



HISTORIC  
ENVIRONMENT  
SCOTLAND

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Property in Care (PIC) ID: PIC169

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Conservation Area (CA265)

Taken into State care: 1982 (Ownership)

Last Reviewed: 2019

## STATEMENT OF SIGNIFICANCE

# ANTONINE WALL - BEARSDEN BATH-HOUSE



We continually revise our Statements of Significance, so they may vary in length, format and level of detail. While every effort is made to keep them up to date, they should not be considered a definitive or final assessment of our properties.

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# HISTORIC ENVIRONMENT SCOTLAND STATEMENT OF SIGNIFICANCE

## ANTONINE WALL – BEARSDEN BATH-HOUSE

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# PART A: FRONTIERS OF THE ROMAN EMPIRE WORLD HERITAGE SITE

## Introduction

In 2008 the Antonine Wall was inscribed by UNESCO to become part of the Frontiers of the Roman Empire World Heritage Site (FREWHS). This already included Hadrian's Wall (inscribed in 1987) and the German *Limes* (inscribed in 2005). To be inscribed on the world heritage list, a site must meet at least one of the criteria for the assessment of Outstanding Universal Value (OUV) as defined by UNESCO<sup>1</sup>. A fuller exposition of the OUV of the site is given in Appendix 3 below or can be found on the UNESCO website.

This brief introduction sets the Antonine Wall in the context of the FREWHS and outlines the justification for inscription of the Antonine Wall on the World Heritage List.

The Historic Environment Scotland (HES) Statement of Significance for Bearsden Bath-House which follows at Part B, recognises this individual site as an integral part of the wider Antonine Wall World Heritage Site. The Assessment however focusses in on Bearsden Bath-House itself for a closer examination of its individual history, development and range of heritage values.

It is also acknowledged that HES directly manages only a small proportion of the whole Antonine Wall WHS. This assessment is intended to inform understanding and management of those sites (or 'Properties in Care') for which HES has direct management responsibility:

Bantaskin (PIC167); Bar Hill (PIC168); Bearsden Bath-house (PIC169); Castlecary Fort (PIC170); Croy Hill (PIC171); Dullatur (PIC172); Garnhall Farm (PIC173); Kinneil House (PIC152); Kirkintilloch (PIC174); Rough Castle (PIC175); Seabegs Wood (PIC176); Tollpark (PIC177); Watling Lodge (PIC178) and Watling Lodge West (PIC179).

## The Frontiers of the Roman Empire WHS (FREWHS)

The Antonine Wall is one of only three artificial frontiers constructed by the Roman army in Europe. Collectively, they form a serial trans-national World Heritage Site, the FREWHS; the OUV of which lies in the survival of the 2nd-century Roman frontier system across Europe, North Africa and the Middle East. This reflects the development and breadth of Roman military architecture and power. Together, the inscribed remains form an extensive relict cultural landscape which displays the unifying character of the Roman Empire, through its common culture, but also its distinctive responses to local geography and political and

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<sup>1</sup> For more information on Criteria and the Inscription process, see <https://en.unesco.org/>

economic conditions. Each component part is a substantial reflection of the way resources were deployed in a particular part of the Empire.

## The Antonine Wall within the FREWHS

For a short period in the mid second century the Antonine Wall formed the north-western frontier of the Roman Empire. The Antonine Wall was built under the Emperor Antoninus Pius in the 140s AD as an attempt to conquer parts of northern Britain, and extends for some 60km across central Scotland from the River Forth to the River Clyde. Through its military and civil constructions, it demonstrates cultural interchange through the extension of Roman technical skills, organisation and knowledge to the furthest reaches of the Empire. It embodies a high degree of expertise in the technical mastery of stone and turf defensive constructions. As it was in use for only a single generation, it provides a dated horizon at a particular point in time and offers a specific insight into how the frontier was designed and built. Together, the remains of the frontiers, consisting of vestiges of walls, ditches, earthworks, fortlets, forts, fortresses, watchtowers, roads and civilian settlements, form a social and historical unit that illustrates an ambitious and coherent system of defensive constructions perfected by engineers over the course of several generations.<sup>2</sup>

The Antonine Wall, as a Roman frontier, is a physical and visual testimony to the former extent of one of the world's greatest states, the Roman Empire. It formed part of a frontier system which surrounded and protected that Empire.

The Antonine Wall has a particular value in being the most highly developed frontier of the Roman Empire: it stands at the end of a long period of development over the previous hundred years and therefore facilitates a better understanding of the development of Roman frontiers in Britain and beyond. It is one of only three artificial barriers along the 5000km European, North African and Middle Eastern frontiers of the Roman Empire. These systems are unique to Britain and Germany, though more fragmentary linear barriers are known in Algeria and Romania. Built following an invasion of what is now Scotland during AD 139/142 and occupied for possibly only 20 years, it served as the most northerly frontier of the Roman Empire at the high point of its power and influence in the ancient world. It has many unique features which demonstrate the versatility of the Roman army, while its short life is of considerable value in offering a snap-shot of a Roman frontier in its most advanced state. As the most northerly frontier, it stands as an example of Rome's stated intention to rule the world.

The Antonine Wall has a distinctive value as a unique physical testimony to the nature of the constitution of the Roman Empire and the requirement of the emperor for military prestige. The abandonment of Hadrian's Wall and the construction of a new northern frontier at the behest of a new emperor reflects the realities of power politics in Rome during Edward Gibbon's "Golden Age". It also stands as a physical manifestation of the statements of writers flourishing during the reign of Antoninus Pius about the measures which Rome took to protect its inhabitants, even those living in its most distant province.

The Antonine Wall is of significant value in terms of its rarity, scale, preservation, and historical and archaeological value; the engineering and planning skills of its

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<sup>2</sup> <https://whc.unesco.org/en/list/430>

builders; the understanding of Roman frontier policy and management, and its influence on the landscape and history of local peoples during the Roman period and beyond; and also in terms of its contribution to the economic, educational and social values of today's society.<sup>3</sup>

- The Antonine Wall sits within the broad framework of Roman frontiers, but it also contains many unique or unusual elements. These mainly relate to the structure itself:
- The Antonine Wall was built within 20 years of Hadrian's Wall, and, in its general framework, bears some features in common, but in many aspects it is clearly a development of Hadrian's Wall and is different in many ways, reflecting a more complicated frontier complex;
- The Antonine Wall is the only known frontier to have had a turf rampart erected on a stone base. Hadrian's Wall was of stone in the eastern part and turf in the west, but the turf wall was built directly on the ground - though short stretches of cobble foundations have been found at two locations - and was wider than the Antonine Wall. The Outer *Limes* in Germany was a timber palisade in its primary phase. The purpose of the stone base may have been to add stability to the superstructure, or to aid drainage through the barrier;
- The forts are more densely spaced on the Antonine Wall than on any other frontier of the Roman empire;
- Unlike on Hadrian's Wall the forts are diverse in their sizes, defences and internal arrangements;
- Unusually, many forts have annexes attached to them. Annexes have been recorded at many forts but not at those on linear barriers, but no such structures were constructed on Hadrian's Wall and they do not exist in the same form on the German *Limes*;
- Six expansions, probably used for signalling, are known: these structures are unique to the Antonine Wall;
- The three small enclosures discovered in one section of the Antonine Wall are unique on Roman frontiers;
- The short life of the Antonine Wall, coupled with the location and morphology of the known camps, enables most to be definitively identified as temporary camps used by the soldiers building the frontier. As a result, it is possible to offer suggestions on the organisation of labour, which is not possible on other frontiers. Many temporary camps are known along the line of Hadrian's Wall (few are recorded in Germany and elsewhere), but the long history of many other frontiers renders it difficult to disentangle temporary camps from marching camps and practice camps;
- The Antonine Wall was the shortest occupied linear frontier in the Roman Empire and is thus a unique archaeological resource.

The temporary camps discovered on the Antonine Wall are particularly important in relation to the final unique element, the twenty Distance Stones which are known either whole or in part from the Antonine Wall. These record the lengths of Wall built by each of the three legions of Britain, the Second, Sixth and Twentieth.

However, the distance stones are not simple records, but highly decorated and sculptured stones which depict events during the military campaigning and form

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<sup>3</sup> Historic Scotland 2007: 75



one of the most important collections of roman military sculpture from any frontier of the roman empire. Together with the evidence of the temporary camps, they allow important conclusions to be reached about the construction of the Antonine Wall which are unique to this frontier. They are also an important element in any consideration of the reason for the construction of the Antonine Wall, which is generally believed to relate to the personal position of the new Emperor Antoninus Pius. On one interpretation, they glorify the success of Roman arms on behalf of the Emperor, whose name appears on all the inscriptions, over the enemies of Rome and emphasise the support of the gods, and in particular the goddess victory, for the romans and their emperor. However, as the known distance slabs have been removed from the monument and placed in museums or their protection, they are not included in the world heritage site.<sup>4</sup>

## PART B: STATEMENT OF SIGNIFICANCE: BEARSDEN BATH-HOUSE



Bearsden Bath-House: Scheduled Area and Property in Care boundary (centre).  
For Illustrative purposes only.

<sup>4</sup> Historic Scotland 2007: 76-77

# I. SUMMARY

## 1.1 Introduction

This property is part of the Antonine Wall Roman frontier and comprises the remains of a Roman bath-house and latrine (toilet), which is now on public display within the annexe of a former Roman fort, in a suburban context on the edges of Glasgow. Although the fort itself is now covered over by modern housing, the property provides a good example of the preservation, management, and public accessibility of ancient remains within a contemporary developed residential context. The site is particularly important as the location of one of the few large-scale excavations of an Antonine Wall fort in the period after World War II, allowing for a greater degree of sophistication in methodology, recording, and post-excavation analysis than for the majority of major installations along the frontier. It also features several unique characteristics that are unknown along the Wall or at other Roman military sites.

## 1.2 Statement of Significance

As a part of the Antonine Wall, this property inherits the following aspects of significance:

- It is part of a well-preserved Roman frontier.
- Of all of imperial Rome's linear frontiers, this is the final and most developed example, in terms of strategic defense. Its engineers improved on Hadrian's Wall (built a generation before), to incorporate new features into its design, such as the use of fortified annexes which are unique in Roman linear frontier systems. It allows the development of Roman frontiers to be investigated through comparison with Hadrian's Wall and the German *Limes* thereby allowing us to understand more clearly the arrangements the Romans made to protect their Empire, as well as the relationship between broad principles and distinct local requirements. The Wall has further importance as a dating tool. Artefacts, pottery and ecofacts found in the structures along the frontier had a limited period of use, and are invaluable for helping date other forts and civil settlements.
- At the time of its creation, it represented the biggest ever engineering project to be undertaken within central Scotland, and a major human-engineered topographical transformation of the landscape.
- The Antonine Wall is the only frontier known to have had a turf rampart erected on a stone base; this may have been to add stability to the superstructure, or to aid drainage through the barrier.
- Following the Roman military abandonment of the frontier, it remained a highly visible landscape feature with continued significance in subsequent periods. It retained significance in a number of ways, e.g. as a defensive line,



with its stones and Distance Stones reused in the construction of neighbouring dykes and properties, and in the name “Graham’s Dyke,” by which it came to be known; a name still reflected within modern street names in the eastern half of the Wall’s line.

- Within the FREWHS, the Distance Slabs are unique to Scotland. Three legions built the Wall, and erected these 20 sculpted and inscribed sandstone blocks to record the completion of their individual stretches.
- The Antonine Wall is a most important repository of environmental evidence, both through its materials of construction and because it provides a dated horizon stretching right across Scotland. Through environmental evidence from the Antonine Wall, it has been possible to reconstruct the vegetational history of Central Scotland. The wall gains further international significance through the context in which it is managed as a World Heritage Site. The archaeological remains, the line and the setting of the Antonine Wall and its buffer zone are protected by UK Acts of Parliament, supplemented by National Planning Policy Guidelines, which together form a coherent framework for the protection of the whole of the World Heritage Site and its buffer zone.

More particularly, Bearsden Bath-house is significant for the following reasons:

- It contains the exposed remains of a Roman bath-house and latrine, the most impressive collection of visible buildings on the Antonine Wall.
- It is an unusual example of a publicly presented part of a large-scale excavation of an Antonine Wall fort and annexe, in the post-WWII period.
- It represents a unique configurational sequence, with separate fort and annexe being created by the division of an original singular enclosure.
- Scientific analyses of sewage deposits have provided the most detailed understanding of soldiers’ diet and health for any location along the Antonine frontier.
- A reappraisal of coarse pottery along the frontier, prompted by the Bearsden excavations, has shed new light on our understanding of the soldiers stationed within the forts

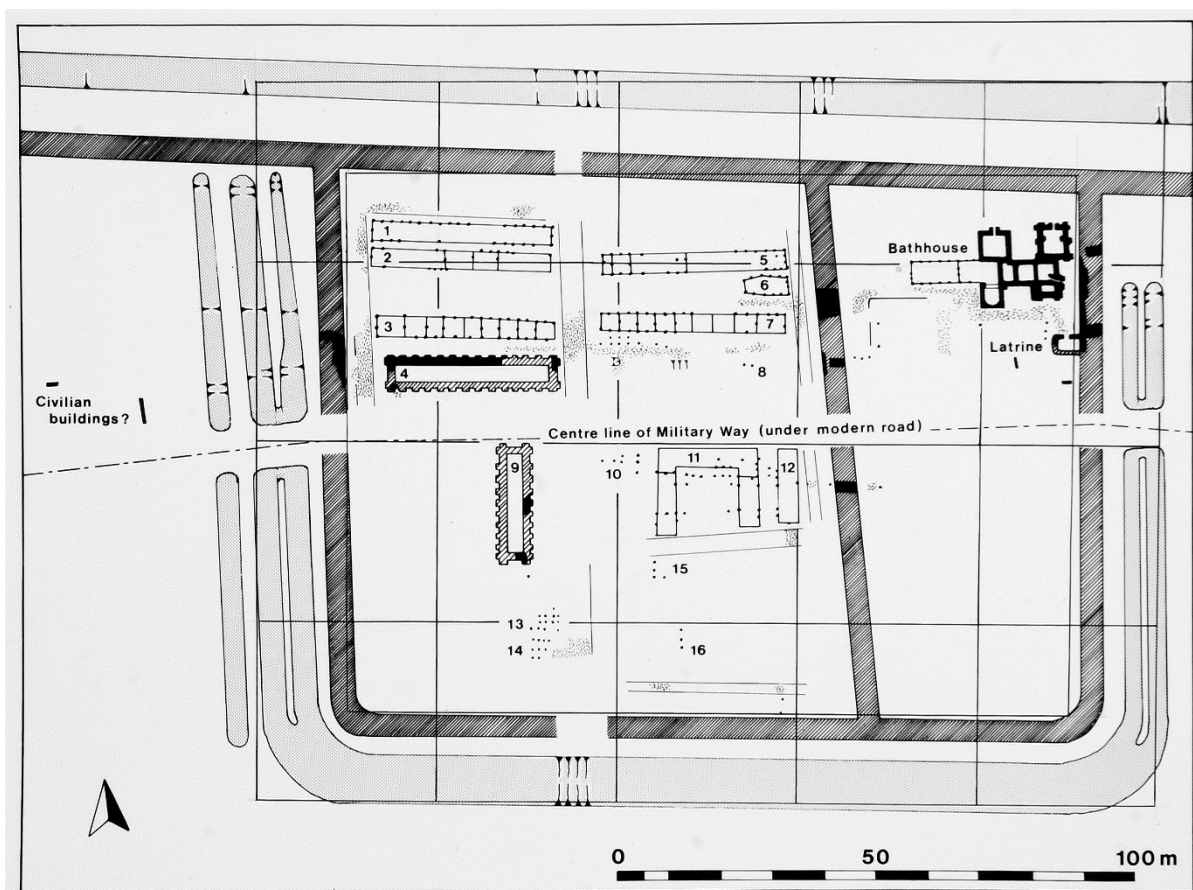
## 2. ASSESSMENT OF VALUES

### 2.1 Background

The Antonine Wall is the remains of the Roman Empire’s northwest frontier built in the mid-second century. It was around 41 miles (66km) long and stretched across central Scotland from the Firth of Forth near Bo’ness to Old Kilpatrick on the Clyde. The Wall was constructed, in functional operation, and then abandoned all within a period of about twenty years between the early AD 140s–160s. A full overview and description of the Antonine Wall is given at Appendix 4<sup>5</sup>.

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<sup>5</sup> Note: The key linear features include the Rampart, Ditch, Berm, Outer Mound, and Military Way; these features are all presented in this document with an initial capital letter



Plan of the 1973-83 excavations of the fort at Bearsden overlain with a grid showing that, despite the apparently haphazard placing of the buildings, the fort was constructed within a framework based on the actus, 120 Roman feet long.

Though termed a “Wall”, the main structure was of Rampart and Ditch. The Rampart was constructed mostly out of layers of turf, erected on a stone base, and reached a height of 3m. To the north of the Wall, the defences also included a huge Ditch, nearly 5m deep in places, and an Outer Mound constructed from the earth thrown out of the ditch. Seventeen forts plus additional ‘fortlets’ accommodated the men stationed along the Wall during its brief occupation (the number could be as low as 4,500-5,000 men)<sup>6</sup>.

The Military Way, a service road built to the south of the Wall, was another important element, enabling troops to move swiftly along its course, bearing supplies, commands and news. The Wall was entirely built by members of the three Roman legions stationed in Scotland. During construction, the soldiers lived in leather tents situated inside temporary camps which were enclosed by light defences. These temporary camps were an integral part of the design of the

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in order to avoid confusion between the main frontier’s Rampart and Ditch and those ramparts and ditches that surround the Wall’s installations.

<sup>6</sup> Keppie 2009

Antonine Wall, and were carefully positioned along the frontier during its creation, to ensure maximum efficiency.

In the late 150s / early 160s AD the Antonine Wall was abandoned and the guard withdrawn. The rampart was not demolished, nor was the ditch filled in, but fort buildings were burnt or dismantled. The Romans took valuable and portable items away with them, but heavy or worthless objects were discarded, in some cases down the well of the fort – to the great benefit of future archaeologists.

Throughout the post-Roman and medieval periods the Antonine Wall and its immediate vicinity saw continued occupation and the construction of new settlements and structures, including churches, villages, and several castles, including mottes. The wall became known as ‘Grymisdyke’ and its Roman heritage was forgotten. Throughout the post-Roman and medieval periods the Antonine Wall and its immediate vicinity saw continued occupation and the construction of new settlements and structures, including churches, villages, and several mottes and castles.

From the 18th century there was growing interest in and exploration of the Wall by antiquarians, and certain sites became celebrated. Industrialisation and development in the central belt also saw destruction of some parts of the wall by agricultural and industrial development, and the building of roads and canals.

HES manages fourteen sites along the Wall but the majority of the Wall is not in State care. Bearsden Bath-House was taken into State care in 1982 and Scheduled in 1994. In 2008 the Antonine Wall was inscribed as a World Heritage Site and a Management Plan for the WHS is available at [www.antoninewall.org/world-heritage/managing-antonine-wall](http://www.antoninewall.org/world-heritage/managing-antonine-wall).

Following inscription in 2008, a Management Plan Steering Group was established to develop and deliver Management Plans and key strategic work along the Antonine Wall. This comprises Historic Environment Scotland (HES) and the five local authorities along its length (West Dunbartonshire Council, Glasgow City Council, East Dunbartonshire Council, North Lanarkshire Council and Falkirk Council). A World Heritage Site Co-ordinator is employed by HES to work on behalf of this partnership and deliver the UNESCO WHS requirements. The Partnership invests in capital and revenue projects to protect and promote the Antonine Wall; since inscription this has included (amongst other projects) key branding work, a new website, a digital app platform, new road and onsite signage, economic and visitor studies, investment in visitor counters and a significant Heritage Lottery Fund (HLF) project focused on regeneration and community engagement. New staff members were recruited for a three year period to manage the HLF project and key to their work was a co-design and co-curation approach with local communities. Key groups being targeted include communities in the most deprived areas of the Central Belt, asylum seekers (including those from areas associated with the original Roman troops stationed on the Antonine Wall), young people both in and out of schools, and individuals seeking skills development opportunities.

The Antonine Wall has benefited from the development of the John Muir Way, a coast to coast walking route that crosses several parts of the Antonine Wall. This has helped to find alternative routes for cyclists and horse-riders, where some parts of the site had been vulnerable to damage from such use.

Internationally, as part of the Frontiers of the Roman Empire World Heritage Site, staff and communities connected to the Antonine Wall liaise and network with counterparts along Hadrian's Wall and the German *Limes*. This has included: joint European funding bids; networking trips; hosting / attending international meetings and delegations; and conferences and seminars. There has also been successful engagement with wider European Roman frontier networks.

## 2.2 Evidential Values

Of the small number of Antonine Wall forts excavated after the second World War, Bearsden was subject to the largest-scale excavations; this substantially increases its evidentiary value. Although most of the fort is now covered over by modern housing, a little less than one-third of the site's total enclosed area was strategically excavated between 1973 and 1982, after which, the bath-house and latrine were preserved and made publicly accessible. Particularly enhancing the value of the property and its associated buried remains is the fact that these excavations have now been published<sup>7</sup>, including varied contributions from more than 35 specialists.

The excavations were selective but well-positioned, crossing defences and key internal structures in both the fort and annexe. The resulting plan is incomplete, but there is sufficient detail from the excavation records to support the inferred outline and internal arrangement, while unexcavated areas of the site remain below modern housing development as a potential evidentiary resource for the future. Although the outer defences of a single enclosure had been identified in the eighteenth century, excavators were surprised to discover that what was thought to be a simple fort had two significant phases, with a subsequent division into a uniquely arranged fort and annexe, entirely contained within the defences of the original fort.

The ceramic collection from Bearsden is the largest collection of published pottery from the Antonine Wall<sup>8</sup> and, indeed, the most substantial record of Antonine pottery from all of Scotland. It represents the most up-to-date and comprehensive assessment of Roman frontier ceramics in Britain, and is sure to be referenced for comparison with other sites across the Empire. The evidence for local production, multi-potter workshops, links to one of Roman Britain's most famous potters (i.e. Sarrius), and wares of North-African style are all important for understanding the Empire's pottery supply systems, industrial activities within Rome's frontier zones, and the extensive mobility of people and cultural production.

The remains of sewage from the latrine has been an especially important source of information, and highlights the value of scientific techniques that have been developed since the early twentieth century, when the majority of Antonine Wall fort excavations took place. Scientific analyses of ditch fills, including rich deposits from the latrine's sewage drain, reveal important aspects of the soldiers' diet and

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<sup>7</sup> Breeze 2016

<sup>8</sup> *Ibid.* 103-181

health. This includes the conclusion that the garrison likely consumed a primarily plant-based diet, and that supplies were a combination of local gathering and continental imports: including barley and wheat, figs and raspberries, coriander and opium poppy seeds, celery, and bramble<sup>9</sup>. These sewage deposits also provided evidence of health problems faced by the soldiers at Bearsden, including whipworm and roundworm parasites, which were common maladies across Roman and medieval Britain<sup>10</sup>.

## 2.3 Historical values

This property tells multiple stories, most visibly that of the social space represented by military bath-houses and latrines, examples of which are on public display here. Although the property itself is limited to these visible remains, the story also involves their relationship to non-visible portions of the fort and annexe, which now lie under modern housing. The reconfiguration of space from the original fort to its later division into a smaller fort and annexe is also significant here, and demonstrates the complex history of the development of the fort and wider frontier. Given that the Antonine Wall had such a short functional lifespan – only from around AD 142 to 160/65 – these changes reveal just how dynamic Roman forts were; challenging popular views that Roman forts followed a uniform and unchanging design.

Also significant is the story that this property can tell about the development of archaeology as a discipline, informing scholars and the public about new techniques and the importance of leaving significant portions of sites like this unexcavated for future researchers. Significant scientific and methodological advances were developed between the early twentieth century, when most Antonine Wall fort excavations took place, and the 1970s and later, when excavation and post-excavation work was carried out for Bearsden. This has allowed for the completion of important types of analysis that were not available for the Wall's major pre-war fort excavations. It was previously not possible, for example, to complete the types of analyses of soils<sup>11</sup>, botanical materials<sup>12</sup>, charred materials adhering to potsherds<sup>13</sup>, insect remains<sup>14</sup>, and the investigation of parasites in the fort's east annexe ditch<sup>15</sup>, that are included within the final report from the Bearsden excavations. These analyses, which were not imagined in previous eras of archaeological excavation and publication, provide a level of detail as yet unobtainable for the Antonine Wall's other forts, and offer new insights and avenues for future research on this and other Roman frontiers.

Nestled within a developed suburban context, the property also contributes to the story of modern places, and helps to demonstrate the accumulating affect that

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<sup>9</sup> Breeze 2016: 223–280; 369–371

<sup>10</sup> *Ibid.* 301–303; 371

<sup>11</sup> *Ibid.* 77–79

<sup>12</sup> *Ibid.* 223–280

<sup>13</sup> *Ibid.* 281–284

<sup>14</sup> *Ibid.* 289–299

<sup>15</sup> Breeze 2016: 301–303



both past and current activities have on the development of contemporary significance. Little is known of the site's post-Roman history until modern times, but the area's name has changed over the past few centuries. A little after 1649 a church was built in the area to serve the new parish of East Kilpatrick<sup>16</sup>, and the site is subsequently referred to by most antiquaries under the name "New Kilpatrick" or "New Kirkpatrick"<sup>17</sup>. Sir Robert Sibbald, in reporting an earlier account by the seventeenth-century physician and antiquarian Christopher Irvine, preserves an earlier name of "Hay Hill"<sup>18</sup>, but no further records are known. Enough of the fort's outer defences were visible for these eighteenth-century antiquaries to provide basic plans, but by the time General William Roy visited the site in 1755, extensive ploughing had already made it impossible to say much about the interior of the fort, and even the outer defences were difficult to trace<sup>19</sup>.

By the mid-1800s, as the local village grew, the site had become a significant source of building stone. Robert Stuart records that "many hundred cart-loads of stones have been removed at different times from the line of the Military Way, and also from the foundations of the Station [i.e. the fort and annexe]", but also adds that "many hundreds more remain to be dug out whenever they may be required"<sup>20</sup>. At this time the village was described as a "very tiny hamlet" with "[no] more than a dozen, or so, of humble cottages" and located to the west of the fort's location, which was by then already called "Bear's Den" by local inhabitants<sup>21</sup>. A railway station was opened in 1863, and this was called Bearsden station rather than New Kilpatrick after the village's name. Less than a decade later, by the summer of 1871, the Glasgow antiquary John Buchanan recorded that the village had finally expanded over the fort, and "the last vestiges [...] were levelled and obliterated"<sup>22</sup>. The village retained the name New Kilpatrick, but Buchanan is recorded as objecting to efforts to call it Bearsden<sup>23</sup>. Despite increasing use of the name "Bearsden," its wider acceptance took some time to develop: the *Antonine Wall Report* consistently refers to the site as "New Kilpatrick" except in a quoted footnote<sup>24</sup> while Macdonald was happy to intermingle both "New Kilpatrick" and "Bearsden" throughout his works<sup>25</sup>. Sadly, the origins of the name Bearsden are unknown.

## 2.4 Architectural and artistic values

This property represents the north-east corner of the fort's annexe, and the most significant architectural features are the bath-house and a latrine; this is the single most impressive set of Roman buildings currently visible on the Antonine Wall. The bath-house was of cruciform design and only partly constructed of stone,

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<sup>16</sup> Keppie 2012: 14

<sup>17</sup> Gordon 1726: 53; Horsley 1732: 166; Maitland 1757: 180

<sup>18</sup> Sibbald 1707: 29

<sup>19</sup> Roy 1793: 158–159

<sup>20</sup> Stuart 1852: 313

<sup>21</sup> Macdonald 1856: 324–325

<sup>22</sup> Macdonald 1934: 168

<sup>23</sup> Keppie 2012: 117

<sup>24</sup> Glasgow Archaeological Society 1899: 128

<sup>25</sup> Macdonald 1911; 1934

with a timber changing room (*apodyterium*), part-timber cold room (*frigidarium*) with a stone paved floor, and then fully stone cold plunge bath, two sequential warm rooms (*tepidaria*), hot room (*caldarium*) with a hot immersion bath (*alveus*), and a hot dry room or sauna (*laconicum* or *sudatorium*), as well as a furnace (*praefurnium*). Water from the bath-house was then drained 10m to the south, where a latrine block was located; from there, the waste water and sewage was drained outside of the fort/annexe through the east rampart and into the double ditches<sup>26</sup>.

The bath-house was found to have at least two phases, recognised in both the floor and south wall of the changing room<sup>27</sup>. Two phases are also possible in the cold room, due to an unusually high number of post-holes along the room's south and west walls<sup>28</sup>. Three phases were identified in the first warm room, with a pillar-supported raised floor being later replaced by a clay-filled basement and then two subsequent flagstone pavings; it is highly likely that this room started its life as part of the bath's heated range but "may have simply become a passage" when the underfloor heating flues were filled in<sup>29</sup>. In addition to these interior changes, part of an even earlier bath-house was also located adjacent to the surviving bath-house structure; the presence of a roof suggests that this room was nearly completed, but the basement for hypocausts had not been excavated before the structure was demolished and work had begun on the later bath-house<sup>30</sup>.

Outside of the Property in Care boundary, several features of the wider fort and annexe at Bearsden (of which this property is a part) should be noted. One significant peculiarity is the absence of positive evidence for a commanding officer's house (*praetorium*), and great difficulty in determining the most logical position for this expected structure, given the fort's known internal layout<sup>31</sup>. The headquarters building (*principia*) has also been elusive, and a range of complex arguments have been laid out in an attempt to resolve uncertainties, but it is probable that the fort featured a timber headquarters with a central courtyard and a long forehall to the north, creating an L-shaped combined structure<sup>32</sup>. There are several unique elements to this arrangement, and the most obvious is that all other known *principia* on the Antonine Wall were constructed out of stone.

## 2.5 Landscape and aesthetic values

This property is small and embedded within a developed suburban residential environment, but provides a pleasant location to observe the Roman remains. The fort was located on a small ridge overlooking the Manse Burn to the north, and a slight valley to the south, but the topography to both east and west overlook the

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<sup>26</sup> Breeze 2016: 42-72

<sup>27</sup> *Ibid.* 48-50

<sup>28</sup> *Ibid.* 52-53

<sup>29</sup> *Ibid.* 57-59

<sup>30</sup> *Ibid.* 42-46

<sup>31</sup> *Ibid.* 334

<sup>32</sup> *Ibid.* 317-321

fort's location. It may be possible, therefore, that the fort was strategically located to guard this gap and to provide good surveillance of both north-south and east-west movement. Unfortunately, the imposition of modern housing makes it difficult for visitors to visualise how the site may have looked in Roman times, and it is impossible to fully appreciate the significance of this location within the ancient landscape.

## 2.6 Natural heritage values

With areas of gravel and managed amenity grassland, Bearsden Bath House is not identified as a habitat in its own right, and at the time of writing<sup>33</sup>, the site had no noted special natural heritage values or designations. However, one of the most important aspects of Bearsden Bath House, along with other sections of the Antonine Wall, is their capacity to act as wildlife and biodiversity corridors for the surrounding areas. Linear features of relatively undisturbed countryside are of great importance.

### Geology

The Antonine Wall was created making best advantage of the local geology. Here, the bedrock belongs to the Limestone Coal Formation of the Clackmannan Group, with superficial deposits of Devensian Till<sup>34</sup>.

## 2.7 Contemporary/use values

The Antonine Wall is well used by communities along its length as a relatively rare green space amid the urbanisation of Central Scotland. Walkers, trail runners, healthy living groups, and youth groups have all been identified as key 'greenspace' users during consultation events. Since its World Heritage Inscription in 2008, growing awareness of its status has emerged, and a more diverse audience developed. 'World Heritage' tourism has been noted by local tourism providers and a growing schools audience has been observed through social media. Further information on the WHS Management Plan Group and partnership activities and projects is given above at section 2.1 Background.

Wider opportunities for community development, regeneration, and local / national / international networking remain significant.

Visitor numbers to the HES managed Antonine Wall sites have been difficult to quantify as the sites are freely accessible and not staffed. Many attract substantial numbers of walkers as well as those setting out to visit the Roman site. Automatic counters have been installed at some sites which gives an idea of footfall. At Rough Castle, which is very near the Falkirk Wheel, over 100,000 were counted, while at Bar Hill 34,000 were counted over the course of a year (2018).

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<sup>33</sup> February 2019

<sup>34</sup> British Geological Survey, 2019. Onshore GeoIndex. [Available from: https://www.bgs.ac.uk/geoindex/](https://www.bgs.ac.uk/geoindex/) [6 February 2019]

The Roman heritage of the site has influenced the street names of the neighbouring modern residential development, notably the nearby 'Roman Court', 'Roman Road' and 'Roman Avenue'.

### 3. MAJOR GAPS IN UNDERSTANDING

The Antonine Wall Research Agenda (due to be published in 2020) highlights a number of areas where further work on the Wall line could enhance understanding. These include:

- Work on the local landscape and environment before the Wall's construction.
- Geoarchaeological work on the rampart and ditch.
- Study of the building materials and techniques deployed on the Wall.
- Remote sensing in the vicinity to detect additional structures including the Military Way.

For further information on the Research Agenda see: [www.antoninewall.org](http://www.antoninewall.org)

The primary gaps in our understanding of this property are:

- Was there a commanding officer's house at Bearsden and, if so, where was this located?
- What were the reasons for the unique splitting of the original fort into separate fort and annexe spaces?
- Why was the original bath-house never completed, but replaced by a new construction?
- The location of the fort's gates.
- The location and extent of the fort's expected civil settlement (*vicus*).
- Research is needed to establish a better understanding of visitor number and visitor profile across Antonine Wall sites. This would help in realising the potential of sites, especially those with high-footfall, to engage with a wide variety of community and interest groups who may represent new audiences for HES.

### 4. ASSOCIATED PROPERTIES

In addition to this property, there are currently 13 further portions of the Antonine Wall in the care of Historic Environment Scotland:

Bantaskin (PIC167); Bar Hill (PIC168); Castlecary Fort (PIC170); Croy Hill (PIC171); Dullatur (PIC172); Garnhall Farm (PIC173); Kirkintilloch (PIC174); Kinneil House (PIC152); Rough Castle (PIC175); Seabegs Wood (PIC176); Tollpark (PIC177); Watling Lodge (PIC178) and Watling Lodge West (PIC179).

## 5. KEYWORDS

Roman frontier; limes; Antonine Wall; Hadrian's Wall; World Heritage Site; bath-house; latrine; fort

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## Other Resources

3D digital models of artefacts found at Bearsden, and other Antonine Wall sites, can be freely viewed on Historic Environment Scotland's Sketchfab page<sup>35</sup>. These include items such as the carved head of a goddess<sup>36</sup>, storage jars<sup>37 38</sup> and a stone gaming board<sup>39</sup>, held within the collections of the Hunterian Museum, Glasgow.

An interactive Antonine Wall mobile app can also be downloaded to aid site visits and interpretation<sup>40</sup>, and the full scheduling description for Bearsden Bath-House is available at: <http://portal.historicenvironment.scot/designation/SM90334>

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<sup>35</sup> <https://sketchfab.com/HistoricEnvironmentScotland/collections/antonine-wall>

<sup>36</sup> Head of a Goddess:

<https://sketchfab.com/models/5787335c6d484f2fbd62a370279922de>

<sup>37</sup> Storage Jar:

<https://sketchfab.com/models/7b156b3dcf3d48668177a8a56a4d5786>

<sup>38</sup> Black Burnished Jar:

<https://sketchfab.com/models/c03692c07f674b20ad6d6ec11b2235c8>

<sup>39</sup> Gaming board:

<https://sketchfab.com/models/e091c55a92e2493382938088809ff288>

<sup>40</sup> Available at: <http://www.antoninewall.org/visiting-the-wall/download-the-app>

# APPENDICES

## APPENDIX I: TIMELINE

- c. AD 142** Construction of the Antonine Wall is initiated by the Roman Emperor Antoninus Pius (AD 138-161), after a successful campaign in AD 140s by Lollius Urbicus, Governor of Britain.
- Fort (and bathhouse?), or the nearby Antonine Wall, was built by *legio XX Valeria Victrix*.
- c. AD late 150s / early 160s** The Antonine Wall system is abandoned by the Roman military, and the northern frontier returns to the line of Hadrian's Wall.
- 19th century** Housing is developed over the site in the Victorian period, and builders use clay to construct terraces for house gardens.
- 1973-1982** The site is excavated under the direction of David Breeze, in a period of housing redevelopment.
- 1973** The bath-house was discovered in the first season of excavation, and offered into the care of the Secretary of State for Scotland.
- 1982** The property is taken into State care (Ownership).
- 1994** The site is Scheduled.
- 2003** The Scottish Executive announces that the Antonine Wall (including this property) would be nominated as a UNESCO World Heritage Site.
- 2008** The Antonine Wall is inscribed as part of the "Frontiers of the Roman Empire" UNESCO World Heritage Site, joining Hadrian's Wall and the Upper German-Raetian *Limes*.

## APPENDIX 2: SUMMARY OF ARCHAEOLOGICAL INVESTIGATIONS

- 1726 Alexander Gordon recognised the outer defences of the fort and annexe, and provided a basic plan and description.
- 1732 The Rev. John Horsley describes the site and provides a basic plan.
- 1755 Upstanding remains were planned by General William Roy.
- 1793 Roy’s plan of the fort, originating in his earlier military survey of Scotland, is published posthumously.
- 1973–82 Excavations by D. Breeze uncovered the plan and layout of the fort and annexe. The bathhouse was found in 1973.
- 2010 Aerial LiDAR captured at 0.5-m resolution covering the World Heritage Site, as part of the “Hidden Landscape of a Roman Frontier” collaborative research project run and jointly funded by Canterbury Christ Church University (CCCU) and Historic Scotland.

## APPENDIX 3: OUTSTANDING UNIVERSAL VALUE

The Justification for Inscription of the Antonine Wall World Heritage Site against OUV criteria<sup>41</sup>.

*Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design.*

The extant remains of the fortified German *Limes*, Hadrian’s Wall and Antonine Wall constitute significant elements of the Roman Frontiers present in Europe. With their forts, fortlets, walls, ditches, linked infrastructure and civilian architecture they exhibit an important interchange of human and cultural values at the apogee of the Roman Empire, through the development of Roman military architecture, extending the technical knowledge of construction and management to the very edges of the Empire. They reflect the imposition of a complex frontier system on the existing societies of the north-western part of the Roman Empire, introducing for the first time military installations and related civilian settlements, linked through an extensive supporting network. The frontiers did not constitute

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<sup>41</sup> A fuller exposition of the OUV of the site can be found on the UNESCO website: <https://whc.unesco.org/>

an impregnable barrier, but controlled and allowed the movement of peoples: not only the military units, but also civilians and merchants. Hence, they triggered the exchange of cultural values through movement of soldiers and civilians from different nations. This entailed profound changes and developments in the respective regions in terms of settlement patterns, architecture and landscape design and spatial organization. The frontiers still today form a conspicuous part of the landscape.

**Criterion (iii):** *bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared.*

As parts of the Roman Empire's general system of defence the German *Limes*, Hadrian's Wall and the Antonine Wall have an extraordinarily high cultural value. They bear an exceptional testimony to the maximum extension of the power of the Roman Empire through the consolidation of its north-western frontiers and thus constitute a physical manifestation of Roman imperial policy. They illustrate the Roman Empire's ambition to dominate the world in order to establish its law and way of life there in a long-term perspective. They witness Roman colonization in the respective territories, the spread of Roman culture and its different traditions - military, engineering, architecture, religion management and politics - and the large number of human settlements associated with the defences which contribute to an understanding of how soldiers and their families lived in this part of the Roman Empire.

**Criterion (iv):** *be an outstanding example of a type of building or architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history*

The fortified German *Limes*, Hadrian's Wall and the Antonine Wall are outstanding examples of Roman military architecture and building techniques and of their technological development, perfected by engineers over the course of several generations. They demonstrate the variety and sophistication of the Romans' responses to the specific topography and climate as well as to the political, military and social circumstances in the north-western part of the Empire which spread all around Europe and thereby shaped much of the subsequent development in this part of the world.

## **Integrity**

The inscribed components convey the extraordinary complexity and coherence of the Frontiers of the Roman Empire in northwestern Europe. Although some parts have been affected by land use change and natural processes, the integrity of the property is demonstrated through its visible remains and buried archaeological features. Their state of survival has been researched in many areas. Several areas of the frontier have been built over, but where significant archaeological remains have been proven to exist they have been included in the property.

Currently, about one-third of the linear barrier is visible; about one third lies in open countryside but is not visible above ground, though its existence has frequently been tested through excavation; about one-third lies in urban areas, though again its survival has been tested through excavation in many areas. About 2 km of the total length of the Antonine Wall have been totally destroyed, though to this sum should be added minor cuttings for roads and railways.

### **Authenticity**

The inscribed component parts have a high level of authenticity, with each having been verified through extensive study and research. The materials and substance of underground archaeological remains are well-preserved, as are upstanding and visible remains. The form and design of each representative part of the frontier and its associated structures are clear and comprehensible. Later development overlying parts of the frontier are treated as vertical buffer zones.

The remains of the Antonine Wall exist in a generally good condition and visible sections sometimes have significant heights and depths. Conservation and consolidation measures that have been carried out in the interest of better understanding and protection fit in with the setting of the property and do not diminish its authenticity.

### **Protection and management requirements**

At the time of inscription on the World Heritage List, the World Heritage Committee adopts a Statement of Outstanding Universal Value (SOUV) which will be the key reference for the future effective protection and management of the property. The FREWHS as a whole is collectively managed. At the international level, the States Parties have established an integrated management system consisting of three closely cooperating and interacting bodies: the Inter-Governmental Committee (IGC) to oversee and coordinate the overall management at an international level; the Management group which assembles those directly responsible for the site management of the property and provides the primary mechanism for sharing best practice; The Bratislava Group, an international advisory body with expert members from States Parties with inscribed or potential parts of the Frontiers of the Roman Empire World Heritage property.

The Antonine Wall is protected by designation under the Ancient Monuments and Archaeological Areas Act 1979, and through the legislation that guide planning and development in Scotland - the Town and Country Planning (Scotland) Act 1997, the Planning etc. (Scotland) Act 2006 and the Planning (Listed Building and Conservation Areas) (Scotland) Act 1997. It is covered by national policy for the historic environment set out in the Scottish Historic Environment Policy and Scottish Planning Policy. Policies to protect, promote, conserve and enhance the property are included in local authority development plans and strategies, supported by Supplementary Guidance. Most of the Antonine Wall is in private ownership, but some sections are in the care of local authorities and Historic Environment Scotland.



## APPENDIX 4: OVERVIEW AND INTRODUCTION TO THE ANTONINE WALL

The Antonine Wall is the remains of the Roman Empire's northwest frontier in the mid-second century. Stretching across central Scotland from the Firth of Forth to the Clyde, the Wall was constructed, in functional operation, and then abandoned all within a period of about twenty years between the early AD 140s to early 160s. The Antonine Wall was one component within a vast and varied system of linear frontiers established by Rome during the second century AD, and other examples are known from across Europe, the Near East, and North Africa. The most famous of these Roman frontiers is Hadrian's Wall in the north of present-day England, which preceded the Antonine Wall and served as a model for key components of its design. In 2008 the Antonine Wall was inscribed as a UNESCO World Heritage Site, joining Roman frontiers in England (Hadrian's Wall) and Germany (the Upper German-Raetian *Limes*) as the latest addition to the "Frontiers of the Roman Empire" serial trans-national World Heritage Site.

The Antonine Wall is about 41 miles (66km) long and features a range of linear features that are present along most of this length, which is punctuated by several types of installations of various purposes; the Wall was previously reported to have a length of 60km, but this has been amended by recent three-dimensional distance measurements based on analysis of recent LiDAR survey<sup>42</sup>. Although common perceptions of the term "wall" often revolve around an enclosing structure or rampart - generally of timber, stone, or brick - the term "Antonine Wall" is used by scholars and heritage managers to refer to this full collection of inter-related features. Beyond the installations, the linear features of Rampart and Ditch are typically (and would have been in the Roman period) the most topographically visible elements of the frontier.

### Linear Features

Note on nomenclature: The key linear features include the Rampart, Ditch, Berm, Outer Mound, and Military Way; these features are all presented in this document with an initial capital letter in order to avoid confusion between the main frontier's Rampart and Ditch and those ramparts and ditches that surround the Wall's installations.

The Rampart was a turf or earth/clay superstructure set atop a kerbed stone base, averaging 4.3–4.8m wide, and rising in a sloped fashion to a height of probably at least 3m. The best-preserved Rampart remains lie just west of Rough Castle fort (PIC175), where it survives to a height of only about 1.5–1.8m. Because the Rampart does not survive to its full height anywhere, we remain uncertain of how it was finished on top, but it was probably squared flat and may (although there is no direct evidence) have featured stakes set into the top or a wooden duckboard walk with a timber palisade. The Rampart's superstructure differs to either side of Watling Lodge (PIC178 and PIC179), with stacked turves used from here westward and packed earth or clay revetted by clay or turf "cheeks" to the east.

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<sup>42</sup> Hannon forthcoming

The Berm represents the space between the Rampart and Ditch, and is relatively flat or gently slopes toward the Ditch to the north. The Berm is typically between 6–9m in width, but can vary widely, exceeding 30m at Croy Hill (PIC171); at some locations – usually in the eastern half of the frontier – series of pitted obstacles have been identified on the Berm, matching similar features also known from Hadrian’s Wall.

The Ditch is a monumental earthwork dug to the north of the Berm, with a V-shaped profile and banks cut at an angle of about 30 degrees, with evidence at some locations for large stones placed to strengthen its edges. Ditch size varies widely across three key sectors: generally between 6.1–10.7m wide to the east of Falkirk, an average of 12m wide and 4m deep between Falkirk and Bar Hill, and generally between 6.1–7.6m wide to the west of Bar Hill (PIC168); across its full length, the Ditch’s width ranges from a narrow 4.27m to as wide as 20.73m, although subsequent erosion must account for some of the wider widths, and it should be noted that the Ditch was not cut at all in a short section on Croy Hill (PIC171).

Immediately north of the Ditch lies the Outer Mound, occasionally called the “Upcast Mound” on the assumption that it is formed from material cast up from the digging of the Ditch. The Outer Mound is typically a low mound spread and partially leveled to a width of about 18–20m; this frequently serves to heighten the north face of the Ditch, and on north-facing slopes the Outer Mound was narrowed to further accentuate the Ditch.

The final linear feature is the Military Way, which was a Roman road located to the south of the Rampart, offering lateral communication and movement along the frontier; this was generally about 5–5.5m wide with a distinct camber and flanking ditches. The Military Way was typically situated between 36–46m south of the Rampart and was usually connected to each fort’s *via principalis*, with evidence at several sites (e.g. Rough Castle, PIC175; Croy Hill, PIC171) for an additional bypass road that provided movement without the need to enter the fort. At river crossings, the Military Way was provided with bridges, as confirmed at the river Kelvin near Balmuildy.

## Installations

Installations can be grouped into five key types: forts, fortlets, expansions, minor enclosures, and possible watchtowers. Forts are the primary and largest installation type, with 17 forts currently known, ranging in size from 0.12–2.6ha. Although there is no set interval between forts, they are generally located about 3.5km apart, and it has long been assumed by many scholars that there may have been as many as 19 or 20 forts in total; given the long gaps between the forts at Carriden and Inveravon and those at Rough Castle (PIC175) and Castlecary (PIC170), it has been suggested that additional forts may have been located at Kinneil and Seabegs (near PIC176), but these sites have only provided evidence of fortlets rather than forts. The forts themselves were – like the Rampart – primarily constructed of turf and/or clay, with stone or timber internal buildings, and all but one (Bar Hill, PIC168; and possibly Carriden, if the Rampart did not reach that far east) were physically attached to the Rampart. Whilst the majority of forts were defended by turf or clay ramparts, those at Castlecary (PIC170) and Balmuildy

featured stone defences. Most forts have also been found to include an additional fortified space, traditionally called an “annexe”. The precise purpose and nature of these annexes remains uncertain, but they are likely to have been later additions and not part of the original plan; in some cases the annexe is significantly larger in area than the fort itself.

Fortlets were smaller enclosures attached to the rear (i.e. south side) of the Rampart, and were first formally identified during excavations at Duntocher in 1949; the fortlet at Watling Lodge (between PIC178 and PIC179) had been initially described in the 1720s but was only recognised as a fortlet after the discovery at Duntocher. Similar in design and construction to the Antonine Wall forts, they measure about 21m x 18m and were constructed with turf ramparts on stone bases, with small timber barrack-blocks to house the soldiers stationed within them. All known Antonine Wall fortlets had a south and north gate, the latter opening through the Rampart. These northern gateways are problematic, as only the fortlet at Watling Lodge (between PIC178 and PIC179) has provided clear evidence for a causeway across the Ditch. Although tentative traces of a possible causeway that was later removed were identified at Kinneil fortlet, it appears that most Antonine Wall fortlets either did not provide access to the north of the frontier or that a decision was made during the frontier’s short functional lifespan to eliminate these original access points; this latter view may be further supported by tentative evidence at Kinneil and Seabegs Wood (PIC176) that the north gateways of these fortlets may have been narrowed or removed. Fortlets are known from across the Roman Empire, with others on Hadrian’s Wall known as “milecastles” because of their regular spacing at approximately one Roman mile intervals. Searches in the 1970s for fortlets on the Antonine Wall succeeded in identifying some examples at Kinneil, Seabegs Wood (PIC176), Croy Hill (PIC171), Summerston, and Cleddans. If a model of a regular series of fortlets at about one Roman mile intervals is proposed, a total of 41 fortlets would be expected; to date, only nine have been definitively identified, and investigations at proposed additional fortlet locations have either provided negative or inconclusive results.

Expansions are represented by roughly square southern extensions of the Antonine Wall Rampart, constructed of turf on a cobble stone base and about 5.2m square. Six examples are currently known, all occurring in pairs located close together; two pairs are located to either side of Rough Castle fort (PIC175), called (to the east of Rough Castle) Tentfield East/West and (to the west of Rough Castle) Bonnyside East/West, whilst a third pair is located on the western slope of Croy Hill (PIC171). The functions of these installations are uncertain, but one interpretation is that they served as signalling platforms, with some evidence of burnt material recorded at Bonnyside East. This type of installation is unknown on other Roman frontiers, and may have been a unique innovation for the Antonine Wall, serving a similar function to towers or “turrets” known from Hadrian’s Wall and the Antonine frontier in Germany.

Minor Enclosures are known at three locations along the frontier, all in the vicinity of the fortlet at Wilderness Plantation, and each identified via aerial photography. They are sub-rectangular and ditched, attached to the rear of the frontier’s Rampart. Only one (Wilderness West) has been excavated, revealing that it is later than the Rampart, and had an internal area of about 5.5m square; no entrance or internal surfaces or structures were identified. Although these appear

to have been designed as permanent features, their precise function remains uncertain.

Watchtowers may have existed along the Antonine Wall, as they are known from other Roman frontiers, but no definitive evidence for this type of installation has been uncovered. The minor enclosures near Wilderness Plantation do not appear to feature structural evidence for towers, and other possible watchtowers suggested at Garnhall (PIC173) and Callendar Park require more substantiation before they can be accepted as definitively representing this type of installation.

When all of these features are taken into account, the Antonine Wall was one of the biggest ever engineering projects to be undertaken within central Scotland, and the digging of the Ditch particularly altered the local topography, with continuing implications for later periods. Currently, about one-third of the linear barrier is visible; about one third lies in open countryside but is not visible above ground, though its existence has frequently been tested through excavation; about one-third lies in urban areas, though again its survival has been tested through excavation in many areas. Only about 2 km of the total length of the Antonine Wall have been totally destroyed, though to this sum should be added minor cuttings for roads and railways.

The Antonine Wall provides significant evidence for the activities of the Roman military during the mid-second century AD. Structural remains provide evidence for the advanced degree of complexity in Roman frontier planning and construction, with the most complicated array of interlinked elements known from any Roman frontier. The short functional lifespan of the Wall – only about 20 years in total, a generation – makes this frontier particularly valuable as a dated horizon that is relatively unencumbered by the wide range of significant alterations that complicate the functional histories of longer-lived frontiers elsewhere in the Empire. Artefacts inform us about production and procurement and daily life and society on this particular edge of the Empire, offering crucial comparative collections to assemblages from both the Empire's other frontier zones and areas that were closer to the Empire's cultural and political centre. Inscriptions also add a very valuable dimension that allows for the identification of specific military units, and, in some cases, even named individuals. The most important set of inscriptions are the Distance Slabs: at least 19 sculpted and inscribed sandstone blocks that record the work of building the frontier (perhaps the Rampart itself) by different legions, and which have been identified at various locations along the Wall.

### **The Antonine Wall's Abandonment and Later History**

Around the late AD 150s / early 160s the Antonine Wall was abandoned by the Roman army, who moved south to the line of Hadrian's Wall and its outpost forts. Evidence from some sites, notably Old Kilpatrick and Bar Hill (PIC168), indicate that the frontier's installations were deliberately demolished and ritually decommissioned in advance of the redeployment south. Although the Roman army would return to the area during the early third century campaigns of Septimius Severus, there is no evidence that the Antonine Wall was brought back into functional operation or reoccupied by Roman forces.

Active research and fieldwork on the Antonine Wall has, not surprisingly, focused almost entirely on its Roman period construction, functional operation, and

abandonment. There is, therefore, significantly less detailed knowledge of the Wall's post-Roman history. A possible souterrain at Shirva, in the Wall's central sector midway between the forts of Auchendavy and Bar Hill (PIC168), may represent the earliest post-Roman settlement activity on the former Roman frontier and could have been in operation from very soon after the Roman withdrawal until as late as the AD 220s. Although the Antonine Wall had ceased to function as a frontier of the Roman Empire, it would continue to play a role in subsequent settlement and other activities in the region.

It appears likely that the Forth-Clyde isthmus served as an effective border in the early medieval period, separating the Anglo-Saxons and Picts in the east, while to the west the successive British kingdoms of Alt Clut and Strathclyde straddled the line of the former Roman frontier. Whether or not the Antonine Wall was itself utilised or recognised as a geopolitical or cultural barrier in this context, its continued visibility would have served to underscore the transitional nature of the isthmus in this period. Timber structures located along the Wall in the area of Falkirk – a ninth-century hall possibly associated with the Thanes of Callendar at Callendar Park and another large structure east of the fort at Mumrills – may represent examples of early medieval reuse of the Wall's line as a regional power centre<sup>43</sup>.

Castles or mottes were also constructed on the line of the Wall in the Norman and later medieval period at Inveravon, Watling Lodge (PIC178 and PIC179), Seabegs (near PIC176), Kirkintilloch, and Cadder, each using some aspect of the Roman frontier as part of its own defences. These are part of a wider regional collection of medieval period fortified sites and may not necessarily reflect a conscious decision to reuse former Roman military sites. They do, however, reflect these particular locations' continued relevance and significance as powerful places within a medieval landscape and this later reuse does not detract from the sites' association with the Roman frontier, but adds further depth to their accumulated meanings and significances within the present. It is in this period when the Wall is first recorded (by John of Fordun) as bearing the name "Grymisdyke," later modified to "Graham's Dyke," and still reflected within modern street names in the eastern half of the Wall's line.

In the late seventeenth century the Wall began to attract serious antiquarian attention and was visited and discussed in some depth through the eighteenth century by antiquaries such as Sir Robert Sibbald, Alexander Gordon, and the Rev. John Horsley, amongst others. These antiquaries provided valuable early documentation of the Wall and its remains before the extensive industrialisation and development of the Wall's corridor from the late eighteenth century onward. Such works included the controversial dismantling of Arthur's O'on by Michael Bruce of Stenhouse in 1743, using the masonry from the possible Roman temple in the construction of a dam on the Carron<sup>44</sup>. Numerous other areas of the Wall also fell prey to quarrying and agricultural "improvements", and the wider Antonine Wall corridor played an important role in the Industrial Revolution, with the formation of the Carron Iron Works, construction of the canals, steam engine experiments by James Watt at Kinneil, increased mining and factory production, and the building of the railways. The Forth-Clyde Canal was particularly important,

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<sup>43</sup> For further discussion, see: Maldonado 2015

<sup>44</sup> See <https://canmore.org.uk/site/46950/arthurs-oon-stenhouse>



criss-crossing the former Roman frontier multiple times and running parallel to it for long stretches; while the construction of the canal extensively damaged large portions of the Wall, it also revealed significant information and provided the context for later antiquarian activities and the transition to formalised archaeological societies and – by the 1890s – more scientific exploration.