

KITCHENER'S CAMPS AT SEAFORD A FIRST WORLD WAR LANDSCAPE ON AERIAL PHOTOGRAPHS

ARCHAEOLOGICAL REPORT

Robert Skinner



Kitchener's Camps at Seaford: A First World War Landscape on aerial photographs

Robert Skinner

© English Heritage

ISSN 1749-8775

The Research Department Report Series incorporates reports from all the specialist teams within the English Heritage Research Department: Archaeological Science; Archaeological Archives; Historic Interiors Research and Conservation; Archaeological Projects; Aerial Survey and Investigation; Archaeological Survey and Investigation; Architectural Investigation; Imaging, Graphics and Survey, and the Survey of London. It replaces the former Centre for Archaeology Reports Series, the Archaeological Investigation Report Series and the Architectural Investigation Report Series.

Many of these are interim reports which make available the results of specialist investigations in advance of full publication. They are not usually subject to external refereeing, and their conclusions may sometimes have to be modified in the light of information not available at the time of the investigation. Where no final project report is available, readers are advised to consult the author before citing these reports in any publication. Opinions expressed in Research Department reports are those of the author(s) and are not necessarily those of English Heritage.

Requests for further hard copies, after the initial print run, can be made by emailing:

Res.reports@english-heritage.org.uk

or by writing to:

English Heritage, Fort Cumberland, Fort Cumberland Road, Eastney, Portsmouth PO4 9LD

Please note that a charge will be made to cover printing and postage.

SUMMARY

Two First World War army camps at Seaford, East Sussex, were identified on 1940s and 1950s aerial photographs during the South Downs National Mapping Programme. Some of these remains still survive as earthworks including a series of training trenches located within the bounds of the South Downs National Park. The project was part of work for the Institute for Archaeologists and English Heritage Professional Placements in Conservation (EPPIC) in Aerial Survey and Investigation. The main aim was to interpret and map the archaeological remains of the camps from aerial photographs with additional input from documentary sources. The study demonstrated that historic aerial photographs are an important source of information for First World War remains. The survey revealed much of the design, construction and morphology of the camps.

CONTRIBUTORS

Robert Skinner carried out the interpretation and analysis and produced this report. Edward Carpenter and Helen Winton edited the report.

ACKNOWLEDGEMENTS

Thanks to Luke Barber of the Sussex Archaeological Society for providing key documents and access to his collection of historic postcards and guidance on a field visit. Thanks to the Seaford Museum and Heritage Society for permission to reproduce postcards. Thanks to The National Archives at Kew for permission to reproduce the South Camp Plan from the Canadian National Archives. Thanks to Luke Griffin (Archive Support Team) for supplying the aerial photographs, and colleagues in Aerial Survey and Investigation, Ed Carpenter (EPPIC mentor), Fiona Small and Cathy Stoertz for general interpretative and technical assistance.

ARCHIVE LOCATION

**English Heritage,
The Engine House,
Fire Fly Avenue,
Swindon
SN2 2EH**

DATE OF SURVEY

August-November 2010

CONTACT DETAILS

aerial.survey@english-heritage.org.uk

CONTENTS

Introduction	1
Aerial Photographs	2
Other Photographs	2
Documentary Research	3
Other sources	3
Site visit	4
Background.....	5
Location.....	6
Design.....	8
Construction and Occupation	20
Welfare and Recreation	23
Training Facilities.....	26
Post War Landscape.....	32
Conclusion	35
References	36
National Archives	36
Canadian Archives Ottawa	36
Published Sources	36
Internet Resources	37
Appendix I Methods	38
Archaeological scope	38
Recording	38
Mapping	39
Mapping Conventions	39

FIGURES

Fig 1: The two camps in relation to the 1911 extent of Seaford town.....	6
Fig 2: A wartime demobilisation order, showing links to the continent.....	7
Fig 3: Seaford Camp from the Golf Links.....	7
Fig 4: Extents of South Camp, based on the 1916 Royal Engineer's plan.....	8
Fig 5: North Camp extents based on the aerial photo mapping.....	9
Fig 6: Suggested layout of North Camp.....	10
Fig 7: A typical battalion unit at South Camp.....	12
Fig 8: 1951 Aerial photograph showing the buildings beside a parade ground.....	13
Fig 9: Plan of probable drainage ditches at North Camp.....	14
Fig 10: Different building foundations as shown on the aerial photograph mapping.	15
Fig 11: The cut for the drying room associated with the battalion parade ground.....	16
Fig 12: Image showing an extant hut platform with brick pier.....	17
Fig 13: Postcard of South Camp with construction work and a large tented area.....	17
Fig 14: 1951 aerial photograph and mapping of northwestern part of North Camp.....	18
Fig 15: Comparison of the 1916 plan with mapping of the east end of South Camp.....	19
Fig 16: Postcard showing the laying down of a chalk road surface.....	21
Fig 17: Postcard of the South Camp YMCA hut.....	23
Fig 18: Postcard of the South Camp cinema.....	24
Fig 19: Diagram showing the location of the cinema within the camp.....	25
Fig 20: The location of the two camps in relation to the 1911 extent of Seaford town.....	26
Fig 21: Aerial photograph of practice trenches visible as cropmarks on the downs.....	27
Fig 22: The trench works seen on aerial photographs on the south side of the camp.....	29
Fig 23: 1942 Aerial photograph of the trenches looking freshly dug out of the chalk.....	30
Fig 24: Partially filled extant trenches, probably from the earliest phase of activity.....	31
Fig 25: The larger, probably later, trenches. Note the damage from motorbikes.....	31
Fig 26: The road layout of North Camp preserved in East Blatchington.....	33
Fig 27: A 2005 aerial photograph of the, now demolished, last hut from North Camp.....	34

INTRODUCTION

The earthwork remains of two First World War army camps were identified on aerial photographs during the South Downs National Mapping Programme (NMP) work on the coastal area between Peacehaven and Beachy Head (Carpenter and Winton 2009). The resulting Seaford Camps project was undertaken as part of the English Heritage Professional Placements in Conservation (EPPIC) in Aerial Survey and Investigation. The main aim was to interpret and map the archaeological remains of the army camps from aerial photographs. This report presents the results of this survey.

This study demonstrates that aerial photographs are a useful source of information for study of the development and morphology of the Seaford camps and the nature of the buildings within them. The everyday experience is an under-researched aspect of First World War study (Saunders, 2004, 2) and the study of the camps provides a context for the lives of the many thousands of soldiers who passed through these places as a part of the largest voluntary mobilisation of armed forces ever seen in Great Britain. In addition, the mapping from aerial photographs accurately documents the remains of the camp to inform conservation.

Previous studies incorrectly locate South Camp within a small area between Chyngton Road and Sutton Avenue (Butler, 2007, 47-8 & Longstaff-Tyrrell, 2002, 34). Butler also suggests that the camps no longer exist in any form (ibid, 47). Evidence from aerial photographs demonstrates that the camps were more extensive than previously thought and highlights the survival of remains on the north slopes of Seaford Head, within the boundary of the South Downs National Park.

Volunteers have been carrying out research on the site led by Luke Barber of the Sussex Archaeological Society, a local archaeologist with experience of First World War sites and member of the Nomansland group. The detailed study of the aerial photographs and subsequent mapping and recording complements Mr Barber's research.

METHODS AND SOURCES

The aerial photograph mapping was produced in AutoCAD by tracing the archaeology from transformed and georeferenced aerial images. Monument descriptions for the main elements of the site, and an Event record, were created in the NMR monuments database. All plans and this report will be deposited with the NMR archive. All aerial photographs used during the survey are also available from the NMR. Details of methods used can be found in Appendix A.

Aerial Photographs

The earthwork remains of the Seaford camps are recorded on aerial photographs taken up until 1960 after which, apart from the survival on Seaford Head, they were levelled. Most of the remains appear to have been built over with new housing estates built from the 1960s onwards and North Camp now lies entirely beneath the modern town. Outside the town, much of the eastern part of South Camp was ploughed from the mid 1950s and so little above surface remains survive.

Aerial photographs taken when the sun was low in the sky enabled slight earthworks to be identified, including the foundations of individual buildings. This meant a detailed mapping and analysis of the camp's architecture and design was possible. The best photographs were a series of RAF vertical images from 1951, which cover the whole Seaford area and depict both camps in good detail especially the North Camp. The 1940s aerial photographs were useful in understanding the archaeological sequence of the training trenches in South Camp. Photographs taken in 1947 were particularly good but there was no cover of North Camp from this date. North Camp is however covered by a run from 1948.

Lidar (airborne laser scanning) data was not utilised in this study as the resolution of the images available was too low to see camp features. The area in which the camp remains survive as earthworks is heavily overgrown with dense low scrub where the light does not seem to have penetrated sufficiently to provide a record of any earthworks underneath.

Other Photographs

Photographic postcards were a highly useful source of information for the camp layout and architecture. They also provide a glimpse into what life was like for the soldiers stationed there. Luke Barber provided examples from his own collection and suggested others at Seaford Museum; others were acquired via internet searches. Most of these postcards were those produced in large numbers for soldiers to send from the camps. These images often show general views of the, individual buildings, or everyday life. Some postcards documented key events, such as South Camp's initial construction, or record unusual buildings, such as the YMCA hut. These contemporary postcards are therefore a

great resource for identifying key buildings, styles of construction and changes in the camp's layout. Luke Barber has photographed some of the same viewpoints demonstrating how the landscape has changed. Photographs taken by the author helped in analysis of the extant training trenches.

Documentary Research

As a recent historical site, documentary evidence was an important source. Research was conducted using published sources on the archaeology of the region (e.g. Butler 2007, Leslie & Short 1999, Longstaff-Tyrrell, 2002) and the historical context of the camps (e.g. Simkins, 1988). Individual historic documents were consulted at the National Archives. These comprised military records and orders concerned with the creation of the camps and the military division that initially occupied them. Documents were also consulted that detailed the guidelines regarding the choice of location of the new army camps (WO 163/44, WO 163/21, AO 388, WO 162/3).

The work carried out by Mr Barber and his colleagues included detailed documentary research in the local records of Sussex County Council and the Seaford Museum. Access to this research has greatly aided this study, in particular a 1916 Royal Engineers plan of Seaford South Camp acquired from the Canadian National Archive in Ottawa (Q4-54887, Series E-17, Vol 21, File '21' (21-27) 1916-C 'Plans de camps'). The plan shows the camp layout and the nature of its buildings allowing direct comparison with evidence from aerial photographs. This was especially useful when looking at North Camp, for which no plan has been found, but which appears to have contained buildings built to the same design parameters identified in the South Camp plan. Ordnance Survey mapping, from 1911 and 1927, showed the camps before and after the war, demonstrating how the camps had influenced subsequent development at Seaford.

Other sources

In 1919, the war artist David B. Milne painted views of North and South Camp. Milne served at the end of the war and passed through Seaford in April-May 1919 whilst undergoing a commission for the Canadian War Records Office to paint the various camps where Canadians had served (Silcox, 1996, 93). They show the layout of huts in various parts of the camp and provide evidence of which architectural features remained after the end of the war. Milne's paintings were accessed via a biography (ibid) and through the internet with images observed on the website Cybermuse <http://cybermuse.gallery.ca>.

Reporting on military matters was restricted during the First World War however, *The Times* newspaper's online archive provided a range of useful articles on military activity at Seaford and post-war use of the area for training. The archive was accessed via Wiltshire Libraries online service.

The internet has been a useful source of anecdotal information on the camp's development. The Great War Forum, a popular internet forum covering many aspects of the First World War: <http://1914-1918.invisionzone.com/forums> was consulted. Another use for internet sources has been in examining the history and organisation of the military units that occupied the camps. Military history is popular and there are many websites on this topic. The most useful to the study has been The Long, Long Trail www.1914-1918.net. This website provides a synthesis of information derived from primary sources on the histories and make up of the different military divisions involved in the war.

Site visit

A site visit to Seaford was undertaken with Luke Barber. The extant archaeological remains were observed and photographed. This exercise allowed an appreciation of the topography, the nature of the archaeology and of conservation issues affecting the site (discussed below). It also identified a new feature not previously noted on the aerial photographs. This visit enabled an in-depth, in situ discussion on the camps especially on the sequence of the construction of the South Camp training trenches.

BACKGROUND

North Camp and South Camp (also known as Chyngton Camp) at Seaford were essentially two halves of the same facility. They were built between 1914 and 1915 as an accommodation and training base for tens of thousands of volunteers. These men formed part of Kitchener's Third New Army, created as a response to the outbreak of the First World War. They mostly comprised units of men that represented their hometown. This organisational style used peer pressure as a recruiting tactic and had a particular appeal to people's local pride. Kitchener made his famous call to arms on the 6th August 1914 requesting 100,000 men (Simkins, 1988, 75). Between 4th August and 12th September, a massive volume of men enlisted. Almost half a million (478,893) signed up for the New Armies and overwhelmed the recruitment offices and military infrastructure (ibid). Mass recruitment continued unabated until 1916 when, after the battle of the Somme, in which many of those in the locally formed units were killed, the enthusiasm for recruitment died and conscription was introduced.

The housing of the New Armies was an immense feat of engineering. Less than a year after the declaration of war, vast hatted camps had been built across the United Kingdom to house 850,000 troops, an unprecedented undertaking (ibid, 251). This rush to accommodate resulted in much flawed decision making and there were many problems with the early First World War camps. These sites had an immense impact on the landscape some of which can be seen to this day.

Over the busy period at the beginning of the war The Army Council, rapidly drew up plans for troop deployment and training, instructing the Peace Distribution Committee to commission a set of plans for a standard hatted camp housing a single battalion (WO163/44). The plans, designed by the Directorate of Fortifications and Works under the command of Major B H O Armstrong, were submitted a mere two days after the order was given (ibid, 234). These plans, along with others for more specialised units, would become the standard model for the camps of the New Armies.

Initial strict orders, from the Directorate of Fortifications and Works, were that requisitions for new training centres and camps were to minimise any damage to civilian property (WO 162/3). Fences and hedges were not to be breached, farm animals not to be disturbed, any excavations were to be filled in with turfs replaced on top and golf courses were not to be traversed (WO 162/3). Whilst minimising local damage and disturbance army planners had to find camp locations that met with pre-defined strategic considerations. Major-General G. K. Scott-Moncrieff then Director of Fortifications and Works had laid out the criteria governing the selection of sites for army camps in the event of large scale war in 1913 (Simkins, 1988, 231). The criteria essentially involved finding sites with good terrain for training purposes, availability of water and electricity and ease of access for supply and movement.

LOCATION

The army already had a presence near Seaford, with coastal defence barracks at East Blatchington. These date from 1794 and were the scene of a famous mutiny (Longstaff-Tyrrell, 2002, 13) but were demolished after the First World War. The First World War camps were situated on flat or gently sloping land in a basin between the Downs to the north and the shelter of Seaford Head to the south (Fig 1). This location provided a variety of landscapes for training and proximity to the utilities and amenities of the town.

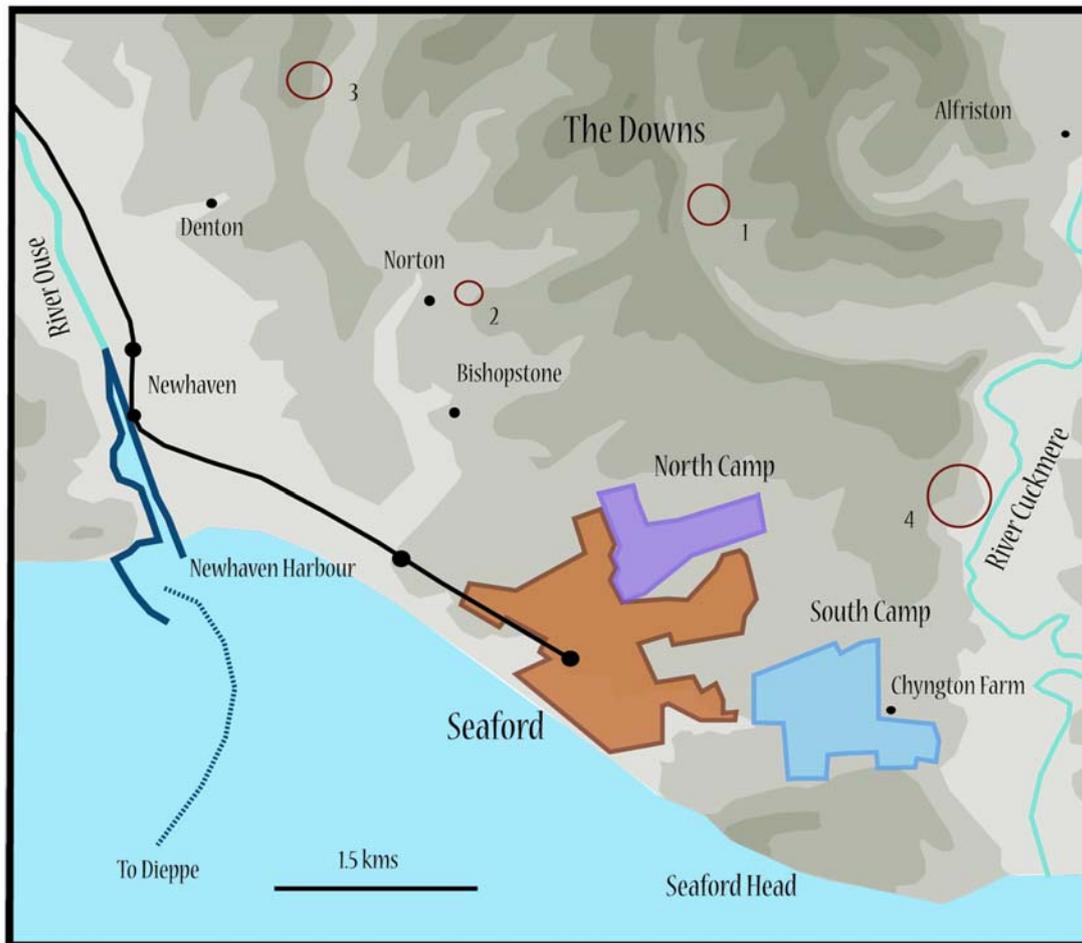


Fig 1: The two camps in relation to the 1911 extent of Seaford town. Red circles indicate training areas. Numbers refer to the section on Training Facilities.

The camps were close to rail services and the important wartime harbour at Newhaven, for the transport of supplies, troops, vehicles and horses (Fig 1). Newhaven was a key departure point for France (Fig 2). Postcards show the proximity of the town to the tented portion of South Camp (Fig 3). It is not known what residents of Chyngton Road beside the golf club, or those at Seaford Ladies College, thought of suddenly being surrounded by 20,000 young soldiers from Wales and the north of England.

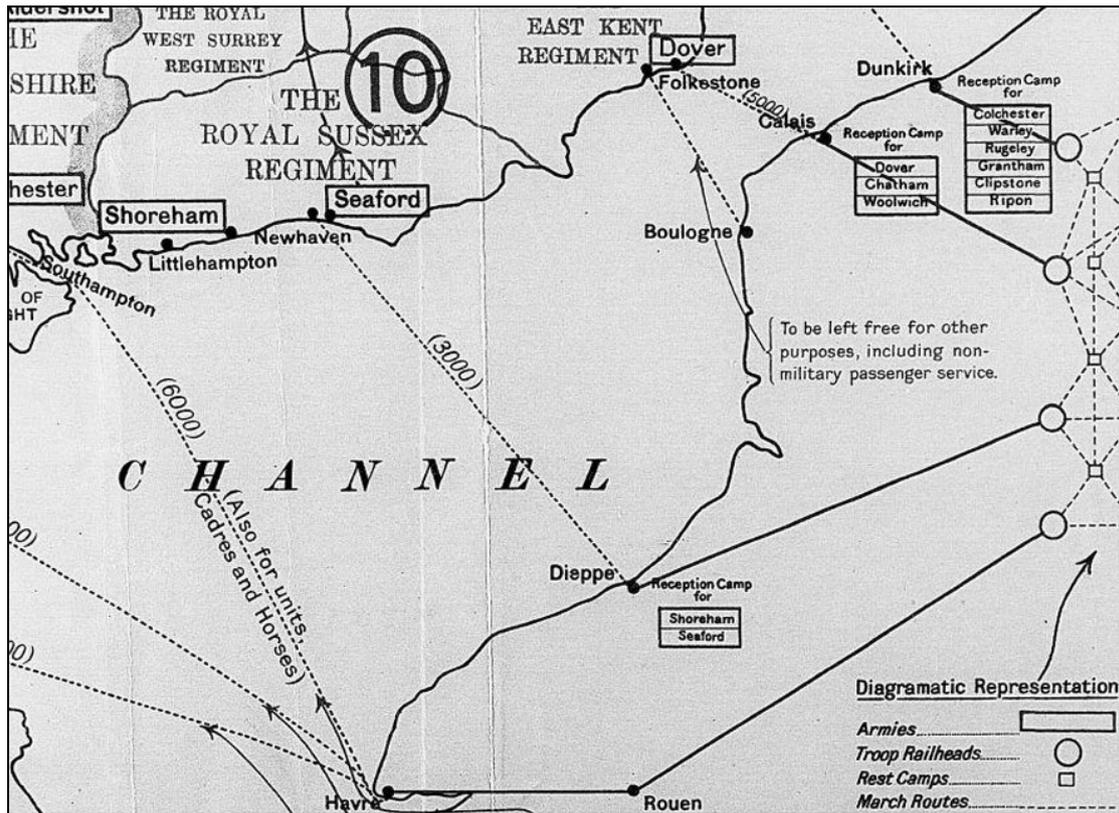


Fig 2: A wartime demobilisation order, showing links to the continent. The National Archives: CAB/24/30.

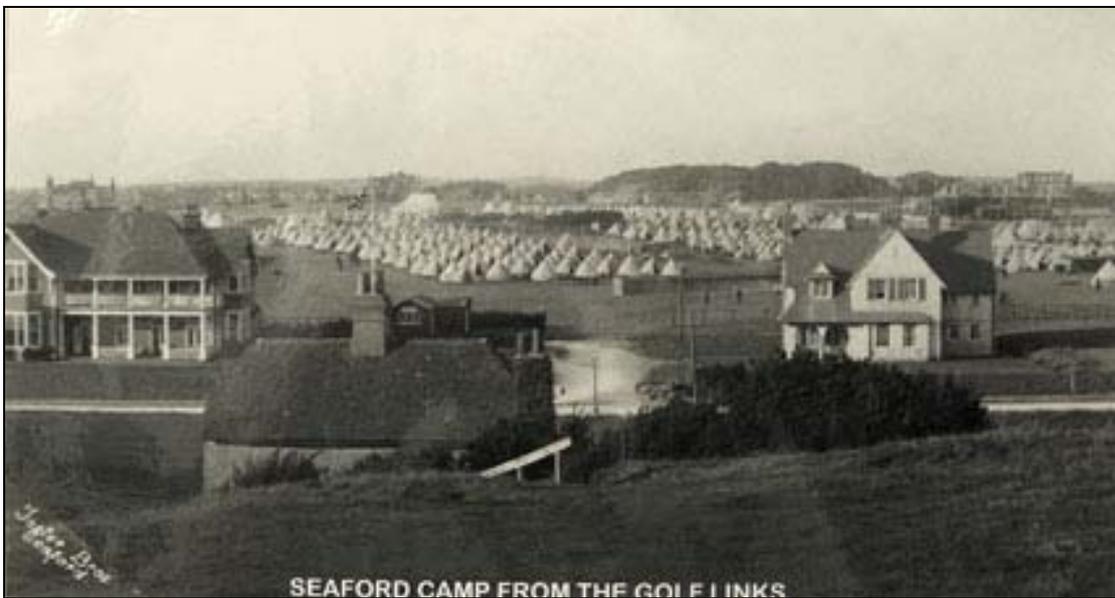


Fig 3: Seaford Camp from the Golf Links. Reproduced by courtesy of Seaford Museum and Heritage Society.

DESIGN

The camps at Seaford were initially built to house and train the 22nd Division. This was a part of Kitchener's Third New Army established under Army Order XVIII (AO 388). This division consisted of regiments recruited from the western and northern command (WO162/3) and as such were mostly men from the northwest of England and Wales. The Seaford camps essentially represent one unit and appear only to have been split into two because of geographical constraints (Figs 4 and 5). The arrangement of the camps largely conformed to the pre-existing layout of fields in the area suggesting that the land was purchased or requisitioned as existing plots. The established field boundaries helped defined both the boundary and some internal divisions of the camps.

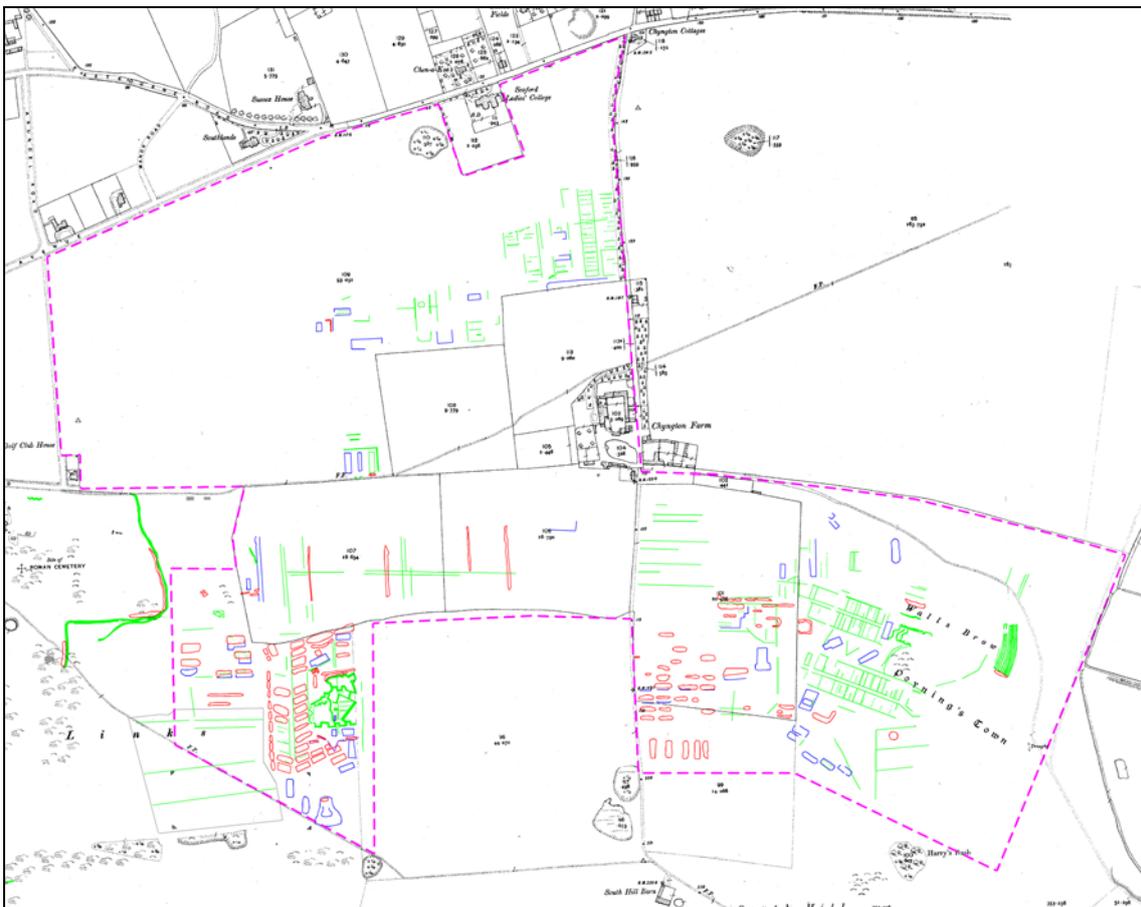


Fig 4: Extents of South Camp, based on the 1916 Royal Engineer's plan, outlined in pink. Aerial photo mapping is in colour, the background is an Ordnance Survey 6" map from 1911. © and database right Crown Copyright and Landmark Information Group Ltd (All rights reserved 2010). Licence numbers 000394 and TP0024.

The extent of South Camp (the larger of the two camps, also known as Chyngton Camp) is depicted on the military blueprint drawn up in 1916 (Q4-54887, Series E-17, Vol 21, File '21' (21-27) 1916-C 'Plans de camps'). Comparing the plan with the aerial photograph mapping it is clear that although there were internal changes, the extent of

the camp was never greater than that shown on the 1916 plan (Fig 4). South Camp stretched from the east end of Seaford Head Golf Course to the edge of the steep decent into the Cuckmere Valley and was roughly 1.5 km long. To the north, the camp extended almost as far as Eastbourne Road and to the south ended at the steep slope up onto Seaford Head. The camp enveloped Chyngton Farm consuming the fields to its south and west but avoiding the land to the north and east, possibly leaving this land for the farm.

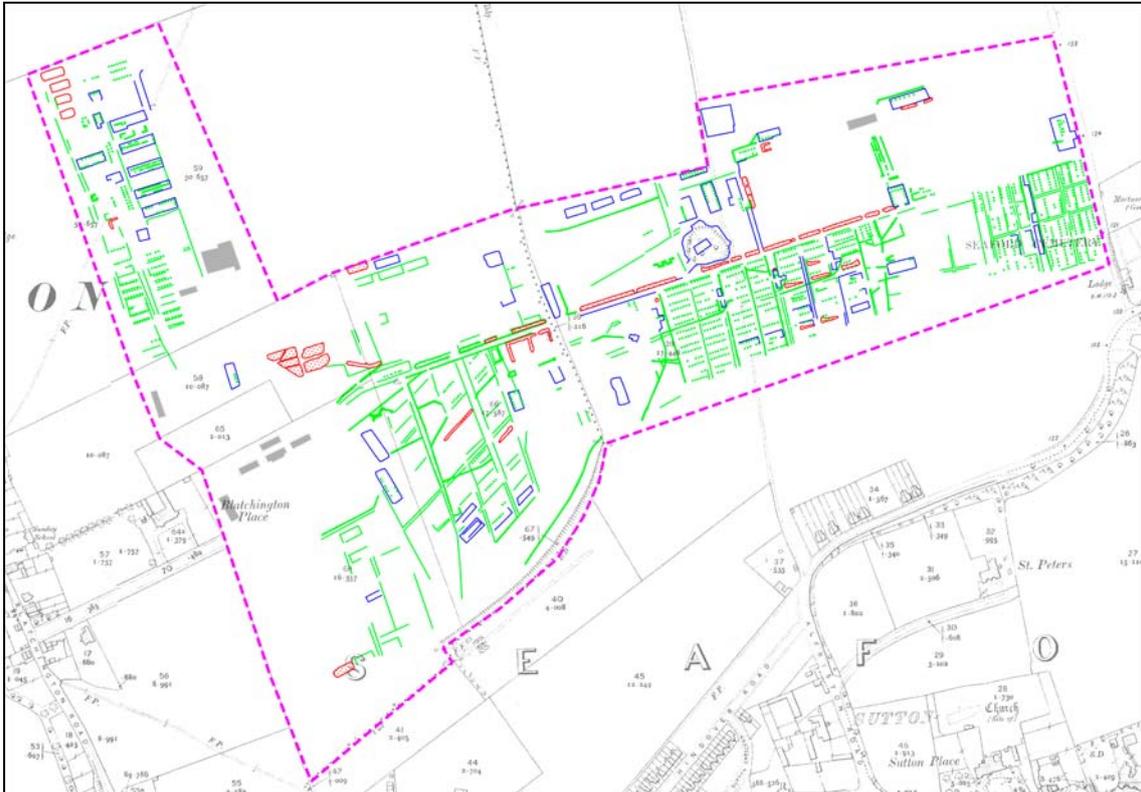


Fig 5: North Camp extents based on the aerial photo mapping outlined in pink. The camp sits within an area of fields and does not encroach on any buildings. Aerial photo mapping is in colour, the background is an Ordnance Survey 6" map from 1911 © and database right Crown Copyright and Landmark Information Group Ltd (All rights reserved 2010). Licence numbers 000394 and TP0024.

North Camp was smaller than south camp and occupied an area of farmland to the immediate east of East Blatchington, a village suburb of the town (Fig 5). There is no known blueprint plan of North Camp. However, the archaeological features seen in aerial photographs from the 1940s and 1950s repeat elements of the layout seen in South Camp.

LAYOUT

South Camp is depicted on a 1916 plan subdivided into numbered areas. Each area comprised a parade ground around which were arranged a group of buildings including 40 huts. The areas of South Camp are numbered 6-15. That areas 1-5 are in North Camp is suggested by the aerial photographs which show five parade grounds each surrounded by the remains of the same pattern of buildings (Fig 6).



Fig 6: Suggested layout of North Camp. Air photo mapping in colour, information from the 1916 plan in black.

This internal arrangement of the camps in part reflected the organisation of the troops stationed there. A First World War British infantry battalion consisted of around 1000 men and about 35 officers (Schofield, 2006, 5). The designs of Major B. H. O. Armstrong proposed a standard hut that would accommodate thirty men (Simkins, 1988, 234). The grouping of 40 of these huts with each parade ground means that each area could provide accommodation for a battalion of up to 1200 men and that Seaford could accommodate 15 battalions.

This organisation conforms to the initial order of the 22nd Division. The division consisted of fifteen infantry battalions separated into the 65th, 66th, 67th Brigades and the divisional infantry (www.1914-1918.net/22div). In his study of British army camps Schofield defines a standard First World War camp as accommodation for 12 battalions or 3 brigades or regiments (Schofield, 2006, 6). At Seaford the logical conclusion is that the camps were together slightly larger than the standard division as defined by Schofield, designed to accommodate and train the 22nd Division's 15 infantry battalions, therefore the two camps were designed to house between them approximately 18,000 men.

Although each battalion's buildings and facilities were standardised the layouts varied throughout the two camps due to topographic constraints. In most areas, the 40 barrack blocks were separated into four rows. It is likely that these rows corresponded to the four companies into which a battalion was divided. Each battalion unit contained a parade ground, an open area approximately 150 yards by 100 yards (137 x 91 meters) (Fig 7). These parade grounds were bounded by earthworks with gaps corresponding to entrances to the specific barrack blocks. These earthworks are clearly visible on the aerial photographs that depict North Camp.

In every unit, the battalion HQ buildings were located away from the barrack blocks maintaining a physical distance between the officers and the men and were immediately adjacent to the parade ground presumably so that inspections could be conducted efficiently. The HQ buildings consisted of three Officer's Quarters, one Officer's Mess and a Sergeant's Mess. In addition, each HQ had an office building/guard house, which was also usually positioned adjacent to the parade ground. It appears that the Parade ground formed a central space for the battalion, the courtyard to its official buildings. Each battalion also had access to a Regimental Institute an 'institute provided by a regiment for the improvement of the soldiers and to reduce excessive drinking' (<http://thesaurus.english-heritage.org.uk>).

Sanitary requirements were also provided for each battalion in a standardised fashion. Each row of barrack huts had an ablution, latrines and urinals block for washing and toiletry needs. The battalion also had access to a bathhouse and drying room and a trio of buildings consisting of a cookhouse and two wash-ups, located beside or amongst the barrack huts. Also provided, within reach of the cookhouses, were coal yards for storing fuel. This distribution suggests that the Seaford camps had suffered with Kitchener's cuts to the camp building programme, implemented in the winter of 1914/15 (Simkins, 1988, 242). The original Armstrong designs included large central, communal eating halls however Kitchener considered these as 'luxuries' and many camps were constructed without them. The blueprint plan of South Camp depicts no such buildings and the localised cookhouses embedded with the battalions suggest that food was prepared near the huts and eaten by the men in their individual barracks.

Each battalion also appears to have had access to a cluster of buildings concerned with storage and transport. Transport consisted of horse drawn carts and wagons for carrying heavy weapons such as machine guns, ammunition and stores. A battalion maintained 13 riding and 43 draught and packhorses (<http://www.1914-1918.net/whatbatt>) all of which were kept in stables attached to the battalion's camp unit.

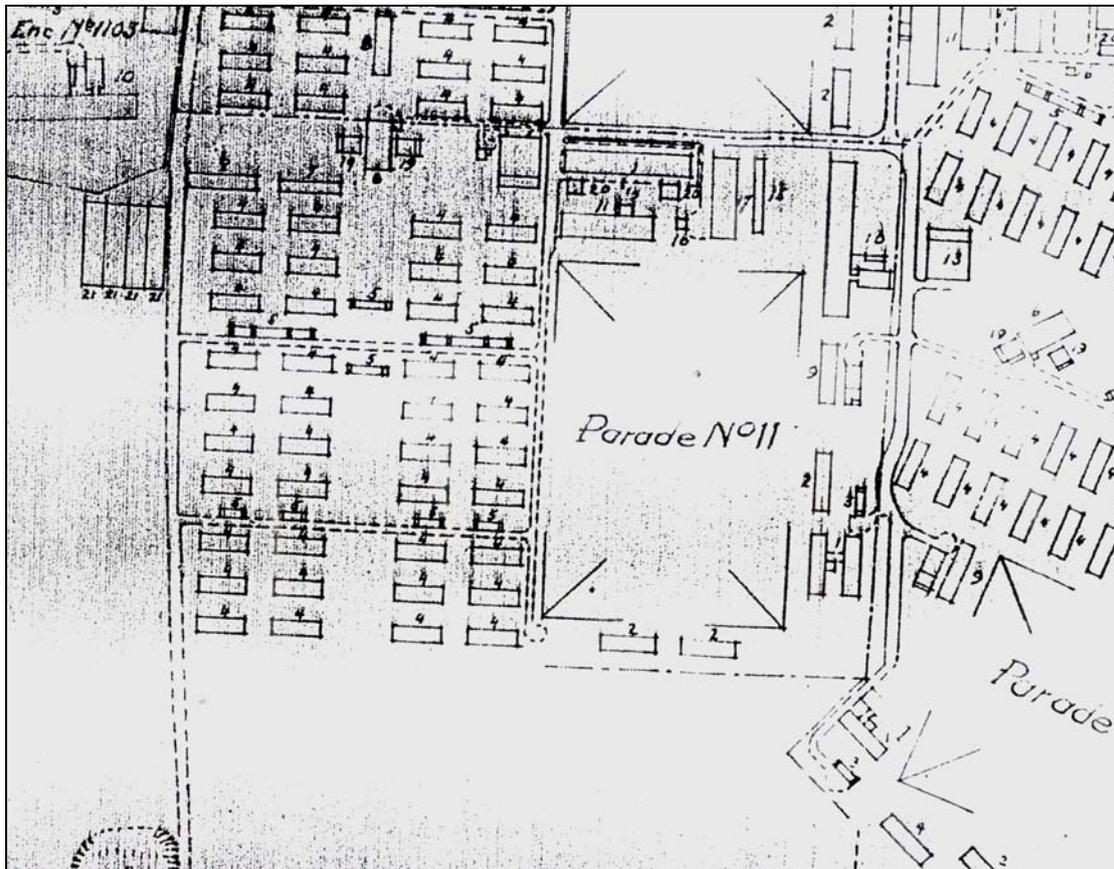


Fig 7: A typical battalion unit at South Camp. The barracks, and washing and cooking amenities are to the west of the parade ground, the HQ buildings are located to the south and east, and the storage and transport facilities such as stables are to the north. Canadian National Archives Reference: Q4-54887, Series E-17, Vol 21, File '21' (21-27) 1916-C 'Plans de camps' Crown Copyright, The National Archives, UK.

The layout and form of the camp landscape communicated concepts of hierarchy and order. Army life was about relinquishing personal identity for a group identity. This was reinforced through the organisation of inhabited space within the camp with the battalion pattern repeated with little creativity or variation. The larger more important buildings, the preserve of the higher ranks clustered around the central space of the parade ground. The men dwelt together in identical huts ordered as their lives were by the military

system with no individual identity in the space provided for them. The layout expressed the military ideal of operating as a unit with the parade ground functioning as a central space for the group entity to gather and present itself as one. Soldiers, fresh from a civilian background, would learn to relinquish individuality, live as a unit and present themselves as a unit in a set fashion on special ground within sight of their officer's quarters, their local offices and facilities.

The Armstrong barrack blocks are all of a standard 60' x 20' with the officers quarters slightly larger at around 90' x 30' (Schofield, 2006, 5). The other buildings also seem to conform to a standard size repeating patterns throughout the camps. As well as recording buildings that survived demolition, the aerial photographs show many of the foundations and other ground works. For example the RAF aerial survey of 1951, used for much of the transcription, shows a high level of detail especially for North Camp recording earthworks, postholes and ditches and even revealing the camp's drainage system (Figs 8 and 9).



Fig 8: 1951 Aerial photograph showing the buildings beside a parade ground. NMR RAF/58/613 4237 05-APR-1951 English Heritage (NMR) RAF Photography.

Figure 8 shows one of a few Armstrong Huts surviving in 1951, possibly maintained as an agricultural building. Building foundations can be seen including the holes for the supporting piers. The foundations of a coal shed can be identified at the bottom right of the parade ground. The shed appears to have posts for a walls and roof but with a central open space and a wide entrance onto a camp road presumably for vehicle access.

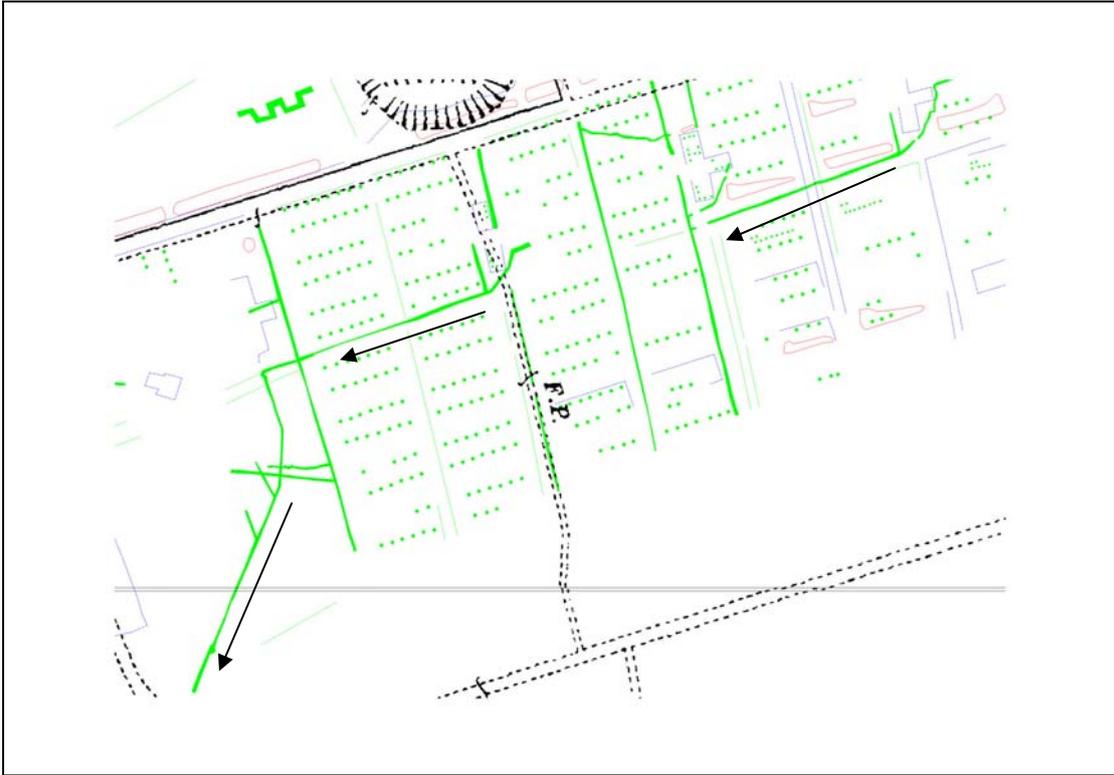


Fig 9: Plan of probable drainage ditches at North Camp. The arrows indicate the direction in which water would have flowed. Background is an Ordnance Survey 6" map from 1911 © and database right Crown Copyright and Landmark Information Group Ltd (All rights reserved 2010). Licence numbers 000394 and TP0024.

Figure 9 shows drainage ditches extending away from the three building clusters that resemble the cookhouse/wash-up combinations seen in South Camp. This seems a logical pattern for drainage ditches to follow. The ditches are not so obvious on aerial photographs from 1948 and it is possible to speculate that by 1951, the drains had been opened and the pipes salvaged, possibly because of post-Second World War shortages.

Viewing the foundations and other ground works at the camps allows an interpretation of the function of the various buildings. For example, substantial buildings had many rows of post piers to support their weight. Coal yards consisted of an open yard with a wide entrance for vehicular access (Fig 8). The buildings were located on levelled areas, sometimes on an earthwork terrace or a cut into the ground depending on the topography (Fig 10). Sometimes a herringbone layout was used enabling hut platforms to be built in parallel with the slope. Certain buildings such as cookhouses and drying rooms always seem to have a deep cut for the foundations.

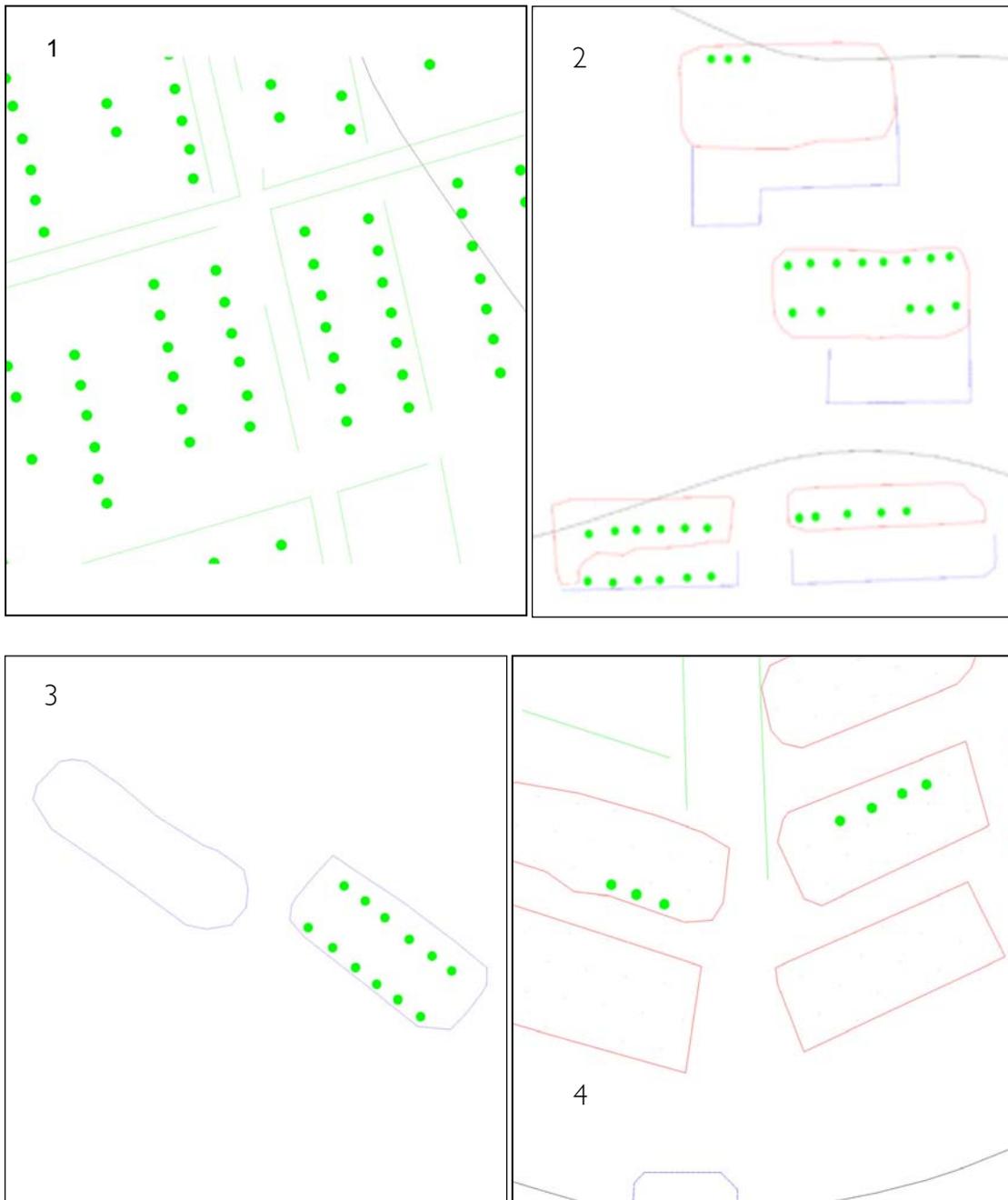


Fig 10: Different styles of building foundation as shown on the aerial photograph mapping.

Figure 10 shows the various layouts of the buildings. Figure 10.1 shows barrack huts constructed on a level surface with drainage ditches. Figure 10.2 shows barrack huts cut into the slope of the hillside with a raised earthwork to create a level platform. Figure 10.3 shows barrack huts constructed within a cut area. Figure 10.4 shows: barrack huts constructed on a raised earthwork platform in a herringbone pattern that follows the contours of the slope. The huts are all approximately 20m long.



Fig 11: The deep building cut for the drying room associated with the battalion unit based around parade ground 10. Author's photograph.

The cut for a drying room is preserved in scrubland to the east of Seaford Head Golf Course (Fig 11). It is likely that this was designed to improve air circulation through the building.

Schofield describes the standard design and materials used for the Armstrong hutments. Brick piers were initially used but were replaced by woodpiles, as bricks became scarce (Schofield, 2006, 5). A hut platform still visible at Seaford has a brick pier in situ (Fig 12). However, it is possible that other camp buildings used wood. Schofield describes the standard hut building material as red fir scantlings (ibid). This material was likely to have been used at Seaford as the huts depicted in the postcards are mostly of a light wood, which in colour images has a reddish tint (E.g. in Figs 13 & 18). Figure 13 shows some of the huts under construction with piles of planks and huts with no windows, the dark roofs are likely to be tar covered. Several huts survived post war many being sold off and used as private dwellings, this process is described in a later section of this report.



Fig 12: Image showing an extant hut platform with brick pier. Author's Photograph.

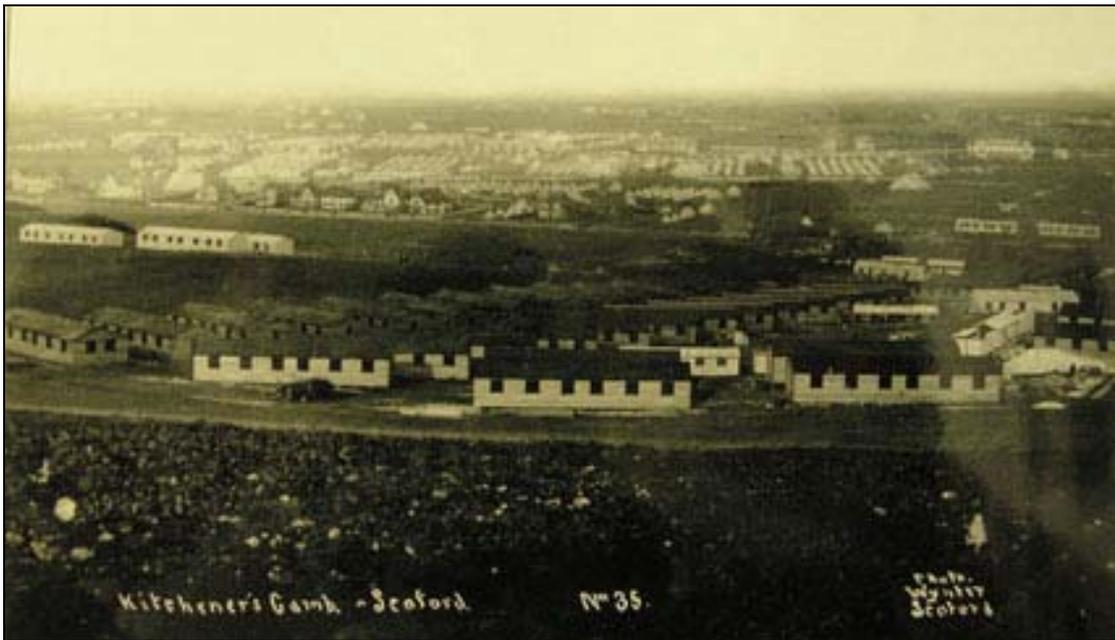


Fig 13: Postcard of South Camp with construction work in the foreground and a large tented area in the background. Reproduced by courtesy of Seaford Museum and Heritage Society.

The area illustrated in Figure 14 presents more of a challenge to interpretation. The building's foundations seen here deviate from the pattern in the rest of the camp. The area contains a row of five large rectangular buildings, supported on many posts. The buildings share the dimensions of the large standardised storage buildings (e.g. vehicle stores, stables) from elsewhere in the camps at approximately 120' x 30' (37 x 9 meters). It is unusual in that these large buildings are clustered together in a pattern that has no comparison in South Camp where, according to the plan, each battalion would have a couple of large buildings for specific purposes. As it is unique, it is possible that this area had a specific function at a divisional level. There is evidence of a detachment of Canadian Engineers, a motorised machine gun depot and a recycling depot at the camp (Luke Barber pers. comm.) all of which have undisclosed locations. This northwest area of North Camp is a strong candidate for the location of this distinctive activity or may have been the location of the divisional HQ (See Figs 6 & 14).



Fig 14: Image showing a 1951 aerial photograph overlaid with the mapping depicting the unusual northwestern part of North Camp. NMR RAF_58_613 4235 5-APR-1951. English Heritage (NMR) RAF Photography.

Another area of the camp with aerial photographic evidence for variation from the original design is the far eastern end of South Camp. The area appears to have witnessed physical changes that deviated from the 1916 plan. On the aerial photographs several hut bases appear in the area defined as Parade 11 as does an earthwork feature on the edge of Parade 13 (Fig 15). Rows of possible hut foundations, or training features, extend to the northeast. These are not depicted on the 1916 plan and their function is unknown. It is possible that as the war progressed more accommodation was needed and parade grounds became less important. It is possible that parade and ceremony become secondary to the other functions of the camp as reinforcements were being rushed through their training in the face of mounting casualties.



Fig 15: Diagram comparing part of the 1916 plan with the mapping for the east end of South Camp. Note the hut foundations located on parade ground 11 and the L-shaped earthwork on parade ground 13 (bottom right). Canadian National Archives Reference: Q4-54887, Series E-17, Vol 21, File '21' (21-27) 1916-C 'Plans de camps' Crown Copyright, The National Archives, UK.

CONSTRUCTION AND OCCUPATION

Across Britain, the rush of volunteers and lack of infrastructure meant that many of the men of the New Armies were accommodated in half built camps, often under canvas, well into the late autumn and winter months of 1914. Overcrowding, hurriedly built poor quality huts, flooded bell-tents and badly organised provision for food and supplies were common experiences (Simkins, 1988, 231-55). The evidence suggests a similar story at Seaford. Construction carried out there in the autumn of 1914 was piecemeal and unsatisfactory and poor conditions at the camp persisted into the grim winter of 1914-5. In December 1914, there is a record of strike action at Seaford, by a predominantly Welsh regiment. The men were in protest at the muddy conditions and remoteness of the huddled accommodation. After three months of endurance, they felt that their treatment was unfair, that mistakes had been made and that, although they expected a rough time in France, they did not expect such poor treatment in England. When the men eventually rebelled and went on strike they were initially threatened with execution, however the authorities saw reason and the men were billeted in Hastings or given temporary leave (ibid, 243-4).

By the end of December 1914, in response to the complaints, the entire 22nd Division stationed at Seaford were moved into billets (www.1914-1918.net) whilst the camp was properly constructed. The complaints of long muddy walks suggest that the initial camp lacked fundamental infrastructure such as roads and drainage. Surfaced roads were constructed and a contemporary postcard illustrates the process (Fig 16). It is likely chalk for the camps came from the large quarries to the south of South Camp on Seaford Head. There is also evidence from field walking that road surfaces were partially reinforced with slag from camp furnaces (Luke Barber 2010 pers. Comm.). This suggests that the roads were constructed or at least reinforced after the camp was occupied. It seems that the hurried initial construction at Seaford may have been to provide roofs for the troops and that the camp was not fully completed until after men were stationed there.

Official documents dating from September 1914 refer to the Seaford camps (WO 163/44). One simply records 'camping grounds east of Seaford,' presumably a reference to the early South Camp. A document dating from 18th September 1914 refers to the Seaford camps as a training centre with temporary billets around Lewes, Eastbourne and Hastings suggesting that at this time a proportion of the accommodation was provided away from the camps. Tents clearly provided at least some of the accommodation during this phase. Various postcards depict a large area of tented accommodation to the west of South Camp. It is likely that these images depict the camp before its completion during the autumn of 1914 as one of the images shows the barrack huts during construction (Figs 3 and 13) with the tents covering a vast area in the background. It is likely that tented accommodation remained in use providing extra space during the summer months.



Fig 16: Postcard showing the laying down of a chalk road surface. Reproduced by courtesy of Luke Barber.

After the initial problems during the winter of 1914-1915, the 22nd division returned to Seaford in the spring, by which time the camp was fully constructed, before leaving for France in September 1915. The 22nd Division pursued a wartime career fighting in the Balkans notably at the Battle of Doiran (<http://www.1914-1918.net/22div.htm>). The 22nd were joined at Seaford in July 1915 by the 36th Division who presumably, as it was the summer, utilised tented accommodation as little space would have been available for accommodation within the huts. The 36th was an Ulster Division made up of volunteers mostly from the protestant Ulster Volunteer Force. They occupied the Seaford camps until October 1915 when they were sent to France seeing action in many major campaigns such as The Somme, Ypres and Cambrai (<http://www.1914-1918.net/36div.htm>).

From 1916, the camps were occupied by the Canadians who may have been responsible for some of the structural changes suggested by evidence on aerial photographs. Further documentary research to explore this part of the camps' history could be undertaken in the Regimental Records at The Canadian National Archives in Ottawa. Canadian use continued until the after the end of the war by which time the camp was used to hold Canadian troops waiting to be sent home. In 1919, two thousand frustrated Canadian men stuck at Seaford rioted after one of their fellows was beaten and arrested by a camp picket (guards or military policeman) for walking with his hands in his pockets (*The Times*, May 12, 1919; pg.9). Shortly after this incident, the Canadians were shipped back to Canada and the camps were closed. The bleak post-war mood at Seaford Camp was

captured in the paintings of Canadian artist David B. Milne. Milne found little inspiration on the South Downs, painting without enthusiasm, as he waited for an opportunity to pursue his ambition to head over to the continent and paint the battlefields of France (Silcox, 1996, 100). The eight paintings depict the repetitive architectural style of the huts, and capture the mood as it must have been at this time. They are considered the 'least distinguished' of his wartime group but evoke the atmosphere at Seaford after the war (ibid, 100). The painting of David B Milne can be viewed on the website Cyber Muse: <http://cybermuse.gallery.ca>

WELFARE AND RECREATION

Various welfare buildings, mostly of a religious nature, were constructed at the Seaford Camps. Unfortunately the locations of the specific welfare buildings as depicted in the South Camp plan are built or ploughed over on the aerial photographs, consumed by Seaford's early 20th century urban expansion. The YMCA was the most prolific; a major provider of welfare services for soldiers supplying food, drink, free writing paper and envelopes from their large huts. South Camp had two large YMCA huts that were allegedly opened in April 1915 ('Kevin' at The Great War Forum: <http://1914-1918.invisionzone.com/forums>). One was located in the far east of the camp the other in the western area that was occupied by tents. This western YMCA is depicted in the postcard image (Fig 17) which shows it sited in a relatively open area a short walk from the bulk of the camp.



Fig 17: Postcard of the South Camp YMCA hut and relatively few tents in the tented area
Reproduced by courtesy of Seaford Museum and heritage Society.

The YMCA was not alone in providing camp welfare. In the tented area alongside the YMCA, there were huts for the Salvation Army and the Church Army. In addition, the Church of England, a fervent supporter of the war, maintained a hut in the centre of the camp. Using documentary and photographic evidence, it is possible to position the North Camp YMCA at a location overlooking the pond above Blatchington Road (Luke Barber pers. comm.). A comment on The Great War Forum mentions that the North Camp had a locally run welfare institute called 'The Rally.' ('Kevin' at The Great War Forum: <http://1914-1918.invisionzone.com/forums>). It is not known exactly where this facility was and it may have been outside, to the west of South Camp (Luke Barber pers. comm.)

South Camp also incorporated the adjacent mansion of Ravenscroft, immediately north of the camp. This large building was a girl's school, requisitioned by the army in 1914, which was used as an auxiliary military hospital. Canadian Army orders of November 1916 state: '2nd Lt.-Col. E. Seabom, 2 medical officers, Quartermaster and 35 other ranks report for the purpose of taking over Raven's Croft hospital ... 5th. Raven's Croft military hospital taken over, bed capacity approx. 100 ... A school building but occupied by RAMC as a military hospital since 1914'.



Fig 18: Postcard of the South Camp cinema. Reproduced courtesy of Seaford Museum and Heritage Society.

Provision for new forms of recreational activity is also evident at the camps and a postcard image shows a cinema at South Camp (Fig 18). The cinema building resembles a standard Armstrong Hut. Judging by the layout of nearby buildings and the topography it is likely that the Cinema was located in the south west of the camp probably within a Regimental Institute building (Fig 19). Cinema could have suited the sober, educational recreation promoted by the institute. The sign on the building's wall states 'Spontaneous Performance' suggesting that the facility was probably quite informal. First World War cinema offered an evening's entertainment and news information about the war including patriotic 'Rolls of Honour' detailing the wounded or dead. Propaganda films were frequently shown such as the 1915 'Britain Prepared' and the 1917 'Women's Land Army' and films that, although patriotic, began to depict the true nature of the conflict such as the highly acclaimed 'Battle of the Somme' released in 1916 (<http://www.filmreference.com/encyclopedia>).

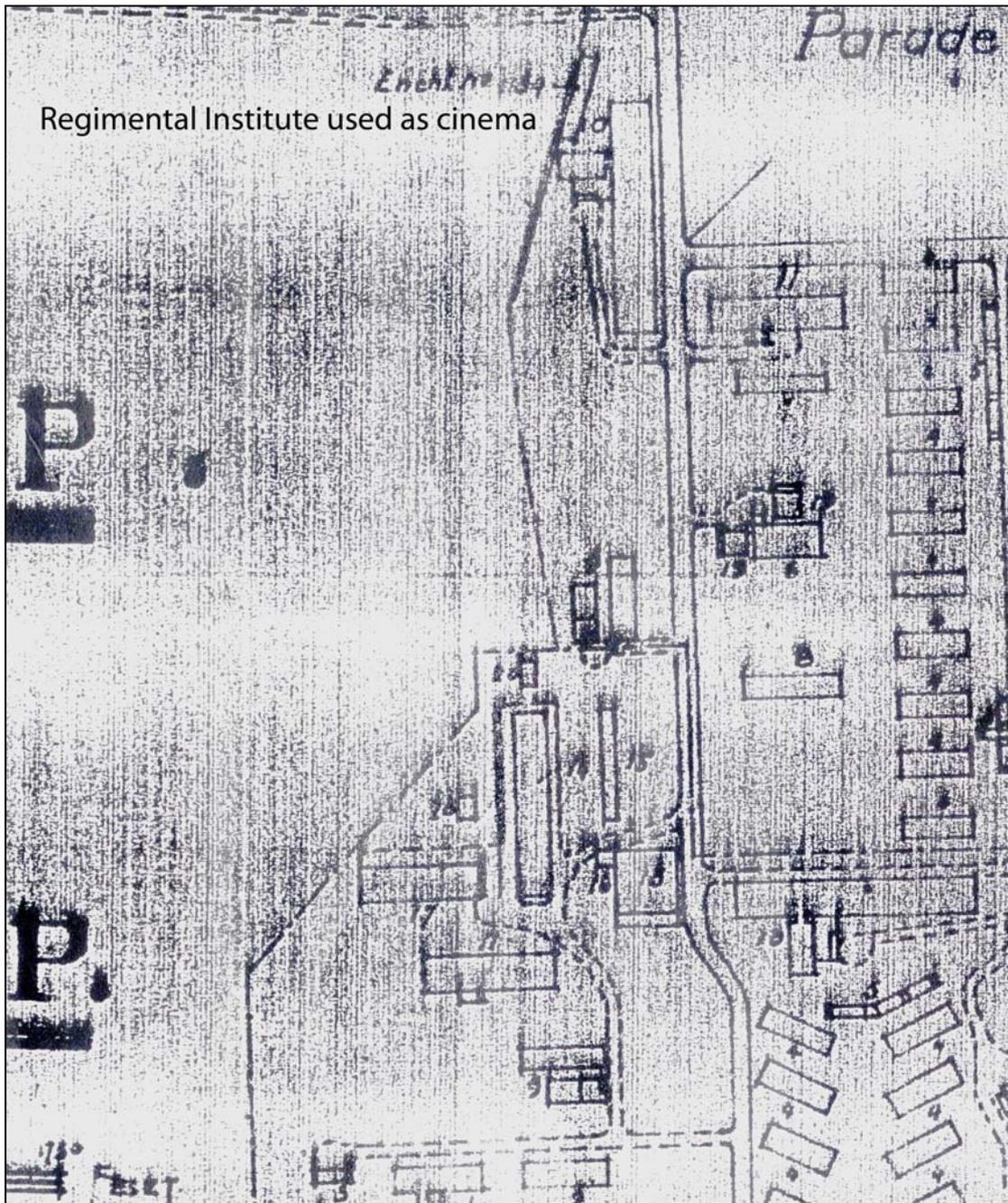


Fig 19: Diagram showing the location of the cinema in the camp (middle top). The view in Fig 18 would be from about the mid-left of the plan. Canadian National Archives Reference: Q4-54887, Series E-17, Vol 21, File '21' (21-27) 1916-C 'Plans de camps' Crown Copyright, The National Archives, UK.

TRAINING FACILITIES

There is practice trenching at three locations on the Downs to the north of Seaford, and in the Cuckmere Valley (Fig 20). Trenches developed as linked firing dug outs and became lines of defence (Smith, J, 1917, ix-x). Standard systems consisted of a front 'firing line' linked to two or more cover or support trenches. Although other designs existed, the common method was to use a traversed trench that formed an unbroken crenulated pattern of alternating traverses and fire bays. This system would minimise damage from artillery by localising the effect of shells and bombs (ibid, 11). The crenulated trench lines would be linked to communication trenches. These also varied in design but tended to consist of a zigzag pattern designed to allow rapid movement between the lines but still restrict blast damage and, to enable any hostile take over to be resisted more easily (ibid, 53-4).

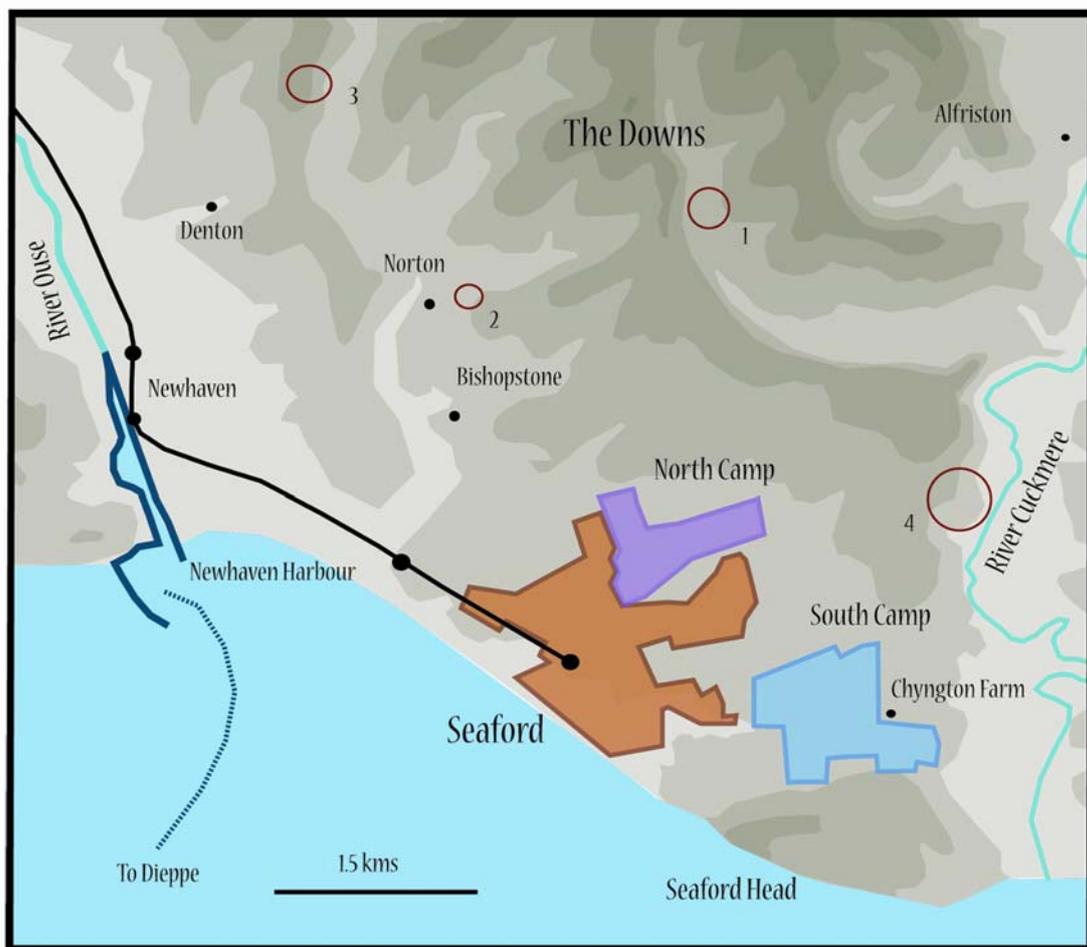


Fig 20: The location of the two camps in relation to the 1911 extent of Seaford town and the local topography. The Red circles indicate the training areas.

Trenching can be seen 2 kilometres to the north of North Camp on the far side of a steep drop into a vale, possibly conceived as a training feature itself (Fig 20, area 1; Fig 21).

Further works can be seen in fields beside Norton Farm, also roughly 2 kilometres from North Camp, (Fig 20, area 2) and on fields to the north of Newhaven some 4 kilometres to the north west of North Camp (Fig 20, area 3). In addition to the high downland, the Cuckmere valley provided an ideal training location and was used extensively for trenching and weapons practice, including the use of a gas chamber, and for engineering activities such as bridge building (Luke Barber pers. comm.). This low lying riverside landscape with its marshes, channels and coastal estuary provided a contrast with the steep hills of the Downs adding variety to the training landscape. Evidence of training activity was seen on aerial photographs of the Cuckmere valley (Fig 20, area 4). The Sussex Archaeological Society has excavated some of the trenching and grenade firing ranges (Luke Barber pers. comm.).

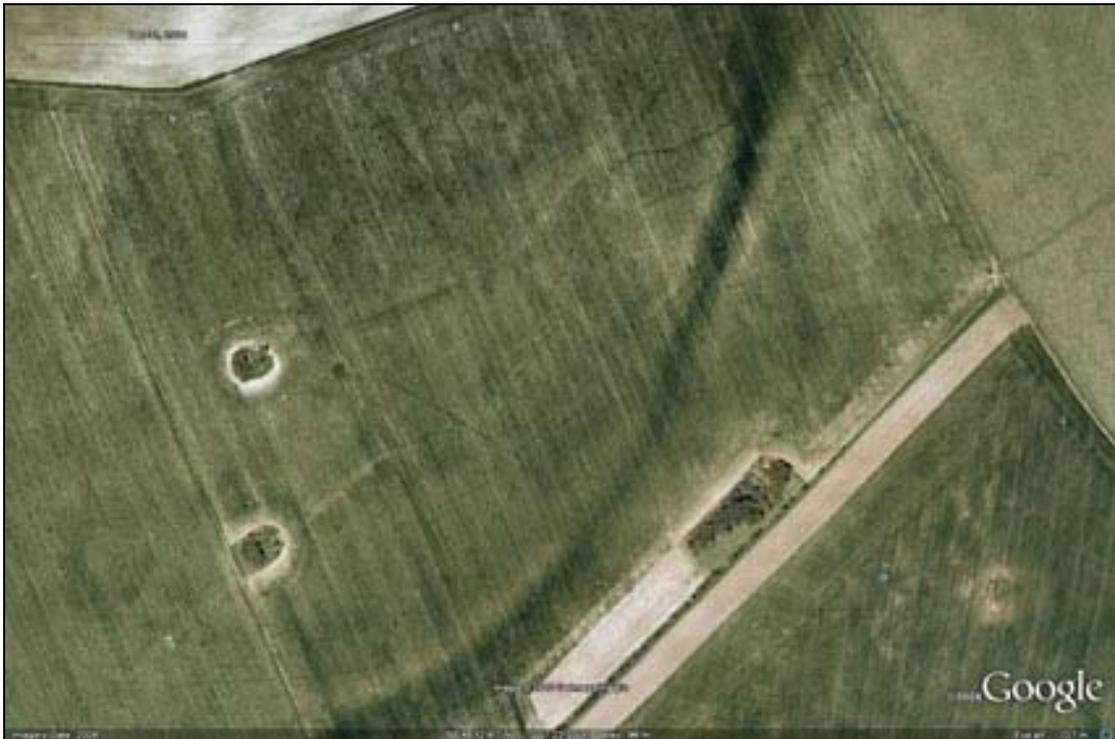


Fig 21: Aerial photograph showing practice trenches visible as cropmarks on the downs 2km to the north of Seaford North Camp. © 2009 Google, Image © 2011 Getmapping plc.

As well as distant training areas, two trench groups are visible on aerial photographs at South Camp. The trenching located on the east of the camp is seen as earthworks on 1951 aerial photographs. Two crenulated lines exist linked by a series of zigzag communication trenches (Fig 15.) The dimensions of the firing line are roughly 9'x 9', which conforms neatly to Smith's recommendations for the size of traverses (Smith, 1917, 11). It is assumed then that these trenches, which have since been levelled, date from the First World War.

The second group of trenches still survive as earthworks situated to the south near Seaford Head Golf Course. These possess a more complex sequence that cannot be accurately dated to the First World War (Figs 22-24). This area has been a focus of fieldwork carried out by Luke Barber and The Sussex Archaeological Society who are attempting to unravel the chronology of this rare survival of training trench works. Historic aerial photographs are an essential resource as much of the site now lies under dense scrub.

Originally the trenches were assumed to be of a First World War date however Butler reports that a local member of the Territorial Army claimed to have participated in trench construction in 1938 (Butler, 2007, 50). The most compelling evidence of a post- First World War date comes from aerial photographs. Mapping from 1940s and 1950s aerial photographs show that a significant part of the trenching overlies WWI hut foundations (Figs 22-23). These huts are depicted on the 1916 plan, are seen on several wartime postcards and are shown in the paintings of David B. Milne that date from 1919. This suggests that at least part of the trenching must post-date the demolition of this part of the camp. Aerial photographs from 1942 show some of the trenches looking freshly dug supporting a 1938 date for construction (Fig 23). These photographs also show barbed wire and vehicle tracks near the trenches, suggesting that this area was used for training in the Second World War.

The trenching annotated 1 on Figure 22 may be the oldest in the group. It is located within an open area of the camp and appears to be truncated by a communication trench running from north to south. The trenching is partially filled in by 1942, as shown in Figure 23. The area annotated 2 on Figure 22 may indicate a row of slit trench dugouts, which also seem later than the trenching at 1. In the area annotated 3 on Figure 22, the trenching clearly overlies the row of hutments. In the area annotated 4 on Figure 22, part of the trenching consists of an Island Traverse, a form of trench defence utilised in the First World War to defend a straight communication trench (Smith, 1917, 61). This also overlies the huts further illustrating the continuing use of First World War trench designs after the end of that conflict.

The trenching, which may be of a First World War date (Fig 22 area 1), could be a model demonstration trench. There is, however, a problem with this interpretation as a post card image dated January 1915 clearly shows the open area from a vantage point on the slopes of Seaford Head and it contains no sign of a trench. This does not rule out the notion that the trench could have been dug later during the conflict just that it was not a part of the initial camp construction. Alternatively, the earliest phase of trenching may date from between the wars; newspaper reports show that military training activity continued in the area (see below, page 34). Further unravelling of the sequence of trenches at Seaford South Camp could be achieved by analytical field survey and targeted excavation.

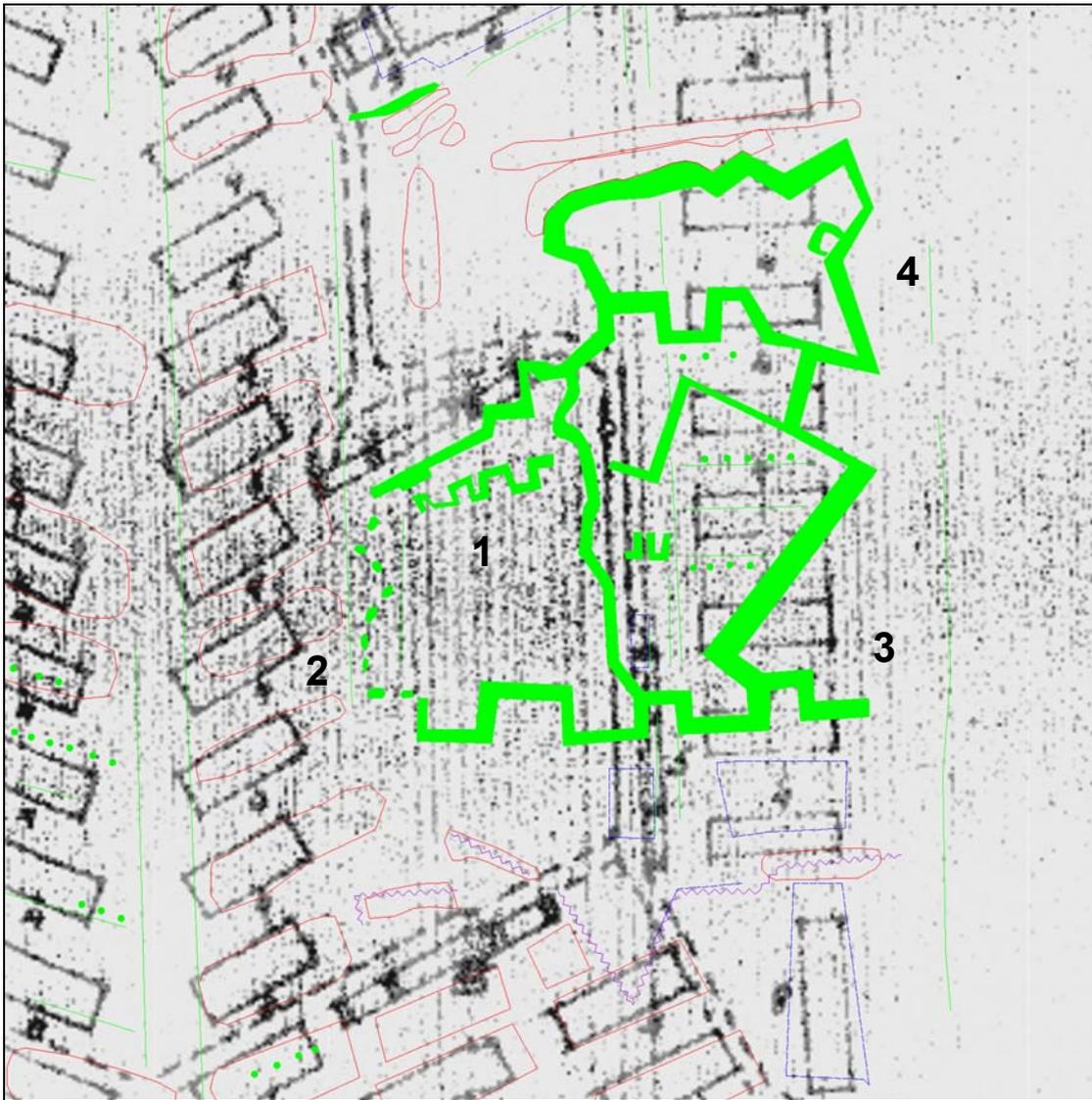


Fig 22: The trench works seen on aerial photographs on the south side of the camp overlaid onto the 1916 plan of South Camp (Canadian National Archives Reference: Q4-54887, Series E-17, Vol 21, File '21' (21-27) 1916-C 'Plans de camps' Crown Copyright, The National Archives, UK).



Fig 23: Aerial photograph from 1942 showing the trenches looking freshly dug out of the chalk. Note the vehicle tracks and the V-shaped arrangement of barbed wire (lower centre of photo) all suggestive of Second World War military activity at the trenches. NMR RAF/HLA/538 6 11 08-MAY-1942 English Heritage (NMR) RAF Photography).



Fig 24: Extant trenches. These partially filled in features are probably from the earliest phase of activity (see Fig 22 1). Author's photograph.



Fig 25: *The larger, probably later, trenches. Note the damage from motorbikes.* Author's photograph.

POST WAR LANDSCAPE

After the First World War, the army continued to use land at Seaford for training. Schofield's gazetteer of army camps in the southeast records that in 1921 Seaford had 99 officers and 2309 other ranks in residence (Schofield, 2006). This roughly equates to two battalions however, it is unclear if these were stationed in the remains of the First World War camp. Throughout the following two decades, the army's use of the area appears to have been pushed away from the town by its urban expansion. In 1927, camps and training grounds are described beside the Eastbourne Road, (*The Times* 25 Jul 1927; pg.19) to the northeast of South Camp. In 1935, Seaford Camp is described as being surrounded by houses (*The Times* 9 Aug 1935; pg.15). By the 1930s, the army had moved on from the Armstrong hut using instead Light Construction barrack blocks and the more permanent Sandhurst Block design (Schofield, 2006, 9-12). Although it is possible to speculate that the changes seen on Parade Ground 11 in South Camp may represent the construction of new types of barrack in the post war decade it does not appear to have been on a large scale and is not depicted on OS mapping from 1927. It is likely that most of the First World War barracks at Seaford were removed at the end of the war and that further army accommodation in the area occurred at different locations.

There is evidence from 1920 that at least some of the barracks were broken down and sold off. *The Times* ran a series of advertisements in May and August on behalf of the Ministry of Munitions offering Huts and building materials for auction that included lines of huts from both North and South Camps (*The Times* 1 May 1920; pg. 10 & 12 Aug 1920; pg. 6). Ordnance Survey mapping from 1927 shows some of the North Camp huts left in situ scattered within a layout of camp roadways (Fig 25). This layout is also observable unchanged, on the aerial photographs, up until at least 1960 when a new estate was built.

In the same manner in which local field boundaries and roads became part of the camps some of the camp roads were incorporated into the future layout of the new housing estates. Roads were hard to remove and useful assets in their own right therefore it was quite common for the roadways of military camps to be preserved in town layouts (Foot, 2005, 9). For example, North Way follows a North Camp route as does the appropriately named North Camp Lane and Northfield Drive. South Camp's layout was partially preserved in Chyngton Road, Fairways Road and Rodmel Road.

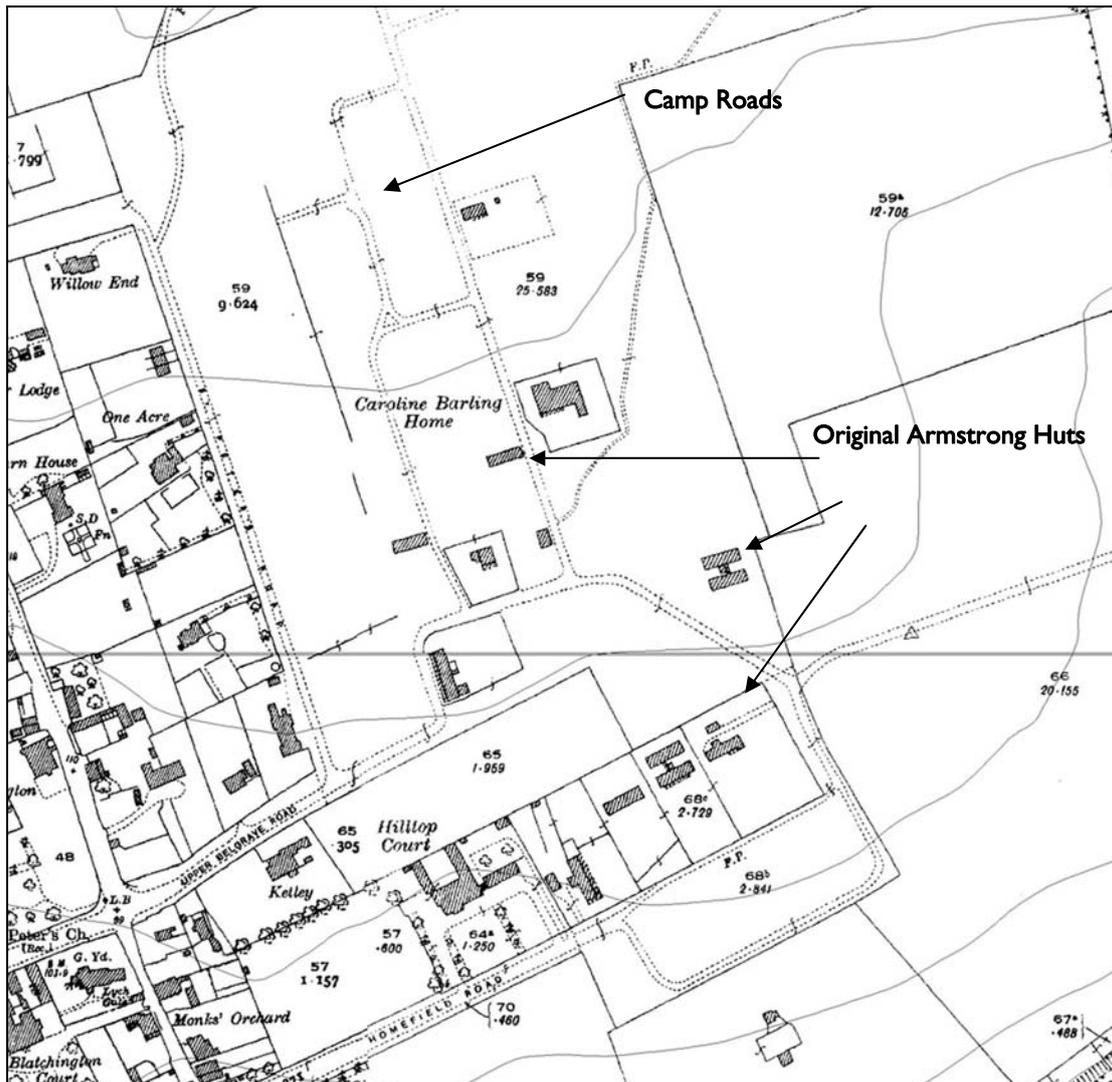


Fig 26: The 1927 1:10,560 Ordnance Survey map shows part of the road layout of North Camp preserved in East Blatchington. Original Armstrong Huts have been reused as dwellings and as the Caroline Barling Home (© and database right Crown Copyright and Landmark Information Group Ltd (All rights reserved 2010). Licence numbers 000394 and TP0024).

One of the larger huts of North Camp, still visible on the 1951 aerial photography was purchased in 1923 and renovated and extended (Fig 25). This was transformed into the Caroline Barling Holiday Home, a holiday home and school for impoverished Jewish girls (Greenberg, 1948, 143). Other huts were sold off, dismantled and re-erected elsewhere. For example, a newspaper article mentions that in 1920 the local scout group bought a hut and re-erected it on Chichester road nearer to the centre of Seaford (*Sussex Express*, Mar 29, 2007).



Fig 27: A 2005 aerial photograph showing the last surviving hut, now demolished, of North Camp. © 2009 Google, Image © 2011 Getmapping plc.

The addition of gardens also suggests that some of the huts were sold as private dwellings creating a sparsely occupied district of homes amidst the remains of North Camp. This area was developed in the 1960s but one such dwelling survived on North Way up until at least 2005 where it is visible on Google Earth (Fig 26). Unfortunately, the hut was demolished between 2005 and 2009, replaced by a modern suburban building.

CONCLUSION

Seaford, with its vulnerable coastal location close to the continent has a long history of military activity from the Napoleonic era barracks at East Blatchington and the 1806 Martello Tower to its complex of Second World War defences (Butler, 2007, 47-9). The First World War camps form another phase, which temporarily transformed the area with the soldiers likely to have outnumbered the local population. The camps changed Seaford's landscape contributing to its urban layout and providing Armstrong huts that were re-used as cheap houses.

In the early days, the camps may have been rowdy excited places full of men fired up with patriotic fervour on the greatest adventure of their lives, having not yet experienced the horrors of industrialised warfare. By the end of the camp's lifetime, the mood was almost certainly far more sombre. Throughout the war, the army presence at Seaford proved difficult, as evidenced by crimes reportedly committed by soldiers, including various murders, beatings of conscientious objectors (Luke Barber pers. comm.) and the vicious mugging of a priest (*The Times* 14 Jun 1919; pg. 9). The camps were home to many recently discharged casualties waiting to return home to Canada (ibid). The general discontent of the Canadian troops awaiting repatriation was a catalyst for riots that resulted in injury and vandalism.

It would be interesting to develop a picture of how the camp layout changed in response to events during the war. It is also important to understand the sequence of activity at the training trenches on Seaford Head especially as these are extant remains. Local studies and the aerial photographic survey have demonstrated that elements of the camp and associated training features survive as earthworks and sub-surface remains. Further understanding of features at Seaford South Camp could be achieved by analytical field survey and targeted excavation. Regimental records, including the archive located in Ottawa Canada, could provide information on how the divisions were distributed between the two camps and a contemporary plan of North Camp.

The surviving archaeological remains of South Camp are a special heritage asset of local and national importance. A 2005 survey identified only four out of 128 First World War camps in England with surviving remains, and Seaford is listed as destroyed (Foot, 2005, 7). There are conservation issues with some of the surviving remains. Thick scrub, including hazel, brambles and blackthorn, give protection to the low ephemeral earthworks by restricting access, but this also damages the archaeology through root action. The trenches also provide favourable conditions for the potentially damaging activities of rabbits and bike riders.

Most importantly, understanding these camps helps us to commemorate and appreciate the lives of the people who served there, ordinary people whose time at Seaford would often be their last experience of life in their home country before being sent overseas.

REFERENCES

National Archives

WO 163/44: Minutes of meetings of the Military Members of the Army Council 1914

WO 163/21: Minutes of Proceedings of the Army Council 1914

AO 388: Army Order XVIII 1914

WO 162/3: Directorate of Military Training to GOCs-in-C of Commands 1914

CAB 24/30: Second (Interim) Report of the Committee on the Demobilisation of the Army 1917

Canadian Archives Ottawa

Q4-54887, Series E-17, Vol. 21, File '21' (21-27) 1916-C 'Plans de camps'

Published Sources

Brandon P. 1999, *The South Downs*. Chichester: Phillimore

Butler, C. 2007, *East Sussex under attack: anti-invasion sites 1500-1990*, Stroud: Tempus

Carpenter E, and Winton H, 2009 *The South Downs NMP Project Design: Beachy Head to the River Ouse* English Heritage Internal Document

Foot, W. 2005. *Army Camps: Survival*. English Heritage

Leslie k. & Short B. (eds.) 1999, *A Historical Atlas of Sussex*. Chichester Philimore Grieves

Longstaff-Tyrrell P. 2002, *Barracks to bunkers*. Stroud: Sutton

Longstaff-Tyrrell P. 2002, *Operation Cuckmere Haven: An Investigation into military aspects of the Cuckmere Valley East Sussex*. Polegate: Gote House

Longstaff-Tyrrell P. 1998, *Tyrrell's List: The Artefacts of Two Great Wars in Sussex*. Polegate: Gote House

Pople, P. & Berry, P. 1991, *Bishopstone and Seaford in Old Photographs*. Stroud: Sutton

Saunders N, 2004, Matters of Conflict: material culture, memory and the First World War. London: Routledge

Schofield, J. 2006, England's Army Camps: Army Camps History and Development 1858-2000., English Heritage

Silcox, D. 1996, Painting Place: The life and work of David B Milne. Toronto: University of Toronto

Simkins P. 1988, Kitchener's Army: The raising of the new armies 1914-16. Manchester: Manchester University

Smith J.S. 1917, Trench Warfare: A Manual for Officers and Men. New York: E.P. Dutton & Co

Taylor A.J.P. 1965, English history 1914-1945. Oxford: Clarendon

The Jewish Yearbook. Greenberg & Co, 1948

Internet Resources

<http://1914-1918.invisionzone.com/forums>

www.1914-1918.net

<http://cybermuse.gallery.ca>

<http://thesaurus.english-heritage.org.uk>

<http://www.filmreference.com/encyclopedia>

<http://www.sussexexpress.co.uk/news>

The Times newspaper archives accessed via Wiltshire Libraries

<http://infotrac.galegroup.com/itweb/wiltsttda?db=TTDA>

APPENDIX I METHODS

As part of the South Downs NMP, this project aimed to record all archaeological monuments seen on aerial photographs. This entailed the systematic examination of all available oblique and vertical aerial photographs held by the National Monuments Record.

Archaeological scope

All cropmarks and soilmarks representing sub-surface features of archaeological origin were recorded.

All earthwork sites visible on aerial photographs were recorded, whether or not they had been previously surveyed, and whether or not they were still extant on the most recent photographs. The full extent of earthwork sites were transcribed where visible, but it was made explicit in the accompanying AMIE database record which elements of any particular group of earthworks survived and which had been destroyed.

Buildings that appeared as structures, earthworks, cropmarks or soil marks representing buried foundations were recorded, using the convention appropriate for the form of remains. Post medieval buildings with an existing database record were not drawn unless significant new information was being added from the aerial photographs. Individual buildings and structures relating to the First and Second World Wars were depicted, whether or not they have since been destroyed.

Recently removed field boundaries seen as cropmarks were not recorded if they could be seen on current or previous OS maps.

Features of definite geological origin visible on aerial photographs were not plotted, although their presence may sometimes have been noted where they defined the limits of an archaeological site or could be confused with archaeological marks. Where there is some doubt as to whether the cropmarks are geological or archaeological, the features have been mapped and the possible interpretations made explicit in the accompanying AMIE database record.

Recording

AMIE monument records were created for each camp, numbers 1523084 and 1532984. The main elements of the monument record comprise location, indexed interpretation, textual description and main sources, including the aerial photograph(s) that best illustrate the site. All data and documentation relating to the project is archived at the National Monuments Record (NMR) and is available through NMR Enquiry and Research Services. Mapping and AMIE records were supplied to East Sussex HER.

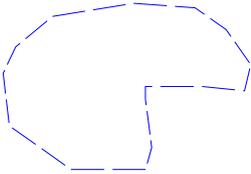
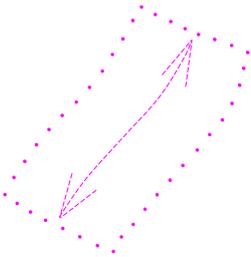
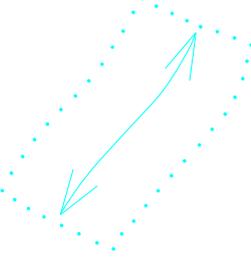
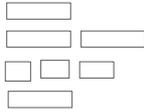
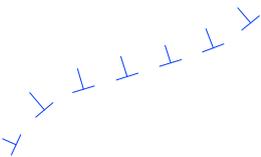
Mapping

The relevant aerial photographs were scanned and rectified using the University of Bradford's "Aerial" programme (version 5.29). Contour data was used for each rectification to compensate for height differences across undulating terrain. The base map used for rectification was the 1:2,500 scale Ordnance Survey vector map; accuracy is therefore expected to within ± 2 metres.

Archaeological features were transcribed from the georeferenced rectified aerial photographs using AutoDesk Map 2007. Monument polygons were used to define each site, as recorded in the AMIE database. The digital mapping is tagged with the relevant AMIE Monument Number. The mapping was added to the digital AutoCAD archive drawings TQ 40 SE (MD002913) and TV 49 NE (MD002925) as part of the South Downs NMP project.

Mapping Conventions

Layer name	Depiction
<p>BANK The outline of features seen as banks or positive features, e.g. platforms, mounds and banks; also to be used for the agger of Roman Roads. Thin banks appear on this layer as a single line.</p>	 A red line drawing showing a curved bank feature with a small rectangular structure on top, and a straight line below it.
<p>DITCH The outline of features seen as ditches; also excavated features, e.g. ponds and pits. Thin ditches appear on this layer as a single line.</p>	 A green line drawing showing a complex network of ditches and pits, with some areas filled in green.
<p>EXTENT OF AREA The extent of large area features such as the perimeters of airfields and military camps</p>	 A dashed line drawing showing a large, irregular polygonal area with several internal lines, representing the extent of a feature like an airfield or military camp.

<p>LARGE CUT FEATURE Formerly the 'T-hachure', now represented by a dashed line. To be used for large cut features such as quarries, ponds, and perhaps scarps that cannot easily be depicted with the use of either bank or ditch.</p>	
<p>RIGARRLEVEL Arrow depicting direction of rig in a single block ridge and furrow, seen as earthworks or cropmarks, but known to have been ploughed level.</p> <p>RIGDOTSLEVEL Outline of a block of ridge and furrow, seen as earthworks or cropmarks, but known to have been ploughed level.</p>	
<p>RIGARREWK Arrow depicting direction of rig in a single block of ridge and furrow seen as earthworks on the latest available aerial photographs.</p> <p>RIGDOTSEWK Outline of a block of ridge and furrow still surviving as earthworks on the latest available aerial photographs.</p>	
<p>STRUCTURE Used for buildings, walls and features that do not easily fit into other categories because of their form, e.g. tents, radio masts, painted areas (camouflaged airfields).</p>	
<p>SLOPE T Hachures used to indicate the direction of a scarp or slope.</p>	



ENGLISH HERITAGE RESEARCH DEPARTMENT

English Heritage undertakes and commissions research into the historic environment, and the issues that affect its condition and survival, in order to provide the understanding necessary for informed policy and decision making, for sustainable management, and to promote the widest access, appreciation and enjoyment of our heritage.

The Research Department provides English Heritage with this capacity in the fields of buildings history, archaeology, and landscape history. It brings together seven teams with complementary investigative and analytical skills to provide integrated research expertise across the range of the historic environment. These are:

- * Aerial Survey and Investigation*
- * Archaeological Projects (excavation)*
- * Archaeological Science*
- * Archaeological Survey and Investigation (landscape analysis)*
- * Architectural Investigation*
- * Imaging, Graphics and Survey (including measured and metric survey, and photography)*
- * Survey of London*

The Research Department undertakes a wide range of investigative and analytical projects, and provides quality assurance and management support for externally-commissioned research. We aim for innovative work of the highest quality which will set agendas and standards for the historic environment sector. In support of this, and to build capacity and promote best practice in the sector, we also publish guidance and provide advice and training. We support outreach and education activities and build these in to our projects and programmes wherever possible.

We make the results of our work available through the Research Department Report Series, and through journal publications and monographs. Our publication Research News, which appears three times a year, aims to keep our partners within and outside English Heritage up-to-date with our projects and activities. A full list of Research Department Reports, with abstracts and information on how to obtain copies, may be found on www.english-heritage.org.uk/researchreports

For further information visit www.english-heritage.org.uk

