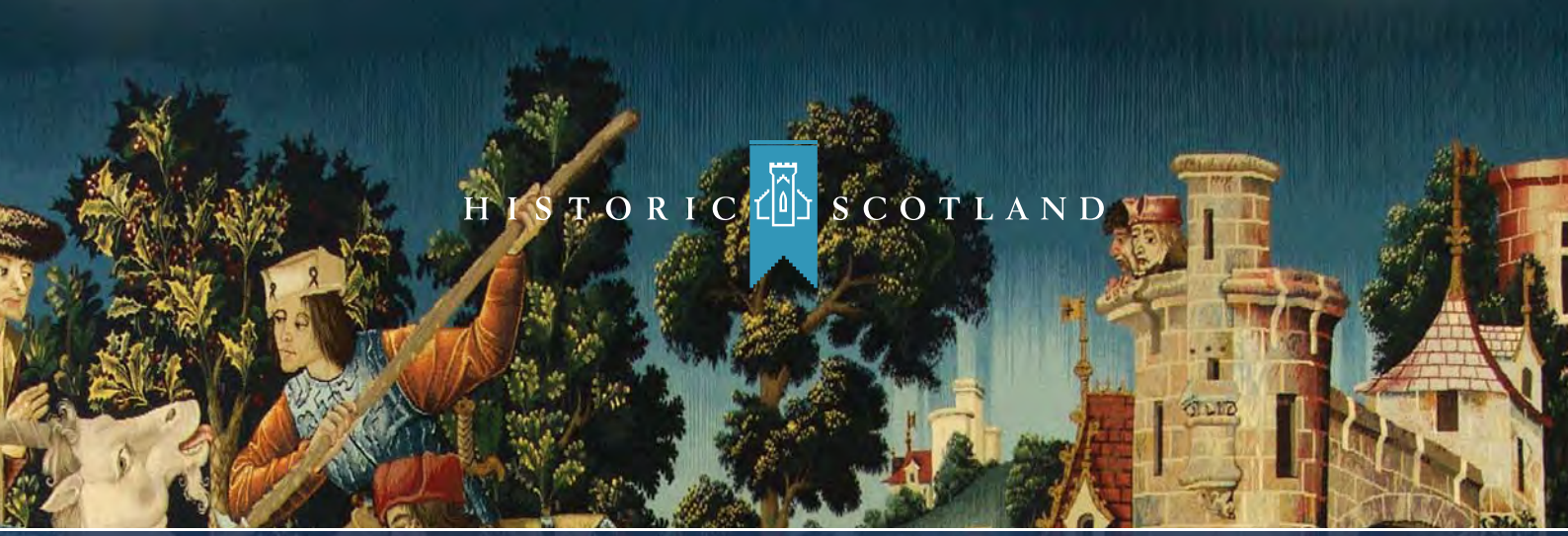


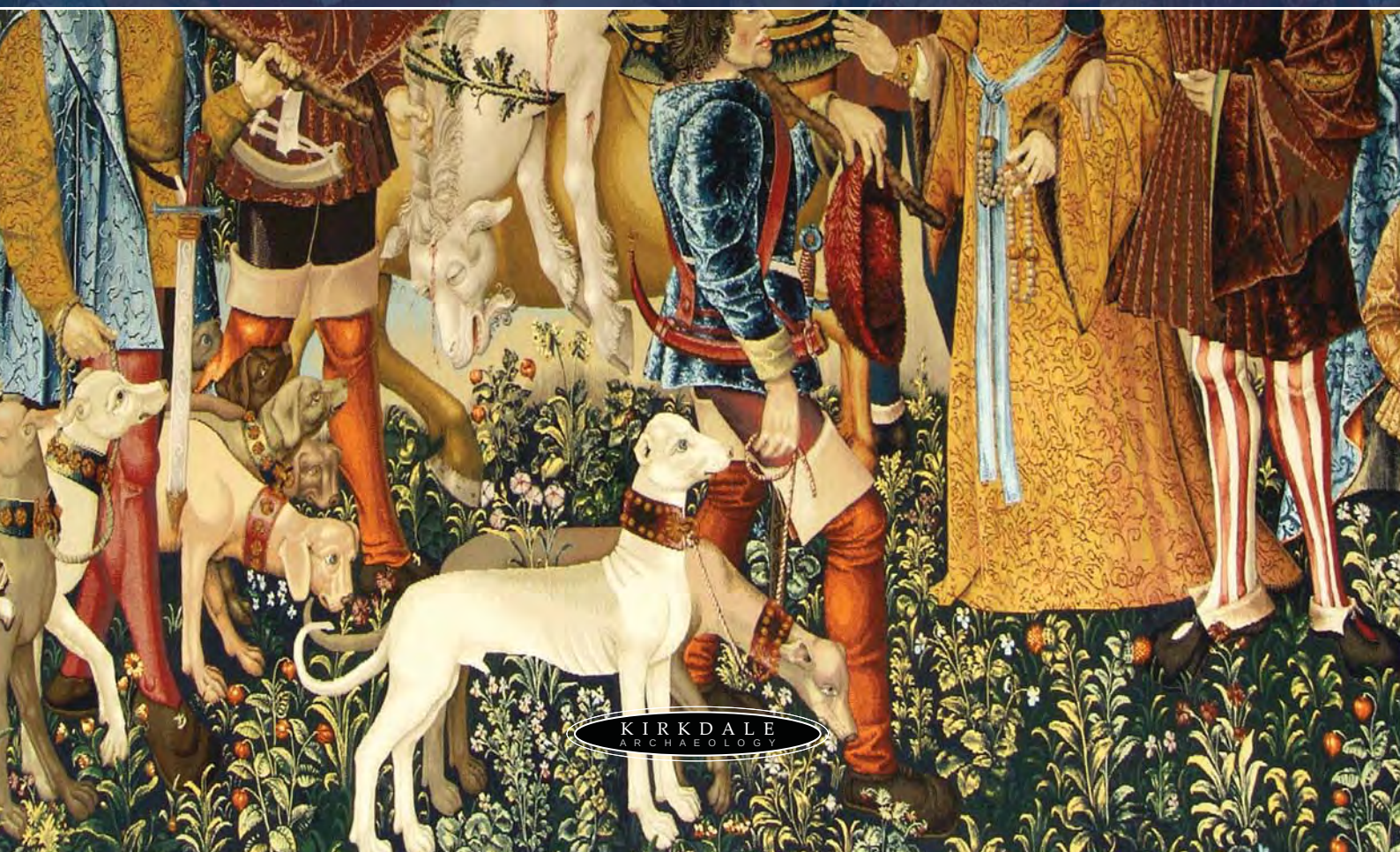
HISTORIC SCOTLAND

Stirling Castle Palace

Archaeological and Historical Research 2004 - 2008

The Nature of the Evidence

Gordon Ewart



KIRKDALE ARCHAEOLOGY

HISTORIC SCOTLAND

Longmore House Salisbury Place Edinburgh EH9 15H

Contents

1 INTRODUCTION

This project was organised on behalf of Historic Scotland in advance of and alongside extensive restoration works on the palace block at Stirling Castle. As part of an ongoing programme of remedial works on the major buildings within the castle the opportunity to record and investigate the monument more thoroughly and extensively than had ever been done before arose. In conjunction with specialist teams concerned with details of the interiors, the condition of the monument from plasterwork to timber, to craftsmen involved in wood carving and tapestry, a team under Kirkdale Archaeology was approached to undertake an initial review of the archaeological potential and issues associated with the site. Kirkdale was ultimately invited to design and undertake a multi disciplinary programme of field work, research, survey and publication for the development of the palace block. The programme of works ran in conjunction with and was managed by Historic Scotland staff ensuring close cooperation and efficiency. The various strands of research of the programme were grouped under the general umbrella of Stirling Palace Archaeological Research Committee (SPARC). This provided the avenue and locus for debate and exchange of ideas and as well as tracking the progress of the work in all forms. Shared information has enabled the work to proceed in parallel rather than in sequence. Work on the presentation of the monument as well as remedial works are therefore all programmed together in a unique fashion. Finally the experience and flexibility of all members of the teams has allowed rapid responses to the needs of the project, whether research based or of a more practical nature.

2 IF WALLS COULD TALK - THE ARCHAEOLOGY OF STIRLING CASTLE PALACE

Almost as soon as James the VI King of Scotland, I of England departed for England in 1604 the succession of visitors to the site from governors to prisoners, guards and tourists who came to Stirling Castle were aware of the great historical importance of this famous monument. This sense of historical significance is due in some measure to the association between the buildings within the castle and the colourful lives of the Stewart Royal House. There is a sense that great events leave their mark in some tangible fashion on great monuments and from that they achieve an almost reverential status. In the intervening 400 years since James VI, the last monarch who actually lived for any length of time at Stirling, departed for pastures new, the castle has achieved even greater cultural significance. Stirling is both an icon of a lost Scottish royal identity and British military might. These two themes along with a more vague

association with Robert the Bruce, Bannockburn and Edward I of England are generally intertwined in the popular image of Stirling Castle.

Against this mixture of romance and fact, archaeological investigation and research provides a more prosaic and essentially mundane approach to the past. In short archaeology can not re-inhabit the castle anymore than it is possible to recreate even the very recent past with any real accuracy. The moment passes and circumstances change forever. All that is left is the venue and fragmentary traces of an often random miscellany of activities. It is important to emphasise that an archaeological project such as the recently completed work at Stirling is not intended to pursue a given historical period, it should rather respond to the actual evidence and such facts as can be reasonably deduced on that basis.

It has been said that archaeology is a process of destruction and where this clearly may be argued for actual excavation, it is not true for the rest of the process, which relies on observation and accurate description. Excavation is only one of the three principal strands of such a project the other two being survey and historical research. These three elements combine to inform each other but also to reveal new truths about a given site. The problems of assimilating such a wide range of data from photographs to soil samples and graffiti to architectural fragments is made even more complicated considering a standing building. Clearly the archaeological strategies in tackling both buried and upstanding evidence requires a three dimensional perspective in order to best understand how the building actually operated. The process of analysis does require a gradual approach towards an interpretative model which can be refined with each level of specialist opinion and comment- from a broad brush to hopefully a fine line. The key components of a successful archaeological project are organisation and consistency. It is important to treat the site or specific parts of a site in a balanced and standardized fashion in order to avoid imbalance in the final analysis. This of course is fine in principal but difficult to achieve and that is why the evidence base should be tested in advance of the main programme where a practical solution can be devised.

3 THE SITE

The site of Stirling Castle is similar to a few royal castles most notably Edinburgh in that it exploits a glaciated volcanic outcrop. The nature of the hard basaltic bedrock and the actions of the ice create precipitous cliffs on two sides of the castle rock with more gradual gradients on

the other. The rock features a series of rocky steps or terraces on its more gentle slopes which lead eventually to the settlement of Stirling town itself down by the meandering Forth in the valley below. These terraces are gradually closer and less extensive as the summit is approached culminating in a narrow ridge like structure at the northwest corner of the rock with the steepest crags below. It is in effect an enormous wedge like shape with a series of flattish areas cut in to its main slope. The rock has influenced the development of Stirling Castle in two profound ways, firstly each terrace provided potential areas for construction and secondly the boundaries offered a ready defensive line easily enhanced by earth, timber and stone. The very nature of a rocky outcrop, however, proposes problems from both certain types of construction, notably timber and the opportunity to extend or expand the available area for occupation. This has meant that the very highest points of the castle rock have relatively shallow archaeological deposits as each successive building has eradicated its predecessor rather than buried it as is popularly imagined. Deep archaeological deposits tend to be found beyond the limits of the natural terracing where attempts have been made over many centuries, to a lesser or greater extent, to level the ground either to provide more space for building or simply to allow deep foundations or wooden posts to be sunk and held secure. There is also an unusual phenomenon concerning residuality where material on the site from rubble to kitchen waste can be used and reused for fill for landscaping purposes. The archaeology of Stirling Castle like many rocky sites is not at all straight forward with the earliest material at the bottom and the latest at the top, in fact it is closer to the reverse. There is one other broad characteristic for the evolution of the castle and that is inexorable movement to the south as the site was adapted for new purposes which could not be accommodated within the same footprint. As the site has expanded particularly in the 18th century with new earthworks, it has in a sense allowed older buildings to survive demolition and clearance. If expansion had not been possible then many of the late medieval structures, which were retained in to the 18th century barracks and garrison accommodation, would have been swept away. This circumstance may be looked upon as an accident but it is better regarded as a consequence of change where the agenda has moved on and it is easier to retain a building than to demolish it. It is difficult sometimes to be clear what is a conscious continuity and what is simply experience.

With all this in mind, the pitfalls of over presumption on one hand with the inadequacy of couching every statement in ambiguity on the other, the authors and their colleagues have tried to produce a balanced and reasonable account in the following chapters. The basis for this (we

hope) entertaining narrative is an enormous range of evidence organised into two levels. The basic repository for all the material recorded, noted, read about, drawn or described is the site archive. This includes all field notes, photographs, drawings on one hand with historic accounts, maps and plans on the other. This is the basis for the definition of the archaeological sequence. The latter is described in the next tier of information, the archaeological account. This is organised on the basis of the plan of the site and describes each space over ten historic periods. These periods refer to stages in the known history of the palace which most easily characterise changes either of use or of form for its buildings. The final level of reporting is the publication is this document- the narrative report. It is clearly impossible to produce an account of such a vast building in sufficient detail in book form so this volume is supported by a digital dataset which can be accessed to whatever level and purpose is required. The design of this digital reference is intended to allow close examination of evidence as well as browsing. This resource is intended to fulfil standard archive and management criteria in one repository for the first time. Finally, this model is intended to act as a transferable solution to any comparable project.

4 HISTORICAL RESEARCH

The surviving documentary evidence for the construction, adaptation and use of the palace in Stirling Castle is extensive but fragmentary, a notable gap being the lack of building accounts for the construction of the palace. The evidence ranges from the accounts and inventories of the Scottish kings and queens from the medieval period to the extensive records of the Board of Ordnance relating to its role as a stronghold of the British army. The master of Works accounts for the late 17th century in particular provide a wealth of detail not only of construction work but also of artisans, purchases of materials and individual contractors. Alongside these records are the detailed records of the use of the site since it was taken into state care - an archive comprising extensive plans, elevations and photographs over a 50 year period. The site has also been the focus of scholarly interest for many years and all significant research within this resource has been examined. As well as an investigation of the building history, the skill of the historians also has been applied towards given research questions on the use, furnishing and decoration of the building in order to give a full picture of life in this royal palace.

5 SURVEY

In order to organise the results of any recording strategy the particular circumstances of the site must be addressed. The archaeological sequence is created by the identification of physical changes articulated in what is described as a stratigraphic hierarchy. These changes must be seen against a control which in this instance is the site on the day the project started. All records refer to the site as it was at that time. This allows for the effect of each subsequent change to be presented in the stratigraphic sequence. The role of survey is primarily to record as effectively and to an appropriate detail each change. This can involve recording groups of very small features from nail holes in timbers to very large features such as complete walls standing many metres high. In order to mitigate and minimise practical difficulties of access, the Stirling project adopted a combination of traditional survey methods based on hand drawing at large scales through to photogrammetry, photo rectification and 3-dimensional survey, total station data. Due to the physical conditions of the site, no one method would have proved effective throughout. The upstanding walls of the palace were surveyed and described per elevation across its three floors and in to its roof space. The exteriors were also tackled in the same fashion, thus offering the potential for cross sections, cutaways and perspective drawings. The survey data also allowed for specialist sampling. This ranged from plaster and mortar samples, to the extraction of cores for dendrochronological dating in roof timbers and floor joists. All site survey work has been integrated within a full CAD survey environment model for any technical and illustrative output.

6 EXCAVATION

The excavations within the Ladies' Lookout presented some unusual problems, both logistical and archaeological, and this chapter is an attempt to catalogue these. The area is formed by the Palace to the E, on an assumed N-S alignment, the 'Army Kitchen' to the N orientated WNW-ESE, while the meandering line of the W boundary wall following the contours of the cliff forms the edge on this side. A flat cobbled terrace occupies much of the S and W today (the area of Trenches 18, 20 and 21), with a set of steps leading up to the NE to a higher terrace. To the NW this terrace (excavated as Trenches 9 and 19) is grassed over, and lies directly in front of the Army Kitchen, with its own high wall to the W (partly against the cliff) and S separating it from the lower terrace, and a low boundary wall to the E. This last wall marks the edge of the path connecting the Palace to the steps down to the lower cobbled terrace. On the other side of

this path, against the W wall of the Palace, is a further grassy area (Trench 14), flat at its N end, then sloping down gently to the level of the cobbles at its S end. From the area of the steps S a low wall runs S along the W side of this last area, dropping in height as it runs, until finally petering out.

The Ladies' Lookout is today a popular spot in the summer months, with dramatic views up the Forth valley to the W and SW. It is also a major part of the visitor 'flow' in this part of the castle, providing access between the transe along the S side of the Palace, the Palace block itself, and ultimately the upper square. The requirement to maintain this route partly dictated the layout of the excavations. Only during the final period of excavation (Trench 21) was this route interrupted, and even then space was left for visitors to view the site in the SE corner of the Ladies' Lookout. The area of the steps and path in the NE corner of the site were never excavated for similar reasons.

The interest in the site displayed by the visitors to the castle led to Historic Scotland's custodians asking us to formalise the arrangement. During the course of all the major later excavations (Trenches 14, 18, 19, 20 and 21) that were accessible to the public a schedule of three short (10-15 minute) guided tours a day were provided. This proved a popular attraction, with visitors particularly enjoying the chance to examine an archaeological excavation in front of their eyes. Much of the archaeology involved structural remains, which can be easier to explain to non-specialists than slightly different coloured layers (although not always!) A large number of relatively robust finds, such as post medieval pottery shards and clay pipe fragments were recovered, and these were physically capable of being handled, and represent readily comprehensible tangible objects from the past. These tours included a discussion of the complicated structural remains visible in the fabric of the W wall of the Palace, and this aspect of the project also fascinated many members of the public.

While these tours were often deeply rewarding, such an undertaking bit deeply into the time available for actual excavation. As they were only laid on three times a day the public would continue to question the excavators, and a 'firm but polite' tactic was adopted of answering any specific query briefly, then referring the visitor to the next tour. This problem was distinctly seasonal, with a noticeable decline in visitors during the excavation of Trench 21, undertaken between September and November 2004.

The requirement for access, as well as the split level nature of the site, also led to problems of spoil management. Both Trenches 14 and 21 were large scale open area excavations with, at least in areas, deep deposits excavated. In particular the phase of infill across much of the site, dated to around 1700, involved the deposition of vast quantities of material-probably introduced by the cart load. This material had to be manually removed and then replaced, as problems of access, and health and safety considerations from the point of view of the surrounding walls, meant no machinery could be introduced. For Trench 14 spoil was kept on the flat grassy area towards the NW of the Ladies' Lookout. As the trench sloped down to the S and the deepest deposits were at this end, this involved barrowing this material uphill. This problem was even worse for the even larger quantity of spoil removed from Trench 21. At first this was stored on the area previously occupied by Trench 14, but as this lay parallel to, and above much of Trench 21, only a limited amount could be stored in this area. The spoil from the later stages of this trench was also stored in the NW corner, involving a long, circular and uphill journey. Backfilling both of these trenches took several days.

Further constraints were placed on the excavations by the number of upstanding walls which had to be prevented from collapsing. This was a problem for the S and W sides of Trenches 9 and 19, often meaning areas here had to be left unexcavated. Similarly on the other side of these walls, at the N end of Trench 21, care had to be taken not to undermine them. The W boundary wall was very thin at this N end, and large blocks of soil were left in around this. At the S end of Trench 21 the boundary wall was found to sit on a massive curving precursor, making this end much more stable. A sondage dug against this earlier wall could not however be bottomed due to the depth of loose deposits piled up against it.

Some of the masonry uncovered during the excavations also required that areas be left unexcavated, in order to preserve these features. A gun platform found in the extreme NW corner of Trench 21, directly below the one visible at that end at the start of the excavations, was left undisturbed, restricting excavation to superficial deposits in this area. While not as romantic a brick built service box towards the S end of Trench 21 was also left with a large baulk around it.

The bedrock underlying the site is a very hard volcanic quartz-dolerite, which naturally forms terraces at different heights. Little evidence was noted for the alteration of this bedrock, and while only very small areas were exposed towards the S end of the Ladies' Lookout, the N end

was occupied by two discrete terraces at different heights, both seemingly orientated roughly NW-SE, the general 'strike' of the bedrock. The upper terrace lies in the area of Trench 9, the N end of 19, and the N end of Trench 14, while the lower occupies the SW corner of Trench 14 and the N end of Trench 21-although not the extreme NW corner, under the gun platform, where the bedrock falls away. These original natural terraces still, to a large part, define the modern day levels of the Ladies' Lookout, although both have been modified. The upper terrace was found to lie only a short distance below the turf line towards the N, but has been extended to the S, within the area of Trench 19, by the use of sizable retaining walls along its S and W sides. The lower terrace has been more dramatically transformed from the original small naturally level area it has been pushed out to the NW, S and SE. The end result is part of a long process, with a large curving revetment wall, thought to be constructed during the 16th century, pushing this area out to the S, and a later extension to the NW corner, and general raising of the height of the lower terrace, dating to around 1700. Even on the area of the original platform, such as at the N end of Trench 21, its gently sloping upper surface has been raised by between 500mm and 1 m.

The uneven nature of the site led to extremes of preservation. Across the area of the upper terrace little survived except truncated scraps of masonry, with very few remaining associated deposits, and often little in the way of meaningful stratigraphic relationships. In the extreme SW corner of the site there is masonry standing up to 8m above the height of the bedrock visible outside the Ladies' Lookout. The dramatic cliff line immediately to the W of the site is a vivid reminder of the difficulties that must have faced any building project in such a location. A historic reference to collapses in this part of the castle, recorded in 1625, is backed up by the large amount of dolerite rubble at the base of the cliff. Substantial quantities of this material, evidently fallen from the cliff above, can be seen today, enough to suggest that multiple collapses are likely to have happened along this face. While the difference between accidental collapse and deliberate demolition can be hard to tell in an archaeological context, a good candidate seems to be the NW corner of Trench 21, the area currently under a gun platform. A stub of masonry, F21111, runs out from under the current boundary wall for some 1.2m before ending. On a continuation of its line to the NW the bedrock was often exposed, with dark brown silt F21176 spilling over this, and dropping, with the bedrock to the NW. A mixed assemblage of finds was recovered from F21176 (including some probable prehistoric material), and to the NW of the line of F21111 only deposits relating to the infill of circa 1700 were found.

This seems a good candidate for an area that has fallen away before 1700, and then been built back up, making the original outer line of the castle here unclear.

While more likely to represent deliberate demolition (although quite possibly of structures that had already collapsed) truncation was evident across much of the S and W of the site. Across the N part of Trench 21, the SW corner of Trench 14 and all of Trenches 18 and 20, medieval deposits and structures survived at a fairly uniform height, generally between 97.5 and 98mOD. No evidence for later activity was recorded until the infill of 1700, shown in section to be simply poured in over the top of much earlier archaeology. The medieval archaeology that was recorded in these areas represented substantial depths of infill, at least in localised hollows in the bedrock, with truncated structural remains on top of this. A major NW-SE wall line, F21187, cutting diagonally across the Ladies' Lookout, and thought to mark the outer limit of the castle, was badly robbed, surviving to this height along its length. At its NW end, where it runs under the current boundary wall, it survived to a greater height and here the wall stepped in and was better built in this upper part, indicating that only the footings of the wall had survived elsewhere. To the N of this, away from the deeper infill of hollows, only thin soils over the natural were recorded, often interrupted by bedrock outcrops. A series of shallow cuts, often only a few centimetres deep were recorded in Trenches 14 and 21, lying on the lower terrace to the N of this wall line. One of these was cut into the underlying rock, demonstrating that it was a real feature, and indicating that it was almost certainly truncated. To the S of F21187's line lay the massive curving wall F21185, still forming the bulk of the masonry of the S side of the Ladies' Lookout today. The area between these two walls was infilled, probably in the 16th century. The upper surface of both the infill and the wall seemed truncated, although the wall stood higher than the deposits inside it. Again the infill of 1700 was simply poured in over the top of this, with the boundary wall associated with this phase built directly on the upper surface of F21185. It seems clear that there is widespread truncation in this part of the site, although it is unclear as to how extensive this is.

The underlying geology has had a major impact on the types of features uncovered, and their locations. The flat terraces provided a focus for repeated buildings, although curiously not the lower terrace. The area of Trenches 9 and more particularly 19 were filled by a bewildering variety of walls, often on different orientations. A further focus was the SE corner of the Ladies' Lookout, specifically the area of Trench 18. Some of these were Roughly N-S, under the later Palace wall, and suggest, a further platform, under the S end of the West Range of the Palace, a

conclusion backed up by the results of Trench 16, actually within the Palace. The lower terrace referred to above, while possibly truncated, showed no evidence for any major structures, possibly being too small and too close to the cliff edge.

Major episodes of infill, to level off the site are also well attested. The largest episode, dated to circa 1700, involved massive deposition of multiple contexts, across much of the site. No layers corresponding to this were recognised in Trenches 9, 18, 19 or the NE corner of Trench 14, corresponding to the area of the upper terrace, and the terrace under the SW corner of the Palace. Such deposits were often hard to follow, as a single layer might drop dramatically during its course. They generally comprised very loose material, with much potential for mixing of contexts, so that individual horizons were often only recognised in section. The construction of later walls, often dug down through this material to bedrock, and service trenches, also confused the stratigraphy and introduced the potential for contamination. Much of Trench 14 for example lay within the area of the 19th-century ablution house, all of the walls of which were dug right down to the bedrock, effectively isolating this trench. As well as this major episode smaller, more localised deposits of a similar nature were recorded across the site.

A further factor that had often severely damaged the archaeology of the site was the digging of numerous service trenches, of 19th and 20th century date. In this respect it has been very unlucky, as few of these relate to the site itself, most are simply using it as an area of open ground, where excavation is possible, in a crowded castle. The room at the S end of the West Range of the Palace was a boiler house in the late 19th century, and numerous services had been fed through the wall here, the area of Trench 18. These had particularly damaged the S end, reducing the masonry at this end to a flat surface. This corner of the site was a major route for services anyway, as many of them presumably feed through into the transe. The most serious of these was a (live) electric cable that ran N-S up Trench 14, effectively splitting the trench in two. To the S this same cable split Trenches 18 and 20, with Trench 20 in particular completely isolated from all other trenches by this to the W, and the wall of the ablution house to the N.

The Army Kitchen to the N had obviously had a great requirement for water, and the pipes to carry this away had badly damaged Trenches 9 and 19. One particularly deep trench, angled NW-SE split both these trenches in two. The complex of pipes seen in the E end of Trench 19 was extraordinary. Great effort had been made to dig these to the required depth, no matter

what the obstacle. One wall in particular, F19031, originally a massive construction seen in Trench 9 to run N-S, was left a shapeless mass of rubble, with no discernible orientation in Trench 19.

The final factor that had damaged the site was some particularly brutal landscaping in the area of Trench 14 when the ablution house was pulled down in the early 1970s. Not only has this altered the upstanding masonry of the Palace wall, but it seems to have involved the removal of large amounts of material from the area of this trench. The floor level of the ablution house seems to have been at the same height as the level of the upper terrace. This means that the gently sloping grassy area seen today was created at that time by the removal wholesale of the ablution house and the deposits within it. This was so effective that almost nothing survives of this structure- certainly not its floor level, and even its walls have been almost totally removed, those that remain representing an earlier structure that the ablution house was built over. Only a small fragment of the W end of its N wall, and the porch added to its N are thought to survive.