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Chapter 8. The Visual Impact of Enclosure

8.1 Introduction

The evidence from Broxmouth suggests that monumentality was a key concern during several episodes of its biography (see chapter 4). Not only is this reflected in the ramparts and ditches at the site but also the monumental gateway structures discovered at the south-west and west entrances. The excavated evidence also shows that people across East Lothian would have been engaged in creating and maintaining enclosure circuits during the later prehistoric period and a variety of construction techniques are seen (see chapter 7). This study therefore is designed to investigate monumentality in a wider landscape setting and to examine how the positioning of a site, its entrances and interior may have taken advantage of the landscape affordances. Six upstanding sites were identified to carry out the assessment of the visual impact, using phenomenology and GIS-based methods with a view to investigate the affordances (Gibson 1977; 1979; 1986; Llobera 1996; 2001; Webster 1999) which may have influenced the visual impact.

8.2 The concept of ‘affordances’

The aim of this study is to investigate the views from the sites out into the landscape and also the views from the landscape to the site, studying the affordances (Gibson 1977; 1979; 1986) of the landscape and how these may have influenced the location of the enclosed site and consequently, its visual impact. According to Gibson, “the affordances of the environment are what it offers..., what it provides or furnishes, either for good or ill... to both the environment and the
animal... It implies the complementarity of the animal and the environment...” (1986, 127). Gibson was an ecological psychologist; however his concept is applicable to studying the landscape, on the grounds that if the environment can ‘afford’ for an animal, then it can ‘afford’ for a human being. It is the ways in which these affordances of the landscape were perceived and interpreted in later prehistory which ultimately led to the siting of enclosures and subsequent modification. The information potentially available is inexhaustible and there is no limit to what can be perceived (Ingold 2000, 166), but this study can begin to limit the options.

Therefore the sites selected for phenomenological study have been analysed according to whether their affordances (of the topography and local landscape) influenced their visual impact, in terms of what could be seen from the site and who could see the site and whether this had an influence on its subsequent usage. It has been argued that prominent locations are related to visual and physical control (Higuchi 1989) and Llobera developed a GIS method aimed at exploring this at prehistoric sites in the Yorkshire Wolds (2001). However for the present study, phenomenological studies investigating the views from the sites are compared with GIS viewshed analysis on the visibility to the site. The similarities and differences in visibility to and from the site are examined and the results are discussed with Broxmouth and other sites in the region to account for the potential long biographies and the changing perceptions of these sites. The results are discussed in relation to the wider landscape and whether visual impact was significant for social production and reproduction (cf. Llobera 2001, 1007). The results are also incorporated with the data on routeways (see chapter 4) to examine whether these would have had currency in later prehistory and any potential relationships.
8.3 Why record the visual aspect?

Enclosed sites began to appear in numbers during the late Bronze Age (e.g. Whittingehame Tower and Standingstone) and people were suddenly taking the time and effort to dig substantial ditches and construct ramparts. Whilst time and effort was taken to create the monumental architecture of the Neolithic and early Bronze Age, these primarily appear to have been for ceremonial and ritual purposes whereas the focus of efforts in later prehistory was on settlement (Barrett 1999, 253). Sites like Chesters Drem and White Castle, still have impressive rampart heights even after approximately two thousand years of erosion. One of the consequences, whether intentional or not, was to create a fairly impressive monument, sometimes visible for miles around.

The aim of this study is to investigate the impact of enclosure construction on the later prehistoric landscape. It will investigate whether certain features of a site (e.g. the entrances, the ramparts or the interior) were deliberately made to be seen and whether this can be discerned from surface observations. Studies like Hamilton and Whitehouse’s (2006) have also noted the dominance of certain topographic features which may have structured peoples’ beliefs and the influence of natural topography are investigated. The relationship of entrance approaches to the landscape will also be investigated and whether changes in entrance orientations could have been for practical or ideological reasons. Comparisons will be made between landscape settings, morphology, size and number of ramparts to examine whether these may affect the visual impact of a site.
8.4 Methods

8.4.1 Field Visits and Phenomenology

The methods employed in phenomenology have changed since Tilley’s original work in 1994, which was subject to criticism (see Fleming 1999 and below), due to methodological and theoretical concerns (see chapter 2). Cummings (2000; 2002) and Hamilton and Whitehouse (2006) have formalised sets of methods and produced results using very different approaches, the former primarily through photography, the latter through drawings on formal recording sheets. Cumming’s study of Neolithic cairns on South Uist produced a series of line drawings to illustrate the entire 360˚ landscape around each site (see Figure 8.1). The result is one simple, easily reproduced picture which assists the initial interpretative stage. However it is difficult to conceptualise the landscape and there is no sense of scale or distance (2000), especially as it is a flat representation of a 3D panorama. She then produced 3D panoramas and although printing these meant they were difficult to manage, Cummings employed a software package known as SpinPanorama to ‘stitch’ the images together to then view in QTVR (QuickTime Virtual Reality). A standard 35mm camera was used and Cummings argues that photography is one of the most effective ways of capturing a sense of the landscape.

Hamilton and Whitehouse’s methods incorporate a sense of scale and distance and records the view on a circular drawing from a central point. The sense of distance is represented by dividing a circle into four concentric horizons to record the near, middle, distant and far views. Circular views are nothing new and were employed by William Stukeley as early as 1724. Hamilton and Manley also had circular views, represented by pie charts in their study. However these only had the
dichotomy of what could and could not be seen. Hamilton and Whitehouse’s results noted the dominance of specific topographic features and also that all the sites had different landscape identities (2006, 41-43). Their methods also tried to explore the social parameters that may have characterised Neolithic ditched enclosures in Italy, mapping sounds and smells also, although these methods were not so successful (2006, 44-53). This is still a very subjective approach, despite the formalisation of recording, especially with regards to the non-quantification of the near, middle, distant and far views.

Figure 8.1 A 360° view of the landscape from the chambered cairn Reineval on South Uist. A problem with this is that there is no sense of distance (Cummings 2000)
Both of these methods were used in purely phenomenological studies, whereas the phenomenology here is seen as a supplement to a wide variety of methods in studying the landscape of later prehistoric East Lothian. The aim of this particular phenomenological study is not to ‘replicate’ the landscape therefore panoramas were not employed for this study. Hamilton and Whitehouse’s methods are adopted here and the recording sheet (see Figure 8.2) is adapted for this study (see below), with the addition of photographs.
8.4.2 Viewshed Analysis

Viewsheds are defined as regions of intervisibility, founded on whether any given pair of points are intervisible. A line of sight is projected from the viewpoint to the target across a digital elevation model (DEM) and if all elevations of the intervening map cells are below the line of sight, then the two points are intervisible. If any of the cells have an elevation above the line of sight, then the two points are not intervisible. Traditionally, the viewshed analysis marks target cells as visible or not from a specified viewpoint and is known as a single viewshed (Conolly and Lake 2006, 225-226). For this study, we want to know the visibility from the DEM of the topography (i.e. the landscape) to the viewpoints (the enclosed site), which is a reversal of the traditional viewshed. Therefore the visibility analysis has to be programmed as such to prevent any reciprocal issues. This is done by offsets, of which there are two that can be programmed in the GIS; the offset of the viewpoint (the point on the enclosed site, OFFSETA) and the offset of the DEM (the cell in the landscape, OFFSETB). The viewpoint is left at 0 and reflects the height above sea level the site sits at but does not take into account the visibility of ramparts. Each map therefore shows the minimum area which would have visibility of the site and consequently, the ramparts as they would have been higher still. The DEM is offset by 1.7m, which is the average height calculated from cemetery populations of an Iron Age person (Chapman 2006, 85), therefore the reciprocity between the viewpoint and the DEM should be the same (see below).

For this study also, multiple viewsheds are calculated, where the map displays a logical union of two or more single viewsheds with each map cell recording whether it is visible from at least one of the viewpoints specified (Conolly and Lake 2006,
227. Each site has 20 points placed on it, therefore views from across the landscape to the different viewpoints are calculated.

8.4.2.1 Limitations

There are four main issues with viewshed analysis which include computational issues. These are largely out of the user’s control as different GIS packages use different algorithms which have the potential to produce different results (Conolly and Lake 2006, 228-229). It has been judged that the computational issues are of minimal risk to the integrity of the data as viewsheds are not calculated to examine views at a small scale.

Experimental issues arise when all the substantive decisions (the parameters of the study, the data to be inputted and the purpose of the study) have been reached. Specific issues include reciprocity, where it is possible for the target to be visible to the observer but the observer may remain invisible from the target (Conolly and Lake 2006, 229-230). This is applicable to this study, however the decision to place several points on the site means that the risk with reciprocity is minimalised. Also the map cells will be offset to a specific height, not the viewpoints to ensure that it is where in the landscape the site can be seen from is calculated and not vice versa. Reciprocity issues are discussed when comparing the viewshed analysis to the phenomenological analysis, as the diagram below shows that this can be possible.
Substantive issues determine the choice of parameter values and data for visibility analysis, which includes factors such as palaeoenvironment, palaeovegetation (the 'tree' factor), contrast, height of observer and acuity of vision (Conolly and Lake 2006, 230-232), as well as the physical properties of the site itself (Ogburn 2006, 405). The first two will have to be taken into account in the discussion, however the palaeoenvironment and palaeovegetation cannot be taken into account as there are no pollen diagrams for the area and the evidence is limited from excavated sites. However this study is not just concerned with the ramparts and ditches, but also subsequent activities on the site. The height of the observer is an issue and viewsheds will be calculated off an average height of 1.7m, calculated from statures of Iron Age skeletons (Chapman 2006). Viewsheds can be calculated to different heights but it has been decided that there is little need for this as it is not part of the aim to compare different heights of people in relation to visibility. There is no way of determining acuity of vision as this is highly variable, depending on the
psychophysical limits of human vision, the environmental limits and the properties of the objects and their surroundings (Ogburn 2006). There is also the issue of distance decay, where the perception of the object changes according to the distance away from it and is influenced by the factors mentioned above. Viewsheds can be calculated across huge distances; it does not mean someone standing 50 or even 5 miles away can see the object in question. Therefore for this study, visits to the sites and the surrounding landscape can help ‘confirm’ the viewsheds to an extent and aid interpretation.

The final issues are theoretical ones, which determine the frame of reference and purpose of the visibility analysis. These are summarised as inferential strategy, perception and visualism (Conolly and Lake 2006, 232-233). The first one is one of the most popular reasons for doing viewsheds, which compares area which lack sites to those that have them to attribute some level of statistical significance to the results, to provide a means to test a hypothesis about why sites are located where they are. However, this thesis is not about hypothesising why sites are located where they are purely from the GIS analysis. Perception has instigated interest in using GIS visibility tools in a post-processual framework but all this has established is the intervisibility of certain points, which is not what perception is. Perception is the process of moving from sensory input to cognitive representation (Conolly and Lake 2006, 232) and Llobera has developed methods towards incorporating perception with GIS studies (e.g. 2001). The issue is similar to the problem encountered within phenomenology and also links to the issue of visualism, where there is over-emphasis on vision, over sounds, smell and touch (Conolly and Lake 2006, 233). The viewshed analysis is forming one part of a ‘jigsaw’ of methods to form part of the wider taskscape which will discuss the qualitative issues such as
smell, touch and sounds. The discussion on phenomenology (chapter 2) has already recognised the over-reliance on the visual aspects of these studies, hence why they only form a part of this thesis.

8.5 Site selection

Taking the results from the characterisation of the later prehistoric settlement pattern (see chapter 6), nine sites were identified as upstanding and therefore candidates for phenomenological investigation. However, upon further investigation, four of these could not be visited due to access issues, lack of available survey plans and time constraints. Despite the small number, this gave an opportunity to study sites in varying landscapes, as well as sites of different morphologies and number of ramparts. Before the full study, the site of Chesters Drem was selected as a pilot study, to refine the data collection and methodology. The sites selected for further study are outlined below including a description of their particular landscape setting.

<table>
<thead>
<tr>
<th>Map Number</th>
<th>Site (Catalogue Number)</th>
<th>NMRS Number</th>
<th>Landscape Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chesters Drem (pilot study)</td>
<td>NT57NW 1</td>
<td>On the coastal plain, flat landscape, site overlooked to the south by higher land</td>
</tr>
<tr>
<td>2</td>
<td>Broxmouth (3D Spatial Analysis only) (22)</td>
<td>NT77SW 16</td>
<td>On the coast, was situated on a slight eminence</td>
</tr>
<tr>
<td>3</td>
<td>Black Castle (12)</td>
<td>NT56NE 2</td>
<td>Situated at the foot of the Lammermuirs, on gently rising land</td>
</tr>
<tr>
<td>4</td>
<td>Green Castle (82)</td>
<td>NT56NE 3</td>
<td>On gently rising land but flatter and lower than Black Castle</td>
</tr>
<tr>
<td>5</td>
<td>Garvald Mains (74)</td>
<td>NT56NE 4</td>
<td>At the foot of the Lammermuirs, on higher ground overlooking a valley</td>
</tr>
<tr>
<td>6</td>
<td>White Castle (219)</td>
<td>NT66NW 1</td>
<td>In the Lammermuirs, on high, steeply sloping land</td>
</tr>
<tr>
<td>7</td>
<td>Traprain Law (211/212)</td>
<td>NT57SE 1.00</td>
<td>On the coastal plain, flat landscape. Situated on steeply rising volcanic plug</td>
</tr>
</tbody>
</table>

Table 8.1 Sites selected for visual impact analysis
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Table 8.2 The four sites which were not studied due to varying constraints

<table>
<thead>
<tr>
<th>8</th>
<th>* Friar’s Nose (70)</th>
<th>NT66SE 1</th>
<th>In the heart of the Lammermuirs, on high steeply sloping land</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>* Blackcastle Hill (16)</td>
<td>NT77SW 7</td>
<td>In the Lammermuirs on flat land above steep sided valley</td>
</tr>
<tr>
<td>10</td>
<td>* Park Burn 1 (140)</td>
<td>NT56NE 5</td>
<td>Located on the fringe of the Lammermuirs, on gently rolling landscape</td>
</tr>
<tr>
<td>11</td>
<td>* Park Burn 2 (141)</td>
<td>NT56NE 6</td>
<td>Located on the fringe of the Lammermuirs, on gently rolling landscape</td>
</tr>
</tbody>
</table>

Due to preservation of the record, the majority of upstanding sites lie on unimproved ground and pasture land in the Lammermuirs, meaning there is a bias in this recording. However we have examples of upstanding sites on the coastal plain and sites located in the heart of the high ground. From initial observations, although the landscape settings of these sites are similar, there are also subtle differences which are discussed further below.
8.6 Recording the views from the site

Two recording sheets have been drawn up; the first one is based on Hamilton and Whitehouse (2006, 42) and has been drawn up as a semi circle to record the views from the entrances. It was decided against recording views from the centre of the site contra Hamilton and Whitehouse (2006) as the original rampart height may have obscured such views, as would potential internal structures. Views therefore, are recorded from entrances to examine the differing landscapes and also whether entrances were practically located. The landscape is recorded according to near, middle, far and distant views to pinpoint where views become obstructed and this is married with the GIS as far as possible to discuss issues of reciprocity. To incorporate a sense of distance and to give the reader an idea of how far reaching the views are, the distance to specific features is specified also. Any feature which is considered to impede the view is drawn but detail is kept to a minimum as we are not replicating the landscape. The second recording sheet is based on Cummings (2002) and is a textual description of landscape setting, which will highlight potential affordances of the surrounding area. Not all of these observations can be made in the field, therefore maps are also consulted. This sheet was added after the pilot study at Chesters Drem and records the following:

- General positioning: a description of the modern landscape today within which the site is located including current land use and topographical position
- Proximity to rivers and streams: the distance of the site from water sources is noted, as well as the frequency and type of water source (e.g. stream, river etc.)
- Proximity to natural features: such as prominent hills
Intervisibility and orientation: examining whether other sites would have been visible and whether sites are deliberately positioned to display ramparts or interiors

<table>
<thead>
<tr>
<th>Site Name</th>
<th>NMRS Number</th>
<th>Ramparts (Max.)</th>
<th>Morphology</th>
<th>Entrance Location</th>
<th>Interior Area Size (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesters Drem</td>
<td>NT57NW 1</td>
<td>Six</td>
<td>Curvilinear</td>
<td>NW; E</td>
<td>0.89</td>
</tr>
<tr>
<td>Black Castle</td>
<td>NT56NE 2</td>
<td>Two</td>
<td>Curvilinear</td>
<td>S; WSW</td>
<td>1.19</td>
</tr>
<tr>
<td>Green Castle</td>
<td>NT56NE 3</td>
<td>Two</td>
<td>Rectilinear</td>
<td>WSW</td>
<td>0.59</td>
</tr>
<tr>
<td>Garvald Mains</td>
<td>NT56NE 4</td>
<td>One</td>
<td>Curvilinear</td>
<td>SE</td>
<td>0.72</td>
</tr>
<tr>
<td>White Castle</td>
<td>NT66NW 1</td>
<td>Three</td>
<td>Curvilinear</td>
<td>SE; SW</td>
<td>0.42</td>
</tr>
<tr>
<td>Traprain Law</td>
<td>NT57SE 1.00</td>
<td>Three</td>
<td>Curvilinear</td>
<td>N; WSW; WNW</td>
<td>16.73 (max)</td>
</tr>
<tr>
<td>Broxmouth</td>
<td>NT77SW 16</td>
<td>Four</td>
<td>Curvilinear</td>
<td>E; W; SW</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Table 8.3 The characteristics of the upstanding sites selected for phenomenological study
8.7 Pilot Study: Chesters Drem

8.7.1 Introduction

Chesters Drem hillfort (NT57 NW1) is situated in the parish of Athelstaneford in East Lothian, to the north-west of the county. There are still substantial upstanding remains and the site is publicly accessible. RCAHMS aerial photograph transcriptions reveal that Chesters Drem sits within a densely occupied landscape. The most interesting of these are the lengths of pit alignments which still survive as cropmarks. These cut across the landscape and are common throughout East Lothian, with Chesters Drem sitting within an extensive system (see Figure 8.5)

Figure 8.5 Chesters Drem and its immediate environs. The red denotes later prehistoric settlements, the brown denotes pit alignments and later trackways and the blue indicates rig and furrow

Although Chesters, Drem has never been excavated, Foster Law (approximately 250m to the north) was investigated as part of the TLEP (Haselgrove and Hale
2009; see chapter 7). Stone houses overlay the silted ditches at Chesters in places, suggesting that these date to the latter centuries BC, possibly early AD and implies an Iron Age date for the ramparts. The 1854 OS Map also makes reference to remains of Pict bones being found here, although the only recorded human remains are from the ‘Greystanes Field’ (see Figure 8.5) which produced numerous long cists including one incorporating querns and another containing a sherd of Iron Age pottery (Henshall 1958, 283 (NT57NW 22). Early Bronze Age artefacts and cremations have also been discovered in the vicinity however these are primarily antiquarian finds (e.g. Scot-Skirving 1882). Chesters Drem has been an oft quoted example of a non-defensive hillfort (Bowden and McOmish 1987; Armit 2007), due to its location immediately below a steep scarp, apparently rendering it vulnerable to missile fire from above. Its numerous ramparts therefore have been interpreted as being symbolic in nature.

8.7.2 Methods

The site was visited on the 10th April 2010 and the views were recorded from four places around the two entrances; sheets 1 and 2 are recorded from the east entrance and sheets 3 and 4 are recorded from the north-west entrance. The topographical affordances are described as well as the accessibility of the site from different approaches and the weather conditions on the day. The plan used is taken from the 1924 RCAHMS inventory, although there are discrepancies between the original plan and the site today, for example, the short rampart length to the extreme east does not exist on the ground. It was also noted that there are more house platforms located in the silted ditches than is reflected on the original plan.
8.7.3 Topographical Affordances

The site itself is located on a slight eminence which, despite appearances, drops quite sharply to the north and south. The approach from the east however, is a gentle climb and appears to be the easiest approach to the site (see Figure 8.10). There is an area of flat ground to the south measuring c.50m wide before rising quite steeply to a ridge which overlooks the site from the south. Attempts were made to climb this ridge, but it has been fenced off and appears to be utilised to drive sheep and cattle towards a field at the top.
Figure 8.7 (Looking east) The flat land that separates the fort (on the left) and the ridge (on the right). The landscape is invisible until one ‘emerges’ at the east side (photo: author’s own)
8.7.4 Views afforded from different locations

The view from the east entrance took in the gently undulating landscape of East Lothian to the north and east. The view immediately to the south however was
blocked by the ridge and Kilduff hill beyond it from both locations. The approach from the east is dictated by the spur Chesters is located on, however it is only a gentle approach directly from the east, becoming increasingly difficult from the north or south (see Figure 8.10). It was a clear and sunny day, however the haziness on the horizon made it very difficult to distinguish between the land and the sea. The immediate view changed very little between the two locations, reflecting the gentle topography with only the ramparts obscuring the view immediately to the north and south from location 2. The ‘far’ views now took in the Lammermuirs which began to rise in the east, due to the slightly elevated position but the sea to the north became even more indistinct.

Figure 8.9 The views from the east entrance in particular were blocked by the line of trees (to the east), as well as the farmhouse and coppice to the west. Kilduff Hill forms a natural barrier to the south-east; a feature which also prevented views to the site (© Crown Copyright 2011. An Ordnance Survey/EDINA supplied service)
Figure 8.10 The approach from the east to the east entrance of Chesters Drem along the gently rising spur. Trying to approach this spur from either the left or right was more difficult due to the steepness on these sides.

Figure 8.11 Photograph taken from viewpoint 2, looking north east. North Berwick Law can be seen on the horizon.
The approach to the north-west is unrestricted as the natural topography does not dictate movement, as seen at the east entrance. The view from this particular point offered excellent vantage across the East Lothian landscape to the north, over the Forth and out across towards the county of Fife (see Figure 8.12). This is aided by the natural landscape, which gently slopes down to the sea. Two particular peaks, shown in the sketch were noted as they were unusual features and are known as Largo and Kellie Law. These were visible, despite being located across the Forth Estuary, nearly 30km from Chesters and as the land does not undulate as it does over to the east, the views from here are very clear and far-reaching. The hazy conditions meant that the sea however, was difficult to distinguish from the land around it. Locations 3 and 4 were identical in the views afforded.
Figure 8.13 View looking north-north-east from viewpoint 3. The 'hazy' horizon is the landscape across the Forth (photo: author’s own)

8.7.5 Viewshed Analysis

Figure 8.14 Viewshed Analysis of Chesters Drem. The blue indicates areas from which the site is visible. Box indicates close up of Figure 8.15.
The viewshed indicates that people would have had good visibility of the site from a 5km radius, except from the south (see Figure 8.15). The higher ground has an impact on the visibility of the site and this ridge completely blocks views from the south, as does Kilduff Hill (see Figure 8.9). The site has six ramparts on the north, compared with three on the south, therefore every time a new rampart was created, this had maximum visual effect as the land gently slopes towards the sea. Although Largo and Kellie Law were visible as natural topographic features over the sea (see Figure 8.14), it seems unlikely that vice versa was the case. Chesters Drem is located in a relatively inconspicuous position and is not a prominent topographic feature. However the extent of rampart building suggests that it did have local importance and the site was visited and revisited by local communities in its creation.

Figure 8.15 Close-up of Chesters Drem viewshed, showing the principle areas where the site can be seen from
8.7.6 Discussion

The site’s location affords very clear views, except to the south and because of the relatively flat landscape, views reached as far as the hills across the Forth towards Fife in the north and the Pentlands to the west. The land appeared to undulate more in the east, although this did not interrupt the views afforded. If contemporary, the pit alignments seen would have been visible from Chesters Drem, as well as the sites like Foster Law. The line of trees noted in the drawings was the only modern interruption of views, although views further west (none were taken due to the lack of entrances on this side) were interrupted by a small coppice and the farmhouse (see Figure 8.9). North Berwick Law was a prominent feature, occasionally obscured by the modern line of trees, however the entrances were not deliberately orientated on this. The approach to the east entrance takes advantage of the topographical affordance and the builders may have deliberately manipulated the access as it appears to have forced people to stick to the gentle approach rather than approach from the steeper sides. The approach to the north-western entrance does not have any such restrictions and ‘snaked’ through the ramparts which may indicate that all the ramparts were not constructed in quick succession.

Although the site would have dominated a c.5km radius, distance decay (Ogburn 2006) means that although the finished ramparts may not have had a visual impact further away, the activities taking place on the site, such as digging the ditches and creating the ramparts would have had an impressive visual impact. The design of the fort itself also suggests that it was meant to be seen as there are only three ramparts to the south of the site, where it is least visible, yet on all other sides there are up to six ramparts. Bowden and McOmish have interpreted this as ‘symbolic’ as the size of the area of the fort is small compared to the six lines of
ramparts and also the higher ground to the south (not west as originally quoted) 
“... makes it difficult to evaluate how the ramparts functioned in terms of a 
defensive circuit” (1987, 78). Even in symbolic or defensive terms, it is strange that 
the site was not located on the ridge above its present location. One possible 
reason may be that the original builders could not build on the ridge as the land 
was ‘someone else’s’. Alternatively, the area may have been extensively wooded 
and therefore unsuitable for settling, and equally could also have demarcated 
territorial limits. The pit alignments suggest a further indication of this wider sense 
of landscape division.

8.8 Taking the Study Forward

The pilot study raised interesting questions about the significance of Chesters Drem 
within its contemporary landscape. The site itself appears to have been modified 
over several centuries and had up to six lines of ramparts on three sides, and at its 
peak would have had a significant visual impact. Consideration of the entrances 
has shown that different events can be recognised, with the east entrance offering 
a straight route into the fort through the ramparts with little deviation. The 
entrance would have to have been approached directly from the east over gently 
rising spur. However the north-west entrance snakes in between the ramparts and 
makes it more difficult to enter the site, indicating that the ramparts may not have 
been contemporary. Based on Hamilton’s suggestion (2010, 263), ramparts and 
ditches may have been cut on a generational basis, suggesting a period of c.180- 
240 years of creation, with the addition of different ramparts offering a visual 
spectacle for people and settlements within a visible radius. The site would have 
continued to play a part in social memory and shows that places would have
continued to be important for centuries after initial creation. North Berwick Law was noted as a significant landmark in the landscape during the site visit and would have been noticeable in the relatively flat landscape, even though the entrances were not directly orientated on it. Although past tree cover has to be taken into account, it seems highly likely that during Chesters long biography, other sites would have been visible to people living at (or visiting) the site. Although the site may not have been deliberately designed to have a visual impact when first constructed, clearly with the addition of more ramparts this may have then become the intention.

It was concluded that the study was worth taking forward as there was much to explore in relation to the creation and subsequent modification of these sites and their relationship with the landscape. Without visiting Chesters, the discrepancies on the site plans would never have been appreciated, nor would the placing of the ramparts or entrances in relation to the micro-topography, particularly at the east entrance suggesting control of access. Combining site visits with utilisation of GIS also allows a certain degree of ‘checking’ of results, particularly as visibility from may not match the visibility to the site and this may have shaped perceptions of the site in the past.

In the case of Chesters Drem, although the visual impact of the site is clear, it is not the primary factor in location considering its placement below the ridge. Wider concerns of territory and ownership may have led to decisions over its siting, rather than the creation of the boundaries. However over time, as more ramparts were added, the site became symbolically important as it visually dominated the immediate landscape and social memory.
8.9 Black Castle

8.9.1 Introduction

Black Castle (NT56NE 2) lies in the parish of Garvald and Bara, on a hillock at 274m OD. It is almost circular in plan and two ramparts remain with two entrances: one in the south and one in the west-south-west (see Figure 8.18). The north-west corner has been quarried for sandstone at some stage leaving a scar in the fort but otherwise there are no other internal features. The site was within a plantation until relatively recently and also sits in the fringes of the Lammermuirs, surrounded by water courses. There are several other upstanding sites in the area including Green Castle (NT56NE 3) less than 0.5km to the south-east and the forts at Park Burn (NT56NE 5 and 6) around 1km to the south. Like Chesters Drem, this area has remains of pit alignments crossing the landscape, although nowhere near the same scale and coverage (see Figure 8.16).

Figure 8.16 The pit alignments noted in the vicinity of Black Castle fort, shown in pink. Green Castle can be seen to the south-east
The road that runs to the north of the site (the modern day B6355) appears to have been an important route as it is noted by Roy to be the ‘Road from Edinburgh to Dunse’ (see Figure 8.17). Duns was a former county town of Berwickshire, created as a royal burgh in 1490 (RCAHMS 1980, 59) and the route has been recognised as one of the early routeways through the Lammermuirs (see chapter 5). This clearly was an important and strategically placed route and may have had currency in later prehistory.

![Figure 8.17 The environs of Black Castle, as depicted by Roy in his military survey. The B6355 can clearly be seen (labelled “road to Duns”). The red dot marks the approximate position of Black Castle. It also shows the edge of cultivation as the ‘strips’ denoting arable farming peter out (courtesy of National Library of Scotland http://geo.nls.uk/roy-lowlands/)](image)

8.9.2 Methods

The site was visited on the 8th May 2010 and the conditions were clear and sunny. Views were recorded from each of the two entrances.
8.9.3 Regional Visibility

*General Positioning and Topographical Affordances* The fort itself once lay in a wooded plantation, which still survives to the west. The land rises up from the coastal plain and the site is situated amongst the gentle hills of the Lammermuir fringes and there is good visibility of the surrounding c.2km, with views stretching out further west. The site has relatively easy approaches from all directions and good access to water sources. As recently as the 1970s, the surrounding farmland was under plough, however this is no longer the case and the fields are used for sheep grazing. The site is not placed on the highest point in this area, however the site visit showed that there is very little to distinguish the higher ground to the east.
Location near to rivers and streams (see Figure 8.16) There are no streams immediately visible from the site, however Newlands Burn runs to the south-west and Danskine Burn to the north-east. Modern trout ponds to the east were created out of a watercourse which ran through this area. Incisions in the landscape suggest that seasonal watercourses may run in the area, although dry at the time of the visit. The watercourses appear to surround the land mass on which Black Castle is located on.

Location near to natural features There are no dominant natural features to be seen. The site is situated within rolling hills although Newlands Hill blocks further views to the south-east and Dod Law blocks any further views to the south. To the west and north however, the Pentlands come into view as well as the coastal plain.

Intervisibility and orientation Green Castle lies less than 500m to the south-east, the top of which is visible from Black Castle. Even if they were not occupied at the same time, the builders must have been aware of the other site even if it was no more than a relic in the landscape. The Park Burn forts are less than 1km to the SW but were not visible on the day (although viewshed analysis confirms their visibility). North Berwick Law is also visible in the distance to the north.
8.9.4 Views afforded from different locations

The view from location 1 was recorded from the south entrance of the fort. The top of Green Castle was visible to the immediate south-east and the rolling hills dominated the views to the east, around to the south and south west, although visibility was reduced to c.2km in these directions. To the west however, the view opened up and the Pentlands were visible in the distance across the coastal plain. Located in the west-south-west, this entrance offered a wider view of the East Lothian coastal plain. The hills still restricted views to the south east and south and
the coniferous plantation also restricted views, however it appears that this entrance is located to take advantage of this ‘open’ landscape and the approach is flatter from this direction. There is evidence for a short length of third rampart on this side although there are only vestigial traces. This may indicate a monumentalisation of this entrance, deliberately designed to impress upon those entering from the more ‘open’ landscape in this direction.

Figure 8.20 The environs of Black Castle; note the higher ground to the south-east (Newlands Hill) and the south west (Dod Law) which restricted views in these directions, as well as the modern plantation running from the site in a NW direction (© Crown copyright 2011. An Ordnance Survey/EDINA supplied service)
Figure 8.21 Landscape to the south of Black Castle. Note the hills reducing visibility to c.2km (Photo: author)

8.9.5 Viewshed Analysis

Figure 8.22 Black Castle viewshed

The viewshed is at odds with the observations on the day, as in the directions where the views open out, the viewshed suggests that this visibility was not
reciprocal. With this in mind, a viewshed was calculated to examine the visibility from the site also and the turquoise highlights additional areas where the site could not be seen from but could be seen to (see Figure 8.22). Despite this being near a hilltop and in what would seem a naturally conspicuous location, immediate visibility to and from the site in a westerly and south-westerly direction is absent. It appears that the site’s visibility to and from the north-east, east and south-east may have been more important factors. Indeed, they appear to be closely related to routeways that run through the area (see Figure 8.23) and indicates that these may have been formalised pathways into the Lammermuirs during later prehistory.

![Figure 8.23 Close up of the Black Castle viewshed](image)

The viewshed and field visits agree over the restricting views to and from the north, east and south of the site. Views to and from the site were restricted to around 2km from these directions and views to the west were hindered by the presence of
the plantation but this did not completely block views. There are no obvious approaches to the site, unlike Chesters Drem although it is possible the pit alignments in this area were linked to controlling movement to and from the site. The entrance orientation change is not immediately explained by the topographical affordances, unlike Chesters. The watercourses also provide a natural barrier to the site and where the landscape opens up to the west, there is no watercourse to prevent movement. Black Castle however was ideally located to take advantage of the visibility of the routeways and people may have been moving through the landscape, practising transhumance. The entrances are orientated away from these routes, towards the flatter, more open landscape therefore the occupants of Black Castle may have had access to this flatter ground. The site is large in size (1.19ha) and therefore may not have functioned as a purely domestic site, perhaps acting as a gathering point for communities within an area which would have been well traversed during certain times of the year. The entrances appear to be simple gaps through the ramparts and are not ideally situated to take advantage of wide ranging views from and to the site, unlike Broxmouth. However the entrances are orientated towards the more open landscape and the relationship with the pit alignments and potential routeways means the site may have been linked to transhumance. The short length of third rampart at the western entrance suggests that this was an attempt to monumentalise this entrance and emphasise this threshold as it orientates on the more open access.
8.10 Green Castle

8.10.1 Introduction

Green Castle (NT56NE 3) is located approximately 500m south east of Black Castle, on the fringes of the Lammermuirs and lies just to the south-east of the junction of two watercourses. The site is almost triangular in plan and is surrounded by watercourses and wetter, marshier ground. The site has two ramparts, one surrounding the site around the summit of the hillock, and one placed lower down around the site, with one entrance orientated WSW (see Figure 8.25). As noted with Black Castle, this site is located c.1km north-east of the Park Burn forts.

Figure 8.24 Green Castle (looking E). The inner rampart takes advantage of the natural cleugh and rises high above the vestigial traces of a second rampart lower down (where the arrow points to). The change in colour of the grass also highlights this (photo: author’s own)

8.10.2 Methods

The site was visited on the 8th May 2010 and conditions were clear and sunny. One view was recorded from the west-south-west entrance.
8.10.3 Regional Visibility

*General Positioning and Topographical Affordances*  This site takes advantage of the natural cleugh and haugh surrounding it (the haugh is now a trout pond – see
Figure 8.26) and this natural eminence gives the site an immediate visual impact, further heightened by the rampart around the summit. The interior rampart still stands to an impressive height, with a second, much lower rampart running around the site. The water courses make it difficult to access the site as they run directly below and around the eminence, and directly beneath the entrance access. There is a short but steep climb up to the entrance as well which would have made everyday access difficult. There is evidence for rig and furrow to the immediate south of the site, suggesting this land had been suitable for arable farming and may indicate later prehistoric farming in the area.

*Location near to rivers and streams* Newlands Burn runs right beneath the lower rampart along the south-west side of the site and the cleugh was boggy underfoot, suggesting that this too could have been exploited as a water source. The haugh is now part of the fish pond, but this was another water source. In the wider landscape, there are other minor streams and possible courses which have either dried up or are only seasonal.

*Location near to natural features* Aside from the features that the site takes advantage of, there are no notable features in the immediate landscape. The views are blocked beyond middle distance by Newlands hill to the east and Dod Law to the south but open up over to the Pentlands and the coastal plain to the west. To the north, the views are blocked by the hillock that rises to Black Castle.

*Intervisibility and orientation* Black Castle is only just visible over to the north of the site. The Park Burn forts lie to the south, otherwise very little other settlement is known.
8.10.4 Views afforded from different locations

The entrance is located in the west-south-west and the views looking to the south east and south are restricted by higher ground. As the view looks west, the landscape opens up over the coastal plain and over to the Pentlands. Flat ground stretches out to the west, which is used to pasture sheep today, however this area may have had a relationship with the pit alignments and the routeways associated with Black Castle, which was only just visible.
8.10.5 Viewshed Analysis

Figure 8.28 Green Castle viewshed. See Figure 8.29 for close-up

Figure 8.29 Close-up of Green Castle viewshed
Despite the limited impact of the viewshed (see Figure 8.28), the site seems to have been intentionally designed to have a visual impact. However this impact could only be fully appreciated by people within the immediate environs of the site (see Figure 8.29). This area may have been an important ‘stop off’ point for people moving from the uplands to the lowlands and could have had some significance in the act of transhumance. Despite Black and Green Castle being located within 0.5km, these two sites clearly have very different visual impacts and have different landscape settings also, with Green Castle being more ‘hidden’ yet having a very impressive visual impact in its immediate environs but with Black Castle having a more advantageous location to be seen but not the visual impact. The two sites however have entrances orientated towards the west-south-west, towards the open landscape. On the other hand, Green Castle’s location amongst the water courses makes it difficult to access, suggesting that this was deliberately so or ephemeral structures were used, such as wooden platforms, to aid access.

8.11 Garvald Mains

8.11.1 Introduction

Garvald Mains (NT56NE 4) is located approximately 1km SW of Garvald village and lies approximately 3.5km to the north west of Black and Green Castle (see above). The site lies on flat land, overlooking a gently sloping valley and lies on the fringe of the high and lowland areas, within a dense cropmark landscape (see Figure 8.30). These are located primarily to the west of the site on the flat, cultivated land. To the east and south-east of the site, there are also remains of pit alignments like those seen at other sites.
The site only has one rampart and it is almost circular in plan. It has a dump-style rampart and the stone eroding out of the rampart shows that sandstone was used in its construction. The 1924 inventory plan shows at least three breaks in the circuit, however two are modern and the south-east entrance is the only original one, which shows evidence for stone revetting (see Figure 8.31).
8.11.2 Methods

The site was visited on the 8th May 2010 and conditions were clear and sunny. One view was recorded from the south-east entrance.

8.11.3 Regional Visibility

*General Positioning and Topographical Affordances* The site is situated, almost precariously on two sides, on the side of a valley. The easiest approach is from the north of the site and a modern farm stands here today. However, the entrance is found in the south-east before the land drops steeply away to the south and west and makes the site more difficult to access from these directions. This prominent
position also allows good visibility over the convergence of valleys to the south east. The interior also slopes towards the south to the valleys ’displaying’ the interior in this direction, although it would have been difficult to build on it. A well is marked on the first edition OS maps close to the fort, meaning that water could have been accessed close by as opposed to descending relatively steep slopes to water.

*Location near to rivers and streams* There is a small river which runs past the fort at the bottom of the slope to the south. Further round to the south-east is the confluence of two water sources and also the meeting point of two valleys. There is another valley to the south-west of the site and a watercourse runs along here to run along the bottom of the slope along the west side.

*Location near to natural features* The site is situated in a landscape of rolling hills and also is sited at the meeting point of several valleys.

*Intervisibility and orientation* The site slopes up to the north which makes it impossible to see beyond the site from the entrance with the modern farm also blocking views to the north. Although modern forestry now obscures the view, the enclosures on Sled Hill would have been visible (if contemporary), as well as Carfrae to the south. Over to the north-west of the site Traprain Law looms in the background, like a whale surfacing with North Berwick Law visible behind it as well as Bass Rock. These landmarks however were difficult to see because of the hazy weather conditions on the horizon.
8.11.4 Views afforded from different locations

The views afforded from the south east entrance reached over the rolling landscape and the higher ground of the Lammermuirs was visible. Two valleys could be seen opening out onto flat ground below the fort to the south west of the site but views into the valley themselves were restricted. The flat ground above the valleys was
visible and again, to the south west the hills of the Lammermuirs could be seen although views in all direction were fairly restricted beyond c.5km.

8.11.5 Viewshed Analysis

Figure 8.34 Viewshed of Garvald Mains fort. See Figure 8.35 for close-up
Garvald Main’s viewshed is fairly limited although it appears to have been visible from most places within a 5km radius. The site only has one rampart and ditch circuit which diminishes its visual impact, however its red colour could equally have contributed to it (cf Ogburn 2006). It appears that as you approach the site, it disappears from view and then appears again from several directions, including the modern approach as the site now lies in private farmland. Again, this does not completely agree with the phenomenological studies as these subtleties do not hinder views from the site. Garvald Mains is approached from the west today however the steepness of the slopes in this direction means it is difficult to see and approach the site. The site itself slopes sharply in a southerly direction and ‘exposes’ the site in this direction, arguably where the landscape is most open and renders it the most visible from this direction, interestingly at the convergence of several valleys. Settlement would have been difficult to maintain here but this is not mentioned on the plans or the CANMORE entry of the site. The visual impact of

Figure 8.35 Close-up of Garvald Mains viewshed
one ditch and rampart would have been minimal but the interior would have been very visible, although what it was showing off is difficult to gauge. This site may have only been in use for a few generations (although this site has never been excavated so any interpretation is a cautious one) but may have served as an important landmark for people moving through the landscape, perhaps into the Lammermuirs along the valley bottoms. There are several pit alignments in this area and is located close to a routeway (see Figure 8.35) although visibility to the site from this is restricted.

8.12 White Castle

8.12.1 Introduction

White Castle (NT66NW 1) is located in the Lammermuirs, approximately 4km north-west of Black Castle and 3km south-east of Garvald Mains fort and lies at 310m OD, the highest located site in this study. There is very little known later prehistoric settlement in this area, with most of the known settlement lying further to the west in the lower lands, around Garvald (see Figure 8.30; Figure 8.36). There are three ramparts on the south side, with two entrances through the south-east and south-west, however to the north, the ramparts peter out and recent excavation and survey work has shown that no ramparts were constructed on this side (Cook et al 2010). The easiest approach is from the south, with a sharp, steep drop to the valley bottom below on the northern side. The site is currently being excavated however work only began in summer 2010 and the site has only been subject to limited exploratory excavation. However a palisade has been discovered along the north edge of the site, as well as a possible cist cemetery at the terminal of the
outer rampart on the south side (Cook pers. comm.). A resurvey of the hillfort also revealed nineteen hut platforms, including some underlying the inner rampart and also the fact that the south-east entrance may be a modern break (see Figure 8.37).

Figure 8.36 The environs of White Castle fort. Note the distinct lack of prehistoric settlement in this area (© Crown copyright 2011. An Ordnance Survey/EDINA supplied service)
Figure 8.37 Plan of White Castle fort. Circle is the location of view 1; triangle is the location of view 2 (after Cook et al 2010, 17)

8.12.2 Methods

The site was visited on the 8th May 2010 and conditions were clear and sunny. One view was recorded from each of the entrances, one from the south-east and the other from the south-west (see above).

8.12.3 Regional Visibility

*General Positioning* The site is located in a very bleak and exposed location. The easiest approach today is immediately from the south as there are steep drops on
the other three sides, with the steepest to the north and the site is near impossible to access from these directions. The site is not located on the highest point in the immediate landscape, however this position is more suited to overlook both an ancient routeway (Graham 1961) and the valley below. This area is used for sheep grazing and is highly unsuited for arable farming. Further along the valley to the south-east, the valley bottom widens out and provides a water source for the sheep and grazing ground. The views open up out over the coastal plain to the west also and may suggest that movement was frequently happening between the coastal plain and the higher ground.

*Location near to rivers and streams* There is only one stream which runs in the valley bottom to the north of the site and this may have been more substantial in the past, however the water flow has been curtailed by the creation of the Whiteadder reservoir, approximately 5.5km to the south east. However exposed modern drains to the south of the site suggest that seasonal watercourses run near this site.

*Location near to natural features* The site sits overlooking a steep valley which runs in an E-W direction. The land opens up to the north-west to offer stunning views over to the Forth. Gentle hills roll down onto the coastal plain however higher land to the east and south obscure any views beyond here.

*Intervisibility and orientation* The view is clear down to Traprain Law, North Berwick Law and Bass Rock. In the immediate environs, there are no known later prehistoric sites with the closest over the hills to the south west where cropmarks have been identified at Snawdon and Garvald Mains.
Figure 8.38 The site of White Castle. Traprain Law and North Berwick Law can just be seen in the background (looking NW, courtesy of Lindsey Büster)

Figure 8.39 Traprain Law can be seen in the background, with North Berwick Law slightly less visible further behind, looking NW (photo: author)
8.12.4 Views afforded from different locations

The views afforded from location 1 were very limited. Most of the views to the south of the site are blocked by higher ground, which climbs sharply c.500m away from the site. The land also sharply slopes down towards the valley to the north and is difficult to traverse today. From location 2, the views are still restricted to the south, however they open up towards the west and there were far reaching
views over the coastal plain and to the Pentlands. Traprain Law and North Berwick Law are visible over to the north-west also.

8.12.5 Viewshed Analysis

Figure 8.41 Viewshed of White Castle. See Figure 8.42 for close-up
The viewshed confirms the observations made on the ground, that the views to and from the site are extremely limited to the north, east and south (see Figure 8.42), however towards the west and north-west, the views open out (see Figure 8.41). Due to its isolated location, this arguably would make it visible to contemporary viewers especially if activity was taking place on the site. There are very few vantage points from the site itself that could ‘observe’ the valley and see into it, instead, one has to take a very precarious position to the north of the site on a steep slope. However the site is better placed to observe movement from the coastal plain into the Lammermuirs, rather than the other way round and overlooks one of the few easy routes onto the coastal plain, through the Lammermuirs. Like Chesters Drem, it is overlooked by higher ground to the south which argues against a defensive purpose for its construction. Both White and Black Castle are well positioned to observe routes into the Lammermuirs and part of their purpose may have been to facilitate or control movement. However with White Castle, it is
difficult to see where crops would have been grown in the immediate environs and it is possible that this site may have been seasonally visited, during movements across the landscape. The presence of later structures however, suggests that it became a focus for more permanent settlement at some point.

8.13 Traprain Law

8.13.1 Introduction

Traprain Law (NT57SE 1.00) is located on the coastal plain, approximately 8km east of Haddington. It is located on a volcanic plug and is the only upstanding site in East Lothian that has been subject to extensive excavation (see chapter 7). The site has produced activity evidence from the Neolithic through to the Medieval period, with extensive settlement evidence in the late Bronze Age and the Roman Iron Age. The pre-Roman Iron Age remains elusive with only scant traces of activity during this period.

Figure 8.43 Plan of Traprain Law (after Feachem 1958, 284; Armit et al 2006)
8.13.2 Method

The site was visited on the 19th June 2010 and conditions were clear but cloudy. There was not enough time to record views from all entrances (also the east entrance by the quarry no longer exists) therefore a view was recorded from one each of the paired entrances, as well as a potential entrance identified in the innermost (Feachem’s 10 acre) enclosure. This has been noticed previously to be directly aligned on North Berwick Law (Armit pers. comm.) and this relationship has been further investigated in this study.

8.13.3 Regional Visibility

*General Positioning and Topographic Affordances* The site is in a dominant location and is a prominent feature in the landscape. Traprain Law is formed from a glacially exposed lacolith (Rees and Hunter 2000, 414) and is marked against the flat, gently rolling landscape of the coastal plain. It is a flat approach to the base of the hill although it is a fairly difficult climb to the summit that cannot be approached from the south as the entire face is a sheer drop on this side (popular with rock climbers today). An east orientated entrance was located in the extreme north-east of the site, suggesting that the site could have been approached from this direction but 19th-20th century quarrying has obliterated this part of the hill. The modern path snakes around to the north-west from the car park in the north, following the line of the northernmost rampart. The way the entrances are set in the hill makes them appear very high and once through the Cruden wall, it is quite difficult even then to approach the summit as there are still some sheer drops (see Figure 8.43).
**Location near to rivers and streams** There is an artificial pond on the summit although it is unclear when this was created. Cree partially excavated this and found several artefacts from the later prehistoric and medieval periods (1923, 221-222) and could originate in the later prehistory (Armit et al 1999, 82). The major river of East Lothian, the river Tyne, lies less than 1km away to the north although accessing water and having to climb back up Traprain would no doubt have been strenuous.

**Location near to natural features** There are no other prominent natural features in the landscape, although there are small crags c.0.5km to the north (Hairy Craig). North Berwick Law and Bass Rock are in clear view to the north with the Lammermuirs forming a natural barrier to the south. The Garleton hills can be seen to the north-west, the Pentlands in the distance to the west and across the Forth towards Fife.

**Intervisibility and Orientation** Traprain Law offers extensive views across the landscape and several sites would have been visible from here. North Berwick Law is another volcanic plug and therefore conspicuous in the landscape.
8.13.4 Views afforded from different locations

Figure 8.44 Views afforded (from top-bottom) from locations 1, 2 and 3 at Traprain Law
Traprain is one of the few sites to offer uninterrupted views across the coastal plain (see Figure 8.45) and the Garletons pose the only real interruption. The views reached as far as the Pentlands in the west and the hills of Fife across the Forth in the north from all three views, a distance of up to 35km, although once again the landscape became very hazy on the horizon.

Figure 8.45 The uninterrupted view of the landscape offered from location 1 at Traprain. In the distance, the Pentlands and Arthur’s Seat (see arrow) can be seen (photo: author’s own)
8.13.5 Viewshed Analysis

Figure 8.46 Viewshed of Traprain Law. See Figure 8.47 for close-up

Figure 8.47 Close up of Traprain Law viewshed
The viewshed complements the views from the site. Traprain Law is a conspicuous feature in the landscape and is visible from many places in East Lothian. There are only three areas where the natural topography restricts views: the coastal corridor in the south-east of the county, the higher ground of the Lammermuirs and the area to the immediate north of the Garletons (see Figure 8.46). Traprain has always been a prominent feature with extensive late Bronze Age activity and the memory of this site was sustained. However Traprain Law had a role to play in the later prehistoric landscape (see chapter 7). Entrances rarely directly orientated on Traprain Law (although some exceptions have been noted in the TLEP) but familiarity of the landscape may have meant that the placement of sites had reference to this distant past and helped locate oneself in the landscape. Its location close to important routeways shows that it may have been a way marker (see Figure 8.47). It has also been noted that as enclosure declines and open settlement is established, Traprain re-emerges as a centre of population.

Into the early medieval period, there is still evidence for activity although there is a cessation in settlement. A silver chain dating to the Early Christian period (Edwards 1939) and a possible cist from the same period (Armit et al 1999, 30) may be linked to an early medieval chapel, attributed to Saint Modwenna (Curle 1915, 140). The site is also associated with the myth of King Loth and has endured in people’s memories for centuries up until present day. It is therefore possible that similar myths endured throughout the Iron Age linked to the previous millennia. Enclosed sites did not appear to have direct visual references, for example with direct orientation of entrances or interiors on Traprain Law. Rather, people’s movements through and familiarity with the landscape meant that Traprain was never far from mind or far from sight.
8.14 Broxmouth

As Broxmouth is no longer upstanding and its immediate environs have been quarried away, the site could only be subjected to viewshed analysis. On modern maps and the raster data in GIS, the current ground level is 20m lower than it was originally, therefore an extra offset was inputted to recreate the original height of the hill to allow the calculations.

8.14.1 Viewshed Analysis

Figure 8.48 Viewshed of Broxmouth. See Figure 8.49 for close-up
Broxmouth would have been visible within a five kilometre radius and this is particularly noted along the flatter south-east coastal passage (see Figure 8.49). Today this passage is the easiest route into East Lothian from Berwickshire and England, with both the A1 and the main railway line to Edinburgh following this route. It is possible that Broxmouth stood along an ancient route which ran along the coast, facilitating access further south. Sections of the A1 are known to follow old Roman roads, particularly in England (e.g. Ermine street), which terminates at Berwick upon Tweed and recent excavations in Shropshire have shown that Roman roads also followed Iron Age and even Bronze Age trackways (http://www.independent.co.uk/news/uk/this-britain/what-did-the-romans-ever-do-for-us-if-they-didnt-build-our-roads-2238592.html# - retrieved 16/03/2011). The route is marked on the earliest maps of the area, dating back to 1682 and is mentioned by Aliaga-Kelly (1986, 34) as an early Medieval route. Indeed the site of
Broxmouth House (just to the west of the hillfort) is mentioned in a charter dating to 1094 (Aliaga-Kelly 1986, 41).

8.15 Discussion

This study has highlighted that a site’s particular location had an important role to play in its visual impact. With the exception of Traprain Law, sites tended to be most visible within a c.5km radius (allowing for distance decay) and this indicates that societies may have been fairly autonomous, operating within a relatively small area. However this study has also shown that the topographic affordances probably led to sites like Black, Green and White Castles being deliberately located in relation to routeways, facilitating access into the Lammermuirs. Chapter 6 has shown that there was a deliberate avoidance of settlement in the heart of the Lammermuirs and it is argued that there was a clear division of landuse during the later prehistory. It is possible that these sites would have been occupied temporarily by people passing through these areas. The numerous boundaries at White Castle in particular show that these sites were more than temporary refuges. Equally their strategic positioning indicates that access was not a ‘free for all’ and their presence may have been a visual reminder that certain communities had rights to certain areas and a degree of control over the movement into the Lammermuirs.

Sites like Chesters Drem, although located in a fairly inconspicuous location did create a visual impact. The occupants appear to have had the ability to gather people together several times over the course of decades, even centuries to reinvest in the boundaries. With six ramparts on the north side and only three on the south side, there was deliberate investment in creating a visual impact on this
side, which is also where the site would have been most visible. This study shows that the occupants of Chesters may have had control over this wider landscape but apparently this did not extend further south. Traprain Law on the other hand was already a naturally conspicuous landmark with far reaching views and perhaps these qualities were not desirable amongst people to settle on it after the late Bronze Age. However it may have formed part of myth and storytelling and its eventual re-occupation in the Roman Iron Age suggests that the association with this site and its visual impact were factors in its resettlement.

Whilst the finished sites made a visual impact, the creation of these sites, the varying construction acts and the re-creation of these enclosures would have also made an impact. These appear to have been isolated events, probably once a generation (see chapter 4 and 7) and the sight of numerous people gathering and working on creating the ramparts would have made an impression, particularly as they would have been relatively infrequent. It may not have been a particular concern for occupants of sites in more inconspicuous locations like Green and Black Castle. However the finished sites would have made their mark on people passing through this area.

The visual impact during different stages of a site’s life history would have varied and communities at sites like Broxmouth emphasised theirs with monumental entrance structures. Continuing engagement with the surrounding landscape and other social groups once enclosure was created depended on the boundary. People’s interactions and perceptions of the site would have varied according to whether the site was palisaded, or whether it had multiple boundaries. The finished product was an indication of the relationship created between the enclosed site
community and the others who participated in the event (Sharples 2007, 180). The visual impact of a site, combined with its topographic setting would have affected people’s attitudes to the site and relationships with the sites’ inhabitants.

The general topography of East Lothian means that naturally conspicuous locations are relatively rare and chapter 6 has shown that in the study area, only 14% of sites are on hilltops. In the case of Broxmouth, this was not necessarily a conspicuous location but once again shows that the local impact may have been a more important consideration in locating sites. It was also noted during the study that red and pink colours are particularly dominant in East Lothian due to the natural geology of old red sandstone (see also chapter 5) and it was particularly noted at Garvald Mains. Red objects tend to be visible over longer distances (Ogburn 2006, 406-407) and this colour may have played an important part in people's belief systems in the past. This colour would have helped to maximise the visual impact of enclosures and occupants may have found other ways to emphasise the boundary.