



Northamptonshire Archaeology

Archaeological Evaluation of the Messines Terrain Model, Cannock Chase, Staffordshire February 2012



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Report 12/35

March 2012



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Acknowledgments

Northamptonshire Archaeology would like to thank Lee Dent and Richard Pursehouse for their invaluable assistance and information regarding the history of the model.

OASIS REPORT FORM

PROJECT DETAILS		
Project title	Archaeological evaluation of the Messines Terrain Model at Cannock Chase, Staffordshire, February 2012	
Short description	In February 2012, an archaeological evaluation was carried out by Northamptonshire Archaeology on the site of the Battle of Messines Terrain Model, Cannock Chase, Staffordshire. The evaluation comprised a exploratory augering exercise to identify the north-western edge of the model. The works identified the western boundary of the concrete scale model and a cobbled edge/path of a garden bed, possibly related to Brocton camp. The model had been covered by a relatively thick layer of overburden in recent times.	
Project type	Trial trench evaluation	
Site Status		
Previous work	Trenching (Brown, M, Kincey, M, and Nichol, K, 2007)	
Current land use	Grassland and shrub	
Future work	Unknown	
Monument type and period	First World War terrain model	
Significant finds	None	
PROJECT LOCATION		
County	Staffordshire	
Site address	Cannock Chase, Chase Road, Brocton, Staffordshire	
Post code		
397880 319000;	397880 319000	
Area (sq m/ha)	40m by 40m	
Height aOD	178m	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Stephen Dean, Staffordshire County Council	
Project Design originator	NA	
Director/Supervisor	Carol Simmonds (NA)	
Project Manager	Simon Carlyle (NA)	
Sponsor or funding body	Staffordshire County Council	
PROJECT DATE		
Start date	27/02/2012	
End date	03/03/2012	
ARCHIVES	Location	Contents
Physical	CCTM12	None
Paper		Site records (1 small archive box)
Digital		Client report PDF, shape file data
BIBLIOGRAPHY		Journal/monograph, published or forthcoming, or unpublished client report (NA report)
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ARCHAEOLOGICAL EVALUATION OF THE MESSINES TERRAIN MAP
CANNOCK CHASE, STAFFORDSHIRE
FEBRUARY 2012

Abstract

In February 2012, an archaeological evaluation was carried out by Northamptonshire Archaeology on the site of the Battle of Messines Terrain Model, Cannock Chase, Staffordshire. The evaluation comprised a exploratory augering exercise to identify the north-western edge of the model. The works identified the western boundary of the concrete scale model and a cobbled edge/path of a garden bed, possibly related to Brocton camp. The model had been covered by a relatively thick layer of overburden in recent times.

1 INTRODUCTION

In February 2012, an archaeological trial trench evaluation was carried out by Northamptonshire Archaeology (NA) on the site of the Battle of Messines Terrain Model, Cannock Chase, Near Brocton, Staffordshire (NGR:397880 319000; Fig 1).

Staffordshire County Council (SCC) hold a significant portion of Cannock Chase which they manage for the people of Staffordshire and the West Midlands (Dean 2011). The SCC managed landholdings on Cannock Chase currently lie under a Higher Level Scheme (HLS) agreement with Natural England and the county have undertaken a range of studies and surveys to improve understanding of the camps and inform the management and interpretation of these important archaeological remains. This phase of works was commissioned by Staffordshire County Council (SCC) and was undertaken to define the western extent and survival of the model.

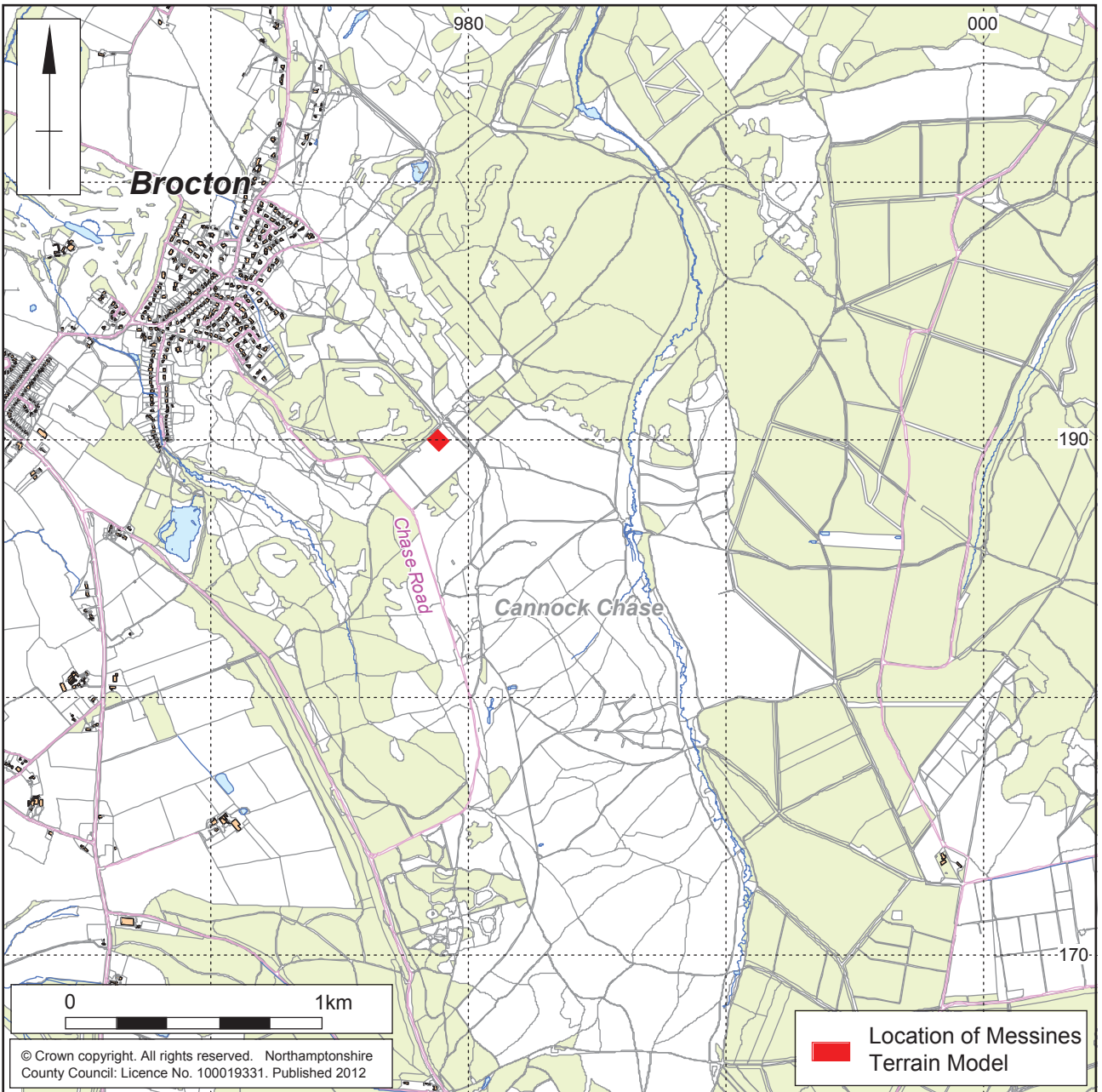
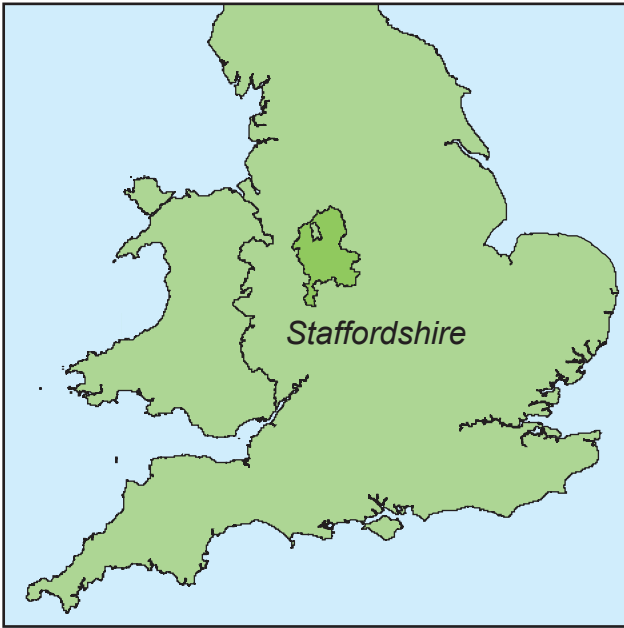
The scope of works was outlined in the brief (Dean 2011) issued by Staffordshire County Council's Historic Environment Officer (SCCHO). The objectives of the evaluation were to determine the presence of the western edge of the terrain map depicted the Battle of Messines and to ascertain the depth of burial and state of preservation.

2 BACKGROUND

2.1 Topography and geology

The model is situated in the northern part of Cannock Chase, near the village of Brocton. Currently the model lies beneath an area of scrub and trees (front cover). Prior to the current works, three side of the model were known defined by brick revetment walls; only the location of the north-western edge of the model was uncertain.

The model is defined on three sides by a cut into the slope, the centre of the model is dominated by a oval-shaped mound representing the village of Messine on the ridge.



Scale 1:25,000

Site location Fig 1

2.2 Historical and archaeological background

The village of Messines, located in the Flanders region of Belgium, was one of the bases of the German defences from 1914 to 1917. Its location on a ridge gave the occupying German army a strong defensive position overlooking the British lines. The Battle of Messines (7th to 14th June 1917) was the prelude to the Third Battle of Ypres otherwise known as the Battle of Passchendaele. Under General Plumer, the British Second Army which comprised Australian and New Zealand Army Corps (ANZAC) troops besieged the German lines around the village. As part of the offensive, tunnels were excavated beneath the village and explosives laid in the locales of German dugouts. After bombarding the German positions, the forces of the Second Army detonated the explosives, killing an estimated 10,000 German soldiers instantly. The Battle of Messines was one of the more successful assaults in the First World War.

From September 1917 the 3rd Battalion, New Zealand Rifle Brigade were posted to Brocton Camp, Cannock Chase. Under their instruction the German Prisoners of War constructed a scale model of the Battle of Messines. It is thought that this model showed the New Zealand and German lines, with the village of Messines represented by brick fragments (Whitehouse and Whitehouse 1996). Models in Flanders were constructed of earth for instructional purposes, however, on Cannock Chase the model appears to have been formed from concrete and may have been intended as both instruction and as a memorial. Surviving photographs show the precise detail of the landscape features, trenches and structures with its edges defined with a cobbled surface. After the battalion returned to New Zealand in 1919, they gifted the model along with their colours to the people of Stafford. Over the succeeding twenty years the model became neglected, so by the 1930s the map was in a poor condition and overgrown (Whitehouse and Whitehouse 1996).

Cannock Chase contains some of the finest Great War archaeology to survive in the United Kingdom including parts of the two training camps (at Brocton and Rugeley) and associated rubbish dumps, supply railway lines and trench systems. The camps and associated features have been surveyed by Northamptonshire Archaeology.

The survival and relatively good condition of the model was confirmed in 2007 by Lee Dent and Richard Pursehouse. Following on from this Birmingham Archaeology (Brown et al 2007) was contracted to survey and undertake limited excavations on the model. The remnants of the model suggested that landscape was meticulously represented to scale with trenches in robust concrete and roads. Lee Dent and Richard Pursehouse also identified the contour lines, as indicated by pebbles set in mortar. The remainder of the model appeared to have been covered in a mortar skim. The surviving elements of the model appear to be fragile.

3 OBJECTIVES AND METHODOLOGY

The principal objective of the archaeological works was to identify record and locate the western edge of the Messines Terrain Model on Cannock Chase.

The works comprised an initial exploratory phase to identify the depths of concrete or other surfaces. Following on from this, hand excavation of two trenches targeted noted areas of resistance (Fig 2).

Initially a 10m x 10m grid was surveyed in using a Leica 1200 GPS surveying system and small probes were inserted up to a depth of 100mm into the ground at 1.0m intervals in an attempt to identify the presence of the concrete base to the model. The depths of the soils were recorded and logged.

Following this exercise Trench 1, measuring 10m by 1m, was marked out, surveyed and hand dug. When this did not positively identify the extent of the map Trench 2, measuring 6.50m by 0.60m, was positioned to the south-east of Trench 1. The trenches were cleaned sufficiently to enable the identification and definition of archaeological features. A hand-drawn plan of all archaeological features was made at scale 1:50 and was related to the Ordnance Survey National Grid. Recording followed standard NA procedures as described in the Fieldwork Manual (NA 2006). Deposits were described on pro-forma sheets to include measured and descriptive details of the context, its relationships, interpretation and a checklist of associated finds. Photography was with 35mm black and white film and colour slides, supplemented with digital images. Sections were drawn at scale 1:10 or 1:20, as appropriate and related to Ordnance Survey datum.

Following this work the trenches were backfilled using the retained material and the saved turf was re-laid to ensure re-growth (back cover).

All works were conducted in accordance with the Institute for Archaeologists' *Code of Conduct* (IfA 2010) and *Standard and Guidance for Archaeological Field Evaluation* (IfA 1994, revised 2008).

4 RESULTS

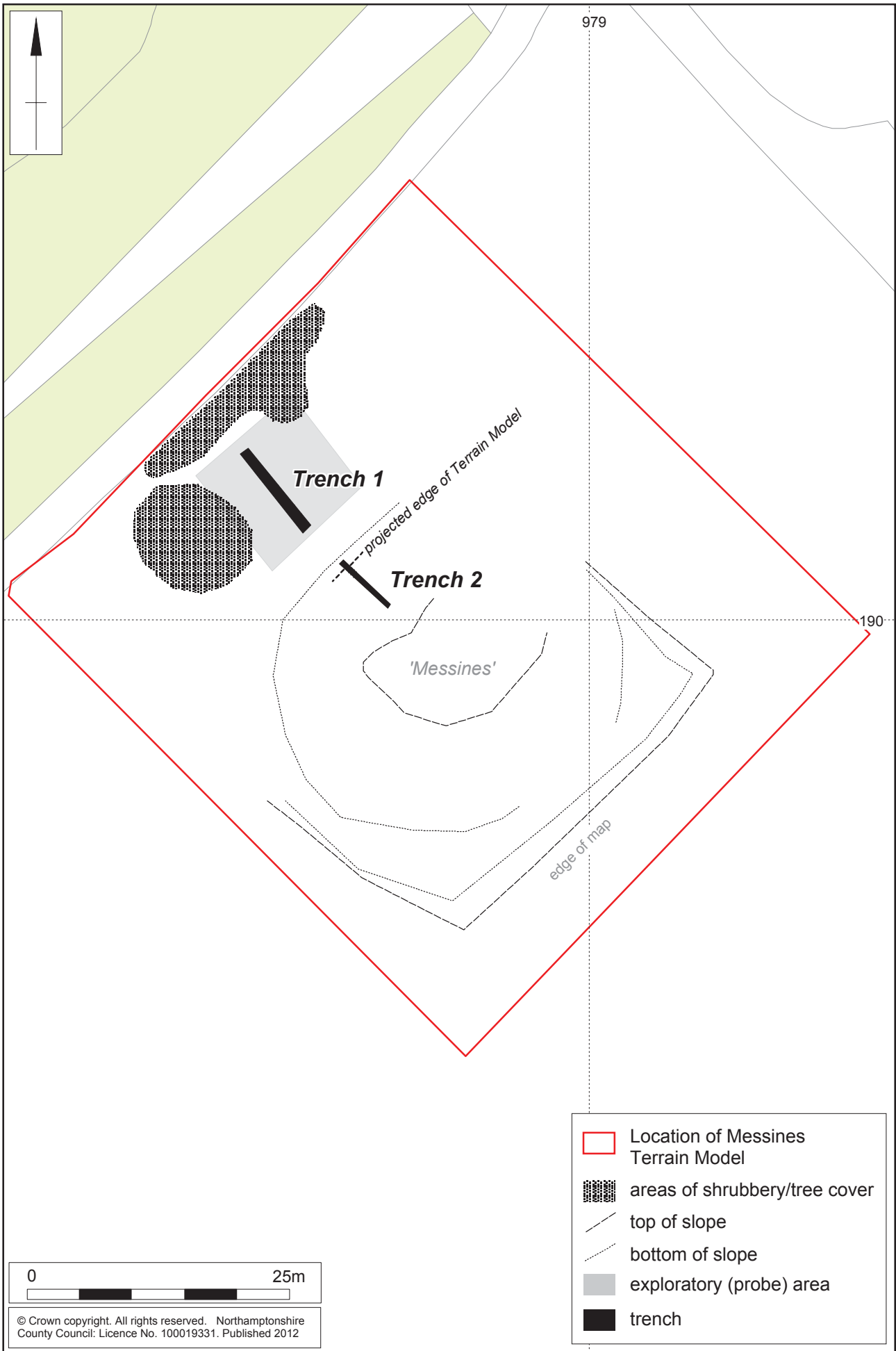
4.1 Probe exploration

A total of 118 readings were taken across a 10m by 10m area of clear ground (Fig 2; Appendix 1). The readings showed that there was resistance (harder soils or concrete) at an average depth of 0.13m below current ground surface.

4.2 General stratigraphy

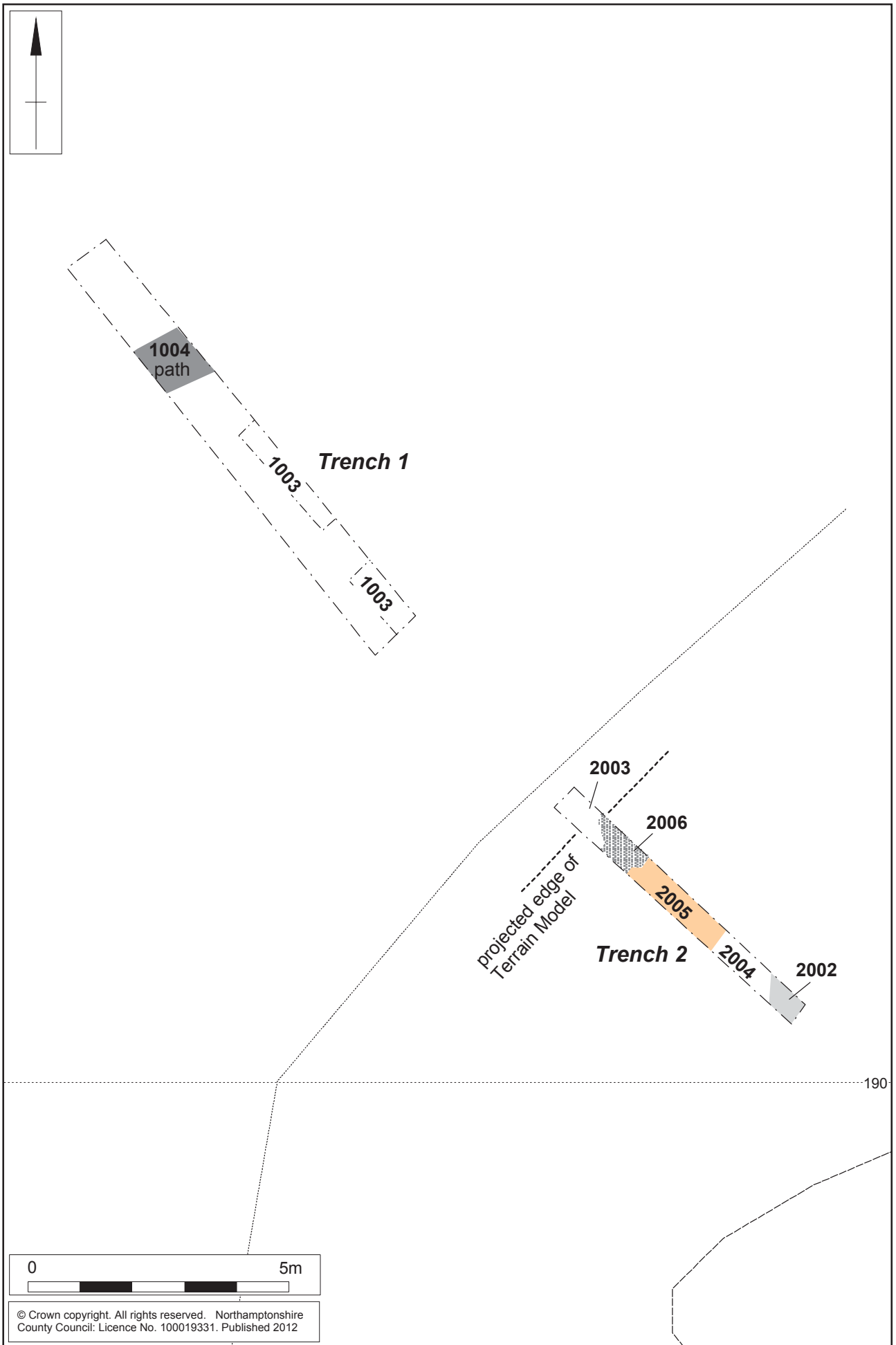
The underlying geology was sands and gravel beds, which was encountered at 0.20m below the modern ground surface in all trenches. This occurred as compact orangey-brown sand with gravel. The subsoil was mid or light brown sandy loam and the topsoil was dark brown sandy loam, both soils containing occasional poorly sorted gravel.

The trench locations are shown in Figures 2 and 3, an inventory of contexts is provided in Appendix 2.



Scale 1:500 (A4)

Archaeological works 2012 Fig 2



Scale 1:100 (A4)

Archaeological features Fig 3

4.3 Trench 1

Trench 1 was aligned north-west to south-east and was located in the north-west corner of the site. At the north-western end of the trench there was a path, 1004, aligned north-east to south-west (Figs 3 & 4). This bordered an allotment/garden. It measured 1.10m wide and comprised a large rounded cobbles set into a brown sandy loam.



General view of Trench 1, with path 1004 in the foreground, looking south-east Fig 4

4.4 Trench 2

Located west of the centre of the mound and south-east of Trench 1, Trench 2 contained the western boundary of the terrain model as defined by a cobbled revetment (2006) aligned north-east to south-west and which measured at least 1.20m wide (Figs 3 & 5). To the south-east of this was a fragmented mortar and concrete surface (2005) at least 3m long, which was in poor condition. With the exception of a single fragment of grooved mortar the fragments were devoid of defining features. Towards the south-eastern end of the trench was a layer of orange sharp sand (2004), extending for at least 1m. The surface and the sharp sand covered the lower western slope of the mound and were disturbed by root action and by an animal burrow. A of brick and concrete fragment was found in the vicinity of the south-eastern end of Trench 2. This is likely to indicate the location of the 'sniper's house'.



General view of Trench 2, looking south-east Fig 5

DISCUSSION

The archaeological evaluation was successful in identifying the western edge of the terrain map of the Battle of Messines as well as a path associated with the landscaping of Brocton camp (Trench 1). Its north-western side is defined by a cobbled revetment, near the base of the slope. This matches the surface seen in some of the surviving photographs of the model.

Sharp sand seen at the south-eastern end of trench 2 may have provided a modelling base for the concrete detail and a low grade mortar skim infilling the 'blank areas' between the trench detail. The lack of concrete in this area may indicate that parts of the trench model were never surfaced.

The terrain model where it survives in Trench 2 is in poor and fragmentary condition, possibly due to the low grade mortar skim and the weight of the soils above (up to 0.18m). Animal burrows, shrub and tree roots have also affected the model. The accumulation of subsoil and topsoil is unlikely to have naturally occurred in such a short period of time, the soils may have been brought in or been placed through casual disposal to cover the terrain model, although no record of this is currently known in SCC (Stephen Dean, pers comm).

5 BIBLIOGRAPHY

Brown, M, Kinsey, M, and Nichol, K, 2007 *Messines Model, Cannock Chase, Staffordshire: Monument Assessment 2007*, Birmingham Archaeology **1735**

Dean, S, 2011 *Project proposal for small excavation across the western side of the Messines Terrain Model, Cannock Chase Staffordshire*, Staffordshire County Council

IfA 1994, revised 2008 *Standard and guidance for field evaluation*, Institute for Archaeologists

IfA 2010 *Code of Conduct*, Institute for Archaeologists

NA 2006 *Archaeological Fieldwork Manual*, Northamptonshire Archaeology

Whitehouse, C J, and Whitehouse, G P, 1996 reprinted *A town for Four Winters: Great War Camps on Cannock Chase*

APPENDIX 1: PROBE DATA

Point Id	Easting	Northing	Orth. Height (m OD)	Depth (m)
P001	397862.6681	319013.5584	177.84	0.07
P002	397863.4472	319014.1476	177.98	0.11
P003	397864.1039	319014.7588	178.02	0.12
P004	397865.0479	319015.4502	177.99	0.10
P005	397865.7939	319016.0146	178.08	0.11
P006	397866.9317	319016.392	177.94	0.14
P007	397867.7312	319016.9595	177.96	0.12
P008	397868.5033	319017.4376	177.96	0.09
P009	397863.2228	319012.7815	177.87	0.14
P010	397864.1305	319013.4621	177.91	0.13
P011	397864.8733	319014.0525	177.89	0.08
P012	397865.929	319014.6292	177.93	0.18
P013	397866.6473	319014.8382	177.92	0.15
P014	397866.5807	319014.8016	177.91	0.17
P015	397866.7623	319014.7789	177.91	0.12
P016	397866.9438	319014.7563	177.90	0.13
P017	397867.1253	319014.7336	177.90	0.21
P018	397867.3069	319014.711	177.89	0.12
P019	397867.4884	319014.6883	177.89	0.12
P020	397867.6699	319014.6656	177.88	0.06
P021	397867.8515	319014.643	177.88	0.07
P022	397868.033	319014.6203	177.87	0.11
P023	397868.2145	319014.5977	177.87	0.10
P024	397868.3961	319014.575	177.86	0.12
P025	397868.5776	319014.5524	177.86	0.12
P026	397868.7591	319014.5297	177.85	0.12
P027	397868.9407	319014.5071	177.85	0.12
P028	397869.1222	319014.4844	177.84	0.14
P029	397869.3037	319014.4617	177.84	0.16
P030	397869.4853	319014.4391	177.83	0.13
P031	397869.6668	319014.4164	177.83	0.13
P032	397869.8483	319014.3938	177.83	0.12
P033	397870.0299	319014.3711	177.82	0.13
P034	397870.2114	319014.3485	177.82	0.13
P035	397870.3929	319014.3258	177.81	0.10
P036	397870.5745	319014.3032	177.81	0.12
P037	397870.756	319014.2805	177.80	0.14
P038	397870.9375	319014.2578	177.80	0.09
P039	397871.1191	319014.2352	177.79	0.13

MESSINES TERRAIN MODEL, CANNOCK CHASE

Point Id	Easting	Northing	Orth. Height (m OD)	Depth (m)
P040	397871.3006	319014.2125	177.79	0.12
P041	397871.4821	319014.1899	177.78	0.09
P042	397871.6637	319014.1672	177.78	0.13
P043	397871.8452	319014.1446	177.77	0.15
P044	397872.0267	319014.1219	177.77	0.13
P045	397872.2083	319014.0993	177.76	0.13
P046	397872.3898	319014.0766	177.76	0.12
P047	397872.5713	319014.0539	177.75	0.13
P048	397872.7529	319014.0313	177.75	0.08
P049	397872.9344	319014.0086	177.74	0.09
P050	397872.4769	319016.1731	178.13	0.11
P051	397873.6016	319016.6728	178.26	0.13
P052	397874.4442	319017.3672	178.30	0.10
P053	397865.8349	319010.3483	178.04	0.14
P054	397866.8891	319010.4705	178.65	0.13
P055	397867.712	319010.702	178.13	0.14
P056	397868.8006	319011.571	177.87	0.10
P057	397869.5137	319012.6344	179.00	0.10
P058	397870.414	319013.1689	178.67	0.14
P059	397871.3253	319013.6397	178.62	0.11
P060	397872.3183	319014.4475	178.75	0.08
P061	397873.152	319015.0407	178.10	0.16
P062	397873.9871	319015.964	178.17	0.10
P063	397874.5817	319016.4029	177.63	0.07
P064	397866.5523	319009.2401	178.58	0.14
P065	397867.3531	319010.0049	177.83	0.07
P066	397868.4462	319010.6718	177.14	0.13
P067	397869.0188	319010.9568	178.08	0.14
P068	397869.7357	319011.4714	177.87	0.16
P069	397870.6604	319012.5524	177.99	0.11
P070	397871.2454	319013.3992	177.99	0.10
P071	397872.0235	319014.3243	178.05	0.11
P072	397872.8963	319015.0934	178.09	0.12
P073	397873.8063	319015.6397	178.18	0.12
P074	397874.6303	319016.3557	178.24	0.11
P075	397867.4026	319008.723	178.20	0.15
P076	397868.1337	319009.2648	177.77	0.12
P077	397868.8433	319010.1387	178.37	0.19
P078	397869.725	319010.8595	178.17	0.10
P079	397870.4913	319011.5596	178.38	0.11
P080	397871.1722	319012.3031	178.52	0.07

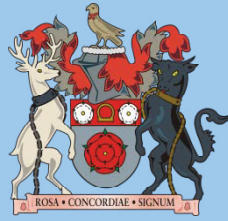
MESSINES TERRAIN MODEL, CANNOCK CHASE

Point Id	Easting	Northing	Orth. Height (m OD)	Depth (m)
P081	397872.1816	319013.1283	178.71	0.13
P082	397873.2449	319013.4967	178.07	0.10
P083	397874.0295	319014.0246	177.97	0.05
P084	397874.6944	319014.6752	178.06	0.06
P085	397875.5442	319015.2873	178.21	0.10
P086	397868.2435	319007.2477	179.84	0.17
P087	397868.8718	319008.2851	179.28	0.18
P088	397869.8223	319009.4473	179.03	0.11
P089	397870.4782	319009.855	179.12	0.08
P090	397871.3215	319010.1193	178.86	0.14
P091	397872.0733	319010.9639	178.05	0.11
P092	397873.0241	319011.8101	177.75	0.09
P093	397873.8719	319012.4698	177.98	0.10
P094	397874.4888	319013.0772	178.27	0.08
P095	397875.2051	319013.7865	178.46	0.10
P096	397875.9281	319014.1684	178.53	0.13
P097	397868.4721	319006.6979	178.76	0.17
P098	397869.1229	319008.1414	177.62	0.11
P099	397870.0851	319008.3282	178.13	0.13
P100	397870.8825	319009.1143	177.90	0.11
P101	397871.8548	319009.8778	178.32	0.09
P102	397873.2493	319010.3663	178.36	0.12
P103	397873.7787	319011.0963	178.23	0.06
P104	397874.6167	319011.667	178.23	0.09
P105	397875.1878	319012.2847	178.37	0.09
P106	397875.9053	319013.1436	178.53	0.09
P107	397876.5394	319013.923	178.31	0.11
P108	397869.213	319005.804	178.30	0.15
P109	397869.792	319006.3483	178.32	0.15
P110	397870.1899	319007.3403	177.99	0.21
P111	397871.0125	319007.8594	177.87	0.11
P112	397871.877	319008.5518	177.96	0.14
P113	397872.7445	319009.2258	178.06	0.10
P114	397873.657	319009.6158	178.10	0.06
P115	397874.4105	319010.3856	178.06	0.14
P116	397874.957	319011.1184	178.14	0.15
P117	397875.9972	319012.1597	178.18	0.10
P118	397876.5324	319012.7693	178.23	0.10

APPENDIX 2: CONTEXT INVENTORY

Trench No	Length, width & alignment	NGR	Surface height	Depth & height of natural
1	10m x 1.0m NW-SE	397869 319013	177.92m (SE)	0.21m & 177.71m
Context	Context type	Description	Dimensions	Artefacts/Samples
1001	Topsoil	Turf and a dark brown sandy loam, poorly sorted small gravel	0.24m thick max	Concrete, brick, tile, fe nail (not retained)
1002	Subsoil	Mid/ light brown sandy loam, poorly sorted gravel	0.09m thick max	–
1003	Natural	Compact orangey-brown silty sand, gravel	–	–
1004	Cobbled path	Large rounded cobbles (between 0.07m and 0.15m in size), set into brown sandy loam	1.10m wide	–

Trench No	Length, width & alignment	NGR	Surface height	Depth & height of natural
2	6.50m x 0.60m NW-SE	397877 319003	178.08m (NW)	0.18m & 177.90m
Context	Context type	Description	Dimensions	Artefacts/Samples
2001	Topsoil	Turf and a dark brown sandy loam, poorly sorted small gravel	0.16m thick (max)	–
2002	Subsoil	Mid/ light brown sandy loam, poorly sorted gravel	0.12m thick (max)	–
2003	Natural	Compact orangey-brown silty sand, gravel	–	–
2004	Layer	Orange sharp sand	At least 1m long	–
2005	Mortar- map surface	Fragments of thin (up to 0.10mm thick) yellow degraded mortar and rare fragments of concrete.	At least 3m long	–
2006	Cobbles	Large rounded cobbles (between 0.07m and 0.15m in size)	1.20m wide	–
2007	Layer	Dark brown sandy loam, beneath 2005	–	–



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