

# The Ha Ha, Cowdray Ruins, Easebourne, nr. Midhurst, West Sussex

Report on an Archaeological Investigation
January 2006



# NON-TECHNICAL SUMMARY

Five trenches have been excavated across the ha ha ditch, which divides the area of the Cowdray Ruins from the Cowdray Lawns, in order to inform future conservation work by providing information on its construction. All the trenches revealed the wall to be originally of a dry-stone build, with a one stone width facing backed by a rubble infill. The ditch had no original lining, but was merely dug into natural sands and gravels. The construction of the ha ha was found to have taken place after the destruction of Cowdray House by fire in 1793, and probably under the Poyntz family ownership between 1799 and 1808. Of the 370m of walling on this section of the ha ha, 104m were found to be in a state of collapse, with many other sections threatened with further deterioration from a combination of factors including most significantly damage from trees, vegetation and rabbits.



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## 1. BACKGROUND

## 1.1 Topographical Background



Fig. 1 Maps showing the location of the site @ Crown copyright. All rights reserved. License no: AL100036068.

- 1. The Cowdray ruins lie to the immediate north-east of the town of Midhurst in West Sussex, at 20m aOD, OS grid reference SU 8916 2172. The Ha-Ha lies to the east and south-east of the ruins themselves.
- 2. The underlying geology of the site is Lower Greensand (Selham Ironshot).

### 1.2 Project Background

- 1. The Cowdray Heritage Trust appointed West Sussex Archaeology to carry out a limited archaeological field evaluation of the Ha-Ha surrounding the Cowdray ruins. This evaluation is being undertaken as part of the Cowdray and Midhurst Heritage Project, a partnership project formed to record and conserve the standing remains of the house and interpret them to the public. The restoration of the Ha-Ha is part of this project. This evaluation was intended to provide essential information about the character of the Ha-Ha wall and ditch, to inform detailed proposals for the Ha-Ha's future restoration.
- 2. This project was undertaken following the terms of the Method Statement drawn up by West Sussex Archaeology in May 2005, in response the Archaeological Brief issued by John Mills, Archaeologist with West Sussex County Council (WSCC), for the Cowdray Heritage Trust. The ha ha is part of a Scheduled Ancient Monument (No.29300) and thus this project was carried out under Scheduled Monument Consent, obtained from the Department for Culture, Media and Sport on 12<sup>th</sup> September 2005.



3. The following alterations to those terms were made during the course of the fieldwork: the dates for the fieldwork were moved from the proposed date of 25<sup>th</sup> – 29<sup>th</sup> July, to 31<sup>st</sup> October – 7<sup>th</sup> November, in addition the length of the trenches was varied depending upon the size of the Ha Ha ditch as encountered, but in all cases the trenches extended to the outer edge of the ditch. The project archive will be deposited with West Sussex Record Office.

# 1.3 Historical background

- 1. The Cowdray ruins themselves are the remains of a fortified Tudor mansion which burnt down in 1793. The Ha-Ha forms a part of the park which once surrounded the mansion, and was thought to have been designed under the direction of 'Capability' Brown, between 1768 and 1774.
- 2. The ha ha wall, as revealed in the trenches excavated for this project, appears to be composed of stone from the ruins of Cowdray House. If this is the case, then either the ha has been completely re-built since Brown is said to have designed it, or the more obvious explanation is that it was not built until after the house burnt down in 1793, releasing a plentiful supply of re-usable building stone. A number of the Caen or Malm stone fragments can be matched with Tudor stones still in situ in the ruins.



Fig.2 On the left is Heather's map of 1712 and on the right the 2001 aerial photograph of the ruins (@ WSCC).

3. Aside from the archaeological evidence a number of maps and prints provide some clues as to the layout of Cowdray House and its park in the 18<sup>th</sup> and 19<sup>th</sup> centuries. The earliest map to show any detail is Heather's of 1712. This map shows in outline the bounds of the gardens of Cowdray. No detail is given of the nature or layout of these gardens, but it does indicate what was there before the



ha ha. The location of these garden walls is seen on an aerial photograph of 2001, which clearly shows the wall line under the grass of the current cricket pitch. Taking the two together it is seems probable that the formal gardens at Cowdray lay within this walled enclosure, with pavilions visible on the map in the south-west and south-east corners, and on the aerial photograph in the north-west (the conduit house) and north-east corners. The lines in between on the aerial photograph suggest the line of the wall and ditch. Indeed the south wall and ditch, together with the south-western pavilion and parts of the south-eastern pavilion are still visible today.

4. Between 1768 and 1774 Capability Brown certainly did work for Viscount Montague at Cowdray Park, since by this date this was the only estate with a park which the family owned. This is confirmed by Dalloway in his history of West Sussex, in which he states:

"The Late Antony Lord Montague, about the year 1770, employed the celebrated L. Brown, from whose modernising hand it has undergone many alterations, and the groves of ancient oak gave place to formal clumps of trees; the shady walks and recesses which afforded delight to out heroic Queen Elizabeth having been first removed. Within these few years, improvements have been adopted by the present proprietor [William Poyntz], which are more characteristic of the native scenery, and are consequently in a purer taste. Several of these have been completed, in a style similar to those already mentioned, as seen in the grounds of Lord Robert Spencer, at Woolbeding."

- 5. It is not clear exactly what Brown did, but it appears from prints of the late 18<sup>th</sup> century that he was responsible for demolishing the formal gardens and bringing the park right up to the house. The southern wall and ditch of the formal gardens appears to have been partially retained, probably because they were essential in keeping the site drained. There appears to be no evidence of Brown constructing a ha ha at Cowdray, although he certainly did elsewhere.
- 6. The ha ha is likely to have been constructed as part of the Poyntz improvements to the estate. The first map to show a boundary on the line of the ha ha is the Ordnance Survey 1" draft map, which would date the construction of the ha ha to between 1799, when the Poyntz began their work on the estate, and 1808/9, the date the map was surveyed. This time frame would agree with the date suggested by the composition of the ha ha wall, being constructed as it is of stonework from the ruins of Cowdray House, and thus post-1793.
- 7. Figure 3 attempts to combine the aerial photograph and map evidence in order to give a visual picture of the three phase landscaping associated with Cowdray Park. In red are marked the principal elements of the pre-Brown design, with a large enclosed garden surrounding the house, which sits almost centrally within it. At each corner of the garden are pavilions, those to the north probably a matching pair, while those to the south, probably in a separate part of the garden, seem to have been rectangular not octagonal, if that surviving in the south-west corner is typical. The aerial photograph suggests at least one internal wall running east-west sub-dividing the garden. The park pale appears towards the base of the image as it comes in from the east, and then continues north from the west side of the north-west pavilion.
- 8. Work under Capability Brown resulted on the removal of the formal gardens, together with their enclosing stone wall and pavilions. The exceptions being the



south wall, south-western pavilion and the north-west pavilion which were retained. A new western boundary to the park was formed by a fence which ran from the north-west corner of the house, to the remaining north-western pavilion and then northwards (seen in purple on figure 3) until it hits the south end of an avenue of chestnut trees. Under this scheme it appears that the park deer and sheep were free to roam right up to the house, as seen in several late 18<sup>th</sup> century prints.

9. Following the destruction of the house, and the re-location of the Poyntz family to what was then called Cowdray Lodge and is now Cowdray House, the park was again altered. This involved creating a ha ha around the Lawns to keep the deer away from the ruins, the new gardens of Cowdray Lodge and the avenue of trees which connected the two. The Cowdray ruins thus were incorporated into a new landscape, this time viewed from the Lodge, in which they acted as a picturesque architectural backdrop to the deer park.

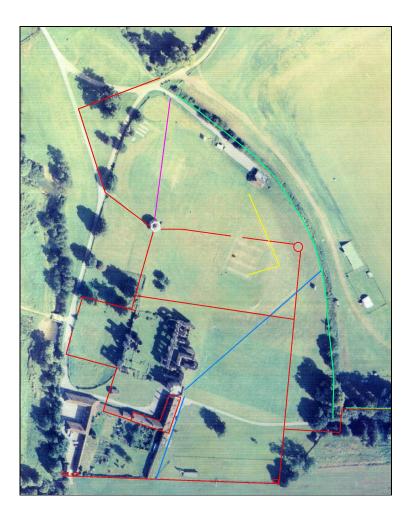
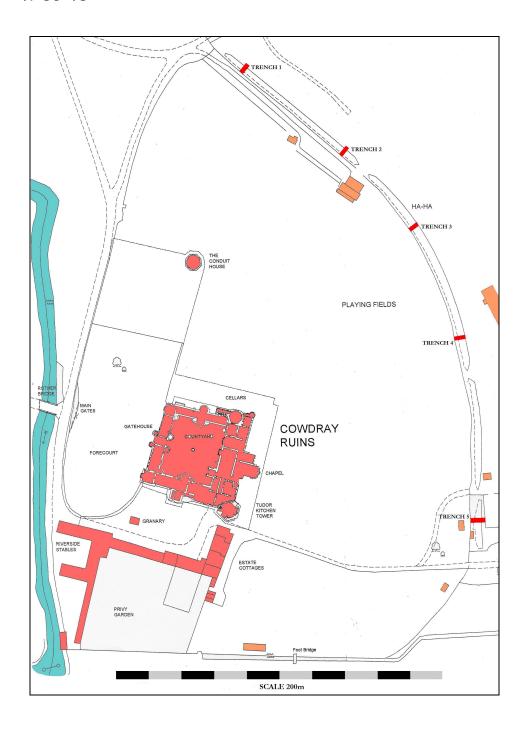


Fig.3 2001 aerial photograph of the ruins (© WSCC), with (in red) elements of the pre-Brown landscape, and (in purple) the Brown park fence, and (in green) the Poyntz ha ha. In blue are two suspected brick conduits linked to the house.



# 2. RESULTS



**Fig.4** Site plan indicating trench locations. © Crown copyright. All rights reserved. License number: AL100036068



#### 2.1 Trench 1



Fig.5 Photograph of the ha ha wall in trench 1, looking south-west. The scale is 1m.



**Fig. 6** Elevation drawing of the ha ha wall in trench 1. The scale is 2m. Stones in dark grey indicate a bulging out of the wall, while those in yellow are Caen/Malm stone, with the red being a brick. The orange at the base is the natural gravel, while the brown above the wall is modern topsoil.

- 1. Trench 1 was the northernmost of the excavated trenches, positioned 15m metres to the south of the northern end of the ha ha.
- 2. The ha ha at this point consists of a dry-stone block wall, utilising stones of irregular size and shape, but roughly coursed. It is likely that all the stones used derived from the ruins of Cowdray House, although only two can be confidently identified being composed of Caen or Malm stone, while the remainder are of local sandstone. The wall at this point differs from that in the other trenches in having no foundation of horizontally lain stones, and in sloping back from its



base rather than being vertical. This may have been considered unnecessary because of the drier nature of the ground. The ditch of the ha ha is identical in form to that in the other trenches, it extends to a level flush with the base of the wall and rises gently to the surrounding ground surface approximately 6m in front of the wall. The base of the ditch is composed of natural gravels overlain by sands. The presence of gravel in an area of sands probably results from an earlier river course. There is no evidence to suggest that the gravels were laid down deliberately for the ha ha, since they extend behind it and are of a undetermined but significant depth. The ditch was partially filled with dark brown silts, of comparatively recent date, since the ditch was regularly dug out until the mid-20<sup>th</sup> century when deer were moved from this part of the park. In addition the silts were found to contain modern debris to their base.

3. The condition of the wall at this point is fair, there is an area of stonework towards the top of the wall which is bulging out due to root disturbance with an adjacent section already collapsed from the same cause, however the foundations and much of the walling is stable. The main threat in this section is that from the trees, scrub and climbing plants which are growing on top of, on and below the wall.

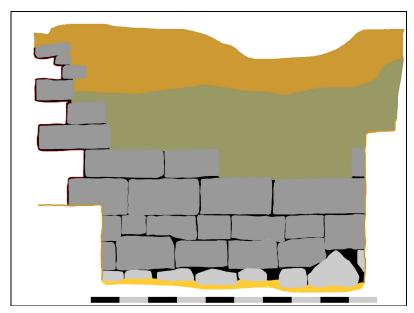
#### 2.2 Trench 2



Fig.7 Photograph of the ha ha wall in trench 2, looking west. The scale is 1m.

1. Trench 2 lay immediately to the north of the current cricket pavilion, on the southern edge of an area of collapsed walling, approximately 4m long.





**Fig.8** Elevation drawing of the ha ha wall in trench 2. The scale is 2m. Stones in light grey are the horizontally lain foundation stones. The orange at the base is the natural gravels, the brown at the top is modern topsoil, while beneath it in grey/green is the rubble backfill behind the wall.

2. The ha ha at this point is again composed of dry-stone walling, but in this section the blocks in the lower half of the wall are larger, more regular, and better dressed. The wall is also sitting upon a foundation of horizontally laid stones of uneven size and shape, which project approximately 0.25m beyond the wall front. The stones are of local sandstone, again probably derived from the ruins, but with none obviously diagnostic. Due to the collapse of much of the upper part of the wall at this point it was possible to note the construction of ha ha behind the facing stones. The facing stones were only one course deep and behind them lay a mass of stone rubble, containing the occasional premodern brick. The depth of this rubble was not visible. The ditch of the ha ha was again approximately 6m wide, and reached to a depth equal to the level of the base of the wall. It was filled with the same silts observed in trench 1.

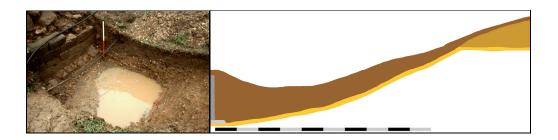


Fig.9 To the left is a photograph of the ha ha ditch in trench 2, looking north-west, the scale is 1m. To the right is a section drawing of the same ditch, the scale is 4m. The orange at the base is the natural gravels, the brown at the top is modern infill, while to the right can be seen the topsoil of the Lawns extending eastwards.



3. The upper part of the ha ha wall at this point has completely collapsed, although the remaining stones at present seem fairly stable. The reason for this collapse is unclear, it is unlikely to be due to root damage, since the ivy cover here is not very mature, and there are no trees or scrub. There are records of large trees on or near to the ha ha falling and damaging the wall in the past and it is possible that this is one such area. The use of any collapsed stretch as a later pathway would cause further collapse, although the current grass cover makes this now unlikely.

# 1.3 Trench 3



Fig.10 Photograph of the ha ha wall in trench 3, looking west. The scale is 1m.

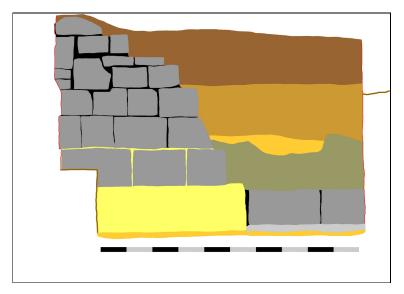


Fig.11 Elevation drawing of the ha ha wall in trench 3. The scale is 2m. Yellow indicates mortar ed work, the large block at the base being a mix of mortar with stone and brick. The orange at the base is the natural gravels, the brown at the top is modern topsoil, while beneath it in light brown is the natural sand above natural gravel. In front of these in grey/green is the rubble backfill.

1. Trench 3 lay some 40m south of the current cricket pavilion, on the southern edge of another area of collapsed walling, approximately 7m long.



2. The construction of the ha ha wall here was of two phases. The earliest was that already noted in trench 2, a foundation of horizontal stones supporting a dry stone wall, behind which was a mass of rubble. However in front of this, and resting upon the front edge of the projecting foundation stones, a new wall face had been built. This new wall was composed of the same local sandstone blocks, but this time the lower half was mortared together using a yellow limebased mortar. The reasons fro this new work would seem fairly clear - the old wall had collapsed and a repair was carried out, presumably using mortar to give greater stability. This section of walling presented the best glimpse behind the wall to record how the ha ha was originally built. It would appear that the first action was to dig out a ditch with a near vertical inner face. This was possible because the geology in this area was not the expected sand, but a compacted gravel with a thin layer of sand above, which leaves a tolerably stable section. The blocks of horizontal stones were then laid, with the dry-stone wall sitting upon them. Once this wall was complete, or as it was rising, rubble was placed behind it to a depth of approximately 0.3m to fill the void between it and the gravel section. After the collapse of the original wall, the new facing stones were put in place, but with the void behind this time being filled with soil. The ditch of the ha ha presented the same profile as elsewhere.

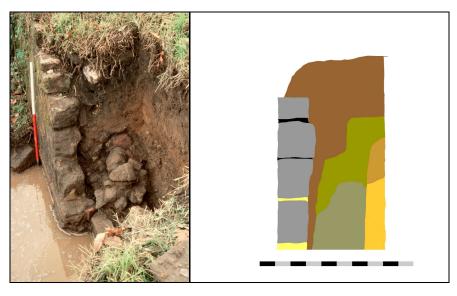


Fig.12 To the left is a photograph of the ha ha wall in trench 3, looking south, the scale is 1m. To the right is a section drawing of the same wall, the scale is 1m. The orange at the base to the right is the natural gravels, with, in light brown, the sand above. To the left of these in grey/green is the rubble infill behind the phase 1 wall, and above it in green collapsed soil from the first collapse. The wall shown is the second phase wall, with behind it and above it the current topsoil.

3. At this point on the ha ha the walling in the northern half of the trench had almost completely collapsed, with none of the second phase stones remaining and only one course of the first phase. The remaining wall in the southern half of the trench appeared to be stable. The reason for the first collapse of this stretch of wall is uncertain, but the second wall probably gave way to the weight of water built up behind it. What was overlooked by those constructing this new face was that whereas the old dry-stone structure allowed water to seep through relatively freely, this new mortared wall created a significant barrier. The amount of water which builds up in this area was easy to see at the time of this project.



# 2.4 Trench 4



Fig.13 Photograph of the ha ha wall in trench 4, looking north-west. The scale is 1m.

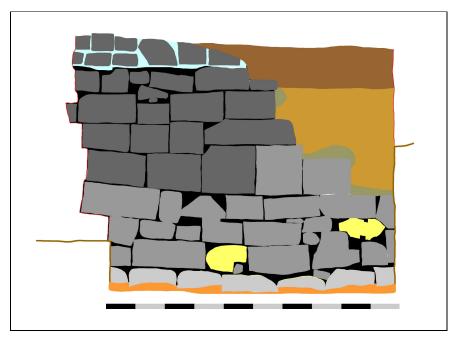


Fig.14 Elevation drawing of the ha ha wall in trench 4. The scale is 2m. Stonework in dark grey indicates the bulging out of the wall, that in light grey are the foundation stones and in yellow are Caen or Malm stone blocks. The orange at the base is the natural gravels, the brown at the top is modern topsoil, while beneath it in light brown is the natural sand, below this is the grey/green of the rubble behind the wall. At the top of the wall in light blue is the modern mortar.

1. Trench 4 lay behind the current polo grandstand, some 20m the north of a modern causeway across the ha ha. on the southern edge of a stretch of collapsed ha ha wall, approximately 5.5m long.



2. Trench 4 presented the clearest cross-section of a stretch of original ha ha wall, its construction being the same as seen elsewhere: a bed of horizontal stones, a dry-stone wall of irregular dressed blocks roughly coursed, a rubble in-fill behind composed of stones and bricks, and the whole placed against a gravel and sand trench edge. Included within the wall at this point were two dressed Caen or Malm stone blocks clearly from the ruins, together with at least three other shaped stones of local sandstone. All the other blocks were dressed and of local sandstone. The top two courses of the wall had been re-lain in a hard white mortar in more recent times. The ha ha ditch had a similar profile to the other trenches.



Fig.15 Photograph of the ha ha wall in trench 4, looking south, showing the original construction. The scale is 1m.

3. To the north of the trench the wall had collapsed down to its third course. Despite the fact that the wall seems to have been un-mortared at this point it likely that this is a result of the large amount of water flowing from behind the wall at this point. This would seem to be more than just groundwater, and could be from a broken land drain. An aerial photograph taken in 2001 (see figures 2 & 3) seems to indicate a buried feature running towards this point in the ha ha wall, and it could be that this is a blocked conduit. In the southern half of trench the wall still stands to its full height, however it is noticeably bulging out at this point leaving the top two mortared courses split off from the rest. It would seem likely that this is a result of the same process that has caused the collapse of the wall to the north. This may mean that it is now stable, if pushed out of line, since the water flows freely out of the collapse. If this collapse were to be rebuilt the water problem should be addressed.



#### 2.5 Trench 5



Fig.16 Photograph of the ha ha wall in trench 5, looking west. The scale is 1m.

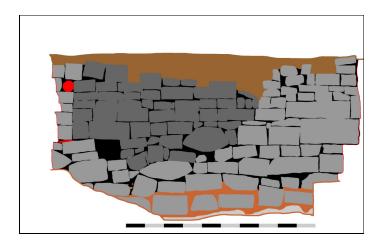


Fig.17 Elevation drawing of the ha ha wall in trench 5. The scale is 2m. Stonework in dark grey indicates the bulging out of the wall, that in light grey are the foundation stones. The brown at the base is are roots, while the brown at the top is modern topsoil. The circular red is a modern pipe from the toilet block, while below it the rectangular red is a roof tile.

- 1. Trench 5 lay behind a wooden toilet block at the southern end of the ha ha, immediately to the north of the track from the ruins to the current Cowdray House.
- 2. The construction of the ha ha wall at this point appears to be the same as that in trenches 2-4, although no cross section was possible to confirm the existence of a rubble in-fill behind it. The base of horizontal stone sitting on gravel was visible, and the wall itself was dry-stone, using local sandstone blocks, at least three of which were shaped for architectural features, with the rest more plainly dressed. The ditch was of the profile as elsewhere.
- 3. The condition of the wall here is threatened by the mature trees which sit above the wall at this point. A combination of root action and broken branches has led to collapsed sections and bulges in the stonework, while the stones at the base of the wall are surrounded by a compact network of roots.



## 3. SURVIVAL OF DEPOSITS

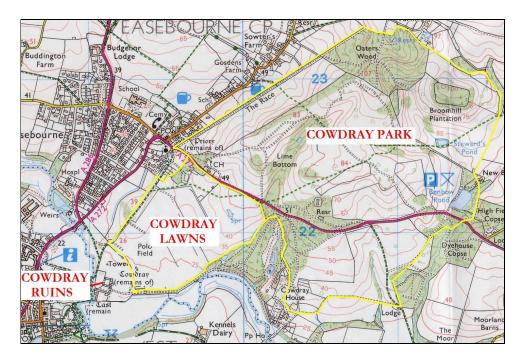


Fig.18 Map showing Cowdray Ruins, Lawns and Park, with the edges of the latter two indicated in yellow. © Crown copyright. All rights reserved. License number: AL100036068.

- 1. The south-western side of the ha ha at Cowdray, which is the section which divides the ruins off from the lawns (see figure 18), and which is the subject of this project, is 370m long. The southernmost 40m of this stretch lie outside the area of the Cowdray & Midhurst Heritage Project, but includes the location of trench 5. Of this 370m, approximately 104m are in a state of collapse to the level of the base of the ditch as it exists today. This 104m of collapse is divided into 16 different stretches, ranging from 1m to 33m in length. The causes of these stretches of collapsed walling, where known, include tree damage, rabbit burrowing and drainage problems.
- 2. Both the north and south ends of the ha ha are under tree cover (50m at the north and 70m at the south) the roots of which are pushing the wall down. Rabbit damage was visible at two locations and seems to be responsible for the most recent collapses, one of which has taken place within the last two months. Drainage issues were identified in two of the excavated trenches, and are more likely to occur where the wall has been repaired with mortar without the addition of through pipes.
- 3. The ditch itself has become silted up over the last few decades, since regular re-digging stopped, probably after the war. The depth of this infilling varies along the length of the wall, depending on whether a collapse has contributed to it. The height of the ha ha wall was found to range between 1.6m and 1.65m, with the ditch originally commencing from the base of the wall. In most standing stretches the bottom third of the wall is now not visible due to silting up.



- 4. It should be considered before carrying out any works to the ha ha to what level stabilisation is desired. In many ways the most effective method would be the backfilling of the entire ha ha, with provision made within the backfill for drains and services as required. since it no longer performs any useful purpose. At the other end of the scale the best method of stabilisation would be to return the maintenance of the ha ha to the methods which were originally intended: the regular removal of all vegetation, regular re-digging of the ditch and the carrying out of any necessary repairs to the wall. Any middle course between these two positions leaves the essential problem with stabilising the ha ha, which is that as a now redundant part of the landscape there is little obvious motivation to commit to long term maintenance, and without such maintenance deterioration is inevitable. Bearing this in mind any capital investment thrown at it as one off, without a commitment to regular future provision, may not be considered Best Value.
- 5. If backfilling is considered unacceptable fro the future of the ha ha then the first priority must be the prevention of further collapse of the wall. The trees at the north and south ends, together with associated scrub and climbing plants should be removed if such further collapse is to be prevented. It is all too apparent that long term neglect in the form of a failure to keep trees and vegetation off the ha ha has led to its current poor condition. If a repeat of this is to be avoided then regular future clearance needs to be carried out once the current crop of trees has been removed. The damage caused by the expanding rabbit burrows will also need to be addressed, with the only effective treatment being the removal of the rabbits. The other significant identified problem, that of poor drainage, will also need to be addressed, but it is not seen as urgent as the other two factors, and may indeed be a problem dealt with by the collapse of the mortared sections of the wall, which were impeding the flow of the water. It is perhaps most sensibly left to be carried out in the next phase of works as discussed below. The only other threat that could be identified is that from the unofficial paths crossing the ha ha at points where the wall has collapsed, this is not considered a significant problem since the wall in these places is now protected by a layer of soil and turf and further deterioration seems to be minimal. Obviously it would be better if members of the public could be encouraged to use the properly established paths, but this would be hard to enforce.
- 6. Once the stabilisation of the wall has been carried out, and if any resources are still available, then the next stage of works should be the re-building of those sections of wall which have collapsed. Of these, priority should be given to the most recent falls, since many of the older sections have now become stabilised due to a covering of soil and turf. Indeed one method for stabilisation, if resources are scarce, could be the protecting of any exposed or threatened section of walling by covering it with soil and turf. For this reason the re-digging of the ha ha ditch is not considered beneficial since it would expose more of the wall to potential damage.



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Plan of Mill Piece, Cowdray. **1783**. WSRO Cowdray Archive 1676.
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