

# REPORT ON ARCHAEOLOGICAL EVALUATION WAPPING STREET GYRATORY, ABERDEEN



Alison Cameron  
Aberdeen City Council Archaeological Unit  
April 2008

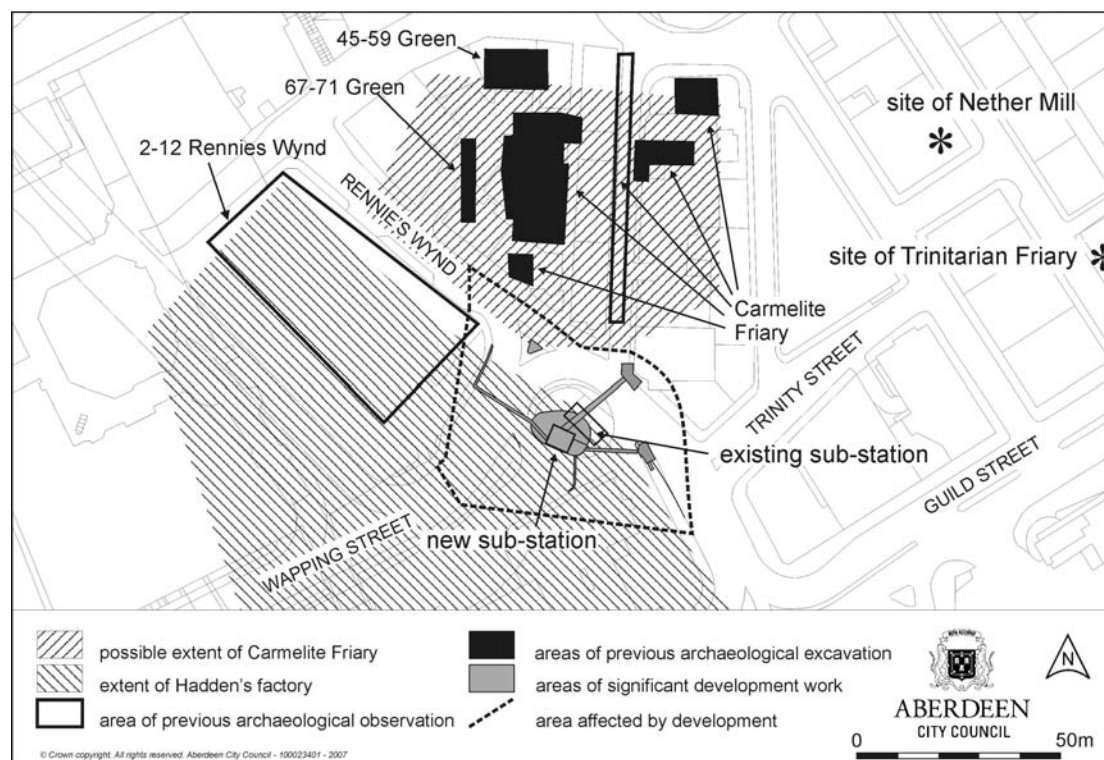
# REPORT ON ARCHAEOLOGICAL EVALUATION WAPPING STREET GYRATORY, ABERDEEN (site code E91)

## INTRODUCTION

The site (NJ 9412 0603) lies in the southern portion of the city centre, in the area known as the Green, near the junction of Carmelite St, Martin's Lane, Wapping Street and Rennie's Wynd. It is currently occupied by an electricity sub-station, roadways and pavements.

It is at the southern edge of the area known as the Green, where there is archaeological evidence of human activity as far back as 8000-10000 years. The Green has been thought by some historians to represent an early nucleus of the medieval burgh of Aberdeen, while by the 13<sup>th</sup> century it supported two religious houses or friaries. The main Carmelite friary buildings lay just to the north of the present site. The southern boundary of their precincts has not been determined, but it is conceivable that the present site was within its boundaries, in ground which may have been tidal and subject to waterlogging. The house of the Trinitarians, not yet traced in any way in the archaeological record, is thought, from documentary and cartographic evidence, to lie to north and east of the site currently under discussion.

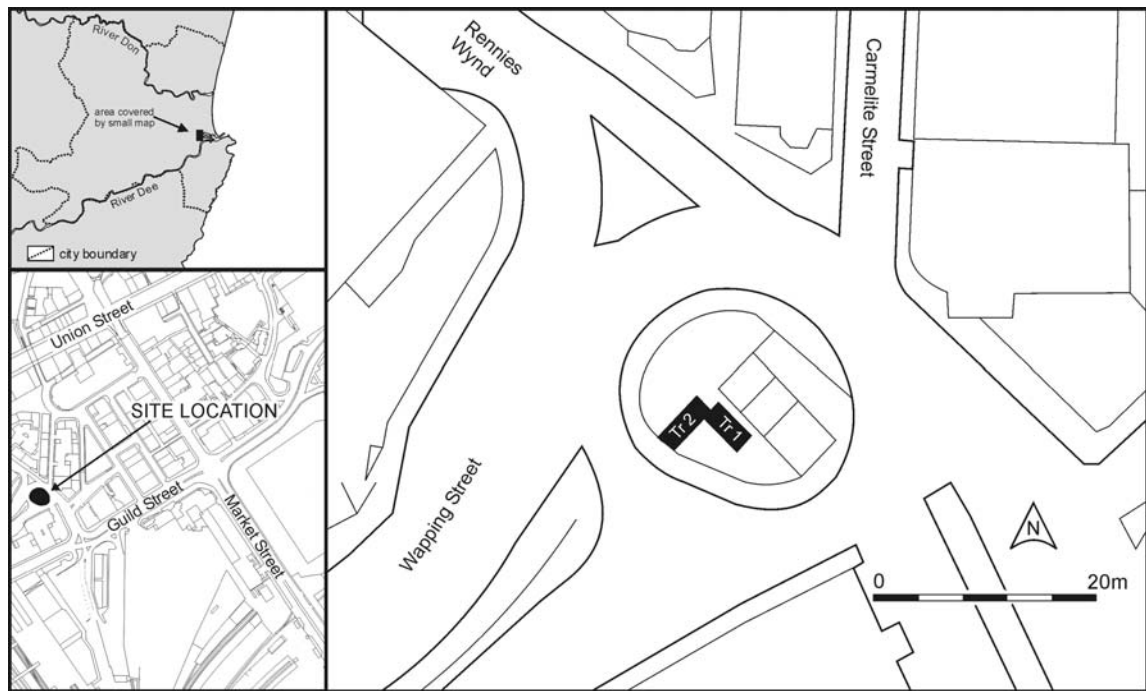
In the 19<sup>th</sup> and earlier 20<sup>th</sup> century, at least part of the site was occupied by Hadden's Woollen Manufactory, after which the nearby Hadden Street is named.



Illus 1 The site showing previous archaeological excavation and known sites in the area

## METHODOLOGY

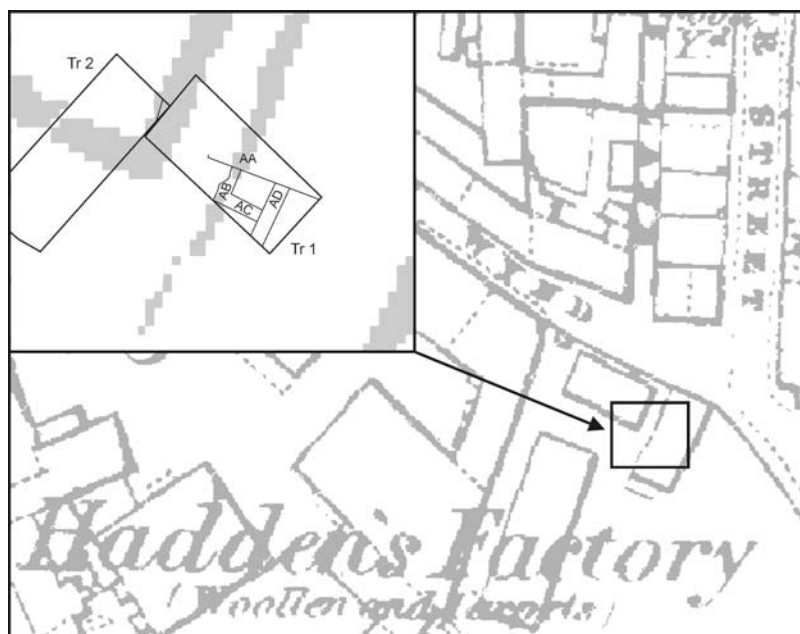
An evaluation of the area to be occupied by the new electricity sub-station (Illus 1) took place (1-2 April 08). Two trenches were excavated along the wall lines of the new electricity sub-station (following drawing no 1//A93/R4723/R/12 provided by Derek Munro, Engineering Officer, Resources Management, Aberdeen City Council).



Illus 2 Site location and trenches

## RESULTS

Trench 1 (Illus 2) was placed on the line of the north-east wall of the new electricity sub-station; walls AA, AB, AC and AD formed the remains of a flue or chimney (demolished to a level of 3.71m OD). Walls AA, AB and AD were constructed of mortar-bonded brick and stone whereas AC was made of a type of conglomerate consisting of small rounded pebbles. All walls had been intensely heated, and the fill within the walls (context 2) was blackened loam, charcoal and finds consistent with a late 19<sup>th</sup> or early 20<sup>th</sup>-century date. This was hand-excavated to a depth of 3.58m OD. An iron stoke hole, which had been subsequently been blocked with bricks (Illus 5) was found during the machining of the top courses of AA. One metre depth of deposits above this building including a tarmac road surface was recorded as well as associated upfull, levelling and garden soil associated with planting.



Illus 3 Plan of trenches showing main archaeological features on 1867 Ordnance Survey



Illus 4 (above left) The flue or chimney being excavated

Illus 5 (above right) The junction of walls AD (left) and AC (right)



Illus 6 The iron stoke hole, recorded but not retained

Trench 2 contained two earlier road surfaces (at 4.70 and 4.23m OD) dating to the mid to late 20<sup>th</sup> century and associated levelling, upfill and garden soil for the current planting. At 3.73m OD (1.35m below the current soil surface) in the south-east corner of the trench, a cable was uncovered but not investigated. It was surrounded by ceramic water pipes and may be a live electric cable. It was recorded and the trench backfilled.





Illus 7 (above left) Section of trench 2 showing road levels

Illus 8 (above right) Bottom of trench 2 (3.60m OD) showing pipe trench with drainage pipe fragments and possible electricity cable (bottom left).

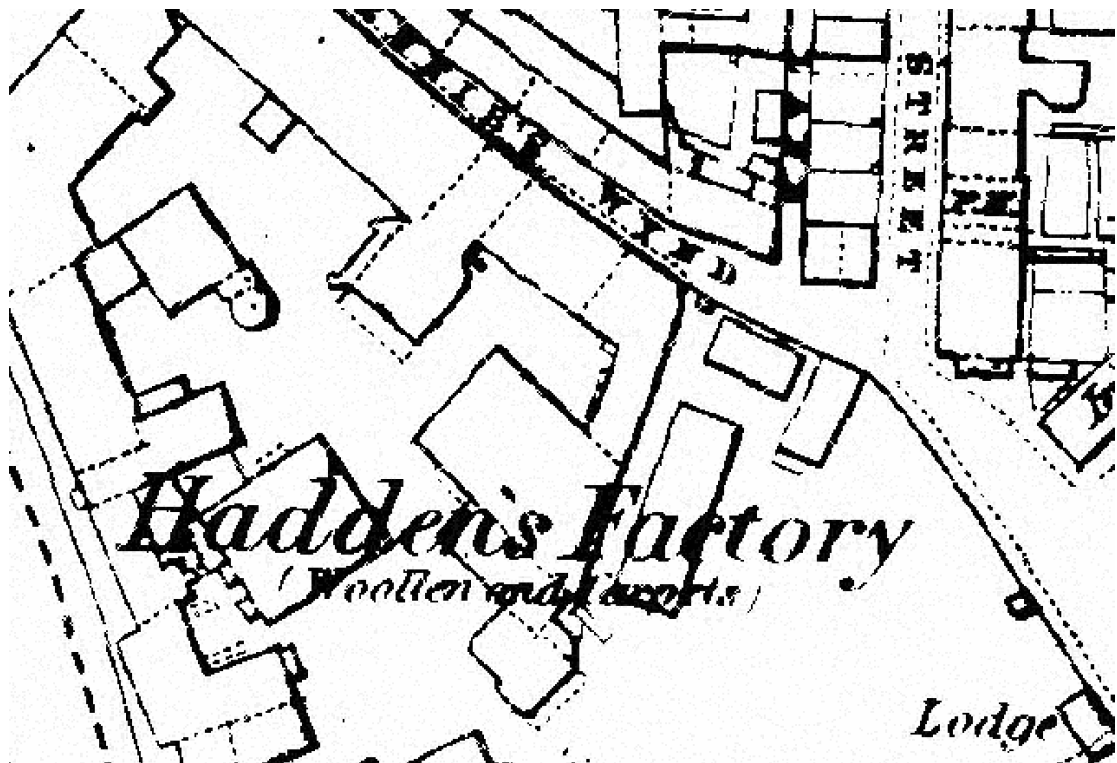
## CONCLUSIONS

No medieval remains were uncovered; it is possible that deposits may survive below the limit of this excavation (3.58m OD).

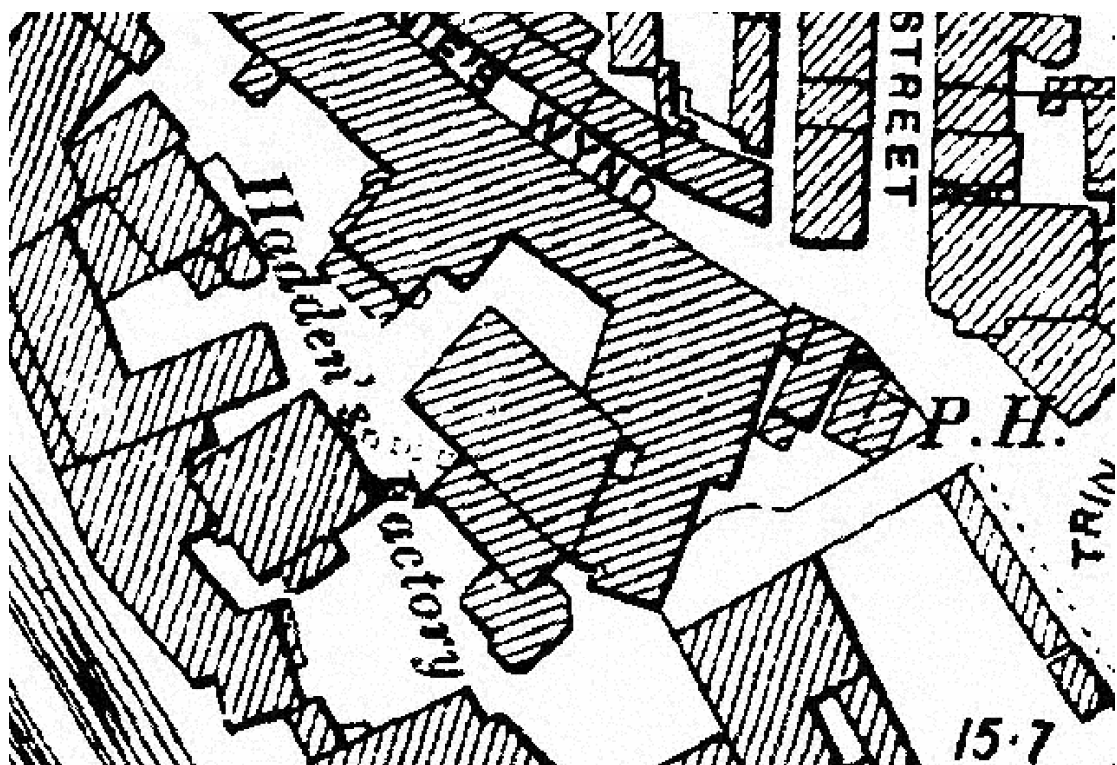
Structure AA/AB/AC/AD was probably a chimney associated with Hadden's Woollen Manufactory (Illus 8 and 9). The buildings of this factory can be seen on the 1867 and 1901 Ordnance Survey maps and had been demolished by the time the 1925 OS map was drawn.

Alexander Hadden & Sons opened in the late 18<sup>th</sup> century and by the 19<sup>th</sup> century employed between 300 and 400 people manufacturing hosiery. They were also large spinners of woollen and worsted yarns. According to Kennedy (Annals of Aberdeen, 1818) the Green factory was opened around the end of the 18<sup>th</sup> century and was run by 'two powerful steam engines. They manufacture coarse stockings, mits, frocks, cloths, and various other articles in the woollen branch, to a very considerable extent, both for home consumpt and for the foreign market'.

Aberdeen architects Walker and Duncan, the result of the merger of two rural firms specialising in agricultural business, added floors and designed alterations to the Rennie's Wynd premises in 1891 (2006, Dictionary of Scottish Architects). These additions can be seen on Illus 9 when buildings were added or rebuilt around the area of the current excavation trench. Hadden's closed in the late 19<sup>th</sup> century, around the same time as the Bannermill.



Illus 9 1867 Ordnance Survey map



Illus 10 1901 Ordnance Survey map

## RECOMMENDATIONS

Following this evaluation an archaeologist should watch any further work in this area to

- i) record further remains of Hadden's Factory which will probably be found during the construction of the new electricity sub-station and
- ii) observe cabling works in new and existing trenches which might pass through areas of archaeological interest.

## ACKNOWLEDGEMENTS

Thanks to Derek Munro, Engineering Officer, Resources Management, Aberdeen City Council

## ARCHIVE LOCATION

The archive will be lodged with RCAHMS and a copy with Aberdeen City Council Sites and Monuments Record.

## APPENDICES

Appendix 1 Specification for archaeological work, Judith Stones

Appendix 2 Data structure report

Appendix 3 Photographs of evaluation

## ILLUSTRATIONS

Cover Top Hadden's factory; Bottom Trench 1 under excavation

Illus 1 The site showing archaeological sites in the area

Illus 2 Location plan and plan of trenches

Illus 3 Main archaeological features on 1867 Ordnance Survey

Illus 4 (above left) The flue or chimney being cleaned

Illus 5 (above right) The junction of walls AD (left) and AC (right)

Illus 6 The iron stoke hole, recorded but not retained

Illus 7 (above left) Section of trench 2 showing road levels

Illus 8 (above right) Bottom of trench 2 (3.60m OD) showing pipe trench with drainage pipe fragments and possible electricity cable (bottom left).

Illus 9 1867 Ordnance Survey map

Illus 10 1901 Ordnance Survey map

## APPENDIX 1

### ABERDEEN CITY COUNCIL, NEIGHBOURHOOD SERVICES CENTRAL

#### MUSEUMS AND GALLERIES

##### Wapping Street Gyratory, Aberdeen

#### *Specification for archaeological work*

##### Summary

This specification gives an outline of the archaeological value of this site and indicates the works which will be required to determine whether any archaeological deposits survive.

#### **1.0 Site Location and Description**

The site (NJ 9412 0603 – see attached map) lies in the southern portion of the city centre, in the area known as the Green, near the junction of Carmelite St, Martin's Lane, Wapping Street and Rennie's Wynd. It is currently occupied by an existing electricity sub-station, roadways and pavements.

#### **2.0 Planning Background**

The request for this field evaluation is made in the context of National Planning Policy Guideline no 5, Archaeology and Planning, which states that archaeological remains should be regarded as part of the environment to be protected and managed. In paragraph 14, planning authorities are advised that they should ensure that archaeological factors are fully considered in both the development planning and development control processes. Paragraph 16 urges planning authorities to regard archaeological remains as a finite and often highly fragile resource vulnerable to needless or thoughtless damage or destruction. Paragraph 25 states that the implications of development proposals for ancient monuments and their settings should be considered at the outset of the development control process. It is appropriate for planning authorities to request, where appropriate, the prospective developer to arrange for archaeological field evaluation and ensure that relevant information on the cultural heritage is taken into account in any environmental assessment that may be necessary (paragraph 24).

#### **3.0 Historical and Archaeological Background**

This site lies at the southern edge of the area known as the Green, where there is archaeological evidence of human activity as far back as 8000-10000 years ago. The Green has been thought by some historians to represent an early nucleus of the medieval burgh of Aberdeen, while by the 13<sup>th</sup> century it supported two religious houses or friaries. The main Carmelite friary buildings lay just to north of the present site - see attached map. The southern boundary of their precincts has not been determined, but it is conceivable that the present site was within its boundaries, in ground which may have been tidal and subject to waterlogging. The house of the Trinitarians, not yet traced in any way in the archaeological record, is thought, from documentary and cartographic evidence, to lie to north and east of the site currently under discussion.

In the 19<sup>th</sup> and earlier 20<sup>th</sup> century, at least part of the site was occupied by Hadden's Woollen Manufactory.

#### **4.0 Previous Archaeological Work – see attached map**

There has been no previous archaeological work at the present site, but, because of the historic nature of the general area, there have been a number of archaeological investigations nearby. The site of the Carmelite Friary was excavated in 1976 (45-59 Green – Murray 1982, 85-90), 1980-81 (12 Martin's Lane – Stones 1989) and in 1994 (Cameron forthcoming). A watching brief in 1977 during development of 2-12 Rennie's Wynd (Murray 1982, 108) revealed waterlaid deposits, suggesting that that area was estuarine in nature during most of the medieval period. By contrast, on the opposite



side of Rennie's Wynd, at 67-71 Green, excavation work in 1977 uncovered similar waterlaid layers, but overlain by medieval garden soil, suggesting some reclamation by the 13<sup>th</sup> century. At both 45-49 Green and 67-71 Green, scatters of mesolithic flints were found: in the case of the former site, they represented a flint working area (Murray 1982, 85-90 and 91 to 95).

## **5.0 Requirement for Work**

It is necessary to undertake a programme of trial trenching to determine whether any archaeological deposits survive at this site and to establish their nature, condition, depth and date. As the areas of the site are tightly defined, with a need to maintain traffic usage, the trial trenching will comprise the excavation by archaeologists of the foundation pit for the new electricity substation, which will be the most extensive section of the overall site to be disturbed by the development. That excavation will ensure that no archaeological deposits are destroyed by the sub-station building and will also serve as an evaluation of the potential of the remainder of the site. It is understood that the excavation for the new substation will take place in advance of any other development at the site.

## **6.0 Evaluation and Further Work**

Following the completion of the trench at the new substation site, a written evaluation of the archaeological potential of the site must be produced, along with a suggested strategy for final investigation, recording and protection of any significant features and deposits. This final investigation or protection strategy must be acceptable to the planning authority and its implementation must be secured by the developer. It is very likely to include at the very least the maintenance of an archaeological watching brief over other digging works required during the development, including excavations associated with the removal and replacement of road surfaces.

## **7.0 Timetable**

A timetable must be agreed for the various stages of work so that provision can be made for monitoring by the Keeper of Archaeology.

## **8.0 Staff Structure**

A list of key project staff with qualifications and experience will be submitted by the archaeological contractor. The use of unwaged staff will not normally be acceptable.

## **9.0 Health and Safety /PLI**

Such concerns and responsibilities are primarily a matter for the archaeological contractor who must submit evidence of conformity to the Health and Safety at Work Act and possession of public liability insurance to Aberdeen City Council.

## **10.0 Trial trenching**

The exact strategy is yet to be agreed in detail (see para 5), but work should conform to the following guidelines.

10.1 An appropriate machine must be used to allow soil to be removed as cleanly as possible while minimising damage to archaeological deposits.

10.2 Sufficient of any archaeological features and deposits identified must be excavated by hand by a specified or agreed sampling procedure to enable their date, nature, extent and condition to be described. No archaeological deposits should be entirely removed unless this is unavoidable, in agreement with the Keeper, Archaeology.

10.3 All excavation, both by machine and by hand, must be undertaken with a view to avoiding damage to any archaeological features or deposits which appear to be worthy of preservation *in situ*.

10.4 Any human remains which are encountered must initially be left *in situ*. Their removal will be a matter of discussion with the Keeper, Archaeology (who must be notified within 12 hours of their discovery) and will comply with the provisions of Scots Law.

## **11.0 Recording Systems**

These must be specified and should include the structure for site record.

## **12.0 Monitoring Arrangements**

It is necessary for the Planning Authority to monitor the progress and effectiveness of the evaluation in order to ensure the proper execution of the specification and therefore conformity to the brief. Stages at which monitoring is appropriate will be agreed between the archaeological contractor and the Keeper, Archaeology. The possibility of random inspections should not be excluded.

## **13.0 Reporting Requirements**

Provision must be made for:

- 13.1 A written evaluation of the archaeological potential of the areas investigated.
- 13.2 Specialist examination of animal and human bone and of any preserved or organic material.
- 13.3 Specialist conservation and examination of artefacts found during the evaluation trenching.
- 13.4 Preparation of plans, sections and finds drawings to publication standards.
- 13.5 The sorting and analysis of records and the production of a full report on the work.
- 13.6 Its publication in an appropriate scholarly journal.
- 13.7 The preparation of a catalogued archive and its deposition in the City Council's Sites and Monuments Record and the National Monuments Record of Scotland within six months of the end of the evaluation.
- 13.8 Copies of the evaluation report should be sent to the Keeper of Archaeology, the applicant and the Planning Authority. A brief survey of results should be submitted to *Discovery and Excavation in Scotland*, along with the appropriate fee.

## **14.0 Small finds**

Finds of objects will be subject to the Scots Laws of Treasure Trove and Bona Vacantia and reported by the archaeological contractor to the Secretariat of the Treasure Trove Panel (Dr Alan Saville, National Museums of Scotland, Queen Street, Edinburgh EH2 1JD) for disposal to an appropriate museum.

## **15.0 Timescale**

The evaluation report must be produced within four weeks of the end of the field work.

## **16.0 Further Information**

Additional information about the site, or this brief, can be obtained from the Keeper of Archaeology, Whitespace, 60 Frederick Street, Aberdeen AB24 5HY Tel (01224) 523658.

## 17.0 Conclusion

The evaluation is to be carried out in compliance with this brief and in the context of NPPG 5. The selection of any contractor will be subject to approval of the Keeper, Archaeology. Work should be carried out in close liaison with the Keeper, Archaeology.

June 2007

### References

- Cameron AS forthcoming 'Excavations at Aberdeen Carmelite Friary 1994', *Internet Archaeology*.  
Dennison EP and Stones JA 1997 *Historic Aberdeen*. Scottish Burgh Survey  
Murray JC 1982 *Excavations in the Medieval Burgh of Aberdeen 1973-81*. Society of Antiquaries of Scotland Monograph Series 2.  
Stones JA 1989 *Three Scottish Carmelite Friaries: excavations at Aberdeen, Linlithgow and Perth 1980-86*. Society of Antiquaries of Scotland Monograph Series 6.

Appendix 2  
Data Structure Report

Features

AA	Tr 1	NW-SE brick wall, 3 courses recorded, not bottomed. Forms N edge of chimney
AB	Tr 1	NE-SW stone wall forming W side of chimney
AC	Tr 1	NW-SE 'concrete' wall forming south side of chimney
AD	Tr 1	NE-SW brick wall forming E side of chimney

Layers

1	Tr 1	Topsoil
2	Tr 1	Black loam, charcoal, brick, glass, fill of chimney between walls AA, AB, AC and AD
3	Tr 1	Tarmac Road surface
4	Tr 1	Sand and pebbles below 3 – make-up for road
5	Tr 2	Tarmac road surface at 4.70m OD
6	Tr 2	Sand and pebbles below 5 – make-up for road
7	Tr 2	Tarmac road surface at 4.23
8	Tr 2	Sand and pebbles below 7 – make-up for road
9	Tr 2	Service trench in base of trench 2 with ceramic water pipe and possible electricity cable.

Levels

1	Wall AA	3.71m OD
2	Base of layer 2	3.45m OD
3	Top surface Tr 1	4.63m OD
4	Top surface Tr 2	4.94m OD
5	Bottom trench 2	3.73m OD
6	Road level 5	4.70m OD
7	Road level 7	4.23m OD

## **ABERDEEN CITY COUNCIL, NEIGHBOURHOOD SERVICES CENTRAL**

### **MUSEUMS AND GALLERIES**

#### **Wapping Street Gyratory, Aberdeen**

#### **Specification for archaeological work**

##### **Summary**

This specification gives an outline of the archaeological value of this site and indicates the works which will be required to determine whether any archaeological deposits survive.

##### **1.0 Site Location and Description**

The site (NJ 9412 0603 – see attached map) lies in the southern portion of the city centre, in the area known as the Green, near the junction of Carmelite St, Martin's Lane, Wapping Street and Rennie's Wynd. It is currently occupied by an existing electricity sub-station, roadways and pavements.

##### **2.0 Planning Background**

The request for this field evaluation is made in the context of National Planning Policy Guideline no 5, Archaeology and Planning, which states that archaeological remains should be regarded as part of the environment to be protected and managed. In paragraph 14, planning authorities are advised that they should ensure that archaeological factors are fully considered in both the development planning and development control processes. Paragraph 16 urges planning authorities to regard archaeological remains as a finite and often highly fragile resource vulnerable to needless or thoughtless damage or destruction. Paragraph 25 states that the implications of development proposals for ancient monuments and their settings should be considered at the outset of the development control process. It is appropriate for planning authorities to request, where appropriate, the prospective developer to arrange for archaeological field evaluation and ensure that relevant information on the cultural heritage is taken into account in any environmental assessment that may be necessary (paragraph 24).

##### **3.0 Historical and Archaeological Background**

This site lies at the southern edge of the area known as the Green, where there is archaeological evidence of human activity as far back as 8000-10000 years ago. The Green has been thought by some historians to represent an early nucleus of the medieval burgh of Aberdeen, while by the 13<sup>th</sup> century it supported two religious houses or friaries. The main Carmelite friary buildings lay just to north of the present site - see attached map. The southern boundary of their precincts has not been determined, but it is conceivable that the present site was within its boundaries, in ground which may have been tidal and subject to waterlogging. The house of the Trinitarians, not yet traced in any way in the archaeological record, is thought, from documentary and cartographic evidence, to lie to north and east of the site currently under discussion.

In the 19<sup>th</sup> and earlier 20<sup>th</sup> century, at least part of the site was occupied by Hadden's Woollen Manufactory.

##### **4.0 Previous Archaeological Work – see attached map**

There has been no previous archaeological work at the present site, but, because of the historic nature of the general area, there have been a number of archaeological investigations nearby. The site of the Carmelite Friary was excavated in 1976 (45-59 Green – Murray 1982, 85-90), 1980-81 (12 Martin's Lane – Stones 1989) and in 1994 (Cameron forthcoming). A watching brief in 1977 during development of 2-12 Rennie's Wynd (Murray 1982, 108) revealed waterlaid deposits, suggesting that that area was estuarine in nature during most of the medieval period. By contrast, on the opposite side of Rennie's Wynd, at 67-71 Green, excavation work in 1977 uncovered similar waterlaid layers, but



overlain by medieval garden soil, suggesting some reclamation by the 13<sup>th</sup> century. At both 45-49 Green and 67-71 Green, scatters of mesolithic flints were found: in the case of the former site, they represented a flint working area (Murray 1982, 85-90 and 91 to 95).

## **5.0 Requirement for Work**

It is necessary to undertake a programme of trial trenching to determine whether any archaeological deposits survive at this site and to establish their nature, condition, depth and date. As the areas of the site are tightly defined, with a need to maintain traffic usage, the trial trenching will comprise the excavation by archaeologists of the foundation pit for the new electricity substation, which will be the most extensive section of the overall site to be disturbed by the development. That excavation will ensure that no archaeological deposits are destroyed by the sub-station building and will also serve as an evaluation of the potential of the remainder of the site. It is understood that the excavation for the new substation will take place in advance of any other development at the site.

## **6.0 Evaluation and Further Work**

Following the completion of the trench at the new substation site, a written evaluation of the archaeological potential of the site must be produced, along with a suggested strategy for final investigation, recording and protection of any significant features and deposits. This final investigation or protection strategy must be acceptable to the planning authority and its implementation must be secured by the developer. It is very likely to include at the very least the maintenance of an archaeological watching brief over other digging works required during the development, including excavations associated with the removal and replacement of road surfaces.

## **7.0 Timetable**

A timetable must be agreed for the various stages of work so that provision can be made for monitoring by the Keeper of Archaeology.

## **8.0 Staff Structure**

A list of key project staff with qualifications and experience will be submitted by the archaeological contractor. The use of unwaged staff will not normally be acceptable.

## **9.0 Health and Safety /PLI**

Such concerns and responsibilities are primarily a matter for the archaeological contractor who must submit evidence of conformity to the Health and Safety at Work Act and possession of public liability insurance to Aberdeen City Council.

## **10.0 Trial trenching**

The exact strategy is yet to be agreed in detail (see para 5), but work should conform to the following guidelines.

- 10.1 An appropriate machine must be used to allow soil to be removed as cleanly as possible while minimising damage to archaeological deposits.
- 10.2 Sufficient of any archaeological features and deposits identified must be excavated by hand by a specified or agreed sampling procedure to enable their date, nature, extent and condition to be described. No archaeological deposits should be entirely removed unless this is unavoidable, in agreement with the Keeper, Archaeology.
- 10.3 All excavation, both by machine and by hand, must be undertaken with a view to avoiding damage to any archaeological features or deposits which appear to be worthy of preservation *in situ*.

- 10.4 Any human remains which are encountered must initially be left *in situ*. Their removal will be a matter of discussion with the Keeper, Archaeology (who must be notified within 12 hours of their discovery) and will comply with the provisions of Scots Law.

#### **11.0 Recording Systems**

These must be specified and should include the structure for site record.

#### **12.0 Monitoring Arrangements**

It is necessary for the Planning Authority to monitor the progress and effectiveness of the evaluation in order to ensure the proper execution of the specification and therefore conformity to the brief. Stages at which monitoring is appropriate will be agreed between the archaeological contractor and the Keeper, Archaeology. The possibility of random inspections should not be excluded.

#### **13.0 Reporting Requirements**

Provision must be made for:

- 13.1 A written evaluation of the archaeological potential of the areas investigated.
- 13.2 Specialist examination of animal and human bone and of any preserved or organic material.
- 13.3 Specialist conservation and examination of artefacts found during the evaluation trenching.
- 13.4 Preparation of plans, sections and finds drawings to publication standards.
- 13.5 The sorting and analysis of records and the production of a full report on the work.
- 13.6 Its publication in an appropriate scholarly journal.
- 13.7 The preparation of a catalogued archive and its deposition in the City Council's Sites and Monuments Record and the National Monuments Record of Scotland within six months of the end of the evaluation.
- 13.8 Copies of the evaluation report should be sent to the Keeper of Archaeology, the applicant and the Planning Authority. A brief survey of results should be submitted to *Discovery and Excavation in Scotland*, along with the appropriate fee.

#### **14.0 Small finds**

Finds of objects will be subject to the Scots Laws of Treasure Trove and Bona Vacantia and reported by the archaeological contractor to the Secretariat of the Treasure Trove Panel (Dr Alan Saville, National Museums of Scotland, Queen Street, Edinburgh EH2 1JD) for disposal to an appropriate museum.

#### **15.0 Timescale**

The evaluation report must be produced within four weeks of the end of the field work.

#### **16.0 Further Information**

Additional information about the site, or this brief, can be obtained from the Keeper of Archaeology, Whitespace, 60 Frederick Street, Aberdeen AB24 5HY Tel (01224) 523658.

## 17.0 Conclusion

The evaluation is to be carried out in compliance with this brief and in the context of NPPG 5. The selection of any contractor will be subject to approval of the Keeper, Archaeology. Work should be carried out in close liaison with the Keeper, Archaeology.

June 2007

### References

- |                                |   |
|--------------------------------|---|
| Cameron AS forthcoming         | 'Excavations at Aberdeen Carmelite Friary 1994', <i>Internet Archaeology</i> , forthcoming  |
| Dennison EP and Stones JA 1997 | <i>Historic Aberdeen</i> . Scottish Burgh Survey  |
| Murray JC 1982                 | <i>Excavations in the Medieval Burgh of Aberdeen 1973-81</i> . Society of Antiquaries of Scotland Monograph Series 2 1982.                                    |
| Stones JA 1989                 | <i>Three Scottish Carmelite Friaries: excavations at Aberdeen, Linlithgow and Perth 1980-86</i> . Society of Antiquaries of Scotland Monograph Series 6 1989. |



DSCF0334



DSCF0335



DSCF0336



DSCF0337



DSCF0338



DSCF0339



DSCF0340



DSCF0341



DSCF0342



DSCF0343



DSCF0344



set up day 1



set up day 1 (1)



set up day 1 (2)



set up day 1 (3)



set up day 1 (5)



set up day 1 (6)



set up day 1 (7)



tidy up at end of dig



tidy up at end of dig (1)



tidy up at end of dig (2)



tidy up at end of dig (3)



trench 1 AB



trench 1 AB (1)



trench 1 AC



trench 1 AC (1)



trench 1 AC (2)



trench 1 chimney or flue



trench 1 chimney or flue (1)



trench 1 chimney or flue (2)



trench 1 chimney or flue (3)



trench 1 chimney or flue (4)



trench 1 misc



trench 1 misc (1)



trench 1 misc (2)









trench 2 (11)



trench 2 (12)



trench 2 (13)



trench 2 (14)



trench 2 (15)



trench 2 (16)



trench 2 (17)







trench 1 misc (4)



trench 1 misc (5)



trench 1 misc (6)



trench 1 misc (7)



trench 1 misc (8)



trench 1 misc (14)



trench 1 misc (15)



trench 1 misc (16)



trench 1 misc (17)



trench 1 misc (18)



trench 1 misc (24)



trench 1 misc (25)



trench 1 misc (26)



trench 1 misc (27)



trench 1 misc (28)



trench 1 stoke hole from AA



trench 1 stoke hole from AA  
(1)



trench 1 stoke hole from AA  
(2)



trench 1 stoke hole from AA  
(3)



trench 1 stoke hole from AA  
(4)



trench 1 stoke hole from AA  
(5)



trench 1 stoke hole from AA  
(6)



trench 1 stoke hole from AA  
(7)



trench 2



trench 2 (1)



trench 2 (2)



trench 2 (3)



trench 2 (4)



trench 2 (5)



trench 2 (6)



trench 2 (7)



trench 2 (8)



trench 2 (9)



trench 2 (10)



trench 2 (11)



trench 2 (12)



trench 2 (13)



trench 2 (14)



trench 2 (15)



trench 2 (16)



trench 2 (17)