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Taking the Hill: Archaeological Survey and Excavation of German Communication

Trenches on the Summit of Mont St Quentin

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**Abstract** 

This following presents the results of a limited programme of field investigation carried out on the site of German communication trenches running through woodland on the summit of Mont St Quentin, just outside the town of Peronne, in the Somme region of Picardy (Fig. 1). The aim of the project was to assess the archaeological potential of features related to the Battle of Mont St Quentin, which took place in August/September 1918 and was co-directed by Tony Pollard and Iain Banks. The fieldwork, which consisted of topographic survey, metal detector survey and limited excavation, was carried out over ten days, between August 29 and September 9, 2011.

The action, by men of the Australian Second Division, saw the Germans pushed off their strong position on the hill and thereafter the re-capture of Peronne. As a result, three Victoria Crosses were awarded and General Rawlinson described the battle as the finest achievement of the war. Given its place in the history of Australian military endeavour on the Western Front, the Historial de la Grande Guerre in Peronne has taken out a 50 year lease on an area of land within Mont St Quentin Wood, which is an initiative supported by the Australian government via the Department of Veteran's Affairs. This ground includes a number of German communication trenches, along with other features such as shell holes. The intention is to include this area in a heritage trail (Australian Remembrance Trail), which will incorporate other sites of Australian activity, including Fromelles, Villers-Bretonneux and Hamel. In order to maximise the impact and educational value of the site it has been subject to archaeological investigation, an exercise that will add to our understanding of events there, and also provide information and material for a proposed interpretation centre.

Keywords: Communication trenches, Second battle of the Somme, Hundred Days Campaign, Mont St Quentin.

Introduction

The Battle of Mont St Quentin (an episode in the Second Battle of the Somme) represented a vital turning point in the changing fortunes of both sides in a conflict that by then was nearly four years old. As the final Hundred Days campaign (August-November 1918) gained momentum, the end of August 1918 saw the Allies approaching Cléry and the town of Peronne on the River Somme. However, further westward movement was impossible due the strategic heights of Mont St Quentin, which provided ideal observation over the river bend and northern and western approaches to the town. The hill, which rose to a height of around 120 metres, was occupied by men of 51 Korps, 2 Armee, in positions the Germans had occupied since 1914. It was clear that if progress was to be made, including an attack on the town, then the hill would have to be taken. General John Monash, commanding the Australian Corps, proposed an ambitious attack by the 5<sup>th</sup> Brigade, 2<sup>nd</sup> Division. The 17<sup>th</sup> Battalion were tasked with securing the village of St Quentin, with the 20<sup>th</sup> Battalion on the left and 19<sup>th</sup> on their right flank (Billett 2009).

Following delays in executing the crossing on the Somme as planned (due to problems with marshy ground), the attack on Mont St Quentin began at 5am on 31 August with strong artillery cover provided by eighteen pounders (Billett 2009: 52). This was not a rolling barrage but a series of accurate fire missions on important targets put in at the same time as the attack began (Bean 1942: 832). Eyewitness accounts recall that the Australian troops, whose battalions were much depleted after weeks of fighting, 'yelled like bushrangers' while rushing the hill (Bean ibid: 811). The speed of the advance caught the German defenders on the slopes by surprise and many surrendered without a fight, though machine guns did prove troublesome in some areas (Billett 2009: 51). By 6am the Australians had ejected the enemy from the village.

However, a successful German counter attack was launched by the 94th I.R (38<sup>th</sup> Div), coming from the edge of Mont St Quentin Wood into the 17th and 19th Battalions, forcing them back down the slope. Bean notes (ibid: 824) that the I/96th I.R. (38<sup>th</sup> Division) following up were placed in support in the communication trenches east of the village – *this may include the trench running through the wood*. To the north the 20th Battalion were counterattacked and fell back to a trench 450 metres west of the Peronne-Bouchavesnes road. The village had been lost and by nightfall the Australians were faced with the same problem as 24 hours before – ejecting the dogged German defenders from the hill (Fig. 2).

The 6<sup>th</sup> Brigade was ordered to pass through the exhausted 5<sup>th</sup> Brigade and renew the assault at 6am the next day (1 September) with the objective of establishing a line east of Feuillaucourt and Mont St Quentin. The 23rd and 24th Battalions moved off to attack with the 21st Battalion in support. The two leading battalions suffered casualties from machine gun fire from the village and were held up on the slopes. Defence came from the units of the 94<sup>th</sup>, 95<sup>th</sup> and 96<sup>th</sup> I.R. mixed with a few men of the Alexander Regiment.

For the Australians, further advance was impossible so a new attack was planned for 1.30pm with a dedicated artillery barrage to eliminate the troublesome machine guns. The 21st and 24th Battalions attacked the village itself, successfully pushing through – by 3.30pm three companies of 21<sup>st</sup> Battalion were east of the village, having cleared the village and passed through the wood. German snipers and machine-gunners were reported as running away. Further progress was impeded by fire from the next defensive line of German trenches. A huge crater 100 metres from the wood's edge (to the south) contained the headquarters of the I/96th I.R. and its reserve company. Manned by 30 men with 12 machine guns, it was stormed and captured by a party of seven led by Sgt Albert Lowerson – later awarded the Victoria Cross for this action. The village and wood had been captured for good and the 21<sup>st</sup> Battalion was ready to push on but orders were received that the 7<sup>th</sup> Brigade would renew the offensive the next morning, 2 September.

It is wholly appropriate given the importance of these events, and the role of Australian troops in the action, that a well-preserved portion of the battlefield is to be given over to their memorialisation. In order to more fully understand what occurred in this area a preliminary archaeological investigation was carried out on the remains of a German communication trench, which, as will be outlined below, appears to have played a key role in the engagement. The archaeological component of this project, which will include the creation of a heritage trail, will also enhance the visitor experience to the site, as it will allow for accurate on-site interpretation, while also providing artefacts and information for a display in an associated visitor centre.

### **Site Location and Description**

The wood at Mont St Quentin is located immediately to the north of the village of Mont St Quentin, which itself is around 1.8km to the north of the centre of Peronne. The wood sits on top of a hill at an altitude of around 120 metres, and provides commanding views of the nearby town and countryside, hence its value to the Germans during the war. As with other places on the Western Front woodland has provided a sanctuary for First World War trenches, as the land has not been required for agriculture. A number of trees have double trunks and it has been suggested that this is a result of trees which have been shattered by shellfire but not killed throwing out an extra trunk (Bergez pers. Comm.). Heavily silted trenches can still be seen running through the woods (Fig. 3), with two of them running roughly parallel from north-east to south-west (see below for further details). Also still visible are silted shell holes which pockmark the floor of the wood and in some places these seem to overlap with the trenches.

There is little evidence to be seen of the heavy fighting which took place on 31 August and 1 September 1918, in the village other than the monument to the Australian 2<sup>nd</sup> Division which has become a popular visitor attraction among Australian battlefield tourists. The monument, which originally took the form of an Australian soldier bayoneting the German eagle, was removed by the Nazis during World War Two, to be later replaced by a rather less triumphalist statue.

The area of interest within the woodland has been leased by the Historial De La Grande Guerre in Peronne for a period of 50 years, during which time it will serve as a poignant memorial to the events of August-September 1918.

## **Project Aims and Objectives**

A multi-seasoned project focussing on the wood was originally proposed, with a two week season in 2011, followed by at least 3 week seasons in 2012, 2013 and perhaps beyond. The initial phase of the project, which took place in August-September 2011, represented an evaluation exercise, during which time topographic and metal detector surveys were executed along with the excavation of a number of small sondages, placed across various parts of the communication trenches. These latter have provided an insight into the condition, character and extent of the archaeology, and have demonstrated that despite

their historical and archaeological interest they are not in themselves enough to represent the core of an extended project (see below).

The aims and objectives of the overall project:

The Initial, and as it proved final, phase of the project provided an overall assessment of the site within the following framework of aims and objectives as set out in the initial project design (Pollard 2011):

- To examine the nature of the communication trench, which runs north-east to south-west through Mont St Quentin Wood. Communication trenches are generally regarded as fairly straightforward features serving no other function than safely delivering men and materiel to the front line from the reserve lines. However, recent excavation of British trenches at Mametz (Banks and Pollard this volume), has identified a number of features running off communication trenches. These included a secure bomb store and the entrance to an underground sap. The presence of hollows depressed into the side of the Mont St. Quentin trench may suggest the presence of collapsed dugouts.
- A topographic survey will provide a detailed map of the site, showing in detail the
  nature of the various features visible on the ground surface as depressions and
  mounds. This will provide the basis for all future operations on the site and will play
  an important role on deciding the location of future areas of excavation.
- In association with the above, a limited excavation will be carried out in order to
  examine the relationship between the main trench and what appear to be subsidiary
  or support trenches running alongside this substantial feature. These are not
  marked on any of the trench maps examined thus far and may indicate a more
  complex series of features than previously thought.
- More generally, the excavation will examine the nature, condition and extent (importantly depth) of archaeological deposits associated with the trench system. In the first season this will be accomplished through the excavation of two-three small trenches or sondages (the latter term is preferred as this avoids confusion with the

First World War trenches). The sondages will measure in the region of 5 metres x 5 metres, or variations covering around 25 square metres. There will be a minimum of two and a maximum of three sondages excavated during the 2011 season.

- This process will include the recovery of artefacts. The location of these finds and their association with the structural elements of the trench/es will be systematically recorded. Excavation will also shed light on the construction techniques used to create the trenches, and will hopefully identify evidence for damage through shell fire and any repairs or modifications which the trenches underwent during their use. Although a full analysis of all relevant trench maps has yet to be made there may be changes in the nature and orientation of elements of the trench taking place between 1916 and 1917 (the dates of the trench maps) and 1918.
- The excavation will represent the first stage in the process of opening up elements
  of the trench system to visitors. Whether this includes a reconstruction of parts of
  the trench has yet to be decided. This long term legacy will also include the visitor
  centre which will house displays of the finds from the excavations.

## **Project Methodology**

### **Historical Research**

Although it was intended that the project would ultimately combine archaeology with a full programme of historical research, the preliminary field investigation reported here proceeded without an intensive programme of historical research being carried out in advance. Although this was largely a result of financial and timetabling constraints it was also felt that such an exercise would provide a valuable opportunity to test archaeological interpretations against historical records rather than the reverse. The project did not however proceed without the minimum historic research required to allow the evaluation exercise to be effectively executed; that is to say that standard references such as Bean (1942) were consulted but more detailed primary records, such as those which may be present in war diaries and action reports (perhaps not quoted by Bean), were not available to the team prior to the project.

An important source of information were British trench maps, which show in some considerable detail the nature of the German positions around Peronne and Mont St Quentin. These date to November 1916 (Fig. 4) and January 1917, and as will become apparent below served an essential role in the interpretation of the survey results.

The conclusions drawn from the fieldwork are therefore largely based on the interpretation of the archaeological data, the detail of which can then be tested against the historical accounts – but only if sufficiently detailed accounts are found to exist. It is possible, given the modest size of the research area that no detailed accounts, other than those already known, exist, in which case the archaeological interpretations will take on an added importance.

## **Site Specifics**

The area of interest is contained within Mont St Quentin Wood and prior to the project was clearly demarcated by fences delineating the Historial's lease-hold. Archaeological features related to the battle, including trenches and shell holes are still visible as partially silted features; areas of woodland tend to enhance preservation as the ground has not been disturbed by ploughing or other post-war activities. On the negative side, the presence of trees and their roots inhibit open area excavation and can also provide physical and visual barriers to topographic survey (as it happened however this did not cause serious problems see below). We also know little about the impact of tree root systems on First World War trench archaeology and this exercise has provided some insight into this issue.

## **Topographic Survey**

Although modern GIS and GPS technology has recently been applied to the trenches of the Western Front, the Linesman system and GPS recording techniques will not be applicable to the project as it applies to the wood as the trees will block satellite signals.

A full topographic survey of the site prior to the commencement of excavation played a vital role in the project, and over the period of the fieldwork painstaking recording, carried out by Fiona Jackson and Iraia Arabaolaza, both from GUARD Archaeology Ltd, produced a detailed map of the site, which, as will be seen below, has made a valuable contribution to the

understanding for the site and the events which took place across it during the battle.

### **Geophysical Survey**

Although geophysical survey was suggested as a possible methodology in the original project design it was judged that the density of tree growth militated against its deployment.

### **Excavation and Recording**

As the 2011 season was intended to serve as a preliminary evaluation, excavation was limited to small sondages, placed across stretches of communication trenches at various points, and in one case across a shell hole, which were visible as topographic features. Although the original project design stipulated that no more than three sondages would be excavated the limited size of the trenches (considerably smaller than the 5m x 5m originally suggested), the limited amount of information they provided and the speed with which they were excavated led to seven sondages being dug. The location of these can be seen in Fig 5, and a report on the findings from each of these is included below.

Although an initial attempt was made to excavate all sondages by hand it was necessary, thanks to the heavy clay soil, to use a small mechanical excavator to assist the process in some instances – though all detailed excavation was carried out by hand.

Excavation was carried out in accordance with a series of well-rehearsed procedures and all excavation and recording was executed to IFA (Institute of Archaeologists) standards, utilising The Centre for Battlefield Archaeology's recording systems. Recording was by written record and photography. The location of artefacts was three-dimensionally recorded using the total station, and objects given unique finds numbers. Cuts and fills were recorded in plan (1:20) and section (1:10), and all excavation trenches were located on the GIS site plan. Artefact recovery from the sondages was enhanced by the use of the metal detector, which was also be used to scan for potential UXO threats at regular intervals during the excavation process.

### **Human Remains**

No human remains were encountered during the fieldwork.

#### **RESULTS**

## **Topographic Survey**

A detailed topographic survey (Fig. 5) utilising a Total Station revealed a great deal of detail about the nature of ground within the wooded area. Care was taken to survey not only the trenches but also the shell holes and possible other features which pockmark the ground between the trees. The most striking result of this survey, which confirmed what was already apparent by eye, was that there were in fact two communication trenches running parallel to one another through the wood, as opposed to the single trench suggested by the 1916 and 1917 trench maps. These features are discussed in more depth below.

#### **Excavation**

For the purposes of this report the excavation trenches are referred to as sondages so as to avoid confusion with the communication trenches, though the sondages are abbreviated to Tr 1, Tr 2 etc. (the recording system used in the field). The communication trenches have been abbreviated to CT1 and CT2. During the programme of fieldwork, seven sondages were excavated, six of them across the communication trenches and a seventh across a shell hole. It quickly became clear at the commencement of fieldwork that we were dealing with two trenches, although some impression of a double system was gleaned during a brief reconnaissance of the site earlier in the year (explaining the reason for two trenches being present so close together was to become an important aim of the project).

The initial six sondages covered both of the visible German trenches, providing evidence of the differences in construction between the two lines. The first two sondages were located at a point where the two communication trenches came very close together, with the intention of using a single trench to open both and hopefully to determine any relationship between the two. This single trench became two separate sondages (Tr 1 & 2), however, as it was clear that there would be no stratigraphic relationship between the communication trenches at this point. Sondage 3 was placed to investigate an area where the two communication trenches again converged, while sondages 4 and 5 were placed to

investigate the nature of the trenches towards the western end of the site. Sondage 6 was opened to the eastern end of the site, investigating an area of shallower trenching. The final excavation, sondage 7, was opened over a shell hole near the edge of the wood.

The sondages were largely opened using a mini-excavator, although Tr 1 and Tr 7 were opened by hand. The soils were all derived from heavy clay, which meant that trying to excavate the trenches by hand would have been entirely impractical. The evidence from Tr 1 suggested that there was minimal chance that archaeologically significant layers would be damaged by use of the mechanical excavator, so the decision to proceed with the machine was taken.

## Sondage 1 – across CT2

This sondage measured 6.4 m by 1.8 m, and was excavated to a depth of c 0.7 m (Fig. 6). The bank on the southern side gave an additional 0.35 m depth to the feature; the bank on the northern side was quite shallow and spread out. The excavated section consisted of two main elements: a trench [1012] and a bank of upcast material from CT1 (1006). The bank also featured a deposit in its upper reaches that consisted mainly of chips of flint (1003), which is presumed to have been part of the upcast from the adjacent CT1. The trench itself had overall gently sloping sides [1012]. However, on the southern side, there was a steep face in the lowest part of the section. This cut through a deposit of orange-grey sandy clay (1010), which was interpreted as material that had slipped down the side and was originally part of the upcast. It would therefore have derived as a mixture of the undisturbed subsoil deposits (1004 & 1008). The angle of the cut here would suggest that the trench might have been cleaned out at some stage. The northern side of cut [1012] was heavily disturbed by tree roots, and may have been less gently sloping originally. The basal deposit was a very compact brown-grey clay (1011), which was interpreted as the primary silt. There was a large iron object in the section of this material. There was no evidence of any duckboards. It is difficult to estimate the original width of the trench because of the amount of slippage from the sides and the impact of root action on the sections, but the trench appears to have been 1.2 m wide at the top and 0.35 m at the base.

# Sondage 2 – across CT1

Tr 2 (3.04 m by 1.89 m) was excavated across CT1, and was essentially a continuation of Tr 1. This was a deeper trench, perhaps 0.9 m deep to the modern surface, and with the same bank as Tr 1 of 0.35 m height. The overall depth would have been 1.25 m, although the

banks may have been higher originally and possibly surmounted with sandbags. The width of the trench was slightly greater than that of CT2 in Tr 1; this seems to have been roughly 1.15 m at the top and about 0.5 m at the base. The cut [2005] was much steeper than that of Tr 1, with the southern side being the steeper of the two sides. The upper fill of the trench (2003) included a strand of communications wire in the section, which is undoubtedly displaced but likely to be original to the trench. The base of the trench revealed an undisturbed chalk subsurface, which may have limited the depth to which the communications trenches were dug.

### Sondage 3 – across CT2

Tr 3 (3.64 m by 1.14 m) was placed at a point where CT2 joined CT1; for a short section at this point, there is only one trench. The purpose of the trench was to try to determine the reason for the interruption to CT2, and to see whether there was any indication of the chronological relationship between the trenches at this point. On excavation, the trench was visible in the south facing section as roughly 0.8 m wide and between 0.4 and 0.5 m deep; there was a deposit of chalk on the western side of the trench that was interpreted as a bag of chalk thrown or slipped into the trench. The north facing section was less clear; there was an area of roughly 0.7 m wide by 0.6 m deep that probably represents the trench, but the sides were extremely unclear and would require further excavation to clarify.

### Sondage 4 – across CT2

Tr 4 (2.86 m by 1.12 m) was placed over CT2 in an area of heavy shelling, shown by the concentration of shell holes at this point. The profile of the trench was relatively wide and shallow; it measured c 1.5 m wide at the top, down to 0.6 m wide at the base in the west-facing section and roughly 0.6 m deep. The sides were gently sloping on the northern end of the section, and more steeply sloping on the southern side. It appeared that the trench might have been dug through disturbed ground as the southern end of the section appeared to have bags of chalk fragments (eg 4005) that lay below the cut of the trench [4010]. The deposit of chalk fragments (4005) was interpreted as a chalk filled sandbag because some of the hessian material was still visible on the chalk. In the east-facing section, the trench was of similar measurements but was less clearly defined. However, despite the poorer definition of the trench, there was similar evidence of it having been excavated into disturbed ground, with a flint deposit (4019) that appeared to be a revetment and a chalk bag (4016) below the cut of the trench. The profile also suggested that there might have been a repair to the trench at some stage, as there is a very flat profile to the northern side, but a steeper profile shown by the interface between a deposit of brown loam clay (4017)

and a deposit of dark brown clay with organic material and chalk fragments (4021) which lay against it.

Sondage 5 – across CT1

Tr 5 (3.3 m by 1.1 m) was placed over CT1 just to the south of Tr 4 (Fig. 7). The banks of the trench were quite well preserved here, and the bottom of the trench when excavated lay over 1.5 m below the top of the southern bank. It measured roughly 1.5 m wide at the top down to c. 0.6 m wide at the base. There was considerable slip from the sides represented by deposits (5005 & 5010), suggesting that the trench had stood open for some time. This trench produced some important artefactual evidence, aside from communications cable similar to that from Tr 2. Fragments of shells from other trenches and a British 18 lb shrapnel shell case from Tr 1 indicate that the trenches did not guarantee protection against shell fire. However, from the base of Tr 5, along with several fragments of shell, there was a shell nose cone {004} that was obviously German as it was made from zinc; the Germans were the only ones to use zinc, so it is a clear indication of German shelling of the trench.

Sondage 6 – across CT1

This sondage was roughly 4.4 m long (although the recorded section is only 3.4 m, leaving out some of the bank on either side), by 1.1m wide. The communications trench at this point measured roughly 0.95m wide at the top, down to c 0.4 m wide at the base. It had relatively steeply sloping sides [6008], and on the west-facing section, there was a sandbag with fragments of chalk (6010) on the southern edge. It survived as roughly 0.55 m deep, which gave a protective depth of roughly 1.5 m when taking the height of the adjacent bank into account. There were a couple of shell fragments in the east-facing section, both of which were up against the cut of the trench [6008], and are therefore likely to be *in situ* rather than accidental inclusions of residual material at a later date.

Sondage 7 – Shell hole

Tr 7 was a hand-dug trench across a shell hole immediately adjacent to the bank at the northern edge of the woodland, and it measured 2.2 m by 0.5 m. The trench was excavated to recover evidence of the shell that created the feature, because evidence elsewhere in the metal detector finds and the material from Tr 5 indicated an episode of German shelling. The intention was to try to determine whether this shell hole was a part of the Australian attack, or part of the German counter-attack. The feature itself was unremarkable, and there was a shallow layer of brown loam silty sand (7002) overlying brown silt clay with frequent fragments of chalk. There was a distinct area of burning (7006) at the eastern end of the section, which is interpreted as the centre of the blast. The trench produced several

fragments of shell, but nothing unequivocally diagnostic. However, the metal detector was used over the rest of the shell hole and it recovered fragments of zinc (MD031) and a possible zinc fuse (MD039) from the western edge of the shell hole.

## **Metal Detector Survey**

In addition to excavation, a limited programme of metal detector survey was carried out. The main aim of the exercise was to establish the extent, condition and character of metal artefacts located close to the present ground surface. Further to this, it was hoped that the nature of the recovered artefact assemblage, including its distribution pattern, may offer further insight into the events that occurred here during the battle. Given time limitations it was clear that only a sample area could be subject to survey and so accordingly an area with relatively little tree cover was selected for this purpose (Fig. 8). Although there were areas within the 12 m wide corridor which were undetectable due to trees and areas of heavy undergrowth, enough open ground was available to make detecting feasible. Due to the very high concentrations of metal in the ground, as one would expect on a First World War battlefield, the Whites DMX detector was set to discriminate against the background iron. However, more substantial pieces of iron were detected and recovered, and some of these pieces proved to be very informative.

The southern end of the survey transect was located close to the northern edge of the northern-most communication trench (CT2) and extended for a distance of around 50 m until coming to a termination against the site fence on the northern edge of the wood. It was hoped that such a location would indicate any evidence for action during the battle in proximity to the trenches while also picking up any evidence for activity close to the edge of the wood.

A full metal detector finds list has not been included here, so for the purposes of this paper the artefacts are summarised by group prior to a consideration of their implications for our understanding of the site.

### **Cartridge Cases**

A small but interesting assemblage of cartridge cases was recovered. This consisted of seven cartridges, four of which were German (Mauser) and three Australian (.303). All of the cartridges were recovered from the northern edge of the wood. Where preservation permitted, the head-stamps were examined and these suggested quite a wide date range for the manufacture of the German bullets, with an example from 1915 (MD027), one from 1917 (MD017) and one from 1918 (MD019) - the other (MD 037) dates from either 1916 or 1918. Two cartridges appear to have made at the Deutsche Waffen-u. Munitionsfabriken, Karlsruhe/Berlin, these being MD017 and MD037, while one was manufactured by Polte-Werke, in Central Magdeburg - the other relevant mark was not decipherable.

By way of contrast, the Australian bullets were all manufactured in 1917. The letter codes on the .303 cases indicate that MD033 and MD035 were manufactured at the Woolwich Arsenal in the UK and that MD049 was manufactured by Birmingham Metal and Munitions Co. Ltd in Birmingham, UK.

#### **Barbed Wire**

Short sections and fragments of barbed wire were found to be concentrated in a zone around 3-4m wide, the southern edge of which is 3m from the northern edge of the northernmost trench (CT1). The distribution pattern indicates a series of entanglements running roughly parallel to the trenches along their northern edge. An angle iron piquet stake found in association with the wire fragments further suggests a series of barbed wire defences in this area.

## **Artillery Ordnance**

It is well known that the hill was heavily shelled by the Australians, though using the more refined strategy of calling in fire on selected targets, a practice which the Australians had done much to develop, rather than the blanket bombardment which characterised battles from earlier in the war (e.g. the Somme in 1916). This rather more selective form of artillery engagement may be evidenced by the distribution of shell holes, which appear to be most concentrated at the south-western end of the trench system – but see below. From within the metal detector survey transect, both high explosive shells and shrapnel shells were evidenced – in the form of lead shrapnel balls, and in one case a complete iron shrapnel

shell case, along with iron shell fragments from high explosive shells. On the basis of the shrapnel case, at least some of the shrapnel is Australian – with the shell being fired by a light, 18 pound field gun. The iron shell fragments are heavier and on the basis of the fragments alone it is difficult at present to distinguish Australian from German material. It is important to note however that German ordnance is evidenced within the transect by the presence of zinc fragments from German shell fuses (Fig. 9).

### **Interpretation of Fieldwork Results**

The limited programme of investigation outlined above resulted in several sets of archaeological data:

- The detailed topographic plan of as much of the site as could be surveyed in the time available.
- The excavation and recording of six sondages across the trenches and one across a shell hole.
- An assemblage of artefacts, the majority of which resulted from the sample metal detector survey, though some were recovered from excavation.

When combined together these various elements can be seen to provide a revealing insight into the activities that took place in the area of the wood prior to, during and after the battle. The following provides a summary of the main issues arising from the consideration of this information.

The topographic survey has clearly shown that there is not one trench with elements of a subsidiary trench, as was thought prior to the survey, but two distinct trenches, although at one point the two do seem to conjoin. This came as something of a surprise as all of the contemporary trench maps show only one communication trench (CT1), and this appears to be the most southerly of the two – judging from the course it follows on the ground. The first map on which this communication trench appears is dated to December 1916, whereupon it is annotated as Radomir Alley (Fig. 1). There are a number of trench maps showing Radomir Alley, the latest seems to date to January 1917, and all them depict a single trench only. It must therefore be assumed that the second trench (CT2), the most northerly of the two, was constructed directly alongside the pre-existing trench some time

post early 1917 but for some reason was never mapped. This latter point may suggest that construction took place not long before the battle, after which time, with the Germans pushed permanently back from Mont St Quentin, there would be no need to map it – the war coming to an end just over two months later.

There are several striking differences between the two trenches, evident from both the topographic survey and the excavation. Most obviously the second, we presume later trench (CT2), is far more zigzagged in plan than the earlier trench, which although convoluted is much smoother in plan. The obvious explanation for creating a trench with acute and repeated angles is to accentuate protection from shell blast — which in a more regular trench can wreak havoc for a considerable distance along its length. Immediately prior to the Australian assault on Mont St Quentin the hill would have been subject to more shell fire than at any time since the combats of 1916, and it may have been at this time that the Germans realised that their communication trench, which until then had been left pretty much unmolested high on a hill top, was not fit for purpose. The acutely zigzagged trench appears to have been the response to this shortcoming, constructed immediately alongside the older trench but due to its saw-toothed appearance in plan providing a greater degree of protection from incoming shell fire.

The suggestion that the zigzagged trench was constructed almost under battle conditions might be further strengthened by the fact that in one place at least it appears to have been dug through ground already disturbed by shellfire – sondage 4 providing evidence for disturbed ground. Further to this, at those places where both trenches have been investigated through excavation, the older trench is deeper (CT1 from bottom of trench to top of bank averages around 1.5m whereas the top cover in CT2 is only around 0.7-08m). This perhaps suggests two things – that the job had to be done in a hurry and also that depth, and therefore comfort of movement, was not the major issue. A further indication of this can be seen when the sections of the two trenches are compared – in CT1 the sides are relatively vertical, suggesting unhurried construction, whereas the sides of CT2 are sloped, a profile more indicative of a hurried process which precluded the refinement of verticality – the former is also generally wider than the latter. Men could move along the new, shallow trench at a crouch but still be better protected from direct hits on the trench than in the straighter, deeper version – we should also not overlook the possibility that the ramparts

may have been accentuated through the placement of sand bags (evidence for which was found in some of the sondages).

The communication wire, which presumably provided telephone communication between the frontline and the rear positions, which included a headquarters facility, was observed only in CT1, where it was encountered in sondages 2 and 5. This again might suggest that CT1 was the longer established of the two trenches and for some time had served as the main communication between the front and rear positions. Shelling of CT1 may have severed this line on occasions but there was no indication of an attempt to replace it in CT2, where evidence for communication wire was absent.

The presence of barbed wire entanglements relatively close to the northern side of the later of the two trenches (CT2), adds a further insight into what appears to have been the rapid fortification of a hilltop, which for a long period had seen little in the way of action. The positioning of this entanglement may indicate defence against a possible assault up the northern side of the hill, though it would also serve to restrict access into the trench to enemy troops advancing up the hill from the west but skirting the northern edge of the wood, and just such a manoeuvre may be indicated by the presence of .303 cartridge cases just inside the wood's northern edge (see below).

The direction of the Australian attack was initially intended to be from the west, after crossing the River Somme at various points on the evening of 29 August. However, the marshy conditions and heavily defended crossing points prevented this move. Accordingly, the following day the 3 Division was tasked with taking the bridgehead at Cléry, to the north west of Mont St Quentin (Coates 2006). The success of this operation, and the quelling of German positions on the Bouchavesnes Spur, to the north of Mont St Quentin, put the Australians to the north of the hill, prior to them assaulting its northern and western slopes on the 31 August. These preliminary actions would have been observed by the Germans on the hill and may have provided extra impetus for the further fortification of the strong point. Expectation of an Australian attack over a longer period is also probable, as indicated by papers found in the possession of a German officer prisoner, which referred to the probability of an Australian attack (Billett 2009: 63). This sequence of events, and the archaeological evidence for the apparently rapid construction of a second trench, still left the Germans on the back foot when the Australians did attack, largely because of their

speed of approach (e.g. Billett 2009: 63). This scenario is offered up by various German accounts – including the regimental history of the 4<sup>th</sup> Guard Grenadier Regt. and the regimental history of Regiment No. 80 which states - "It all happened like lightning, and before we had fired a shot we were taken unawares (Bean 1942: 817)."

An additional surprise for the Germans may have been the lack of heavy blanket bombardment prior to the attack (Billett, ibid), which, it is suggested here, they were preparing for through the construction of the second trench and perhaps other defences on the hill. Bean does however record that immediately prior to the dawn assault on the hill four brigades of heavy guns fired on the summit and flanks (1942: 810). It should be stressed that there is as yet no archaeological evidence that either of the trenches were defended by the Germans – with the excavations and metal detector survey providing nothing in the way of material which could be related to fighting in or immediately adjacent to the trench – in the form of bullets, hand grenade fragments etc.

We do however have archaeological evidence for infantry combat on the hill. As noted above, three .303 cartridge cases were recovered from the northern portion of the metal detector survey transect in a fairly tight concentration. These were matched by four German Mauser cartridge cases in roughly the same area. Given what we understand of the battle it might be more realistic to interpret these as an indication of the ebb and flow and battle rather than shots exchanged at ultra-close range. The .303 bullets may have been fired by men of 17 Battalion during the initial storming of the hill on 31 August or by men of the 21 Battalion during the final assault on 1 August. The Mauser bullets, on the other hand, might have been fired by the German counter-attack rather than during the initial defence of the hill. There are reports of several German units sweeping across the north side of the wood during the 31 August counter-attacks, including one by men of the 94th I.R (38<sup>th</sup> Div) against men of 17 and 19 battalions. Bean (1942: 827) also notes that men of the 1<sup>st</sup> Coy Alexander Regiment passed to the north of the wood after advancing from Allianes and being given the order to attack at around 7.20am on 31 August.

The presence of cartridge cases close to the northern edge of the wood ties in well with what we know of the action, with the German counter-attack sweeping along the side of the wood and at least part of the Australian assault following the same route (Billett 2009: 61). The absence of any cartridge cases inside or close to the communication trenches might

suggest than no actual fighting took place within them – though again it is important to stress that only a small area was metal detected and that only six small sondages were excavated across the trenches.

The most widely occurring artefactual evidence for combat took the form of shell fragments, shrapnel balls, fuse caps and fuse fragments. Some of this material was clearly Australian the recovery of 18 pound shrapnel shell cases from the metal detector survey and the excavation (the latter coming from the upper fill of sondage 1), provides clear evidence of Australian shelling of the German positions (these were fired by either the 4<sup>th</sup> Australian Field Artillery or 16<sup>th</sup> Royal Artillery Brigade, which were brought north of the Somme during the attack of 30 Sept. (Bean 1942: 824). In general though, it was not possible to distinguish the nationality of the various iron shell fragments that originated from high explosive shells. Shell fragments were recovered from most if not all of the trench excavations, with their presence, perhaps even in backfill, indicating that the communication trenches were vulnerable to shell fire. What is notable is that some of the shells are certainly German, as various fragments of zinc fuse caps were recovered from both the metal detector survey and the excavations. Only the Germans used zinc fuses – a response to the lack of high quality metals such as brass and copper due to the British maritime blockade. What did come as a slight surprise was the presence of zinc fragments in several of the excavation trenches, which included a large fragment from the base of CT1 as exposed in sondage 5.

It is apparent from the topographic survey that CT1 and CT2 were both hit by accurate shell fire toward the western edge of the wood – with a series of shell holes appearing beside the trenches and in some cases actually within them (Fig. 5) These may have been created by the Australian bombardment, but the presence of zinc fuse fragments in the trenches (as evidenced by T5) and on the ground surface (as recovered by more casual metal detecting toward the western end of the site) might suggest that this was in fact German artillery fire designed to push the Australians out of what might have been a tenacious grip on the western summit of the hill at the apex of their initial assault on 31 August. It might be that this fire presaged the German counter attack, some evidence for which took the form of cartridge cases from the northern fringe of the wood.

## Conclusion

The combination of topographic survey, limited excavation and metal detector survey has provided a valuable insight into the events which took place in the wood of Mont St Quentin during the 1918 battle. The previous discussion has highlighted the major insights which can be drawn out of the recovered data, and has perhaps suggested what archaeology can offer in the absence of detailed historical accounts (as yet no documentary evidence for the sequence of trench construction proposed here has come to light, but where historical evidence is available, such as the reference to the German counter attack coming along the northern edge of the wood, this fits every well with the archaeological evidence).

The presence of two trenches, running roughly side by side, has been explained through the need for a communication trench better able to protect against shell fire once it was clear that a major assault was imminent. Some details as to the nature of the assault have also come to light, including the suggestion that the Germans shelled their own trenches in order to dislodge the Australians from the western lip of the hill.

An important aim of the evaluation was to ascertain whether the archaeology of the wood merited a long term, multi-season project. Having read the above it may at first appear that the answer is no – the trenches are relatively simple features lacking the dugouts which elsewhere have proved such valuable sources of information and although further work would allow us to refine the interpretations offered here the rewards to be had would not really merit the expenditure of resources required. What is clear, however, is that the wood represents only a microcosm of the battlefield, and indeed one which, through the presence of the communication trenches, linked other parts of this conflict landscape.

A key target for the Australian assault, due to its importance to the German defence of the overall position of Mont St Quentin, was the headquarters complex which was situated to the east of the wood, in an area which today corresponds to a farmer's field. The complex is shown on the trench maps dating from 1916 (Fig. 4 – rectangular arrangement of trenches to north-east of wood) and although the communication trench known as Radimor Alley does not connect directly with the complex, according to some of the maps, there is an indication that it did so via other stretches of trench. On the basis of the trench maps alone this appears to be a substantial complex, and given that it was on a hilltop occupied by the Germans for several years, there seems little doubt that it will include various types of underground shelters, command bunkers and the other types of facility which one would

associate with a headquarters. However, being definite about the nature of this complex is perhaps ill advised as to our knowledge no other German headquarters facilities have been subject to close examination and certainly never through the medium of their archaeology. Given the proximity of this complex to the wood and its key role in the Battle of Mont St Quentin it represents an obvious target for future archaeological work, perhaps carried out in conjunction with further work in the wood itself.

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