Kilwinning Community Archaeology Project: 2010 Excavation Season

Data Structure Report

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Quality Assurance

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Overview

- 1. The Kilwinning Community Archaeology Project (K-CAP) was proposed by Irvine Bay Regeneration Company in their Kilwinning Town Regeneration Plan (2008). This project was primarily intended as a vehicle to stimulate tourism and community within the burgh, with subsidiary education and health benefits.
- 2. The remit focused on the potential community aspects of the project; these encompass community control/direction of the project, volunteering opportunities, training opportunities and outreach to explain the project to the community. Kilwinning & District Preservation Society, the client body for the K-CAP, have brought forward and adopted the project within their programme.
- 3. Archaeology services have been provided by Rathmell Archaeology Ltd to Kilwinning & District Preservation Society in support of their development and implementation of the K-CAP. This covered the development of method statements, consent applications, sourcing land access and preparation of grant application forms. In addition Rathmell Archaeology are implementing the training and support necessary for the on-site works.
- 4. Throughout these works Rathmell Archaeology Ltd continue to liaise and consult with members of the public, local historical societies, and statutory bodies. We have also consulted heritage professionals and potential partners to explore how they might be prepared to interact with the public during the project.
- 5. The archaeological works involved in the K-CAP consist of an intrusive archaeological works, building survey, post excavation works and a collection of oral history. This document presents the findings of the intrusive archaeological excavation and building survey for the K-CAP which were carried out in the 2010 Season.

Archaeological and Historical Background

Historical Overview

- 6. The burgh of Kilwinning is dominated by the twelfth century Tironensian Abbey, most likely founded by Richard De Moreville, Lord of Cunninghame. Portions of the nave and the cloistral range of the abbey are in the guardianship of the state, having been excavated and consolidated in the 1960s. A larger land holding including the Abbey Church (constructed 1775) and its churchyard are protected as a Scheduled Monument under the terms of the Ancient Monuments and Archaeological Areas Act 1979.
- 7. However, Kilwinning is believed to have been an established community prior to the twelfth century. The kil- element of the place name suggests long standing Christian presence in this area and MacGibbon and Ross propose the abbey was built on the site of the cell of St. Winning. Segdoune may have been the original name of the settlement by the Garnock; whether this indicates another founder for the town is uncertain though Camerarius in 16th century attributes a well established church at Kilwinning by AD 640.
- 8. The first detailed post-reformation plan of Kilwinning is from 1747-55 (General Roy's Military Survey of Scotland); it forms a cluster settlement formed from three locales along what is now Main Street. The central hub is located around the Abbey buildings; another is located immediately on the east side of the river Garnock near the Corsehill and the third to the west at Byres.
- 9. By the 1st edition Ordnance Survey (1856) Kilwinning had expanded to include a full street frontage on either side of Main Street. This rigid streetscape has been progressively altered through the 19th and 20th century with the opening out of the 'square' area at the west end of the Main Street and clearance to form the entrance to the Old Parish Church (removing the 18th century building of the Freemasons Mother Lodge of Scotland).

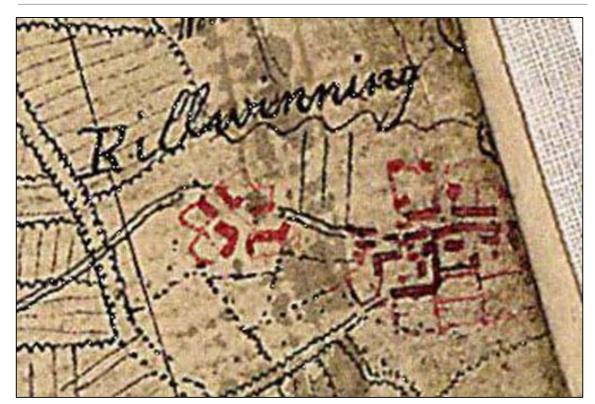


Figure 1a: Roys' Military Survey of Scotland 1747-55

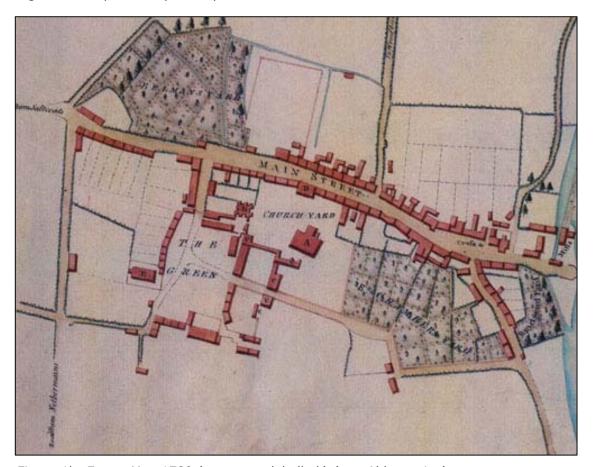


Figure 1b: Estate Map 1789 (structures labelled 'e' are Abbey ruins)



Figure 2a: 1854-59 6 Inch 1st Ordnance Survey



Figure 2b: Kilwinning Abbey from Vaults Lane showing South Transept

Historic land use of Kilwinning Abbey

- 10. Following the reformation 1559-60 the ruins of Kilwinning Abbey continued to be used, although in radically diverging manner for the two core elements. The Abbey Church and the immediate grounds to the north and east remained in religious use. The first Reformed Church was formed within a portion of the Abbey Church with the medieval north-west tower becoming its bell tower and the balance of the ground becoming graveyard. In contrast, the cloisters and all other portions of the precinct appear to have transferred into secular use.
- 11. The state of the abbey buildings in the immediate aftermath of the reformation is uncertain. Certainly all the earliest depictions show extensive loss; although interestingly the scale of loss since those first depictions is minimal. The monastic community was eventually dispersed, of the eight remaining monks at least two converted to the new protestant religion. One of the converted monks, William Kirkpatrick, became the first minister of Kilwinning.
- 12. Elements of the abbey church were definitely reused, including the original medieval tower, and built upon to form the first Reformed Church. The location and character if this building is uncertain. There are texts that suggest it was adjoining to the bell tower. The church remained in use as the parish church until 1775 when it was decided that a new building was required. The second Reformed Church was then built and this is the building still in use to this day. The medieval tower which was still in use collapsed in 1814, and was rebuilt on a smaller scale at the same time as considerable restorations were made to the ruins of the Abbey Church.
- 13. The cloister on the other hand appears to have been used for housing until the twentieth century. Whether the cloister was moved into wholesale and subjected to partial rebuilding over the years, or whether it had been part of the buildings destroyed after the reformation then rebuilt to act as housing, is unclear. There was also a suggestion that William Kirkpatrick, the first minister of Kilwinning, may have lived on the abbey grounds with his young wife; if that were the case it would most likely have been within the cloister. By the twentieth century the buildings had become squalid and were considered slums prior to their demolition in the 1960s.

Archaeology within Kilwinning Abbey Ruins

- 14. There have been three known phases of archaeological works carried out at Kilwinning Abbey. The first was carried out by the architect William Galloway in the late nineteenth century. Galloway published his findings in 1878, in the first volume of the Archaeological and Historical Collections of the Ayr and Wigton Archaeological Association as Chapter X: 'Remarks on the Existing Buildings at Kilwinning Abbey'.
- 15. At the time of his study, the condition of the abbey was in some ways quite different from its present condition. Most of the area once covered by the Abbey Church was in use as the parish graveyard, with the Western Transept, Western Range and the Cloister covered by post-medieval buildings (one dating from AD 1596), yards and vennels.
- 16. The works undertaken by Galloway in the spring of 1878 included a series of exploratory excavations. The results of his work still provide our best understanding of the layout of the Abbey Church and have contributed strongly to the modern layout of the cloisters. The excavations revealed many aspects of the Abbey including:
 - the North Transept, including a porch and chapel;
 - the line of the eastern and southern walls of the Chancel;
 - exposing the SW buttress of the SW tower;
 - revealing and unblocking the SW facade of the Chapter House; and
 - excavating within the Slype below-floor levels, with the unexpected exposure of medieval burials.

- 17. The project was not limited to excavation: William Galloway also undertook the first detailed recording of the fabric of the abbey in order to capture the architectural character of its buildings. The quality of his record is impressive; indeed, the recorded detail of the processional doorway from the Cloister to the Nave is stunning. Given the current weathered condition of the doorway it provides us with our best record of this architectural gem.
- 18. The second set of archaeological works took place in the early 1960s, just prior to Kilwinning Abbey being brought into state guardianship; the site was prepared for public access and display by the Ministry of Public Buildings and Works, the predecessor of Historic Scotland. This work involved the consolidation of all upstanding medieval masonry, along with the demolition of boundary walls and buildings which had been built upon the site between the 17th and 19th centuries, obscuring the layout of the medieval structures beneath.
- 19. Two buildings were removed, one located in the Cloisters, the other occupying the footprint of the former West Range. This latter structure, known as 'The Vaults' had been subject to large-scale alterations since the medieval period, and by the 1960s was in such poor condition that demolition was inevitable. It was reduced to its medieval core and preserved as footings.
- 20. This clearance work was accompanied by extensive excavations, concentrating in and around the Cloister including the West Range, and also extending into the south aisle of the adjacent Abbey Church. This revealed traces of medieval walls and other structural remains, allowing a greater understanding of the site's layout. The works within the south aisle must have also involved the excavation of burials from the graveyard which used this ground.
- 21. The 1960s work concentrated on emphasising the medieval fabric through the removal of later features. 18th and 19th century burials which had been placed within the south aisle of the Nave were, for instance, removed and re-located elsewhere.
- 22. The third set of archaeological works took place in the 1983 and 1985, which were carried out by Kirkdale Archaeology ahead of an anticipated programme of works of consolidation and full excavation. These works concentrated on the West Door, the South West Tower and the Secondary West Wall. Some other minor monitoring works have also been carried mainly to do with the installation of floodlighting.
 - Significant Medieval Archaeology elsewhere in Kilwinning
- 23. In October 2002 an archaeological watching brief (Macfadyen & Addyman 2002) was carried out on the excavation of foundation trenches for an extension to the rear of the Abbey Parish Church Hall. During these works a ditch was observed running east to west, measuring 1.5m wide and 0.75m deep, with an irregular profile. Late medieval reduced ware pottery was recovered from the lower fill of the ditch. It was concluded that the ditch was potentially a pre-reformation boundary associated with the abbey buildings on the south side of the abbey cloister.
- 24. A second ditch had been observed in February 2001 (Mudie 2001) during an archaeological evaluation at 47 Almswell Road, Killwinning. The ditch here was also aligned east to west though far more substantial, measuring 3-4m wide and 1.5m deep with a V shaped profile. While it was thought that this ditch was associated with the medieval abbey, its east to west alignment caused consideration as it was not what had been thought to be the likely case for alignment of the abbey boundary in this area, in addition the ditch was visible in only some of the evaluation trenches. This lead to the conclusion that the ditch either had a terminus that stopped between the trenches or it changed in alignment. However a second stage of works monitoring the building works, confirmed the existence of a terminus.
- 25. Given the size and alignment of these ditches it is likely that they relate to the abbey precinct boundary. While both ditches are on a common alignment they do not appear to be in line, which suggests either a double ditch boundary or that one of them may be a delimitation of an enclosure associated with the abbey precinct. The abbey precinct is

thought to have occupied several acres, though the exact extent of the precinct remains unknown. In all likelihood it extended as far north as the Main Street, to Almswall Road in the West, potentially no further south than Ladyford Avenue and as far east as Doocot Lane. Unfortunately so far this supposition remains untested.

26. With the exception of these two features, there is little else of archaeological significance out with the Abbey that has been identified within Kilwinning, though this may have more to do with the minimal amount of archaeological works that have been carried out in the area rather than a lack of archaeology.

Project Works

- 27. Prior to the commencement of archaeological works Scheduled Monument Consent (AMH/90187/1/1) was obtained from Historic Scotland. The on site works were carried out from the 18th August to the 18th September 2010 and were conducted in keeping with the Scheduled Monument Consent and the Method Statements for Intrusive Works (Rees 2010) and Building Survey (Rees 2010).
- 28. A limited photographic archive and some plans have survived from the Ministry of Public Buildings and Works, but unfortunately the findings were never drawn together or fully published. One of the objectives of the K-CAP, in cooperation with Historic Scotland, is to assess the surviving archives from the 1960s and re-expose the archaeological features that were located to record them in greater detail. This will increase the 1960s archive's value and enable a richer interpretation of the development of the abbey for both the Community and for the wider archaeological profession.
- 29. The 2010 Season works consisted of two distinct parts; the building survey and the intrusive archaeological works. Building Survey was carried out using a reflectorless EDM (REDM) Leica TCR 307, and consisted of a detailed survey of the Abbey and its grounds at floor level. The locations of the intrusive evaluation trenches were also surveyed. A series of stations were created across the area, which were geo-referenced using known points around the Abbey. The data was then initially downloaded into Liscad Plus v8.03 (Surveying and Engineering Environment) with Arcview GIS v3.2a and Adobe Illustrator CS also used to handle the data into its final product.
- 30. The intrusive archaeological works consisted of 12 trenches and three test pits. Eleven of the trenches were excavated within the Scheduled Ancient Monument, which were less than the sixteen trenches that had received Scheduled Monument Consent. The excess of available trenches was intentional as it allowed the capacity to abandon trenches where necessary, while retaining the ability to carry on with others. The consented trenches were numbered 1-16 with Trench 17 being out-with the Scheduled Monument. The trenches that were excavated were 1,3,4,5,6,9,10,12,14,15,16 and 17
- 31. Trench 17 was excavated to the rear of the Church Hall Car Park approximately 20m south of the Scheduled Monument, and three test pits were excavated in the private gardens of houses located in the vicinity of the Abbey within what would have been part of the medieval Abbey grounds. In general the trenches were 3m by 2m in size, with the exceptions of Trenches 1 and 17, which were 3m by 1m and 6m by 1m respectively. All three test pits were 1m² in size.
- 32. All of the archaeological remains uncovered were investigated within the confines of the Scheduled Monument Consent or as far as the interests of Health & Safety permitted, given trench depth or soil stability. All of the significant archaeological remains uncovered were recorded according to the process described in the Method Statements (Rees 2010).
- 33. All works were conducted in accordance with the Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statements. Where works fell within a Scheduled Monument, as defined by the *Ancient Monuments and Archaeological Areas Act 1979*, these were subject to the restrictions of the granted Scheduled Monument Consent.
- 34. A variation to the Scheduled Monument Consent was applied and agreed to with Historic

Scotland in regard to the investigation of posthole features within Trenches 14 and 16. This was in keeping with the Scheduled Monument Consent and the Method Statement for Intrusive works (Rees 2010)

Volunteer Attendance and Training

- 35. A series of office based training sessions were carried out prior to the excavation to familiarise the volunteers with archaeological theory, excavation techniques, recording conventions and archaeological tools.
- 36. Prior to beginning on site, all volunteers were talked through risk assessments to make them aware of any Health and Safety issues. They were also kept up to date with any revisions to the risk assessments which were carried out at the end of each week. While on site there was a ratio of one professional archaeologist to four volunteers, the objectives of the professionals were to provide supervision and further on site training, while allowing the volunteers to carry out the archaeological work.
- 37. The field team consisted of twenty volunteers and 5 professionals per day, which across the twenty days on site amounted to four hundred person days volunteered. This was separate to those volunteers who staffed the Abbey Tower Heritage Centre.
- 38. Of the twenty volunteers on site, between two and three volunteers were involved with carrying out the Building Survey of the Abbey each day during the first three weeks. For this they were trained in the use of a reflectorless EDM (REDM) Leica TCR 307 while on site.

Public Access and School Visits

- 39. During the 2010 Season the excavation at the Abbey was open to the public, this consisted of mostly passing members of the public, as well as tourists visiting Kilwinning and organised visits from the local schools.
- 40. The volunteers took the lead in talking to the public as well as answering any questions they had regarding the archaeology or general history of the Abbey. School visits were from five local primary schools as well as one visit from the local secondary school. In each case they were guided around the Abbey and the excavations by a professional archaeologist.

Findings: Building Survey.

- 41. During the 2010 season, the building survey works focused on carrying out a survey of the Abbey and it surrounding grounds in order to produce a detailed plan of the site as it currently stands.
- 42. The survey was carried out using a reflectorless EDM (REDM) Leica TCR 307 and a series of measurements were taken to show a plan layout of the Abbey at ground level (Figure 5). Elevations were not surveyed during this season. The data was downloaded using Liscad Plus v8.03 (Surveying and Engineering Environment) and then handled into Arcview GIS v3.2a for management in a GIS environment and Adobe Illustrator CS for the final illustrative and presentation touches.
- 43. The survey of the remains of the abbey tried to take in as much detail of the structures at ground level as possible including any foundations which were visible and paying particular attention to the details around doorway mouldings and columns. Although the survey focussed on surveying the structures at ground level, there were two exceptions to this rule.
- 44. Where the line of a wall continued above a doorway, the survey showed a continuous line in the wall face with the doorway being surveyed on a separate string. Also, windows which could be safely reached at ground storey level were located in plan by surveying in the location of their sill.



Figure 3a: One of the many local Primary School visits being shown around



Figure 3b: Volunteers could also choose training in specialist survey equipment



Figure 4a: Recording in Trench 4 by volunteers



Figure 4b: Trench 4 showing wall structure with inserted Nave gable to rear

- 45. As well as the remains of the Abbey itself, the survey took in the Parish Church, the 1815 tower which currently holds the Heritage Centre and a number of setting features including boundary walls, trees (surveyed around their trunks as opposed to their canopies), upstanding gravestones, breaks of slope and paths. The trenches excavated during the 2010 season were also surveyed as well as any finds of particular interest such as the location of human remains.
- 46. For the most part, the survey used the boundaries of the Abbey grounds as its outer limits. The only exception being an extension further to the south in order to take in the location of Trench 17 and the surrounding car park and details to the west of the Church Hall.
- 47. The work was successful in carrying out a complete survey of the Abbey remains and the majority of the surrounding features with the exception of some trees and gravestones to the east, some details around the northern entrance, and the western and northern edges of the upstanding tower which were difficult to access. These additional details are not essential for the purpose of this survey although they could be added in later if an opportunity arises within future phases of works.
- 48. The findings of the survey allowed us to produce a more detailed plan of the Abbey than had been available previously which in turn will help us to gain a deeper understanding of its construction and development. The survey was able to take in the finer details of doorways and column bases as well as recording the remains of the Abbey as they stand today which may be in an altered state to when they had been previously surveyed.
- 49. While, for the most part, the survey results are similar to current modern mapping of the area, they do highlight that some of the lines are slightly less square than had previously been shown, especially around the area of the Slype and Chapter House to the east. This could be a reflection of the original construction style or is maybe a result of the number of later additions and repairs, as well as the overall ruination of the Abbey over the years.
- 50. It is hoped that the data from our survey will provide a good base for future works concerned with understanding the fabric of the Abbey buildings and will be further added to in later phases of excavation and building recording carried out within the area.

Findings: Intrusive Archaeological works.

- 51. In total twelve trenches (Figure 6) were opened, eleven of them were within the grounds of the Scheduled Monument with the twelfth (Trench 17) positioned approximately 20m to the south to the rear of the church hall car park. The trenches were in general 3m by 2m in size with the exceptions of Trench 1 at 3m by 1m and Trench 17 at 6m by 1m. In addition three 1m² test pits (Figure 16) were excavated in surrounding gardens.
- 52. The positioning of the trenches within the Abbey had been chosen specifically to exposed archaeology that had been identified in previous works. In particular those identified from the photographs from the 1960s works but also to record the 1980's excavations. While Trench 17 was placed to try to pick up the possible abbey boundary ditch identified from the 2002 archaeological works (Macfadyen & Addyman 2002).
- 53. Presented below are the findings for each trench along with the descriptive table for the test pits. A full table of appendices with context records etc will be supplied in a support disc.

Trench 1

Trench 1 (Figure 7a) was placed to re-expose the masonry face of the west gable of the nave. This would enable recording of mason marks noted during 1985 Kirkdale excavations. The trench was 3m by 1m in plan, aligned north-south, and was excavated through 1960s fill material (101) and disturbed deposit (105) to reveal the upper remains of two articulated skeletons (107), both with skulls intact, at 0.61m below ground surface.



Figure 5: Detailed survey data of Kilwinning Abbey generated during Building Survey work

- 54. The burials appear to be *in situ*; one female, one male. Both were aligned west to east with their head at the western end. After being recorded they were left undisturbed in the northern half of the trench. A small area of a possible mortar surface (104) was also exposed in the north-west corner of the trench at this level.
- 55. The southern half of the trench was reduced further through 1960s fill material (103) and (106) until excavation stopped at a depth of 0.95m across the southern area. As the base of the 1960s material had still not been revealed at this point, a small *sondage* was placed which covered an area approximately 0.5m square. This revealed a layer of demolition material (108), which sat at a depth of 1.1m below ground surface, and then a layer of buried topsoil (109) at 1.35m. Natural subsoil (110) was exposed at the base of the *sondage* at 1.8m below ground surface. The trench was not excavated further and this was its lowest level.
- 56. A range of 19th and 20th century and medieval pottery finds were recovered from the 1960s fill. Metal finds were also common as were bone of which some were clearly disarticulated human skeletal material. No sediment samples were recovered from this trench.

Trench 3

- 57. Trench 3 (Figure 7b) was placed in order to re-expose the foundations of piers in the central section forming the south aisle of nave. This trench was 3m by 2m, aligned north to south, and was reduced through topsoil (301) until a stone foundation wall (303) was uncovered.
- 58. The foundation wall was aligned east to west across the width of the trench, and consisted of roughly shaped large and medium sized stone. The wall was 0.9m wide, with the eastern end being denuded of the majority of its stone.
- 59. The trench was not reduced to natural deposits due to the discovery of several articulated skeletons (302).
- 60. A range of 19^{th} and 20^{th} century pottery, a modern coin and metal fragments were recovered from the topsoil (301). Disarticulated human bone <303>, <310> and iron nails <301> were recovered from the lower deposits (305) and (306). A mortar sample, 023, was also recovered.

Trench 4

- 61. Trench 4 (Figure 8a) was placed in order to re-expose foundations for piers which formed the eastern end of the south aisle of the nave. Piers had been identified running east to west. The trench was 3m by 2m in plan and was aligned north to south. Trench 4 was reduced through topsoil (401) to expose 1960s backfill deposit (402) and remains of 16th century wall (403). Contexts (402) and (403) were exposed at approximately the same depth, which was almost immediately after removal of topsoil.
- 62. Wall (403) was surrounded by (402) on its north and south sides. Wall foundations run west to east from the west facing section across the middle of Trench 4 but stopped short of reaching the east facing section. Wall (403) consists of mainly rough, un-worked stones, except for the south edge which is faced with worked stone blocks. The north and west sides of Wall (403) are irregular and rough and look to have been robbed for stone at some point. The wall itself now no longer forms a linear feature but curves to the south; probably truncated due to stone robbing.
- 63. In addition to the remains of the wall foundations, (403) also includes a rough stone floor surface, which was exposed as the trench was dropped further through (402) on the north and south sides of the wall foundations. The floor surface is composed of the same rough, irregular un-worked stones as the wall foundations. The wall and the surface appear to run into one another and as they share stonework no specific boundary exists. This suggests that the wall and floor are not only contemporary but are in fact part of the same 16th century activities/structures.

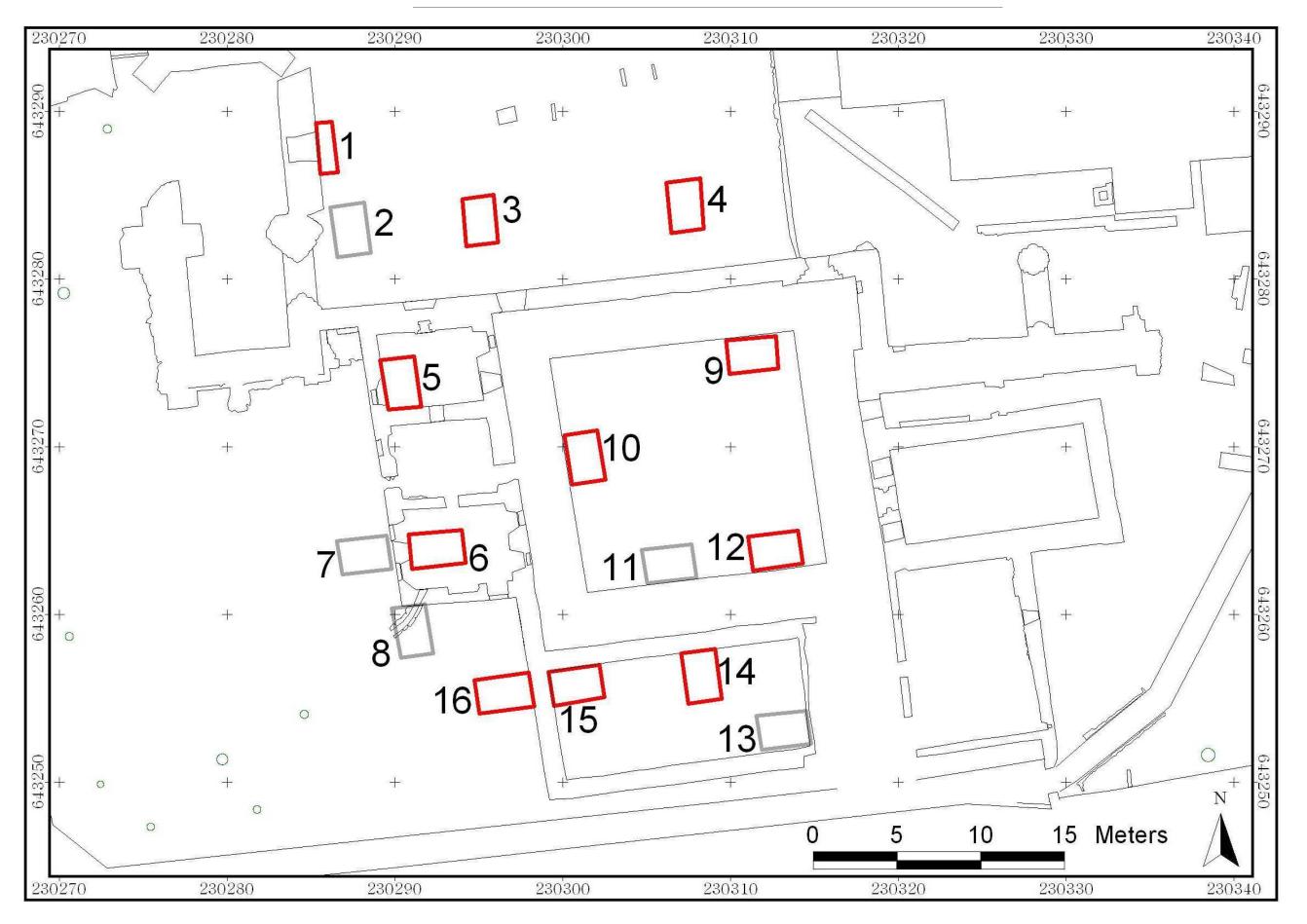


Figure 6: Trench Plan (Trenches in red were excavated while grey ones were not)



Figure 7a: Trench 1 from south showing foundation course of gable wall



Figure 7b: Trench 3 from north showing fragment of wall foundation



Figure 8a: Trench 4 from south showing mortared wall and floor surface



Figure 8b: Trench 5 from east showing re-excavation into part of filled 1960s sondage

- 64. Revealed within the floor surface (403), located in the north-east corner of the trench (north of the wall) was an area of disarticulated human bone (405). The area of bone was surrounded by a layer of mortar (410) and appeared to have been mortared into floor surface (403).
- 65. Exposed within wall remains (403), located in its eastern side, was a small gap within the stonework of the wall indicating an earlier feature (404). Unlike the rough northern and western edges of wall (403) however, (404) boasts smoother more regular edges, suggesting the space is deliberate rather than the product of later stone robbing. (404) was not fully exposed as its eastern edge extends out with the limits of excavation, as does (403).
- 66. This space within the stonework of (403) is thought to be the previous location of a medieval pillar used in the construction of the pier in the nave area. The stone wall foundations and stone floor surface (403) appeared to have been built around (404). It is likely (404) is part of a sequence of pillars which formed the original pier for the nave, torn down during the reformation. The remains of wall foundations and floor surface (403) look to be post-reformation rebuilding of the pier, using the locations of the original piers as a quide.
- 67. In addition, a small sondage was excavated in the SW corner of the trench in order to further expose the facing of wall (403). Within this sondage, multiple deposits were removed (407), (408) and (409). The nature of the deposits in the nave area is similar in type and form to those undisturbed 18th century deposits (e.g. Trench 3), which have contained *in situ* burials.

Trench 5

- 68. Trench 5 (Figure 8b) was within the northern room of the western range and was positioned to relocate a 1960s archaeological trench. The trench measured 3m by 2m in plan, aligned east to west and was reduced through the upper 1960s backfill deposit of (502). The initial reduction exposed the cut for the 1960s trench [505]; further reduction of the fill of [505] revealed a curvilinear field drain (503) curving from the north-east corner to the middle of the west section.
- 69. It was decided to leave the drain *in situ* and reduce the southern portion of the 1960s trench. This was done to a depth of 1.1m, revealing the north facing section of the 1960s trench. Within the section two pits, [509] and [510], were revealed. Pit [509] which given its fill appeared to be post medieval in origin cuts [510] which may be medieval in date.
- 70. A range of 19th and 20th century pottery, glass, slag and bone finds were recovered. No sediment samples were recovered from this trench.

Trench 6

- 71. Trench 6 (Figure 9a) was placed in the southern room of the western range to relocate an archaeological trench from the 1960s excavations. The trench was 3m by 2m in plan, aligned east to west and was reduced through upper backfill deposits of (601) and (603). This exposed the cut of the 1960s trench [608] and a curvilinear field drain [604] which ran through [608] from the east and curved to the north-west. Half of the drain was removed to allow access to the western portion of [608], which was then reduced to natural, some 200mm deep.
- 72. A range of 20^{th} century, 19^{th} century and medieval pottery finds <004> and <007> were recovered from the 1960s fill. Metal finds were also common <001>, <009>as were bone <002>, <010>, glass <003>, <008> and stone <005>. No sediment samples were recovered from this trench.

Trench 9

73. Trench 9 (Figure 9b) was placed in the northeast corner of the cloister garth to re-expose foundations of the possible cloister arcade. The trench was 3m by 2m in plan, aligned east to west, and was reduced through topsoil (901) until a possible foundation for the



Figure 9a: Trench 6 from the east showing re-excavated shallow 1960s sondage



Figure 9b: Trench 9 from east showing irregular wall foundations



Figure 10a: Trench 10 from north showing wall foundation cut by later drains



Figure 10b: Trench 12 from east showing wall and yard surface

cloister arcade (904) was exposed at 0.36m below ground surface.

- 74. The foundation (904) was aligned east to west and crossed the full length of the trench across its northern side. The foundation comprised of sub-rounded boulders and measured 0.65m wide. Subsequent removal of 1960s fill material (907) and (906) revealed there to be a cut [905] in the natural (902), and subsequent fill (903), for the foundation which was then left unexcavated. Natural subsoil (902) was also revealed in some areas of the trench although mainly the depth of the trench stopped at an interface which lay just above the natural. The trench was not excavated further and the lowest level was 0.45m below ground surface.
- 75. A range of 19th and 20th century and medieval pottery finds were recovered from the 1960s fill. Metal finds were also common, as were bone and glass. No sediment samples were recovered from this trench.

Trench 10

- 76. Trench 10 (Figure 10a) was placed in the north-west corner of the cloister garth to reexpose the foundation of a possible cloister arcade. The trench was 3m by 2m, aligned north to south, and was reduced through topsoil (1001) and 1960s backfill (1002) and (1003) until the possible foundation layer of the Cloister arcade (1007) and (1008) was exposed. The foundation was aligned north to south and was cut in two by a modern field drain [1005].
- 77. A range of modern pottery, glass and metal finds were recovered from the 1960s fill as were bone, of which some were clearly disarticulated human skeletal material. Of particular note was a find of two inscribed pieces of slate <153>, one of which appears to have a Merelles game board scratched on it and the other with letters lightly scribed. No sediment samples were recovered from this trench.

Trench 12

- 78. Trench 12 (Figure 10b & 12a) was placed in the southeast corner of the cloister garth to re-expose a post 16th century wall and probable later structures/surfaces within the cloister garth not mapped in the 19th century records. The trench was 3m by 2m in plan, aligned east to west, and was reduced through topsoil (1201) until wall (1204) was exposed at 0.2m below ground surface.
- 79. Wall (1204) was aligned east to west and crossed the full length of the trench along its south side. It was formed of large dressed sandstone blocks and measured at least 0.46m wide although its full width was not exposed. Subsequent removal of 1960s backfill material (1202) and (1203) exposed a second wall (1211) at 0.57m below ground surface. This wall formed a rough 'L' shape comprised of large dressed sandstone blocks located in the northeast corner of the trench. Further 1960s backfill (1213) was removed to then reveal a cobbled floor surface (1205) which sat 0.7m below ground surface. The floor measured 2.1m long by 1.3m wide and abutted both wall (1204), which sat to the south, and wall (1211), which sat to the east.
- 80. Two discrete areas remained along the east side of the trench which were free of structural remains. In the first area, which was enclosed by wall (1211) in the northeast corner, a modern ceramic drain pipe was exposed at 0.47m below ground surface. Below this, the area was further reduced through 1960s backfill deposits (1209), (1206), (1207) and (1208) until natural (1210) was reached. The second area, which was enclosed by wall (1211) to the north, floor (1205) to the west and wall (1204) to the south, was reduced through 1960s backfill (1212) until natural (1210) was reached. The trench was not excavated further in either area and the lowest level reached was 0.9m below ground surface.
- 81. A range of mostly modern pottery finds were recovered from the 1960s fill. Metal and slag finds were also common, as were glass. Some fragments of bone, shell and clay pipe were also recovered. No sediment samples were recovered from this trench.



Figure 11a: Trench 14 looking north, note early wall in east face of trench



Figure 11b: Trench 15 looking west showing early wall

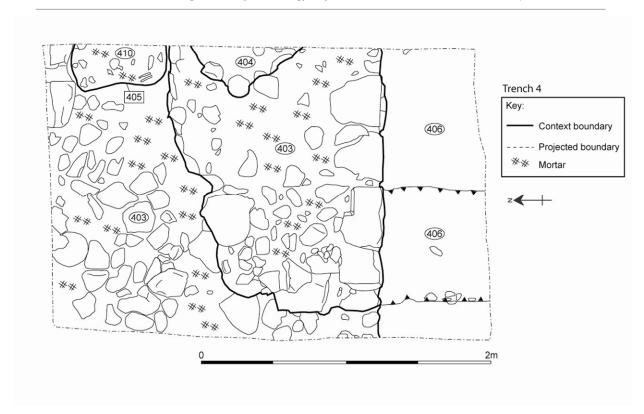


Figure 12: Plan of Trench 4

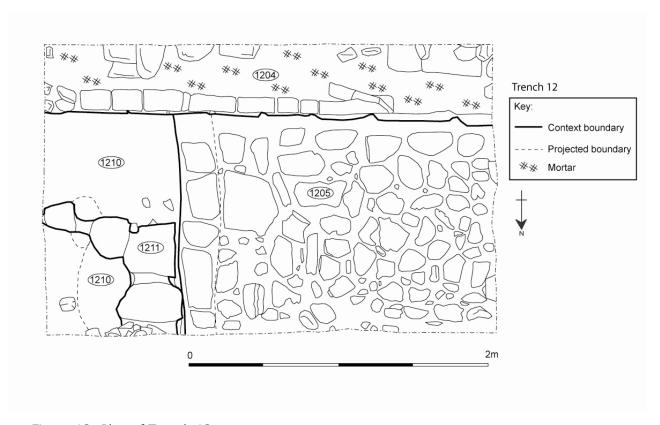


Figure 13: Plan of Trench 12

Trench 14

- 82. Trench 14 (Figure 11a) was placed to the immediate south of the internal face of the north wall of the south range. It was placed so as to expose foundations which may have been an internal division of the range. The trench measured 3m by 2m, aligned north to south and was reduced through topsoil (1401) and 1960s backfill material (1402) to (1405) and (1410) to (1411).
- 83. The reduction exposed a medieval wall (1408) consisting of yellow sandstone blocks which was aligned north to south along the eastern edge of the trench, measuring 3m long and 0.4m wide within the trench. The northern 0.8m of the wall was one course high (0.3m), while the remainder was two courses high (0.6m). The most northern stone of the wall was aligned east to west and sat proud of the rest of the wall and may be the remains of a second wall running east to west.
- 84. Also of interest were two features, [1415] and [1417], within the base of the trench. [1415] was an oblong possible pit/posthole, measuring 0.4m by 0.28m which had its east end obscured under wall (1408) and deposit (1414) which appears to be a medieval ground level. [1417] was an irregular square shape in plan which measured 0.12m by 0.1m. No artefacts were recovered from these features.
- 85. A range of 19th and 20th century and medieval pottery finds were recovered from the 1960s fill. Metal finds were also common as were glass, slag and bone of which some were clearly disarticulated human skeletal material. Also recovered were a slate disc and a coin. No sediment samples were recovered from this trench.

Trench 15

- 86. Trench 15 (Figure 11b) was located in the north-west corner of the south range. The corner of the trench sits tight into the north-west corner of the interior of the south range. The target of the trench was to re-expose the internal wall faces of the south range and to examine the potential for internal floor surfaces and deposits. The trench was 3m by 2m in plan, aligned west to east.
- 87. The trench was reduced through topsoil (1501), and layers of 1960s backfill (1502), (1503), (1504), (1506), (1508), (1509), (1514) until the base of the 1960s trench was revealed. The base of trench revealed (1517), a red-brown loose gravel in a silty matrix, which is the subsoil for the area. During the reduction of the trench, a stone structure (1505) was revealed running west to east stopping short of reaching eastern edge. This structure appears to be an original wall of the abbey (12th century), rather than the current 'abbey walls' now visible. The structure was covered with a yellow sandy mortar (1510) (which would appear to also be of a contemporary date) which ran off the sides of the wall.
- 88. This wall and the mortar covering it were then cut at a later date by [1513], the cut for the modern wall [1512] which forms the east and south facing sections of this trench. The cut [1513] truncates medieval wall (1505) and the mortar which covers it (1510). Modern mortar (1511) appears to have then been poured in between the old wall and the new wall. A small area of mortar was revealed immediately east of (1505) at the base of the trench, which appears to be contemporary with (1505).

Trench 16

- 89. Trench 16 (Figure 14a) was outside the south range to the west. The east side of the trench was on the western exterior face of the south range, the northern edge of the trench was offset from the south wall of the west range by 4.5m. The aim of the trench was to re-expose walls and wall faces in part related to post sixteenth century structures known to have been present. In addition, to test for the extension of east face of the west range while examining possible interrelationships with the west gable of south range.
- 90. This trench was aligned east to west, 3.32m x 2m, and was reduced through turf (1601). Stone structure (1603) was revealed immediately below turf (1601) in the western part

of trench. Structure (1603) was 1.2m wide (west-east) and 0.25m deep and ran north-south across trench, the northern and southern extremes obscured by limits of excavation. It consisted of one course of worked stones forming a flat surface. The western side was not faced but rather had collapsed (or had been robbed away) into a slope of mortar covered rubble of worked and un-worked stones. The eastern side also included a line of un-worked stones, not mortared to the rest of the structure, which sat directly on subsoil (1606).

- 91. Within (1603) was a door jamb stone with a chamfered edge. This stone had been incorporated into the structure not as a door jamb but merely as standard stonework, indicating the stone has been re-used from a previous structure. This suggests (1603) has been rebuilt or added to at some point. The location of (1603) (south of the west range of the abbey) could suggest it is related to the west range. It is known the west range of the abbey housed tenement flats c 1700s 1960s which extended southwards almost to the pavement out with the current abbey grounds. It is likely the stone structure is related to these tenement buildings.
- 92. The trench was then further reduced through a stoney backfill deposit (1602) (likely to date after or contemporary with the 1960s excavations). Upon removal of (1602), a linear feature [1610] running north to south across the trench was exposed filled with one deposit: brown sandy silt (1605). The feature is cut into subsoil (1606) and looks to be the cut for a sondage from the 1960s archaeological excavations, possibly to explore the full extent of stone structure (1603).
- 93. Located at the east end of the north facing section were two mortared worked stones (1608), aligned east to west. It is possible these relate to (1635), a large worked rectangular stone revealed in the southwest corner of the trench running underneath (1603). The full extent of (1635) is unknown as it is obscured on its east side by stone structure (1603) and by the limits of excavation on the west and south side. It is possible (1608) and (1635) are the remains of a wall which once ran east-west across trench but which was removed/truncated when (1603) was constructed.
- 94. Removal of (1607) exposed a small linear feature [1611] filled by dark brown charcoal deposit (1613) running west to east from the east edge of the trench and ending at the sondage [1610] which appears to cut it. On removal of fill (1613) this was revealed to be 0.03m maximum depth and is likely to have been related to 1960s archaeological activities. [1611] was 0.03m wide (north-south) but the western end expanded to approximately 0.2m wide. Excavation of [1611] revealed the base of (1608) which was shallow with a maximum depth 0.3m.
- 95. Immediately adjacent to the western end of [1611] was post-hole (1621). The southern limit of this post-hole was obscured by limits of excavation. This post-hole was cut by [1608]. Post-hole (1620) was half-sectioned (under permission granted by HS) and sampled but no artefacts were found within the fill.
- 96. The west wall of the south range (1632) formed the west facing section of the trench. Jutting out from the base of (1632) as exposed was a line of mortared stonework (1604) running north to south. One stone within (1604) appeared worked, of large size and is similar to those within (1505) Trench 15, suggesting it could have been re-used from an earlier structure (1604) appears to form footings for (1632). A linear feature [1640] was revealed cut into the natural subsoil (1606) running north to south, almost parallel with (1604). This feature was not excavated.
- 97. A linear charcoal rich deposit (1614) was revealed running east to west. This ran from the edge of the large worked stone within (1604) to the edge of the sondage [1610]. (1614) was removed and revealed to be a maximum depth of 0.05m. The eastern side of the trench was then cleaned and natural subsoil (1606) revealed. Three post-holes were revealed cut into the subsoil. After permission from HS had been granted, two of these features, [1616] and (1618), were half-sectioned and sampled. Upon half-sectioning post-hole [1616] it was revealed that this was in fact two features, one small very truncated post-hole which was located immediately south of the main one. Upon half-sectioning it was revealed that the main part of [1616] had been used, filled in and then

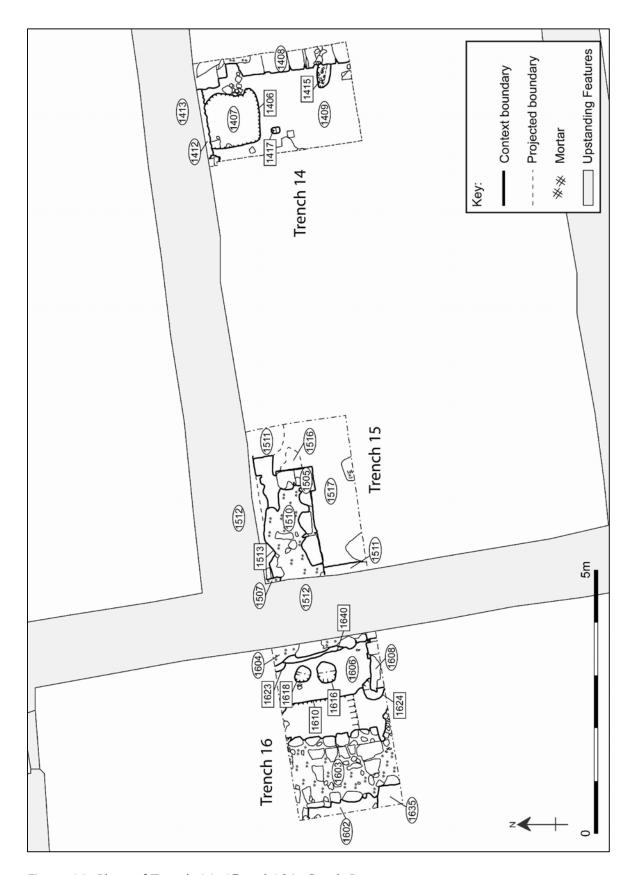


Figure 14: Plans of Trench 14, 15 and 16 in South Range



Figure 15a: Trench 16 from west with postholes (unexcavated) visible



Figure 15b: Trench 17 from south showing surviving wall

later re-cut by two stake-holes which were clearly visible within the section.

- 98. The east-facing section of stone structure (1603) revealed that (1603) appeared to lie directly on natural subsoil. The northern end of this section also revealed the remains of possible post-hole [1634] which appeared to be truncated by the construction of (1603). This post-hole was only visible within the section of (1603) and is not visible in plan.
- 99. Deposits were revealed within both the north and south facing sections which were present only in section. The fill of the sondage [1610] was not present within the section. Deposits (1637), (1638), (1639) and (1636) were all present within the south facing section of the trench, located specifically in the area of the sondage but not actually included within the fill of the sondage. These appear to be backfill deposits, likely to relate to the 1960s excavations. However, it does appear that these deposits were truncated by the cut for the sondage [1610], indicating these deposits are earlier than the sondage.
- 100. In addition to this the eastern end of the south facing section also revealed a cut [1642] which truncates all the 1960s backfill deposits within the section. The cut is almost vertical but slopes slightly to the east. The fill of this cut is (1602). On inspection of photographs from the 1960s excavations, a medieval wall appears to have been located running north-south across the trench aligned approximately with this cut (1642) but is now removed. It is possible this is a cut for the removal of this wall. It could also be a cut for the construction of the modern wall of the west wall of the south range (1632).

Trench 17

- 101. Trench 17 (Figure 14b) was located to the south of the modern abbey grounds, on the other side of Vaults Lane in the grounds of the Abbey Church Hall. The area has been heavily altered in the 20th century, not least by the construction of the Church Hall and the surrounding car park. It was during this construction work that archaeological work by Tom Addyman recorded a medieval ditch running east-west beneath the southernmost part of the Church Hall buildings. It was primarily to locate and record this ditch that Trench 17 was excavated. An additional aim was to assess the depth of deposits and the potential for survival of medieval archaeology.
- 102. Initially Trench 17 was 6m long (north-south) and 1m wide (east-west), however after removing the gravel/turf mixture (1701) which composed the surface sediments and initial reduction of the interior it became clear that the southern end of the trench had been subject to a large dump of concrete. This concrete would have prevented any useful examination of sediments in this area and so the trench was extended east from the south-east corner with an additional area of 2m (north-south) by 1.5m (east-west).
- 103. Progressively Trench 17 was reduced in depth to a maximum depth of 1.2m and this revealed a build-up of sediments, dumps and levelling material. In plan the trench could be split into three areas; the northern and central area split by a large stone wall (1704) and the central and southern area split by the mass of concrete (1725). Although the sediments in each area were stratigraphically separate there were similarities which allowed comparison over the entire trench. As far as possible the build up of sediments and structures in the trench will be discussed chronologically.
- 104. Wall (1704) was, after deeper excavation, shown to be two walls one built above the other. Wall (1726) was exposed to a depth of approximately two courses beneath Wall (1704). Wall (1726) was at a slightly different alignment but both walls were composed of large, roughly cut, sandstone blocks. Wall (1704), maximum depth of 700mm, was initially interpreted as being the foundation courses of the tenement blocks known to have previously existed on site, however, the existence of Wall (1726), from 700mm to 1.1m depth, cannot be confidently be interpreted without further excavation. It is noteworthy that no cut could be seen in the section for either wall suggesting that they were in place before the area was brought to its existing level.
- 105. The northern area was excavated deepest and, because of the slope of the surrounding topography, had the greatest chance of reaching the depth required for medieval archaeology. No convincingly medieval deposits were reached. A small sondage in the

north of the trench was excavated to a depth of 1.5m. Archaeologically sterile subsoil may have been reached in this area (1724) however the exposed area was so small that it is difficult to reach a confident conclusion.

- 106. Some potential features were exposed at the base of the northern area, 1.3m depth. Surface (1723), a triangle 500mm by 300mm in the corner of the trench, may have been a deliberately compacted surface of small rounded stones. In the north-west corner a line of four large angular stones, approximately 1m long together and 300mm wide, may have been indicative of a larger feature. Without excavating a larger area or having an association of artefacts, a definite conclusion is difficult to reach. Some fragments of potentially late medieval pottery were recovered from the deeper sediments in the northern area but no context seemed to contain exclusively medieval material.
- 107. The build up of sediments in the northern area was demonstrated in the northern and eastern sections. This showed a progressive accumulation of sediment build-up and levelling deposits. At the base of the area deposit (1714) appeared to result from a slow build up of sandy silt and contained numerous charcoal flecks. Above this, deposit (1710) was composed of compact clayey sand containing sandstone fragments, pottery, glass and pieces of slate.
- 108. The higher sediments in the north end of the trench was a build up of black or dark brown sandy silt containing fragments of modern brick, pottery, plastic and other modern rubbish (1702). Upon closer examination, especially in section, it appeared that this deposit was made up of numerous irregular layers of material with variation in the proportions of inclusions. Deposit (1707) is an element of this sequence and included the placement of a brick surface. Topsoil (1701) covered the entire sequence. In addition, it should be noted that (1708) appeared beneath the topsoil towards the south of the northern area and will be described below.
- 109. It was not possible to excavate the central area deeper than deposit (1719), 1.2m deep. Excavation was stopped in this area when the top of a large service pipe was reached. In addition to the pipe deposit (1719) contained fragments of bone, sandstone, glass, slate and pottery. The sequence of deposition in the central area was (1719), (1710), (1702), (1708) and (1701). Deposit (1708) became thicker from north to south and contained a large quantity of sandstone rubble and some pottery fragments. This layer has been interpreted as a demolition layer, perhaps immediately preceding the construction of the Abbey Church Hall.
- 110. The southern area which will be referred to here is only the area of the trench extension to the east. 1.3m deep. The south-western corner was entirely taken up by a dump of concrete (1725). The deepest deposit in the southern area was (1715) which was a grey/brown clayey silt containing fragments of charcoal and slate similar to (1719). Broadly speaking the sequence of deposits was the same as described above for the central area with the significant addition of several dumped deposits (1716), (1717), (1718), (1720) and (1721) between (1715) and (1702). These deposits contained large sandstone blocks, floor slabs and large deposits of industrial waste (probably plaster of Paris). This area obviously contained a large quantity of material dumped over a short period of time.
- 111. In summary, undisturbed medieval deposits were not reached anywhere in Trench 17. It is possible that subsoil was reached in a small section at the north end. This combined with the fact that the sediment build-up in the trench was all from 19th or 20th century demolition material suggests that the area surrounding the Abbey Church Hall has been artificially raised (confirmed by examination of local topography) during the hall's construction. If medieval deposits were still to exist in this area the best chance to locate them would be to the south at a depth of more than 1.6m.

Test Pits

112. Three test pits were excavated during the 2010 season; these were all in private gardens and mark the start of the programme to assess the physical spread of material culture associated with the Abbey precinct.

113. The test pit locations are shown in Figure 17 with some representative images in Figures 16a and 16b. Tabularised data on the materials recovered from these test pits and the sediments exposed are provided overleaf.

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Table 1: Test Pit Data

No.	Location	Depth	Sediments	Artefacts
1	13 Ladyford Avenue (north)	0.86m	TP1/001 very dark brown silty sand	Artefacts range from 19 th century onwards.
			TP1/004 very dark brown/black silty sand, frequent charcoal.	
			TP1/005 mid-dark brown sandy clay	
			TP1/006 light-mid grey mottled orange clay (natural)	
2	13 Ladyford	0.6m	TP2/001 turf	Artefacts from 19 th century
	Avenue (South)		TP2/002 very dark brown silty sand	onwards
			TP2/004 very dark brown silty sand, frequent charcoal.	
			TP2/005 black clay, no visible inclusions.	
			TP2/006 orange mottled grey clay (natural)	
3	Kyleswell Cottage	0.82m	TP3/001 turf	Medieval green glaze pottery
			TP3/002 very dark brown sandy silt, rare charcoal	found (approximately 3 pieces)
			TP3/003 mid-light brown clayey sand, occasional charcoal	
			TP3/004 light-mid brown silty sand	
			TP3/005 brown/orange clayey sand frequent manganese no other inclusions (likely natural)	



Figure 16a: Test Pit 1



Figure 16b: Test Pit 2

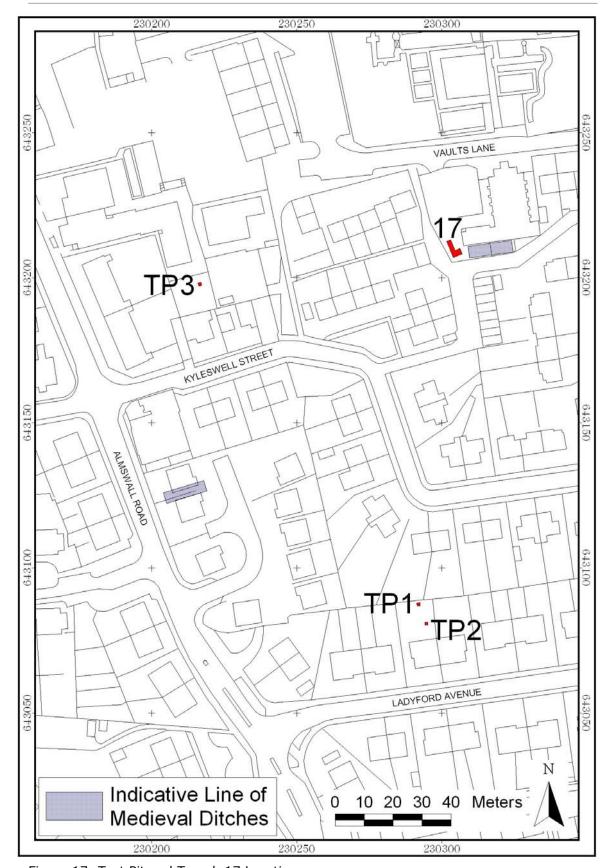


Figure 17: Test Pit and Trench 17 Locations

Discussion

- 114. The vast majority of the original archaeological strata were removed during the 1960s Ministry of Public Building and Works excavation, leaving only the upstanding archaeology that was considered by Ministry workers to be medieval in origin. Given the lack of records from the 1960s works the destruction of the original strata is quite a significant loss and has removed the opportunity to ascertain any of the archaeological relationships that may have been present.
- 115. It also became apparent during the 2010 excavation that the visible walls of the south range were in fact of recent origin. As the northern wall was not only mortared with cement but actually sat on a foundation bed of concrete. It would seem that the Ministry of Public Building and Works had the walls built to aid in the visualisation of the size and shape of the southern range, in some cases re-using medieval stonework within their structure.
- 116. This meant that the 2010 excavation trenches were reduced through purely 1960s backfill and any significant material culture recovered was at best of secondary if not tertiary deposition. However, the working presumption is that the material culture has been re-worked within the grounds of Kilwinning Abbey rather than being imported material. What significant archaeology there was to be found was that which had been left *in situ* from the 1960s, and appears to represent medieval to post reformation periods.

Medieval

- 117. Trenches 14, 15 and 16 revealed a series of walls which would, given their size, make up and position, appear to relate to the abbey's southern range, including the refectory. Within Trench 14, wall (1408) was aligned north to south and 0.4m of its width was exposed within the trench. This wall was identifiable from the limited photographic record of the 1960s works. On the 1960s photograph, wall (1408) appears to be twice to three times the width that was visible within the trench. In addition there is a second later wall running east to west across (1408), which is most likely a wall from 19th century housing that ran east-west across that portion of the site. This second wall was no longer evident having been removed during the 1960s works.
- 118. (1408) may have been an internal division of the refectory. Within the trench there was evidence at its northern end of a wall that ran east-west, which consisted of a stone projecting out from (1408) at the trench base to the east. From the 1960s photograph there is a wall to the west side of (1408) but there is nothing in the photograph to indicate that it continued eastward. Of further interest is deposit (1414) which sits under the southern end of (1408); this appears to be a medieval ground level that (1408) has been built upon. Datable material was recovered from (1414) in the form of a bone <534>.
- 119. Within Trench 15, wall (1505) appears to be an original wall of the abbey and is covered with a yellow sandy mortar (1510) (appearing to be contemporary in date) which overran the sides of the wall. This wall and the mortar covering it, were then truncated most likely to create enough space for the building of the modern wall (1513) prior to the reinstatement of the site. Modern mortar (1511) appears to have then been poured in between the old wall and new wall. Another small area of mortar (1516) was revealed immediately east of (1505) at the base, which appears to be contemporary with it.
- 120. From within the area of the cloister, Trenches 9 and 10 revealed areas of sub-rounded medium to large stones. Given the nature and position of these stony areas it would appear that they are the denuded and truncated remains of the foundation levels for the cloister arcade. While this assumption is far from certain it would seem a reasonable one given the evidence available.
- 121. In addition to the standing archaeology present in the trenches several negative features were also evident within Trenches 14 and 16. While no artefacts or datable materials (subject to post excavation works) have so far been recovered from these features, they

would appear to be medieval in origin given their position and nature. Within Trench 16 the three postholes present, (1616), (1618) and (1621), sit roughly in a line and appear to have been originally under what appears have been a medieval wall that is shown in a photograph from the 1960s work though is no longer existent. With this in mind the postholes may represent part of a wooden structure that was a forerunner of the southern range.

122. While the postholes in Trench 16 are undated, Pit/Posthole [1415] in Trench 14 on the other hand is of greater antiquity than the medieval wall (1408). Its position directly under (1408) indicating its greater age than the wall. This may when taken with the other postholes may indicate an earlier timber built phase prior to the stone structures, though this assumes the contemporanity of all the postholes.

Post-Reformation

- 123. Within the trenches excavated, Trenches 3, 4 and 12 exhibited what has been interpreted as post-reformation archaeology. Trenches 3 and 4 contain a wall (303) & (403) running east to west which appears to be of a later construction than the medieval remains. The line of this wall matches broadly the line of the southern aisle of the Nave, as indicated by the surviving medieval great pillar which is absorbed into the recessed gable that stands at the western end of the Nave. However the foundation layer of the exposed wall is higher than the base of the architectural detail on the great pillar.
- 124. Hence, these wall fragments are in all probability part of a structure that post-dates the coherent, full use of the abbey church. Further, the gap (404) within the stonework of (403) was interpreted on-site to be a potential negative image of the location of one of the sequence of pillars which formed the south aisle of the Nave. This in turn suggesting that the exposed walls filled the archways along the south aisle, with the stone floor surface (403) being a raised floor within the 'interior' (the main vessel of the Nave) which is a good match for the apparently 'high' doorway through the inserted recessed gable.
- 125. During the immediate post-reformation period the community of Kilwinning had need of a parish church; this need was not for as large a structure as the existing Abbey Church which is known to have been in bad repair during the early to mid 16th century before any damage was wrought to it by the reformers. It is credible to postulate that around AD 1560-2 the core of the Nave was renewed as the first Reformed Church through the insertion of new gables at the west and east ends (the western gable still standing) and the filling of the archways along each of the aisles. This simpler, plainer aisleless church would have been a practical reuse of the existing structure (and indeed the portion of the abbey church that had been used by the local community) and enable the retention of the adjoining northwest medieval tower as the bell tower
- 126. Trench 12 within the cloister area revealed a cobbled surface (1205) and an east-west wall (1204) with a north-south return (1211). Like wall (303/403) the structures within Trench 12 appear to be of later construction and most likely relate to the use of the cloister area for housing after the 1560's. Potentially also related to the later housing is wall (1603) within Trench 16, which contained a reused stone door jamb with a chamfered edge within its material. This suggests (1603) has been rebuilt or added to at some point. The location of (1603) (south of the west range of the abbey) could suggest it is related to the west range. It is known that the west range of the abbey housed tenement flats c. 1700s 1960s which extended southwards almost to the pavement out with the current abbey grounds. It is likely the stone structure is related to these tenement buildings.

Skeletal Material

127. What became apparent very quickly during the excavation was that there was an inordinate amount of what appeared to be disarticulated human skeletal material within the 1960s backfill across the whole of the area investigated, and not just in the Nave which is known to have been used as the post-reformation graveyard. Although note that given the interpretation of the presence of the first Reformed Church in the Nave from c. 1560 to 1775 this would be the late eighteenth to twentieth century use of this ground.

Some animal bone was also present; however the large majority was human.

- 128. The Ministry excavations of the 1960s in the southern half of the Nave excavated an area approximately 6m by 25m. However, as this was part of the post–reformation graveyard there were numerous graves that were exhumed by the excavation. The volume of bone strongly suggests that the exhumed skeletal material was substantially intermixed with the excavation spoil. This spoil was then used to reinstate the site, which seems to have dispersed the skeletal material across the full extent of the guardianship area.
- 129. In addition to these disarticulated remains, there were several articulated burials uncovered in Trenches 1 and 3 within the Nave. These burials were aligned east to west are of uncertain date given that at the depth they were exposed they could not only derive from the post-reformation use of the Nave as a graveyard, but equally from the pre-reformation burial of individuals within the Nave.

Artefacts

- 130. A large quantity of artefacts was recovered during the excavation; the vast majority of the material recovered was of a relatively recent origin, consisting of nineteenth to twentieth century pottery. There were however a few pieces of potentially medieval origin in the form of white gritty ware (12th to 15th Century) and reduced ware (15th to 17th Century).
- 131. Two artefacts of particular note were recovered; they consisted of two incised pieces of slate <153>. The first slate has approximately equidistant lines incised across its width with fainted incised letters between the lines. The second slate had incised patterns on both of its sides; Side A has three concentric rectangles, the sides of which are each bisected by an intersecting line giving 24 nodal points. The board at maximum extent is 11cm by 7.5cm. The reverse side of the slate (Side B) has two sides of a strongly scored board, measuring 11cm by 8.5cm at the edges. This is an uncompleted board, given that the lines stop within the slate surface. Within this is a faint sequence of four 24 node boards of diminishing sizes, each nested within the last, the largest being 9cm by 9cm while the smallest is 1cm across. A further small board, 1.5cm across, lies between the nested boards and the part scored board.
- 132. The second slate seems to be a graffiti gaming board also known as a Merelles Board. These boards usually take the form of a network of intersecting lines and points often found scored onto building stone or roofing slate, although timber examples are also known. Their form suggests that they were temporary objects used for entertainment; the use of spare building material has suggested that they may have been produced by masons and other workers.
- 133. Merelles boards are the most common type found in Scotland and are thought to date from between the 11th and 16th century. They were used for a counter based game, typically played with nine counters (or men) per player giving it the more common name of 'Nine Men's Morris'. Other examples of Merelles boards from Scotland have also been found at Whithorn, Dryburgh Abbey, Arbroath Abbey, Jedburgh Abbey and Cadzow Castle. Some, such as the Cadzow example, are scored into both sides of a roofing slate in that instance the slate was an off cut or waster from building work.

Conclusion

- 134. A programme of archaeological intrusive works and building survey was undertaken at Kilwinning Abbey from August to September 2010 as part of the Kilwinning Community Archaeology Project for Kilwinning and District Preservation Society.
- 135. During these works medieval archaeological remains relating to the south range of the abbey cloister were uncovered, along with the probable foundation layers for the cloister arcade. This mainly consisted of a series of walls although a small number of postholes were also exposed in southern range, suggesting an earlier timber structure on the site.
- 136. Structural evidence of the sixteenth century first Reformed Church was also revealed within the nave of the abbey church. Stretches of walling that appear to fill between the

arches of the southern aisle of the nave were exposed, as well as a raised (relative to medieval levels) internal floor. The architectural form and position of these walls and floor fit well with the recessed western gable that still stands, suggesting a coherent renewal of the core of the aisled nave post-1560 as the Reformed Church.

- 137. A large amount of artefacts were recovered, throughout all of the trenches. While the majority of the material was eighteenth to modern in date; far older artefacts were recovered in the form of medieval white gritty ware and reduced ware pottery. The most significant finds recovered were two pieces of incised slate one of which had been incised with graffiti gaming boards, also known as a Merelles Board.
- 138. Post excavation works are presently ongoing with the processing of artefacts. As are the preparations for the 2011 season of works.

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 - Committee and general members of the Kilwinning and District Preservation Society in particular Jim Kennedy, Jim Miller, Lorraine Seivwright, Andy Baird and Christine Watson;
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 - The Heritage Lottery Fund;
 - Historic Scotland (both Properties in Care team who agreed land access and assisted in researching the monument and the Inspectorate through granting Scheduled Monument Consent);
 - Land Engineering, Impact, Past Horizons and Abbey Old Parish Church for their kind support of the works;
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- 140. Perhaps the greatest thanks must go to the highly enthusiastic volunteers that took part in the first field season, enabled so much work to be done and have started the project so well. Thanks are also due to all the guidance and information from members of the public too numerous to mention.

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Appendix 1: Discovery and Excavation in Scotland

LOCAL AUTHORITY:	North Ayrshire
PROJECT TITLE/SITE NAME:	Kilwinning Community Archaeology Project
PROJECT CODE:	RA08019
PARISH:	Kilwinning
NAME OF CONTRIBUTOR:	Thomas Rees, Douglas Gordon, Claire Williamson and Alan Matthews
NAME OF ORGANISATION:	Rathmell Archaeology Limited
TYPE(S) OF PROJECT:	Excavation
NMRS NO(S):	SAM90187, NS34SW 6.00
SITE/MONUMENT TYPE(S):	Abbey, Cloisters
SIGNIFICANT FINDS:	Graffiti Gaming Board, Medieval Pottery
NGR (2 letters, 6 figures)	NS 682 591
START DATE (this season)	August 2010
END DATE (this season)	September 2010
PREVIOUS WORK (incl. DES ref.)	Cullen, I (1997b) 'Kilwinning Abbey (Kilwinning parish), human remains', <i>DES</i> , Duffy, P (2003d) 'Kilwinning Abbey (Kilwinning parish), watching brief', <i>DES</i> , vol.4, Ewart, G (1983) 'Kilwinning Abbey (Kilwinning p), abbey', <i>DES</i> , MoPBW (1962a) 'Kilwinning Abbey, Ayrshire', <i>DES</i> , MoPBW (1963) 'Kilwinning Abbey, Ayrshire', <i>DES</i> , Galloway, W (1878d) 'Remarks on the existing buildings at Kilwinning Abbey', <i>Archaeol Hist Collect Ayr Wigton, vol.1</i>
MAIN (NARRATIVE) DESCRIPTION: (may include information from other fields)	A programme of archaeological intrusive works and building survey was undertaken at Kilwinning Abbey from August to September 2010 as part of the Kilwinning Community Archaeology Project for Kilwinning and District Preservation Society.
	During these works medieval archaeological remains relating to the south range of the abbey cloister were uncovered, along with the probable foundation layers for the cloister arcade. This mainly consisted of a series of walls although a small number of postholes were also exposed in southern range, suggesting an earlier timber structure on the site.
	Structural evidence of the sixteenth century first Reformed Church was also revealed within the nave of the abbey church. Stretches of walling that appear to fill between the arches of the southern aisle of the nave were exposed, as well as a raised (relative to medieval levels) internal floor. The architectural form and position of these walls and floor fit well with the recessed western gable that still stands, suggesting a coherent renewal of the core of the aisled nave post-1560 as the Reformed Church.
	A large amount of artefacts were recovered, throughout all of the trenches. While the majority of the material was eighteenth to modern in date; far older artefacts were recovered in the form of medieval white gritty ware and reduced ware pottery. The most significant finds recovered were two pieces of incised slate one of which had been incised with graffiti gaming boards, also known as a Merelles Board. Post excavation works are presently ongoing with the processing of

	artefacts. As are the preparations for the 2011 season of works.
PROPOSED FUTURE WORK:	Yes
CAPTION(S) FOR ILLUSTRS:	None
SPONSOR OR FUNDING BODY:	Kilwinning & District Preservation Society (funded by Irvine Bay Regeneration Company and Heritage Lottery Fund)
ADDRESS OF MAIN CONTRIBUTOR:	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
E MAIL:	contact@rathmell-arch.co.uk
ARCHIVE LOCATION (intended/deposited)	Report to Historic Scotland, West of Scotland Archaeology Service and archive to National Monuments Record of Scotland.

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