# +++ ARCHAEOLEG CAMBRIA ARCHAEOLOGY +++ +++ FIELD OPERATIONS +++

JANUARY 1998



++ report prepared for ++
+++ South Pembrokeshire Action +++
+++ for Rural Communities +++

# BATTLE HEADQUARTERS, ANGLE ARCHAEOLOGICAL SURVEY

CONTENTS	PAGE
Summary	1
Introduction	1
Historical summary	2
Structural description	3
Future works and management recommendations	5
Appendix One: Catalogue of project archive	6
Bibliography	7

Figure One: Ground plan of Battle Headquarters

Figure Two: North wall of office

Figure Three: West wall of command post

Plate One: General view of Battle Headquarters

Plate Two: Entrance to Battle Headquarters

Archaeoleg CAMBRIA Archaeology
The Shire Hall
Carmarthen Street
Llandeilo
Carmarthenshire
SA19 6AF

TEL: 01558 823121 + FAX: 01558 823133

# BATTLE HEADQUARTERS, ANGLE HISTORICAL SUMMARY AND STRUCTURAL DESCRIPTION

#### SUMMARY

The Battle HQ at Angle (PRN 35709; NGR SM 8671 0193) was constructed during WWII as the emergency operations centre for the defence of Angle Airfield should the airfield come under attack. There were two designs used by the Air Ministry for Battle HQs; the one at Angle was the commonest type and comprised a structure of five underground rooms entered from its northern end via a flight of concrete steps. The southernmost room, which was the command post, had its floor c.0.9m (3') higher than the other rooms so that it was partially above ground. An observation slit ran along each side to allow a clear view through 360 degrees. The structure was covered by an earth mound, with only the entrance and the command post cupola and adjoining emergency escape hatch showing above ground.

Internally many of the electrical fixtures survivein situ, although in a rusted condition. Traces of paint on the walls, ceiling and surviving woodwork show that the final colour scheme was a creamy-white for the walls, white ceilings and green woodwork.

At the time of survey the structure was fairly free from rubbish, but it was filled with 10cm of water throughout, that was despite pumping prior to the survey. The Battle HQ and the adjacent gun emplacement, converted from a disused windmill, make an interesting complex of WWII buildings.

#### INTRODUCTION

This survey formed part of a wider project commissioned by South Pembrokeshire Action for Rural Communities (SPARC) to record the structure and histories of several historic buildings in Pembrokeshire. The level of survey was less than that for the other buildings because of its underground construction. Only a floor plan and profiles were recorded along with basic details of the internal fixtures as it was not felt appropriate at this stage to set up a generator and lights for full internal recording. That is more properly kept for any future works, should it be deemed practical to consolidate the building for visitors.

#### HISTORICAL SUMMARY

#### INTRODUCTION

The Battle HQ was part of the defence system for the airfield at Angle. Its position was typical, being built into a hedgeline for concealment on high ground outside the airfield (Smith 1989, 103-105). All WWII airfields had a Battle HQ, most of them remote, which in the case of an attack on the airfield would be occupied by the Station Commanding Officer, the Local Defence Officer, the Intelligence Officer and others. From there they could coordinate the response of the airfield and the outer defences.

#### ANGLE BATTLE HQ

Battle HQs were not a part of the original Air Ministry plans for the airfields, they were commonly sited by agreement of the local army authority (Smith 1989, 104). The Angle Battle HQ is sited 0.5km to the north of the airfield and is included in dispersed Site 1 on a 1943 Air Ministry plan of the airfield. Site 1, which also included barracks, latrines and stores, covered the north end of the field in which the HQ is located as well the opposite field. The concrete entrance to the Battle HQ field is part of that layout.

No Battle HQs were ever used in action in the UK. Many Battle HQ buildings have survived around the country because of their construction in reinforced concrete, so whilst the Angle HQ is not rare it is one of the more interesting surviving WWII buildings in the region.

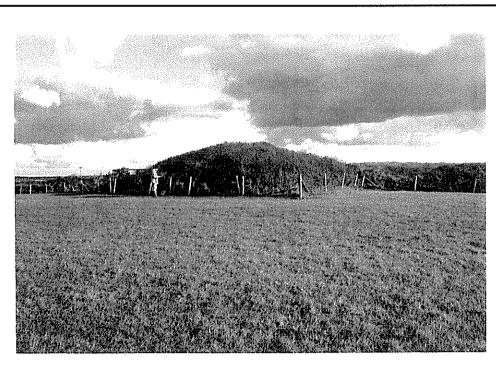


Plate One: The overgrown mound of the battle HQ site today. Photo, S Scott.

#### STRUCTURAL DESCRIPTION

#### INTRODUCTION

There were two designs for Battle HQs used by the Air Ministry and Angle was of the most common type (design 11008/41). It comprised a complex of five underground rooms, entered from one end via a flight of concrete stairs. All of the rooms were brick-built with concrete floors and corrugated concrete ceilings. The silt and standing water obscured any features there may have been on the floor.

#### **METHODOLOGY**

The interior and exposed sections of the exterior of the structure were measured and drawn at a scale of 1:20, with notes taken on the positions of relevant fixtures and other internal features.

#### ROOM 1 - THE LATRINE (Fig. 1)

The latrine was opposite the entrance and measured 1.36m (c.4'4") x 0.96m (c.3'). It had a central ceiling light and a light switch on the east wall just inside the door. This was the only room that had a wooden door frame in place. When in use the latrine would have contained a chemical toilet.

#### ROOM 2 - THE OFFICE (Figs. 1 and 2))

Opening off the main entrance corridor, the office was 1.83m (6') square and entered through an opening in its west wall. It had an opposing opening in the east wall that led into Room 3. The office contained the main fuse and switch boxes that were mounted on the north wall. Power cables were brought into the building via ceramic pipes set into the east wall. Cables leading to and from the rest of the building were fixed to the east wall. From the boxes and the ceramic pipes they ran above the door to Room 3 and through the wall into Room 4. A switch and a dialled switch were located on the south wall; both were linked by a conduit that went through the south wall into Room 4. Along the base of the north wall were two pipes which were connected to a conduit that ran along the north and east walls and went through the south wall into Room 4. These pipes and identical ones in other rooms may have been heating pipes. There was a central ceiling light, operated by the switch on the south wall.

A wood framed hatch with a panelled shutter through to Room 4 was positioned midway along the south wall.

# ROOM 3 - THE BEDROOM (Fig 1)

The bedroom was the easternmost room in the building and was entered through the opening from Room 2. It measured  $2.48 \text{m} (c.8') \times 1.83 \text{m} (6')$ . The east wall had a veneered wooden box containing electrical circuitry and a smaller bakelite? switch box fixed to it. Cables ran from the wooden box to a ceramic pipe leading through the north wall to the outside. Along the bottom of the longer walls (north and south) were

heating pipes operated by a dialled switch on the south wall. The switch and the pipes were connected by a conduit that ran around the south, east and north walls. The conduit also connected to another switch on the south wall. A hatch, the same as that in Room 2 connected through to Room 4. The central ceiling light was operated by a switch on the west wall, just inside the entrance.

#### ROOM 4 (Fig. 1)

This was the largest room in the building at 3.86m ( $c.12^{\circ}$ 6") x 1.83m (6'). It was entered off the main entrance corridor via an opening in its northwest corner. A similar opening in the southwest corner led to Room 5. A heating pipe was fixed to the base of the east wall and connected to a vertical conduit at its northern end; the conduit continued into Room 2. A further conduit ran around the east and south to a dialled switch on the west wall. Vertical conduits extended from this down the east wall to a wall mounted switch and a loud speaker. There were three ceiling lights along the centre of the long axis of the room.

#### ROOM 5 - THE COMMAND POST (Figs. 1 and 2)

The command post was 1.83 m (6') square and 0.96 m (c.3') higher than the other rooms. It was reached via a flight of three concrete steps leading from the southwest corner of Room 4. The top of the command post protruded 0.96 m (c.3') above ground level and had a continuous, but narrow observation slit along each side giving a clear view through 360 degrees. The room was empty except for a light mounted on the north wall. The walls were brick-built to the top of the door, which roughly equated with ground level, with the above ground section constructed from concrete.

An escape hatch was positioned in the corridor next to the door and exited via a metal ladder. The ladder survived but was partially rusted through.

#### CONSTRUCTION MATERIALS AND INTERNAL AND EXTERNAL FINISHES

The HQ was built from brick and concrete. Internally there were enough traces of a yellowing, cream coloured paint on the walls to be certain of the colour scheme of the building. That was, cream-coloured walls, white ceilings and green woodwork.

#### FUTURE WORKS AND MANAGEMENT RECOMMENDATIONS

#### CONDITION

In general the structure appears stable, although there are some areas of damage around the openings - particularly between Rooms 2 and 3. The biggest problem is the standing water which would need to be completely removed to assess whether seepage can be controlled. The metal fixtures and fittings are rusted, but largely *in situ* and the wooden frames and shutters in the hatches between Rooms 2, 3 and 4 survive, but the damp conditions are having an affect on them.

#### FUTURE WORK

A full photographic record should be made of the interior of the building, particularly as many of the fixtures and fittings are still *in situ*. As a generator and floodlights would be required for the survey it could be carried out at the same time as any structural survey of the site. An open letter to the local newspapers asking for information from anybody that knows, or knew the site has been prepared. There may be some information from that which would need incorporating into the results from the present survey.

#### POTENTIAL FOR MANAGEMENT, CONSOLIDATION AND DISPLAY

There is good potential for the eventual display of the building, providing any structural survey does not find any major safety problems. Not only does the building survive in good condition, but the internal paint and fixtures make it possible to faithfully recreate the building the way it was when it was decommissioned. Furthermore, the presence of the former windmill gun emplacement next to the HQ gives an added dimension to what is an extremely interesting military building.



Plate Two: The entrance with its galvanised steel handrail. Photo, S Scott.

#### APPENDIX ONE: CATALOGUE OF PROJECT ARCHIVE

The project archive has been indexed and catalogued according to National Monument Record (NMR) categories and contains the following.

- A. Copy of the final report.
- B. Records made during the fieldwork.
- C. Drawing catalogue and site drawings.
- D. Site photographs catalogue and colour prints.
- I. Draft copies of the final report.
- J. Publication drawings.
- M. Miscellaneous correspondence.

There is no material for classes E, F, G, H, K, L and N.

The archive is curently held by Archaeoleg CAMBRIA Archaeology Field Operations, Llandeilo, Carmarthenshire, as project number 35708.

# **BIBLIOGRAPHY**

Smith D J 1989 Britain's Military Airfields 1939-45. Patrick Stephens Limited. Wellingborough.

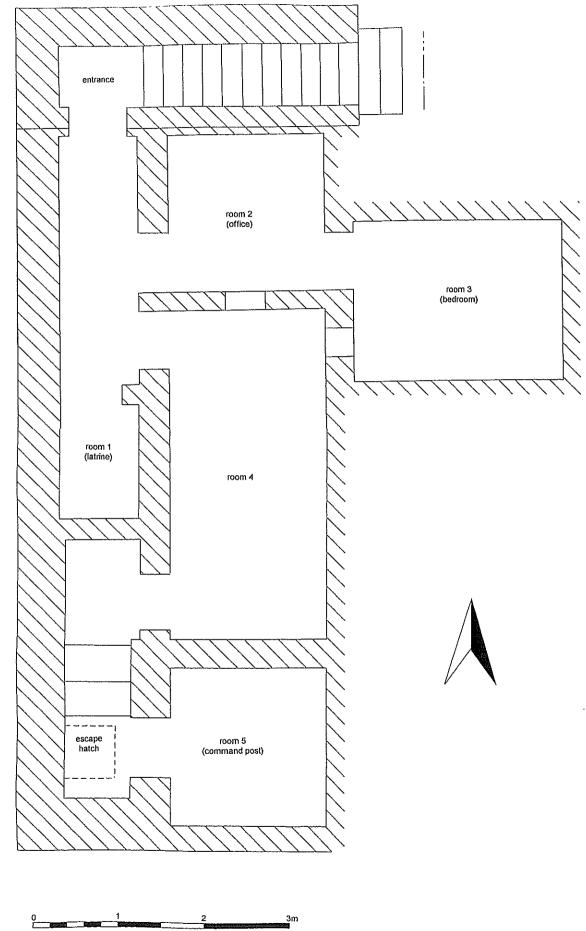


Figure One: Ground plan of Battle Headquarters, Angle

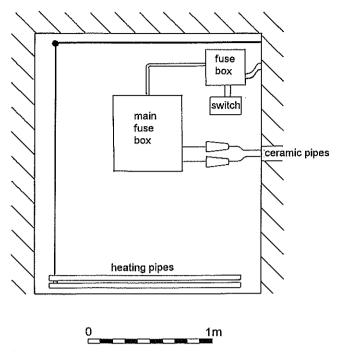


Figure Two: North wall of the office (Room 2) showing the layout of the main electrical fuse and switch boxes.

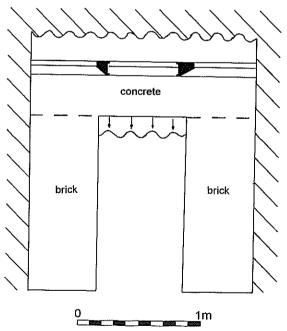


Figure Three: West wall of the command post showing the entrance and observation slit.

# BATTLE HEADQUARTERS, ANGLE HISTORICAL SUMMARY AND STRUCTURAL DESCRIPTION

#### SUMMARY

The Battle HQ at Angle (PRN 35709; NGR SM 8671 0193) was constructed during WWII as the emergency operations centre for the defence of Angle Airfield should the airfield come under attack. There were two designs used by the Air Ministry for Battle HQs; the one at Angle was the commonest type and comprised a structure of five underground rooms entered from its northern end via a flight of concrete steps. The southernmost room, which was the command post, had its floor c.0.9m (3') higher than the other rooms so that it was partially above ground. An observation slit ran along each side to allow a clear view through 360 degrees. The structure was covered by an earth mound, with only the entrance and the command post cupola and adjoining emergency escape hatch showing above ground.

Internally many of the electrical fixtures survive *in situ*, although in a rusted condition. Traces of paint on the walls, ceiling and surviving woodwork show that the final colour scheme was a creamy-white for the walls, white ceilings and green woodwork.

At the time of survey the structure was fairly free from rubbish, but it was filled with 10cm of water throughout, that was despite pumping prior to the survey. The Battle HQ and the adjacent gun emplacement, converted from a disused windmill, make an interesting complex of WWII buildings.

#### INTRODUCTION

This survey formed part of a wider project commissioned by South Pembrokeshire Action for Rural Communities (SPARC) to record the structure and histories of several historic buildings in Pembrokeshire. The level of survey was less than that for the other buildings because of its underground construction. Only a floor plan and profiles were recorded along with basic details of the internal fixtures as it was not felt appropriate at this stage to set up a generator and lights for full internal recording. That is more properly kept for any future works, should it be deemed practical to consolidate the building for visitors.

#### HISTORICAL SUMMARY

#### INTRODUCTION

The Battle HQ was part of the defence system for the airfield at Angle. Its position was typical, being built into a hedgeline for concealment on high ground outside the airfield (Smith 1989, 103-105). All WWII airfields had a Battle HQ, most of them remote, which in the case of an attack on the airfield would be occupied by the Station Commanding Officer, the Local Defence Officer, the Intelligence Officer and others. From there they could coordinate the response of the airfield and the outer defences.

#### ANGLE BATTLE HQ

Battle HQs were not a part of the original Air Ministry plans for the airfields, they were commonly sited by agreement of the local army authority (Smith 1989, 104). The Angle Battle HQ is sited 0.5km to the north of the airfield and is included in dispersed Site 1 on a 1943 Air Ministry plan of the airfield. Site 1, which also included barracks, latrines and stores, covered the north end of the field in which the HQ is located as well the opposite field. The concrete entrance to the Battle HQ field is part of that layout.

No Battle HQs were ever used in action in the UK. Many Battle HQ buildings have survived around the country because of their construction in reinforced concrete, so whilst the Angle HQ is not rare it is one of the more interesting surviving WWII buildings in the region.

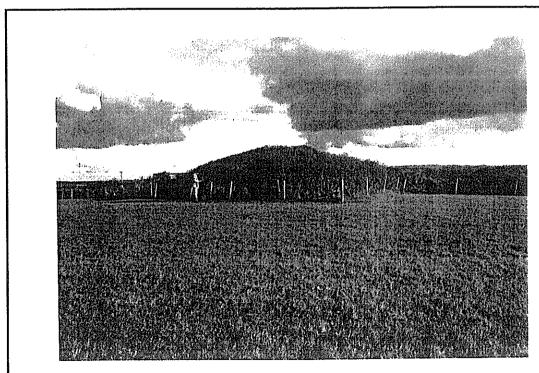


Plate One: The overgrown mound of the battle HQ site today. Photo, S Scott.

#### STRUCTURAL DESCRIPTION

#### INTRODUCTION

There were two designs for Battle HQs used by the Air Ministry and Angle was of the most common type (design 11008/41). It comprised a complex of five underground rooms, entered from one end via a flight of concrete stairs. All of the rooms were brick-built with concrete floors and corrugated concrete ceilings. The silt and standing water obscured any features there may have been on the floor.

#### **METHODOLOGY**

The interior and exposed sections of the exterior of the structure were measured and drawn at a scale of 1:20, with notes taken on the positions of relevant fixtures and other internal features.

# ROOM 1 - THE LATRINE (Fig. 1)

The latrine was opposite the entrance and measured 1.36m (c.4'4") x 0.96m (c.3'). It had a central ceiling light and a light switch on the east wall just inside the door. This was the only room that had a wooden door frame in place. When in use the latrine would have contained a chemical toilet.

# ROOM 2 - THE OFFICE (Figs. 1 and 2))

Opening off the main entrance corridor, the office was 1.83m (6') square and entered through an opening in its west wall. It had an opposing opening in the east wall that led into Room 3. The office contained the main fuse and switch boxes that were mounted on the north wall. Power cables were brought into the building via ceramic pipes set into the east wall. Cables leading to and from the rest of the building were fixed to the east wall. From the boxes and the ceramic pipes they ran above the door to Room 3 and through the wall into Room 4. A switch and a dialled switch were located on the south wall; both were linked by a conduit that went through the south wall into Room 4. Along the base of the north wall were two pipes which were connected to a conduit that ran along the north and east walls and went through the south wall into Room 4. These pipes and identical ones in other rooms may have been heating pipes. There was a central ceiling light, operated by the switch on the south wall.

A wood framed hatch with a panelled shutter through to Room 4 was positioned midway along the south wall.

# ROOM 3 - THE BEDROOM (Fig 1)

The bedroom was the easternmost room in the building and was entered through the opening from Room 2. It measured  $2.48 \text{m} (c.8^{\circ}) \times 1.83 \text{m} (6^{\circ})$ . The east wall had a veneered wooden box containing electrical circuitry and a smaller bakelite? switch box fixed to it. Cables ran from the wooden box to a ceramic pipe leading through the north wall to the outside. Along the bottom of the longer walls (north and south) were

heating pipes operated by a dialled switch on the south wall. The switch and the pipes were connected by a conduit that ran around the south, east and north walls. The conduit also connected to another switch on the south wall. A hatch, the same as that in Room 2 connected through to Room 4. The central ceiling light was operated by a switch on the west wall, just inside the entrance.

# ROOM 4 (Fig. 1)

This was the largest room in the building at 3.86m ( $c.12^{\circ}$ 6") x 1.83m (6'). It was entered off the main entrance corridor via an opening in its northwest corner. A similar opening in the southwest corner led to Room 5. A heating pipe was fixed to the base of the east wall and connected to a vertical conduit at its northern end; the conduit continued into Room 2. A further conduit ran around the east and south to a dialled switch on the west wall. Vertical conduits extended from this down the east wall to a wall mounted switch and a loud speaker. There were three ceiling lights along the centre of the long axis of the room.

#### ROOM 5 - THE COMMAND POST (Figs. 1 and 2)

The command post was 1.83 m (6') square and 0.96 m (c.3') higher than the other rooms. It was reached via a flight of three concrete steps leading from the southwest corner of Room 4. The top of the command post protruded 0.96 m (c.3') above ground level and had a continuous, but narrow observation slit along each side giving a clear view through 360 degrees. The room was empty except for a light mounted on the north wall. The walls were brick-built to the top of the door, which roughly equated with ground level, with the above ground section constructed from concrete.

An escape hatch was positioned in the corridor next to the door and exited via a metal ladder. The ladder survived but was partially rusted through.

#### CONSTRUCTION MATERIALS AND INTERNAL AND EXTERNAL FINISHES

The HQ was built from brick and concrete. Internally there were enough traces of a yellowing, cream coloured paint on the walls to be certain of the colour scheme of the building. That was, cream-coloured walls, white ceilings and green woodwork.

# FUTURE WORKS AND MANAGEMENT RECOMMENDATIONS

#### CONDITION

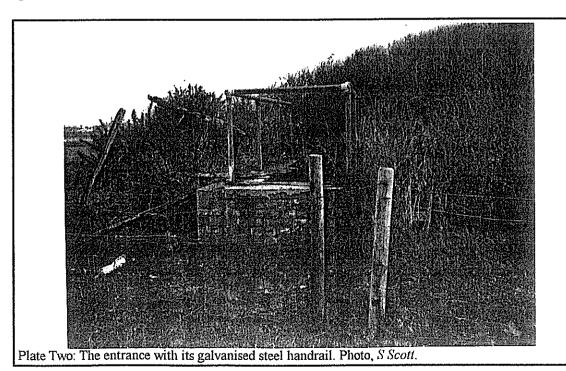
In general the structure appears stable, although there are some areas of damage around the openings - particularly between Rooms 2 and 3. The biggest problem is the standing water which would need to be completely removed to assess whether seepage can be controlled. The metal fixtures and fittings are rusted, but largely *in situ* and the wooden frames and shutters in the hatches between Rooms 2, 3 and 4 survive, but the damp conditions are having an affect on them.

#### FUTURE WORK

A full photographic record should be made of the interior of the building, particularly as many of the fixtures and fittings are still in situ. As a generator and floodlights would be required for the survey it could be carried out at the same time as any structural survey of the site. An open letter to the local newspapers asking for information from anybody that knows, or knew the site has been prepared. There may be some information from that which would need incorporating into the results from the present survey.

# POTENTIAL FOR MANAGEMENT, CONSOLIDATION AND DISPLAY

There is good potential for the eventual display of the building, providing any structural survey does not find any major safety problems. Not only does the building survive in good condition, but the internal paint and fixtures make it possible to faithfully recreate the building the way it was when it was decommissioned. Furthermore, the presence of the former windmill gun emplacement next to the HQ gives an added dimension to what is an extremely interesting military building.



#### APPENDIX ONE: CATALOGUE OF PROJECT ARCHIVE

The project archive has been indexed and catalogued according to National Monument Record (NMR) categories and contains the following.

- A. Copy of the final report.
- B. Records made during the fieldwork.
- C. Drawing catalogue and site drawings.
- D. Site photographs catalogue and colour prints.
- I. Draft copies of the final report.
- J. Publication drawings.
- M. Miscellaneous correspondence.

There is no material for classes E, F, G, H, K, L and N.

The archive is curently held by Archaeoleg CAMBRIA Archaeology Field Operations, Llandeilo, Carmarthenshire, as project number 35708.

# BIBLIOGRAPHY

Smith D J 1989 Britain's Military Airfields 1939-45. Patrick Stephens Limited. Wellingborough.

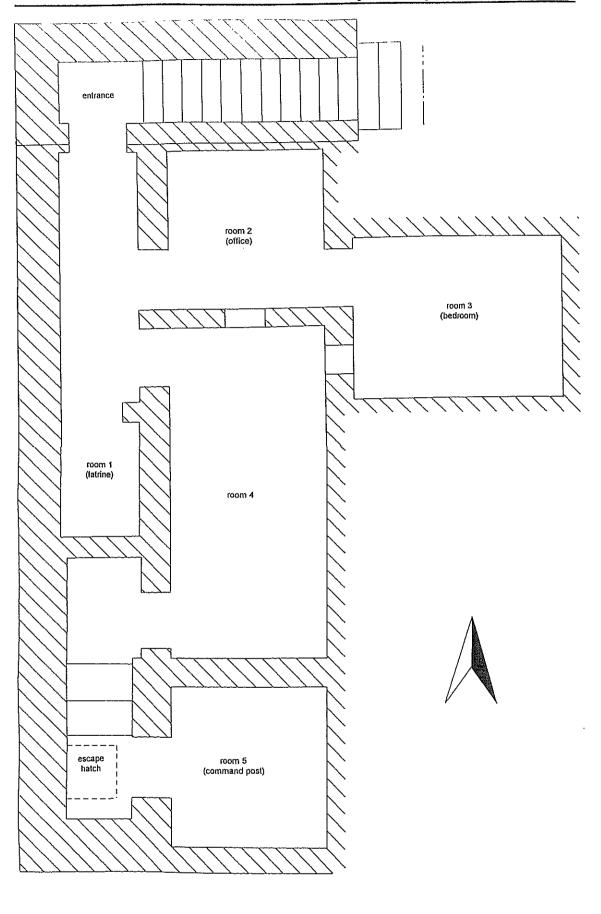




Figure One: Ground plan of Ballle Headquarters, Angle

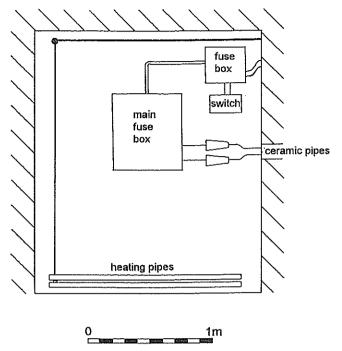


Figure Two: North wall of the office (Room 2) showing the layout of the main electrical fuse and switch boxes.

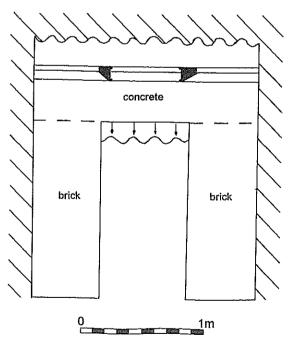


Figure Three: West wall of the command post showing the entrance and observation slit.