

Report on the Excavation of Stollen 10d

By the Durand Group 2008 – 2010

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BACKGROUND

In (or about) August 2008 a ground collapse occurred in a goat pen close to a farmhouse on the outskirts of the village of Serre , Fig 1. The proprietors M & Mme Jean-Louise and Sylvie Legrand were advised that they should seek the advice of the Durand Group concerning the nature of the collapse. Accordingly they approached Lt Col Phillip Robinson who was in the area at the time.

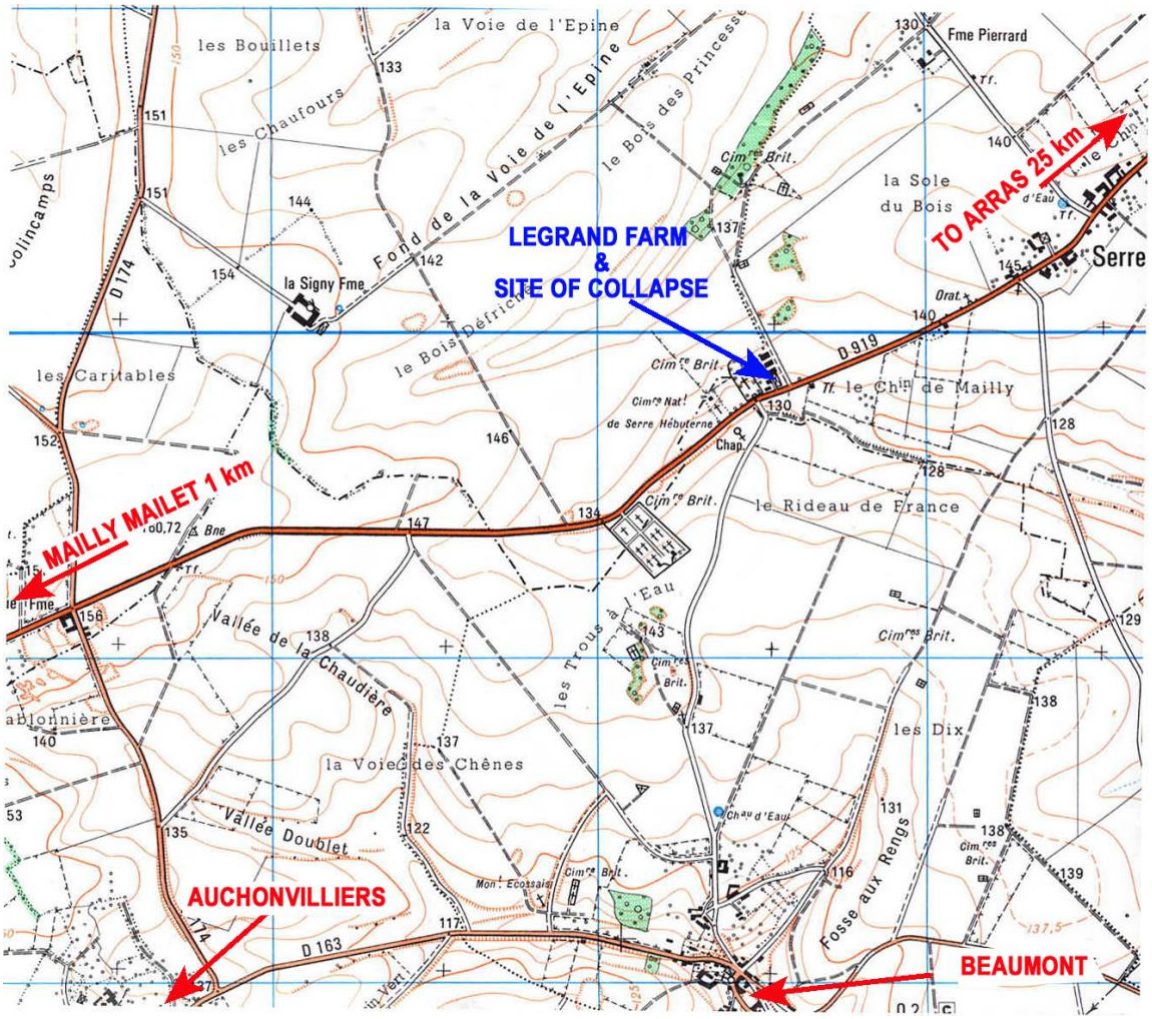


Fig 1 – Location of the Legrands Farm

The collapse, FIGS 1 & 2, comprised an oblong surface hole about 2 metre at its' widest and approximately 2.5 metres deep. At the bottom of the hole there was an opening which appeared to be a shaft sloping steeply down. At the time the void was too precarious for descent but plumbing with a weighted rope indicated that the shaft continued to a considerable depth. Given that the collapse had occurred on what was the former German first line trench at Serre, Robinson concluded that it was an access to either a deep Great War dugout or, a tunnel or a carrière (underground quarry).

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Fig 2 – The collapse in the Legrands farmyard



Fig 3 – The tunnel entrance before excavation

It was agreed with the Legrands that the Durand Group would further investigate in the course of another project in the area in October 2008. The void was meantime covered.

INTERMEDIATE RESEARCH

Subsequent research into German documents revealed that this was almost certainly one of a series of listening post tunnels established along this part of the German in 1916, Fig 4. The tunnel in question is almost certainly that designated as Stollen 10d. If so (as is likely) this is of particular research interest because, so far as is known, there hasn't been any investigation into this form of German tunnel.

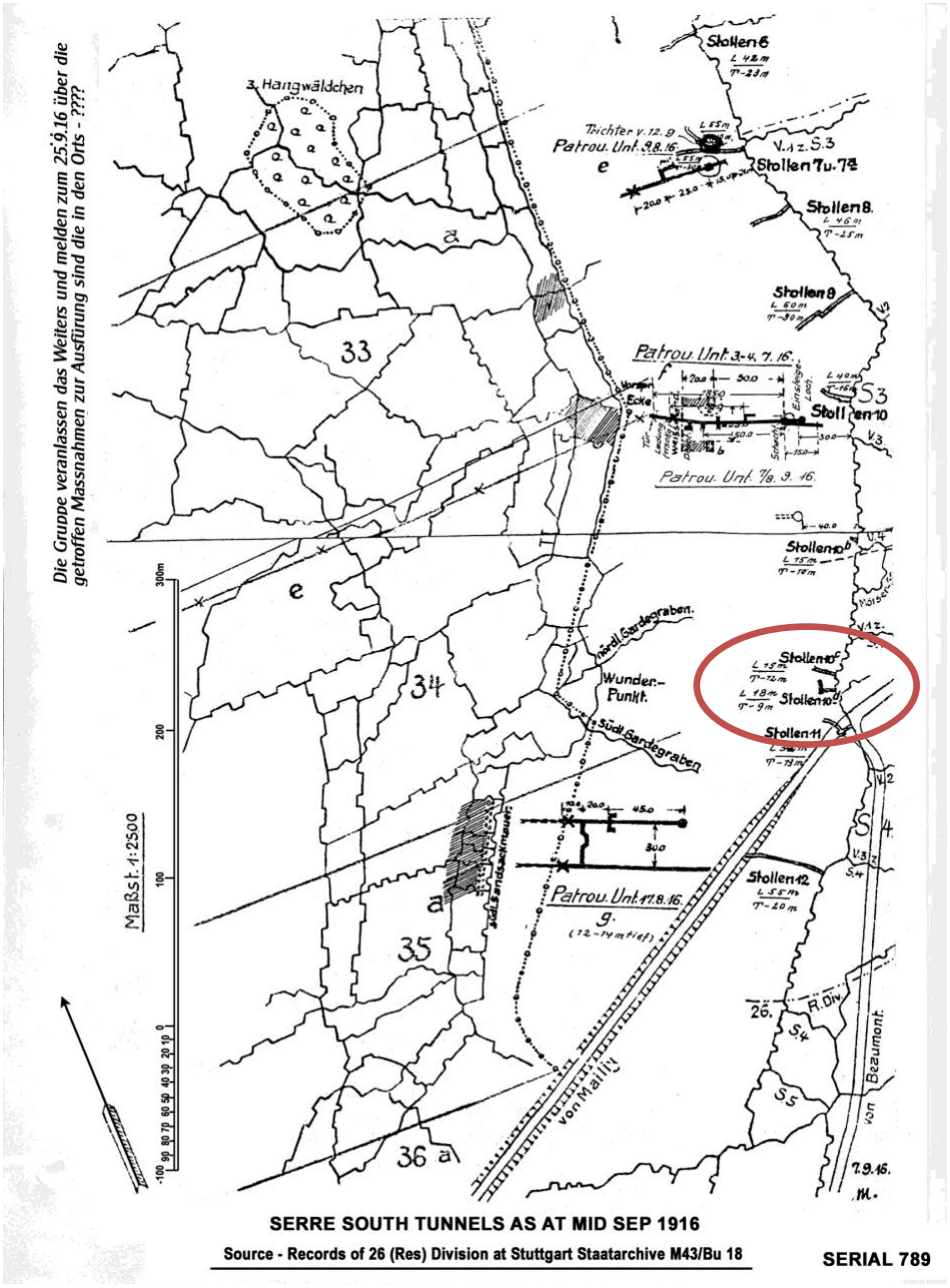


Fig 4 – German Plan of Front Line 1916

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PRELIMINARY INVESTIGATION IN OCTOBER 2008

On 30 October, diverting from another excavation at St Pierre Divion, a team from the Durand Group made safe the access to the void and descended to inspect the shaft. The shaft descended at an angle of about 45 degrees with a space of about 0.5 m between the roof and clay that had spilt in from the collapse. Major Andrew Hawkins managed, with some difficulty, to 'wriggle' down the shaft to close to the bottom with a bullet camera. Using the bullet camera it was determined that a partially blocked horizontal tunnel led off at right angle to the shaft in the general direction of the former British front line. The shaft length was approximately 10 m placing the tunnel at a depth of 9 m to 10 m below the surface.

Two representatives from the Sapeur Pompier (emergency services) were present initially but departed once they had satisfied themselves that the investigation was being conducted in a safe manner.

It was agreed with M & Mme Legrand that the Durand Group would undertake an excavation in May 2009. To protect the void, and make it safe, the Group constructed a strong timber frame over it, with corrugated iron sheets on top and a tarpaulin cover.

EXCAVATION IN MAY 2009

The period 6th May to 13th May had been allocated as a project period to continue the Oct/Nov excavations at St Pierre Divion, and to investigate the Serre tunnel. Equipment and resources were transferred to Serre on 10 May and the next two days were fully occupied with excavation.

Progress was considerably hindered, initially by a need to clear slabs from a concrete platform that had partially collapsed into the hole along with a substantial quantity of clay, and by continuous rain on the second day. Also by lack of ventilation in the shaft.

Excavation was terminated on the early evening of the second day (12 May) by which point sufficient clay had been removed by hand from all but the last section of the shaft to provide one to one and a half metres of headroom and a width of just under a metre. The incline was stepped about every one and a half metres with acrow props. The indications were that under a half day of work with a 'bucket chain' of eight to ten people would enable full access to the tunnel.

The void and shaft were surveyed. The plot is shown at Fig 5. This also includes a diagram of the likely original configuration and reason for the initial collapse. The decision was to return in August 2009 to continue with the excavation to clear to the bottom of the incline and to find the full extent of the tunnel system.

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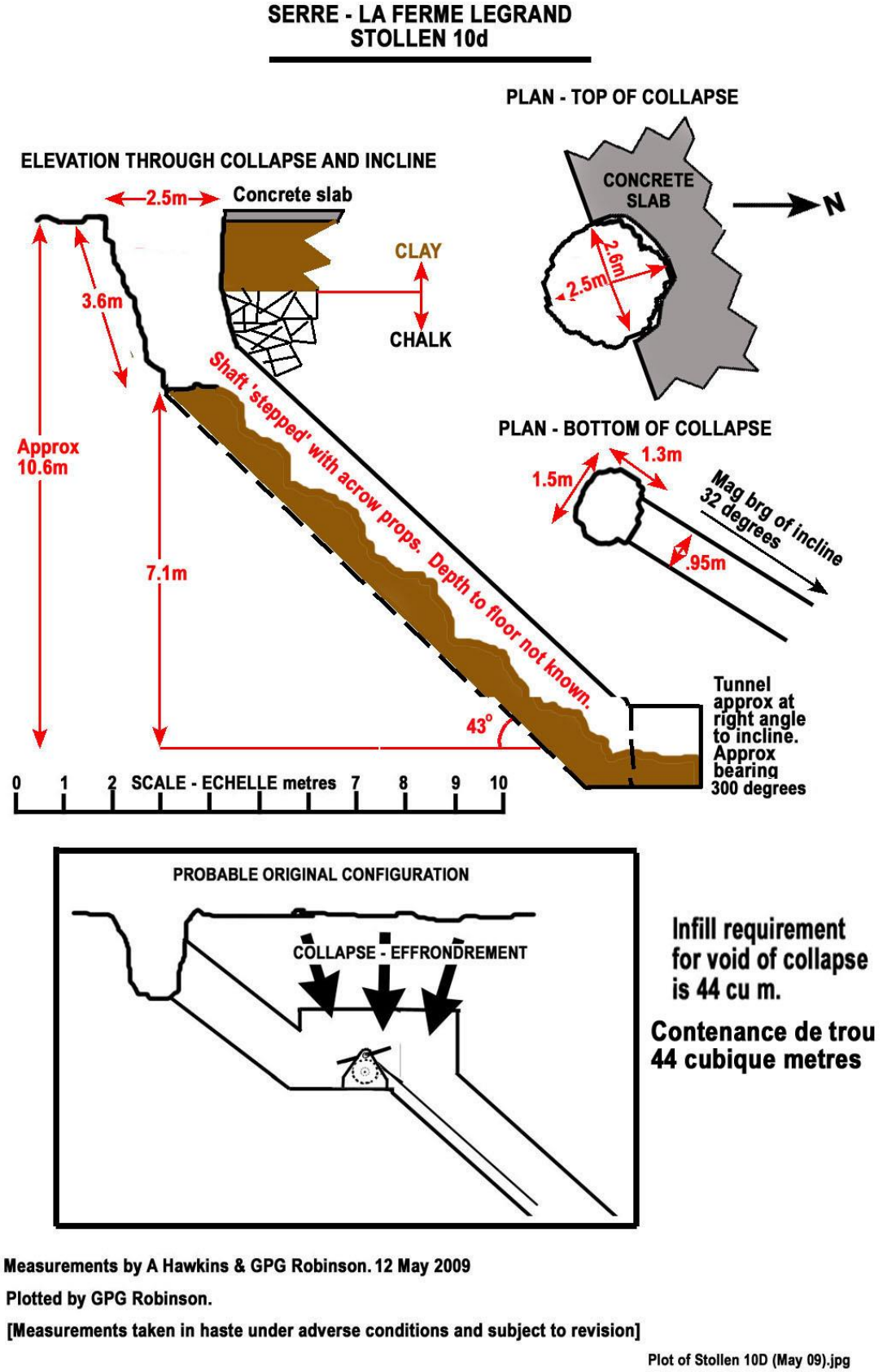


Fig 5 – Initial Plan of Stollen 10d

EXCAVATION IN AUGUST 2009

The Group returned to Serre over the period 21st – 23rd August 2009 with the intent of clearing the end of the incline to allow access to the tunnel at the bottom and to remove more of the infill on the incline to provide a safer access and to find the floor of the incline. A new air supply and lighting system were employed to provide a better working environment.

The clearance of the incline produced the usual battlefield detritus of tin cans, small arms ammunition, grenades and personal equipment, Figs 6 and 7, as well as specific remains from the tunnel construction, dog staples, wooden supports, nails, air pipes and communication cables.



Fig 6 – General Battlefield Detritus from the incline.

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The incline was cleared down to a point where it narrowed; it was at this point that breakthrough was achieved as the narrowing had acted as a choke point to the infill that had been tipped into the incline. The reduction in the width of the incline is reminiscent of the narrowing seen at the German T19 incline excavated on Vimy Ridge. Once cleared the incline descended a further three metres and then levelled out to a tunnel that turned to the right with a height of approx two metres. The air quality in this area was poor and only a cursory investigation of the tunnel was made at this time, but the end of the tunnel was located. The end of the tunnel reduced to a height of 1.2 metres as a result of clay wash in, Fig 8.



Fig 8 – End of Tunnel System

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During this initial inspection a number of items of graffiti were noticed although not fully recorded. As a result of the lack of air at the bottom of the incline and within the tunnel system it was agreed that a further visit was required to continue improving the incline, plot the system and to record the graffiti, this was planned for October 2009.

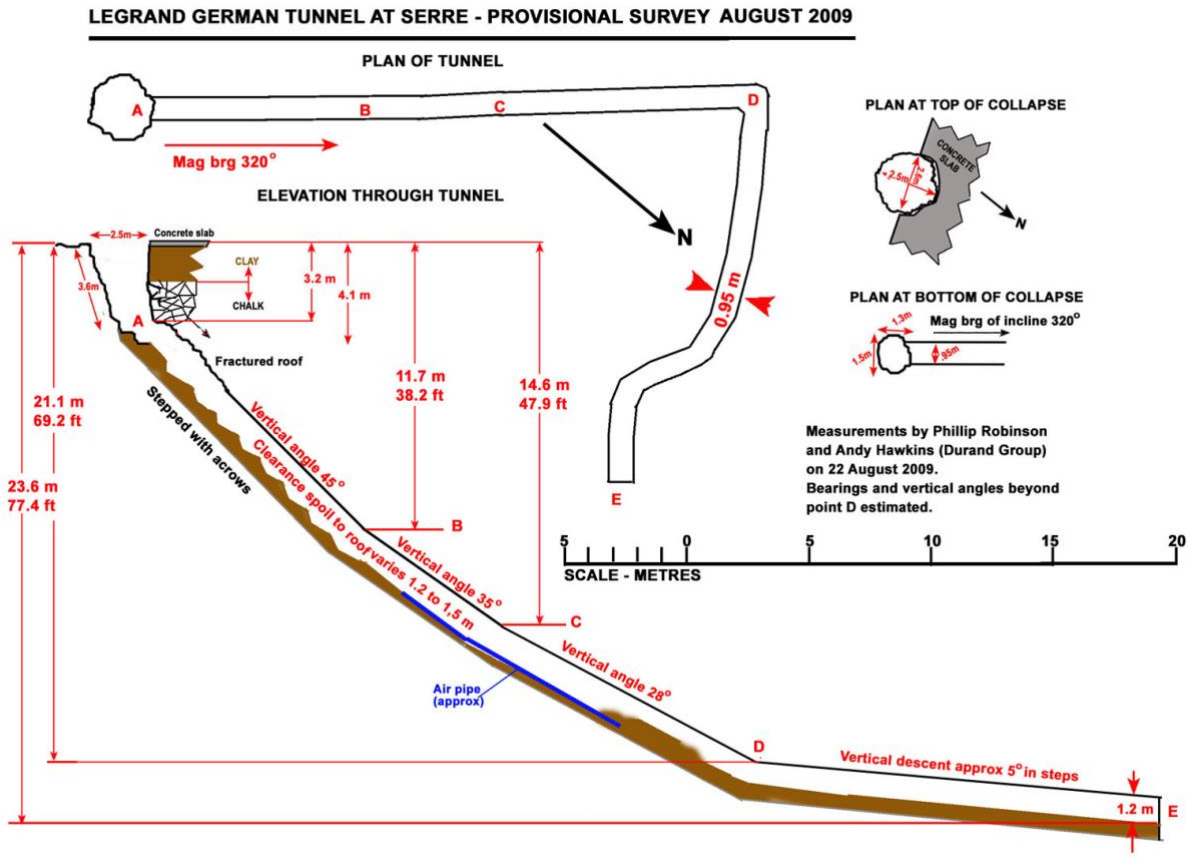


Fig 11 - Revised plan of the tunnel system

EXCAVATION IN OCTOBER 2009

As part of the Durand Groups October project on the Somme between the 30th September to 6th October , two days were spent at Serre, Sunday 4th and Monday 5th of October. This period was used to improve the incline and the entrance as well as plot the tunnel system and record the graffiti found previously and to carry out a thorough search of the walls to locate any further graffiti.

The lighting string and air hose were extended to provide light and air to the end of the tunnel system, this enable the start of a full survey of the tunnel to be undertaken, Figs 9 and 10. A number of new items of graffiti were found and recorded, details of the angles and the distances between the turns of the lower tunnel were recorded.

Time did not allow for a further excavation of the end of the tunnel to determine its height or to find the height of the incline at specific points. It was agreed that a further excavation was required to finalise the information required to finalise a proper plan of the tunnel system.



Fig 9 – The Lower Tunnel

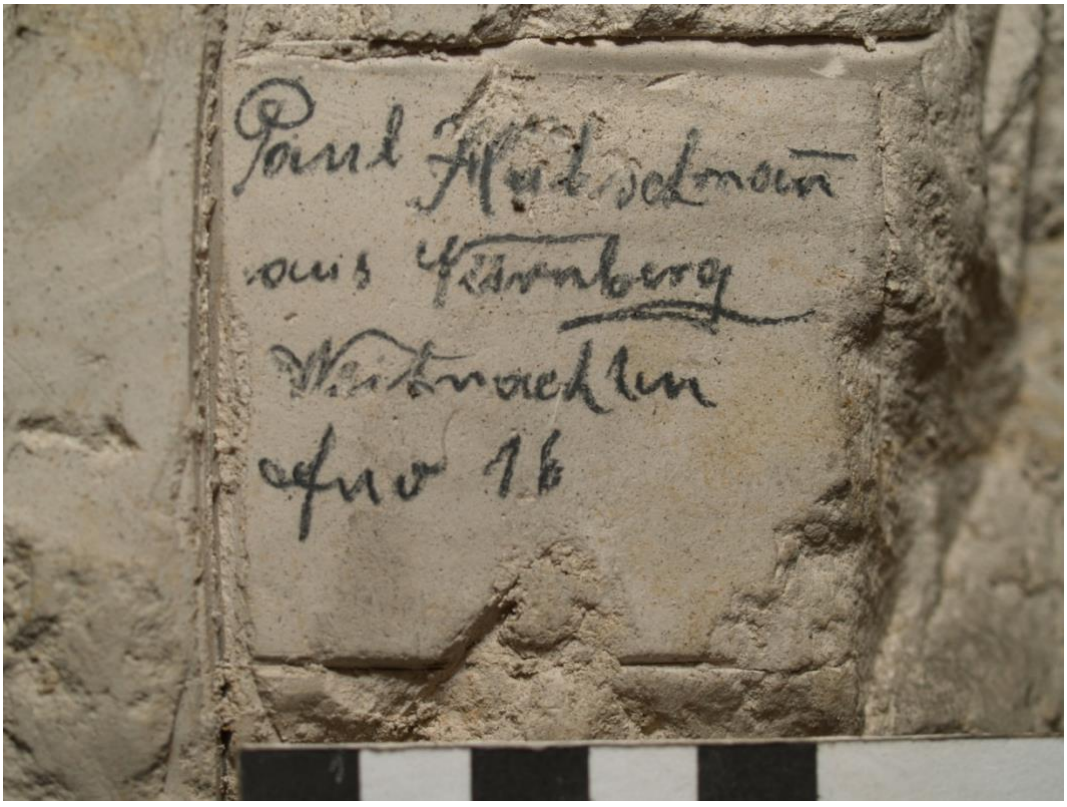


Fig 10 – Example of Graffiti recorded within the lower tunnel

EXCAVATION IN SEPTEMBER 2010

The final excavation took place 25th – 26th September. This two day excavation completed the recording of the lower tunnel graffiti, excavated down to floor level at three locations, the end of the tunnel, at the reduced width point on the incline and at the top of the incline. Recording the position of roof supports on the incline was also undertaken as was the location of known steps.

This detail will be combined with the data recorded from the previous excavation and a separate archaeological report on the finds and graffiti will be published in due course.

CONCLUSION

The excavation of Stollen 10d has provided a clear insight into the design and construction of a German forward listen tunnel. The excavation clearly demonstrated that the archive material available for research does not necessarily fully reflect the actual situation on the ground at the cessation of hostilities. Stollen 10d had been considerably extended between the drawing of the available plan in Sept 16 and the final withdrawal of the Germans from the system. The construction technique shows similarities to the German incline investigated by the Durand Group at T19, particularly the narrowing of the incline to shoulder width. This technique may be defensive in nature, restricting movement up the incline and to provide cover for an individual defending the incline. The length and depth of the tunnel also indicates the concern of the German defenders about potential British mining in the area. Until the excavation of Stollen 10d the historical view had been that the Germans had little concern about British mining activity. It is interesting to note that apart from some Russian Saps dug at the beginning of the Battle of the Somme that there was actually very little British mining activity in this sector of the front.

ACKNOWLEDGEMENTS

The Durand Group is very grateful to the Legrands for allowing the investigation of the tunnel to take place and for their patience and forbearance in accommodating the Group over a two year period.

The project has received financial support from the Durand Charity without which the excavations could not have taken place; this support is most gratefully appreciated.

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