

# **SEWER SCHEME BRIDGE STREET CARDIGAN 2000-2001**

**ARCHAEOLOGICAL WATCHING BRIEF PRN 42464**



Report No. 2001/36

Report Prepared for:  
Dwr Cymru



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CAMBRIA ARCHAEOLOGY

REPORT NO. 2001/36  
PROJECT RECORD NO. 42464

AUGUST 2001

**SEWER SCHEME BRIDGE STREET CARDIGAN  
2000-2001  
ARCHAEOLOGICAL WATCHING BRIEF**

By

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*Front Cover: Prince Charles Quay and Bridge Street from the South side of the River Teifi*

## Summary

*An intermittent watching brief was undertaken in the winter of 2000-2001 on a new sewer scheme in the area of Prince Charles Quay and Bridge Street, Cardigan. The project crossed the line of the town wall in the possible area of a medieval gatehouse - no evidence of these were seen, but this area was very disturbed by modern service pipe trenches. Elsewhere the footings and basements of houses or warehouses were observed. These were in the location of probable medieval buildings, although the visible remains were possibly post-medieval. Part of an earlier street surface (post-medieval) and a nineteenth century slate sewer were also encountered.*

## Introduction

The following report details the results of an archaeological watching brief undertaken during groundworks associated with the laying of a new sewer in the centre of Cardigan (NGR SN 1774 4588). The work was undertaken by Cambria Archaeology Field Operations between November 2000 and February 2001 on behalf of Dwr Cymru. It conformed to a brief prepared by the Heritage Management Section of Cambria Archaeology (see Appendix 1).

The southern part of the sewer scheme was located on the north bank of the River Teifi adjacent to Prince Charles Quay. The northern part was located along Bridge Street (Fig. 1). The sewer crossed an area of considerable archaeological significance including what is thought to be the line of Cardigan's medieval town wall (PRN 8371) and Bridge Street Gate (PRN 13168). Potential medieval deposits also lie within the town walls and immediately outside them. The area of Prince Charles Quay is also likely to include the buried remains of historic riverside structures. Where there has not been recent disturbance it was thought likely that the sewer construction trench would damage or destroy important archaeological structures and deposits.

The underlying geology is Cambic stagnogley soils - Cegin, a shale bedrock, but in places very solid. Later geology is dominated by alluvial deposits of sand, sandy gravel, and silty clay.

## Site History

The history of Cardigan has been covered to a great extent by W J Lewis (1990). The topography of this natural crossing point of the Teifi and the adjacent rocky promontory, on which the castle now stands, would have lent itself to early settlement. However, the first castle was established in 1093 a mile to the west and the earliest castle on the present site was built in the reign of Henry I, probably c1110. The original town bridge was located further upstream from the present location and was destroyed in 1231. When it was rebuilt in its present position, shipping would have had to unload below this point (Canon Cunnane pers comm). The need for a town gate or water gate near this point would have been recognised from an early stage.

The castle was rebuilt in c1245 and work was begun on the construction of the town wall, although it is possible that a line of defences had already been established (Soulsby 1983). However, the first grant of murage (permission to wall) was not made until 1281 (James 1983). The town grew steadily and buildings were established along the east side of Bridge Street by 1301. Two houses belonging to the Coedmor Estate had been built c1507 outside the walls (Cannon Cunnane pers comm), perhaps those indicated on the Speed map of 1610 (Fig. 2) and a single building illustrated in 1748 (Fig. 3). Speed reported that the town walls were in need of repair. His plan clearly shows a town gateway adjacent to the west side of the castle, although there are elements of this map that are unreliable (Murphy and O'Mahoney 1985). By 1638 the bridge was built of stone. Part of what may be the town wall can be seen on the left side of the 1741 print of Cardigan Castle and Priory by Samuel and Nathaniel Buck. However, by the time of Woods' Map of Cardigan in 1834 (Fig. 4) all obvious signs of the wall had gone. Buildings built against the castle wall and on the lower east side of Bridge Street were demolished in the 1920s (Lewis 1990, 82) and the area now known as Prince Charles Quay was landscaped in the 1960s.

Previous archaeological work includes a minor excavation on the site of the former Volk's Bakery (Maynard 1975) that produced medieval features (Fig. 1) and a trial trench excavation on the line of the town wall in the gardens behind Woolworth's in 1976 (James 1983). In 1985 trial trenches and survey work were done on the Castle (Murphy and O'Mahoney 1985). In 1998 the scheduled part of the town wall, south of Woolworth's, was recorded for Cadw: Welsh Historic Monuments by the author.

## **Aims and Objectives**

To ensure that any archaeological features that were exposed during the groundworks and that any artefacts that were recovered were recorded and interpreted to an acceptable standard.

## **Methodology**

In order to locate a suitable route for the sewer and rising main, several test pits were excavated by the contractors. These were archaeologically monitored. The pipe trench itself was up to 1m wide and up to 2m deep and was excavated in short sections. Each section was opened and closed before going onto the next section. A continuous watching brief was maintained in the areas of greatest archaeological potential. These included the deep excavations for the pumping station installation eastwards, and then northwards to opposite number 5 Bridge Street. Observations were also made of open trenches to the north. Some archaeological hand cleaning was undertaken. Many of the drawn records had to be undertaken rapidly due to the need to place the pipe in the open trench sections and backfill immediately.

## Results

*The results are presented as a series of sections where archaeological observations were made. These are listed from west to east, then south to north (Fig. 1) (All measurements approximate)*

*Section 1* (western manhole to passageway under building) - This was excavated to a depth of 0.7m, through what appeared to be relatively modern made-up ground.

*Section 2* (passageway under building) – This was located 20m west of the trench for the western manhole where the line of the pipe passed through a passageway under a building. A test pit in this area revealed a layer or layers of cobbles suggesting an earlier surface below the tarmac.

*Section 3* (section to the west of the pumping station) – To the west of the pumping station the contractor excavated a trench over 2m deep in an attempt to locate an incoming drainpipe. This trench was excavated through made-up ground.

*Section 4* (pumping station) - The trench for the pumping station was moved slightly west of its original planned location, due to the presence of a north-south wall. This wall was encountered at a depth of 0.4m below the ground surface. Only one side of the wall was observed. It was constructed of roughly faced, flat-coursed stone with lime mortar bonding and it was over 0.5m wide. The trench for the new pumping station was 2.3m x 2.3m and it was excavated to a depth of 2.5m through what appeared to be entirely made-up ground. At a depth of 2m, in the western side of the trench, the contractor reported a second north-south wall. This ran parallel to the previously discovered north-south wall. A stone structure was subsequently identified to the north of the pumping station. This may have been a further trace of the wall. However, it was only one, flat stone wide and may have been the remains of a stone path or the capping for a stone drain. It was overlain by a deposit of “industrial” coal slag ash. From 0.5m to at least 1.6m below the surface there were a number of inclined layers consisting of mixed pebbles, flat stones and sandy silt clays. These deposits were overlain by modern material, with the lower parts containing demolition-type material.

*Section 5* (section of pipe trench to the east of pumping station) - The pipe trench to the east of the pumping station was 0.9m wide and 2m deep, reducing to 1.5m deep near the corner of the Grosvenor Hotel retaining wall. A wall or wall footing was cut by this trench. This was possibly a continuation of the low trackway wall still standing to the north of the pumping station. However, the relationship of this wall or wall footing with the trackway wall could not be established. The made-up ground below the trackway appeared to be relatively recent at its western end. Towards the eastern end of this section of the pipe trench, near to the corner of the Grosvenor Hotel retaining wall, bedrock was identified at a depth of 1.35m. This bedrock was overlain by grey silt and a layer of orange gravel and sand. Both of these could have been natural deposits. Above the gravel and sand layer there was a dark grey layer (possibly a buried soil) and above this was a layer containing red sandstone fragments. The

upper layers consisted of four thin layers of gravel, the upper of which was definitely modern.

*Section 6* (section of pipe trench between manholes D2 and D3) - This section of the pipe trench was excavated to a maximum depth of 1.4m deep at its western end. This area had the greatest envisaged archaeological potential. However, the area was totally disturbed down to bedrock by a number of service pipes. At manhole D3 the possible remains of an earlier stone drain were identified. However, this had been dug through during the construction of a later slate sewer. The cap of this sewer was 1m below the road surface. Immediately to the east of the sewer trench there was another cut for a 10 inch gas main.

*Section 7* (section of pipe trench between manhole D3 and D4) – This whole area appeared to be disturbed by service trenches right down to bedrock.

*Section 8* (connecting trench to the northeast of manhole D4) – This trench was excavated to a depth of between 1m and 1.25m and connected with a minor sewer and storm drain to the northeast. To the east of the manhole the trench was cut through bedrock which was encountered at a depth of 0.65m. Approximately 1.5m east of the manhole a vertical cut into the bedrock and a stone associated with lime mortar suggested the former location of a cellar wall. The lower fill of the cut appeared relatively modern. The upper layers were make-up for the modern road.

*Section 9* (connection trench to the northwest of manhole D4) – A cobble surface (Fig. 5) was recorded at a depth of 0.9m in this connecting trench. The majority of the cobbles were large (between 150mm and 220mm across). This surface extended to the northwest and below the pavement edge where it was cut by known service trenches. The area under the pavement was not observed, apart from the test pit C1. This pit encountered the capping slab of the slate sewer at a depth of just under 1m. This slab was lifted by the contractor.

*Section 10* (pipe trench to the north of manhole D4) – In the area to the north of manhole D4 the bedrock was closer to the surface. It was cut by the south wall of another cellar built of large flat stones. Due to collapses below the road surface, the west interior face of the west wall of this cellar was also observed. Near to the junction of this west wall and the north wall the remains of light or coal shoot could be identified. The north wall also seemed to have been constructed against a cut into the bedrock. The interior faces of the cellar walls had been lime-washed a number of times, the skims showing some black layers of coal dust between them. The base of the cellar, where seen, and parts of the walls, were covered with coal dust. The fill of this cellar again appeared quite modern. The east side of the trench was disturbed by the trench for a 10 inch gas main.

To the north of the cellar the bedrock was again close to the surface (at a depth of 0.35m) and covered by modern road make-up. Following consultation with the Development Control Officer at Cambria Archaeology, it was agreed that no further observation of the pipe trench was necessary in this area, unless the contractor reported any further features.

*Section 11* (Test Pit A1) – This test pit was 2m x 2m in plan and located the top of the slate sewer culvert at a depth of 2m. The interior of the culvert was 0.5m deep and 0.4m wide and was still in use.

*Section 12* (pipe trench section at the southern end of High Street) - This trench was excavated to a depth of c.1.75m. The lower 1m was natural orange gravel sand. The overlying deposits all appeared to be modern. The contractor, excavating a connecting trench to the east, reported a diagonal wall (location indicated on Fig. 1).

## **Discussion**

The north-south wall encountered in the pumping station trench (Section 4) could relate to later medieval buildings of the Coedmor Estate c.1507, and was probably the west wall of the warehouse illustrated on a print of 1748 (Fig. 3). This is possibly the same structure as that represented on Wood's map of 1834 (Fig. 4). The general impression of the made-up ground in the quay area was that it was relatively recent, possibly the lower make-up being earlier 1900s, with the upper deposit dating to the 1960s.

The area in which the town wall or gate are thought to have been located was unfortunately very disturbed by a large number of modern service trenches. The cobbling seen to the northwest of manhole D4 is almost certainly the remains of the former Bridge Street road surface.

The two cellared buildings are part of the remains of the houses and shops on the west side of Bridge Street demolished in the 1920s to enable road widening (Lewis 1990, 82-3). There was nothing to suggest that the surviving remains of these structures were earlier than the post-medieval period. However, they are likely to have had their origins in the medieval period as buildings are known from 1301 on this side of the original Bridge Street.

The slate sewer probably dates to the 1800s. It is to remain in use as a storm drain. However its full extent was not established during the watching brief.

## **Conclusion**

Although only a small number of features were encountered, the area remains one with considerable archaeological potential. The trenches examined during the project were narrow and it is possible that minor features could have been missed. However, it was obvious that most of the trenches passed through areas where there has been a great amount of recent disturbance.

The area on the west side of Bridge Street, between the new sewer and the house frontages, is so disturbed by service trenches as not to warrant any further investigation. However, the location of the Town Gate may well be on the west side of the new sewer, and adjacent to the castle wall, as illustrated on Speed's Map of 1610.



The area now known as Prince Charles Quay probably still contains the remains of late medieval/early post-medieval buildings as well as a quay and possibly earlier landing area. The archaeology of this river frontage area is unlikely to produce useful information without excavation on a reasonable scale and it is doubtful that narrow trenches would give meaningful results.

### **Acknowledgements**

Canon Seamus Cunnane for his detailed knowledge on Cardigan. Hubert Wilson of Cambria for undertaking some of the fieldwork.

### **Archive Deposition**

This will be held at Dyfed Archaeological Trust SMR.

### **Bibliography**

James T 1983 Excavations at Woolworth's, Cardigan, 1978. *Journal of the Ceredigion Antiquarian Society*, Vol IX, 336-342.

Lewis W J 1990 *'The Gateway to Wales' a History of Cardigan*, Carmarthen: Dyfed County Council.

Maynard D 1975 Excavations in Cardigan: Volk's Bakery, 1975. *Journal of the Ceredigion Antiquarian Society*, Vol VII, 350-354.

Murphy K and O'Mahoney C 1985 Excavation and Survey at Cardigan Castle. *Journal of the Ceredigion Antiquarian Society*, Vol X, 189-218.

Soulsby I 1983 *The Towns of Medieval Wales*, Southampton: Camelot Press.

## Appendix 1: Copy Of Statement Of Archaeological Requirements

### Dwr Cymru Cardigan Sewer Scheme Statement of archaeological requirements

#### Introduction

Following a meeting between Maureen Taylor (Dwr Cymru), Mark Hobbs (Montgomery Watson), Rob Hancock (Dwr Cymru) and Louise Austin (Cambria Archaeology) to discuss the potential archaeological implications of development it was agreed that a statement setting out the requirements of the archaeological investigation and recording required to appropriately mitigate any impact on the historic town of Cardigan that the construction of the proposed sewer may cause

#### Archaeological Background

The Regional Sites and Monuments Record indicates that the proposed sewer will cross an area which is of great archaeological significance and is believed to include the line of Cardigan's Medieval town defences (PRN 8371) and Bridge Street Gate (PRN 13168). Previous archaeological recording of the town wall was undertaken in 1978 between Chancery Lane and Pwllhai (T. James, 1983, Excavations at Woolworth's, Cardigan Ceredigion, *Journal of the Ceredigion Antiquarian Society*) where the wall footings survived to a width of over 1.6 m wide, comprising rubble fill with an ashlar interior face. The form and date of the original wall and gate construction in the south part of the town is not known, however a gate is shown at this location adjacent to the castle on Speed's map of 1610.

Further information regarding the Medieval development of Cardigan is available from investigations undertaken further up the High Street by David Maynard, "Excavations in Cardigan: Volk's Bakery, 1975" *Ceredigion, Journal of the Ceredigion Antiquarian Society*, Vol VII, and at Cardigan Castle undertaken in 1984 by Ken Murphy of Dyfed Archaeological Trust- 'Excavation and Survey at Cardigan Castle' in *Ceredigion*, 1985. Further investigations at the castle have since been carried out by Ove Arup in 1990.

Both within the town walls and immediately outside of them there is the potential for Medieval deposits to be surviving at the depths to which it will be necessary to lay the sewer. Where there has not been recent disturbance it is likely that the sewer construction trench will damage or destroy important medieval deposits.

Video investigation of the lower part of the slate lined conduit/drain which runs down Bridge Street and discharges into the Afon Teifi has revealed a well built dry stone wall construction with slab cover approximately 0.6m high. The route was found to branch. A similarly constructed drain was revealed during investigations to the north of Castle Green House, cut into the surrounding defensive ditch of the castle. This was believed to date to the 19th century.

The area of Prince Charles Quay is likely to include the buried remains of historic riverside features and structures such as earlier wharves, quays, warehouses, etc. which can provide important information regarding the development of the port of Cardigan.

[To ensure that the work utilises all available information it is recommended that the archaeological contractor contacts Canon Seamus Cunnane, who has great local knowledge and involvement with the study of the history and development of Cardigan ]

### **Proposed method and programme of construction**

Due to the lack of detailed records identifying the locations of other service pipes along Bridge Street it will be necessary for 3/4 initial test pits/slit trenches to be excavated in order to locate a suitable route for the sewer and rising main.

The pipeline trench is intended to be a maximum of 1m wide but may be up to 2m or more deep. The area of the manholes will include an area of approximately 2m by 2m. It is believed that the construction technique is likely to include short lengths of the pipeline route being excavated the pipe laid and the trench backfilled before going on to the next section.

**Any information obtainable from documentary sources regarding the historical development of the area and the locations and depths of surfaces and deposits will be extremely informative both for the construction of the sewer and for informing any archaeological recording.**

### **Archaeological Methodology**

An archaeological watching brief on the test pits/slit trenches shall be carried out in order to provide additional information about the likelihood of *in situ* archaeological deposits being encountered. A desk-top assessment of available documentary sources of information such as previous archaeological recording, historic maps, etc. should be undertaken alongside this work.

The results of these observations will be provided to the regional archaeological curator to review the requirements for archaeological investigation.

Depending on the results either it will be necessary to carry out archaeological excavation of deposits prior to the construction of the pipeline or an archaeological watching brief during construction will be adequate.

Although all of the proposed route of the sewer lies within an area of high archaeological interest there is one part of the route which is considered to be of extremely high archaeological potential. This area may include deposits which are of national importance.

Before further works are undertaken the written comments of the regional archaeological curator should be obtained agreeing one of the following courses of action:-

1. Within the area of greatest archaeological potential, where it is identified that *in situ* deposits are present archaeological excavation of the sewer trench and manhole areas will be required. (See accompanying plan). The machine excavation of the trench controlled by an archaeologist to remove modern overburden and where necessary hand excavation in order to ensure the investigation and full archaeological record of any revealed remains of the town wall, gate, associated deposits and features as well as any settlement remains. The rest of the pipeline will require an archaeological watching brief.
2. An archaeological watching brief to be carried out for all groundworks.

### **Attached is a statement setting out the general requirements of an Archaeological Watching Brief**

Any archaeological works which are required for a scheme to follow best practice need to be carried out by an appropriately qualified archaeological contractor.

It is necessary to obtain a written scheme of works (*or specification*) from an archaeological contractor detailing how it is intended to carry out the archaeological watching brief. This will be worked out in

liaison with the building/development contractor. The written scheme of works and timetable will normally need to be agreed in writing with the archaeological advisor/regional archaeological curator prior to commencing any works on site. The detailed requirements of any piece of archaeological work are normally set out in a design brief produced by the Development Control Officer at the Regional Welsh Archaeological Trust (grant aided by Cadw - Welsh Historic Monuments to provide archaeological advice to local planning authorities, utility companies, etc.). For Carmarthenshire, Ceredigion and Pembrokeshire Archaeoleg Cambria Archaeology- Heritage Management provide this advice. Where there is a tight timetable the archaeological contractor is advised to contact Louise Austin (Development Control Officer) directly to discuss the detailed requirements of the work prior to producing a written scheme of works.

The objectives of an archaeological watching brief are:

- 1) to ensure that any archaeological features exposed during groundworks are recorded and interpreted to an acceptable standard
- 2) to ensure that significant discoveries of artefacts are recorded and analysed to an acceptable standard.

The archaeological works will normally include the following aspects:

Sufficient documentary research to enable the results of monitoring, investigation and recording to be set in their geographical, topographical, archaeological and historical context.

Archaeological monitoring of topsoil clearance

Inspection of subsoil for archaeological features

Recording archaeological features in plan

Rapid sample excavation to investigate features

Subsoil stripping under archaeological supervision

Further inspection to identify archaeological features and recording

Report production.

Should extensive remains be identified a review meeting will be held between the site engineer, archaeological project manager and Archaeoleg Cambria Archaeology- Heritage Management (as regional archaeological curator) to agree an appropriate sampling strategy.

The contractor should be aware that a Watching Brief is designed to minimise disruption to the proposed development whilst examining and recording archaeological evidence. A Watching Brief is also designed to minimise the cost implications of archaeology on development

Two copies of the report will need to be deposited with the Regional Sites and Monuments Record.

## Appendix 2: Catalogue Of Watching Brief Archive

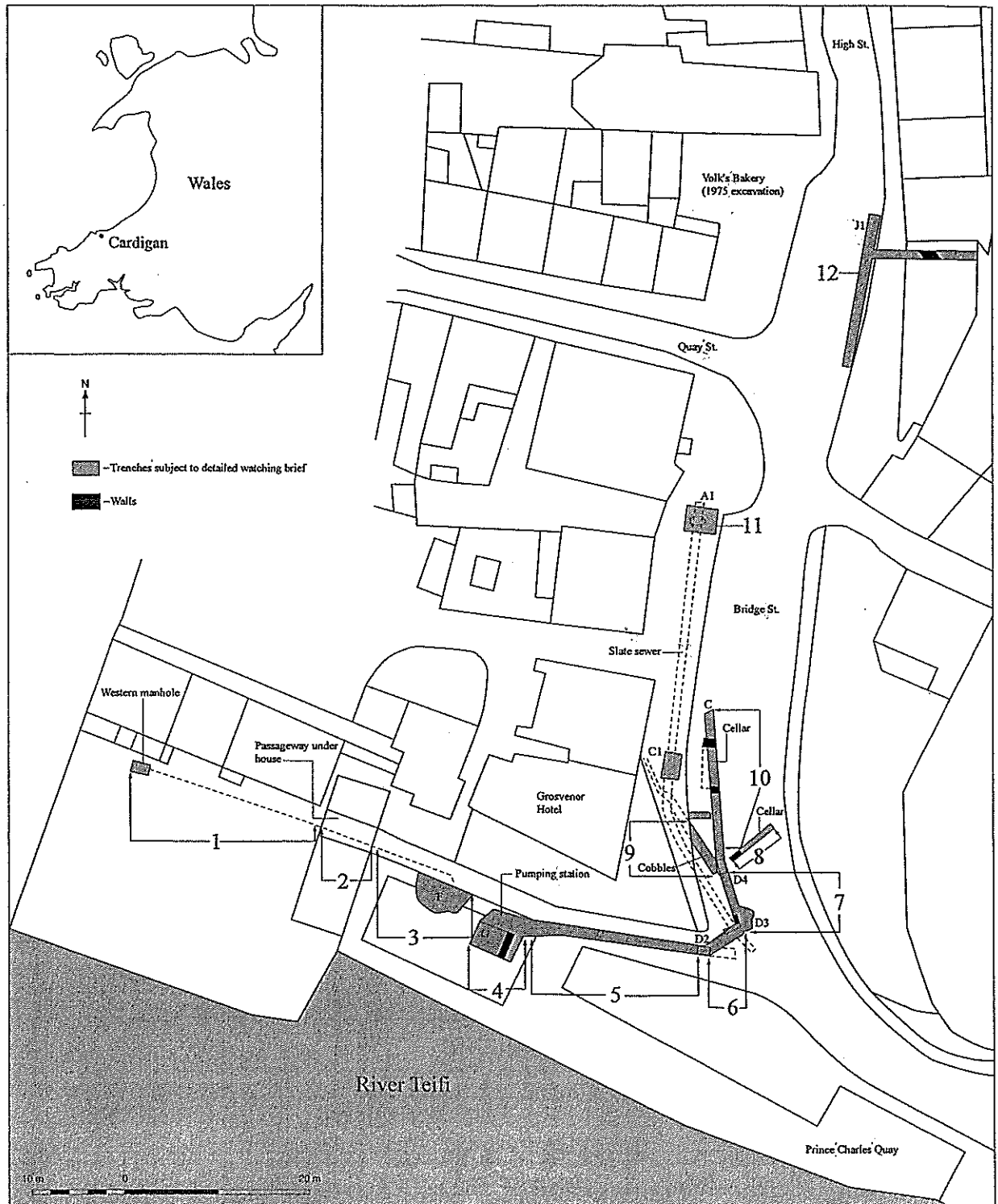
The project archive has been indexed and catalogued according to National Monument Record (NMR) categories and contains the following:

- A. Copy of final report.
- B. Site records, including context record sheets and site notebook.
- D. Site photographs - catalogue, colour slide and B/W contact sheets.
- I. Archive report and draft copies of final report.
- J. Publication drawings.
- M. Miscellaneous correspondence.

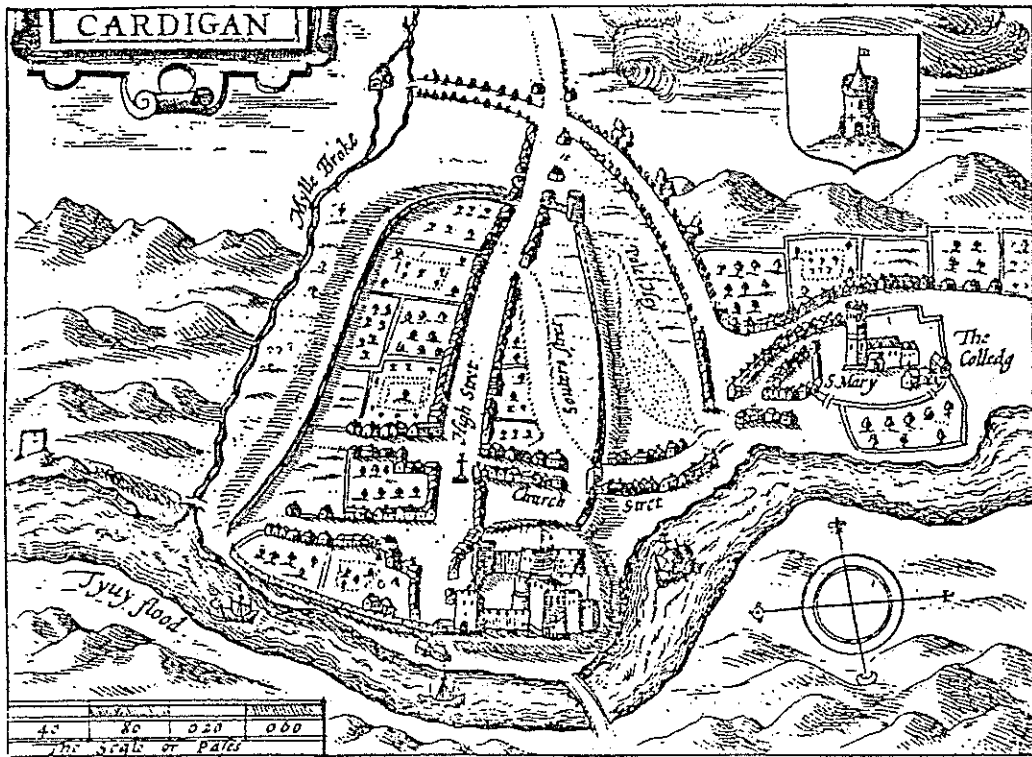
There is no material in categories C, E, G, F, H, K, L and N.

The archive is currently held by Archaeoleg **Cambria** Archaeology Field Operations, Llandeilo, Carmarthenshire, as project number 42464.

**Figure 1: Location and Plan of Pipe Trenches**



**Figure 2: John Speed's Map of Cardigan 1610**



**Figure 3: Print of Cardigan Castle 1748**

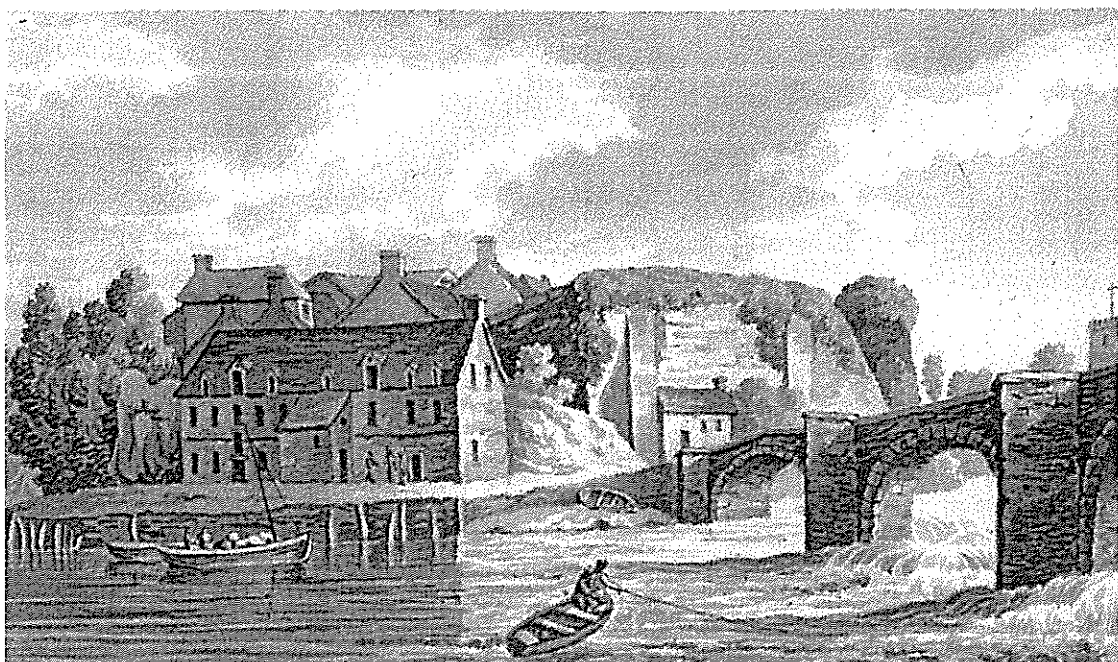


Figure 4: Wood's Map Of Cardigan 1834





**Figure 5: Cobbles, Earlier Bridge Street Surface**

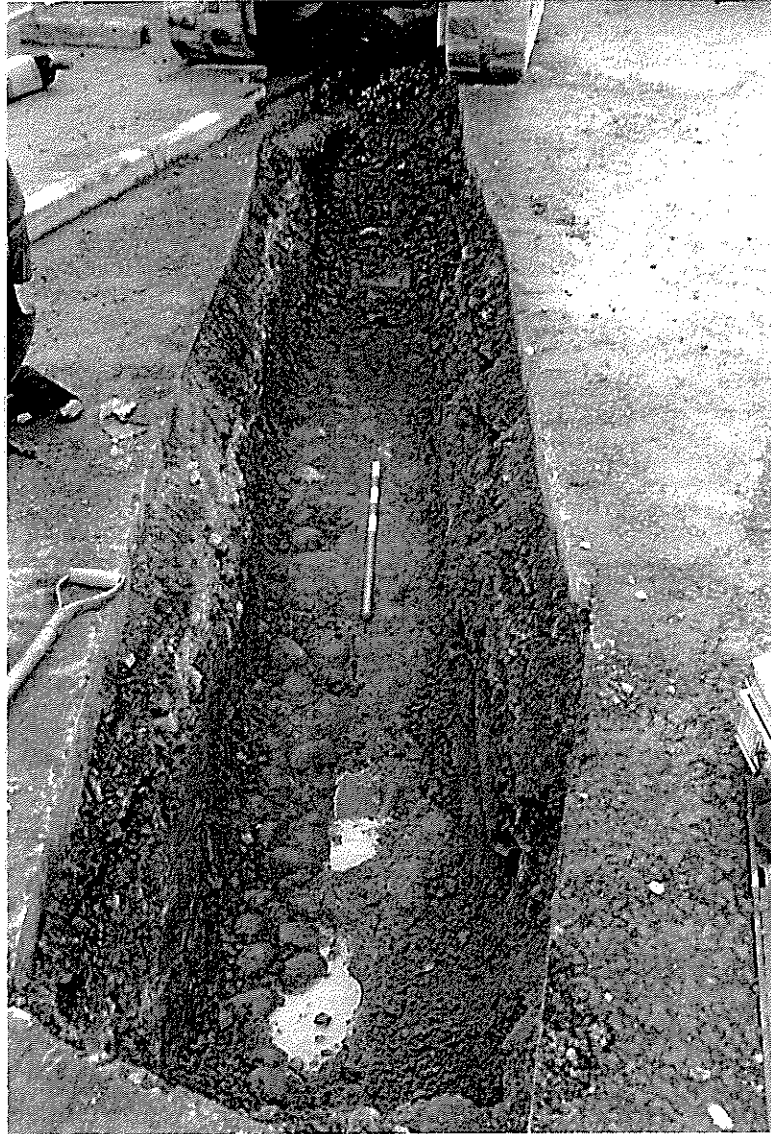


Figure 6: Carmarthen Tithe Map 1846

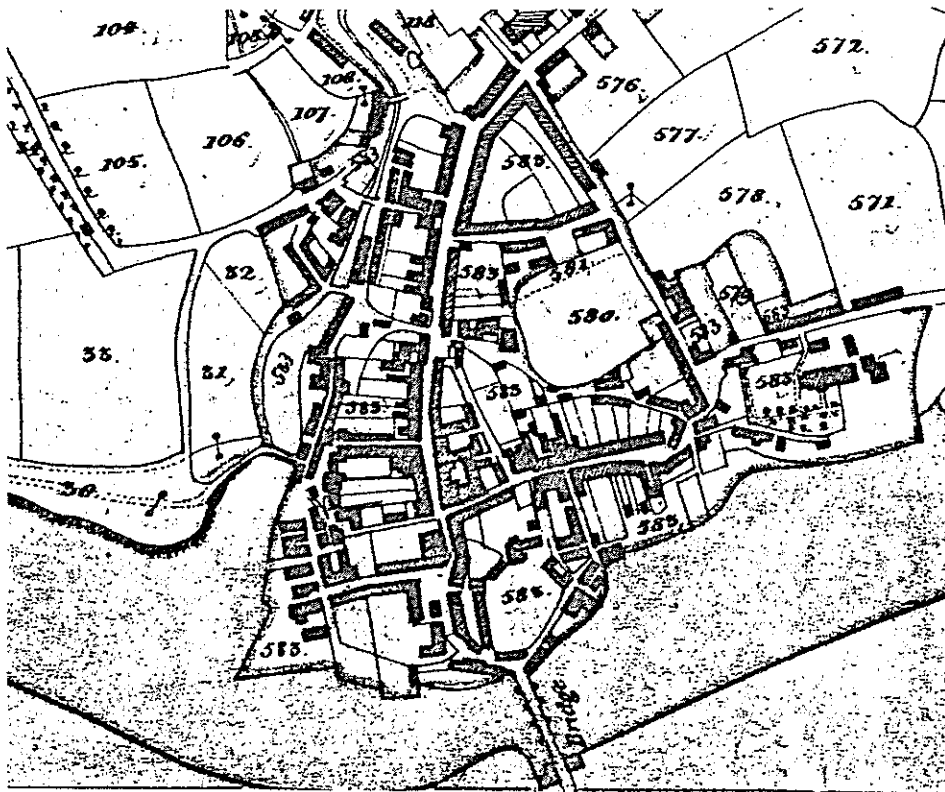
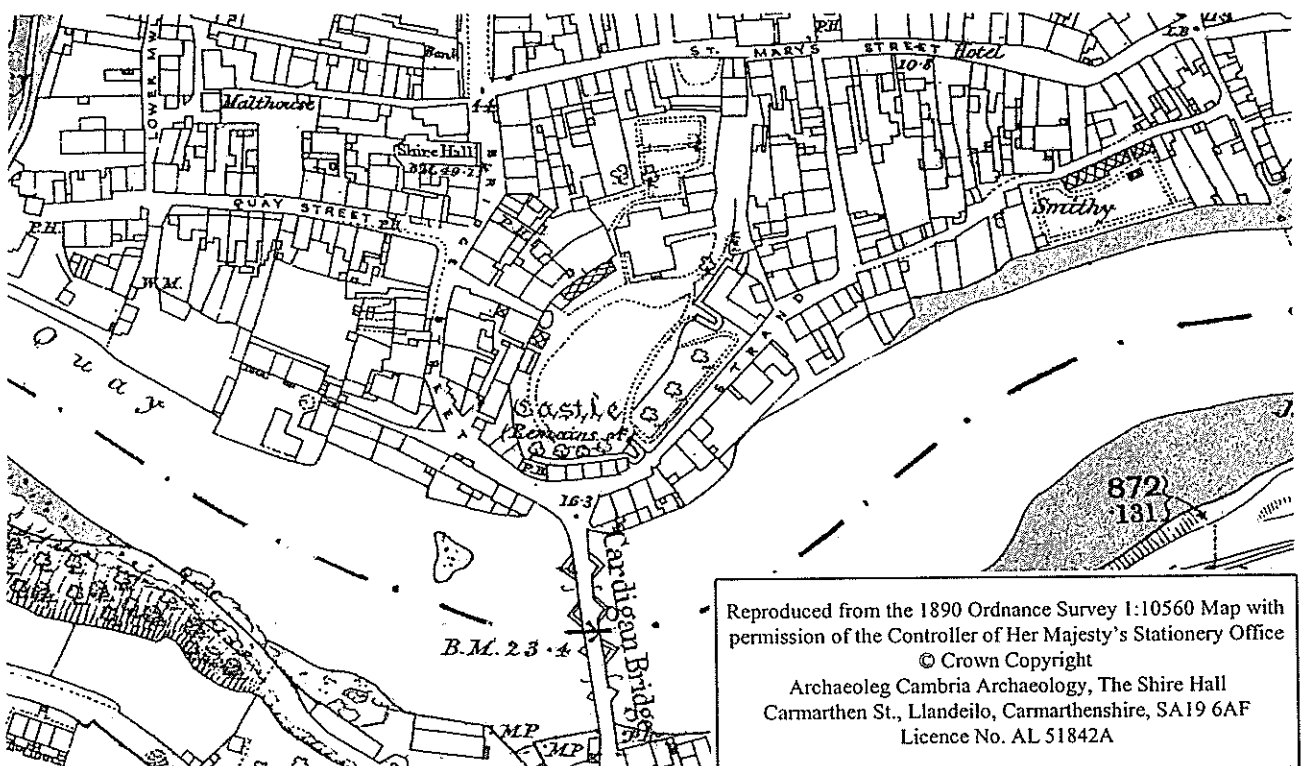
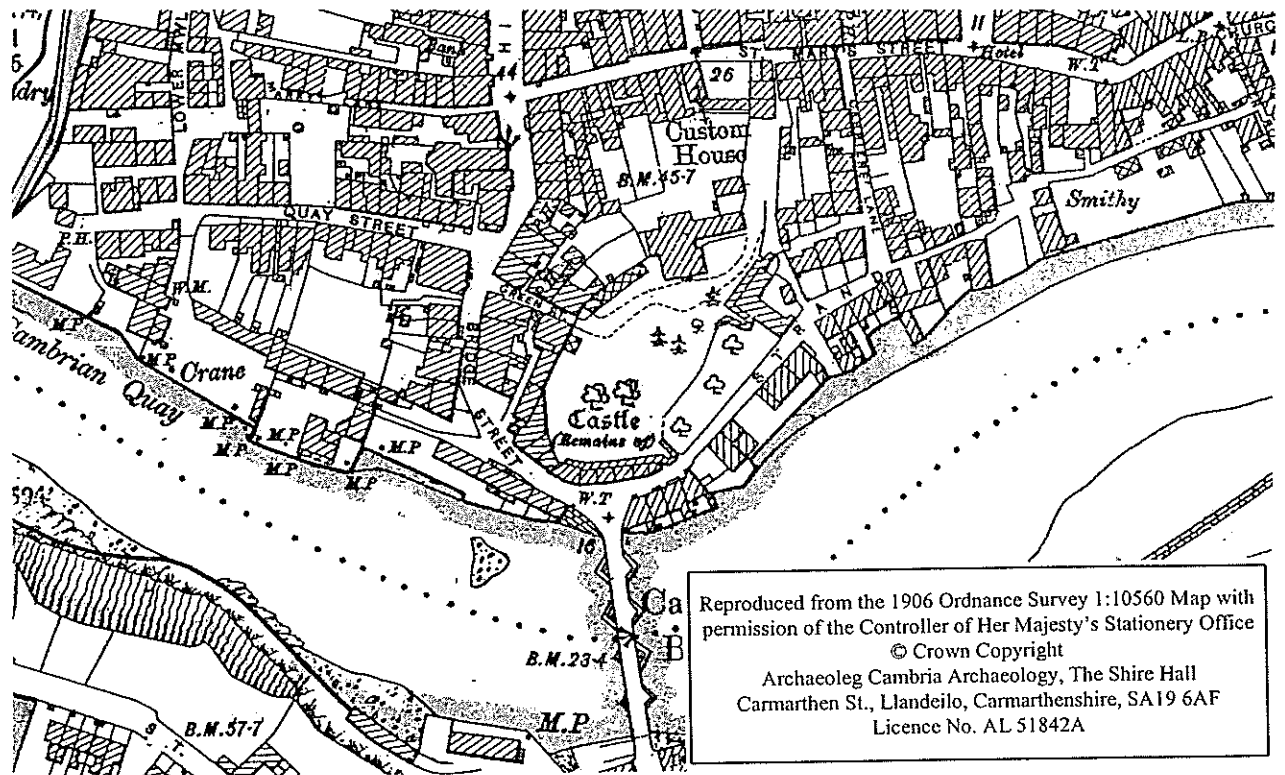


Figure 7: Ordnance Survey 1st Edition 1890

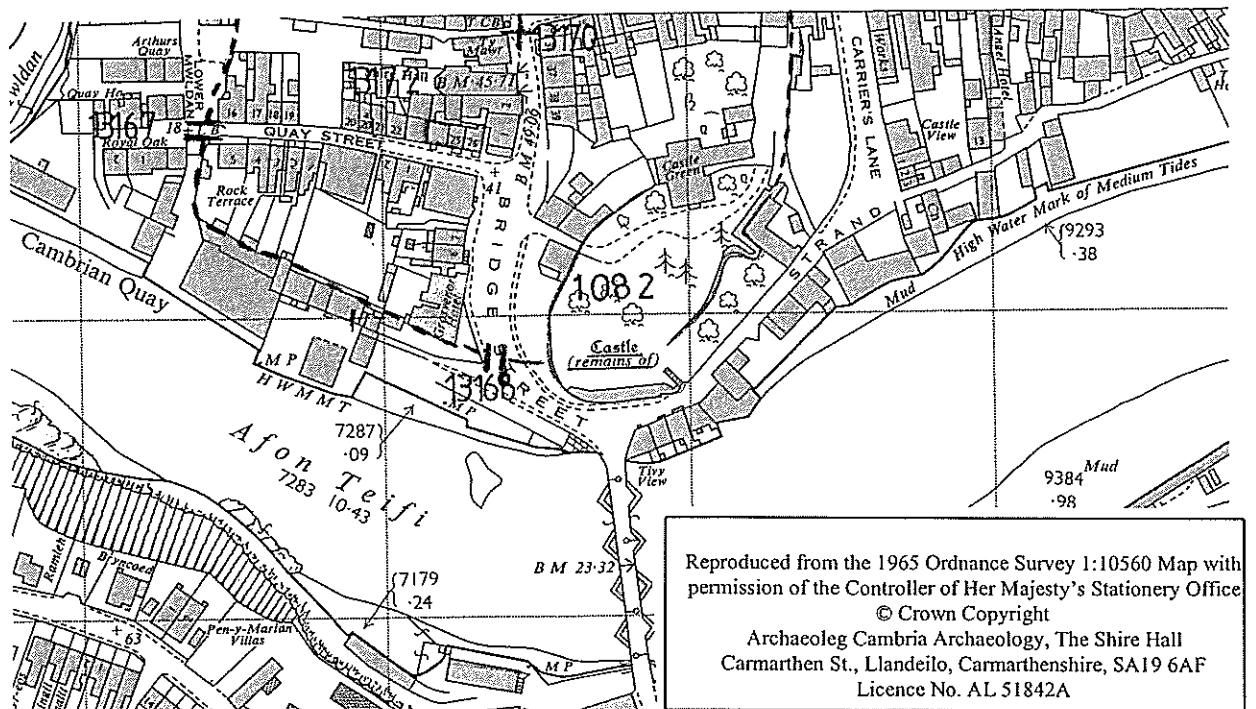


**Figure 8: Ordnance Survey 2nd Edition 1906**



**Figure 9: Ordnance Survey 1965**

With Sites and Monuments Record data




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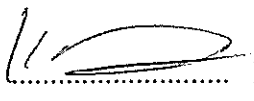
This report has been prepared by Pete Crane

Position Senior Archaeologist

Signature  Date 19/10/2001

This report has been checked and approved by Ken Murphy on behalf of Cambria Archaeology,  
Dyfed Archaeological Trust Ltd.

Position Principle Archaeologist

Signature  Date 12/10/2001

As part of our desire to provide a quality service we would welcome any comments you may have  
on the content or presentation of this report