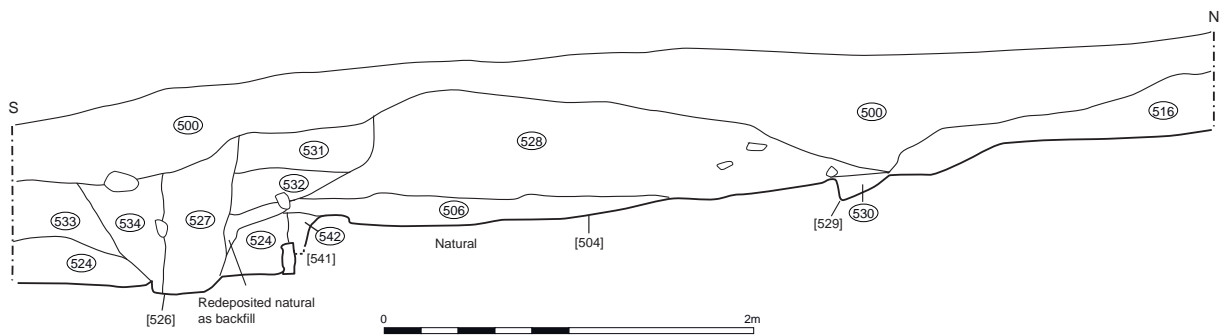


Fig 42. Trench 5 east facing section showing the palisade post pipe and bank behind the structure, with associated contexts.

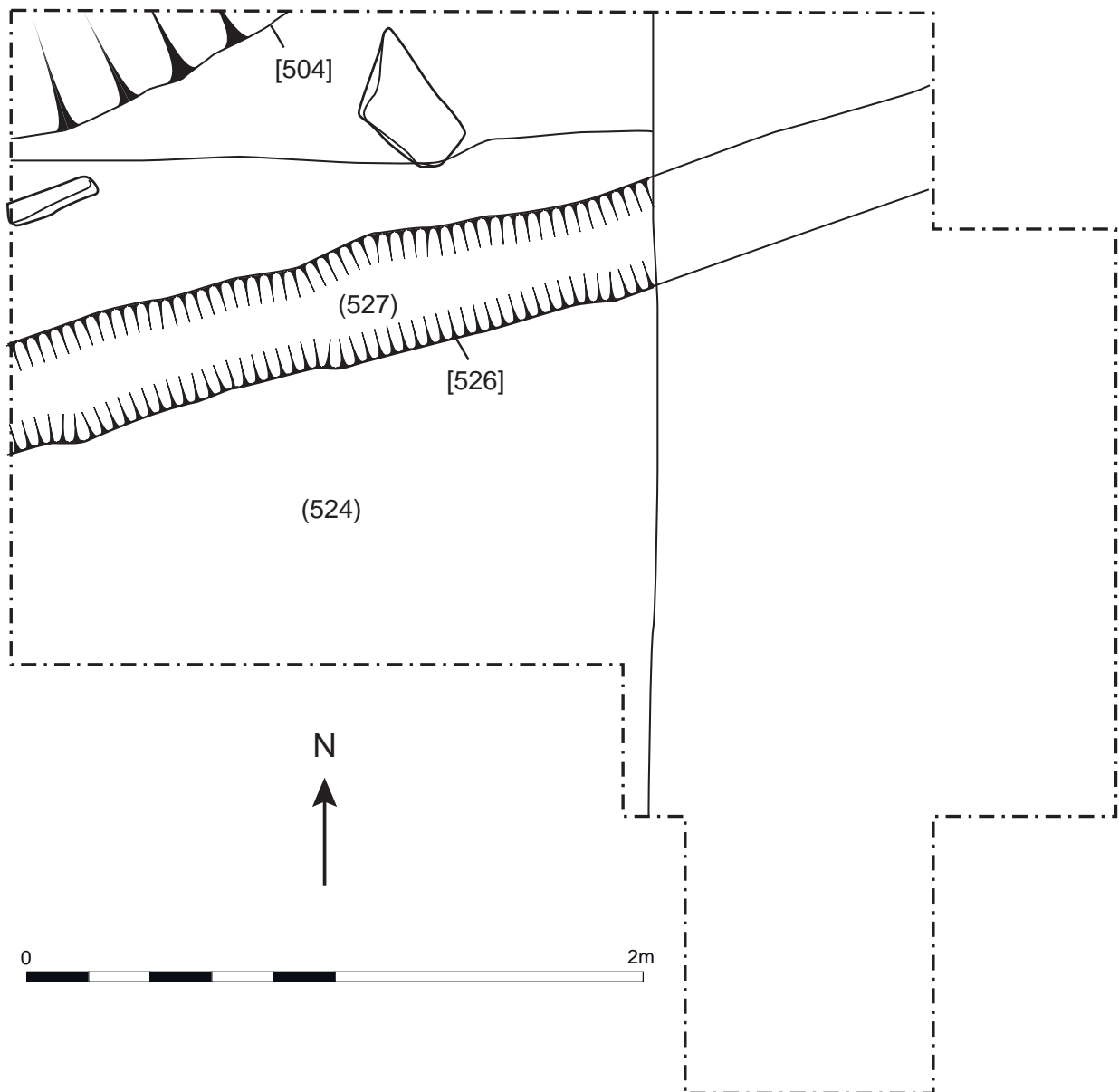


Fig 43. Trench 5 detailed plan of the palisade slot.

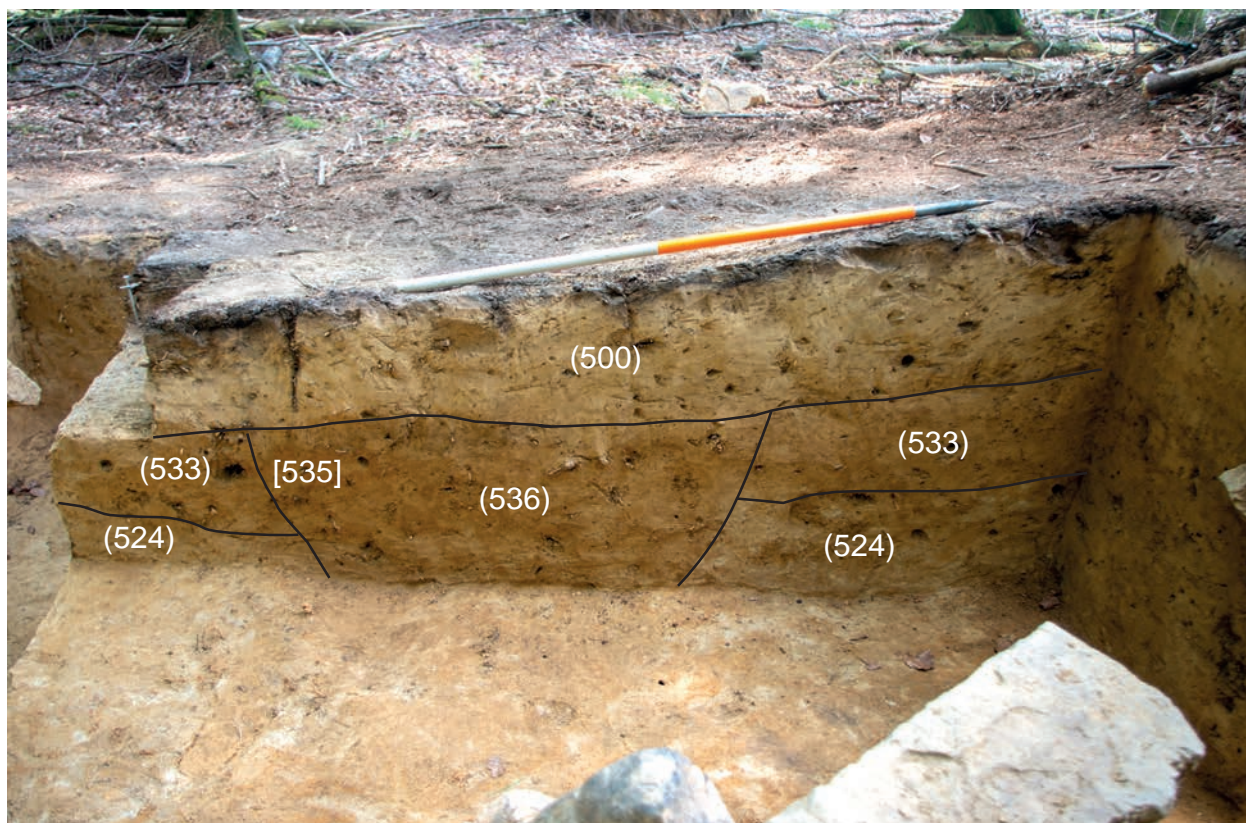


Fig 44. Trench 5 north facing section at the south end of the trench, showing a pit feature in section.

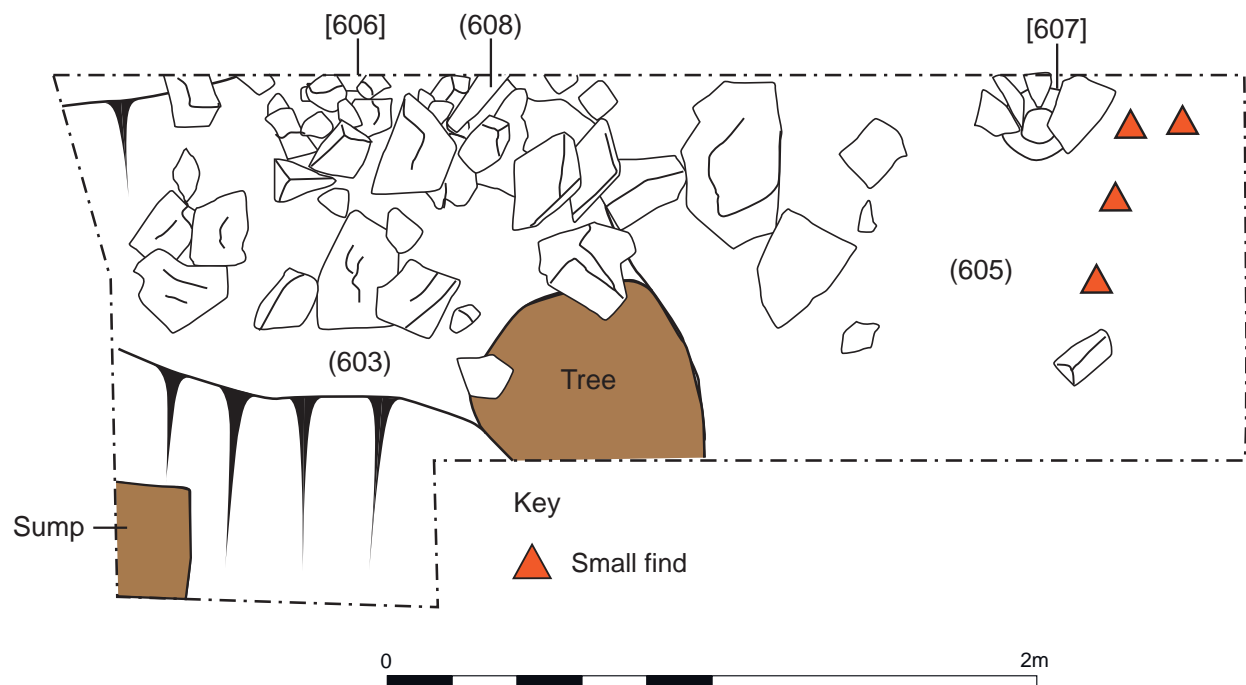


Fig 45. Trench 6 final plan.

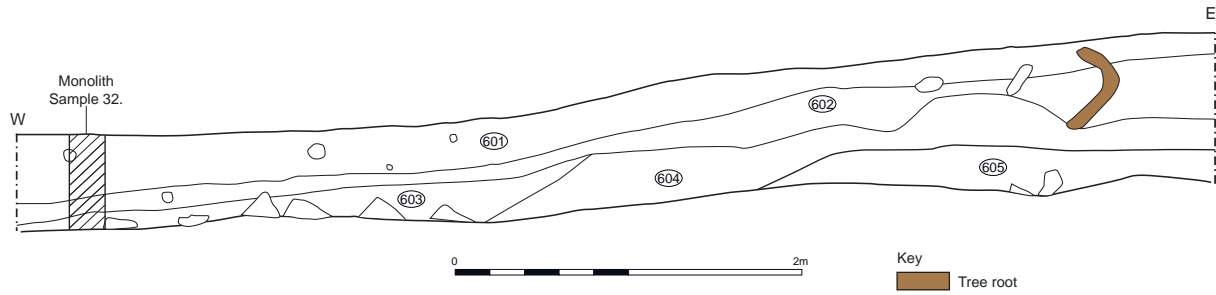


Fig 46. Trench 6 south facing section.

5.6 Trench 6

Trench 6 was opened in 2019 to investigate a waterlogged area in the south-east corner of the hillfort where a spring emerges. The hillfort inner rampart appears to have been deliberately designed to run for a lengthy stretch downslope and then abruptly change direction and follow the contour in order to incorporate this feature within the enclosed area. This principle is a common feature at other hillforts in the region and examples are known at Babilonie, Tonsberg, Herlingsburg and the Grotenburg. An excavated spring at the Dünsberg near Niedenstein (Schulze-Forster 2002), had been enhanced by the construction of a timber-framed basin to collect the water emanating from the hillside.

The trench was ‘L’ shaped in plan 3.8m x 1.8m, and orientated east to west. The aim was to evaluate the nature of any surviving remains and recover palaeo-environmental samples from the waterlogged deposits (see fig 3).

The spring

601, 602, 603, 604, 605, 606, 607, 608

The earliest features identified were two post-settings (606 and 607). Post-setting 607 was located at the eastern

end of the trench and defined by flat, small to medium sized angular stones (Fig 45). Post-setting (606) defined by flat, small to medium sized stones, but it was situated at the western end of the trench adjacent to the waterlogged soil of the spring, through which a monolith was taken (sample number 032) (Fig 46). Immediately to the east of the post-setting was a spread of large, flat, angular earth-fast stone blocks (608). The area opened was too small to fully understand these features, but it is possible that post-setting (606) is part of a timber structure or basin to contain the water from the spring. The stones (608) to the rear of the post could conceivably have provided structural support, or even constituted a laid surface or path (Fig 47A & B).

Covering the spread of flat stones (608) and the post-setting (607) in the eastern half of the trench was a compact light grey-orange mottled sandy clay (605). This contained several sherds of Iron Age pottery and is probably a slowly formed deposit derived from occupation. This layer was sealed by a light grey clay with extensive iron staining (604). Above this deposit and directly overlying the post-setting (606) at the western end of the trench was a grey-green sandy clay (603). This was sealed in turn by a leached grey-brown sandy clay (602) and the topsoil (601).



A

Fig 47A. Trench 6: South facing section clearly showing the mottled orange, grey clay.





Fig 47B. Trench 6 looking east, with the stone feature in the foreground

5.7 Trench 7

Trench 7, opened in 2019, was located 8m north of Trench 1 on the steep northern edge of the promontory. Early plans of the site show the rampart running along this side of the hillfort, but there is no trace of it today as an upstanding feature. The purpose of the trench therefore was to confirm whether the inner hillfort rampart did run continuously around the promontory and investigate the nature of any surviving remains. The trench was orientated north to south and roughly 5.3m x 2.0m in size. The topography of the southern half of the trench is broadly flat, but the northern half of the trench falls away steeply down a heavily wooded slope.

The inner hillfort rampart

700, 701, 702, 703, 704, 705

After removal of the topsoil, several shallow archaeological features were identified cutting into, and built on top of, the natural soil surface. The earliest feature identified was a circular posthole (702) located at the northern end of the trench where the ground begins to fall

away steeply (Fig 48). The posthole was 0.2 m in depth, with vertical sides and a flat base, and filled with a yellow sandy clay (703). It was surrounded by medium-sized angular and sub-angular stones (704). It is possible that these features represent all that survives of the exterior wall face of the inner hillfort rampart. Approximately .8m to the south-west was a group of medium sized flat stones (705). Conceivably this could represent the remains of the wall core. This feature was covered by a compact yellow-sandy clay (701) containing frequent round and sub-angular small stones. This is most likely recent in origin and derived from hard core laid during the creation of the forest track located immediately south of the trench edge.

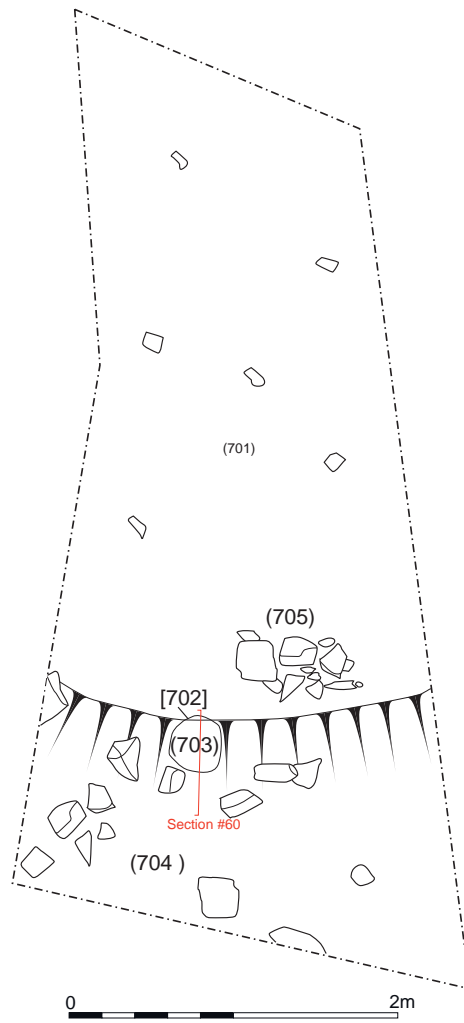


Fig 48. Trench 7 plan and photograph of possible post hole on the northern edge of the hillfort.

6. The Finds

By Grace Hewitt and Ian Dennis

The only finds recovered during the 2018, 2019 and 2022 excavations from the Piepenkopf are ceramic. Due to the high acidity of the soils on the Piepenkopf there are no organics (bone or antler), metal work or archaeobotanical finds or data available. The acidity of the soils has probably been increased due to the planting of coniferous trees and the acidic rain. The only material found on the hillfort that has survived is the pottery or ceramic objects. To date approximately 800 sherds have been recovered weighing just over 14 kg and recorded in 3D (X,Y, and Z) using a total station, with the sherds allocated a separate finds number, to aid spatial distribution pattern analysis. The pottery is currently undergoing analysis to produce a chronological phasing of the fabric, form and type relating to dated contexts that they were recovered from, to produce ceramic chronological reference for Northeast Westphalia with reference to Bérenger 2000.

This is a brief description of the results from the initial assessment of the ceramics recovered and analysed, with colour photographs for reference rather than pen and ink line drawings due to time constraints, they will be produced and used with colour images in the final report. The spatial distribution and interpretation of the ceramics from all the trenches will be presented in the final report.

All the pottery is hand made using either clay coils, slabs, or a combination of both manufacture techniques. The assemblage has a relatively high degree of fragmentation, and most sherds are fairly abraded with some more freshly broken sherds from Trench 2, this has resulted in the recording of only one rim diameter and vessel profile height, and 2 base diameters and thicknesses. Although samples for radiocarbon dating were retrieved during the excavations, this work has not yet been completed. Consequently, there is no precise date range available for the assemblage; it can only reliably be called prehistoric. The assemblage is predominated by body sherds, comprising ~71% followed by rim sherds at ~19%. Base sherds had the lowest recovery rate, comprising just ~9%. These proportions are representative of the degree of fragmentation found in the assemblage; body sherds see a much higher level of fragmentation and so are more represented while vessel rims and bases appear to be much less common.

Examples of the ceramics from the excavation can be seen in figures 49, 50 and 51. Fig 51 is an example of some of the painted/decorated pottery recovered from

the excavation. These conjoining sherds were from positive feature (probably a midden) in trench 4 (see fig 33) located near context (440). This type of decorated ceramic is an extremely rare find for this Northeastern part of Westphalia. Currently no similar pieces of this type of pottery have been identified and they are not referred to or referenced in Bérenger publication from 2000 on the ceramics from Northeast Westphalia. Further analysis on the painted sherds will be conducted and presented in the final report.

There was a large nearly complete vessel recovered from trench that is associated with the stone lined pit (see fig 26). The vessel is a large example of Harpstedter Rauhtöpfe ware, group 4, variant 4.3 (Bérenger, 2000, p24-25) (fig 52). The diameter of the pot is 38.5cm and it is 40cm in height, it is characterised by the finger impressed decoration on the top of the rim and the exterior of the pot has rough dripping like slip applied to it and the fabric is coarse with medium to large pieces of quartz (up to 1.5cm) within and also visible on the exterior, adding to its overall visual appearance. There will be analysis on the sherds which will be presented in the final report.



Fig 49. Examples of the pottery recovered from the excavations from 2018 to 2022. Sherds 1-2 incised line decoration. 3, painted pottery, 4-5, small burnished fine ware bowls.



Fig 50. Examples of the pottery recovered from the excavations from 2018 to 2022. Sherds. 1, rough ware with finger print impressed rim, 2, spindle whorl, 3, semi-coarse ware.



Fig 51. Photographs of the painted/decorated ceramics recovered from trench 4 in 2022.



Fig 52. Photograph of the Harpstedter Rauhtöpfe ware, group 4, variant 4.3 (Bérenger, 2000, p24-25), recovered from the edge of the stone lined pit in trench 2.

7. Radiocarbon dating

Three samples were submitted to The Chrono Centre, Queen's University Belfast for radiocarbon dating in 2018 and a further three in 2023. Details of the samples selected and the radiocarbon dating results are given in Table 2 overleaf. We have included Hohenschwert's (1978) radiocarbon date for comparison, but it is unclear kind of charcoal was submitted at that time

Charcoal Sampling Strategy

by Dana Challinor

Six samples of charcoal from the Piepenkopf Hillfort were examined for the selection of suitable material for radiocarbon dating (Table 1). Standard procedures for identification to genus/species level were undertaken, with the charcoal initially scanned at low magnification (up to X45). Fragments of selected charcoal were subsequently mounted in a sand bath for examination in longitudinal sections at high magnification (up to X400). The following priorities for the selection for suitable charcoal were followed:

1. Roundwood fragments with pith and bark

2. Partial roundwood with pith or bark
3. Fragments with moderate or strong ring curvature (indicative of branchwood)
4. Trunkwood of short(er) lived taxa, e.g. shrub types, such as *Ulex* or trees, such *Alnus glutinosa*, that tend to have a lifespan of <200 years
5. Sapwood rings (identified by absence of tyloses across several growth rings, at least in oak)
6. Heartwood-sapwood transition, where tyloses are very rare, but may not be completely absent.

Of the six samples examined from this hillfort, only one produced a rich assemblage of charcoal (sample 30 from a stone-lined pit). The others produced quite sparse or small sized assemblages. Potential dating samples were, however, found in all but one context. Note that beech and willow can be quite long-lived (300-400 years) – where possible, shorter-lived taxa or roundwood pieces have been selected. The diverse character of the assemblage from sample 30 reflects its nature as a deposit of spent fuelwood and this sample would have potential for further analysis to explore the use of woodland resources and firewood supplies to the hillfort.

Site Code	Context	Sample no.	Identifications	Notes	C14 selection
PIEP19	527	29	<i>Quercus</i> sp. (oak) <i>Prunus</i> sp. (blackthorn/ cherry)	Mid-sized frags. <i>Prunus</i> rw incomplete but strong ring curvature	<i>Prunus</i> rw x 1
PIEP19	527	28	<i>Quercus</i> sp. (oak) <i>Fagus sylvatica</i> (beech)	Mid to small sized frags. <i>Fagus</i> rw incomplete but strong ring curvature	<i>Fagus</i> rw x 1
PIEP19	130	30	<i>Fagus sylvatica</i> (beech) <i>Fraxinus</i> sp. (ash) <i>Carpinus</i> <i>betulus</i> (hornbeam) <i>Acer</i> sp. (maple)	Abundant sample with diverse taxa	<i>Carpinus</i> x 1
PIEP19	72	36	<i>Quercus</i> sp. (oak) <i>Fagus sylvatica</i> (beech)	Small frags	<i>Fagus</i> x 1
PIEP19	75	39	-	Unidentifiable flecks only	None
PIEP19	124	-	<i>Salix/Populus</i> (willow/ poplar)	Only 1 piece of charcoal	<i>Salix/Populus</i> x 1

Table 1. Charcoal from Piepenkopf Hillfort.

Context No.	Year	Sample No.	UB	ID	Material type	Description of context	un cal	95.40%	68.30%
Unknown	1966	Unknown	Unknown	Unknown	Charcoal, unknown	Posthole, Schnitt IV	2216+-65	398-102 cal.BC	377-199 cal.BC
017	2017	001	UBA-37574	PIEP 1	Quercus (sw)	Burnt deposit within the rampart with very frequent large charcoal inclusions.	2471+-30	768-431 cal.BC	752-538 cal.BC
302	2017	004	UBA-37575	PIEP 2	Quercus (sw)	Very loose dark brown/black charcoal deposit within the rampart with very frequent large charcoal inclusions.	2421+-28	746-403 cal.BC	536-412 cal.BC
302	2017	005	UBA-37576	PIEP 3	Fagus (rw)	Very loose dark brown/black charcoal deposit within the rampart with very frequent large charcoal inclusions.	2228+-26	381-204 cal.BC	364-211 cal.BC
129	2019	N/A	UBA-51998	PIEP_19_01	Populus salix	From pottery sherd within upper pit fill of stone-lined pit, Trench 2	1953+-25	36 cal.BC-cal.AD 128	cal.AD 27-118
130	2019	30	UBA-51999	PIEP_19_02	Carpinus	Primary dark, organic fill of stone-lined pit, Trench 2	2219+-25	381-191 cal.BC	360-205 cal.BC
527	2019	29	UBA-52000	PIEP_19_03	Prunus	Fill of palisade slot, Trench 5	2600+-30	818-673 cal.BC	803-780 cal.BC

Table 2. C14 dates for Piepenkopf Hillfort.

8. Discussion

The 2017, 2018, 2019 and 2022 excavations at the Piepenkopf have provided a considerable amount of information about the sequence of rampart construction and the nature of activities within the hillfort. First, we should consider where the entrance into the hillfort was located. It was thought from earlier plans of the Piepenkopf that the entrance was at the far western end of the hillfort (Hohenschwert 1978, p89). Today the main access to the hillfort is from the northeast and is currently a compacted hard-core road/track maintained by the forestry commission. It seems more plausible that the original principal access into the Piepenkopf was from the northeast, where the crest of the hill is flat. This direction leads out towards the main road (1,000m to the east) which is thought to be an old trade route (Hohenschwert 1978, map supplement in the publication). Excavation in Trench 1 appears to support this assertion. The rampart does apparently terminate at the point where it meets the modern trackway, and the presence of a very large stone plinth suggests the presence of a gateway.

The most recent LiDAR however does suggest another possible entrance at the western end of the hillfort as shown by Hohenschwert (1978). Examination of the area in the winter of 2023 when the undergrowth was low, showed the terrain here is very steep and somewhat inaccessible. The modern trackway has, however, truncated the rampart in this location and it is possible that there was a sufficiently shallow-sloping approach which makes a secondary entrance here a possibility. (see Fig 39).

In 2018 and 2019 Trench 1 was extended to the north and to the east to further investigate and obtain more information on the phasing and construction of the inner rampart. This was a substantial timber and stone box structure. It possessed a timber and dry-stone revetment at the front, and a continuous wooden palisade around its top, set back 1.2m from the wall front. The base of the palisade probably supported the stone and rubble fill forming the box rampart. Posts, located approximately 1 m apart in a line parallel with the rear of the box rampart, may have supported the back of the wall with the aid of horizontal planking. Additional timber posts and beams also suggest the presence of a structure, possibly a ramp, allowing easy access to the rampart top from the hillfort interior. These timber elements at the rear appear to have been consumed by fire. The burning of ramparts appears to be a commonality amongst the Westphalian hillforts

and may represent deliberate acts of destruction as a result of violence or simple abandonment.

In 2017, charcoal from one of the postholes at the rear of rampart in Trench 1 provided a radiocarbon date of 380-200 cal. BCE (UBA-37576 at 95.4%). This is consistent with a radiocarbon date of 390-200 cal. BCE (68.3%) obtained by Hohenschwert from a similar burnt feature at the rear of the inner rampart in Schnitt IV. This indicates that the rampart was possibly constructed at some point in the 4th or 3rd century BCE.

How the middle and outer palisade/boundaries relate to the inner rampart is still uncertain. Excavation along the crest of the escarpment on the northern side of the hillfort in Trench 7 indicates that the inner rampart may well have been continuous around the northern side but not as a stone structure similar to the rampart in Trench 1. The middle palisade/boundary was explored in Trench 5. This revealed a possible bank approximately 3.9 m in width fronted by a timber palisade. A single radiocarbon determination (UBA-52000) produced a date in the range 820-670 cal. BCE. This is potentially highly significant given that the emergence of hillforts in the region is generally accepted as falling between the 4th and 2nd centuries BCE. The different character of the inner and middle boundaries may reflect a chronological difference. A sequence which sees the original enclosure of the hill with a palisade occurring at some point in the Late Bronze Age before the inner rampart was constructed in the 4th century BCE is plausible. Occupation need not have been continuous since there is little evidence of activity from the later 7th to 5th centuries BCE. The outer possible palisade/boundary remains unexplored. It should be a research priority in future seasons to investigate, characterise and recover information that can help to confirm its relative sequence to the other boundaries and obtain dating material to fix the absolute date of its construction.

Four areas (Trenches 2, 3, 4 and 6) have now been explored within the interior of the hillfort. The areas opened have been relatively small, but the substantial postholes and post-settings identified in Trench 4 must relate to timber buildings possibly constructed on an artificial terrace and possibly supported on stilts to accommodate the slope. The large number of pottery sherds recovered from the southern part and towards the centre of Trench 4 suggests that at least one of these is likely to be a structure.

A single, large, post-setting in Trench 3 is also presumably part of a timber building, but its character and extent could not be determined. The large quantity of sandstone rubble encountered in this trench is probably derived from deliberate quarrying activity, most likely to obtain material for rampart and building construction.

The western end of Trench 2 has revealed evidence of a series of intercutting pits. During excavation, these were virtually imperceptible in plan, but their fills showed in section after weathering. The function of the pits is unclear. Given their wide mouths they are unlikely to have been silos for grain storage, although they could have been used for the storage of other goods placed in bags or vessels. The recovery of over 100 pottery sherds from their fills suggests they could also have been used as refuse dumps, but this may have been a secondary, rather than a primary, function. In the central area of the trench was a linear ditch or, alternatively, an elongated pit. Cutting into the elongated ditch was an oval, stone-lined, pit, and some of the stones lining the pit had been worked and shaped, especially on the stones that were placed on the periphery of the stone feature. The primary fill was a thin and charcoal rich and presumably derives from burnt organic material. This produced a date of 380-190 cal. BC which is consistent with the potential date for the construction of the inner rampart. The relationship of this pit/feature with the large ceramic vessel found on its south-eastern edge is unclear. The large ceramic vessel is of the D-Formengruppe 4: Harpstedter Rauhtöpfe variant

4.3 (Bérenger 2000, 23-25). The significance of the positioning of the vessel may be evidence of the funerary change from the urn burial to the Brandgrubengräber custom, which took place from approximately 300 to 100BC (Bérenger 2000, p231). A Brandgrubengrāb is a specific way of depositing human remains whereby the cremated remains of the deceased and other remnants of the funeral pyre, such as charcoal and burnt objects, are jointly deposited onto the bottom of a pit (De Mulder et al. 2013). Bérenger also states that the variants 4.2 and 4.3 of the Harpstedter Rauhtöpfe forms are associated with this type of funerary deposit, which could suggest that the stoned lined pit and the large vessel may indicate a cremation deposit (Bérenger, 2000, p231).

Trench 6 examined the spring at the southern southeastern side of the hillfort and appeared to show that it was defined by a built structure, although a much larger area requires investigation in order to understand its character. A monolith sample was taken to assess the potential for pollen preservation. The initial paleoenvironmental analysis of this sample was undertaken by Dr Rhiannon Phillp in 2020 (but was impacted by COVID). Unfortunately, the movement of water through the deposits means that the integrity of the sequence is in question. As a result, it was not possible to produce a reliable interpretation of the environmental sequence. Therefore, an important future aim should be to place another trench over this area away from the active the spring in order to facilitate the retrieval of uncontaminated material from a new monolith.

9. Bibliography

- De Mulder, G., Van Strydonck, M., & De Clercq, W. (2013). 14C Dating of “Brandgrubengräber” from the Bronze Age to the Roman Period in Western Flanders (Belgium). *Radiocarbon*, 55(3), 1233-1245. doi:10.1017/S0033822200048141
- Barclay, A., Booth, P., Brown, D., Evans, J., Knight, D., and Wood, I. 2016. *A Standard for Pottery Studies in Archaeology*. Prehistoric Ceramic Research Group, Study Group for Roman Pottery, and Medieval Pottery Research Group.
- Bérenger, D. 2000. *Zur Chronologie der Vorrömischen Eisenzeit und Römischen Kaiserzeit in Nordost-Westfalen*. Bodenaltertümer Westfalens 38, von Zabern, Mainz.
- Best, W. 2004. Von historischen und modernen Angriffen auf die Hünenburg bei Gellinghausen. *Arch Ostwestfalen* 8, 33-9.
- Dennis, I., Muller-Kissing, J. and Davis, O. 2018. *An interim report on the excavations at the Grotenburg and Piepenkopf Hillforts, Westphalia, Germany, 2017*. Cardiff: Cardiff Studies in Archaeology 37.
- Gensen, R. 1989: *Der Christenberg bei Münchhausen*. Archäologische Denkmäler in Hessen 77.
- Günther, K. 1981. Die Hünenburg bei Bielefeld, eine Befestigung der vorrömischen Eisenzeit im Weserbergland. In K. Günther (Hrsg.). *Beiträge zur vorrömischen Eisenzeit in Ostwestfalen*, 1-45. Bodenalt: Westfalen 18.
- Hohenschwert, F. 1978. Ur-und frühgeschichtliche Befestigungen in Lippe. Lemgo: Lippische Studien Bd. 4.
- Möllers, S. & Zehm, B. 2007. *Rätsel Schnippenburg: Sagenhafte Funde aus der Keltenzeit*, Schriften zur Archäologie des Osnabrücker Landes Band V, Verlag Dr. Rudolf Habelt GMBH, Bonn.
- Schulze-Forster, J. 2002. *Die latènezeitlichen Funde vom Dünsberg*. Unveröffentlichte Dissertation Marburg 2002.
- Schulze-Forster, J. 2007. Die Burgen der Mittelgebirgszone. Eisenzeitliche Fluchtburgen, befestigte Siedlungen, Zentralorte oder Kultplätze? In Möllers, S und Zehm, B. (Hrsg.). *Rätsel Schnippenburg: Sagenhafte Funde aus der Keltenzeit*, 109-44. Bonn: Dr Rudolf Habelt GMBH.
- www1 http://www.archaeologists.net/sites/default/files/node-files/ifa_standards_excavation.pdf

10. Appendices

Appendix 1. Small Finds List

SMALL FIND NO.	TRENCH	CONTEXT	FIND TYPE	DESCRIPTION
1	1	3	Ceramic	Spindle whorl
2	2	101	Pot	Pot Sherd
3	2	101	Pot	Pot sherds x 3
4	1	29	Pot	Pot Sherd
5	2	111	Pot	Pot Sherd
6	2	111	Pot	Pot Sherd
7	2	111	Flint	Flint
8	2	111	Pot	Pot Sherd
9	1	37	Pot	Pot Sherd
10	2	111	Pot	Pot Sherd
11	2	111	Pot	Pot Sherd
12	2	111	Pot	Pot Sherd
13	2	111	Pot	Pot Sherd
14	2	111	Pot	Pot Sherd
15	1	37	Pot	Pot Sherd
16	1	37	Pot	Pot Sherd
17	2	110	Pot	Pot Sherd
18	2	111	Pot	Pot Sherd
19	2	111	Pot	Pot Sherd
20	2	110	Pot	Pot Sherd
21	2	111	Pot	Pot Sherd
22	2	110	Pot	Pot Sherd
23	2	111	Pot	Pot Sherd
24	2	111	Pot	Pot Sherd
25	2	111	Pot	Pot Sherd
26	2	110	Pot	Pot Sherd
27	2	111	Pot	Pot Sherd
28	2	111	Stone	Natural stone
29	2	111	Pot	Pot Sherd
30	2	110	Pot	Pot Sherd
31	2	111	Stone	Natural stone
32	2	111	Pot	Pot Sherd
33	2	111	Pot	Pot Sherd
34	2	110	Pot	Pot Sherd
35	2	111	Pot	Pot Sherd

36	2	111	Pot	Pot Sherd
37	2	111	Pot	Pot Sherd
38	2	111	Pot	Pot Sherd
39	2	111	Charcoal	Charcoal
40	2	110	Pot	Pot Sherd
41	1	37	Pot	Pot Sherd
42	2	111	Pot	Pot Sherd
43	2	111	Pot	Pot Sherd
44	2	111	Pot	Pot Sherd
45	2	111	Pot	Pot Sherd
46	2	111	Pot	Pot Sherd
47	2	111	Pot	Pot Sherd
48	2	111	Pot	Pot Sherd
49	2	111	Pot	Pot Sherd
50	2	111	Pot	Pot Sherd
51	2	111	Pot	Pot Sherd
52	2	111	Pot	Pot Sherd
53	1	37	Pot	Pot Sherd - rim
54	2	111	Pot	Pot Sherd
55	1	37	Pot	Pot Sherd
56	2	111	Pot	Pot Sherd
57	2	111	Pot	Pot Sherd
58	2	111	Pot	Pot Sherd
59	2	111	Pot	Pot Sherd
60	2	111	Pot	Pot Sherd
61	2	111	Pot	Pot Sherd
62	2	111	Pot	Pot Sherd
63	2	111	Pot	Pot Sherd
64	2	111	Pot	Pot Sherd
65	2	111	Pot	Pot Sherd
66	2	111	Pot	Pot Sherd
67	2	111	Pot	Pot Sherd
68	2	111	Pot	Pot Sherd
69	1	36	Pot	Pot Sherd
70	1	39	Pot	Pot Sherd
71	2	111	Pot	Pot Sherd
72	1	36	Pot	Pot Sherd
73	1	37	Pot	Pot Sherd - Rim
74	2	111	Pot	Pot Sherd
75	2	111	Stone	Natural Stone
76	2	111	Pot	Pot Sherd
77	1	44	Wood	Burnt Wood with possible drill hole
78	1	37	Pot	Pot Sherd
79	2	111	Pot	Pot Sherd
80	2	111	Pot	Pot Sherd

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81	1	36	Pot	Pot Sherd
82	2	111	Pot	Pot Sherd
83	1	36	Pot	Pot Sherd
84	2	111	Pot	Pot Sherd
85	1	36	Stone	Natural Stone
86	1	37	Pot	Pot Sherd
87	1	37	Pot	Pot Sherd
88	1	37	Pot	Pot Sherd
89	1	37	Pot	Pot Sherd
90	1	37	Pot	Pot Sherd
91	1	37	Pot	Pot Sherd
92	2	111	Pot	Pot Sherd
93	2	111	Pot	Pot Sherd
94	2	111	Pot	Pot Sherd
95	2	111	Pot	Pot Sherd
96	1	36	Stone	Natural Stone
97	2	111	Pot	Pot Sherd
98	2	111	Pot	Pot Sherd
99	2	111	Pot	Pot Sherd
100	2	111	Pot	Pot Sherd
101	2	111	Pot	Pot Sherd
102	2	115	Pot	Pot Sherd
103	2	115	Pot	Pot Sherd
104	2	115	Stone	Natural Stone
105	2	101	Pot	Pot Sherd
106	2	104	Pot	Pot Sherd
107	2	119	Pot	Pot Sherd
108	2	104	Pot	Pot Sherd
109	2	104	Charcoal	Charcoal
110	1	37	Pot	Pot Sherd
111	2	119	Pot	Pot Sherd
112	2	119	Pot	Pot Sherd
113	2	119	Pot	Pot Sherd
114	1	37	Stone	Natural Stone
115	1	37	Stone	Natural Stone
116	1	37	Stone	Natural Stone
117	1	37	Stone	Natural Stone
118	2	124	Pot	Pot Sherd
119	2	124	Pot	Pot Sherd
120	2	124	Pot	Pot Sherd
121	2	124	Pot	Pot Sherd
122	2	124	Pot	Pot Sherd
123	1	37	Pot	Pot Sherd
124	1	37	Pot	Pot Sherd
125	2	124	Stone	Natural Stone
126	4	402	Pot	Pot Sherd

127	1	37	Pot	Pot Sherd
128	4	402	Pot	Pot Sherd
129	4	402	Pot	Pot Sherd
130	4	402	Pot	Pot Sherd
131	2	124	Pot	Pot Sherd
132	4	402	Pot	Pot Sherd
133	5	500	Pot	Pot Sherd
134	2	124	Pot	Pot Sherd
135	4	402	Pot	Pot Sherd
136	4	402	Pot	Pot Sherd
137	4	402	Pot	Pot Sherd
138	4	402	Pot	Pot Sherd
139	4	402	Pot	Pot Sherd
140	1	37	Pot	Pot Sherd
141	4	402	Pot	Pot Sherd
142	5	500	Pot	Pot Sherd
143	5	513	Pot	Pot Sherd
144	5	513	Pot	Pot Sherd
145	5	513	Pot	Pot Sherd
146	5	513	Pot	Pot Sherd
147	5	514	Pot	Pot Sherd
148	2	129	Pot	Pot Sherd
149	2	129	Pot	Pot Sherd
150	2	129	Pot	Pot Sherd
151	2	129	Pot	Pot Sherd
152	2	124	Pot	Pot Sherd
153	2	129	Pot	Pot Sherd
154	2	124	Pot	Pot Sherd
155	2	124	Pot	Pot Sherd
156	2	124	Pot	Pot Sherd
157	2	124	Pot	Pot Sherd
158	2	missing	Pot	Pot Sherd
159	2	124	Pot	Pot Sherd
160	2	131	Pot	Pot Sherd
161	6	604	Pot	Pot Sherd
162	6	604	Pot	Pot Sherd
163	6	604	Pot	Pot Sherd
164	6	604	Pot	Pot Sherd
165	2	131	Pot	Pot Sherd
166	2	124	Pot	Pot Sherd
167	VOID			
168	VOID			
169	VOID			
170	VOID			
171	1	37	Pot	Pot Sherd

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172	2	119	Pot	Pot Sherd
173	4	402	Stone	Natural Stone
174	2	119	Pot	Pot Sherd
175	2	119	Pot	Pot Sherd
176	2	122	Pot	Pot Sherd
177	2	122	Stone	Natural Stone
178	4	402	Stone	Natural Stone
179	2	119	Pot	Pot Sherd
180	2	119	Pot	Pot Sherd
181	2	119	Pot	Pot Sherd
182	2	119	Pot	Pot Sherd
183	2	119	Pot	Pot Sherd
184	2	119	Pot	Pot Sherd
185	2	119	Pot	Pot Sherd
186	1	58	Fe	Iron Object
187	2	119	Pot	Pot Sherd
188	2	119	Pot	Pot Sherd
189	2	119	Pot	Pot Sherd
190	2	119	Pot	Pot Sherd
191	1	49	Pot	Pot Sherd
192	4	402	Pot	Pot Sherd
193	4	402	Pot	Pot Sherd
194	4	402	Pot	Pot Sherd
195	4	402	Pot	Pot Sherd
196	4	402	Pot	Pot Sherd
197	4	402	Pot	Pot Sherd
198	4	402	Pot	Pot Sherd
199	4	402	Pot	Pot Sherd
200	4	402	Pot	Pot Sherd
201	4	402	Pot	Pot Sherd
202	4	402	Pot	Pot Sherd
203	4	402	Pot	Pot Sherd
204	4	402	Pot	Pot Sherd
205	1	37	Pot	Pot Sherd
206	4	402	Pot	Pot Sherd
207	4	402	Pot	Pot Sherd
208	2		Pot	Pot Sherd
209	1	37	Pot	Pot Sherd
210	4	402	Pot	Pot Sherd
211	4	402	Pot	Pot Sherd
212	2		Pot	Pot Sherd
213	4	402	Pot	Pot Sherd
214	4	402	Pot	Pot Sherd
215	4	402	Pot	Pot Sherd
216	1	37	Pot	Pot Sherd
217	4	402	Pot	Pot Sherd

218	4	402	Pot	Pot Sherd
219	4	402	Pot	Pot Sherd
220	4	402	Pot	Pot Sherd
221	2		Pot	Pot Sherd
222	4	402	Pot	Pot Sherd
223	2	124	Pot	Pot Sherd
224	2	104	Stone	Natural Stone
225	2		Pot	Pot Sherd
226	2		Pot	Pot Sherd
227	4	402	Pot	Pot Sherd
228	2	101	Pot	Pot Sherd
229	2	110	Pot	Pot Sherd
230	4	405	Pot	Pot Sherd
231	1	37	Pot	Pot Sherd
232	2		Pot	Pot Sherd
233	1	37	Stone	Natural Stone
234	2	124	Pot	Pot Sherd
235	2		Pot	Pot Sherd
236	4	402	Pot	Pot Sherd
237	2		Pot	Pot Sherd
238	2	124	Pot	Pot Sherd
239	2	124	Pot	Pot Sherd
240	4	402	Pot	Pot Sherd
241	4	402	Pot	Pot Sherd
242	2	101	Pot	Pot Sherd
243	1	37	Pot	Pot Sherd
244	2	124	Pot	Pot Sherd
245	2	124	Pot	Pot Sherd
246	VOID			
247	1	37	Pot	Pot Sherd
248	2	123	Pot	Pot Sherd
249	1	37	Pot	Pot Sherd
250	2	124	Pot	Pot Sherd
251	2	101	Pot	Pot Sherd
252	2	123	Pot	Pot Sherd
253	2	123	Pot	Pot Sherd
254	1	37	Pot	Pot Sherd
255	1	37	Pot	Pot Sherd
256	1	37	Pot	Pot Sherd
257	1	36	Pot	Pot Sherd
258	2	123	Pot	Pot Sherd
259	1	37	Pot	Pot Sherd
260	1	49	Pot	Pot Sherd
261	2	123	Pot	Pot Sherd
262	2	124	Pot	Pot Sherd
263	1	37	Pot	Pot Sherd

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264	2	123	Pot	Pot Sherd
265	2	123	Pot	Pot Sherd
266	1	37	Pot	Pot Sherd
267	1	37	Pot	Pot Sherd
268	1	37	Pot	Pot Sherd
269	2	124	Pot	Pot Sherd
270	2	124	Pot	Pot Sherd
271	1	37	Pot	Pot Sherd
272	2	124	Pot	Pot Sherd
273	2	124	Pot	Pot Sherd
274	2	124	Slag/Natural deposit	Slag/ natural deposit
275	2	124	Pot	Pot Sherd
276	4	403	Pot	Pot Sherd
277	2	124	Pot	Pot Sherd
278	4	402	Stone	Natural Stone
279	4	403	Stone	Natural Stone
280	1	37	Pot	Pot Sherd
281	1	37	Fossil	Fossil
282	2	124	Pot	Pot Sherd
283	1	37	Pot	Pot Sherd
284	2	124	Pot	Pot Sherd
285	2	124	Pot	Pot Sherd
286	1	37	Pot	Pot Sherd
287	2	124	Pot	Pot Sherd
288	1	36	Pot	Pot Sherd
289	2	124	Pot	Pot Sherd
290	2	124	Pot	Pot Sherd
291	2	124	Pot	Pot Sherd
292	2	124	Pot	Pot Sherd
293	2	124	Pot	Pot Sherd
294	2	124	Pot	Pot Sherd
295	4	403	Stone	Natural Stone
296	1	37	Pot	Pot Sherd
297	2	124	Pot	Pot Sherd
298	1	37	Pot	Pot Sherd
299	1	37	Pot	Pot Sherd
300	2	124	Pot	Pot Sherd
301	1	36	Pot	Pot Sherd
302	2	124	Pot	Pot Sherd
303	2	124	Pot	Pot Sherd
304	1	37	Pot	Pot Sherd
305	1	36	Pot	Pot Sherd
306	1	36	Pot	Pot Sherd
307	1	37	Pot	Pot Sherd
308	2	124	Pot	Pot Sherd
309	2	124	Pot	Pot Sherd

310	2	124	Pot	Pot Sherd
311	2	124	Pot	Pot Sherd
312	2	124	Pot	Pot Sherd
313	4	410	Stone	Natural Stone
314	2	124	Pot	Pot Sherd
315	2	124	Pot	Pot Sherd
316	2	124	Pot	Pot Sherd
317	1	36	Pot	Pot Sherd
318	2	124	Pot	Pot Sherd
319	2	124	Pot	Pot Sherd
320	2	124	Pot	Pot Sherd
321	2	124	Pot	Pot Sherd
322	2	101	Pot	Pot Sherd
323	2	124	Pot	Pot Sherd
324	2	124	Pot	Pot Sherd
325	2	123	Pot	Pot Sherd
326	2	124	Pot	Pot Sherd
327	1	37	Pot	Pot Sherd
328	1	37	Pot	Pot Sherd
329	2	123	Pot	Pot Sherd
330	2	124	Pot	Pot Sherd
331	2	124	Pot	Pot Sherd
332	2	123	Pot	Pot Sherd
333	1	37	Pot	Pot Sherd
334	1	37	Pot	Pot Sherd
335	1	37	Pot	Pot Sherd
336	VOID			
337	4	403	Pot	Pot Sherd
338	VOID			
339	4	403	Pot	Pot Sherd
340	4	403	Pot	Pot Sherd
341	4	403	Pot	Pot Sherd
342	2		Pot	Pot Sherd
343	2	129	Pot	Pot Sherd
344	1	37	Quartz	Natural Quartz
345	4	403	Pot	Pot Sherd
346	2	129	Pot	Pot Sherd
347	1	37	Pot	Pot Sherd
348	4	403	Pot	Pot Sherd
349	4	403	Pot	Pot Sherd
350	1	37	Pot	Pot Sherd
351	2	129	Pot	Pot Sherd
352	2	129	Pot	Pot Sherd
353	2	129	Pot	Pot Sherd
354	1	37	Pot	Pot Sherd
355	2	129	Pot	Pot Sherd

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356	1	37	Pot	Pot Sherd
357	2	129	Stone	Natural Stone
358	2	129	Pot	Pot Sherd
359	2	129	Pot	Pot Sherd
360	2	129	Pot	Pot Sherd
361	2	129	Pot	Pot Sherd
362	1	37	Pot	Pot Sherd
363	1	37	Pot	Pot Sherd
364	2	129	Pot	Pot Sherd
365	2	129	Pot	Pot Sherd
366	2	129	Pot	Pot Sherd
367	2	129	Pot	Pot Sherd
368	2	129	Pot	Pot Sherd
369	1	37	Pot	Pot Sherd
370	2	129	Pot	Pot Sherd
371	2	129	Pot	Pot Sherd
372	2	129	Pot	Pot Sherd
373	2	129	Pot	Pot Sherd
374	2	129	Pot	Pot Sherd
375	2	129	Pot	Pot Sherd
376	2	129	Pot	Pot Sherd
377	2	129	Pot	Pot Sherd
378	2	129	Pot	Pot Sherd
379	2	129	Pot	Pot Sherd
380	4	407	Pot	Pot Sherd
381	1	36	Pot	Pot Sherd
382	2	136	Pot	Pot Sherd
383	2	136	Pot	Pot Sherd
384	4	430	Pot	Pot Sherd
385	2	131	Pot	Pot Sherd
386	2	136	Pot	Pot Sherd
387	4	430	Pot	Pot Sherd
388	2	136	Pot	Pot Sherd
389	2	136	Pot	Pot Sherd
390	4	431	Pot	Pot - Rim sherd
391	4	431	Pot	Pot Sherd
392	2	136	Pot	Pot Sherd
393	2	131	Pot	Pot Sherd
394	2	136	Pot	Pot Sherd
395	2	137	Pot	Pot Sherd
396	2	136	Pot	Pot Sherd
397	1	50	Pot	Pot Sherd
398	2	136	Pot	Pot Sherd
399	2	136	Pot	Pot Sherd
400	2	136	Pot	Pot Sherd
401	2	136	Pot	Pot Sherd

402	2	136	Pot	Pot Sherd
403	1	81	Pot	Pot Sherd
404	2	136	Pot	Pot Sherd
405	2	137	Pot	Pot Sherd
406	2	137	Pot	Pot Sherd
407	2	137	Pot	Pot Sherd
408	2	136	Pot	Pot Sherd
409	2	136	Pot	Pot sherd
410	2	136	Pot	Pot sherd
411	2	136	Pot	Pot sherd
412	2	136	Pot	Pot sherd
413	2	138	Pot	Pot sherd
414	2	134	Pot	Pot sherd
415	2	134	Pot	Pot sherd
416	2	Tree disturbance	Flint	Cortical flint core
417	4	430	Pot	Pot sherd
418	4	430	Pot	Pot sherd
419	4	430	Pot	Pot sherd
420	4	430	Pot	Pot sherd
421	4	430	Pot	Pot sherd
422	4	430	Pot	Pot sherd
423	4	430	Pot	Pot-Rim
424	4	430	Pot	Pot sherd
425	4	430	Pot	Pot sherd
426	4	430	Pot	Pot sherd
427	4	430	Pot	Pot sherd
428	4	430	Pot	Pot sherd
429	4	430	Pot	Pot sherd
430	4	430	Pot	Pot sherd
431	4	430	Pot	Pot sherd
432	4	432	Pot	Pot sherd
433	4	432	Pot	Pot sherd
434	4	432	Pot	Pot sherd
435	2	137	Pot	Pot sherd
436	2	136	Pot	Pot sherd
437	2	136	Pot	Pot sherd
438	2	136	Pot	Pot sherd
439	2	137	Pot	Pot sherd
440	2	137	Pot	Pot sherd
441	2	134	Pot	Pot sherd
442	2	136	Pot	Pot sherd
443	2	136	Pot	Pot sherd
444	2	136	Pot	Pot sherd
445	2	136	Pot	Pot sherd
446	2	136	Pot	Pot sherd
447	2	134	Pot	Pot sherd

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448	2	134	Pot	Pot sherd
449	VOID			
450	2	136	Pot	Pot sherd
451	2	134	Pot	Pot sherd
452	2	134	Pot	Pot sherd
453	VOID			
454	2	134	Pot	Pot sherd
455	VOID			
456	2	136	Pot	Pot sherd
457	1	29	Pot	Pot sherd
458	2	136	Pot	Pot sherd
459	2	136	Pot	Pot sherd
460	2	136	Pot	Pot sherd
461	2	109	Pot	Pot sherd
462	1	44	Wood	Charred dowel piece
463	2	136	Pot	Pot sherd
464	2	136	Pot	Pot sherd
465	2	136	Pot	Pot- body
466	2	136	Pot	Pot sherd
467	VOID			
468	2	136	Pot	Pot sherd
469	2	136	Pot	Pot sherd
470	2	136	Pot	Pot sherd
471	2	136	Pot	Pot sherd
472	2	136	Pot	Pot sherd
473	2	136	Pot	Pot sherd
474	2	137	Pot	Pot sherd
475	2	139	Pot	Pot sherd
476	2	137	Pot	Pot sherd
477	2	139	Pot	Pot sherd
478	2	138	Pot	Pot sherd
479	1	37	Pot	Pot sherd
480	2	134	Pot	Pot sherd
481	2	137	Pot	Pot sherd
482	4	435	Pot	Pot sherd
483	4	435	Pot	Pot sherd
484	4	435	Pot	Pot sherd
485	4	435	Pot	Pot sherd
486	4	435	Pot	Pot sherd
487	4	434	Pot	Pot sherd
488	4	436	Pot	Pot sherd
489	4	423	Pot	Pot sherd
490	1	37	Pot	Pot sherd
491	2	136	Pot	Pot sherd
492	2	134	Pot	Pot sherd
493	2	136	Pot	Pot sherd

494	2	136	Pot	Pot-Rim
495	2	136	Pot	Pot sherd
496	4	435	Pot	Pot sherd
497	4	435	Pot	Pot sherd
498	4	435	Pot	Pot sherd
499	4	435	Pot	Pot sherd
500	4	435	Pot	Pot sherd
501	4	435	Pot	Pot sherd
502	4	435	Pot	Pot sherd
503	4	435	Pot	Pot sherd
504	VOID			
505	4	433	Pot	Pot sherd
506	2	136	Pot	Pot sherd
507	2	136	Pot	Pot sherd
508	2	136	Pot	Pot sherd
509	1	34	Pot	Pot sherd
510	1	36	Pot	Pot sherd
511	2	136	Pot	Pot sherd
512	2	136	Pot	Pot sherd
513	2	136	Pot	Pot sherd
514	4	435	Pot	Pot sherd
515	4	435	Pot	Pot sherd
516	4	435	Pot	Pot sherd
517	4	435	Pot	Pot sherd
518	4	435	Pot	Pot sherd
519	4	435	Pot	Pot sherd
520	4	435	Pot	Pot sherd
521	4	435	Pot	Pot sherd
522	2	136	Pot	Pot sherd
523	4	435	Pot	Pot sherd
524	4	435	Pot	Pot sherd
525	4	435	Pot	Pot sherd
526	4	435	Pot	Pot sherd
527	4	435	Pot	Pot sherd
528	4	435	Pot	Pot sherd
529	4	435	Pot	Pot sherd
530	4	435	Pot	Pot sherd
531	2	136	Pot	Pot sherd
532	2	136	Pot	Pot sherd
533	2	136	Pot	Pot sherd
534	2	136	Pot	Pot sherd
535	2	136	Pot	Pot- Rim
536	2	136	Pot	Pot sherd
537	2	136	Pot	Pot sherd
538	2	136	Pot	Pot sherd
539	2	136	Pot	Pot sherd

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540	2	136	Pot	Pot sherd
541	2	137	Pot	Pot sherd
542	4	435	Pot	Pot sherd
543	4	435	Pot	Pot sherd
544	4	435	Pot	Pot sherd
545	4	435	Pot	Pot sherd
546	4	435	Pot	Pot sherd
547	4	435	Pot	Pot sherd
548	4	437	Flint	Scraper
549	4	439	Pot	Pot sherd
550	4	439	Pot	Pot sherd
551	4	439	Pot	Pot sherd
552	4	439	Pot	Pot sherd
553	4	440	Pot	Pot sherd
554	2	136	Pot	Pot sherd
555	2	136	Pot	Pot sherd
556	2	136	Pot	Pot sherd
557	4	430	Pot	Pot sherd
558	4	435	Pot	Pot sherd
559	4	435	Pot	Pot sherd
560	4	435	Pot	Pot sherd
561	4	435	Pot	Pot sherd
562	4	435	Pot	Pot sherd
563	4	435	Pot	Pot sherd
564	2	136	Pot	Pot sherd
565	4	438	Flint	Microlith
566	4	440	Pot	Pot sherd
567	4	440	Pot	Pot sherd
568	4	440	Pot	Pot sherd
569	4	440	Pot	Pot sherd
570	4	440	Pot	Pot sherd
571	4	440	Pot	Pot sherd
572	4	440	Pot	Pot sherd
573	4	440	Pot	Pot sherd
574	4	440	Pot	Pot sherd
575	2	133	Stone	Worked stone
576	2	136	Pot	Pot sherd
577	2	136	Pot	Pot sherd
578	2	136	Pot	Pot sherd - body
579	2	136	Pot	Pot sherd - fragment
580	2	136	Pot	Pot sherd - fragment
581	2	136	Pot	Pot sherd - fragment
582	1	1223	Pot	Pot sherd - body
583	4	443	Pot	Pot sherd - body
584	4	443	Pot	Pot sherd - body
585	4	431	Pot	Pot sherd - body

586	4	443	Pot	Pot sherd - body
587	4	444	Pot	Pot sherd - body
588	4	431	Pot	Pot sherd - body
589	4		Pot	Pot sherd - body
590	4	435	Pot	Pot - Rim
591	4	443	Pot	Pot Sherd
592	1	46	Pot	Pot Sherd - possible base
593	1	46	Pot	Pot Sherd - possible decorative hole
594	1	46	Pot	Pot Sherd
595	1	46	Pot	Pot Sherd
596	1	49	Pot	Pot - Rim
597	1	49	Pot	Pot Sherd - Fragment
598	1	80	Pot	Pot Sherd - Fragment
599	1	80	Pot	Pot Sherd - Fragment
600	1	49	Pot	Pot Sherd - Fragment
601	1	80	Pot	Pot Sherd - Fragment
602	4	445	Pot	Pot Sherd - Fragment
603	4	443	Pot	Pot Sherd - Fragment
604	4	446	Pot	Pot Sherd - Fragment
605	2	136	Pot	Pot Sherd - Fragment
606	2	136	Pot	Pot Sherd
607	2	136	Pot	Pot Sherd
608	4	454	Pot	Pot Sherd
609	4	447	Pot	Pot Sherd
610	2	152	Pot	Pot - Rim
611	4	446	Pot	Pot Sherd - Fragment
612	4	446	Pot	Pot Sherd
613	2	136	Pot	Pot Sherd - Fragment
614	2	136	Pot	Pot Sherd - possible slip decoration
615	2	136	Pot	Pot Sherd - Fragment
616	2	136	Pot	Pot Sherd - base
617	2	136	Pot	Pot Sherd - Fragment
618	2	136	Pot	Pot Sherd
619	4	446	Pot	Pot Sherd - Fragment
620	4	446	Pot	Pot Sherd - Body
621	2	136	Pot	Pot Sherd - Body
622	2	136	Pot	Pot Sherd - Base
623	2	136	Pot	Pot Sherd - Body
624	2	136	Pot	Pot Sherd
625	1	81	Pot	Pot Sherd - Body
626	2	136	Pot	Pot Sherd
627	2	136	Pot	Pot Sherd
628	2	136	Pot	Pot Sherd - Body

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629	4	446	Pot	Pot Sherds - Fragments x2
630	2	136	Pot	Pot Sherd - Body
631	4	446	Pot	Pot Sherd - Fragment
632	2	136	Pot	Pot Sherd - Fragment
633	2	136	Pot	Pot Sherd - Body
634	2	136	Pot	Pot Sherd - Body
635	2	136	Pot	Pot - Rim, finger impressed
636	2	136	Pot	Pot - Rim, finger impressed
637	2	136	Pot	Pot - Rim, finger impressed
638	2	136	Pot	Pot Sherd
639	2	136	Pot	Pot - Rim, rounded
640	2	136	Pot	Pot Sherd
641	2	136	Pot	Pot - Rim, finger impressed
642	2	136	Pot	Pot Sherd - Body
643	2	136	Pot	Pot Sherd - Body
644	2	136	Pot	Pot Sherd - Body
645	4	435	Pot	Pot Sherd - Body
646	4	448	Pot	Pot Sherds - Fragment x 2
647	4	435	Pot	Pot Sherd
648	2	136	Pot	Pot Sherd - Body
649	2	136	Pot	Pot Sherd - Body
650	4	449	Pot	Pot Sherd - Fragment
651	2	136	Pot	Pot Sherd - Body
652	2	136	Pot	Pot Sherds - Body x 2
653	4	454	Pot	Pot Sherds - Fragment x 4
654	2	136	Pot	Pot Sherds - Fragment x 2
655	2	136	Pot	Pot Sherds - Fragments x 2
656	2	136	Pot	Pot Sherds - Fragments x 2 (connected)
657	2	136	Pot	Pot - Rim, finger impressed x2
658	4	454	Pot	Pot Sherds - Fragments x 4 (connected)
659	2	136	Pot	Pot Sherd - Body
660	2	136	Pot	Pot Sherd - Body
661	2	136	Pot	Pot Sherd - Body
662	2	136	Pot	Pot Sherd - Body

663	2	136	Pot	Pot Sherd - Body
664	2	136	Pot	Pot Sherd - Fragment
665	2	136	Pot	Pot Sherd - Body
666	4	454	Pot	Pot Sherd - Fragment
667	2	136	Pot	Pot Sherd - Body
668	2	136	Pot	Pot Sherd - Body
669	2	136	Pot	Pot Sherd - Body
670	2	136	Pot	Pot Sherd - Body
671	2	136	Pot	Pot Sherd - Base
672	2	136	Flint	Cortical Bladelet
673	2	136	Pot	Pot Sherd - Body
674	1	1215	Unidentified	Possibey burnt natutral rock, heavy, porous material.
675	2	136	Pot	Pot Sherd - x2, one with impressed deporations.
676	2	2160	Pot	Pot Sherd - Body
677	2	2160	Pot	Pot Sherd - Body
678	4	455	Pot	Pot Sherd - Body
679	2	2160	Pot	Pot Sherd - Body
680	2	2160	Pot	Pot Sherd - Body
681	4	455	Pot	Pot Sherd - Body
682	2	136	Pot	Pot Sherd - Body
683	4	455	Pot	Pot Sherds - Fragments x 2
684	4	455	Pot	Pot Sherd - Fragment
685	4	454	Pot	Pot Sherd - Fragment
686	2	152	Pot	Pot - Rim
687	2	100	Pot	Pot Sherd - Fragment

Appendix 2. Environmental Sample Register

Trench	Sample No.	Context No.	Cut No.	Feature type
1	1	17		Rampart
1	3	18		Rampart
1	4	17		Rampart
1	5	17		Rampart
1	6	20		Rampart
1	7	37		Rampart
1	8	35		Deposit
1	9	34		Deposit
1	10	44		Posthole
1	13	44		
1	14	44		
1	16	17		Posthole
1	17			
1	18	41	40	
1	21	39		Posthole
1	23	20		Deposit
1	33	67		Deposit
1	34	62		Deposit
1	35	63		Deposit
1	36	72		Deposit
1	37	69		Deposit
1	38	66		Deposit
1	39	75		Deposit
1	40	76		Deposit
1	41	30	29	Structure
1	44	64		Stake hole
1	45	65		Stake hole
1	46	68		Stake hole
1	47	84	83	Stake hole
1	48	88	87	Stake hole
1	49	89	90	Stake hole
1	50	92	91	Stake hole
1	51	96	95	Stake hole
1	52	98	97	Stake hole
1	53	107	106	Stake hole
1	54	119	118	Stake hole
1	55	109	108	Stake hole
1	56	121	120	Stake hole
1	58	141	140	Stake hole
1	60	123	122	Stake hole
1	61	125	124	Stake hole
1	62	113	112	Stake hole
1	63	127	126	Stake hole
1	64	115	114	Stake hole

1	65	129	128	Stake hole
1	66	143	142	Stake hole
1	67	141	140	Stake hole
1	68	131	130	Stake hole
1	69	157	156	Stake hole
1	70	153	152	Stake hole
1	71	117	116	Stake hole
1	72	147	146	Stake hole
1	73	155	154	Stake hole
1	74	144	143	Stake hole
1	75	139	138	Stake hole
1	76	149	148	Stake hole
1	77	63		Stake hole
1	78	62		Stake hole
1	79	66		Stake hole
1	80	165	164	Stake hole
1	81	167	166	Stake hole
1	82	182	181	Palisade slot
1	83	169	168	
1	84	184	183	Posthole
1	85	43		Burnt clay deposit
1	86	185	181	Palisade slot
1	87	1212	1211	Posthole
1	88	1208	1207	Posthole
1	89	1214	1213	Posthole
1	90	1223	1227	Stake hole
1	91	1233	1232	Stake hole
1	92	1236		Group of postholes
1	93	46	1231	Stone feature
1	94	37		Deposit
1	95	1220	1219	Posthole
1	99	1224		Under rampart
1	101	1252	1251	Posthole
1	102	1254	1253	Posthole
1	103	1256	1255	Posthole
2	2	106		Possible posthole
2	11	111		Deposit
2	15	115		Deposit
2	20	119		Deposit
2	27	129		Deposit
2	30	130		Deposit
2	42	134	118	
2	43	138	118	
2	57	134	118	
2	59	111	110	Stake hole

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2	104	2163	118	Fill of (149)
2	105	153	118	Fill of (149)
3	12	311	310	Posthole
4	24	407	406	Fill
4	25	420	406	Fill
4	26	422		Fill
4	98	440	441	
4	100	450	451	Post pit
5	19	501		Deposit
5	22	505		Deposit
5	28	527	526	Deposit
5	29	527	526	Deposit
5	31	538	537	Deposit
6	32	601, 602, 603		Deposit
8	96	1806	1805	Charcoal
8	97a	1804	1803	Palisade slot
8	97b	1804	1803	Palisade slot

Appendix 3. Context Registers

Trench 1

Trench	Context No.	Description
1	1	Top soil - Dark brown decomposed humic layer under leaf litter. Very frequent bioturbation. Overlies 002
1A	2	Orangey brown silty sub soil situated directly underneath the top soil 001. Infrequent small rock inclusions. Equal to context 003.
1B	3	Silty orangey brown deposit with very frequent roots throughout. Some small-medium angular rocks. Loosely compacted. Lies beneath top soil 001. Also includes very rare inclusions of small charcoal fragments. Equal to 002
1A	4	Compact orange brown silt deposit below 002. Some small stone inclusions. Small roots also present. Upper natural?
1A	5	Rubble deposit between 001 and 002. Medium to large angular rocks with a yellow/orangey brown silty soil between. No other inclusions. Possible stone wall tumble
1b	6	Rubble layer situated in lighter yellow/orangey brown soil. Large angular rocks and some smaller rubble from (029)
1A	7	Pale beige heavily weathered bedrock natural. Situated below 006, with 004 also overlying it.
1A	8	Silty soft pale beige/grey deposit. Rare charcoal inclusions, some small roots. Peters out before the back of the rampart. Possible Iron age ground surface?
1A	9	A darker brown silty deposit emerging through the rampart - may be a continuation of the burn layer at the back of the rampart (017). Has frequent charcoal inclusions. Situated below 006 and above 010
1A	10	Light beige silty layer from centre to right edge of section containing frequent charcoal inclusions. Situated below 009 and above 013. May be continuation of burn layer at the back of rampart.
1A	11	Light beige silty layer with rare charcoal flecks running from the left edge of the section to left of centre. Above deposit 013.
1A	12	Red-Orangey brown layer, slightly darker than 006. Runs from stone in left edge of section to left of centre. Situated below 006 and above 011. Similar to 301 in rampart.
1A	13	Brown-orange deposit more compact than 006. Situated below layers 010 and 012, and has context 011 running through it. Deposit runs across the whole trench. Equal to (30 & 31) wall matrix
1B	14	Rubble layer within 003 - possibly tumble from rampart. Large angular rocks.
1B	15	Slightly more compact orangey silty layer, very similar to 003. Includes some large angular rocks, small and medium roots and very occasional charcoal flecks. Equal to (20)
1B	16	Natural bedrock - fractured.
1B	17	Very loose dark black silty soil deposit with very, very frequent charcoal inclusions - charcoal varies in size from small flecks to large chunks up to 5cm diameter approx. Occasional inclusions of small to midsized burnt sandstone rocks towards top of context. Appears to go into the rampart. Equal to 302. Sample taken - Sample no 001
1B	18	Soft and friable dark brown/black silty sand with areas of dark mottled red. Lies directly over 017 in the northern edge of the section. Has occasional mid-sized chunks of charcoal, small and medium roots and small burnt sandstone. Equal to 301.
1B	19	pale grey-beige deposit lying directly under 017/302. Features some charcoal inclusions. Possible feature 024 cuts through 019 and 020.
1B	20	Fairly compact orangey clayey silt with occasional small subangular rocks. Lies directly above the bedrock (016) and below the soft beige layer (019). This may be equal to 015.

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1B	21	Fairly soft and loosely compacted orangey yellow silty deposit. Upper fill of rampart below top soil 001. Very large sub angular rocks as well as medium sized sub-angular rocks. May be equal to context 006 & 300. Frequent small roots, occasional large roots. Bioturbation.
1B	22	Possible feature. Slightly conical in shape, undisturbed but cut by 027. Filled by 023. Can be seen in south facing section of trench. Situated west of back of rampart. (cut)
1B	23	Dark browny-grey silt deposit which is interrupted by the black layer 027. No inclusions.
1B	24	Possible feature. Circular/conical shape cutting through 019 and 020. 017 sits directly above. Can be seen in West-facing section of rampart.
1B	25	light browny-grey silty deposit. Fill of 24
1B	26	VOID
1B	27	Cut of 1939 trench
1B	28	Fill of 1939 trench,
1A	29	Large angular rocks protruding from south facing section - wall. Lie within context 030
1A	30	Silty yellow/orange blanket deposit. Contains large angular rocks (029) and smaller rubble rocks (031). Wall matrix
1A	31	Small rubble situated in context 030, in the south facing section of trench. Rubble matrix.
1B	32	Silty orangey brown deposit with very frequent roots throughout. Some small-medium angular rocks. Loosely compacted. Lies beneath top soil 001. Also includes very rare inclusions of small charcoal fragments. Equal to 003
1B	33	VOID
1	300	Tumble of medium to large stones. Equal to 006.
1	301	Orange-red burnt sandstone with charcoal inclusions. Frequent fire-cracked medium sized rocks. Lies under and next to 300.
1	302	Dark brown/black charcoal deposit with frequent charcoal inclusions. Equal to 017. Sampled - sample no. ---
1B	34	Rubble packing, medium angular stones, packing for possible foundation trench for the wall. The angular rubble is in a yellow Ochre/Buf sandy clay.
1B	35	Possible feature or deposit cut into (16) see sketch. May be post socket for a post at the back of the wall.
1N	36	light-brown-yellow and mottled sandy clay deposit with small angular stones. It is east of the walls, directly in front of the facing stones on the outer face. Possibly an Iron Age land surface.
1N	37	Yellow ochre sandy clay deposit. There are a few sub-angular stones and large amounts of charcoal/sample #007. This context is = to context (003) and (032) from 2017 excavation
1N	38	Cut for a post. Located in a recess at the front of wall. The recess is deliberate (to seemingly incorporate the post) with large facing stones.
1N	39	Fill of post [38], mixed yellow, yellow ochre with flecks of charcoal and small sub-angular stones.
1N	40	cut for post-located at the back of wall
1N	41	Fill [40] - charcoal rich, with sizeable chunks of charcoal. This is a post burnt in situ. Covered by (37)with context (44) and (45) around it which are from the burning of wooden structure at the back of the wall, it also seems to have a burnt horizontal beam attached.
1N	42	Possible cut for the post hole or pit, below rubble deposit (48). See sketch.
1N	43	Fill of above [42]- charcoal rich dark sandy clay - This (from 2019) has now been identified as context (44) and (45) being the rich burnt deposit and the scorched red clay/
1N	44	Burnt deposit, running N to South - very charcoal rich deposit/ spread located at the back of the wall. There are large chunks of charcoal. The spread is a dark ash grey- with flecks of yellow - mixed in a dark yellow ochre sandy clay. It is equal to contexts (017) and (0302) from 2017 excavations (see report)

1N	45	Deposit/ context at the back of the wall, It is a bright to darkish red burnt clay. It is associated with (44) as this scorched clay is found either side of (44) as well some below. Caused by an intensive heat scorching the surrounding soils. It also runs directly to the back of the stone wall/ which are also burnt.
1N	46	Deposit - made up of stones (sandstone) - small medium and large, with burnt sandstone near the back of the wall. This deposit seems to arch encompassing context (37) - But seemingly above layers (44) and (45). It may be later phase, although it may also be an efemoral structure. this needs more work to understand its relationship to (37) and (44,45) and the wall. It was located just North of Tr 1B cutting in the centre towards the back of the wall (photos 8972-8975). (need to ass to upper plan of Tr 1N. This arch containing (37) may relate to (48) and (49) which seem to be the opposite side of the arc (norht end)
1N	47	Very compact surface in trench 1A and 1B - seemingly below the wall matrix. It also runs up to context (34). It is dark grey with yellow and white clay inclusions. Charcoal is present this may be an old Iron Age surface and related to quarrying of natural sandstoone (16) It may also be the end/remnants the trench excavated in 1939. No sample was taken, it may have been contaminated with charcoal from contexts above (17)- This needs to be take back and cleaned to examine and understand the deposit.
1N	48	A spread of stone small to medium ones They were over (43) and[42] now known to be context (44) the burnings + (45). The stones seem to be laying on their edge, as if placed or fallen (see plan of Tr1N). This spread may relate to (49) and (46) it ran up to a lare worked stone, that may have been part of the possible sructure that encompasses context (37)
1N	49	Stone spread found under the large flat stone and probably equal to (48) or (46). Contexts (44) and (45) found beneath after further excavation. The stone spread does have a Buff to yellow ochre sandy clay between the stones/matrix. Sum to (37)
1N	50	A grey white cream gravel found under half of the post [40] and maybe the back of wall as well. Its extent has yet to be determined, but stake hole (61) was found in or just under (50) which had context (60) below. Context (50) above (60) see plan and section drawing sketch
1N	51	Loose but slightly compacted deposit below the wall and context (36) It is made up of small, medium, and a few large angular stones. Yellow, grey in colour - a sandy clay. Similar to (053).
1N	52	Upper deposit above (53) very disturbed by root action and trees. Similar to (036)
1N	53	Yellowish grey sandy clay with medium to large angular stones towards the top of the context. (drawing 27) = to (051), disturbed
1N	54	A large flat stone - loctaed in the NE end of the trench (1N) at the front of the wall. Medium to large stones go around the edge of this very large stone. - Small alcove? - It may also be a large post pad for possible gate structure etc. - Needs to be cleaned back further and lifted to see relationship to wall.
1N	55	Gravel deposit below (51) yellow grey in colour, depth undetermined - possibly natural gravels, very similar to context (50)
1N	56	VOID
1N	57	Poss equal to (060) - again check context sheets and section drawing from 2018
1N	58	Large deposit of natural and maybe redeposited large stones . Al in a yellow compacted sandy clay (east of outer wall)
1N	59	Stone: NE-SW linear stone deposit found in/on the upper part of deposit (37). May have abulted to rubble (49)
1N	60	light yellow beige in colour - This context is below (50), it is clay with some charcoal inclusions. Stake (61) was found in this context.
1N	61	Circular charcoal deposit in context (60) small post/ stake probably burn in situ.
1N	62	Circular charcoal deposit in context (50) on top of context (60). - May also be pre-burning event. Again a small post or stake burnt in situ.
1N	63	Circular charcoal deposit in/below context (44) and (45) Burnt small post or stake (Burnt in situ)
1N	64	As above - small post of stake burnt in situ

1N	65	As above - small post or stake burnt in situ
1N	66	As above - small post or stake burnt in situ. This feature may be from an earlier phase. - need to clarify whether it is in/below (44) and (45)
1N	67	As previous - Small post or stake in/below contexts (44) and (45) burnt in situ.
1N	68	As above: Small post or stake, burnt in situ
1N	69	Small circular feature, found towards possible limit of (37). Probably a small post or stake, dark yellow, sandy clay with charcoal flecks.
1N	70	Small circular charcoal deposit: in/below (44) and (45) burnt post (small) or a stake.
1N	71	Group of stones - One very large, One medium to large, smaller group of stones found either side - in/possibly on (37) smaller groups may be post packing.
1N	72	Post fill in the wall (29) see sketch of section. Clean yellow ochre, with small stone inclusions and charcoal flecks. - sampled (yes). There are stones, quite large either side (to west and east when looking north) for cut 77
1N	73	Stone/earth fill with angular stones and lighter yellow ochre. May be = to (29/30) but has less rubble and may relate to earlier phase
1N	74	Cut: cut for post see in section on the western end of baulk section. (see sketch)
1N	75	Fill of [74] brown sandy clay
1N	76	White yellow ochre clay deposit seen in the section and in plan towards the south, in the Baulk.
1N	77	Cut: Stones for packing (poss) for post (72)
1N	78	VOID
1N	79	VOID
1N	80	VOID
1	81	Rubble spread at the North end of Tr1, posts cut into this context. Compacted light yellow silty clay with frequent angular inclusions. Δ403
1	82	Deposit within wall [29]. Same as (37), friable yellow silty clay. Occasional charcoal flecks with frequent sub-angular inclusions. Δ457
1	83	Sub-oval stakehole cut. Length 5cm x width 4cm steep sided and concave. Near to [97] and [103]
1	84	fill stakehole [83]. Black-greyish loose deposit, charcoal rich. 4cm length extent.
1	85	cut of POSSIBLE stakehole. Length 9cm x width 6cm. Subcircular in plan. Near to a stone-Possible post packing?
1	86	Charcoal-rich fill of possible stakehole [85]. Loose, dark reddish-brown deposit. Charcoal on the surface, 5mm depth.
1	87	cut of stakehole. Circular, steep-sided, undercutting to the west of the stakehole at an angle. "Pointed". Length= 12cm x width 9cm x depth 11cm. Cuts through (105).
1	88	fill of stakehole [87]. Loose, black charcoal-rich deposit within stakehole. 11cm depth.
1	89	Oval cut of stakehole. Gently sloping, length = 5cm x width = 4cm. Cuts through (105).
1	90	fill stakehole [89]. Loose, dark brown/ ashy grey charcoal rich deposit. 3cm depth. Shallow on one end, deeper on the other end. Charcoal on the surface.
1	91	Suboval cut of stakehole. Steep sided with irregular base, length = 10cm x width = 6cm. Near an angular stone, possible double stakehole? One supporting another or one rotted away and another driven in?
1	92	fill stakehole [91]. Loose, greyish black charcoal-rich deposit. 12cm depth.
1	93	cut stakehole. Close to 2 stones on either side, possibly packing. Length = 3cm x Width = 2cm
1	94	fill of [93]
1	95	cut stakehole
1	96	fill of [95]
1	97	cut of stakehole

1	98	fill of [97]
1	99	cut of stakehole
1	100	fill of [99]
1	101	cut of stakehole
1	102	fill of [101]
1	103	cut of stakehole
1	104	fill of [103]
1	105	yellow clay deposit same as (60)
1	106	cut of stakehole
1	107	fill of [106]
1	108	cut of stakehole
1	109	fill of [108]
1	110	cut of stakehole
1	111	fill of [110]
1	112	cut of stakehole
1	113	fill of [112]
1	114	cut of stakehole
1	115	fill of [114]
1	116	cut of stakehole
1	117	fill of [116]
1	118	cut of stakehole
1	119	fill of [118]
1	120	cut of stakehole
1	121	fill of [120]
1	122	cut of stakehole
1	123	fill of [122]
1	124	cut of stakehole
1	125	fill of [124]
1	126	cut of stakehole
1	127	fill of [126]
1	128	cut of stakehole
1	129	fill of [128]
1	130	cut of stakehole
1	131	fill of [130]
1	132	cut of stakehole
1	133	fill of [132]
1	134	cut of stakehole
1	135	fill of [134]
1	136	cut of stakehole
1	137	fill of [136]
1	138	cut of stakehole
1	139	fill of [138]
1	140	cut of stakehole
1	141	fill of [140]
1	142	cut of stakehole
1	143	fill of [142]
1	144	cut of stakehole

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1	145	fill of [144]
1	146	cut of stakehole
1	147	fill of [146]
1	148	cut of stakehole
1	149	fill of [148]
1	150	cut of stakehole
1	151	fill of [150]
1	152	cut of stakehole
1	153	fill of [152]
1	154	cut of stakehole
1	155	fill of [154]
1	156	cut of stakehole
1	157	fill of [156]
1	158	cut of stakehole
1	159	fill of [158]
1	160	cut of stakehole
1	161	fill of [160]
1	162	cut of stakehole
1	163	fill of [162]
1	164	cut of stakehole
1	165	fill of [164]
1	166	cut of stakehole
1	167	fill of [166]
1	168	cut of stakehole
1	169	fill of [168]
1	170	cut of stakehole
1	171	fill of [170]
1	172	cut of stakehole
1	173	fill of [172]
1	174	compact white clay deposit
1	175	same as (174), (176)
1	176	same as (174), (175)
1	177	cut of posthole with stone packing
1	178	fill of [177]
1	179	cut of posthole with stone packing
1	180	fill of [179]
1	181	possible cut of palisade in (30) same as [77]
1	182	fill of [181] same as (72)
1	183	cut posthole
1	184	fill of [183] charcoal rich
1	185	lower deposit palisade slot
1	186	cut of possible posthole
1	187	cut of stone filled feature
1	188	cut of possible posthole
1	189	deposit of posthole [188]
1	190	deposit within [187]

1	191	deposit within [186]
1	192	cut of possible posthole
1	193	fill of posthole [192]
1	194	Revetment at the back of the rampart, butts up to/supports palisade {181} (182)
1	195	Deposit, possible pre-wall bank or construction deposit for the rampart footings. Cut 181 & fill 182 are above.
1	196	Cut for rampart foundation trench.
1	197	Cut for possible pit under the baulk
1	198	Fill of above overlain by (076) and (008). Could be a stoned filled pit, with medium to large stones. Yellow ochre brown sandy clay.
1	199	Cut for post found in 2017-2018.
1	200	Charcoal rich fill of [199]. Similar in size to [40] (41). Cuts (105) or (008) into context below (015 & 020).
1	201	Cut for post from 2018 at back of the rampart.
1	202	Charcoal rich fill, similar to post [040] & (041) similar in size, had a beam attached running westwards. It is still in the section.
1	203	Cut for stake hole found in 2017. Identified from photographs of the cross section across Trench 1.
1	204	Charcoal rich fill, similar to all stake holes in shape and size. Cuts (008) & (020)
1	205	Possible cobbled surface 2m north of the baulk. In (037) may be related to posts [170] and [172].

Trench 2

Trench	Context No.	Description
2	100	Soft dark brown/black humic layer lying directly under leaf litter. Overlying 101. Very frequent roots - small and large - throughout the context.
2	101	Loosely compacted yellow/orange silt deposit underlying the heavily bioturbated humic topsoil 100. Very infrequent large stone inclusions to the east end of the trench. Also in the north side of the trench varies in thickness across site, in NE sondage is approx. 30cm thick, in N sondage context is approximately 60-30 cm thick. Frequent pottery sherds. May be equal to 002 and 003 in Trench 1.
2	102	Gritty (degraded fine sandstone/mudstone) silty deposit, yellowish grey with a silver green tinge (due to the nature of the degraded stone). Dense and well mixed, with infrequent stone inclusions. Similar to 007
2	103	Friable deposit of degraded stone underlying 102. Revealed by an inspection slot/sondage cut through 102. Green-grey in colour, root damaged. No finds. Equal to 103 and possibly equal to 007.
2	104	Darker orange, compact layer beneath context 101. Very clean silt, very few inclusions - some pottery fragments of mixed size within context, possibly at the border between this context and 101 above. Infrequent charcoal flecks across southern half of the 2x2m sondage within trench.
2	105	Cut. Fairly rounded possible feature - a loose 'B' shape in plan. Southern half of 2x2m sondage. Very shallow cut with potentially steep curving edges (which may have been overcut). Filled by 106 and 107. Feature appeared within context 104.
2	106	Upper fill of possible feature 105. Relatively dark grey silt which is fairly compact whilst excavating but easily crumbles when removed. Includes infrequent flecks of charcoal. No other inclusions. Sample taken - sample no. 002
2	107	A second deposit within possible feature 105. Context doesn't appear in the section but was very different to 106 - much more compact, solid pale mottled grey clayey silt with red flecks throughout. No other inclusions.

Appendices

2	108	Very dense light yello/orange silty-clay. Fragments of stone (possibly limestone and sandstone mix) scattered across deposit. More compact and dense than 104. Flakes off when troweled.
2	109	Very dense hard rock deposit. Rock inclusions. Sandstone and limestone mix. Cuts cleanly. Degraded in some areas. Highest point directly North point of 2x2m sondage. Undulates within 108, dissapates below sondage in North East corner and at Western point in the east facing setion. A dense brown silt spread across context.
2E	110	Sub soil/ Humic layer= to (101) from 2017
2Ex	111	Loose yellow orange sandy clay under (110)- found over the trench, possibly equal to (104). With ceramic sherd small finds.
2Ex	112	Circular stone feature, packing for small post
2Ex	113	Stone in alignment, maybe associated with (112).
2Ex	114	Red marl clay deposit, very compacted, may be natural clay or deposit
2Ex	115	Very similar to (111) and below it, with more frequent charcoal flecks and some pottery finds. Now identified in 2019 excavations as a top fill of a possible linear feature or large pit. Very similr to (124) from 2019. This deposit may be, like (124) the top fill of the feature (118)
2	116	Compact - very light yellow/white sandy clay. - possible natural below (111) in a circular depression (May have been a shallow pit)
2	117	Blue grey/green gravel or mudstore - natural
2	118	Cut for possible linear feature pit contains (115)
2	119	Deposit or possible part of a pit fill. Yellow ochre darkish sandy clay friable. When dry - medium viscosity when wet. - (equal to (104)
2	120	Cut for pit feature - linear in shape
2	121	Fill of [120] redeposited natural with the yellow ochre sandy clay / Note: This feature [120] and (121) is a later feature, it cuts 2 pits
2	122	Orange yellow in colour, similar to (119) - cut by [120]
2EE	123	Pale buff yellow - similar to (110) dries easy and is crumbly [118] cuts this ? Maybe - above (117)
2EE	124	Yellow pale buff/ orange hint sandy clay deposit - above (129) and full of (118) - it also runs up to [135]. Unclear if it is cut by [135] - to be resolved 2020
2EW	125	Cut for pit in Tr2 west
2EW	126	Cut for pit in Tr2 west, cuts [125]
2EW	127	Cut for pit in Tr2 west cut by [125] and may be [128]
2EW	128	Cut for pit in Tr2 west cut by [127]. This is a pit complex area, this fills were difficult to see (practically impossible). It was not until the bottom of the trench was excavated were we able to see the inter cutting pits. Fill contexts are and will be difficult to assign.
2EE	129	Deposit below (124) but over (130) in the stone lined pit. Yellow buff / orange grey sandy clay
2EE	130	Ash deposit in the stere lined pit [132]. Ash grey with flecks of charcoal. Lying on the stones of the put with a thicker deposit towards the SW of the pit (sampled)
2EE	131	A suspected linear stone/rubble deposit in the east end/ side of Tr2EE
2EE	132	Cut for stone pit-oval in shape. Contains fills (130), (133) and (129), although (129) may or appears to be full of [118]
2EE	133	Stone lining of [132] oval in shape
2EE	134	Context below (115) west end of [118] appears to be below the stone lined pit, possibly equal to (152). Yellow ochre in colour with charcoal flecks.
2EE	135	The cut for deposit (131)
2	136	Deposit between rubble spread (148)?
2	137	Deposit associated with linear rubble
2	138	Directly below stones (130) in pit (132)

2	139	Deposit NE of TR2 east of possible stone rubble feature
2	140	Cut for possible post feature, cut through (134)
2	141	Fill of [140]
2	142	Cut of irregular linear feature in east of trench 2.
2	143	Possible pit, undulating within [118] white-grey deposit around to the south of (133)
2	144	Cut for possible posthole feature in section of SE quadrant of trench 2 east area.
2	145	Fill of [144]
2	146	Cut of posthole feature in unexcavated quadrant of trench 2 east area.
2	147	Fill of [146]
2	148	D-shaped rubble spread
2	149	Black humic lens that could possibly be a re-cut in [118]. Very fine dark brown to black soil at the bottom, turning to a thicker yellow brown to grey colour as it slopes up the north side of the ditch/pit.
2	150	Deposit above (151) Firm compact, yellow- orange brown and grey in colour, fine silt with small angular stones.
2	151	Primary deposit of linear feature [118]. Firm compact, yellow- orange brown and slightly grey in colour, possible lower deposit of slot or post hole.
2	152	Same as (134) fill of pit
2	153	Deposit above (149). firm and slightly compacted fine silt, yellow, orange, grey in colour and 0.05m thick in the centre of the deposit tapering out to north and south.
2	154	Located on the North side of the ditch/pit [118]. Yellow-orange in colour with pale grey clay patches and iron panning within. Very similar to (155)
2	155	Located on the south side of the ditch/pit [118]. yellow-orange in colour with pale grey clay patches and iron panning within. Very similar to (154)

Trench 3

Trench	Context No.	Description
3	303	Humus - top soil
3	304	Yellow sandy clay - sub soil
3	305	Cut: Packing for possible large post hole
3	306	Fill of post hole- yellow brown sandy clay
3	307	Edge of rubble spread large angular blocks
3	308	Cut: Possible cut for pot / stone packing - now not thought to be feature (2019)
3	309	sim to (306) - now not thought to be a fill (2019)
3	310	Cut: Packing for small post - now void (2019)
3	311	Fill of [310] flecks of charcoal - yellow sandy clay - now void (2019)
3	312	Yellow orange brown sandy clay deposit, south end of trench stone inclusion - some charcoal flecks
3	313	yellow orange brown deposit - very sim to (312) north of (305)
3	314	Fill of quarry pit - rubble and yellow sandy clay
3	315	Cut: Cut for quarry pit
3	316	Rubble patch/ area of of or sim/ part of (307) and (317)
3	317	linear rubble deposit possib;y part of (307)
3	318	Rubble oatch next to (317), sim to (316)
3	319	deposit: sandy clay natural

Trench 4

Trench	Context No.	Description
4	400	Top soil - humus/ mulch
4	401	bright yellow sandy clay - quite sterile - modern disturbance?
4	402	mixed yellow ochre/ brown, mottled - send of trench
4	403	yellow ochre sandy clay deposit
4	404	cut for post pit
4	405	upper fill of [404] - yellow light brown sandy clay some angular/ round stones small
4	406	cut for deposit pit
4	407	fill/deposit on the left side of and within (406) yellow ochre/ sandy clay
4	408	Rubble deposit in th emiddle of [406] - pit fill or packing?
4	409	cut: probable post pit, SE end of Tr4
4	410	stone deposit in the middle of [409] - packing?
4	411	cut for later disturbance at the end of the trench
4	412	cut/ feature - post setting south end of trench
4	413	cut/ structural - post setting - centre west of part of the trench
4	414	cut/ structural - post setting - north centre group NW of trench
4	415	cut/ structural - post setting - north centre group NE of trench
4	416	cut/ structural - post setting - north centre group SE of trench
4	417	cut/ structural - post setting - north centre group SW of trench
4	418	cut/ structural - post setting - north centre group in NE baulk
4	419	Deposit - pale yellow sandy friable soil (dry clay?)
4	420	Fill - rock filled depositof [406] backfill/ packing
4	421	deposit - yellow deposit - sandy clay with stones
4	422	deposit - yellow deposit - sandy clay - mainly stone free
4	423	backfill with stones and yellow sandy clay
4	424	deposit - stone set in (419) - N.end of trench
4	425	possible stone structure in the SW corner of the trench
4	426	fill - mixed stone and sandy yellow clay - possible post fill
4	427	fill - as above - post hole fill
4	428	structure/ cut probable post setting
4	429	overburden
4	430	upper spit of yellow deposit NE of wall
4	431	area of trample in 2019 area
4	432	upper spit of yellow deposit SW of wall
4	433	yellow area south of gabestone (corner (?) stone)
4	434	yellow area south of tree stump
4	435	yellow area east of tree stump
4	436	yellow deposit overlying rubble NE of gabestone
4	437	yellow deposit western edge, middle
4	438	pale yellow deposit to west of stone structure
4	439	pale yellow deposit- SW part of site
4	440	upper fill of pit [441]
4	441	possible pit cut
4	442	rectangular structure long axis N-S

Trench 5

Trench	Context No.	Description
5	500	Loose pale yellow/ orangy sandy clay
5	501	Yellow ashen grey sandy clay
5	502	Circular yellow-grey feature
5	503	Circular yellow-grey feature, 1m apart from 502, centre to centre
5	504	Cut: for possible feature, filled by 505
5	505	Yellow/ light briwn, fill of 515
5	506	Similar to 505, slightly lighter
5	507	Yellow/buff colour, slightly ashen
5	508	Yellow/buff sandy clay
5	509	Yellow/orange compact sandy clay
5	510	Yellow/light orange sandy clay
5	511	Two large stones and small line of stones
5	512	Fill behind [511], orange/yellow sandy clay
5	513	Deposit in front of [511], compact orange yellow
5	514	Comapct orange yellow with white patches = 513
5	515	Cut: for 505
5	516	Mottled bright orange natural sandy clay
5	518	Cut: flat bottomed square feature with 2 rounded corners
5	518	Beige, of white sandy clay
5E	519	Grey orange brown circular feature
5	520	Possible post very similar to 519
5	521	Natural stone/ sand layer, yellow orange compact
5	522	Out for possible footing trench for palisade
5	523	Fill [522]
5E	524	See context 516
5E	525	See context 516
5	526	Cut: cur for slot trench
5	527	Fill of [526] yellow ochre with charcoal flecks
5	528	Possible bank above [504] redish/brown mattled
5	529	Cut: cut of small post at back of bank
5	530	Yellow brown deposit with charcoal fill of [529]
5	531	Yellow light sandy clay fill between [529] and 528
5	532	Yellow ochre light sandy clay between 528
5	533	Same as 532, south side of palisade
5	534	Same as 527, yellow ochre slightly darker than 524
5	535	Cut for possible post pit/ shallow pit in south section
5	536	Fill of possible pit [535], darkish yellow ochre with flecks of charcoal
5	537	Post cut with large stone packing on north side
5	538	Light yellow buff sandy clay - fill of [537]

Trench 6

Trench	Context No.	Description
6	601	Decayed humic topsoil and leaf litter.
6	602	Leached grey brown silt with mottled reddish brown patches.
6	603	Very leached grey green caly/silt in the western half of the trench. Equal to 604.
6	604	Leached light grey clay/silt with extensive iron staining. Compact.
6	605	Very dense clean light grey clay/silt, with heavy iron staining.

Trench 7

Trench	Context No.	Description
7	700	top soil
7	701	Yellow buff compacted deposit round and angular stones (maybe hard core spill over from road).
7	702	Cut: cut for post hole feature
7	703	Fill of [702] Ashy/ yellow sandy clay 17 to 20cm in depth
7	704	Degraded revettmennt from wall? Ek
7	705	Stone feature below (701) - stones flat, could be part of wall - not resolved

The excavations at the Piepenkopf Iron Age Hillfort from 2018 to 2022, revealing structural evidence, features and finds that add significantly to information on the occupation and use of this hillfort. The work contributes to a wider understanding of hillforts within the region, revealing the nature of hillforts, beyond their defensive aspect to illuminate social, economic, and symbolic functions, within their landscape.

