

Dunning Primary School: Excavation

Data Structure Report

On behalf of: Property Division
Perth and Kinross Council
Pullar House
35 Kinnoull Street
Perth
PH1 5GD

AOC Archaeology Project No: 20,537

NGR: NN 0182 1455

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Fieldwork: July 2007

Report: July 2007

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1 NON TECHNICAL SUMMARY

- 1.1 This report presents the results of an archaeological excavation undertaken by AOC Archaeology Group on the site of a proposed extension to Dunning Primary School, Dunning, Perthshire and follows on from an archaeological evaluation completed in July 2006 (AOC 2006).
- 1.2 The open area excavation was required by Perth and Kinross Council in advance of an extension to the school (Figure 1). These works were required in advance of the development as advised by the Perth and Kinross Heritage Trust (PKHT). All archaeological works were conducted in accordance with the principles laid out in NPPG 5 (SOEnd 1994), NPPG 18 (SODD1999) and PAN 42 (SOEnd 1994a).
- 1.3 The archaeological excavation revealed the extent of the ditch identified in the earlier phase of work (AOC 2006), as well as recording a second ditch feature, and recovering a flint arrowhead, flint blade and core.

2 INTRODUCTION

2.1 Background

- 2.1.1 An open area excavation was required by Perth and Kinross Council on the footprint of a proposed extension of the existing Dunning Primary School, Dunning, Perthshire (Figure 1). The excavation, conducted in accordance with the principles inherent in NPPG 5 (SOEnD 1994) and PAN 42 (SOEnD 1994a), was designed to record by formal excavation all the features previously identified, specifically a section of ditch, within the development area. The site is located within the Local Authority administrative area of Perth and Kinross Council and is advised on matters pertaining to the archaeology by Perth and Kinross Heritage Trust's (PKHT) in regards to the planning application. The work was conducted in accordance with the *Written Scheme of Investigation* (WSI), designed fully to satisfy and meet the requirements of PKHT (AOC 2007). The work was undertaken between 2nd and 11th July 2007 in both wet and dry weather conditions.

2.2 Site description and location

- 2.2.1 The proposed development area lay within the village of Dunning, with its centre at NGR: NN 0182 1455 (Figure 1). The site was located within the school grounds and comprised an area of tarmac measuring approximately between 9-13 m (north - south) by 30 m (east - west). The school is located to the east of the B9141 / Station Road with housing to the south, west and north.

- 2.2.2 The main geology of the lowland area consists of extrusive andesites, basalts and tuffs. The landform is of undulating lowlands and mounds with gentle slopes (The Macauley Institute for Soil Research 1982). The geology of the development area consisted of soft fine sand across low lying ground.

3. ARCHAEOLOGICAL BACKGROUND

- 3.1 The development site lay close to the centre of the historic core of Dunning. The site lies in an area of archaeological sensitivity with a number of National Monument Records of Scotland (NMRS) sites recorded close to the development area.
- 3.2 Located immediately to the south-east of the development area is the 13th century Parish Church (NMRS: NO01SW 13) dedicated to St. Serf. The church includes an early tower and a cross-slab with early Christian motifs. Immediately to the north of the development site is a Standing Stone (NMRS: NO01SW 9) and reputedly the site of the battle of Duncrub AD. 964. The Gaelic name of the village indicates a fortification, possibly that of Dun Knock (NMRS: NO01SW 18) to the south-east of the village. The village itself was the centre of a thanage from about the 11th century and was made a burgh of barony in 1511 (Smith 2001). The School was constructed in the late 19th century and is first depicted on the Ordnance Survey of 1901.
- 3.3 Further from Dunning is Rossie Law hillfort (NMRS: NN91SE 1) and Ben Effrey hillfort (NMRS: NN91SE 4) to the west and to the east is the site of a Roman temporary camp (NMRS: NO01NW 7). A number of other sites listed on the NMRS including further standing stones and occasional prehistoric small finds and cropmarks have been recorded across the area.
- 3.4 In July 2006 AOC Archaeology undertook an archaeological evaluation of the site (AOC 2006). This work identified a ditch 2.7 m wide (at maximum) by up to 1 m in depth. The steep-sided cut was lined by rounded cobbles to a 'U'-shaped base. The ditch contained three fills comprising a mixture of silt sand and clay deposits. No artefacts were recovered from the feature and no charcoal was identified from the basal fill for dating purposes.

4. OBJECTIVES

- 4.1 The archaeological works aimed to:
- i. identify, excavate, soil sample and record of all significant archaeological features within the identified zone of archaeological significance;
 - ii. retrieve a representative artefact assemblage;

- iii. upon conclusion of the excavation, prepare a post-excavation research design (*PERD*) to be agreed with PKHT.

5 METHODOLOGY

- 5.1 Due to the impact of the new school building on the ditch unearthed by the 2006 evaluation, an area measuring 15 m by 35 m, and centred on the ditch's alignment, was proposed for excavation (Figure 2). The area was stripped using a mechanical excavator fitted with a 2 m wide toothless ditching bucket under the direct supervision of an experienced archaeologist. Excavation was undertaken in shallow spits until the first archaeological horizon or drift geology was reached. All machine excavation was undertaken according to AOC Archaeology Group's standard operating procedures.
- 5.2 Due to the presence of three existing sheds/containers, upstanding buildings and the nature of working in an enclosed space the total excavation area was limited to approximately 9 -13 m by 30 m (Figure 2). However, the whole of the ditch within the development area was exposed by this work.
- 5.3 The overlying contexts ([1002] & [1002a]) were carefully removed by machine, with the ditch fills excavated by hand. The excavated features were cleaned and fully defined. A maximum of 75 % of the main ditch (Ditch 1) was excavated. Potential dating evidence in the form of a discreet patch of charcoal was recovered from the basal fill of Ditch 1.
- 5.5 No specialized re-instatement was undertaken. The excavation area was left open.

6 RESULTS

6.1 Introduction

- 6.1.1 The fieldwork was undertaken between the 2nd and 11th July 2007 in a combination of torrential rain and hot weather conditions. The following should be read in conjunction with Figures 1 - 4 plus the context record summaries presented in Appendix 1.

6.2 Ditch 1

- 6.2.1 The archaeological excavation revealed a further section of the ditch (Ditch 1) identified in the earlier phase of work (AOC 2006). In total, up to 30 m of Ditch 1 was revealed, excavated and recorded (Figure 3). Although the ditch was excavated in four sections (Sections A-D), all four shared the same basic profile

and content and reflected the conclusions of the earlier work. Generally, the ditch cut comprised shallow sides running in to a broadly U-shaped base (measuring 2.20 m and 3.20 m in width by between 1.00 m and 1.20 m in depth) and was filled by three individual fill contexts (Figure 4).



Plate 1: Ditch 1 Under Excavation

- 6.2.2 The upper fill of Ditch 1 ([1004], [1009], [1014] and [1019]) generally consisted of an orange to grey silty sand with rare inclusions of rounded pebbles and measured between 0.20 to 0.40 m in depth (Figure 4). The middle fill ([1005], [1010], [1015] and [1020]) consisted of orange brown sticky sandy clay between 0.30 to 0.45 m in depth (Figure 4). The primary fill ([1006], [1011], [1016] and [1021]) consisted of sticky fine orange brown clay, very similar in consistency to the overlying context, measuring between 0.35 to 0.50 m in depth (Figure 4). Although the evaluation postulated that the ditch was lined with cobbles, no trace was found other than the actual gravel subsoil feature was cut into.

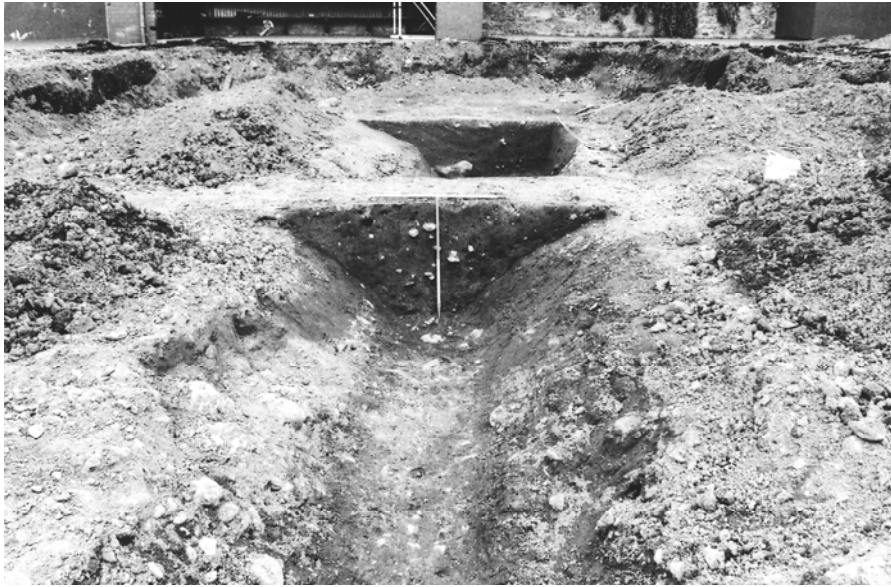


Plate 2: Ditch 1 Section C

- 6.2.3 Although charcoal was identified in the upper fills only limited quantities were observed within the primary fill contexts. Samples were taken in facilitating c14 dating. Flint artefacts recovered from the middle fill [1020] of Ditch 1 Section D included an arrowhead, a blade and a flake.
- 6.2.4 The cut of Ditch 1, Section D [1018] cut through the lower fills of Ditch 2 ([1024] and [1025]), clearly demonstrating the earlier age of the latter.

6.3 Ditch 2

- 6.3.1 A secondary ditch [1023] (Ditch 2) aligned north to south was identified and partially excavated to the immediate south of Ditch 1 (Section D) (Figure 3). The excavation found Ditch 2 to be earlier than Ditch 1. Ditch 2 measured 2.20 m wide by 0.70 m deep and, as with Ditch 1, contained three main fills ([1020], [1024] and [1025]). No artefacts were recovered from Ditch 2.
- 6.3.2 The lower fills of Ditch 2 ([1024] and [1025]) were truncated by the excavation of the later cut [1018] of Ditch 1 clearly demonstrating the later nature of the latter. However, it is impossible to say how much earlier the ditch would have been excavated.

6.4 Artefacts

- 6.4.1 Generally the various fills of the ditches were sterile. However, four significant artefacts were recovered from Ditch 1, the face-shaped bowl of a smoking pipe, a barbed and tanged arrowhead, a flint blade and a flint flake.
- 6.4.2 The shaped bowl of the smoking pipe comprises up to 70 % of the total bowl and represents a man wearing a top hat (Plate 1). The bowl was recovered from the very top of Ditch 1, Section B, context [1008].



Plate 3: Clay Pipe Bowl

- 6.4.3 The three flint artefacts were recovered from Ditch 1, Section D, Context [1020]. The barbed and tanged arrowhead (Blade 2) represents a type of artefact commonly used in the Early Bronze Age, while the other two artefacts remain typologically and chronologically problematic.



Plate 4: Flint Barbed and Tanged Arrowhead

- 6.4.4 Although two of the artefacts are diagnostic of period, it would be unwise to use either to conclusively date the ditch feature. Neither was recovered from a sealed context and both, particularly the barbed & tanged arrowhead, could have been re-deposited.

7 DISCUSSION

- 7.1 Given the orientation of Ditch 1 running parallel to 19th century features and perpendicular to the road suggests that it could be relatively modern, although given the total absence of white ceramic from the fill suggest it could be an earlier feature. The 1866 Ordnance Survey depicts a track roughly in the area of the ditch leading to Castle Grange and round onto Kirk Wynd, although its exact position in relation to the ditch is unclear. None of the earlier historical maps are detailed enough to depict anything in the area of the ditch. One possibility, given the early origins of the town, is that the ditch represents a boundary ditch to the Burgh. Its size, seemingly straight alignment and location on the edge of the town, all indicate this as a possibility. Given the ditch's proximity to St. Serf's Church, which has origins in the 13th century and possibly earlier, the ditch could even represent a boundary ditch to a much earlier period in Dunning's history.
- 7.2 The identification of a second ditch [1023] aligned north to south indicates that an earlier feature occupied the site prior to the excavation of Ditch 1. Although it is at this stage impossible to date the feature it is clearly earlier than Ditch 1, the

recovery of flint artefacts may suggest an origin in prehistory. However, as stated previously it would be unwise to date the features through the recovery of these artefacts.

8 RECOMMENDATIONS

- 8.1 A post-excavation programme is required to establish the date and significance of Ditch 1 and associated Ditch 2. The soil samples will require processing in order to recover charred material for radiocarbon dating and as a means to try and maximise the artefacts recovered from the site. There will be limited amount of analysis on the artefacts recovered. Some documentary research is also required in order to place the site within its local and national context.

9 REFERENCES

AOC 2006 *Primary School, Dunning Evaluation: Data Structure Report*, Unpublished Client Report

AOC 2007 *Primary School, Dunning Excavation: Written Scheme of Investigation*, Unpublished Client Report

Smith, R 2001 *The Making of Scotland*. Edinburgh, 293.

Soil Survey of Scotland 1982. *Eastern Scotland Sheet 5*. The Macauley Institute for Soil Research, Aberdeen.

The Scottish Office Environment Department 1994. *National Planning Policy Guideline NPPG5. Archaeology and Planning*. January 1994.

The Scottish Office Environment Department 1994a. *Planning Advice Note 42. Archaeology – the Planning Process and Scheduled Ancient Monument Procedures*. January 1994.

1st Edition Ordnance Survey 1866 *Perthshire*

Primary School, Dunning Excavation: Data Structure Report

APPENDIX 1: CONTEXT REGISTER

No.	Type	Description
1001	Tarmac	A thin layer of tarmac and gravel hardcore up to 0.15 m in depth. Overlying Overlying
1002	Topsoil	Topsoil comprising up to 0.55 m of mid-brown/orange soft fine sand. Underlying [1001] and overlying [1003].
1002a	Subsoil	Layer of mid-brown/orange soft clayey fine sand and occasional small rounded stones. 0.45 m in depth. Underlying [1002] and overlying [1003]
1003	Cut	Cut of Ditch 1, Section A comprising a large v-shaped cut in section, linear in plan measuring 3.20 m north to south by 1.20 m in depth. Filled by [1004], [1005] and [1006]. Cut through the natural [1007]. Same as [1008], [1013] and [1018].
1004	Fill	Upper fill of ditch cut [1003], comprising a brown soft, silty sand with occasional rounded stones and charcoal flecks. Up to 0.30 m in depth. Underlying [1002a] and overlying [1005]. Same as [1009], [1014] and [1019].
1005	Fill	Fill of ditch cut [1003], comprising an orange brown silty clay with occasional rounded stones and charcoal flecks. Very similar in composition to [1006]. Up to 0.35 m in depth. Underlying [1004] and overlying [1006]. Same as [1010], [1015] and [1020].
1006	Fill	Primary fill of ditch cut [1003], comprising an orange grey layer of clay, with some inclusions of charcoal. Measuring up to 0.60 m in depth. Underlying [1005]. Same as [1011], [1016] and [1021].
1007	Natural	Natural subsoil encountered in Section A comprising a mixture of gravel and sand. Ditch cut [1003] was excavated through this layer.
1008	Cut	Cut of Ditch 1, Section B comprising a large v-shaped cut in section, linear in plan, measuring 2.30 m north to south by up to 1.20 m in depth. Cut through the natural [1012]. Filled by [1009], [1010] and [1011]. Same as [1003], [1013] and [1018].
1009	Fill	Upper fill of ditch cut [1008], comprising an orange brown silty sand with occasional angular stones and gravel inclusions. Measuring up to 0.40 m in depth. Underlying [1002a] and overlying [1010]. Same as [1004], [1014] and [1019].
1010	Fill	Fill of ditch cut [1008], comprising an orange grey silty clay. Very similar in composition to underlying [1011]. Measuring up to 0.30 m in depth. Underlying [1009] and overlying [1011]. Same as [1005], [1015] and [1020].
1011	Fill	Primary fill of ditch cut [1008], comprising a sticky orange fine clay with very few inclusions. Topsoil comprising up to 0.55 m of mid-brown/orange soft fine sand. Very similar in composition to overlying [1010]. Measuring up to 0.50 m in depth. Same as [1006], [1016] and [1021].
1012	Natural	Natural gravel encountered within Section B. Ditch cut [1008] was excavated through this layer.
1013	Cut	Cut of Ditch 1, Section C comprising a large v-shaped cut in section, linear in plan, measuring 2.40 m north to south by up to 1 m in depth. Cut through the natural [1017]. Filled by [1014], [1015] and [1016]. Same as [1003], [1008] and [1018].
1014	Fill	Upper fill of ditch cut [1013], comprising an orange/grey silty sand with few inclusions of rounded pebbles and charcoal flecks. Measuring up to 0.20 m in depth. Underlying [1002a] and overlying [1015]. Same as [1004], [1009] and [1019].
1015	Fill	Fill of ditch cut [1013], comprising an orange brown sandy clay with inclusions of rounded stones. Very similar in composition to the underlying [1016]. Measuring up to 0.40 m in depth. Underlying [1014] and overlying [1016]. Same as [1005], [1010] and [1020].
1016	Fill	Primary fill of ditch cut [1013], comprising an orange brown clay with occasional rounded stone inclusions and a discreet sample of charcoal. Very similar in composition to the overlying [1015]. Measuring up to 0.40 m in depth. Same as [1006], [1011] and [1021].
1017	Natural	Natural gravel encountered within Section C. Ditch cut [1013] was excavated through this layer.
1018	Cut	Cut of Ditch 1, Section D, comprising a u-shaped cut in section, linear in plan, measuring 3 m north to south by 1.15 m in depth. Cut through natural [1026]. Filled by [1019], [1020], [1021] and [1022]. Same as [1003], [1008] and [1013]. Cuts [1024] and [1025]

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1019	Fill	Upper fill of ditch cut [1018], comprising a grey brown compact silt with few inclusions of rounded pebbles and charcoal flecks. Overlying [1022] and [1020]. Measuring up to 0.35 m in depth. Same as [1004], [1009] and [1014]. Same as [1005], [1010] and [1015].
1020	Fill	Fill of ditch cut [1018], comprising a light brown silty clay with few medium angular stone and charcoal inclusions. Measuring up to 0.40 m in depth. Underlying [1019] and [1022] and overlying [1021].
1021	Fill	Primary fill of ditch cut [1018] comprising a compact orange brown clay up to 0.20 m in depth. Only visible in eastern part of Section D. Underlying [1020].
1022	Fill	Lense of material identified in section within Section D.
1023	Cut	Cut of north to south aligned Ditch 2, u-shaped in profile. Measuring 2.20 m wide by 0.70 m in depth and, as with Ditch 1, contained three main fills ([1020], [1024] and [1025]). No artefacts were recovered from Ditch 2.
1024	Fill	Fill of ditch cut [1023], comprising an orange brown sandy clay material. Overlying [1025] and underlying [1020]. Cut by [1018]
1025	Fill	Primary fill of ditch cut [1023], comprising a brown compact sandy clay with a few rounded medium sized stones. Cut by [1018].
1026	Natural	Natural gravel encountered within Section D. Cut by [1023].

APPENDIX 2: PHOTOGRAPHIC RECORD

Black & White Print 1

Frame	Detail	From
1-2	Registration	
3-7	General pre-excavation shots of site	Var
8-15	General working shots of site during machine excavation	Var
16-17	General working shot of excavation	W
18-19	West-facing section through Section D	W
20	North-facing section through Section D	N
21	Detail of north and west sections of Section D	NW
22-23	East-facing section through Section D	E
24	Detail of Section D	E
25	Detail of Section D	W
26-27	West-facing section through Section A	W
28-29	East-facing section through Section A	E
30-31	General shot of Section B	E
32-33	General shot of Section A	W
34-35	West-facing section through Section C	W

Colour Slide 1

Frame	Detail	From
16-17	General working shot of excavation	W
18-19	West-facing section through Section D	W
20	North-facing section through Section D	N
21	Detail of north and west sections of Section D	NW
22-23	East-facing section through Section D	E
24	Detail of Section D	E
25	Detail of Section D	W
26-27	West-facing section through Section A	W
28-29	East-facing section through Section A	E
30-31	General shot of Section B	E
32-33	General shot of Section A	W
34-37	West-facing section through Section C	W

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Black & White Print and Colour Slide 2

Frame	Detail	From
1-2	Registration	
3-4	West-facing section through Section B	W
5-8	Detail of Ditch cut xx	N
9-14	General working shots of site	Var
15-16	Detail of Ditch Sections A-D	W
17-20	Detail of Ditch Sections A-D	E

APPENDIX 3: DRAWING REGISTER

No.	Description	Scale
1	East-facing section through Ditch cut [1018]	1:10
2	West-facing section through Ditch cut [1018]	1:10
3	North-facing section through Ditch cut [1023]	1:10
4	West-facing section through Ditch cut [1008]	1:10
5	West-facing section through Ditch cut [1013]	1:10
6	West-facing section through Ditch cut [1003]	1:10
7	Area plan of Ditch cuts [1003], [1008], [1013], [1018] and [1023]	1:20

APPENDIX 4: SMALL FIND REGISTER

No	Context	Material
1	1020	Flint barbed & tanged arrowhead
2	1020	Two pieces of flint
3	1004	Clay pipe bowl (in shape of head)

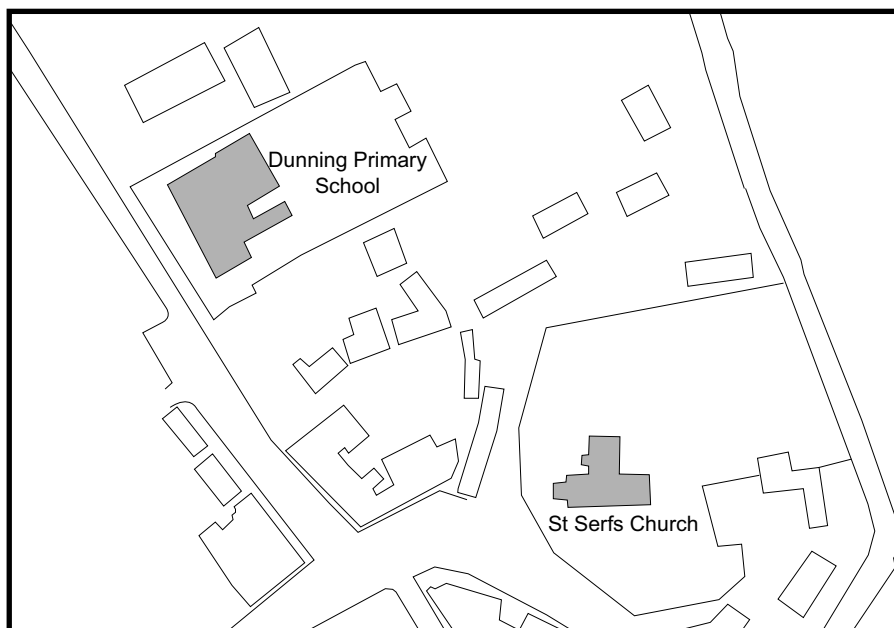
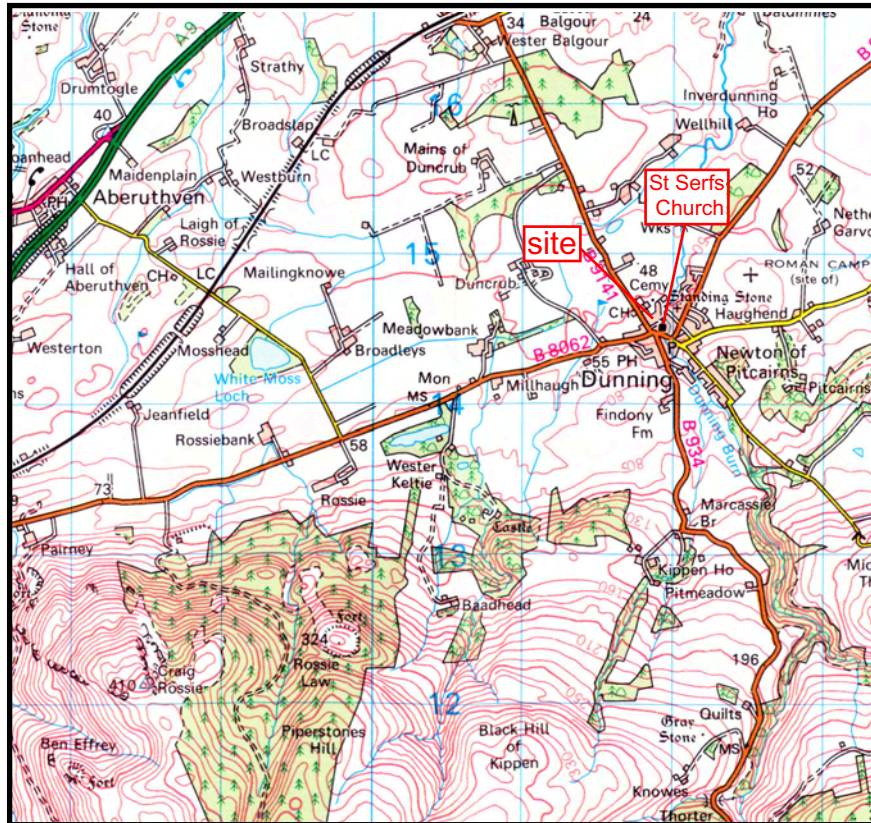
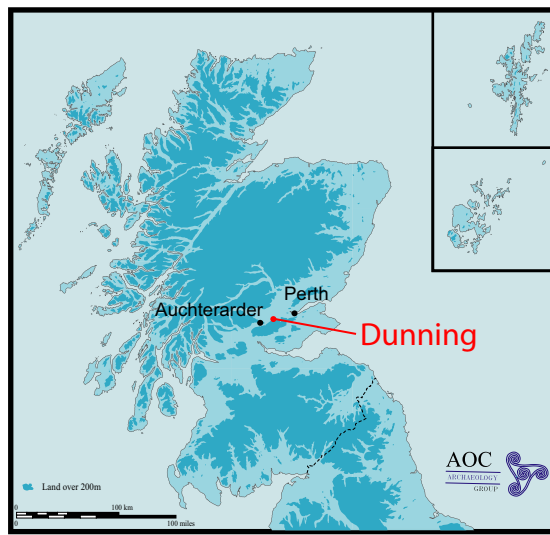
APPENDIX 5: SAMPLE REGISTER

Context	Tubs
1004	1
1005	1
1006	1
1009	1
1010	1
1011	1
1014	1
1015	1
1016	1
1019	1
1020	1
1021	1
1022	1
1024	1
1025	1

Primary School, Dunning Excavation: Data Structure Report

APPENDIX 6: DISCOVERY AND EXCAVATION IN SCOTLAND REPORT

LOCAL AUTHORITY:	Perth and Kinross
PROJECT TITLE/SITE NAME:	Dunning Primary School
PROJECT CODE:	20537
PARISH:	Dunning
NAME OF CONTRIBUTOR(S):	Cook, Martin
NAME OF ORGANISATION:	AOC Archaeology Group
TYPES(S) OF PROJECTS:	Excavation
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	Ditches
SIGNIFICANT FINDS:	Flint arrowhead and blade
NGR:	NN 0182 1455
START DATE:	02/07/2007
END DATE:	11/07/2007
PREVIOUS WORK:	DES 2006 not yet published
MAIN DESCRIPTION:	<p>A programme of archaeological works was required by Perth and Kinross Council in advance of a proposed extension to the existing school building, by AOC Archaeology Group at Dunning Primary School, Dunning, Perthshire. In total an area 30 m east to west by between 9-13 m north to south was stripped by machine excavation. The ditch feature was aligned east to west and measured 30 m in length by up to 3.20 m in width and 1.20 m in depth. Seventy-five percent of the feature was excavated, producing a flint arrowhead and blade. A second, earlier ditch was identified aligned north to south, running in to the feature. No other significant archaeological features or artefacts were encountered.</p>
PROPOSED FUTURE WORK:	Post-excavation phase
SPONSOR OR FUNDING	Perth and Kinross
ADDRESS OF MAIN CONTRIBUTOR:	AOC Archaeology Group Edgefield Industrial Estate Edgefield Road Loanhead Midlothian EH20 9SY
EMAIL ADDRESS:	martinc@aocscot.co.uk
ARCHIVE LOCATION:	NMRS



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Figure 1: Site location plan

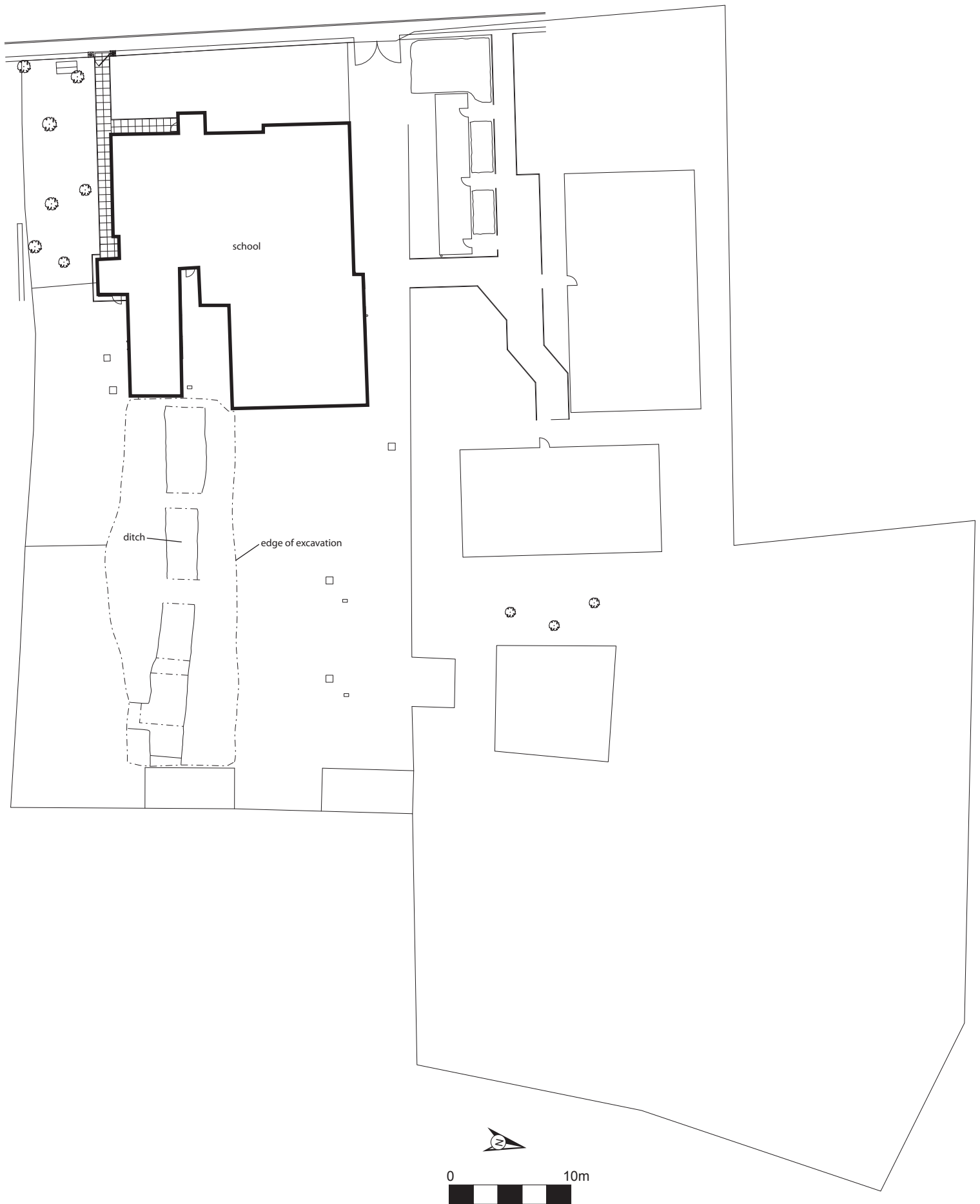


Figure 2: Locaton of excavation area and ditch feature

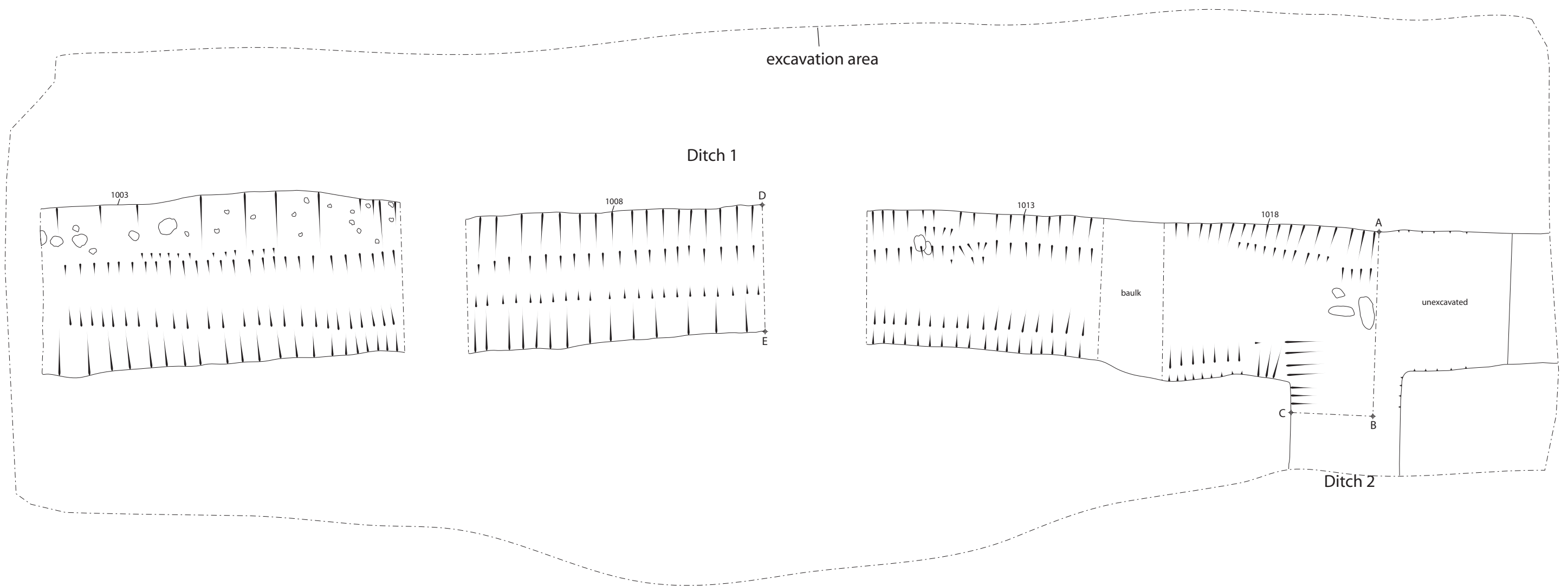


Figure 3: Plan of excavated ditch feature



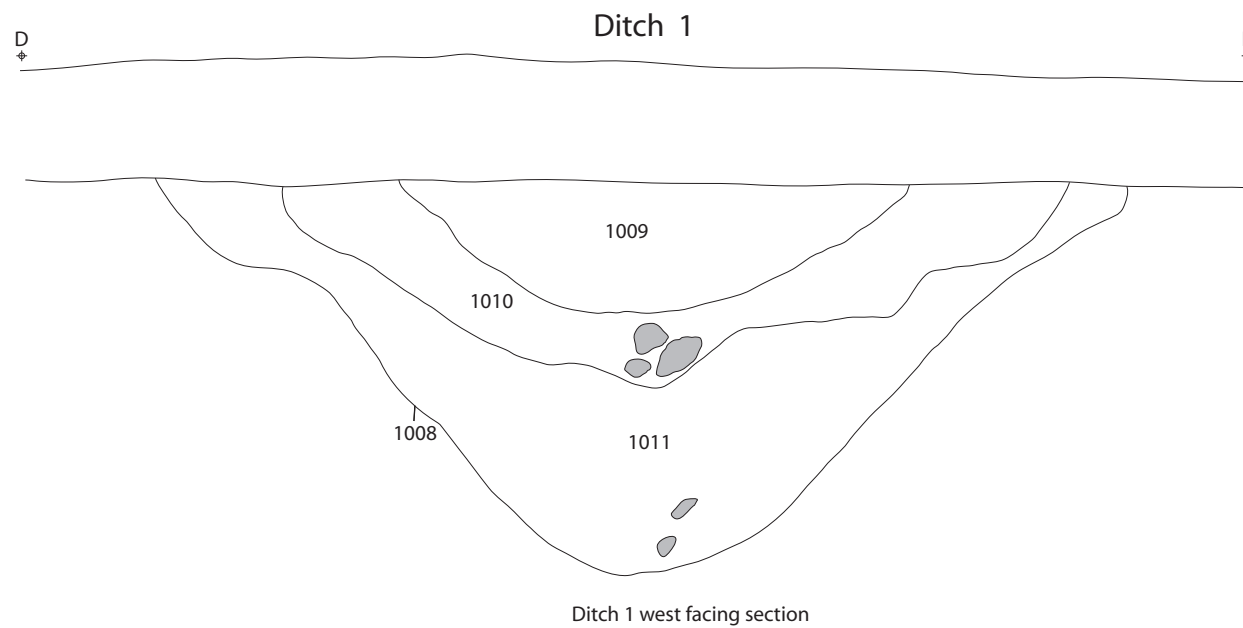
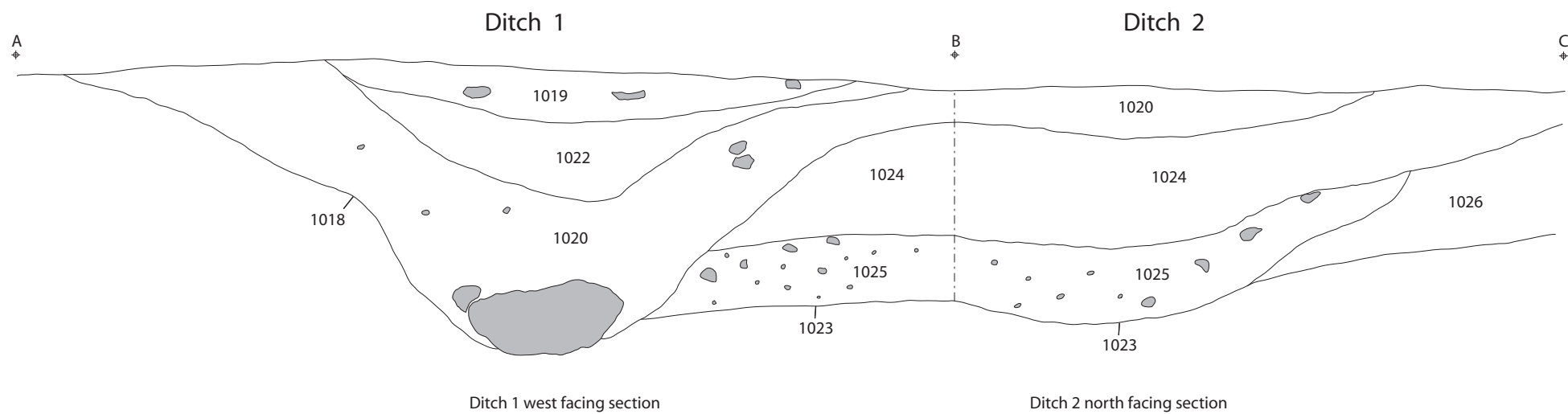


Figure 4: sections through ditch