

**T V A S**



**SOUTH WEST**

**Demolition of the Second World War Heavy  
Anti-Aircraft Battery at Pirton Fields,  
Churchdown near Gloucester, Gloucestershire**

**Archaeological Watching Brief**

**by Nicholas Dawson**

**Site Code: SCI 14/186**

**(SO 8650 2045)**

**Demolition of the Second World War Heavy  
Anti-Aircraft Battery at Pirton Fields,  
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**An Archaeological Watching Brief**

**For Armour Heritage Limited**

by *Nicholas Dawson*

Thames Valley Archaeological Services Ltd

Site Code SCI 14/186

**July 2020**

## Summary

**Site name:** Pirton Fields, Churchdown, near Gloucester, Gloucestershire

**Grid reference:** SO 8650 2045

**Site activity:** Watching Brief

**Date and duration of project:** 1<sup>st</sup> July 2020

**Project manager:** Agata Socha-Paszkwicz

**Site supervisor:** Nicholas Dawson

**Site code:** SCI 14/186

**Area of site:** 0.5ha

**Summary of results:** The watching brief recorded demolition of the Second World War Heavy Anti-Aircraft command post, gun mounts and associated building platforms. No other features or finds of archaeological interest were identified.

**Location and reference of archive:** The archive is presently held at TVAS Southwest, Taunton and will be deposited at Gloucester Museum in due course.

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[www.tvas.co.uk/reports/reports.asp](http://www.tvas.co.uk/reports/reports.asp).*

Report edited/checked by: Steve Ford ✓ 18.07.20 Steve Preston ✓ 18.07.20
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# **Demolition of the Second World War Heavy Anti-Aircraft Battery at Pirton Fields, Churchdown near Gloucester, Gloucestershire An Archaeological Watching Brief**

by Nicholas Dawson

**Report 14/186b**

## **Introduction**

This report documents the results of an archaeological watching brief carried out at Pirton Fields, Churchdown, near Gloucester, Gloucestershire (SO8650 2045) (Fig. 1). The work was commissioned by Ms Sue Farr of Amour Heritage Limited, Greystone Cottage, Trudoxhill, Frome, BA11 5DP.

Planning permission (16/00738/OUT) had been granted by Tewkesbury Borough Council for construction of 465 new houses, public open space, landscaping, drainage, and other facilities on a c. 19.8ha parcel of land. In accordance with the Department for Communities and Local Government's *National Planning Policy Framework* (NPPF 2019) and Tewkesbury Borough Council's policies on archaeology a programme of archaeological works was implemented. This watching brief forms the latest and final phase of these archaeological works. The field investigation was carried out to a specification approved by Tewkesbury Borough Council as advised by Mr. Charles Parry, former Archaeologist at Gloucestershire County Council. The fieldwork was undertaken by Nicholas Dawson on the 1<sup>st</sup> July 2020 and the site code is SCI 14/186.

The archive is presently held at TVAS, Taunton and will be deposited with the Gloucester Museum in due course.

## **Location, topography, and geology**

The site is located 3.6km to the north-east of Gloucester and lies between the residential areas of Innsworth and Churchdown, within the latter parish (Fig 1). The site comprises a sub-rectangular area of land of approximately 19.8ha most of which is made up of two arable fields. To the north is the location of a former sewage works and to the west of the internal boundary, an area of c. 0.1ha is occupied by the remains of a Second World War Heavy Anti-Aircraft (HAA) battery covered with overgrowth and brambles. The site's north-west and south-east boundaries are defined by ditches flowing north-westwards into Hatherly Brook, a tributary of the River Seven which meanders in oxbows 3.85km to the west. The soils are a lime-rich loam and clay with impeded drainage (CSAI 2019). The underlying geology is Charmouth Mudstone Formation, sedimentary bedrock with superficial deposits of alluvium over the lower half of the site (BSG 1988).

## Archaeological background

The archaeological potential of the site was considered in a desk-based assessment (Sulikowaka 2012) and confirmed by geophysical survey (Fry and Roseveare 2014) watching brief (Armour-Chelu 2014), evaluation trenching (Platt and Pine 2014) and subsequent excavation (Dawson and Tabor 2019). This revealed evidence of episodic use of the site, from the later Bronze Age through to the 20<sup>th</sup> century. The earliest known activity comprised a few Bronze Age pits and linear features probably representing traces of occupation and a field system. This developed in the Iron Age with the inclusion of a ring gully house site and in turn was enhanced by construction of a discrete enclosure and a new ring gully structure. The enclosure complex continued to evolve through the Iron Age with further enhancements such as internal subdivisions of the enclosure. Finds suggest a subsistence economy, predominantly pastoral that thrived in the 5<sup>th</sup> Century BC but had gone out of use before the onset of the Late Iron Age.

The site was farmed in Roman times with a few traces of a field system revealed, and again for certain during the Medieval or Post-Medieval periods as evidenced by widespread ridge and furrow. The final phase of use comprised the construction and use of a Second World War heavy anti-aircraft battery designated A15 in the historic record.

The structures identified as belonging to the Second World War period consists of a command post (1000) (located at NGR SO 86520 20450) which sits on the western side of the field boundary that splits the site in half from north to south. Four gun emplacements (1001, 1002, 1003, 1004) positioned as a crescent around the south west of the command post at a distance of, on average, 29m were recorded. Each has an associated rectangular structure some 5m off to one side (1005, 1006, 1007, 1008) and all are connected by a crush rock surface 153 which to the south of the battery turns to a Tarmac access road joining to Cheltenham Road East (B4063) that runs along the southern edge of site from Gloucester to Cheltenham. These structures form the Heavy Anti Aircraft (HAA) battery proper and a further four concrete surfaces: (392) located at NGR SO 86525 20540; (856) located at NGR SO 86305 20526; (857) located at NGR SO 86382 20444; 6 located at NGR SO 86385 220410. These represent a small number of the HAA battery's auxiliary structures. Also found right across the site though for the most part concentrated around the main battery was a large number of iron angled fencing posts of 0.91m in length. Their purpose as shown by the fragments of barbed wire still attached to a number of posts appears to enclose the HAA battery and its associated camp.

## **Objectives and methodology**

The purpose of the watching brief was to gain and record any further information regarding the Second World War heavy anti-aircraft battery during its demolition. This proposed the observing of the demolition of the command post, the gun pads and their associated building bases and examination of the debris. Any archaeological deposits identified were to be hand cleaned, excavated, and fully recorded. Demolition work was undertaken using a 360-excavator fitted with a hydraulic breaker.

## **Results**

The Second World War remains being observed while demolished consisted of the command post 1000 its four gun emplacements (1001, 1002, 1003, 1004) and their associated rectangular structures (1005, 1006, 1007, 1008).

The command post exists as an irregular reinforced concrete structure which is 17.3m by 14m in width and consists of three sunken rooms connected by a ground level concrete surface (175). Observation of its demolition revealed that beneath each of the sunken rooms an initial layer of 0.1m of concrete (857) was placed directly onto the natural geology. The upper surface of this concrete had been smoothed and levelled and a coating of 0.03m of rubberized bitumen damp proof (858) then applied, above which was the floors of the sunken rooms (165, 177, 180). Also noted during demolition of the command bunker was the presence of an internal wall (856) within the east sunken room. This had not been noted in previous archaeological works due to the presence of asbestos preventing excavation of the room. The wall was constructed of single width (0.23m), hollow concrete block laid in a stretcher bond and survived to a length of 1.2m. The wall was located on the east side of the room, some 2.8m along the east edge from south east corner and was orientated north east to south west.

Due to the nature of their construction the demolition of the gun emplacements was carried out by excavating down the side of each gun mount and removing them, allowing a better approach for the hydraulic breaker. It was noted during their demolition that the gun mounts consisted of a 1.2m deep and 4m diameter cylindrical hole (520, 521, 522, 523). The hole was filled with a single block of concrete that domed slightly above ground surface (157, 159, 161, 163). Housed within sat a steel frame box or holdfast (156, 158, 160, 162) with only its top face visible, flush with the concrete. The form of this face in a steel bar square 2.34m in diameter, with a fifth bar running diagonally from the north corner to the south, protruding slightly at either end.

On top of the holdfast's frame sits ten spigots to which the gun would have been attached. Removal of the encasing concrete revealed that from the underside of each spigot protruded a 0.17m diameter hollow steel pipe 1.14m long. These then connected to a second steel frame 2.34m in diameter.

Demolition of the associated concrete building platforms revealed little apart from that the single level of concrete was laid directly onto the natural geology and lacked the rubberized bitumen damp proofing present under floors of the command bunker

## Conclusion

Observation of the demolition of the Anti Aircraft Battery was successfully undertaken and enhanced the information gained during the main excavation of the command bunker and its accompanying gun emplacements. It is now clear that rooms of the command bunk were waterproofed below the floor as well as on the walls to prevent rising damp, adding further weight to the idea that the rooms would have originally had roofs therefore keeping water out from all sides. As to why this damp proofing of the floor was not applied to the building platform associated with the gun emplacements is unclear. Regarding the gun mounts themselves the method of their construction is now clear. A hole was excavated and the holdfast frame was then placed within with the top just protruding above the ground surface. Concrete was then poured in and around the frame which, once set., served to anchor the holdfast and therefore the anti-aircraft gun firmly in place, even while firing.

No further archaeological deposits or finds unrelated to the Second World War features were observed.

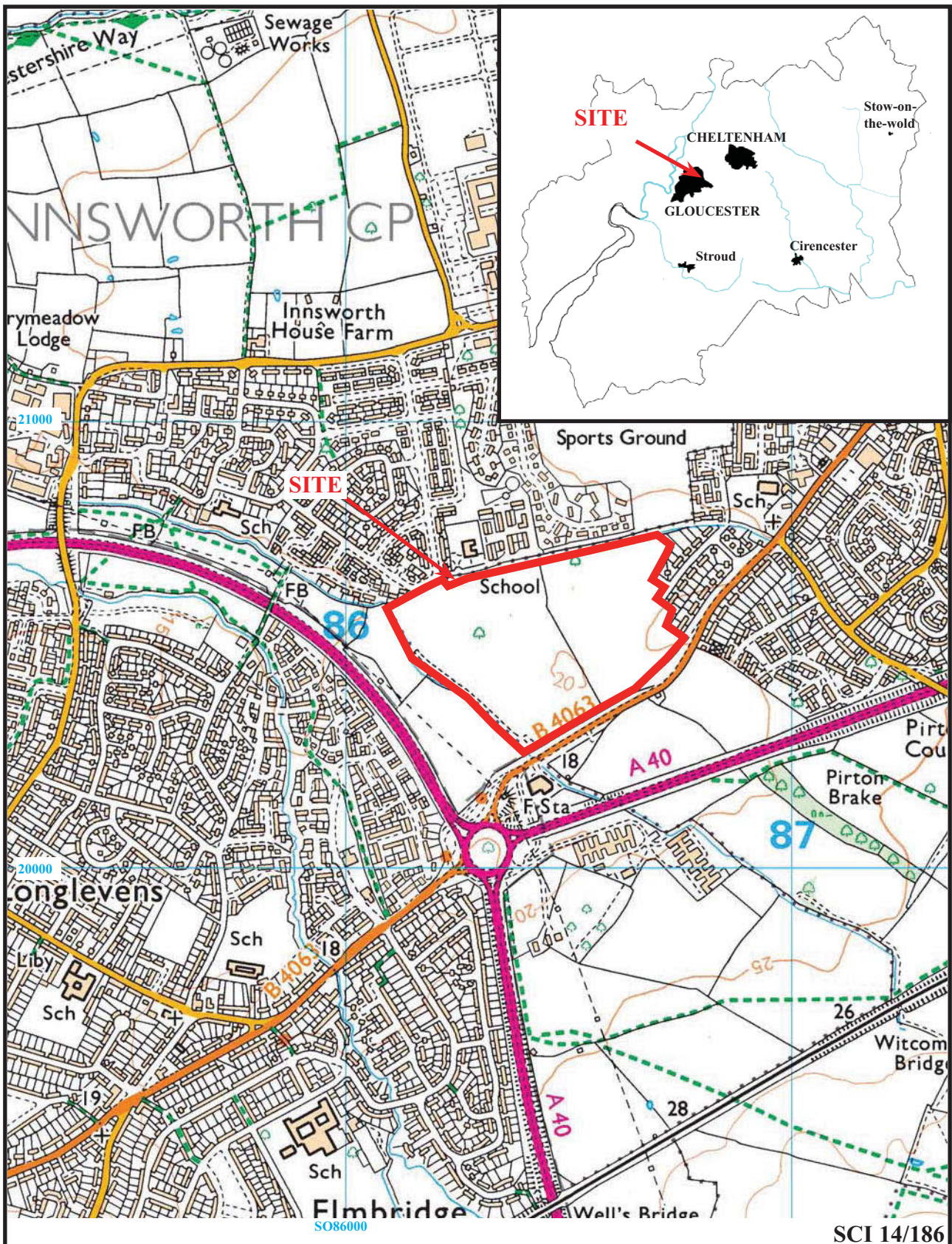
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**APPENDIX 1: Feature details**

<i>Group</i>	<i>Cut</i>	<i>Fill (s)</i>	<i>Type</i>	<i>Date</i>	<i>Dating evidence</i>
1001	520	156, 157	Gun mount	WWII	Documentary, form
1002	521	158, 159	Gun mount	WWII	Documentary, form
1003	522	160, 161	Gun mount	WWII	Documentary, form
1002	523	162, 163	Gun mount	WWII	Documentary, form
1000	101	856	Interior wall E sunken room	WWII	Documentary, form
1000	101	857	Concrete layer	WWII	Documentary, form
1000	101	858	Rubberized bitumen floor damp proofing	WWII	Documentary, form



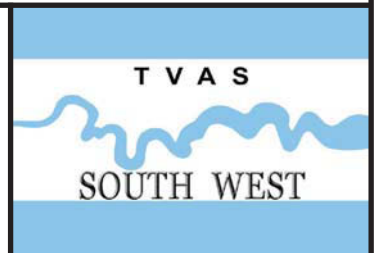


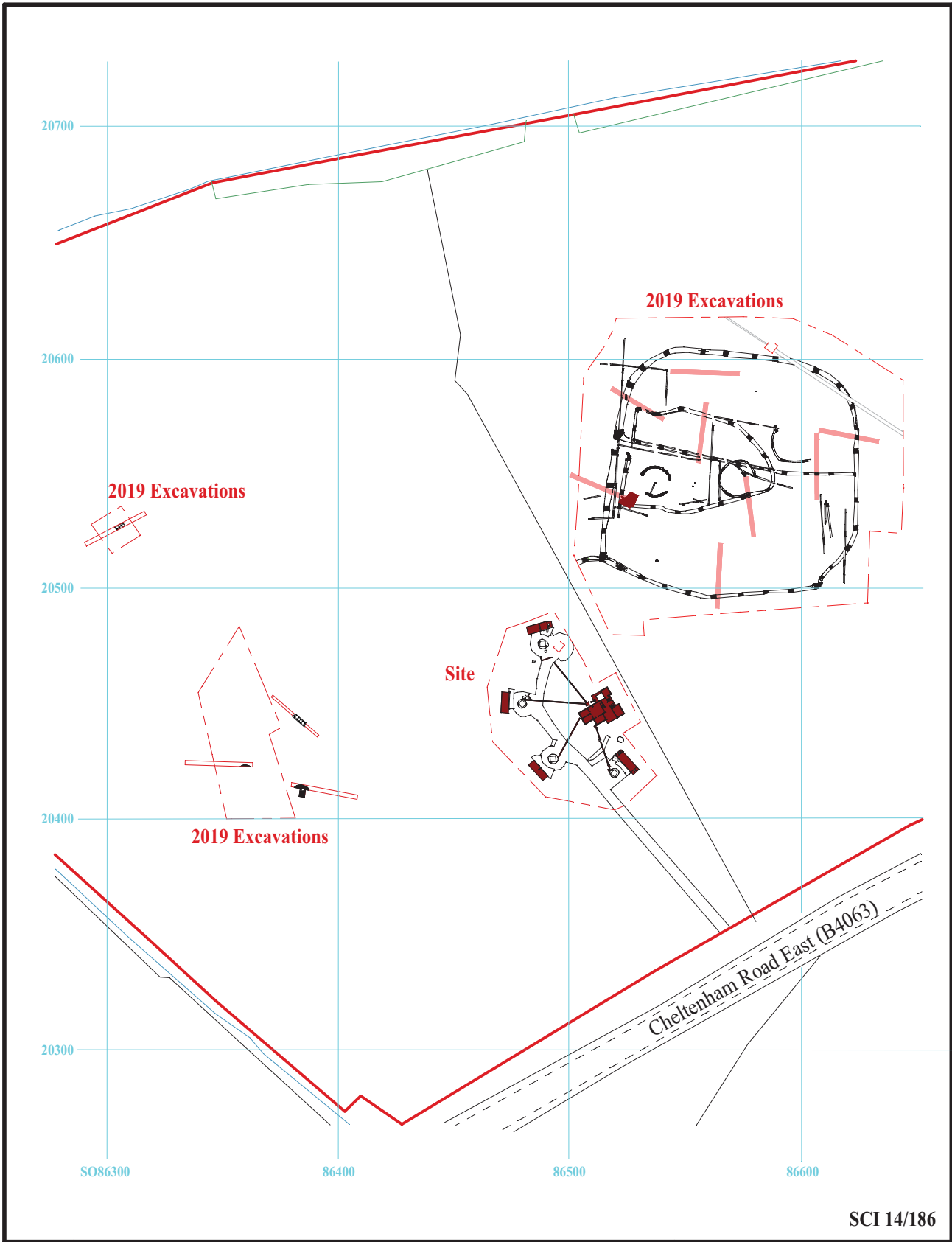
**Pirton Fields, Innsworth near Gloucester,  
Gloucestershire, 2020**

**Archaeological Watching Brief**

Figure 1. Location of site within Innsworth and Gloucestershire.

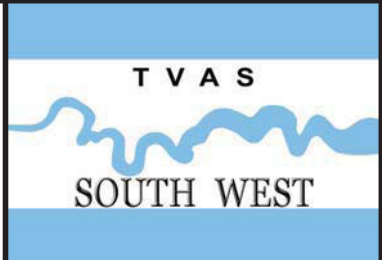
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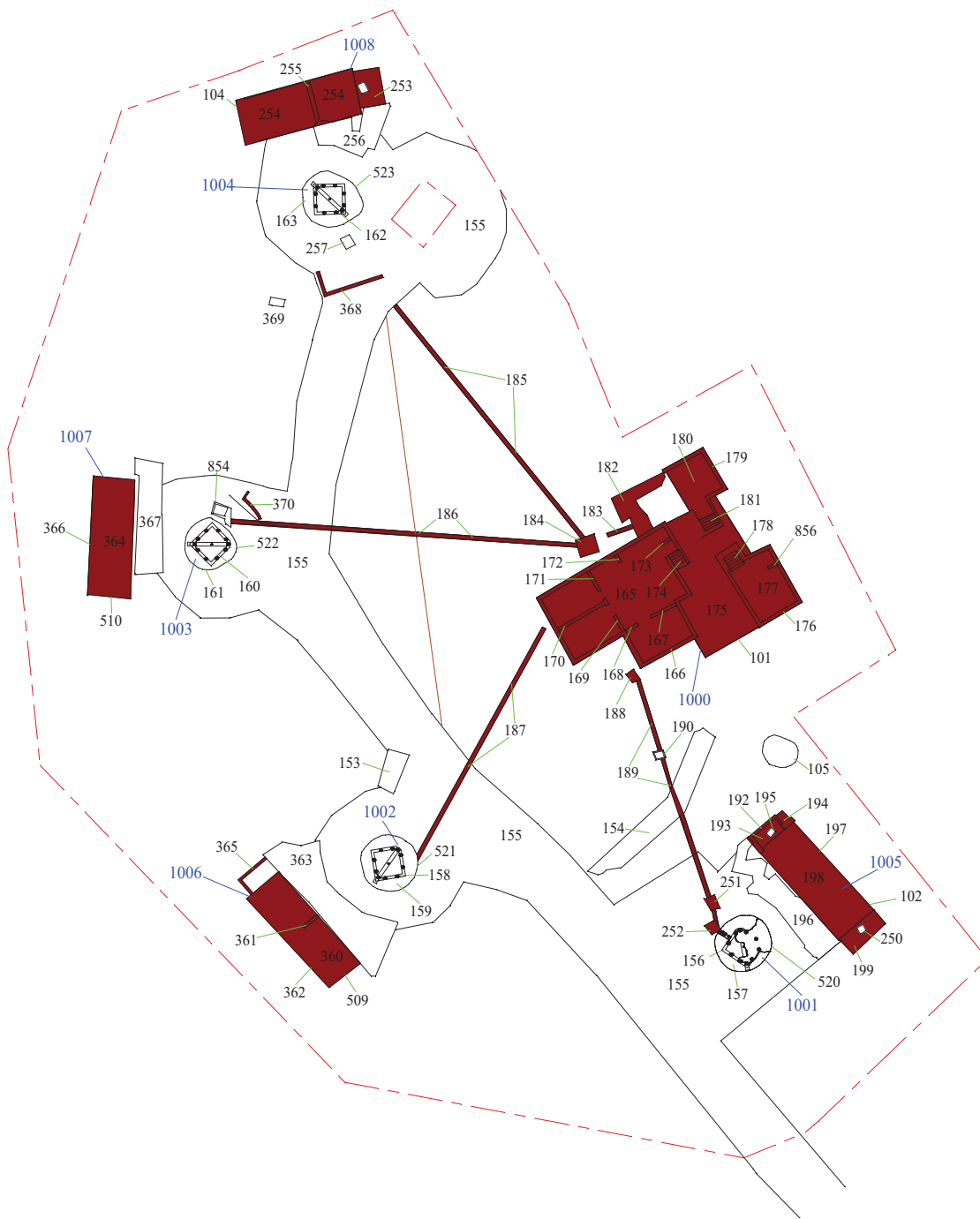


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Figure 2. Site plan.







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Figure 3. Site plan.





Plate 1. Demolition of command bunker 1000, looking NE.



Plate 2. Fragments of 165, 857 and 858 showing layering of sunk room floors



Plate 3. Demolition of building platform 1004, looking S.



Plate 4. Gun mount 1002, looking W, Scales: 2m.



Plate 5. Gun mount 1004, looking W, Scales: 2m and 1m.



Plate 6. Extracted holdfast 162, Scales: 1m.

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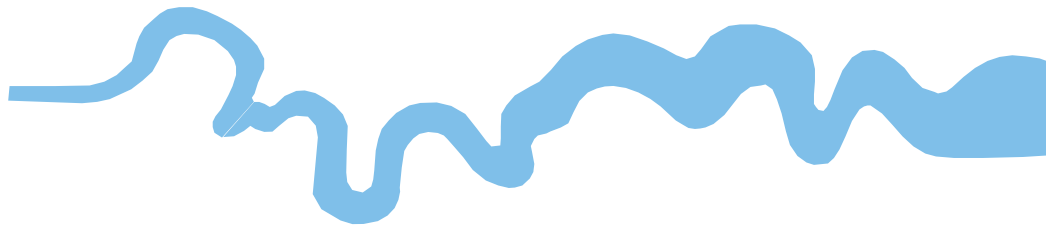
**Pirton Fields, Innsworth near Gloucester,  
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Plates 1 to 6.**



## TIME CHART

	Calendar Years
Modern _____	AD 1901
Victorian _____	AD 1837
Post Medieval _____	AD 1500
Medieval _____	AD 1066
Saxon _____	AD 410
Roman _____	AD 43 AD 0 BC
Iron Age _____	750 BC
Bronze Age: Late _____	1300 BC
Bronze Age: Middle _____	1700 BC
Bronze Age: Early _____	2100 BC
Neolithic: Late .....	3300 BC
Neolithic: Early .....	4300 BC
Mesolithic: Late .....	6000 BC
Mesolithic: Early .....	10000 BC
Palaeolithic: Upper .....	30000 BC
Palaeolithic: Middle .....	70000 BC
Palaeolithic: Lower .....	2,000,000 BC





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